

Midi-Classic™



Operator's Manual



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Important Safety Information

- ◆ If you are not sure that your electrical outlet is properly grounded or that the circuit protection is correct, have it checked by a qualified electrician.
- ◆ Operate indoors only.
- ◆ The area **MUST** be well ventilated.
- ◆ **WARNING:** Disconnect the distiller from the power supply before assembling, adjusting or servicing the distiller.
- ◆ **NEVER** immerse the distiller in water or any other liquid.
- ◆ **NEVER** operate the distiller with a damaged cord or allow the cord to become exposed to hot surfaces.
- ◆ **DO NOT** let children play with the distiller.
- ◆ **DO NOT** touch the top of the distiller when it is operating because it becomes very hot.
- ◆ Exercise care when removing the boiling tank lid and never remove it when the distiller is operating.
- ◆ Extension cords may be used if care is exercised in their use.
- ◆ If an extension cord is used, (a) the marked electrical rating of the extension cord should be at least as great as the electrical rating of the product; (b) as the product is of the grounded type, the extension cord should be a grounding type 3-wire cord; and (c) the longer cord should be arranged so that it will not drape over the countertop or tabletop where it can be pulled on by children or tripped over unintentionally.
- ◆ The installation and use of this product must comply with all applicable state and local laws and regulations.
- ◆ **IMPORTANT:** This distiller is designed to be used only with Pure Water, Inc. accessories and replacement components.
- ◆ The physiological effects of the operation of this distiller, beneficial or otherwise have not been investigated by U.L.
- ◆ **IMPORTANT:** Only authorized Dealers and Distributors of Pure Water, Inc. may access the electrical panel to change the FUNCTION switch from “Automatic” to “Manual” mode.
- ◆ Circuit Breaker; don't use a higher amp
- ◆ This distiller is equipped with fused pump circuitry. In the event of pump failure, check the pump fuse located on the panel under the switches. Replace only with a 1 amp Slo-Blo fuse. Never use any fuse larger than specified.

Introduction

Congratulations on purchasing the finest home water distillation system on the market. With proper care and attention, the Midi-Classic will give you many years of top performance and high-quality drinking water. Please read this manual thoroughly before installing and operating your Midi-Classic.

Record Important Information

The serial number is found on the back panel. You should record all of the information below for future reference.

Date of Purchase: _____

Model: **Pure Water Midi-Classic**

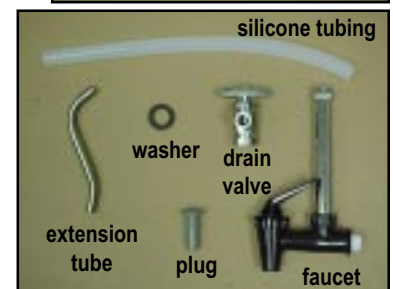
Serial Number: _____

Purchased from: _____

Included With Your Distiller

In addition to your Midi-Classic distiller, your box will contain the following:

- ◆ *Incoming Water Hook-up. Includes:*
 - Saddle tapping valve
 - Strainer
 - (2) 1/4" compression nuts
 - 25 feet of 1/4" food-grade tubing
 - 1/4"S x 1/4"T speedfit elbow
- ◆ *Post Filter. Includes:*
 - Post filter
 - (2) 3/8"T x 3/8"S speedfit elbows
- ◆ *Also included:*
 - Faucet with sight glass
 - Rubber washer
 - Drain extension tube
 - Drain Valve
 - 1 foot piece of silicone tubing
 - Distilled water outlet plug
- ◆ *Owners Manual, Warranty Card and Power Cord**



* power cord may not be included in some 240V units.

Optional Accessories

The following are optional accessories or maintenance items for the Midi-Classic. They may be purchased from your Dealer or Distributor, or directly from Pure Water, Inc.

- ◆ Demand Pump Kit, complete with a 6" lead-free faucet and tubing. To supply water directly to a remote location. Stock #19116UL (order stock #19117UL for the Pump Kit with an extended reach faucet.)
- ◆ Midi-Classic Floor Stand with castors, for ease of use, cleaning and service. Stock #42530.
- ◆ Auxiliary hook-up kit for running distilled water to your refrigerator or icemaker. Stock #19009.
- ◆ Lumen™ cleaner and descaler for cleaning the boiling tank. Stock #6603.
- ◆ Stainless steel polish. Stock #6606.
- ◆ Post-filter replacement cartridge. Stock #9406A.

How Your Distiller Works

Special Feature

The Midi-Classic can be set so you can fill the boiling tank manually or automatically. It is pre-set for automatic operation at the factory.

The Midi-Classic is designed to produce approximately one gallon of high-quality, pure distilled water every 3.5 hours, or almost seven gallons in a 24-hour period.

The Midi-Classic is a fully automatic unit*. The water level in the boiling tank and storage tank are controlled by individual floats and a set of microswitches.

The boiling tank operates on a *modified batch* approach. Feedwater is automatically added until a high level is reached and this triggers the heating element and fan to operate. This begins the distillation cycle.

As the unit distills, the water level in the boiling tank falls. When the water level gets close to the heating element, the low-level microswitch is triggered, causing feedwater to be added until the high level is reached. If, for some reason, no water enters the boiling tank when needed, the fan and heating element will remain off until the condition is corrected.

Once the storage tank is full of distilled water, the unit will automatically shut down. The Midi-Classic will begin distilling again once the water level in the storage tank drops to approximately 3/4 full. It continues to operate until the storage tank is full again.

The distilled drinking water is drawn from the storage tank through a faucet on the front of the tank. An optional demand pump would allow distilled water to be delivered to a faucet, chilled/hot water dispenser, refrigerator, icemaker or other locations as desired.

