



SoundTrap ST600

Underwater Sound Recorder

STD & HF models

Specification

Applications

- Marine mammal monitoring
- Fish research
- Noise monitoring
- Toothed whale click detection

Features:

- Up to 160 days battery life
- Up to 2TB of data storage on 4 x microSD cards
- Fast field swappable batteries and memory
- 60 or 150 kHz bandwidth (STD & HF models)
- Very low self-noise
- Toothed whale click detector (HF only)
- Compact and rugged titanium housing

The SoundTrap ST600 series are compact self-contained sound recorders for underwater acoustic research. SoundTrap recorders are well known for their unique ability to record high quality audio while consuming very little power.

The STD model is intended for general purpose use with 60 kHz of bandwidth while the HF model enables high frequency recording and cetacean click detection with 150 kHz of bandwidth. Both models feature very low self-noise, ensuring beautiful recordings in even the quietest places.

The ST600 series are intended for long term deployments. They can accommodate up to 12 lithium ion rechargeable batteries and 2TB of microSD memory, delivering up to 160 days of continuous recording. The batteries and memory are field swappable, allowing for fast turn around in the field.

Output files use the industry standard WAV format. The included software offers flexible deployment options for sample rate, delayed start and duty cycle.



Detailed Specifications

Bandwidth	STD 20 Hz - 60 kHz \pm 3dB HF 20 Hz - 150 kHz \pm 3dB
Self-noise	Better than sea-state 0 (100 Hz - 2 kHz) STD Less than 36 dB re 1 μ Pa above 2 kHz HF Less than 37 dB re 1 μ Pa above 2 kHz
Gain	Max level before clipping: 173 dB re 1 μ Pa.
Sample rates	STD 192, 96, 64, 48, 32 & 16 kHz HF 384, 192, 128, 96, 64 & 32 kHz
ADC	16-bit SAR
Calibration	Factory calibration certificate (single point 250Hz)
Memory	4 Slots for up to 4 x 512GB removable SDXC cards for up to 2TB total (Stores up to 6TB wav data due to advanced loss-less compression)
Batteries	12 x Panasonic NCR18650B Lithium Ion 18650 cells. Provides up to 160 days continuous operation. Batteries not included.
Click Detection	(HF model only) Allows detection and journaling of toothed whale bio-sonar clicks. Detector runs in parallel with normal recording process. Conserves memory by simultaneously using a low sample rate for WAV recording and high sample rate for click detection. See user manual for more information.
Housing	Titanium. Maximum depth is 200m, or 500m with optional safety valve. Dimensions: 530mm Long x 60mm Diameter Weight: 2.6 kg in air with 12 batteries loaded 1.2 kg in water with 12 batteries loaded