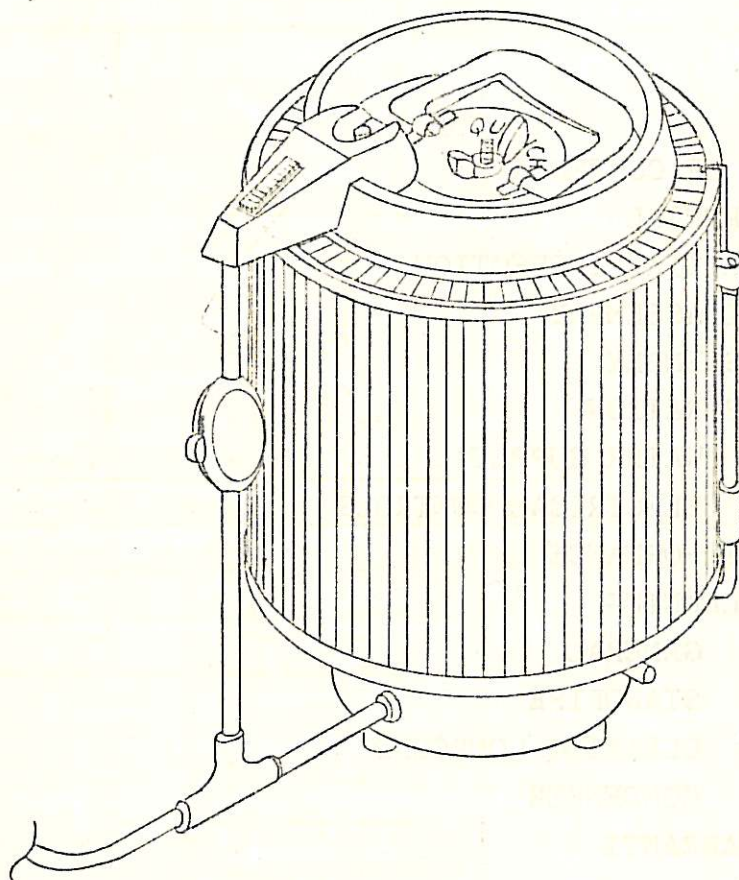


DIRECTIONS FOR  
THE QUENCH<sup>®</sup> MODEL 102E  
WATER PURIFIER/DEMINERALIZER

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FIGURE 1  
QUENCH<sup>®</sup> MODEL 1.02E,  
ASSEMBLED