The Midi-Classic is equipped with a Manual Drain Valve, which allows the residue from the boiling tank to be drained periodically.

IMPORTANT: Only authorized Dealers and Distributors of Pure Water, Inc. may access the electrical panel to change the FUNCTION switch from “Automatic” to “Manual” mode.

If filling the boiling tank manually, only fill water to the bottom of the water level indicator peg.

* The Midi-Classic can be set so the boiling tank can be filled manually. There is an Operation Switch located on the side of the switch tray, accessed through the electrical side panel, see figure 1. The Midi-Classic is shipped from the factory in the Automatic Fill Mode.



Figure 1

Preparing For Installation

Things to consider when installing your Midi-Classic:

- ◆ Select an area that will allow the distiller to remain level. Improper leveling could affect the production rate.
- ◆ The distiller must be located in close proximity to a water supply and an appropriate electrical supply source. The distiller should also be located in a well ventilated room.
- ◆ The Midi-Classic can be installed on a countertop, table or on the floor. If the Midi-Classic is installed on the floor, it must be at least eighteen inches above the floor. An optional stand may be purchased for this purpose. This is for several reasons:
 1. Easier position to observe, maintain, and repair.
 2. Easier to catch the flow from the boiling tank when you drain the residue water.
 3. Easier to catch the water from the storage tank.
- ◆ Electrical requirements: Isolated 115 VAC, 15 amp circuit (220 VAC, 4.5 amp). Check the electrical rating on the label on the rear of the distiller.
- ◆ When connecting the tubing into the quick-connect fittings, it is critical the tubing be inserted fully! The tubing should insert into the fitting 1/2" to 3/4". Failure to do so could cause water damage. We recommend that prior to inserting the tubing, you mark the tubing 1/2" from the end being inserted into the fitting (see figure 2). After inserting, pull back on the tubing to verify it is attached securely. This should ensure the tubing is properly and fully installed. Also, make sure the tubing is cut squarely and is free of rough edges.
- ◆ When disconnecting tubing, push in on the grey collet while pulling on the tubing until it releases. See figure 3.

Note: The use of softened water is recommended to minimize scale build-up in the boiling tank and drain valve.

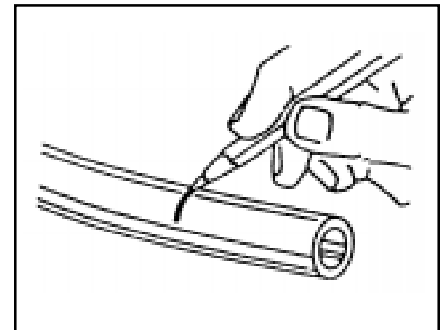


Figure 2



Figure 3

Installation

CAUTION: The Midi-Classic weighs approximately 42 lbs. Please use caution when removing it from the carton to prevent injury.

1. Open the carton.
2. Carefully lift the distiller out of the box so it remains in the upright position.
3. Remove and identify all parts kits as listed on page 4.
4. With a pliers, remove the black plug in the fitting marked “Distilled Water Outlet”. If you are not installing a demand pump, insert the grey plug, located in the parts kit bag, into the fitting. Pump installation information is discussed later in this manual.
5. Remove the wire tie inside the boiling tank used to restrain the float during transit.

Connecting the Incoming Water Line

Notes and Cautions:

Note: The use of softened water for the raw water supply is recommended to minimize scale build-up in the boiling tank and drain valve.

Note: The Midi-Classic comes standard with a saddle tapping valve. In some areas a saddle tapping valve may not be permitted. In such instances, contact your authorized Pure Water Distributor for other water line connection options.

Note: Do not plug the unit into the power source until instructed to do so.

CAUTION: DO NOT use a hot water line for your supply line.

CAUTION: DO NOT turn the saddle tapping valve handle before or during installation. Be sure the piercing lance does not protrude beyond the rubber gasket. Failure to do this may result in damage to the piercing needle.

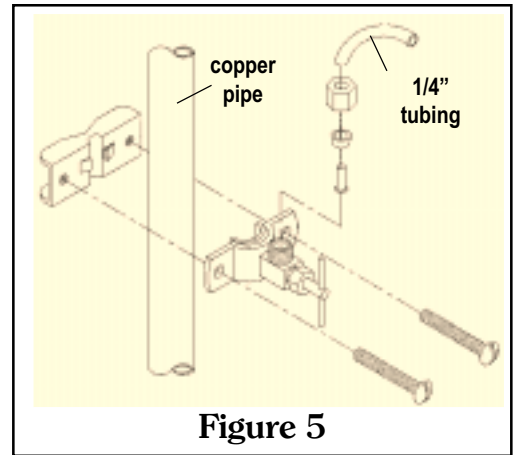
To hook-up the Incoming Water Line:

1. Locate the items in the parts kit bag as identified on page 4 as “Incoming Water Hook-Up”.
2. Turn the household water supply OFF.
3. Remove the blue plug in the fitting marked “Raw Water Inlet”.
4. Install the 1/4” speedfit elbow onto the fitting. Pull to test. See figure 6.

Caution: Never use the hot water line for your incoming water.

