MIDI D® ECP™

OWNERS MANUAL

PURE WATER®, INC.

Contents

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 unit from power source before assembling, adjusting or servicing this appliance.
- **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.
- Don't let children play with the distiller.
- Don't touch the top of the distiller when it is operating. It will be very hot.
- Always wait at least 30 minutes after the distiller is turned off before draining the boiling tank.
- Exercise care when removing the boiling tank lid, and never do it when the distiller is operating.
- Midi D ECP distillers are designed to work with a direct water hookup. Do not operate using manual water fill.
- The installation and use of this product must comply with all applicable state and local laws and regulations.
- **Important Notice**: This distiller is designed to be used only with Pure Water, Inc. accessories and replacement components.

Special Notice:

- The physiological effects of the operation of this appliance, beneficial or otherwise have not been investigated by Underwrites Laboratories.
- A short power cord supply is provided to reduce the risks resulting from becoming entangled in or tripping over a longer cord.
- 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.

For The Record

The model and serial number are found on the back panel. You should record both model and serial number below for future reference.

Date of Purchase: _____ Model: _____

Distiller Serial #: _____

Storage Tank Serial #: _____

How Distillation Works

The principle of distillation is quite simple and occurs in nature:

When the heat of the sun beats down on the salty ocean, which contains about 35,000 parts per million of total dissolved solids (TDS), water vapor is created. This vapor forms clouds. When the clouds are cooled they release their moisture in the form of rain, which theoretically has zero parts per million TDS. This becomes our source of *fresh* water.

Similarly, in a distiller, the raw water is heated to a boil, the steam rises, is cooled and converted to high-purity distilled drinking water, which is stored in the storage tank ready for your use. In the Midi D ECP, we incorporate a small carbon post filter to enhance the taste of the water.

Unpacking Your Midi D ECP

Your Pure Water Midi D ECP is shipped to you with the following:

- Midi D distillation system.
- ECP storage tank.
- A faucet to access distilled water.
- A post filter cartridge.
- Parts kit which allows you to hook the distiller directly into a waterline.
- Owner's manual.

Note: *Save the box and packing material for future use in the unlikely event your distiller should require sending to a service center for repair.*

Optional Accessories for Your Midi D ECP

- Demand pump kit complete with a faucet and tubing to supply water directly to a remote location. Stock# 19062UL or Stock # 19063UL
- Ice maker hookup kit for running distilled water to your refrigerator ice maker or water dispenser. (An adjunct to the faucet hookup kit.) Stock # 19009
- Lumen™ cleaner and descaler for cleaning the boiling tank. Stock # 6603
- Post filter replacement cartridge (4 pak). Stock # 9590
- Stainless steel polish. Stock # 6606
- Stand with castors. Stock # 3996

Getting Acquainted with Your Midi D ECP

FRONT VIEW **REAR VIEW**

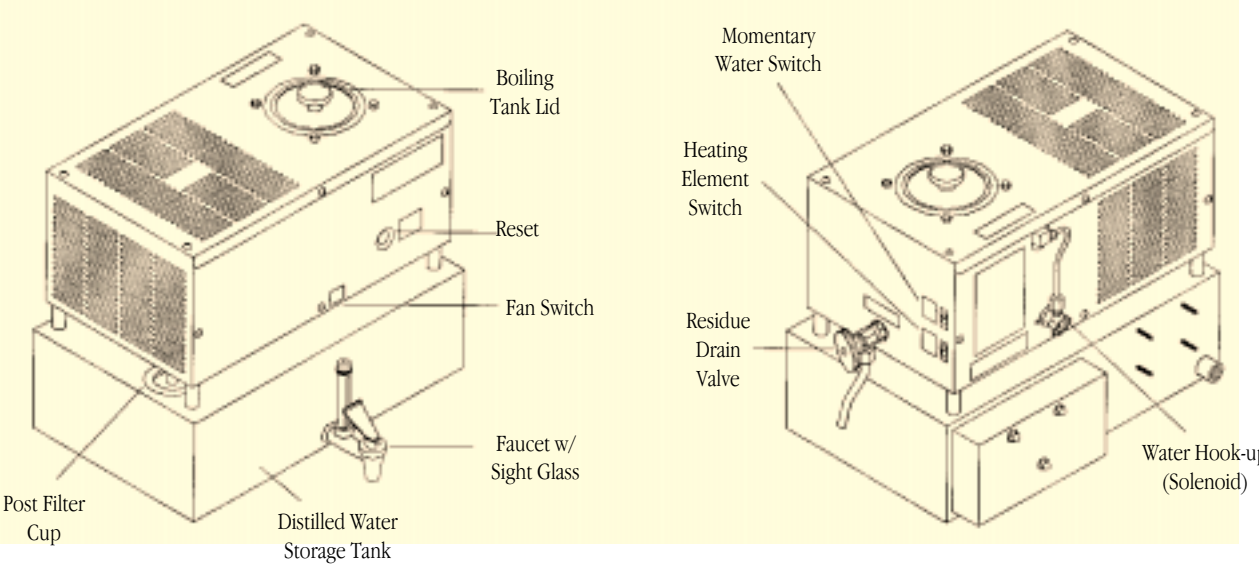


FIGURE 1

Your Midi D ECP consists of two basic components: (1) the distiller to produce high-quality water, and (2) the storage tank for distilled water storage.

The distiller contains the following: a boiling tank where the raw water is boiled, a heating element, a condensing coil to collect and condense the steam, a fan to cool the steam and various electrical controls and safety features (see figure 1). Inside the boiling tank is a float to control water level. The storage tank is for the distilled water. You can remove the distilled water from the faucet on the front of the tank. The level of the distilled water in the storage tank and the operation of the distiller are controlled by the automatic float assembly.

