CEE-LINE™ HD

SURVEY ECHO SOUNDER

Field-proven performance.
Reliable data. Indestructible.



The CEE-LINE™ is a dual-frequency echo sounder engineered for efficient, accurate bathymetric surveys in partnership with GNSS equipment. It features adaptive sonar, integrated echogram, and plug-and-play USB or serial connectivity, all in a compact IP68-rated housing built for the field.

The CEE-LINE™ is designed to integrate seamlessly into existing GNSS survey work flows, offering flexibility for a wide range of applications from environmental monitoring and shallow river mapping to construction and dredging. With support for standard data formats and field software, and no need for external batteries, it reduces setup time while producing exceptional data quality.

UNMATCHED DATA CLARITY

Real-Time Echogram: See vegetation & debris, not just a depth number

Dual Frequency: 200/33kHz precision

Fast Updates: 1-20Hz ping rate for total bottom coverage

Smart Tracking: Advanced auto-bottom algorithms

TRUE PLUG & PLAY

Zero Downtime: USB powered. No batteries. No charging.

Universal Comms: Connect via USB, RS-232 or Bluetooth

Survey With Confidence: Seamless with Trimble® Access™, Leica Captivate, HYPACK® & Hydromagic

BUILT FOR THE FIELD

Indestructible: Ceramic-coated IP68 submersible shell

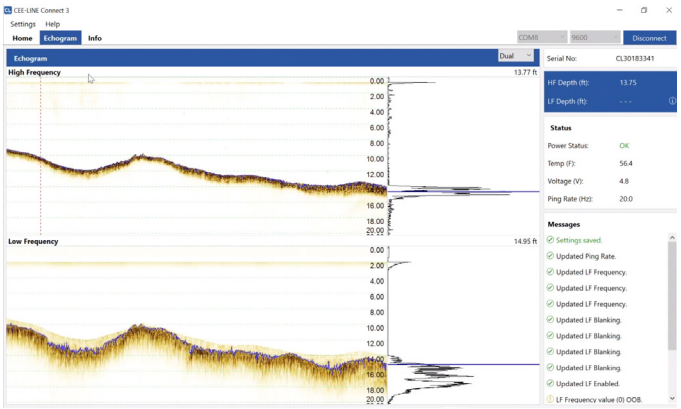
Premium Connectors: High-quality LEMO connectors

CEE-LINE™ HD SYSTEM OVERVIEW

Professional Grade High Quality Echo Sounder

Containing a super-fast processor running advanced bottom tracking algorithms, the CEE LINE™ keeps a solid lock on the bottom even in very shallow water.

With a ping rate up to 20Hz and two frequency channels 33 kHz / 200 kHz available, the CEE LINE™ continuously streams accurate depth data 20 times a second, ready to be incorporated with GNSS data.



Crystal-Clear Sonar Echogram

The CEE-LINE™ HD provides a real-time visual of the full water column not just a depth number. Interpret submerged vegetation, debris, or soft bottoms with confidence using the integrated echogram and the included CEE-LINE™ Connect software.

Record the full water column echogram for quality assurance in data processing using hydrographic software such as HYPACK®, Hydromagic or Beamworx.

CEE-LINE™ Connect Utility

With our included CEE-LINE™ Connect software, have full control of your CEE-LINE™ echo sounder. Tweak parameters on the fly, adjust tracking sensitivity, sonar frequencies, sound velocity, and view a live echogram. Intuitive for beginners yet powerful for professionals.

Compatible with GNSS Acquisition Software

The CEE-LINE™ can be trusted to work seamlessly with common acquisition utilities such as Trimble Access, Carlson SurvCE, Leica SmartWorx Viva, Captivate, and Topcon MAGNET Field as well as conventional hydrographic survey software. The CEE-LINE™ outputs several formats for trouble-free integration

Use with Field Data Collectors, Tablets and Laptops

The CEE-LINE™ is designed to operate with a large range of hand-held GNSS field controllers, tablets and laptops. Using either a USB, Bluetooth or COM port interface, simply plug the CEE-LINE™ into the acquisition device and bring in the echo sounder depth data.

No Battery Required

The CEE-LINE™ can be powered via the USB port of most data collectors, tablets or laptops. With a low power draw, the CEE-LINE™ has a minimal impact on the battery run time on a connected data collector.