5a. For installation on **copper pipes**:

- a. Assemble the saddle tapping valve on the **cold** water pipe so the outlet is in a convenient direction. See figure 5.
- b. Tighten the screws evenly so the brackets are parallel. Tighten firmly, but do not overtighten.
- c. Connect the 25' of 1/4" plastic tubing to the saddle tapping valve.
- d. Cut the required length of tubing to run from the saddle tapping valve to the distiller, but make sure you coil a minimum of 8 feet of tubing behind the distiller to allow it to be moved away from the wall for cleaning or service.
- e. Cut a one foot piece of 1/4" tubing off the end of the tubing to allow the strainer to be installed.
Note: You may also use a piece of tubing that was cut in step d.
- f. Install the one foot piece of tubing into the elbow on the Raw Water Inlet. Pull to test. See figure 6.
- g. Install a 1/4" compression nut onto the tubing coming from the distiller. See figure 7.
- h. Install the tubing onto the strainer. See figure 8. Make sure the tubing is inserted fully into the strainer and the flow is in the correct direction. Tighten the nut firmly.
- i. Install a 1/4" compression nut onto the tubing coming from the saddle tapping valve and connect to the inlet stem of the strainer. Tighten firmly. See figure 9.
- j. Turn the saddle tapping valve handle clockwise until you feel it is firmly seated. **Note:** You have now pierced the water supply line and the valve is closed.
- k. Turn the handle counterclockwise to open the valve. Turn on the household water supply and check the connections for leaks. Tighten where required.



5b. For installation on **brass, steel, or PVC pipes**:

Note: Make sure the water supply is turned off and drain the line. Make sure you are using the **cold** water line.

- a. Drill a 3/16" hole in the pipe. Use a hand drill to avoid shock hazard.
- b. Turn the saddle tapping valve handle to expose the lance beyond the rubber gasket no more than 3/16".
- c. Assemble and place the body of the valve over the hole so the lance fits into the hole. Make sure the outlet is in a convenient direction. See figure 5.
- d. Tighten the screws evenly so the brackets are parallel. Tighten firmly, but do not overtighten.
- e. Turn the saddle tapping valve handle clockwise to close the valve.
- f. Connect the 25' of 1/4" plastic tubing to the saddle tapping valve.
- g. Cut the required length of tubing to run from the saddle tapping valve to the distiller, but make sure you coil a minimum of 8 feet of tubing behind the distiller to allow it to be moved away from the wall for cleaning or service.
- h. Cut a one foot piece of 1/4" tubing off the end of the tubing to allow the strainer to be installed. **Note:** You may also use a piece of tubing that was cut in step d in the previous section.
- i. Install the one foot piece of tubing into the elbow and pull to test. See figure 6.
- j. Install a 1/4" compression nut onto the tubing coming from the distiller. See figure 7.
- k. Install the tubing onto the strainer. See figure 8. Make sure the tubing is inserted fully into the strainer and the **flow** is in the correct direction. Tighten the nut firmly.
- l. Install a 1/4" compression nut onto the tubing coming from the saddle tapping valve and connect to the inlet stem of the strainer. Tighten firmly. See figure 9.
- m. Turn the handle counterclockwise to open the valve. Turn on the household water supply and check the connections for leaks. Tighten where required.

Installing the Boiling Tank Drain Valve

1. Remove the blue plug from the fitting marked “Boiling Tank Drain” on the back of the unit.

Note: Ensure that Teflon tape has been applied to the threads of the fitting on the drain valve.

2. Locate the drain valve from the parts kit bag and install it onto the boiling tank drain fitting . Tighten using an adjustable wrench. **Note:** Tighten until the outlet is pointing down.

3. Insert the drain extension tube into the drain valve.

Note: Make sure the compression sleeve is on the drain tube.

4. Holding the tube in place, tighten the nut with a 5/8” wrench until the tube is secure. See figure 10.

5. Loosen the nut slightly so the extension tube can be rotated, yet is secure.



Figure 10

Installing the Storage Tank Faucet

1. Locate the faucet and rubber washer in the parts kit bag. Install the rubber washer onto the stem of the faucet.

2. Remove the red plug in the fitting on the front of the Midi-Classic.

3. Install the faucet into the fitting by rotating the faucet clockwise until tight and the sight glass is in the proper vertical position. See figure 12. **Note:** Do not twist the faucet by the sight glass. It is fragile.



Figure 11

Connecting the Power Cord

Note: On some 240V units, the power cord may be sold separately and not included in the part kit bag. Ensure the Power Switch is turned to the OFF position. See figure 14 on next page.

1. Locate the power cord in the parts kit bag. Install the female end of the power cord into the outlet on the back of the unit marked “Power Cord Plug”. See figure 11.

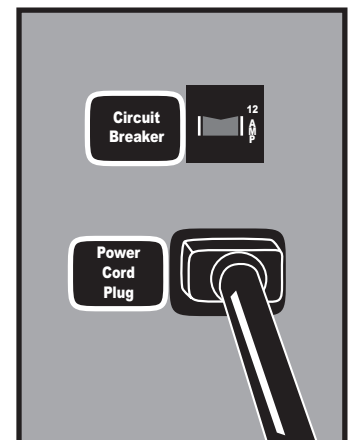


Figure 12

Notes and Cautions:

Note: This system must be fully grounded at all times. The electrical receptacle you use must be a fully grounded, single phase, AC 115-120 volt, 15 amp minimum circuit. If a two-pronged wall receptacle is encountered, it is the personal responsibility and obligation of the customer to contact a qualified electrician and have it replaced with a properly grounded three-pronged wall receptacle or have a grounding adaptor properly grounded. If an extension cord must be used, it should be a 3-wire, 15-amp minimum cord.

CAUTION: Do not, under any circumstances, cut or remove the round grounding prong from the electrical plug.

Steam Sterilizing

Steam sterilization is a method of disinfecting your distiller and storage tank. It's done by allowing the unit to operate without the fan, thus allowing steam to pass through the system and into the storage tank.