Assembling Your Midi D

a) Carefully lift the storage tank and distiller from the box and remove their protective bags.
b) Remove the adhesive tape holding the post filter cup and cover.
c) Open the distiller (boiling tank) lid by unscrewing the black knob counterclockwise 3-4 turns. Move the lid sideways and tilt it out.
d) Remove the parts kit from the bottom of the shipping box.
e) The parts kit contains:
- a direct waterline hookup kit
- faucet for the storage tank
- post filter cartridge
- drain valve

f) Residue drain valve installation and assembly:
1. Remove the blue cap from the boiling tank drain fitting on the side of the distiller.
2. Install the residue drain valve onto the fitting and tighten using a 23 mm open-end or adjustable wrench.
   Note: *Tighten until the outlet is pointing to the 6 o'clock position.*
3. Insert the drain extension tube into the drain valve as shown in figure 2.
4. Hold the tube in place and tighten the nut until the tube is secure.
5. Loosen the nut so the tube can be rotated.
   Note: *There should be some restriction in the movement of the tube.*
6. Rotate the tube so it is out of the way.

g) Install the soft washer onto the threaded stem of the storage tank faucet. Insert the threaded portion of the storage tank faucet into the fitting on the front of the tank. (See figure 3). Rotate the faucet clockwise until tight. Carefully twist the faucet so the sight glass is in a vertical position. (See figure 4).

CAUTION: Never twist the faucet assembly by the sight glass. It is fragile.

h) Check for leaks around the faucet by partially filling the tank with water. Should leaks occur, additional tightening may be necessary.
i) Wash the tank with a warm water and baking soda solution. Rinse and drain.
j) Place distiller on the storage tank as shown in figure 5.
k) *Leveling*: This unit is designed to flex in the event of rough shipping and handling. It may be necessary to level your distiller upon receipt.
1. Loosen the four phillips screws on the top corners of the distiller.
2. Loosen the phillips screws on the left, right and bottom of the front and rear panels.
3. Press down on the opposite corners of the top panel until the distiller sits level on the storage tank.
4. Retighten the screws.

l) Check that the condenser extension tube from the distiller is positioned directly over the post filter in the storage tank.
m) Install the #6009 inlet gasket on the post filter lid. Install the #9099 stainless steel washer on top of the inlet gasket. Make sure the condenser extension tube is aligned with the washer and gasket (see figure 6). This holds the tube in place. At this point, the actual post filter cartridge has **NOT** been installed. This will be installed later in the manual.

Note*: Once the post filter is installed as instructed on page 9, there should be a 1/16" to 1/8" gap between the condenser extension tube and the post filter cartridge to prevent possible overflow.*

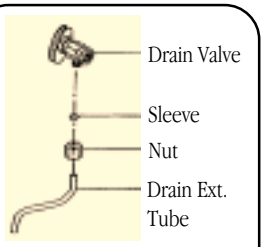


FIGURE 2

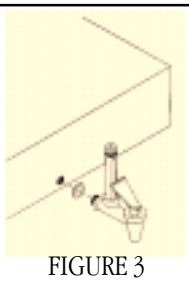


FIGURE 3

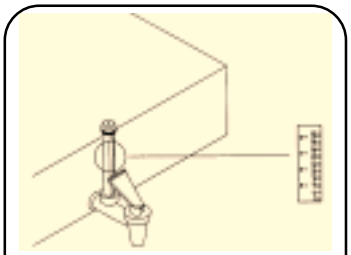


FIGURE 4

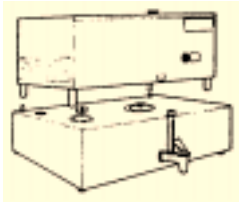


FIGURE 5

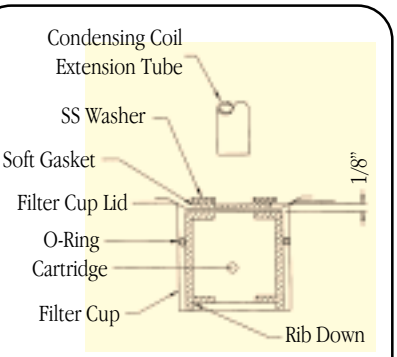


FIGURE 6

Installation

A. Connecting the Distiller to the Water Line

Notes: *1) Production rate will be affected if the distiller is not level.*
2) For lower boiling tank maintenance, using soft water as the raw water feed is highly recommended.
3) You are supplied 25' feet of tubing to hook-up your water line. If additional tubing is needed, contact your Distributor.

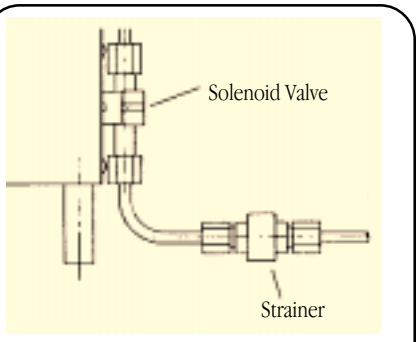


FIGURE 7

a) Remove the compression nut from the parts kit. Insert the tubing through the small opening of the compression nut. Let tubing protrude about 1/4" through the nut.
b) Install the plastic nut on the solenoid valve fitting about 1/4 turn. Push the water line in as far as it will go and tighten the nut.
c) Install the strainer by cutting the distiller water line approximately 6" (15 cm) from the solenoid and insert tubing into the compression nuts following procedures a and b above.

B. Connecting Your Home Water Supply to the Distiller

CAUTION: DO NOT USE THE HOT WATER LINE.
CAUTION: Do not turn the handle before or while installing the saddle tapping valve. Be sure the piercing lance does not protrude beyond the rubber gasket.

Notes: *1) Should any leaks occur, tighten all connections. Some areas where leaks may occur are: where the saddle tapping valve attaches to the existing water line; where the tubing attaches to the strainer and/or where the tubing attaches to the saddle tapping valve.*
2) In some jurisdictions, a saddle tapping valve may not be permitted. In such instances, we recommend a utility hookup kit (part # 42).

