



## USE & CARE GUIDE

# Waterwise 1600™

*Non-Electric Steam Distiller/Purifier*



*See important safeguards on pages 2 and 3*



An exclamation point within an equilateral triangle is intended to alert user to the presence of important operating and maintenance instructions in the literature accompanying the appliance.



Water and steam vapor within an equilateral triangle is intended to alert user to risk of injury from boiling water and/or escaping steam.



# IMPORTANT SAFEGUARDS

To prevent personal injury or property damage, read and follow the instructions and/or warnings in this Use & Care Guide. A person who has not read and understood all operating and safety instructions is not qualified to operate this appliance.



**CAUTION:** Because boiling water is generated in this appliance, basic safety precautions should always be followed to avoid risk of burns from hot steam and scalding water, especially when children are present.

## READ ALL INSTRUCTIONS BEFORE USE. FOR HOUSEHOLD USE ONLY.

1. **WARNING:** Steam and hot, boiling water will scald the skin and result in severe burns. Water in the Distiller is heated to boiling (212° F). Even water at 130° F can cause severe burns. **ALWAYS** seek immediate medical attention for burns caused by hot, boiling water or steam. To avoid risk of severe burns:
  - **DO NOT** allow children or persons with reduced physical, sensory or mental capabilities to operate the Distiller.
  - **DO NOT** allow children near the Distiller without close supervision. Warn others of possible risks.
2. Operate on a flat, level, well-supported, stable heating surface. **DO NOT** operate in a moving vehicle.
3. **DO NOT** change position or location of Distiller while it is operating or cooling. Wait at least one hour after a cycle is finished or interrupted before moving Distiller. Water in the boiler assembly is heated to boiling (212° F) and can cause severe burns.
4. **DO NOT** remove water coolant tray assembly (fig. B) while Distiller is operating or cooling. Boiling water or steam can cause severe burns. Let cool at least one hour after a cycle is finished or interrupted before removing water coolant tray assembly.
5. **DO NOT** place near the edge of a surface where Distiller can be bumped or pulled down on someone. Be sure distillate tubing is positioned so that Distiller cannot be pulled down on someone. Boiling water or steam can cause severe burns.
6. **DO NOT** touch hot surfaces. Always use potholder or insulated oven mitt when handling hot components.
7. During continuous operation (page 6), caution should be taken when removing the boiler fill spout cap (fig. B) to refill boiler or check boiler water level. Use potholder or insulated oven mitt to remove this cap.
8. Allow Distiller to cool at least one hour after a cycle is finished or interrupted. Boiling water or steam can cause severe burns.



9. This Distiller is recommended for use with potable water **ONLY**. **DO NOT** attempt to make safe drinking water from non-potable water sources. **DO NOT** use salt water as this will damage certain components and will void warranty.
10. Operate in a well-ventilated area. Provide adequate air space (at least 6-8 inches from walls or cabinets) when in use. **DO NOT** place in a heated oven. **DO NOT** place, store, or stack anything on top or against sides of Distiller while in operation.
11. **DO NOT** operate after a malfunction, or if the Distiller has been damaged in any manner. Return to an authorized dealer or authorized service facility for examination, repair, or replacement.
12. **DO NOT** operate without water in the boiler and in all three of the coolant trays. Permanent damage may occur.
13. Make sure all components are secure and that the collector/storage container is properly positioned for operation with distillate tubing in place.
14. Vent cap should always be loosely in place (not jammed down) during operation (fig. B).
15. This Distiller requires no special care other than general cleaning (page 8). If servicing becomes necessary, contact an authorized dealer or authorized service facility. **DO NOT** attempt to repair distiller yourself. Except for boiler grommet, there are **NO** user serviceable parts. Unauthorized service or maintenance may void warranty. See warranty for details.
16. **DO NOT** drop or insert any object into Distiller openings.
17. For best water quality, **DO NOT FILL BOILER ABOVE THE "MAXIMUM FILL" LEVEL** (fig. C).
18. **DO NOT OPERATE DISTILLER IF WARNING LABELS ARE NOT AFFIXED** (fig. A).