To steam sterilize your Midi-Classic:

Note: Remove the red caps on the condensing coil outlet and storage tank inlet.

1. Locate the 12" piece of silicone tubing from the parts kit bag. Place one end on the condensing coil tube and one end on the tube to the storage tank. See figure 13.
2. Plug the distiller power cord into the power supply.
3. Open the storage tank faucet and lock open. Place a bucket underneath to catch the condensation.
4. Turn the Fan Switch to "Sterilize". This switch is located under the top plate. See figure 14.
5. Turn the Power Switch to ON.
6. Remove the boiling tank lid and make sure the boiling tank is filling with water. When the water stops, the heating element will come on.
7. Replace the boiling tank lid. Tighten securely.
8. With the heating element operating and the fan switch set to "Sterilize", the unit is steam sterilizing. Allow the unit to steam sterilize for 45 minutes to 1 hour.



Figure 13



Figure 14

Note: We recommend you steam sterilize the Midi-Classic every four months or if the unit has been serviced.

9. Turn the Power Switch to OFF.
10. Allow the unit to cool for approximately 15 minutes. Close the storage tank faucet.
11. Remove the silicone tubing used for steam sterilization. **Important Note:** Keep this tubing for future use.

If you purchased a demand pump, install it now by following the instructions included with the pump kit.

Connecting the Post Filter

To hook-up the Carbon Post Filter:

1. Locate the post filter and two elbows in the parts kit bag.
2. Remove the two yellow plugs in each end of the post filter by pushing on the blue collets. **Note:** You may need a needle nose pliers to get the plugs out. See figure 3 on page 7.
3. Insert an elbow into each end of the post filter. Insert fully. See figure 15.
4. Install the post filter onto the condensing coil and storage tank outlet tubes. See figure 16. Insert fully and pull to test. **Note:** The flow direction is from the coil to the storage tank.



Figure 15

The unit is now ready for operation. Turn the Power Switch to “On”, the Fan Switch to “Distill”, and the unit will operate automatically and fill the storage tank with distilled water. This will take approximately 18 hours. The unit will then monitor your water usage and restart as you draw water from the storage tank.



Figure 16

Discard the first batch of distilled water. **Note:** If you are installing a demand pump, make sure you test the connections before discarding the first batch. **Notice:** The pump will not operate until there is enough water in the storage tank. **Note:** Do NOT use the demand pump to discard the first batch of distilled water.

The storage tank will hold approximately 4.5 gallons of distilled water. You can remove approximately two gallons of water before the unit will restart.

Maintenance and Cleaning

Overall Maintenance Requirements

The following guide should be used for the maintenance of your distiller. The timing will vary according to your local water conditions. It is your responsibility to maintain your equipment. Without proper maintenance, your distiller may not produce optimum results. The following is an average guide to maintenance:

Twice per month or every 15 gallons* : Drain the boiling tank.

Draining the Boiling Tank

The Midi-Classic has a manual drain valve that discards the contaminants and residue out of the boiling tank when opened. This minimizes the build-up of scale in the boiling tank.

Turn the Power Switch to OFF. ***Important Note:*** Drain valve handle may be hot if the unit has been running. Turn the valve labeled “Boiling Tank Drain” on the back of the Midi-Classic and allow the residue to drain into a sink, drain or bucket. Close the valve and turn the Power Switch to ON and water will begin entering the boiling tank.

Every month or every 30 gallons* : Clean the boiling tank.

Cleaning the Boiling Tank

Notes and Cautions:

Caution: Under no circumstances should the cleaning solution be heated and run through a steam sterilization or distillation cycle.

Note: Failure to clean the boiling tank can result in:

- a) Scale build-up causing premature heating element failure.
- b) Reduced purity of the distilled water due to the possibilities of *splash over* of contaminants from the boiling tank.

To clean the boiling tank:

1. Turn the Power Switch to OFF.
2. Carefully feel the boiling tank lid and check the temperature. If it is hot, wait at least 30 minutes for the unit to cool.

* More frequent if water is hard

3. After the unit is cool, remove the boiling tank lid.
4. Using a pitcher, add hot water from your tap until it reaches the scale line.
5. Add Lumen™ by following the directions on the package.
6. Replace the boiling tank lid and let the solution stand overnight.
7. After the scale has softened, open the drain valve on the back of the unit. This will allow the boiling tank to drain. Close the valve.
8. Rinse the boiling tank using a pitcher of tap water and again open the drain valve to allow it to drain. Repeat this procedure until boiling tank is clear of Lumen.
9. Turn the Power Switch to ON. The unit is now ready for normal operation.

Every 4 months: Change the post filter.

Changing the Post Filter

1. Turn the Power Switch to OFF.
2. Have a bucket available to catch any excess water. Remove the post filter by releasing the fittings on each tube outlet. Push in on the grey ring in the fitting, while pulling the filter off with the other hand. See figure 17.
3. Remove the elbows from each end of the post filter by pushing in on the blue collets.
4. Reinstall the elbows onto each end of the new post filter. Insert fully and pull to test.
5. Install the new post filter onto the condensing coil and storage tank outlet tubes. Insert fully.



Figure 17

Every 4 months: **Steam sterilize.**

Note: We recommend steam sterilizing the Midi-Classic every four months, whenever you change the post filter, or if the unit has been serviced.