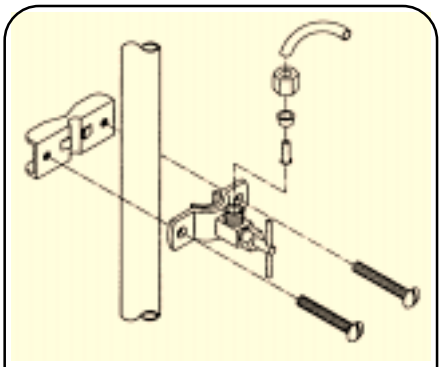


FIGURE 8

a) Turn the household water supply off.
b) Install the saddle tapping valve on the COLD water copper tubing so the outlet is in a convenient direction. See figure 8.
c) Tighten screws evenly. Brackets should be parallel. Tighten firmly. Do not over tighten.
d) Connect tubing from the distiller to the saddle tapping valve outlet.
e) Coil any excess tubing behind the distiller.
f) Turn the saddle tapping valve handle clockwise until you feel it is firmly seated.
Note: *You have now pierced the copper tube and the valve is closed.*
g) Turn the handle counterclockwise to open the valve. Turn the household water supply ON and check all connections for leaks.
h) Open the saddle tapping valve completely. Check the line for leaks. Tighten where required.

Start-Up

A. First Time Start-Up, Rinsing and Steam Sterilizing

We recommend that you thoroughly rinse and steam sterilize your Midi D before putting it into use. Distilled water from the first cycle should be discarded.

RINSING:

a) Remove the boiling tank lid.
b) Remove the wire tie restraining the float.
c) Pour tap water into the boiling tank until approximately 3/4 full and open the boiling tank residue drain valve.
d) Close the residue drain valve when empty.

STEAM STERILIZATION:

CAUTION: All surfaces of the unit become very hot during steam sterilization. Use extreme caution during this operation. Place the unit out of reach of children.

e) Plug the distiller power cord into the storage tank outlet labeled "Purifier". (See figure 9)
f) Plug the storage tank power cord into the power supply. (See figure 9)

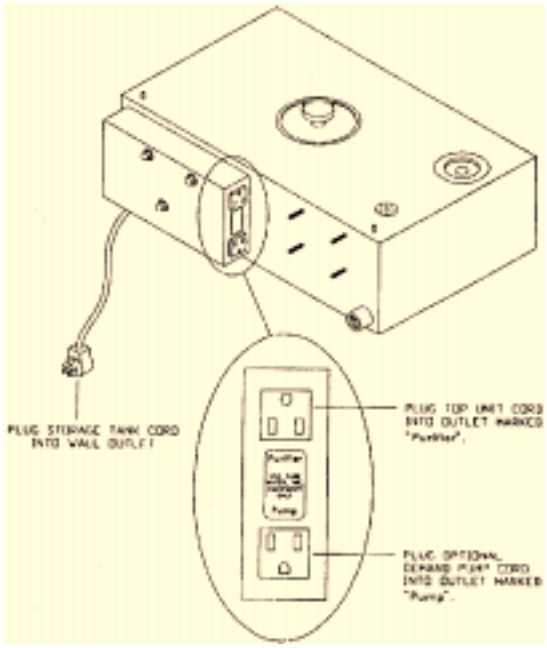


FIGURE 9

CAUTION: Ensure that the distiller power cord is plugged into the "Purifier" outlet on the storage tank. If inserted into the "Pump" outlet, the distiller will overflow causing damage.

Note: *Make sure the post filter is not installed at this point.*
If your Midi D is equipped with a demand pump, the inlet tubing must be disconnected during steam sterilization.

g) Turn the heating element switch ON and allow the unit to fill with water.
h) When the boiling tank stops filling, turn the fan switch OFF and install the boiling tank lid.
i) Open the storage tank faucet and place a one gallon container under the faucet to catch water.
j) Allow the unit to steam sterilize for one hour.
k) After one hour, close the storage tank faucet and turn the heating element switch OFF.
l) Allow the unit to cool for a minimum of fifteen minutes. When cool, install the post filter cartridge and o-ring as instructed in Section B of Start-Up on page 9.
m) Turn heating element switch and fan switch ON and allow unit to run through a complete cycle.
n) Open the storage tank faucet and discard the first batch of distilled water.
o) Close storage tank faucet.

With the heating element switch ON and the fan switch ON, the unit is now ready for normal operation. We recommend steam sterilization cycle (steps e through l) every three months or if the unit has not been used for one week. The storage tank must be completely empty prior to starting a steam sterilization cycle.

B. Installing the Post Filter

The post filter fits into the filter cup on the top of the storage tank. Make sure the unit is not operating during installation of the post filter.

a) Take the post filter cartridge from the parts kit.
b) Remove the blue seals on each end of the filter. Note that one end of the cartridge has a lip around the outside. Consider this the bottom (see figure 10).
c) Completely submerge the cartridge in **distilled** water with the bottom up for five minutes.
d) Remove the cartridge from the water and **turn the cartridge over**.
e) Remove the filter cup from the storage tank and place the o-ring around the cartridge close to the bottom edge (lip end) and firmly push the cartridge into the cup. The cartridge should slide down smoothly into place with the o-ring visible just below the top of the cartridge.
f) Place the cup back into the storage tank and place the filter cup lid on top of the cup.
g) Position the soft gasket and stainless steel washer to seal the cartridge (see figure 11).