FIGURE A



## SAVE THESE INSTRUCTIONS

## PREPARING FOR FIRST TIME USE

### *Cleaning Collection/Storage Container (not included)*

Sanitize collector/storage container by adding 6 ounces (180 ml) of 3 percent hydrogen peroxide with 1 gallon of hot water. Seal collection/storage container with cap and shake vigorously. Let stand twenty minutes, then drain. Rinse thoroughly with purified water.

### *Cleaning Water Coolant Tray Assembly*

Wash with soap and water. Rinse thoroughly. Wipe trays with a clean, soft cloth or sponge to dry.

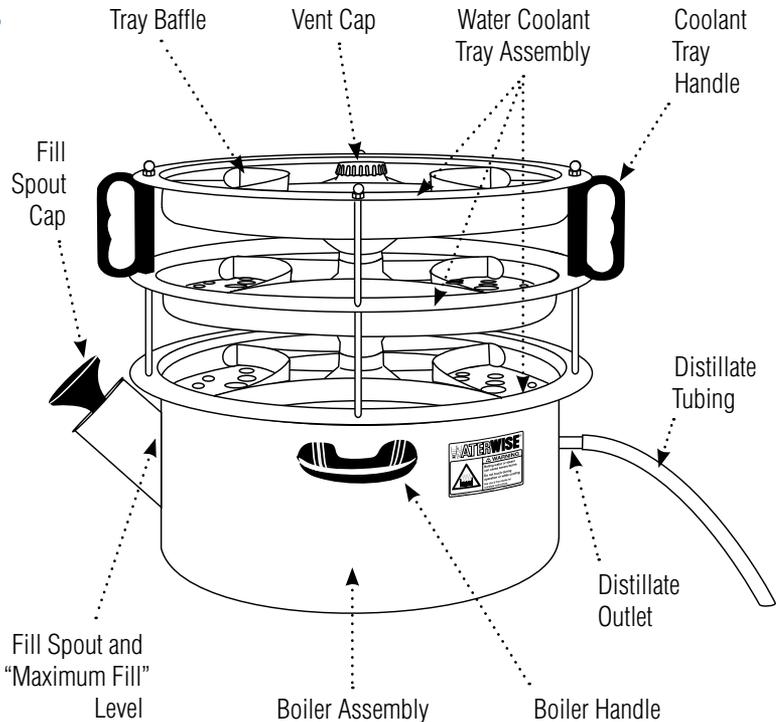
### *Cleaning Boiler Assembly*

Wash with soap and water. Rinse thoroughly. Dry carefully.



**IMPORTANT:** Use special care **NOT** to bend or damage collection cup assembly or stainless steel screen (fig. C). The collection cup assembly must remain level so distillate can flow into the collection/storage container. As the water boils, the screen floats from the bottom, keeping undistilled water from splashing into the collection cup and contaminating the distillate. Operating Distiller with no screen or with a damaged screen will degrade effectiveness of Distiller and quality of distillate.

FIGURE B



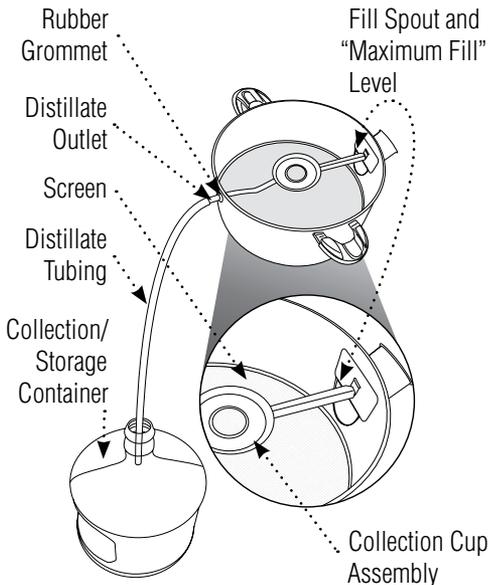
## USING THE DISTILLER



Discard the first two cycles of purified water as it may contain some harmless matter from manufacturing and/or packaging.