Steam Sterilizing

1. Turn the Power Switch to OFF.
2. Drain the storage tank by opening the faucet on the front of the Midi-Classic.
3. Turn the Fan Switch to “Sterilize”.
4. Disconnect the post filter by releasing the grey collets.
Note: If you have a demand pump, disconnect the inlet tubing and plug.
5. Attach the silicone tubing onto the condensing coil and storage tank inlet tube.
6. Open the storage tank faucet and lock open. Place a bucket underneath to catch condensation.
7. Turn the Power Switch to ON and the Fan Switch to STERILIZE and allow the unit to steam sterilize for 45 minutes to 1 hour.
8. After sterilization, turn the Power Switch to OFF, remove the silicone tubing, reinstall the post filter, close the storage tank faucet and turn the Fan Switch to “Distill”.
Note: Reattach the inlet tubing of the demand pump, if needed.
9. Turn the Power Switch to ON and the Fan Switch to DISTILL and unit is ready for normal operation.
Note: You will not be able to use the demand pump until the storage tank is approximately 1/4 full.

Every 4 months: **Clean the exterior.**

Cleaning the Exterior

Use Stainless Steel Polish & Cleaner (stock #6606). It is available from your Dealer or Distributor or from Pure Water, Inc.



The machine will not operate at all.

Note: The water level in the storage tank must be below 1/2 full before the distiller will operate.

- ◆ Make sure the power cord is plugged into the wall outlet and inserted fully into the “Power Cord Plug” outlet. Make sure the outlet is working properly.
- ◆ Make sure the power switch is ON. **Note:** The power switch has a light to indicate that power is on to the unit. If the switch is ON and the power switch light is not luminated, the ON/OFF switch may be defective and needs to be replaced. If the circuit breaker has been tripped, reset it by pressing the reset button up.
- ◆ If the power light is luminated, check to see if the heater reset on the side of the unit has popped. If it has, press the reset button with the eraser end of a pencil.
- ◆ Make sure the incoming water supply is turned on and is flowing into the boiling tank.
- ◆ Check all wiring connections on the control relay. Ensure you have voltage to the relay using a volt/ohm meter.



The boiling tank will not fill with water automatically.

Note: Make sure the saddle tapping valve or utility hook-up valve is turned ON to supply the feed water.

- ◆ Make sure the boiling tank fill switch is in the AUTOMATIC position.
- ◆ If the solenoid hums or clicks when you depress the momentary water switch, but no water enters the boiling tank, then you have either a clogged solenoid valve; clogged saddle tapping valve; or clogged pre-filter or strainer.
- ◆ If the solenoid does not make any noise when the momentary water switch is depressed, then you have a bad momentary water switch (check with volt-ohm meter) or a defective solenoid.
- ◆ If the float ball inside the boiling tank is resting against the heat tab and is fully depressing the inside microswitch, you probably need to replace the micro-switch. Check with a volt/ohm meter.

If the microswitch checks out ok, and the heating element and fan come on, then you may need to replace the relay. Another indication of a bad relay is the heater reset will likely be popped.

- ◆ If the float inside the boiling tank is not moving freely, install a new float repair kit, with bushing and o-ring.
- ◆ **IMPORTANT:** Only authorized Dealers and Distributors of Pure Water, Inc. may access the electrical panel to change FUNCTION switch from “Automatic” to “Manual” mode.



The fan will not operate or is making excessive noise.

- ◆ Make sure the fan switch is in the “Distill” position. If so, then you may have a defective switch. Check with a volt/ohm meter.
- ◆ You may have a defective fan motor. If the fan is mounted properly, the fan blade is not loose around the motor shaft and the blade spins freely when turned by hand without hitting anything. Check with a volt/ohm meter.



The boiling tank fills to normal operating level, but the heating element will not heat or bring water to a boil.

- ◆ If the heater reset is not popped or the fan is running and the boiling tank is full of water, you may have a defective heating element.
- ◆ If water continues to fill the boiling tank after draining the tank, and the fan isn't operating either, then you may have a defective outside boiling tank microswitch. Check with a volt/ohm meter.
- ◆ Make sure the float is operating correctly and not stuck at bottom of tank.
- ◆ Check all wiring connections on the control relay. Inspect for any burnt or damaged wires on the relay. Check the relay with a volt/ohm meter.



The boiling tank overflows with water.

Note: If your machine is new, make sure you have removed the wire tie inside the boiling tank used to restrain the float during transit.

- ◆ If the float actuating arm is depressing the inside microswitch and the float rod is moving freely and floats accordingly with the water level, you may have a defective microswitch. Check with a volt/ohm meter.

If the microswitch checks out ok, and the heating element and fan come on, then you need to replace the relay. Check with a volt/ohm meter.

- ◆ If the microswitch and relay check out ok, then you may have a defective solenoid. Turn the power switch to “OFF”. If water continues to flow into the boiling tank, then you need to replace the solenoid.
- ◆ If the microswitch and relay are ok and the solenoid is not defective, you may have a defective momentary water switch. Check with a volt-ohm meter.
- ◆ If the float ball is heavy and has scale build-up, clean the boiling tank and, if necessary, replace the float.
- ◆ If the float is not moving freely, you may need to install a new bushing and o-ring or float repair kit.
- ◆ If the float ball is full of water, replace the float ball.



Machine does not shut off when storage tank is full.

- ◆ If the float is not moving freely, you may need to install a new bushing and o-ring or float repair kit.
- ◆ If the storage tank high-level microswitch is fully depressed, then you may have a defective microswitch. Depress both the boiling tank and storage tank high-level microswitches. If the unit does not shut down, remove one wire from the boiling tank microswitch. If the unit shuts down, replace the boiling tank microswitch. If the machine does shut down, leave the wire off and remove one wire from the storage tank high-level microswitch. If the unit shuts down, replace the storage tank microswitch.
- ◆ If the unit does not shut down when removing the wires from testing the boiling tank and storage tank microswitch wires, then you need to replace the main control relay.
- ◆ If the storage tank float ball is full of water, replace the float ball.