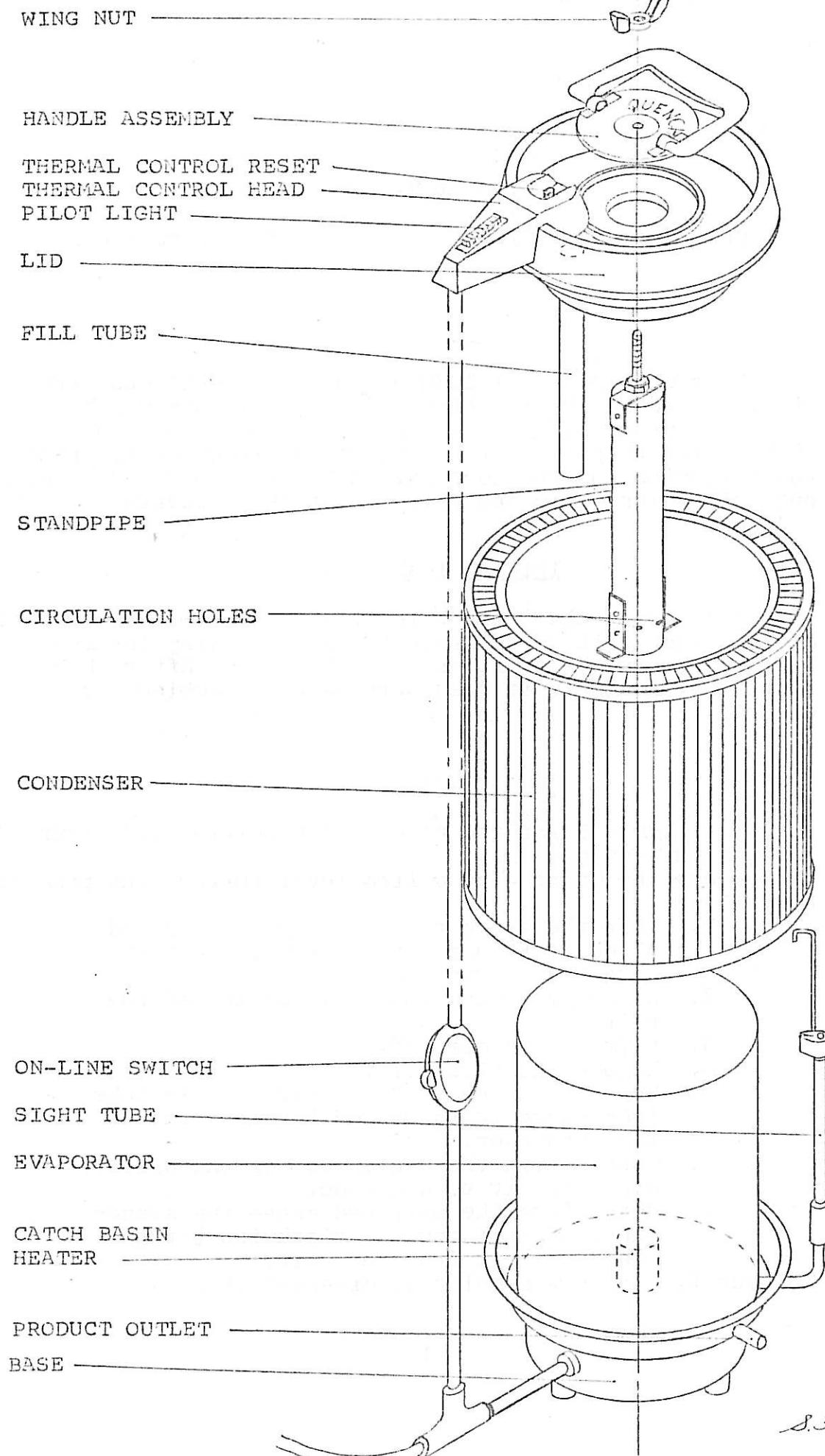


FIGURE 2: QUENCH® MODEL 102E COMPONENTS

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## DIRECTIONS FOR

### The Quench® Model 102E Water Purifier/Demineralizer

#### GENERAL

Your Quench® Model 102E produces an ample quantity of distilled water with little attention. Since the unit can burnout if operated dry (without water), or without the thermal shutoff switch in place, please read the following instructions carefully to assure satisfactory operation, long life and validity of the warranty.

#### INITIAL INSPECTION

When using the Quench® for the first time, disassemble and reassemble it as outlined in the following instructions in order to become familiar with the unit. After this initial disassembly it need only be disassembled for cleaning.

#### DISASSEMBLY

See figure 1 for the assembled condition and figure 2 for Quench® components.

Place the Quench® on a firm level surface and proceed as follows:

1. Lift the black thermal control head and place it to one side. It will still be attached to the unit.
2. Remove the wing nut from the top of the unit.
3. Lift the handle off.
4. Remove the black lid.
5. Remove the top of the clear plastic tube from where it is wedged between fins on the condenser.
6. Gently lift the condenser off the assembly and place it to one side.
7. Reach into the unit and grasp the stand-pipe, turn it counter clockwise  $\frac{1}{4}$  turn and remove it from the unit.

The purifier is now completely disassembled.

## ASSEMBLY

See figure 2 for Quench<sup>®</sup> components.

Replace the standpipe by inserting it over the heater and turn it clockwise  $\frac{1}{4}$  turn. Place the condenser on the evaporator making sure the lower end of the condenser properly sits onto the catch basin of the evaporator. The black lid has a fill tube inserted into it. If it has fallen out due to vibration during shipment, place the lid on a table and press the fill tube into the hole in the lid from the top. Replace the lid on the purifier and the handle disc over the bolt protruding from the standpipe. Tighten the wing nut on the standpipe bolt until it is just firm. Return the sight tube to a vertical position by wedging the clip between a pair of fins on the condenser. Slip the large diameter clear plastic tube, or a metal tube, over the tube coming from the catch basin. This will serve as the pure water product tube. Place it to drain into a container you select for your pure water. Align the hole in the lid with the thermal control head. Seat the control head firmly on the rim of the lid with the alignment fin of the head projecting into the fill tube hole. Be careful with this as the unit will not automatically shut off and will burn out if the thermal switch is not over the fill tube hole. See figure 1 for the assembled condition. The unit is now ready for operation.

## OPERATION

### WATER SUPPLY

After the unit is reassembled fill it with the cleanest, warmest raw water available by pouring it into the black lid. (See performance section of these instructions.) Watch for the water level in the sight tube on the side of the unit and stop when it reaches the sight tube black clip.

The Quench<sup>®</sup> purifier/demineralizer has been tested using tap water, San Pedro harbor water, sea water and raw sewage. Good, pure tasting potable water was produced by the first three. The distilled water produced from the sewage was safe to drink and free of bacteria, but contained odors extracted from organic materials present. Obviously, one should use the cleanest raw water available.

The Safety Solution provided with the unit is an antifoaming agent. If your raw water produces persistent foam when boiling, it could cause a carry-over of foam

from the raw water to the pure water side. This can be prevented by adding 5 to 10 drops of Safety Solution to each batch of raw water used. If, in an emergency, you should need to use raw water that smells bad (e.g. from sewage or stagnant wastes) strain it first to remove any obvious solids. Boil the raw water 10 to 20 minutes in an open pan to remove as many volatiles as possible. Then fill the purifier. The product water will be safe and potable even though there may be some residual odor.

Place a container under the product tube to collect the distilled water, being sure that the end of the product tube will not go below the surface of the distilled water level as the container fills.