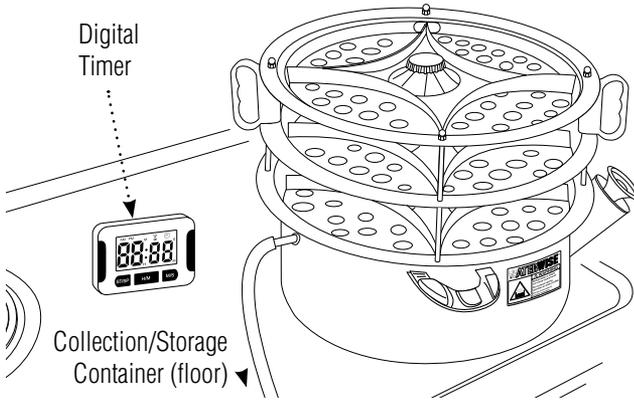
1. Place boiler assembly on a flat, level, well-supported, stable heating surface. Be sure to center on heat source.
2. Place stainless steel screen in bottom of boiler carefully to prevent bending the collection cup assembly (fig. C).
3. Fill boiler with approximately 4 liters (slightly more than 1 gallon) of ordinary water. **DO NOT** exceed “MAXIMUM FILL” level, the horizontal edge at the top of the opening inside of the fill spout (fig. C).
4. Make sure fill spout cap is in place (fig. B).
5. Securely position water coolant tray assembly onto top of boiler.
6. Vent cap should always be loosely in place (not jammed down) during operation (fig. B).
7. Pour approximately 1 liter (slightly more than 1 quart) of water into each of the three water coolant trays. This amount of water will totally submerge the tray baffles at the outer diameter, but not near the center of the tray. **DO NOT** overfill trays.
8. Place collection/storage container on the floor (fig. C). Securely attach distillate tubing to boiler at distillate outlet. Tubing must run at a downward slope into collection/storage container. **DO NOT** place container directly on any heat source or on any surface easily damaged by heat or hot water.
9. If you have other tasks to perform while using the Distiller, use the

FIGURE C



included Digital Timer (fig. D) to alert you when cycle is complete. Timer counts up or down. When you activate heat source to start the first cycle, set the timer to count up to determine the amount of time that passes before water in the three water coolant trays is evaporated (about 72 minutes using a 2600 watt electric stovetop burner or 8900 Btu/hr gas burner). This is the cycle time.

FIGURE D



Distiller will produce distillate for a short time after heat source is turned off so recommended timer setting is about ten minutes less than actual cycle time. Set timer to count down from cycle time to alert you to check the Distiller. See Digital Timer Operating Instruction (in timer box) for details.

10. Activate heat source.
11. Close supervision is necessary when this or any appliance is used near children. **BOILING WATER CAN CAUSE SEVERE BURNS.**
12. **DO NOT** touch hot surfaces. Use potholder or insulated oven mitt when handling hot components.



**WARNING: DO NOT** change position or location of Distiller or remove water coolant tray assembly (fig. B) while Distiller is operating or cooling. Boiling water or steam can cause severe burns. Let cool at least one hour after a cycle is finished or interrupted before removing water coolant tray assembly.

13. When timer is correctly set, alarm will sound at completion of cycle.
14. At the end of the cycle, **DO NOT** handle Distiller or collection/storage container until completely cooled (at least one hour). During continuous operation, caution should be taken when removing fill spout cap (fig. B) to refill boiler or check boiler water level.
15. If continued operation is desired, refill boiler through fill spout, refill the three water coolant trays, check available capacity of collection/storage container, and reset timer. Always use potholder or insulated oven mitt when handling hot components.
16. If no further operation is desired, turn off heat source and let cool (at least one hour). Discard remaining water from coolant trays and boiler. Rinse and dry carefully prior to storage. This ensures efficient operation and reduces mineral deposit buildup and possible corrosion. **DO NOT** remove collection cup assembly from boiler as this may cause the grommet to become damaged, or it may cause the collection cup assembly to become bent so that distillate will not flow into the collection/storage container.

