

**SONIFIER® Superiority**

**Cell Disruption and More**

The Sonifier product line, originally established as the benchmark in cell disruption, has become a liquid processing workhorse in the laboratory. Applications include:

- Emulsification of immiscible liquids
- Disaggregation and dispersion
- Homogenization
- Chip assay
- Acceleration of reactions
- Cell lysing
- Processing DNA and proteins
- Leaching and extraction

Each Sonifier system consists of a power supply, converter, and mechanically tuned processing horn. Standard units are available from 100 to 1000 Watts for matching the equipment to your application.

A wide variety of specialized tools, chambers, and accessories are available to accomplish specific effects. In addition to many standard disruption horn sizes, Branson offers flow-through horns, high intensity cup horns, biohazard processing cells, sound reduction enclosures, and much more.



*All Sonifier units carry a 2 year worldwide warranty.*

**Higher Volume Liquid Processing**

Static processing of high liquid volumes or processing liquids in a continuous stream generally requires greater ultrasonic power output to maintain appropriate power density per unit volume per unit time. Branson offers systems to meet these higher volume applications.

The Sonifier 2000bdc at 1000 Watts can process up to 10 GPM per processing cell. This 20 kHz system passes process fluid through a confined chamber in close proximity to a high energy ultrasonic horn.

For additional information, call 800-732-9262.



Description	Part Number
2000bdc Continuous Duty Ultrasonic Power Supply	101-132-661
CR-20 Converter	101-135-060
J931 Cable, 8'	101-240-017
Liquid processing cell to be determined by application	

**Sonifier 250/450 Accessory Connection Chart**



\*Other sizes available. Call (800) 732-9262

**Branson – The Leader in Ultrasound Technology Since 1946**

Norman G. Branson founded Branson Instruments in 1946 to harness ultrasonic energy for commercial purposes. In the continuing quest to introduce new technologies, Branson began marketing a Sonifier® ultrasonic cell disruptor for biological research in 1960. This has now grown into a full line of products and accessories to meet the demanding needs of this rapidly expanding market. These Sonifier products joined existing ultrasound businesses in the areas of flaw detection, precision cleaning, and plastic joining. Today, Branson is a world leader in all of these technologies.

With over 1800 employees, 70 sales and service offices, and a half dozen manufacturing facilities worldwide, Branson has developed substantial resources for global customer support. Let us put these resources to work for you.

ISO 9001 ISO 14001 CE FCC

**BRANSON**

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**Sonifier® Ultrasonic Liquid Processing**

**BRANSON**  
Sound Business Solutions



## SONIFIER® Cell Disruptor

Branson Sonifier analog products use traditional analog technology to produce the same reliable results you have received from Branson for over 60 years. Automatic amplitude compensation provides constant horn amplitude at different energy levels encountered during sample processing. The broad-band tuning feature precisely adjusts the 20 kHz output frequency to optimum levels even when process tooling is changed.

The analog control package includes:

- Autotune plus Memory (AT/M) – provides fully-automatic tuning and stores frequency at the end of each cycle
- Adjustable output power to meet the needs of each application
- Energy pulsing to minimize heating of sensitive samples
- Mechanical timer to limit process time while freeing the operator
- An output meter to monitor process power and provide for repeatability

All of these features are housed in a rugged, compact package with slanted front control panel for clear visibility and easy access. All units are supplied as an operational package including power supply, converter, and standard disruptor horn.



Model	Output	Dimensions	Weight	Part Number	Input Power	Included Horn
S-250A	200 Watts	7 3/8" x 17 5/8" x 9 5/8" 187.32 x 447.68 x 244.48 mm	19 lbs. 9.07 kg	101-063-196 101-063-197	115 Volt, 60 Hz, 1Ø 230 Volt, 50/60 Hz, 1Ø	1/2" Tapped
S-450A	400 Watts	7 3/8" x 17 5/8" x 9 5/8" 187.32 x 447.68 x 244.48 mm	25 lbs. 11.34 kg	101-063-198 101-063-199	115 Volt, 60 Hz, 1Ø 230 Volt, 50/60 Hz, 1Ø	1/2" Tapped
S-450A	400 Watts	7 3/8" x 17 5/8" x 9 5/8" 187.32 x 447.68 x 244.48 mm	25 lbs. 11.34 kg	101-063-200 101-063-201	115 Volt, 60 Hz, 1Ø 230 Volt, 50/60 Hz, 1Ø	3/4" Solid

Note: Below accessories for use with 250 and 450 units only.