#### ELECTRICAL CONTROLS

Turn the switch to "off" and plug the unit into a 110--120 volt outlet capable of delivering 800 watts. Turn the switch to "on". If the red light goes on the power is being supplied to the unit and the Quench® is operating. If the red light does not go on, press the small post on the top of the thermal control to reset it. The red light will come on and power will be supplied to the heater for operation.

The unit will produce about a gallon of distilled water before automatically shutting off. No further attention is necessary. To use again, add fresh raw water and reset the thermal switch by pressing the control post down until the switch clicks and the red light goes on.

When first using your new Quench®, the first several batches of pure water you produce should be discarded. This will insure the cleansing of any dust or foreign particles that may have accumulated in transit, and will give you a purer product water.

Since the heater will burn out if operated dry (no water in the evaporator) be sure the red light is off when there is no water in the unit. It is highly desirable to turn the line switch to "off" when the unit is not in regular service or when it is disassembled for cleaning so that an inadvertent resetting of the thermal control and plugging the unit in when dry will not cause a burnout.

#### PERFORMANCE

Thirty to sixty minutes after the unit is started, depending on the temperature and composition of the raw water, pure demineralized water will begin to flow from the product tube. The hotter the raw water the less time

it takes for Quench<sup>®</sup> to start producing. In about four hours a gallon of pure distilled water will be produced and the unit will shut-off. In a cool room or in an area where there is a breeze, the condenser will condense all the steam into water that the 800 watt heater can evaporate. In a warm room with no breeze, the condenser will not be able to condense all the steam, hence, some steam will come out of the product tube and from around the lid. The Quench<sup>®</sup> is not a pressure vessel and there is no danger of a steam explosion. If excess steam is produced, simply provide a little breeze on the condenser.

### CLEANING

#### GENERAL

The cleaning operation is essential for maintaining the performance and warranty of the unit and provides a reminder that Quench<sup>®</sup> is removing impurities from your raw water.

Disassemble and clean the unit after the first few uses so that you can see what sort of impurities have been removed and judge how often to clean the unit.

Do not wet the base of the unit or immerse it in water.

#### STANDPIPE

How often you will have to clean your unit depends on the amount of scale formed inside. The use of very hard water as a water source may require the evaporator to be cleaned weekly. Other waters may require cleaning every 3 weeks or less often. Check the bottom four inches of the standpipe and circulation holes for scale formation. You should clean the unit frequently enough to keep this area free of scale. If scale is allowed to accumulate here, no water will circulate to the heater and it will burn out.

#### CLEANING COMPOUND

Quench<sup>®</sup> Cleaning Compound has been especially selected for cleaning your Quench<sup>®</sup> unit without damaging its glass-like coating. A supply can be obtained through your Quench<sup>®</sup> distributor. This compound should be used as follows:

1. Put on rubber gloves to avoid skin irritation.
2. Fill the evaporator, with its standpipe installed, with water to within one inch of the top.
3. Add to the water two tablespoons of Quench<sup>®</sup> Cleaning Compound.

4. Connect the unit to a 120v. AC electrical outlet, turn the unit on bring the water to a boil, and let it boil for 1-1½ hours. Disconnect the unit and allow it to cool. DO NOT LEAVE IT UN-ATTENDED LONG ENOUGH TO RUN DRY.
5. Empty the evaporator and rinse it thoroughly at least four times with cold water. Be sure to rinse the sight tube and standpipe as well. Use a soft plastic scouring pad to remove any adherent scale. BE CAREFUL: VIGOROUS SCOURING OF THE EVAPORATOR WILL SCRATCH ITS SURFACE.
6. When re-using your Quench® unit, discard the first several batches of product water. This will insure the purity of the water you use for your personal consumption.

CAUTION: ACTIVE INGREDIENT IS SULFAMIC ACID. THIS PRODUCT CAN CAUSE SKIN IRRITATION AND INJURY TO EYES. AVOID PROLONGED CONTACT WITH THE SKIN. DO NOT GET IN EYES. IN CASE OF SKIN CONTACT, FLUSH WITH PLENTY OF WATER FOR 15 MINUTES. FOR EYES, GET MEDICAL ATTENTION. DO NOT TAKE INTERNALLY. IF ACCIDENTAL INGESTION OCCURS, IMMEDIATELY CONTACT A PHYSICIAN. DO NOT INDUCE VOMITING.

THE SURFACTANTS IN THIS PRODUCT ARE BIODEGRADABLE.

#### CONDENSER

Cleaning for the remainder of the Quench® is simple. During operation steam condenses in the annular (doughnut-shaped) opening between the evaporator and condenser. The condensate runs down into the catch basin (like a little rain gutter). Since the condensate is pure distilled water, the outside of the evaporator and the inside of the condenser will never get "dirty". they need only be protected and wiped dry when the unit is disassembled for cleaning.

When cleaning the evaporator, be careful to avoid damaging the edge of the catch basin.

#### WARRANTY

The Quench® is guaranteed against defects in materials and workmanship for a period of one year after purchase, except for the plastic sight and product tubes. This Warranty does not cover transportation to and from a point of repair or shipping costs for replacement parts unless specifically stated by your Quench® distributor.

Now fill out the enclosed warranty card and return it to your Quench® distributor. This will assure you of proper warranty protection.