The CEE-LINE™ can also be powered via an external USB power bank.

Practically Indestructible

Manufactured to exceptional quality standards, the CEE-LINE™ will withstand years of field work in harsh environments. Encapsulated electronics housed inside a solid, machined aluminium tube that has been ceramically coated to withstand the toughest environments.

CEE-LINE™ Small Boat Kit

For convenient installation on small boats, CEE-LINE™ echo sounder with 200kHz transducer is available in a surveying kit with custom brackets and mounting hardware. Everything needed to start hydrographic surveys when paired with a data collector, tablet, or PC is included in the waterproof Pelican 1560 transit case.

Includes CEE-LINE™, 200kHz transducer, transducer mounting bracket, Minn Kota bracket with custom inserts, 3 x Seco survey poles (2ft/61cm), and CEE-LINE™ pole bracket.



CEE-LINE™ HD SPECIFICATIONS

Physical

Dimensions	22 x 3.6 x 3.6 cm (L x W x D) 8.7" x 1.4" x 1.4"
Weight(typ)	555 g (1.22 lbs)
Colour	Yellow (Cerakote)
Enclosure material	Billet aluminium

Environmental

Operating Range	-20°C-60°C (4°F-140°F)
Storage Range	-20°C-70°C (4°F-158°F)
Humidity	100% condensing with connectors mated or caps installed
Ingress Protection Rating	IP68

Power

Power Consumption	1.2 W (typical) 2.5 W (max.)
Input Supply Range	4.5 – 24.0 V (USB compatible)
Absolute max. supply voltage	30.0 V

Connections

LEMO (2K 12-Pin)	USB,RS-232,TTL, Bluetooth
LEMO (2K 6-Pin)	Transducer

Communications

Echogram record length (USB)	1600 samples per channel (via USB interface)
Echogram record length (RS-232)	100 samples per channel (via RS-232 interface)
Formats	NMEA DBT, NMEA DBS, DESO 25, ODOM, CEESTAR, CEEDUCER, SONARMITE

Cable Options

Trimble TSC2/3, Topcon	Trimble / Topcon Data / Power Combo Cable (LEMO 2K, 12 Pin to DB9F/USBA, 2.2m)
CEE LINE Bluetooth	CEE-LINE Bluetooth Data / Power Combo Cable (LEMO 2K, 12 Pin to Bluetooth/USBC, 2.2m)
Trimble TSC7, Leica C35 Topcon FC5000+, Windows tablet/laptop	CEE-LINE USB Data / Power Cable (LEMO 2K, 12 Pin to USBA, 2.8m)
Leica CS15/20	Leica Data / Power Combo Cable (LEMO 2K, 12 pin to LEMO 1B 8 Pin/USBA, 2.5m)

Echosounder

Operating modes	Auto, shallow auto, manual
Depth range (HF)	0.2 – 100 m (.65 -328 ft)
Depth range (LF)	0.5 – 100 m (1.6 -328 ft)
Ping / output rate	1 – 20 Hz
Frequency range (HF)	190 – 210 kHz
Frequency range (LF)	30 – 36 kHz
Accuracy	1 cm +/- 0.1% of depth @ 200 kHz
Depth resolution	1cm
Sampling rate (HF)	1.8 MHz
Transmit power	110 W (rms), 174 W (peak)
Gain control	48 dB range (80dB inc. TVG)
Sound velocity range	1350 – 1750 m/s (4,429 - 5,741 ft) Resolution 1 m/s
Transducer draft setting	0 – 10 m (1cm increments)
Transducer index offset	0 – 1 m (1cm increments)
Pulse length	1 – 31 cycles
TVG options	None, 10 LOG r, 20 LOG r
Manual detection threshold	1 – 50 %
Blanking range (HF)	0.2 – 10 m (.65 -32.8 ft)
Blanking range (LF)	0.5 – 10 m (1.6 -32.8 ft)

Transducer Options

Airmar SS510	
200 kHz	9° beam width @-3dB
Airmar SS549	
200 kHz	3° beam width @-3dB
Airmar M195	
Dual 200/33 kHz	8°/25° beam width @-3dB
Airmar M163	
Dual 200/33 kHz	8°/19° beam width @-3dB



For further product information please contact us at:
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