

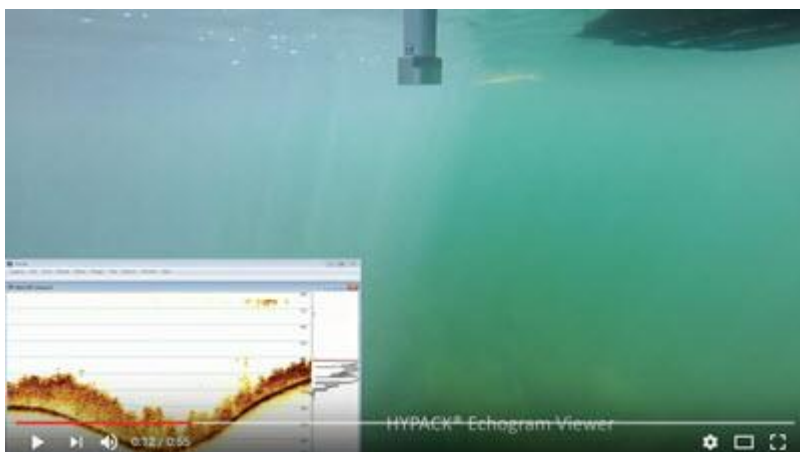
Simplify your Surveys. More than just an echo sounder, the CEE ECHO™ is a survey system. With a dual channel single beam sonar powered by an internal battery in a compact waterproof enclosure, the CEE ECHO™ is designed to offer convenience without sacrificing hydrographic data quality. For USVs, kayaks, open boats or dedicated survey launches, simply press the POWER button, connect your GNSS receiver and high-quality position and echo sounder data are immediately output and recorded. Minimize mobilization time and spend more time surveying.



Simplify your Data. There is no requirement to separately manage GNSS receiver communication and data transfer to the acquisition PC; the CEE ECHO takes care of that. Connect your GNSS to the CEE ECHO™ and position data are automatically merged with echo sounder data inside the CEE ECHO. This easy to use, reliable and accurate solution maximizes operational flexibility, with a complete survey dataset recordable on internal or USB memory, and a single Ethernet cable, Bluetooth, or WiFi connection all that is required to interface with the PC.

Maximize your Data Quality. Precise GPS time is used to accurately time stamp every packet of data generated in the CEE ECHO™. Each measurement is recorded with this precise time-tag, used by hydrographic software to generate a reliable and accurate solution. Latency is reduced compared to a traditional system with GNSS receiver and echo sounder individually connected to the PC.

Record a High Definition Water Column Echogram. The CEE ECHO™ generates a full water column digital echogram (envelope) available in real time view, and for post processing professional hydrographic survey results. This key capability allows you to be 100% sure about your sounding data quality. In contrast to “digital depth” echo sounders that generate no echogram, the CEE ECHO™ allows identification of bottom features such as vegetation that may otherwise lead to inaccurate soundings. With a 20 Hz maximum ping rate, surveys are captured with ultimate detail and top-class quality control.



CLICK on the image to watch the video

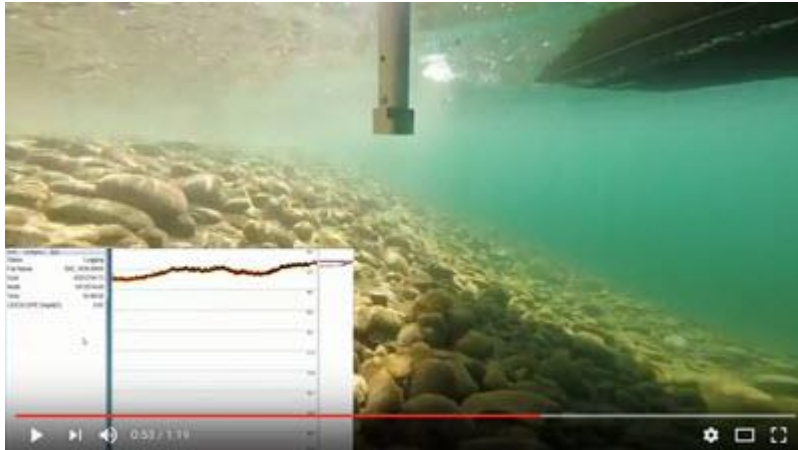
Use Modern and Thoughtfully Designed Equipment. Much of the equipment in use for single beam surveying is ageing, cumbersome, heavy, and inconvenient to operate when applying modern day standards. The CEE ECHO™ uses tiny, powerful processors and benefits from a compact design only possible with modern components. Reliable and supported for years to come, the CEE ECHO™ - unlike much of its competition – is not already obsolete.

Benefit from a Waterproof Echo Sounder with Internal Battery. The CEE ECHO™ is completely waterproof for use on small open boats. With an internal battery that will operate all day, surveys can be completed without any inconvenient external batteries, power cables, and additional components.

Record a Complete Survey on Internal and USB Memory. A complete survey may be recorded, including the full water column echogram, GNSS position data and sounding data. If surveying with no laptop, recorded data may be simply exported to a USB memory device and imported into hydrographic software and edited as usual.

Benefit from the Convenience of a Touchscreen Display. Unlike conventional echo sounders requiring a PC interface, all the CEE ECHO™ settings may be accessed through a convenient color sunlight-viewable LCD touch screen keypad on the unit, making setup, bar check, testing, and operation easy. In addition to the touch screen user interface, most CEE ECHO™ settings may be changed on the fly using the CEE CONNECT control software running on the acquisition PC.

Work in Extremely Shallow Water. The CEE ECHO™ is designed to operate in very shallow water with no requirement for the operator to adjust the sonar settings. The advanced bottom tracking algorithm will keep a lock on the bottom across the whole depth range.



CLICK on the image to watch the video

Use AUTO or MANUAL Operation Mode. For maximum control over the survey, the CEE ECHO™ may be used in AUTO or MANUAL mode. In AUTO mode all echo sounder parameters are adjusted automatically to achieve the best results for depth and water column data. MANUAL mode allows the user to fine tune the CEE ECHO™ to provide the best results for any survey feature, such as avoiding vegetation effects or tracking a sub bottom surface in dual frequency operation.

Use on an Unmanned Survey Vessel (USV). The compact and light weight design, excellent shallow water performance, and rigorous data handling with precise data packet timing makes the CEE ECHO™ ideal for use on remotely-operated survey boats where data may be telemetered to the acquisition PC on the shore.

Add Dual Frequency Operation. Every CEE ECHO™ has a high (HF) and low (LF) frequency echo sounder inside. The second (LF) channel may be activated at the factory before shipment or by a field firmware update completed by simply inserting a USB with the activation file into the USB port. The LF echo sounder is accurate from 0.6m to 200m water depth, providing high resolution bottom and sub bottom data with water column echogram information to allow proper data interpretation.