

**Elevate Your Sample Processing
with Precision and Efficiency
with SFX Series Sonifiers**



Branson™ Sonifier® Series SFX250 and SFX550
Cell Disruptors and Homogenizers



Ultimate Control and Ease of Use

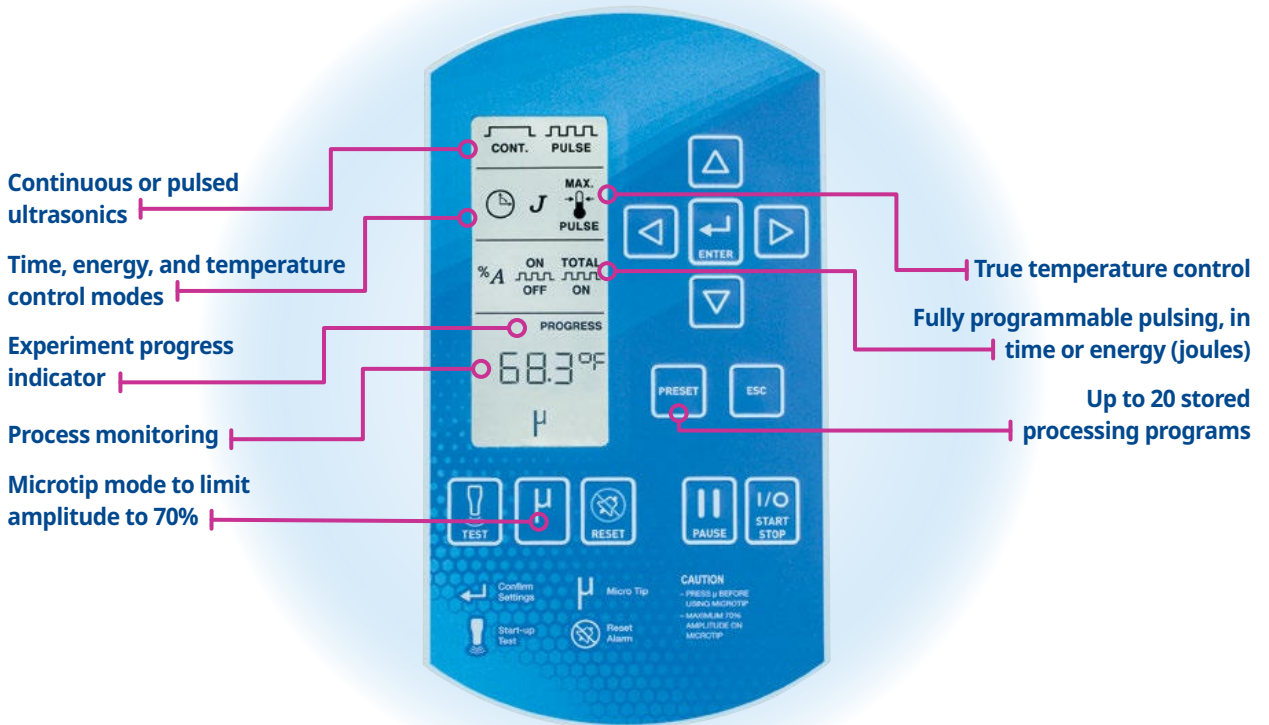
All SFX Series Sonifiers feature a digital, intuitive interface flanked by easy-to-use pushbuttons. The screen and buttons provide one-touch access to all control parameters and modes of operation.

Advanced Control Modes. In Energy Mode, the SFX Series power supply manages the processing cycle to deliver a precise, user-determined input of ultrasonic energy (measured in joules), either continuously or pulsed. The SFX Series automatically compensates for any variability, extending or shortening the cycle as needed to deliver the precise energy output.

True Temperature Control. (Requires separate temperature probe.) With true temperature control, the SFX Series power supply maintains the temperature of the sample to within a user-specified range, automatically adjusting the ultrasonic pulse length to regulate the temperature rise and prevent overheating.