FIGURE 10

Note: *There should be a 1/16" or 1/8" gap between the condensing coil extension tube and the post filter cartridge to prevent possible overflow.*

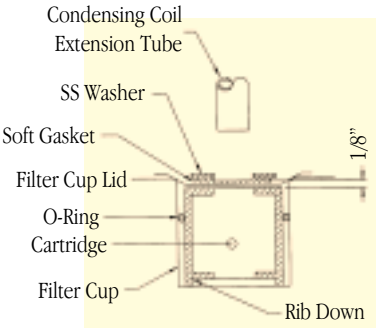
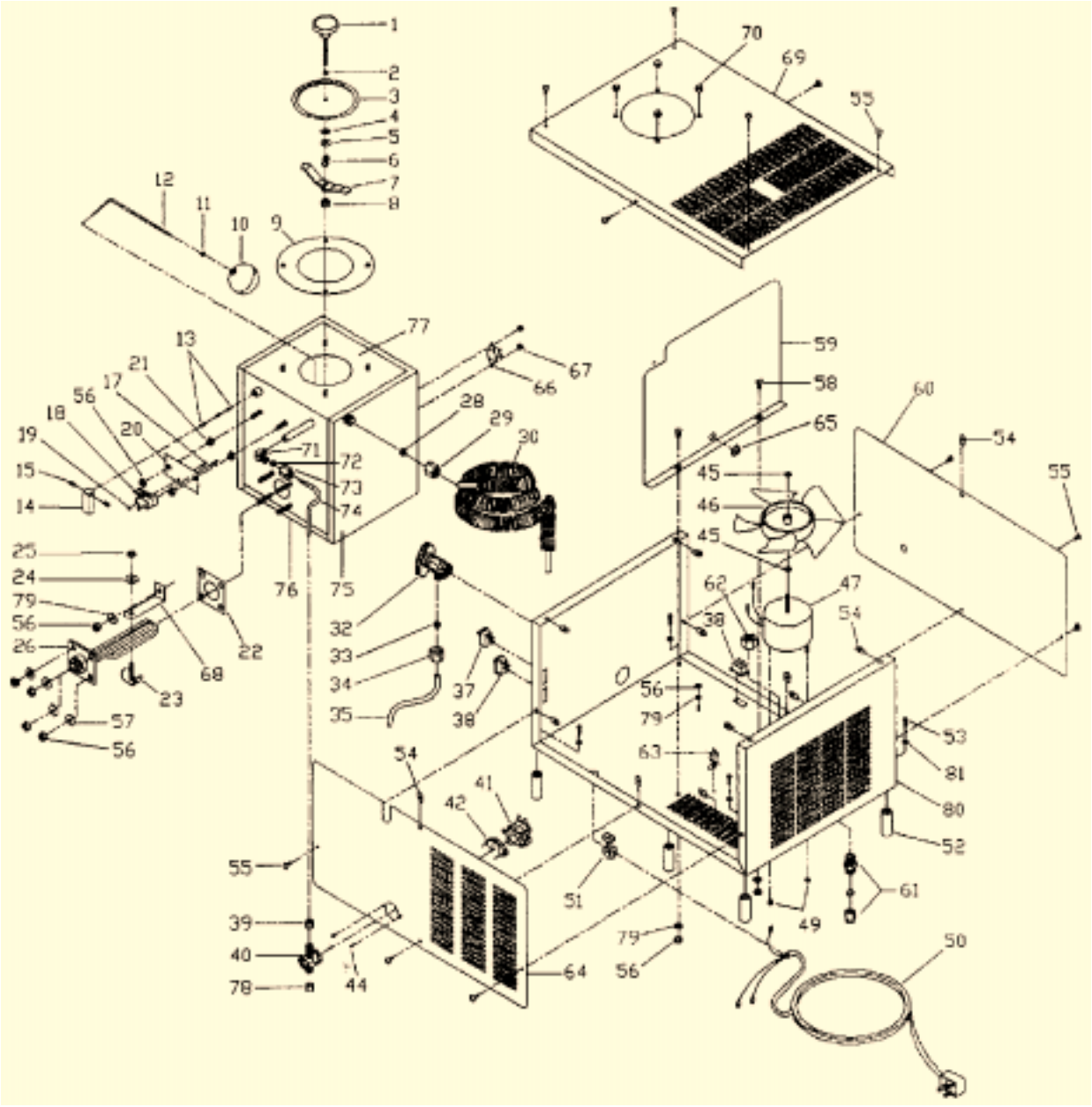


FIGURE 11

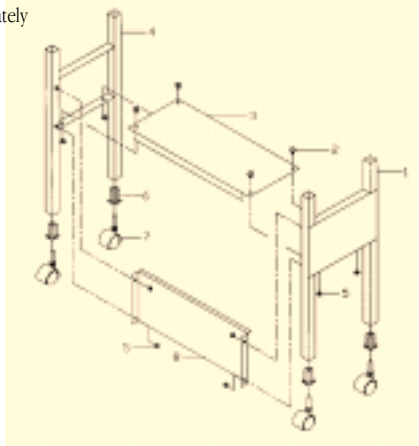


Note: You may notice that some parts on the exploded drawing are not in your machine. Since we cater to many different countries and voltage requirements, there will be some variances. All of the parts in your machine should be on the exploded drawing.

