

MAINTENANCE AND CLEANING

A. OVERALL MAINTENANCE REQUIREMENTS

The following guide should be used for the maintenance of your purifier. 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:

<i>Twice a month or every 15 gallons*:</i>	Drain the boiling tank.
<i>Every month or every 30 gallons*:</i>	Clean the boiling tank. (See section B below)
<i>Every 3 months:</i>	1) Change the post filter. (See below)
	2) Clean the exterior. (See below)
	3) Steam Sterilize. (See section A of START-UP)

* More frequent if feed water is hard.

Cleaning the interior: We recommend that the boiling tank be cleaned at least once a month. Use Lumen™ cleaner (Stock# 6603) and follow the directions provided.

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 purified water due to 'splash over' of contaminants from the boiling tank.

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

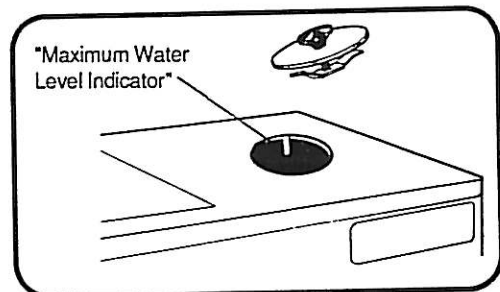
Replacing the post filter: The post filter cartridge should be replaced at least every three months. To remove the old cartridge, use a screwdriver to pry the cartridge out of the cup. New filters can be purchased in packs of four through your distributor. (Stock #9590)

B. CLEANING THE BOILING TANK

CAUTION: UNDER NO CIRCUMSTANCES SHOULD THE CLEANING SOLUTION BE HEATED AND RUN THROUGH A STEAM STERILIZATION OR PURIFICATION CYCLE.

USE THE FOLLOWING PROCEDURES FOR CLEANING THE MIDI D:

- a) Unplug the machine and let it sit for at least 30 minutes.
- b) Remove the boiling tank lid.
- c) Drain the boiling tank.
- d) Close the drain valve.
- e) Fill the boiling tank half full by pouring water in.
- f) Add Lumen™ following the directions on the package.
- g) Mix well.
- h) Add additional water until it reaches the bottom of the water level gauge.
- i) Let solution stand overnight.
- j) Next morning, drain and rinse the boiling tank thoroughly.
- k) Replace the lid.
- l) Restart the machine.



TROUBLE SHOOTING

NOTE: Pure Water, Inc. does not anticipate any 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.	Storage tank float assembly plugged into wall outlet. Machine plugged into storage tank float assembly outlet and heating element switch is ON. Note: If momentary water switch works, go to section 2-C.	Wall outlet not working.	Test outlet with a lamp. Check fuse or circuit breaker.
		Reset has popped.	Press reset button with the eraser end of a pencil.
		Storage tank float assembly not allowing power through.	Test purifier by plugging purifier power cord directly into the wall outlet. If the purifier functions, see section 8.
			If purifier does not function, leave plugged into wall outlet only until trouble shooting is complete.
		Loose wire inside purifier cabinet.	Have service person check for loose wire.
		Reset defective.	Have service person check or replace reset.
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 cut off.	Saddle Tapping Valve shut off 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.
		Heating element switch is bad.	Have service person test or replace switch.

TROUBLE SHOOTING (CONTINUED)

Problem	Observation	Probable cause	Solution
2. (Con't.)	C. Momentary water switch allows water to flow into boiling tank.	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 pushes both micro switches.
		Inside boiling tank micro switch is defective.	Have service person test or replace switch.
		Momentary water switch defective.	Have service person test or replace.
3. Purifier overflows	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 assembly malfunctioning.	See section 8 .
	B. Boiling tank is full to the top of the tank. <i>Note: If water still overflows with power cord disconnected, see section 3-C.</i>	Float not moving freely. Float stays at bottom of the tank.	Install bushing and O-ring or float repair kit.
		Float ball has water in it.	Replace float.
		Float has too much mineral buildup, 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 micro switches. Make sure actuating arm will not slip off the end of the micro switch arm.
		Inside boiling tank micro switch is defective.	Have service person test or replace switch.
		Momentary water switch defective.	Have service person test or replace switch.
	C. Boiling tank full to top and water continues to overflow even with power cord disconnected.	Solenoid stuck in OPEN position	Open solenoid, clean core tube, plunger, and plastic housing. Reassemble or replace solenoid.
4. Purifier 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 micro switch is defective.	Have service person test or replace.
		Loose wire in purifier.	Have service person check wiring.

TROUBLE SHOOTING (CONTINUED)

Problem	Observation	Probable Cause	Solution
4. (Cont'd.)	B. If you drain water from boiling tank and it does not refill automatically.	See section 2.	
5. Fan works but purifier 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. Purifier boils water but fan will not run.	Fan switch is set to PURIFY.	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 purifier.	Have service person check wiring.
		Defective fan motor.	Have service person test or replace motor.
7. Purifier runs a short time and pops the reset. <i>Note: Press firmly with eraser end of a pencil to reset purifier to normal operation.</i>	A. Boiling tank water level is below heating element rods. <i>Note: Also see section 2.</i>	Float sticking in UP position only when purifier is hot, then drops to normal position.	Set gap between float tube (containing bushing and O-rings) and actuating arm to a minimum of 1/16".
			Install bushing and O-ring kit or float repair kit.
	B. Purifier starts on its own after it cools.	Faulty reset.	Have service person test or replace.