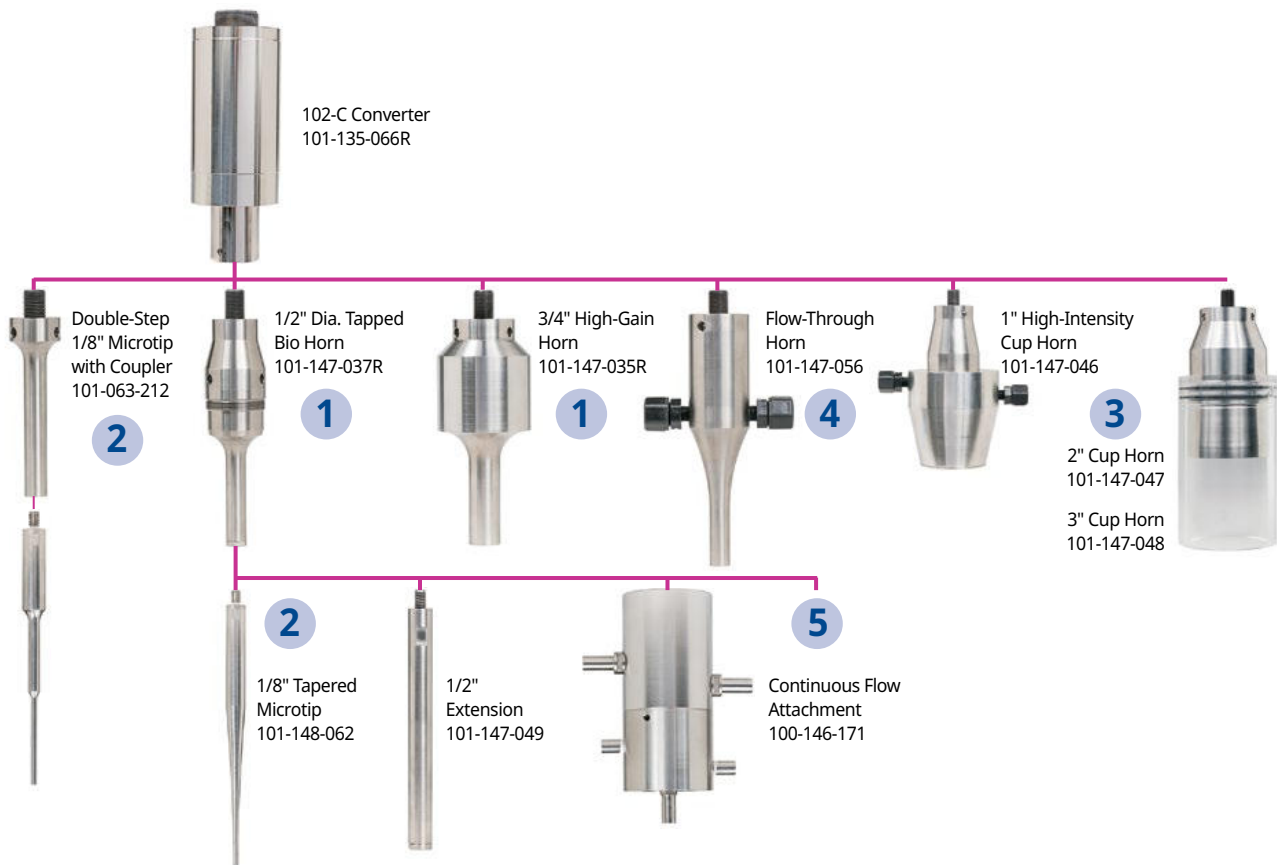
Sample-Processing Programs. For assured repeatability and precision on a greater scale, the SFX Series enables users to create and store up to 20 sample-processing programs. Program parameters include continuous or pulsed ultrasonics; time, energy, or temperature control modes; pulse on-time/energy, off-time, and total on-time/energy; or amplitude as a percentage.

Process Monitoring. In operation, Sonifier SFX Series monitors ongoing processes on a scrollable, digital screen, providing continuous updates of key variables including power level, energy usage, sample temperature, and experiment progress.



Sonifier SFX Series: Tips and Accessories

Sonifier SFX Series can be equipped with a wide range of specialized tools and accessories to meet specific application requirements.



- 1 Disruptor horns:** These horns are designed to process a wide variety of applications and are available in standard sizes ranging from 1/2" to 1" in diameter.
- 2 Microtips:** These smaller, high-intensity tips are ideal for processing smaller samples in Eppendorf vials or similar vessels. Available in stepped or tapered designs, with sizes ranging from 1/8" to 1/4".
- 3 Cup horns:** These specialized horns permit high-intensity sound to be applied to multiple samples without direct horn contact. Available in 2.0" or 3.0" diameters (3.0" for SFX550 only).
- 4 Flow-through horns:** These horns offer the ability to pass a process liquid through an intense energy field within the horn itself. Dual ported horns permit the emulsification of two dissimilar liquids in controlled, continuous proportions.
- 5 Continuous flow attachment:** This temperature-controlled chamber permits continuous processing of a flowing liquid through a high-intensity ultrasonic field.

Sonifier SFX250 / SFX550



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.



Acoustic Enclosure: Operating a Sonifier SFX Series in the Soundproof Enclosure can minimize mechanical noise produced by ultrasonic processing. The sturdy cabinet is lined with waterproof, sound-absorbing material, which is impervious to most solutions or laboratory reagents and can be cleaned easily. A fully transparent door enables viewing of the process while limiting the noise to an acceptable level.