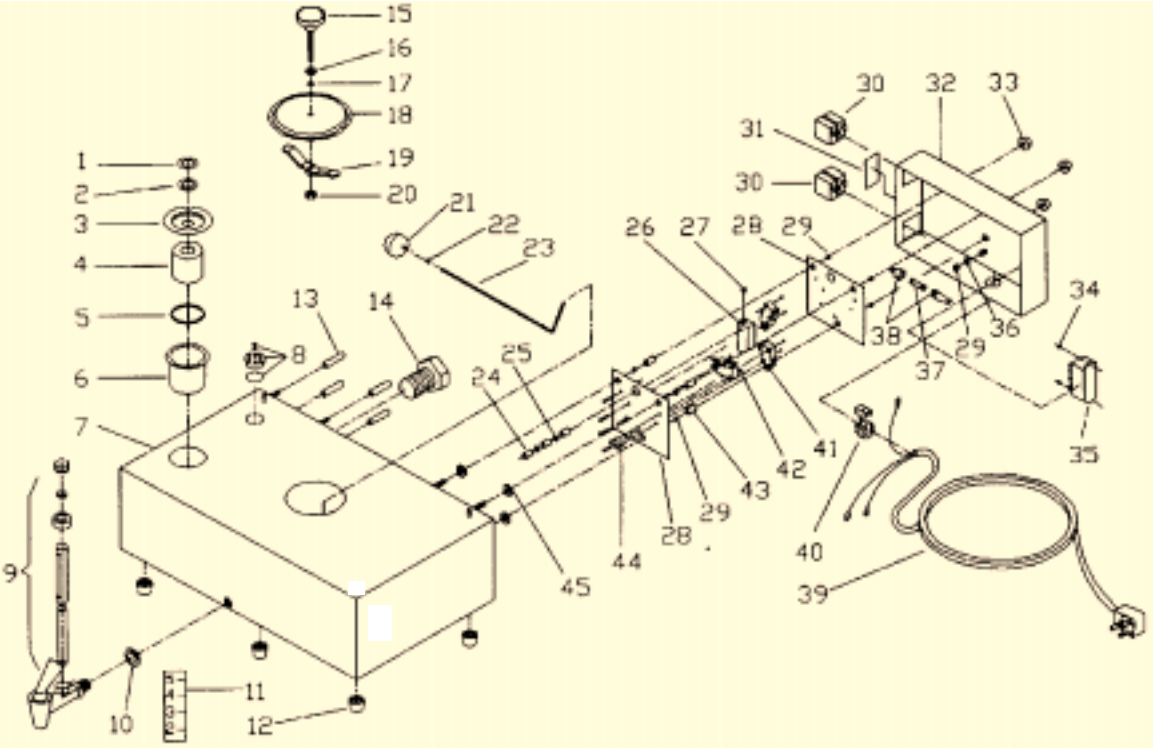
KEY #	PART #			DESCRIPTION
	100V	120V	240V	
1	8009	8009	8009	Lid Knob w/Stud
2	6022	6022	6022	O-Ring
3	519	519	519	Lid Disc
4	6049	6049	6049	Gasket
5	9009	9009	9009	Flat Washer
6	9085	9085	9085	Spring
7	402B	402B	402B	Crossbar with Nut
8	224-0003	224-0003	224-0003	Locknut, 1/4-20
*	409	409	409	Lid Assy. (includes #1-8)
9	6010	6010	6010	Boiling Tank Gasket
10	9519	9519	9519	Float Ball
11	9018	9018	9018	Hex Nut, 6-32
12	513	513	513	Float Rod
13	604	604	604	O-Ring & Bushing Kit
14	9082	9082	9082	Actuating Arm
15	9024	9024	9024	Set Screw
16*	644	644	644	Float Kit (includes #10-15)
17	9030	9030	9030	Screw, 4-40 x 1-1/8
18	7200	7200	7200	Microswitch
19	9041	9041	9041	Hex Nut, 4-40
20	516	516	516	Switch Plate
21	8070	8070	8070	Nylon Spacer
*	662	662	662	Microswitch Kit (inc. #17-21)
22	6005	6005	6005	Heating Element Gasket
23	400A-02	400A-02	400A-02	U-Clamp
24	9009	9009	9009	Flat Washer, 1/4
25	9061	9061	9061	Hex Nut, 10-24
26	7083	7023	70101	Heating Element
27*	633J	633	633V	Htg. Elem. Kit (inc. #22-26)
28	9530	9530	9530	Compression Ferrule, 3/8
29	9510	9510	9510	Compression Nut, 3/8
30	9501	9501	9501	Condensing Coil
31*	627	627	627	Coil w/ fittings (inc. #28-30)
32	9508	9508	9508	Drain Valve
33	87	87	87	Comp. Ferrule (inc. in #32 & 36)
34	84	84	84	Comp. Nut (inc. in #32 & 36)
35	518	518	518	Drain Extension Tube
36*	611	611	611	Drain Ext. Tube w/ fittings (includes #33-35)
37	7227	7227	7227	Momentary Water Switch
38	7228	7228	7228	ON/OFF Switch
39	9550	9550	9550	Compression Nut, 1/4

KEY #	PART #			DESCRIPTION
	100V	120V	240V	
40				Solenoid Body**
41				Solenoid Coil**
42				Solenoid Bracket**
43*	635J	635	635V	Solenoid Kit (incl. #39-42)
44	9095	9095	9095	Screw, 8-32 x 1/2
45	9092	9092	9092	Push Nut
46	7010	7010	7010	Fan Blade
47	7192	7092	70103	Fan Motor
48*	653J	653	653V	Fan Motor Kit (inc. #45-47)
49	9003	9003	9003	Lock Nut, 8-32
50	3564R	3564R	3564R	Power Cord
51	7014	7014	7014	Cord Restraint
52	9081A	9081A	9081A	Leg Riser
53	223-0001	223-0001	223-0001	Screw, 5/16-18 x 1/2"
54	9047	9047	9047	Speed Clip Nut
55	9029	9029	9029	Sheet Metal Screw
56	9045	9045	9045	Hex Nut, 1/4-20
57	9009	9009	9009	Flat Washer, 1/4
58	9027	9027	9027	Screw, 1/4-20 x 3/8
59	3008	3008	3008	Deflector Plate
60	3032B	3032B	3032B	Front Plate
61	7026	7026	7026	Coil Restaint
62	7026A	7026A	7026A	Coil Restraint Locknut
63	7230	7230	7230	Cable Holder
64	3033	3033	3033	Back Plate
65	7012	7012	7012	Open/Closed Bushing
66	7034	7034	7034	Reset
67	9043	9043	9043	Hex Nut, 8-32
68	2102	2102	2102	Heat Tab
69	3002	3002	3002	Top Cover
70	9039	9039	9039	Cap Nut, 1/4-20
71	9528A	9528A	9528A	Elbow (includes #72 & 73)
72	9537B	9537B	9537B	Sleeve, 1/4
73	9537A	9537A	9537A	Compression Nut, 1/4
74	524	524	524	Water Inlet Tube
75	6000	6000	6000	Boiling Tank Insulation (Side)
76	6001	6001	6001	Boiling Tank Insulation (Bottom)
77	3504B-02	3504B-02	3504B-02	Studded Boiling Tank
78	9038	9038	9038	Blind Nut, 1/4
79	9032	9032	9032	Lock Washer, 1/4
80	3500A-02	3500A-02	3500A-02	Studded Base
81	225-0007	225-0007	225-0007	Lock Washer, 5/16