The unit boils the water, but the fan is not working.

- ◆ Make sure the fan switch is set to “Distill”.
- ◆ The fan switch may be defective. Check with a volt-ohm meter.
- ◆ The fan motor may be defective. Check with a volt-ohm meter.



The unit runs a short time and the heater reset pops.

Note: If the reset is popped, use the eraser end of a pencil to reset it.

- ◆ If the boiling tank water level is below the heating element, the float may be sticking and you may need to adjust the float or install a new bushing and o-ring or float repair kit.
- ◆ If the unit starts up after it is cooled, you may have a faulty reset.
- ◆ Check the outside microswitch with a volt/ohm meter for fluctuations in the switch.



The unit runs a short time and the circuit breaker overload pops.

Note: If the circuit breaker is popped, press the reset button up.

- ◆ If overload pops out again, disconnect the power and check electrical wiring inside the unit for a shorted wire or component.
- ◆ If wiring and components appear ok, replace defective circuit breaker.
- ◆ Check the power cord for damage.

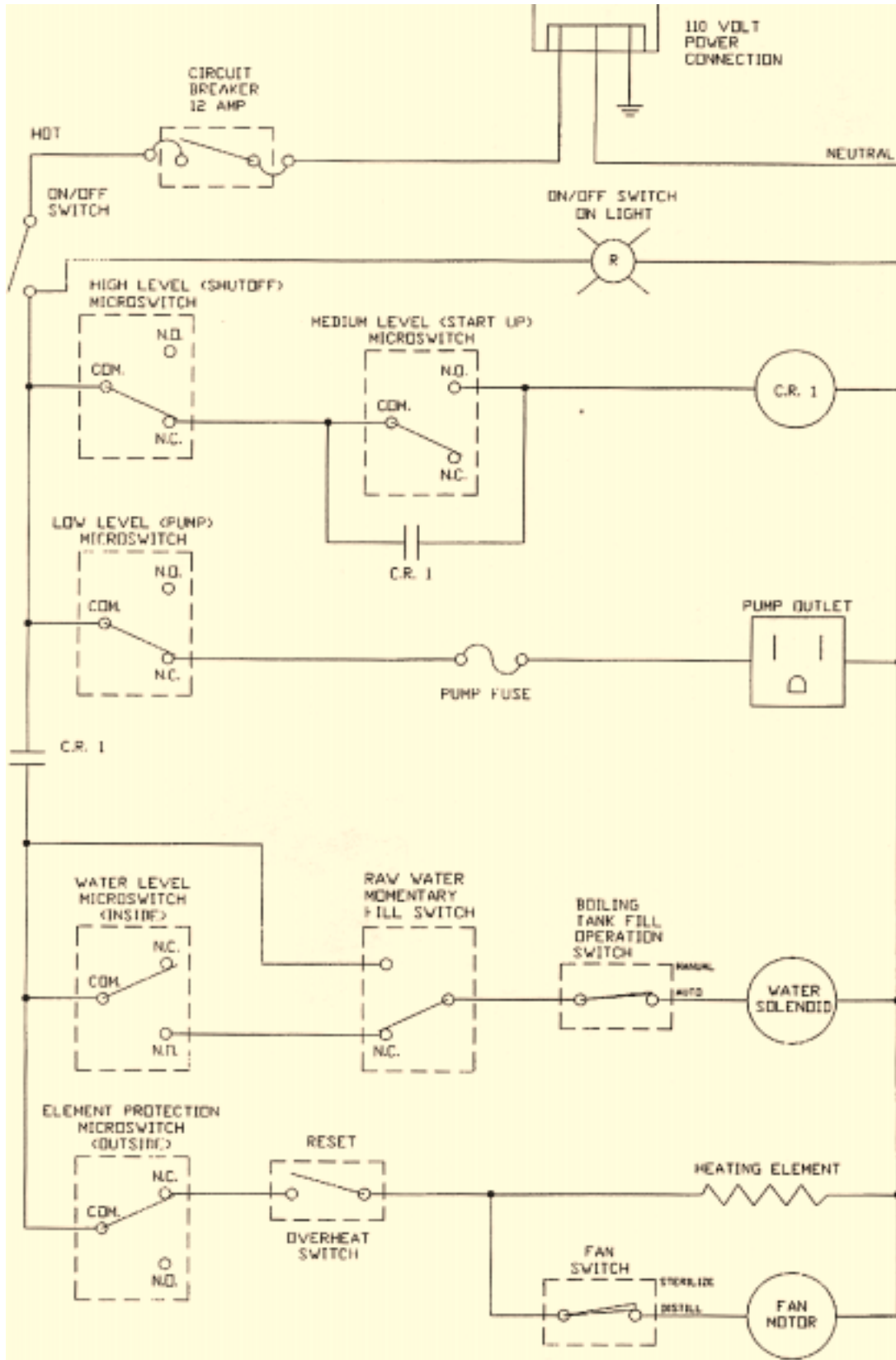


The optional demand pump does not work properly or not at all.

