

## SONAER ATOMIZER 40kHz

### Special Operating Instructions:

This ultrasonic atomizer operates the same as all of Sonaer's atomizers manufactured. The difference is the titanium extension. Parts are held together with threads to assure proper coupling of ultrasonic energy.

The titanium extension is to be secured to the threaded atomizer transducer with 9/32 inch open end wrenches. Do not over tighten, but make a nice firm connection. Never hold case and tighten titanium extension with one wrench, this will cause wires inside k probe case to twist and break off, no warranty will apply.

Use two wrenches to tighten and remove titanium extension from probe. A loose connection will cause the WATT meter on the front panel of the generator ( see SONOZAP ATOMIZER OPERATING INSTRUCTIONS that came with the unit for more information) to read very high.

**The generator under normal operating conditions should not read more than 10-12 WATTS.** If it does, shut unit off and assure connections are tight or liquid is between the threads. Leaving it in this condition could harm generator. This unit when operated properly will run all day and night. **Temperature inside of generator should not exceed 100 degrees F.**

To begin operation at room temperature. The atomizer frequency will be close to 40kHz, as displayed on the front panel. Increase temperature while monitoring the frequency and case temperature. Use cooling ports to keep temperatures low. As the tip heats up, the frequency should move downward, the hotter it gets, the lower the frequency will read. This atomizer generator will track the change in frequency indefinitely. **Keep temperature of case at 150 degrees F or less. Keep temperature of titanium above thread under 212 degrees F. Prevent heat propagation form entering the case portion.**

After the atomizer tip reaches operating temperature (1000+ degrees F), shutting generator off and turning on will cause the generator to assume the probe is at room temperature. It might be out of range if the probe goes 1000Hz below where it was when at room temperature, in this case will cause the generator to display "Check probe loading or connection". Shut off and let cool before re-operating atomizer, otherwise one can resume as before.

To operate correctly, power the probe. Adjust the power with up/down arrows. Begin to pump liquid through probe. As the liquid reaches the probe tip, it should start to atomize. When finished, shut the pump off and let all the liquid inside the probe empty. Disable power to the probe. Repeat sequence above for proper operation.

If the generator provides an error to check probe loading, liquid is in the probe preventing it from operating at the frequency of the probe. Blow liquid out with air and restart. This

can happen if the power to the probe is shut off and then the liquid is turned off. Liquid must be turned off first, then the power.