* parts kit
** not sold separately



KEY #	PART #	DESCRIPTION
1	3521P	Floor Stand Side-Left
2	9052	Screw
3	3029P	Bottom Shelf
4	3522P	Floor Stand Side-Right
5	9045	Nut
6	8020	Castor Insert
7	9050-S	Castor
8	3030P	Back Brace



KEY #	PART #			DESCRIPTION
	100V	120V	240V	
1	9099	9099	9099	Flat Washer
2	6009	6009	6009	Inlet Gasket
3	502	502	502	Filter Cap
4	9590-1	9590-1	9590-1	Filter Cartridge
5	6020	6020	6020	O-Ring
6	505	505	505	Filter Cup
7	3527J-02	3527A-02	3527A-02	Storage Tank
8	411A	411A	411A	Vent Plug
9	9570	9570	9570	5 gal. Tank Faucet w/ Sight Glass
10	144	144	144	Rubber Washer
11	6487B	6487B	6487B	Sight Glass Calibrated Decal
12	8011	8011	8011	Appliance Feet
13	n/a	9097	9097	Vinyl Cap
14	n/a	9568	9568	Nylon Plug, 1/2"NPT
15	8009	8009	8009	Lid Knob w/Stud
16	9009	9009	9009	Flat Washer, 1/4"
17	6022	6022	6022	Lid O-Ring
18	548	548	548	Storage Tank Lid Disc, 4"
19	402C	402C	402C	Crossbar with Nut, N/S
20	224-0003	224-0003	224-0003	Locknut, 1/4-20
*	408	408	408	Lid Assy. (includes #15-20)
21	9519	9519	9519	Float Ball
22	9018	9018	9018	Hex Nut, 6-32
23	525	525	525	Float Rod

* parts kit

KEY #	PART #			DESCRIPTION
	100V	120V	240V	
24	9080	9080	9080	Float Bushing
25	6021	6021	6021	Float O-Ring
*	604	604	604	O-Ring & Bushing Kit (includes #24 & 25)
26	9091	9091	9091	Float Actuating Arm
27	9024	9024	9024	Set Screw
*	655	655	655	Float Kit (includes #21-27)
28	3070	3070	3070	Switch Plate
29	9045	9045	9045	Hex Nut, 1/4-20
30	4510	4510	4510	Plug Outlet
31	6406-3	6406-1	6406-1	Purifier/Pump Outlet Decal
32	3550J-02	3550A-02	3550A-02	Float/Switch Box
33	9079	9079	9079	Acorn Nut, 1/4-20
34	9003	9003	9003	Locknut, 8-32
35	7208	7208	7208V	Relay
36	9032	9032	9032	Lock Washer, 1/4"
37	n/a	7217	n/a	Fuse
38	n/a	9665	n/a	Fuse Holder
39	3569J	3569	3569	Power Cord
40	7029	7014	7014	Cord Restraint
41	7209	7209	7209	Microswitch
42	9041	9041	9041	Hex Nut, 4-40
43	8072	8072	8072	Nylon Spacer
44	9001	9001	9001	Screw, 4-40 x 5/8"
45	8070	8070	8070	Nylon Spacer

Maintenance and Cleaning

A. 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 Midi D may not produce optimum results. The following times may be far too long for your particular area, so for the first several times, please keep track of the average time and adjust the schedule below:

Twice a month or every 15 gallons:*	Drain the boiling tank.
Every month or every 30 gallons:*	Clean the boiling tank. (See section B below)
Every 3 months:	1) Change the post filter. (See below)
	2) Clean the exterior. (See below)
	3) Steam sterilize. (See section A of Start-Up on page 8)

* More frequent if feed water is hard.

Cleaning the exterior: Use stainless steel cleaner and polish (stock #6606).

Replacing the post filter: The post filter cartridge should be replaced at least every three months. To remove the old cartridge, use a screwdriver to pry the cartridge out of the cup. New filters can be purchased in packs of four through your Distributor (stock #9590). See section B of Start-Up on page 9 for instructions.

B. Cleaning the Boiling Tank

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

Note: *Failure to clean the interior can result in:*

1) *Contaminant build-up (scale) causing premature failure of the heating element.*
2) *Reduced purity of the distilled water due to splash over of contaminants from the boiling tank.*

Use the following procedures for cleaning the Midi D boiling tank:

a) Turn the heating element switch and fan switch to OFF. Let the unit cool for fifteen minutes before continuing.
b) Remove the boiling tank lid. Open the drain valve and allow the boiling tank to drain. Close the drain valve.
c) Depress the momentary water switch to add water into the boiling tank until half full. ***Note****: If the storage tank is full, you will need to draw a small amount of distilled water out, so the distiller will provide power to the momentary water switch.*
d) Add Lumen™ cleaner following the directions on the package. Mix well.
e) Add additional water by depressing the momentary water switch until the water level reaches the bottom of the Maximum Water Level Indicator as shown in figure 12.

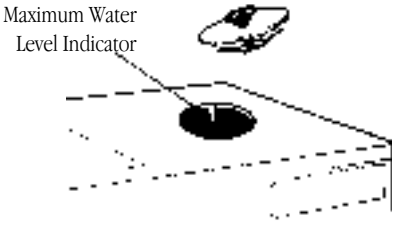


FIGURE 12

f) Unplug the unit from its power source and let the solution stand overnight.
g) Next morning, plug the unit into the power source. Open the drain valve to allow the solution to drain.
h) Rinse and drain the boiling tank thoroughly. Close the drain valve.
i) Replace the lid. Turn the heating element switch and fan switch ON. The unit is now ready for normal operation.

