

# MISONIX

## Ultrasonic Liquid Processors

The new **Sonicator 4000** is the world's most advanced ultrasonic processor. A variety of new features including digital processing and touch screen control make this the most intuitive and easy to use system available. Output amplitude is controlled from 0-100% giving a greater degree of resolution and the ability to pinpoint the amplitude needed to effectively process your sample.

The Sonicator tracks frequency changes in the convertor / tip assembly caused by load and temperature changes and maintains electrical efficiency at all times. This results in more efficient operation and consistent, reproducible results. Self diagnostics and help screens make operation simple and trouble-free.

### Features:

- Fully digital design
- Touch screen control
- Self diagnostics
- Able to run multiple programs in sequence
- Energy delivered display (joules and watts)
- Ability to download new features and software updates through e-mail

### Applications:

- Cell Disruption
- Nanotechnology
- ChIP Assay
- Homogenization
- Disaggregation
- Sample Prep



Sonicator 4000

**NEW**

### DIRECT OR INDIRECT SONICATION Which one is best for you?

**Direct** sonication (inserting a probe directly into your vessel) is the most popular way to sonicate a sample. This method offers high intensity and effectively processes most samples.

The probe tip diameter dictates the amount of sample that can be effectively processed. Smaller tip diameters (Microtip probes) deliver high intensity sonication but the energy is focused within a small, concentrated area. Larger tip diameters can process larger volumes, but offer lower intensity. Probes are offered with either replaceable or solid tips.

**Indirect** sonication eliminates the need for a probe to come in contact with your sample. This technique is often described as a high intensity ultrasonic bath, capable of processing multiple sample vessels at one time.

Indirect sonication is most effective for very small samples because foaming and sample loss are eliminated. Pathogenic or sterile samples are ideal for this method because aerosols and cross contamination are prevented.

The Cup Horn and Microplate Horn deliver indirect sonication. Simply place your microtubes or microtiter plate within the water filled reservoir and the sonic energy is transferred into each individual well. These units are ideal for high throughput applications.



96 Probe



Floccell



Dual Horn



Microtips



Microplate Horn



Cup Horn

# Sonicator 4000

Key features of the Sonicator 4000 are touch screen control and internal diagnostic capabilities. The following images are actual screens from the Sonicator.



This screen is an example of a program in progress. Amplitude, pulse on/off time, temperature and energy delivered values are all clearly displayed.



The Sonicator's fault detection circuitry has detected a failure. A self diagnostic test will identify the problem and give instructions on how to clear the error.

## Specifications:

Power Rating	600 Watts
Operating Frequency	20 kHz
Input	100 – 240V, 50 - 60Hz
Programmability	10 memories plus sequencing
Programmable Timer	1 second to 72 hours
Adjustable Pulse On/Off	1 second to 24 hours
Regulatory	UL, CE, RoHS Compliant
Dimensions	11" wide x 20" long x 5.5" high
Shipping Weight	27 lbs.

## Part # S-4000 includes:

- Generator
- Convertor with cable
- ½" replaceable tip horn
- Power cable
- Wrench set
- Owners Manual

## Recommended Accessories:

- Sound Enclosure
- Microtips
- Cup Horns / Microplate Horns



Sound Enclosure  
with optional Jack Stand