## SONIFIER® Cell Disruptor

Branson Sonifier digital products take advantage of benefits enabled by newer digital technology. This is particularly useful where precise process control and parameter measurement is required. These 20 kHz units include automatic amplitude control, broad-band tuning, and include enhanced features like:

- Autotune plus Memory (AT/M) – provides fully-automatic tuning and stores frequency at the end of each cycle
- Multiple mode operation – continuous, pulsed, timed, and temperature end-point
- Setup menu in five languages
- Digital parameter setting with valid parameter range checking
- Digital timer (9 hours, 59 minutes, 59 seconds)
- Amplitude is adjustable from 10-100%
- User I/O offers remote start/stop control and the ability to view temperature, amplitude, and power values during experiments
- Automatic end-of-cycle shutoff using limit parameters
- Self diagnostics on start-up
- Twenty user-programmed presets for convenience

All units have digital controls including a membrane switch for easy data entry, 10-hour timer, digital watt-meter, 80 character LCD display to monitor parameters, and much more. The parallel printer interface and RS-232C serial computer interface add even more utility. All units are supplied as an operational package including power supply, converter, and standard horn.



Model	Output	Dimensions	Weight	Part Number	Input Power	Included Horn
S-250D	200 Watts	7 3/8" x 17 5/8" x 9 5/8" 187.32 x 447.68 x 244.48 mm	20 lbs. 9.07 kg	101-063-588 101-063-589	115 Volt, 60 Hz, 1Ø 230 Volt, 50/60 Hz, 1Ø	1/2" Tapped
S-450D	400 Watts	7 3/8" x 17 5/8" x 9 5/8" 187.32 x 447.68 x 244.48 mm	22 lbs. 9.98 kg	101-063-593 101-063-591	115 Volt, 60 Hz, 1Ø 230 Volt, 50/60 Hz, 1Ø	1/2" Tapped
S-450D	400 Watts	7 3/8" x 17 5/8" x 9 5/8" 187.32 x 447.68 x 244.48 mm	22 lbs. 9.98 kg	101-063-590 101-063-592	115 Volt, 60 Hz, 1Ø 230 Volt, 50/60 Hz, 1Ø	3/4" Solid

## SONIFIER® SLP Series

The Branson Sonifier SLP Series – available in both time and energy (joules) models – are capable of processing today's laboratory requirements. Software prevents inappropriate data entry and sounds an alarm if the process moves outside set limits.

The SLP Series units include the generator/power supply, converter, 1/8" microtip, all interconnects, and an I/O port for external control. They operate at 40 kHz, 50/60 Hz.

- Autotune plus Memory (AT/M) – provides fully-automatic tuning and stores frequency at the end of each cycle
- Digital parameter entry for precise, easy setup
- Digital amplitude control allows for critical applications (range from 10% to 100% in 1% increments)
- Continuous or pulsed operation
- LED readout displays parameter settings during setup and operation for easy reference and monitoring
- Provides storage of last-used cycle parameters even if the system is shut off or a power interruption occurs
- Local or remote (p/c) control capability
- Total processing time: 1 second to 99 hours (SLPt unit)
- Adjustable total energy: 1 to 10,000 joules (SLPe unit)



Model	Output	Dimensions	Weight	Part Number	Input Power	Included Horn
SLPt Time	150 Watts	7 3/4" x 13 1/4" x 9" 196.85 x 338.58 x 228.6 mm	17 lbs. 7.71 kg	101-063-723	117 Volt, 1Ø, 50/60 Hz, 2 amps	1/8" Microtip
SLPt Time	150 Watts	7 3/4" x 13 1/4" x 9" 196.85 x 338.58 x 228.6 mm	17 lbs. 7.71 kg	101-063-724	240 Volt, 1Ø, 50/60 Hz, 1 amps	1/8" Microtip
SLPe Energy	150 Watts	7 3/4" x 13 1/4" x 9" 196.85 x 338.58 x 228.6 mm	17 lbs. 7.71 kg	101-063-726	117 Volt, 1Ø, 50/60 Hz, 2 amps	1/8" Microtip
SLPe Energy	150 Watts	7 3/4" x 13 1/4" x 9" 196.85 x 338.58 x 228.6 mm	17 lbs. 7.71 kg	101-063-727	240 Volt, 1Ø, 50/60 Hz, 1 amps	1/8" Microtip

Note: Other microtips available.

### Rosette Cell

Branson's Rosette Cell provides a unique flow pattern of substances for exposure to ultrasonic energy during circulation through the cell. When it is immersed in a cooling bath, the enlarged glass surface area and circulation through the side arms provide an efficient means of heat exchange. Three sizes are available.



### Acoustic Sound Enclosure

The Branson Acoustic Sound Enclosure creates a sound barrier that reduces the ambient noise level a minimum of 24 dBs from the working environment. Its small footprint allows for placement in virtually all laboratory or medical locations.