Trouble Shooting

Note: *Pure Water, Inc. does not anticipate problems arising from your unit, but for your convenience we have included an extensive trouble shooting section. We hope that you rarely, if ever, have to use it.*

Problem	Observation	Probable cause	Solution
1. The machine will not operate at all. ***Note:*** *Fan and heating element do not operate until water level raises float to a safe operating level.* ***Note****: Distilled water level in storage tank must be below 1/2 tank before distiller can be restarted.*	Storage tank power cord plugged into wall outlet. Machine plugged into storage tank electrical outlet and heating element switch is ON. ***Note****: If momentary water switch works, go to section 2C.*	Wall outlet not working.	Test outlet with a lamp. Check fuse or circuit breaker.
		Reset has popped.	Press reset button with eraser end of a pencil.
		Storage tank float assembly not allowing power through.	Test distiller by plugging distiller power cord directly into the wall outlet. If the distiller functions, see section 9.
			If distiller does not function, leave plugged into wall outlet only until trouble shooting is complete.
		Loose wire inside distiller cabinet.	Have service person check for loose wire.
		Reset defective.	Have service person check or replace reset.
		Power cord defective.	Have service person check or replace power cord.
2. Boiling tank will not fill with water automatically when water level gets low. ***Note****: Heating element switch must be ON.*	A. Momentary water switch, when depressed, makes the water solenoid click or hum, but no water enters the boiling tank.	Water supply to machine shut off.	Saddle tapping valve shut or clogged. Check or replace valve.
			Pre-filter or water strainer clogged. Clean or replace.
		Solenoid valve clogged.	Open solenoid. Clean core tube, plunger, and plastic housing and reassemble or replace solenoid.
		Inlet tube plugged between solenoid and opening in tank.	Remove inlet tube and elbow. Clean tube, elbow, and opening into tank.
	B. Momentary water switch, when depressed, does not cause solenoid to click or hum and no water enters the boiling tank.	No power to momentary water switch.	See section 1.
		Loose or bad wire between the power supply and the momentary water switch.	Have a service person test or replace.
		Momentary water switch defective.	Have service person test or replace switch.
		Solenoid defective.	Have service person test or replace solenoid.

Trouble Shooting

Problem	Observation	Probable cause	Solution
(continued) **2. Boiling tank will not fill with water automatically when water level gets low.**	C. Momentary water switch allows water to flow into the boiling tank. ***Note**: If fan and heating element do not operate even after the boiling tank is filled manually, go to Section 2D.*	Float not moving freely. Not always dropping when water level does.	Install bushing and o-ring or float repair kit.
		Actuating arm loose or out of adjustment.	Tighten and adjust so the actuating arm pushed both microswitches. See * below.
		Inside boiling tank microswitch is defective.	Have service person test or replace switch.
		Momentary water switch defective.	Have service person test or replace.
	D. Heating element switch is in the ON position.	Loose or damaged wire.	Have service person check wire between reset and the heating element switch and between the heating element switch and the outside boiling tank microswitch.
		Defective heating element switch.	Have service person test or replace switch.
3. Distiller overflows. ***Note**: If your machine is new, make sure that you removed the wire tie used to restrain the float during transit.*	A. Boiling tank water level is at normal operating level.	Charcoal post filter plugged or improperly installed.	Reinstall filter following instructions closely, or replace filter.
		Storage tank float system malfunctioning.	See section 9.
		Float not moving freely. Float stays at bottom of the tank.	Install bushing and o-ring or float repair kit.
	B. Boiling tank is full to the top of the tank. ***Note**: If water still overflows with power cord disconnected, see section 3C.*	Float ball has water in it.	Replace float.
		Float has too much mineral build-up and is too heavy to float.	Clean boiling tank.
		Float actuating arm not adjusted properly.	* Adjust float actuating arm so that when float rests on the heating element, the actuating arm is depressing both microswitches. Make sure actuating arm will not slip off the end of the microswitch arm.
		Inside boiling tank microswitch is defective.	Have service person test or replace switch.
		Momentary water switch defective.	Have service person test or replace switch.

Trouble Shooting

Problem	Observation	Probable cause	Solution
(continued) **3. Distiller overflows.**	C. Boiling tank full to top and water continues to overflow with power cord disconnected.	Solenoid stuck in OPEN position.	Open solenoid. Clean core tube, plunger, and plastic housing. Reassemble or replace solenoid. Make sure strainer is installed to prevent future problems.
4. Distiller fills to normal operating level, but the fan and heating element will not run.	A. If you drain water out of the boiling tank, it will refill automatically.	Outside boiling tank microswitch is defective.	Have service person test or replace.
		Actuating arm not hitting inside boiling tank microswitch before outside boiling tank microswitch.	Adjust actuating arm so that as float drops it activates inside microswitch before the outside microswitch.
		Loose wire in distiller.	Have service person check wiring.
	B. If you drain water from boiling tank, it does not fill automatically.	See section 2.	
5. Fan works, but distiller will not boil water.	Heating element switch in ON position.	Heating element defective.	Replace heating element.
		Loose or bad wire.	Have service person check wiring.
6. Distiller boils water, but fan will not run.	Fan switch is set to ON.	Fan blade caught on wire or sagging condenser coil.	Check fan blade to make sure it spins freely.
		Defective fan switch.	Have service person test or replace switch.
		Loose wire in distiller.	Have service person check wiring.
		Defective fan motor.	Have service person test or replace motor.
7. Distiller runs a short time and pops the reset. ***Note**: Press firmly with eraser end of the pencil to reset distiller to normal operation.*	A. Boiling tank water level is below heating element rods. ***Note**: Also see section 2.*	Float sticking in UP position only when distiller is hot, then drops to normal position.	Set pivot tube gap between float (containing bushing & o-rings) and actuating arm to a minimum of 1/16".
			Install bushing and o-ring kit or float repair kit.
	B. Distiller starts on its own after it cools.	Faulty reset.	Have service person test or replace.
8. Distiller operates fine, but makes little or no water.	A. Distilled water and storage tank walls are very hot.	Fan blade stripped and slipping on the motor shaft.	Replace the fan blade.
		Air flow around distiller is restricted or room temperature is too high.	Clear the area around the distiller air vents or check the room temperature.