## LEVEL TEST

To ensure maximum operating efficiency and optimum water quality, always operate Distiller on a flat, level, well-supported, stable heating surface. If Distiller is not level, performance may be impaired. If collection cup assembly has been inadvertently bent, purified water will not flow out of the boiler. Purified water will drip back into the boiler and not through distillate tubing as designed.

### *To Test:*

Place Distiller on a flat, level surface. Remove water coolant tray assembly from boiler (fig. E). Slowly pour water into collection cup (fig. F). Water should flow evenly around collection tubing and out of the distillate tubing without overflowing and running into the boiler. If it does not, adjust the collection cup so that the water can easily flow downward out of the cup to the distillate tubing (fig. F). Collection cup assembly **MUST REMAIN LEVEL** and distillate tubing must run at a downward slope into the container (fig. F). **DO NOT** remove collec-

FIGURE E

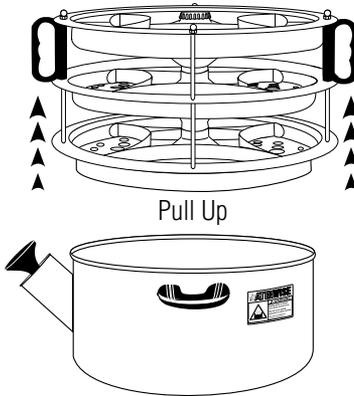
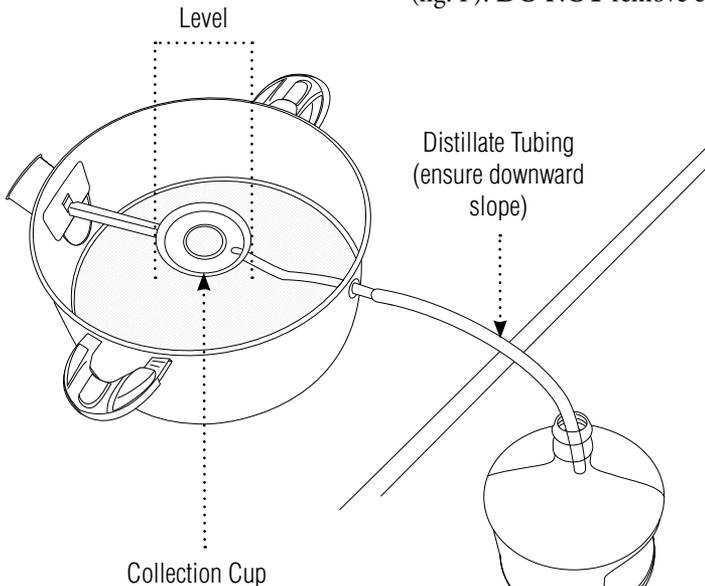


FIGURE F



tion cup assembly. Removal of this component may cause the rubber grommet to be cut, or may cause collection cup assembly to become bent so that the purified water will not flow downward into the collection/storage container. The distillate outlet is sealed to the boiler with a grommet, which may become damaged if the collection cup assembly is removed or if the boiler is inadvertently allowed to run dry. Three (3) spare grommets are included.

## MAINTENANCE

### *Cleaning Water Coolant Tray Assembly*

Rinse water coolant tray assembly with warm water to remove any loose residue. As scale deposits build up, use an approved cleaner, such as KLEENWISE, to remove mineral deposits. White vinegar or automatic coffee pot cleaner can also be used. **DO NOT** operate Distiller with cleaning solution in water coolant trays. Use a soft plastic or nylon scouring pad if needed. **DO NOT** use abrasive cleaners, caustic acids, steel wool pads or metal utensils. Rinse thoroughly after cleaning and wipe trays with a clean soft cloth or sponge to dry.