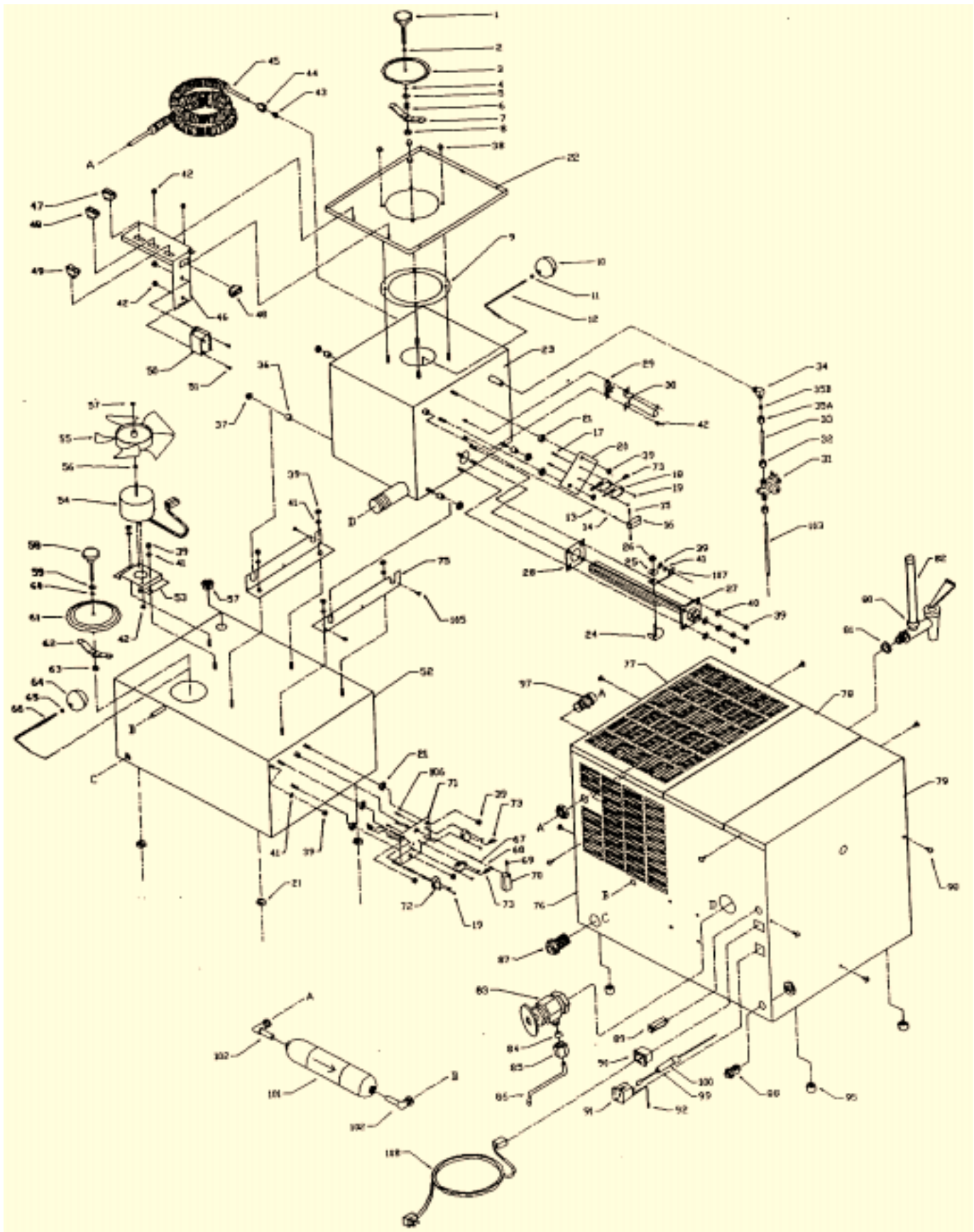
Note: The storage tank must be at least 1/3 full for the pump to operate.

- ◆ If the unit is plugged in and the power switch is “On”, you may have a blown fuse, defective pressure switch or defective pump. Check with a volt/ohm meter.
- ◆ If pump cycles on and off, but no water is delivered or it will not shut off after you close the faucet or cycles on and off when not in use, you may have leaks in your water line; defective pressure switch; clogged pump valve; loose fittings and connections; or a defective pump.
- ◆ If pump does not deliver water to the faucet at a steady pressure, you may have a defective pump.
- ◆ If pump does not operate when there is sufficient water in the storage tank, but operates when plugged into the wall outlet, you may have a problem with the storage tank float; defective pump protection fuse; or defective demand pump plug. Check with a volt-ohm meter.
- ◆ If pump will not shut off, you could have air in the line; clogged pump valve; defective pressure switch; or defective pump.

