

SoundTrap

ST640



Four Channel Sound Recorder

Specification

The **SoundTrap** ST640 HF is a four-channel digital acoustic recorder designed for ocean acoustic research. Its ability to synchronously record high-bandwidth audio across four channels makes it ideal for tetrahedral and linear hydrophone arrays, supporting applications such as sound localisation and particle motion studies.

The ST640HF records signals from up to four hydrophones connected via the four wet-plug connectors. The hydrophones are pre-amplified, enabling the use of long cables and allowing array spacings of several metres. Hydrophones are available with a range of gain and bandwidths options to suit different applications.

The ST640HF can hold up to twelve rechargeable batteries and up to 2 TB of microSD storage, allowing for as much as 50 days of continuous four channel recording. Batteries and memory are field-swappable, making it easy to service and redeploy units quickly in the field.

Recordings are saved in standard WAV format, so they work easily with most analysis tools. The included software also gives you flexible setup options, including sample rate selection, delayed start, and duty cycling.



Features:

- Selectable 1 to 4 channel recording
- Up to 50 days continuous 4 channel recording
- Bandwidth 20 Hz - 150 kHz
- 384 kHz x 4 sampling
- 4 x microSD provide up to 2 TB of removable data storage
- Titanium hydrophone wet connectors
- Titanium housing with up to 500m depth rating

Detailed Specifications

Bandwidth	flat 20 Hz - 150 kHz ($\pm$ 3dB)
Sample rates	384, 192, 128, 96, 64, 48, 32 kHz
ADC's	4 x 16-bit SAR
Calibration	Self-calibration check
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)
Battery	12 x 18650 Lithium-Ion cells, providing up to 50 days continuous operation. Batteries not included.
Housing	Titanium. Maximum depth is 200m, or 500m with optional safety valve. Dimensions: 500mm Long x 60mm Diameter Weight: 2.7 kg in air with 12 batteries loaded 1.3 kg in water with 12 batteries loaded
Recommended Hydrophones (Not included)	SoundTrap HP2 HF or HTI-96-MIN/3V/Low Noise/SoundTrap/-165dB

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