Trouble Shooting

Problem	Observation	Probable cause	Solution
(continued) **8. Distiller operates fine, but makes little or no water.**	B. Distilled water and storage tank not hot.	Low voltage at the heating element.	Have a service person check the voltage at the heating element and check for loose or damaged wires.
		Defective heating element.	Replace heating element.
	C. Observe distiller for 30 minutes to see if distiller stops and restarts.	Defective reset.	Have a service person replace reset.
		Defective storage tank control system.	Plug distiller directly into a wall outlet to test again. Also see section 9.

9. Storage tank float system malfunctioning.

***Note**: Storage tank must be empty to test.*

To test float system for proper operation, plug a lamp into the wall outlet to test lamp and outlet. Use the following steps. If you make a mistake at any point in these steps, you must start over at the beginning.

Step 1:
Remove lamp plug and insert storage tank power cord plug in same outlet. Insert lamp plug into the outlet on the storage tank labeled "Purifier". The lamp should be ON. If it is not, see section A below.

Step 2:
With your hand, reach inside the storage tank and slowly lift the float ball to just about the 3/4 level. The lamp should stay ON. If not, see section B.

Step 3:
Continue to raise the float ball until you reach the top of the tank. When this happens, the lamp should shut OFF. If lamp stays ON, see section C.

Step 4:
Lower the float ball slowly to 3/4 full level. The lamp should stay OFF. If lamp lights up, see section D.

Step 5:
Continue to lower the float ball slowly to about 1/4-1/2 full level, the lamp should come ON. If not, see section A.

Step 6:
Unplug the lamp plug from the "Purifier" outlet and plug into the "Pump" outlet. When the float is in the lowest position, the lamp should be OFF. If lamp is ON, see section E.

Step 7:
Raise the float ball inside tank level to 1/4-1/2 full, the lamp should come ON. If the lamp stays OFF, see section F.

Step 8:
Raise the float ball to the highest level and lower it to the lowest level. Through this, the lamp should stay ON and only turn OFF when the low level is reached. If the lamp did not respond this way, see section F.

Observation	Probable cause	Solution
A. Test lamp does not light.	Storage tank not empty.	Open faucet on storage tank to empty the remaining water.
	Lamp plugged into the demand pump outlet.	Confirm correct outlet is being used.

Trouble Shooting

Problem	Observation	Probable cause	Solution
(continued) **9. Storage tank float system malfunctioning.**	A. Test lamp does not light.	Float actuating arm not activating microswitches.	Remove the microswitch cover to raise and lower float inside tank. Ensure that the actuating arm activates all three microswitches.
		High level and/or low level microswitch(s) defective.	Have service person test or replace microswitch.
		Control relay defective.	Have service person test or replace relay.
		Loose or damaged wire in the storage tank control box.	Have service person check the wiring.
		Power cord is defective.	Have service person test or replace the cord.
	B. Lamp went OFF before step 3.	Loose wire in float control box.	Have service person check wiring.
		Defective control relay.	Have service person test or replace relay.
	C. Lamp doesn't shut OFF in step 3.	High-level float switch is defective.	Have service person test or replace high-level float switch.
		Control relay defective.	Have service person test or replace relay.
	D. Lamp lights in step 4.	Control relay defective.	Have service person test or replace relay.
		Medium-level microswitch is defective.	Test or replace.
		Wiring incorrect.	Have service person check wiring.
	E. Pump protection malfunctioning.	Low-level float switch malfunctioning.	Have service person test or replace low-level float switch.
		Actuating arm not hitting the low level switch.	Check and adjust microswitch.
	F. Lamp does not light in step 7.	Pump protection fuse blown.	Check or replace fuse.
		Low-level microswitch malfunctioning.	Have a service person test or replace switch.
		Loose or damaged wire inside the float control box.	Have a service person check the wiring.
		Lamp plugged into the “Purifier” outlet.	Check location of lamp plug.

Trouble Shooting

Problem	Observation	Probable cause	Solution
10. Optional pump not working. ***Note**: Leave remote distilled water faucet open when testing the pump.* ***Note**: Storage tank must be approximately 1/4 full before pump will operate.*	A. Pump functions when plugged directly into wall outlet.	Storage tank float system malfunctioning.	See section 9 to test float system.
	B. Pump does not function when plugged into wall outlet.	Pump defective.	Have service person test pump and repair or replace.
		Defective pressure switch.	Have service person test or replace.
	C. Pump runs, but does not pump.	Air leak in connections between the storage tank and the pump.	Disconnect fittings, reapply Teflon tape (do not use any other sealer). Reattach fittings.
		Air leak in the pump head.	Tighten all screws on the pump head. Check for cracks.
		Pump valves fouled with foreign objects, (Teflon tape, charcoal, etc.)	Have a service person clean or replace valves.
	D. Pump operates but will not shut off.	Check all items in section C.	
		Pressure switch defective or out of adjustment.	Have a service person check or replace the pressure switch.
		Pump head worn out and can no longer reach shut-off pressure.	Replace pump head or pump.
		CAUTION: Do not attempt to adjust pressure switch without the proper calibrating equipment. To do so will void your warranty. Irreparable damage could occur to the pump.	
	E. Pump cycles on and off when water is not being used. ***Note**: If the refrigerator or ice maker is connected to the distilled water system, this could cause the pump to cycle.*	Small leak in the distilled water line.	Feel all connections for signs of moisture. Repair or replace fittings.
		Distilled faucet leaking.	Set cup under faucet to check for leaks. Repair or replace the faucet.
		Check if the valve in the pump is clogged or damaged.	Clean or replace the check valve.
	F. Pump does not operate when there is at least 1-1/2 gallons of water in the storage tank, but operates when plugged into a wall outlet.	Pump protection fuse has blown.	Check or replace fuse.