### *Cleaning Boiler Assembly*

Rinse boiler with warm water to remove any loose residue. **DO NOT** remove components. As scale deposits build up inside, use an approved cleaner, such as KLEENWISE, to remove deposits. White vinegar or automatic coffee pot cleaner can also be used. **DO NOT** operate Distiller with cleaning solution in boiler. Use a soft plastic or nylon scouring pad if needed. **DO NOT** use abrasive cleaners, caustic acids, steel wool pads or metal utensils. Rinse thoroughly after cleaning and dry carefully.



**IMPORTANT:** When cleaning boiler use special care **NOT** to bend or damage collection cup assembly or screen. The collection cup assembly must remain level so distillate can run into the collection/storage container. The stainless steel screen is designed to prevent boiling water from splashing into the collection cup and contaminating the distillate. Screen must be in place for unit to function properly. Operating Distiller with no screen or with a damaged screen will degrade effectiveness of Distiller and quality of distillate.

### *Cleaning Collection/Storage Container*

Rinse thoroughly with 6 ounces (180 ml) of 3 percent hydrogen peroxide added to 1 gallon purified water (see page 4).

**Operational maintenance is essential for this product to perform as advertised.**

## HEAT SOURCE OPTIONS



**NOTE:** Altitude and ambient conditions may affect performance of Distiller on all energy sources. Read all instructions before use. Use this Distiller only as intended and as described in this Use & Care Guide.

### *Energy Considerations*

In the U.S., the average cost per gallon in 2010 to operate this Distiller is approximately \$0.45 per gallon for electric burners, and \$0.15 per gallon for natural gas burners. Cost will vary with local energy pricing and depending on the efficiency of your burner or hot plate.

### *Electric Stove/Burner/Hot Plate*

When operated on a typical, large stove burner (2600 watt electric at 240 volts, or 8900 Btu/hr gas burner), the Distiller will produce a 3 liter (3.18 qt) batch in 72 minutes. When operated continuously, the Distiller will produce about 60 liters (16 gal) in 24 hours. With lower voltage or lower gas Btu output, the cycle time will increase accordingly.

### *Natural/LP Gas*

When using an extremely large natural or propane gas burner, it is possible that a high flame setting may hinder performance or cause an open flame to come up around the side of the boiler and damage the boiler handles. In this case, the gas can simply be turned down (see Troubleshooting on page 11).

### *Wood/Coal*

When operating on a wood or coal burning stove, Distiller must sit on a flat, level, well-supported, stable surface. Close monitoring is recommended during operation. Be sure boiler and water coolant tray assembly are properly filled, especially during continuous production.



**IMPORTANT:** Unit **WILL NOT** perform on induction type heat sources.



**WARNING:** To prevent personal injury, burn and/or scalding, **DO NOT** change position or location of Distiller or remove water coolant tray assembly (fig. B) while Distiller is operating or cooling. Boiling water or steam can cause severe burns. Let cool at least one hour after a cycle is finished or interrupted before removing water coolant tray assembly.

## HELPFUL TIPS

- **DO NOT** use collection/storage container to store liquids other than purified water. Liquids other than purified water may transfer a taste or odor.



- If you have other tasks to perform while operating Distiller, take the timer with you so that the alarm at the end of the cycle can be detected. The boiler, like other cookware, should **NEVER** be allowed to boil dry. All cooking safety rules apply to this product and should be observed. Close supervision is necessary when this or any appliance is used near children.
- Usually the water coolant trays will have enough water to last a complete cycle. In some cases, depending on heat source, the lower water coolant tray(s) may run out of water before the end of the cycle. If that happens, refill tray(s) as needed.
- When using an electric stovetop with a shiny reflector under the burner, there is a large loss of energy from the burner if the reflector is soiled or dull. Keep these reflectors shiny or replace them to save energy and to get a higher burner output.
- Periodically place the boiler on a flat surface and pour a little water into the collection cup at a slow rate to simulate distillate flow. Water should drain downhill out of the collection cup and to the outside of the boiler without overflowing cup. If it doesn't, the collection cup assembly has been inadvertently bent (see Level Test on page 7).
- Periodically check vent cap on top of water coolant tray assembly. Vent cap should be loose, **NOT** jammed down tightly onto the top tray.
- All components, especially the boiler assembly, should dry out when not in operation. Removal of fill spout cap during storage will allow the entire unit to dry out.
- This Distiller is a precision built instrument and should be treated as such. **DO NOT** stack heavy weights on it, or otherwise bend or distort any of the components. All parts must be in place for maximum operating efficiency and performance.