TROUBLE SHOOTING (CONTINUED)

8. Storage tank Float assembly malfunctioning.

Note: Storage tank
must be empty to test.

To test float assembly for proper operation, plug a lamp into the wall outlet to test it. 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 float assembly plug in same outlet. Plug light 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. Listen for two clicks. The lamp should stay ON. If not, see section B.

Step 3:

Continue to raise the float ball until you hear a third click. When this happens, the lamp should shut OFF. If lamp stays ON, see section C.

Step 4:

Lower the float ball slowly until you hear one click. The lamp should stay OFF. If lamp lights up, see section D.

Step 5:

Continue to lower the float ball slowly and listen for another click. When you hear the click, 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 as in Step 2 and listen for the first click. When this happens, the lamp should come ON. If lamp stays OFF, see section E.

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 lowest level was reached. If the lamp did not respond this way, see section E.

Observation	Probable Cause	Solution
A. Test lamp does not light.	Control relay defective.	Have service person test or replace relay.
	Medium-level float switch malfunctioning.	Have service person test or replace medium-level float switch.
	Power cord defective.	Have service person test or replace cord.
	Loose wire in float control box.	Have service person check wiring.
B. Lamp went OFF before step 3.	Upper-level float switch defective.	Have service person test or replace upper-level float switch.
	Loose wire in float control box.	Have service person check wiring.
	Defective control relay.	Have service person test or replace relay.

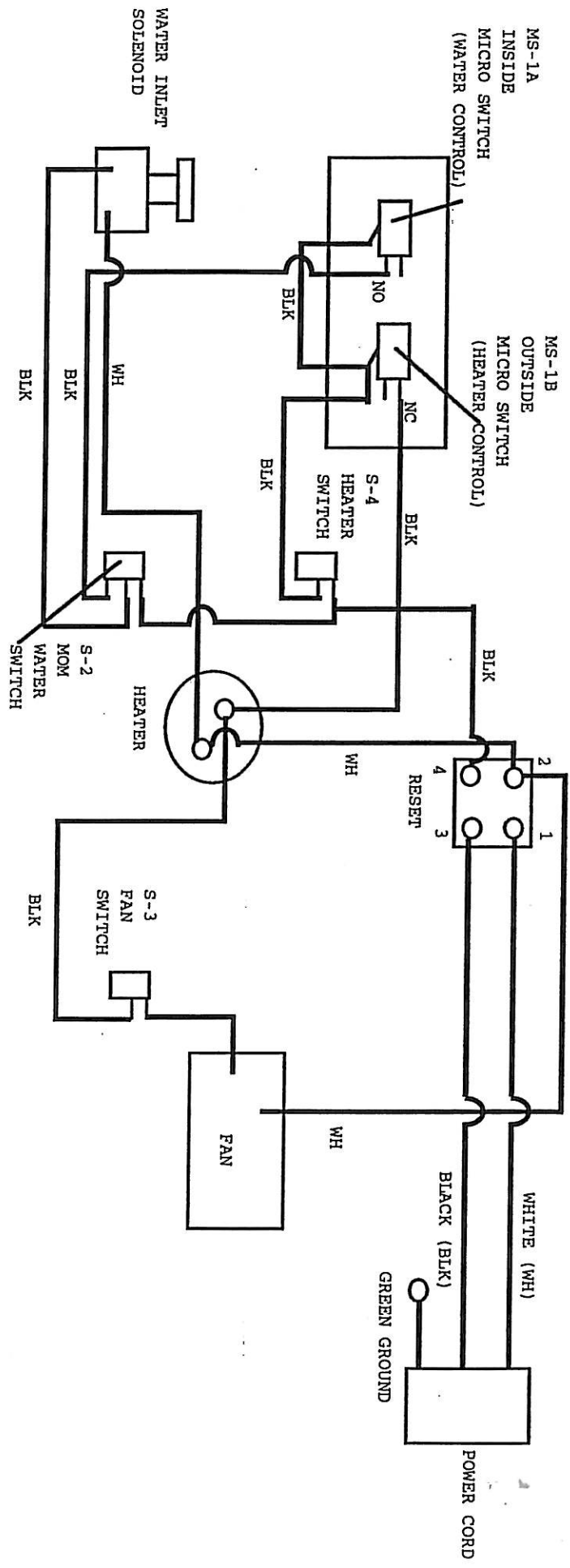
TROUBLESHOOTING (CONTINUED)

	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.
		Medium-level float switch is defective.	Have service person test or replace medium-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.
		Wiring incorrect.	Have service person check wiring.
	E. Lamp does not light in step 7.	Low-level float switch malfunctioning.	Have service person test or replace low-level float switch.
		Loose wire in float control box.	Have service person check wiring.
		Defective pump.	Have service person test or replace pump.
9. Optional pump not working. <i>Note: Leave purified water faucet open when testing pump.</i> <i>Note: Storage tank must be approximately 1/4 full before pump will operate.</i>	A. Pump functions when plugged directly into wall outlet.	Storage tank float assembly malfunctioning.	See section 8 to test float assembly.
	B. Pump does not function when plugged into wall outlet.	Pump defective.	Have service person test pump and repair or replace.



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MIDI D AUTOMATIC WIRING DIAGRAM



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