Electrical Schematic



Exploded View



Parts Listing

Key #	120VPN	240VPN	Description	Key #	120VPN	240VPN	Description
1	8009	8009	Lid Knob w/Stud	56	9092	9092	Push Nut
2	6022	6022	Lid O-ring	*	639	639	Fan Blade Kit (includes #55-#56)
3	519	519	Lid Disc	*	721	721V	Fan Motor Kit (includes #54-#56)
4	6049	6049	Gasket	57	411A	411A	Vent Assy.
5	9009	9009	Flat Washer, 1/4"	58	8009	8009	Knob
6	9085	9085	Lid Spring	59	9009	9009	Washer, Flat, 1/4"
7	402B	402B	Lid Crossbar w/Nut	60	6022	6022	O-Ring, 1/4"ID
8	224-0003	224-0003	Locknut, 1/4-20	61	548	548	Lid, Disc, Storage
*	409	409	Lid Assembly (includes #1-#8)	62	402C-01	402C-01	Cross Bar, Welded
9	6010	6010	Boiling Tank Gasket	63	224-0003	224-0003	Nut, Nylock, 1/4-20
10	9519	9519	Float Ball	*	410A	410A	Lid, Storage Tank (includes #58-#63)
11	9018	9018	Hex Nut, 6-32	64	9519	9519	Ball, Float, 2"
12	513	513	Float Rod	65	9018	9018	Nut, 6-32, Hex
13	9080	9080	Float Bushing	66	514	514	Rod, Float, Storage
14	6021	6021	Float O-Ring	67	9080	9080	Float Bushing
*	604	604	O-Ring & Bushing Kit (includes #13-#14)	68	6021	6021	O-Ring, Float
15	9024	9024	Set Screw	*	604	604	O-Ring & Bushing Kit (inc. #67 & 68)
16	9082	9082	Actuating Arm	69	9024	9024	Set Screw
*	644	644	Float Kit (includes #10-#16)	70	9091	9091	Float Actuating Arm
17	9030	9030	Screw, 4-40 x 1-1/8"	*	719	719	Float Kit, Storage (includes #65-#70)
18	7200	7200	Microswitch	71	3070A	3070A	Plate, Storage Tank Switch
19	9041	9041	Hex Nut, 4-40	72	7209	7209	Microswitch
20	516	516	Boiling Tank Switch Plate	73	7127	7127	Terminal, Tab Adapt.
21	8070	8070	Nylon Spacer	74	9404	9404	Standoff, 10-32 x 1/2"
*	662	662	Microswitch Kit (includes #17-#21)	75	42007	42007	Boiling Tank Mount
22	42509A-01	42509A-01	Boiling Tank Tray	76	42011	42011	Cladding, Bottom/Sides
23	42502A-02	42502A-02	Boiling Tank, Studded	77	42013	42013	Cladding, Right Side
24	400A-02	400A-02	U-Clamp with Stud	78	42012	42012	Cladding, Top Cover
25	9009	9009	1/4" Flat Washer	79	42014	42014	Cladding, Left Side
26	9061	9061	Hex Nut, 10-24	80	9570	9570	5 Gallon Faucet w/ Sight Glass
27	7023	70101	Heating Element, 1000 Watt	81	144	144	Rubber Washer
28	6005	6005	Gasket, Heating Element	82	6487B	6487B	Decal, Sight Glass
*	633	633V	Heating Element Kit (includes #24-#28)	83	9508	9508	Drain Valve, 1/2"
29	7034	7034	Reset	84	87	87	Ferrule, 1/4" (inc. in #83)
30	42508A-01	42508A-01	Guide, Reset	85	84	84	Nut, 1/4"COMP, (inc. in #83)
31	7231	70106	Valve, Solenoid, 1/4"COMP	86	518	518	Drain Extension Tube
32	9550	9550	Nut, 1/4" Compression	*	611	611	Drain Ext. Tube Kit (includes #84-#86)
33	515	515	Tube, Solenoid Valve	87	9610	9610	Connector, Speedfit, 1/2"MPT x T
34	9528A	9528A	Elbow, 1/4"MPT x COMP (inc. 35A & 35B)	88	221-9000	221-9000	Union Bulkhead, Speedfit, 1/4"T x T
35A	9537A	9537A	Nut, 1/4"COMP	89	9412	9413	Circuit Breaker
35B	9537B	9537B	Sleeve, 1/4"COMP	90	7275	7275	Connector, IEC, Power Cord
36	9408	9408	Spacer, 1/2"OD x 3/8"L	91	7011	7011	Plug, Outlet, 15AMP
37	9079	9079	Nut, 1/4-20, Acorn with Washer	92	7122	7122	Terminal, Piggyback, 14-16GA
38	9039	9039	Cap Nut, 1/4-20	*	42516	42516	Kit, Plug with Ground Connector
39	9045	9045	Hex Nut, 1/4-20	95	8011	8011	Leg, Appliance Feet
40	9009	9009	Washer, Flat, 1/4"	96	223-0032	223-0032	Screw, 10-32 x 1/2"
41	9032	9032	Lock Washer, 1/4"	97	7026	7026	Restraint, Tube, 3/8"
42	9003	9003	Nut, Nylock, 8-32	98	9029	9029	Screw, #10-32, Sheet Metal
43	9530	9530	Compression Ferrule, 3/8"	99	42606	42606	Fuse Holder Assembly
44	9510	9510	Compression Nut, 3/8"	100	7217	7217	Fuse, Pump
45	9405	9405	Condensing Coil	101	9406	9406	Carbon Filter, 6", Inline
*	720	720	Coil with Fittings (includes #43-#45)	102	9614	9614	Elbow, Speedfit, 3/8"T x 3/8"STEM
46	42001	42001	Electrical Switch Tray	103	9526	9526	Tubing, 1/4" Polyethylene x 16"
47	7227	7227	Momentary Switch	104	95502	95502	Clamp, Loop, 5/16"
48	7228	7228	ON/OFF Switch	105	7230	7230	Holder, Wire Cable
49	7232	7232	ON/OFF Switch, Lighted	106	9001	9001	Screw, #4-40 x 5/8"
50	7208	7208V	Relay, DPST	107	508	508	Heat Tab
51	9025	9025	Screw, 8-32 x 3/8"	108	7276	#	Power Cord, w/ IEC Style Connector
52	42504A-02	42504A-02	Storage Tank, Studded	**	42030	42030	Insulation, Boiling Tank, Main
53	541	541	Fan Motor Mounting Bracket	**	42031	42031	Insulation, Boiling Tank, Bottom
54	42510	42510V	Fan Motor Assy. (inc. #54A & #54B)	**	42507	42507	Wire Kit
54A	7092	70103A	Fan Motor				
54B	7136	7136	Female 2-pin Connector				
55	7010	7010	Fan Blade				

* parts kit ** not shown on exploded view # sold separately