## TROUBLESHOOTING

<i>Problem</i>	<i>Possible Cause</i>	<i>Solution</i>
<b>No water production.</b>	Heat source not activated. Not on flat, level, well-supported, stable heating surface. Little or no water in boiler. No downhill slope from collection cup to collection/storage container.	Activate heat source. Stabilize heating surface. Fill boiler (fig. C). Check collection cup and downward flow (page 7).
<b>Slow water production.</b>	Low/cool heat source.  Inadequate downhill slope from collection cup to collection/storage container.	Turn up heat, or move to larger burner or heat source. Check collection cup and downward flow (page 7).
<b>Slow water production. (Steam leaks from boiler or water coolant trays and/or excessive steam from distillate tubing.)</b>	Too much heat. Vent cap too tight.  Water coolant tray assembly not properly seated on boiler. One or more water coolant trays out of water.	Turn down heat. Allow unit to cool, loosen vent cap. Allow unit to cool, seat evenly on boiler. Fill the water coolant tray(s).
<b>Water has unusual taste.</b>	The boiler has been overfilled. Boiler screen not in place. Boiler not thoroughly cleaned and rinsed. Collection/storage container needs cleaning.	DO NOT overfill boiler (fig. C). Place screen in boiler. Clean and rinse (page 8). Clean collection/storage container (page 8).
<b>Water or steam spurting from distillate tubing or between water coolant trays.</b>	Heat source too high/hot. Vent cap jammed down tightly onto top of water coolant tray assembly.	Reduce heat to complete cycle. When unit has cooled, remove vent cap and replace it loosely.

**Contact qualified service personnel for repair if above troubleshooting tips fail.**

# WARRANTY REGISTRATION CARD

Please fill out and return the enclosed registration card or register online at  
<http://www.waterwise.com/warranty>

Registration will not affect warranty coverage, but may expedite processing of your warranty. Registration is the only way to guarantee you will be notified by Waterwise of any issues that arise concerning this product.

## OWNER'S LIMITED WARRANTY

Waterwise warrants, to the original purchaser, all stainless steel parts against defects in materials and workmanship, for a period of two (2) years from the date of purchase. Defects or failures due to shipping/handling, improper use or maintenance, including abuse or neglect, normal wear, water conditions, accidents, alterations or modifications, or unauthorized repair are specifically excluded from this warranty. No dealer, distributor, agent, representative, or other person is authorized to extend or expand this warranty.

Waterwise is not responsible or liable for personal injury, property damage, or incidental or consequential damages arising out of, or in connection with, the use or performance of the product or other damages with respect to loss of use, or costs of removal, installation, or reinstallation.

Waterwise will, at its option, replace or repair the defective part(s) without charge, provided they are returned, transportation prepaid by owner, to an authorized service facility or to the address below. Enclose a letter describing the problem, copy of dated proof of purchase, and your name, address and daytime telephone number.

This limited warranty does not guarantee uninterrupted service. Repair or replacement as provided under this warranty is the exclusive remedy of the purchaser. This limited warranty is in lieu of all other warranties, expressed or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular use or purpose. This warranty gives you specific legal rights and you may also have other rights which vary from state to state or province to province.

Outside the United States, a different warranty may apply. For details, please contact your authorized Waterwise distributor.



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