Stand and Converter Holder: The support stand with stainless steel rod accommodates Branson's 20 kHz converter. The converter holder supports the ultrasonic stack (converter and horn) and is adjusted easily to properly position the horn in the sample.

Sonifier SFX250 / SFX550

Overview

The Branson SFX250 and SFX550 are part of the SFX Series of Sonifiers from Emerson, designed to bring the industry's most advanced sample-processing capabilities to your laboratory.

The SFX Series brings a new level of ease, precision, and repeatability with advanced energy and temperature control modes, process monitoring capabilities, and programming features.



Sonifier SFX250 Model

- 250 watts of power at 20 kHz
- Processes samples from 0.2 up to 500 mL
- Includes power supply, converter and 1/2" disruptor horn

Sonifier SFX550 Model

- 550 watts of power at 20 kHz for high-volume processing
- Processes samples from 0.2 to 1000 mL
- Includes power supply, converter, and choice of 1/2" or 3/4" disruptor horn

Sonifier SFX250 and SFX550 Features



- Advanced energy control mode delivers precise energy input in continuous or pulse modes.
- True temperature control manages sample temperature within user-specified limits (requires separate temperature probe).
- Control modes include time, temperature, and energy.
- Continuous or pulsed ultrasonics.
- High-efficiency, stand-mountable converter requires no internal cooling.
- Scrollable, multifunction screen with pushbuttons.
- In-process feedback displays experimental progress together with key variables such as power level, energy usage, and sample temperature.
- Microtip mode limits amplitude to 70% to extend tool life.
- Amplitude control range from 10 to 100%.
- Powerful 20 kHz ultrasonics.
- Up to 20 stored programs. Programmable parameters include continuous or pulsed ultrasonics; time, energy, or temperature control modes; pulse on-time/energy, off-time and total on-time/energy; or amplitude as a percentage.

Ordering Information

| Model | Part Number | Input Power | Output Power | Dimensions | Weight |
|-----------------------|--------------|-------------|--------------|--|---------|
| SFX250 with 1/2" Horn | 101-063-965R | 120 V | 250 watts | 12.5" (318 mm) L x 7.5" (191 mm) W x 9.25" (235 mm) H | 14 lbs. |
| SFX250 with 1/2" Horn | 101-063-966R | 240 V CE | | | |
| SFX550 with 1/2" Horn | 101-063-969R | 120 V | 550 watts | 12.5" (318 mm) L x 7.5" (191 mm) W x 9.25" (235 mm) H | 14 lbs. |
| SFX550 with 1/2" Horn | 101-063-971R | 240 V CE | | | |
| SFX550 with 3/4" Horn | 101-063-968R | 120 V | 550 watts | 12.5" (318 mm) L x 7.5" (191 mm) W x 9.25" (235 mm) H | 14 lbs. |
| SFX550 with 3/4" Horn | 101-063-970R | 240 V CE | | | |

Accessories Ordering Information

| Catalog No. | Description | Catalog No. | Description |
|--------------|--|--------------|--|
| 200-060-022R | Temperature probe | 101-148-062 | Tapered 1/8" diameter micazrotip for 1/2" tapped horn |
| 101-063-275 | Acoustic enclosure (20-25 dB reduction) | 101-148-069 | Tapered 3/16" diameter microtip for 1/2" tapped horn |
| 101-147-037R | 1/2" diameter stepped disruptor horn | 101-148-070 | Tapered 1/4" diameter microtip for 1/2" tapped horn |
| 101-147-043 | 3/4" disruptor horn with solid tip | 101-063-212 | Double step 1/8" diameter microtip with coupler for direct attachment to the converter |
| 101-147-035R | 3/4" diameter high-gain horn | 101-147-050 | Double step microtip, coupler portion only |
| 101-147-044 | 1" stepped, solid horn | 101-148-063 | Double step microtip, microtip portion only |
| 100-146-171 | Continuous flow attachment | 101-063-1108 | Lab stand with 1/2" rod |
| 101-147-046 | Cup horn, flow-through, 1" | 101-063-1110 | Converter clamp for 200-550 watt sonifiers |
| 101-147-047 | Cup horn, flow-through, 2" | 101-063-1109 | Converter clamp for 1/2" stand for 150 watt sonifiers |
| 101-147-048 | Cup horn, flow-through, 3" | 101-118-039 | Spanner wrench (qty. 1 – requires 2) |
| 100-098-249 | Adapter stud | 101-135-066R | Model 102-C converter for 250-550 watt Sonifiers |
| 101-148-013 | Replacement tip for 1/2" tapped horn (1/4-20 thread) | 101-135-126R | Traditional Converter Housing 4C15, 40KHz converter |
| 101-147-049 | Extension 1/2" diameter with replaceable tip | 101-135-254R | Ergonomic Grip 4C15HH, handheld converter |

Sonifier SFX250 and SFX550 Cell Disruptors and Homogenizers



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