

# CEE ECHO™ series

## Hydrographic Survey Echo Sounder

### Compact

This dual frequency echosounder offers integrated data management and internal power at around 3.5 kg (7.7 lbs)

### Rugged

Built into a robust Pelican case the CEE ECHO has been engineered for use in vessels big or small. Suitable for temporary use in small open boats or long term installation on a dedicated survey vessel.

### CEE ECHO™ Advanced Features

The CEE ECHO dual frequency sounder is an industry leader in shallow water operation (from as little as 0.15m/0.5') to give maximum coverage for inland and coastal survey areas.

Full automatic or manual sounder control allows for reliable performance in most marine environments. The CEE ECHO is capable of recording a high resolution (3200 spp) full water column acoustic envelope for accurate post processing analysis.

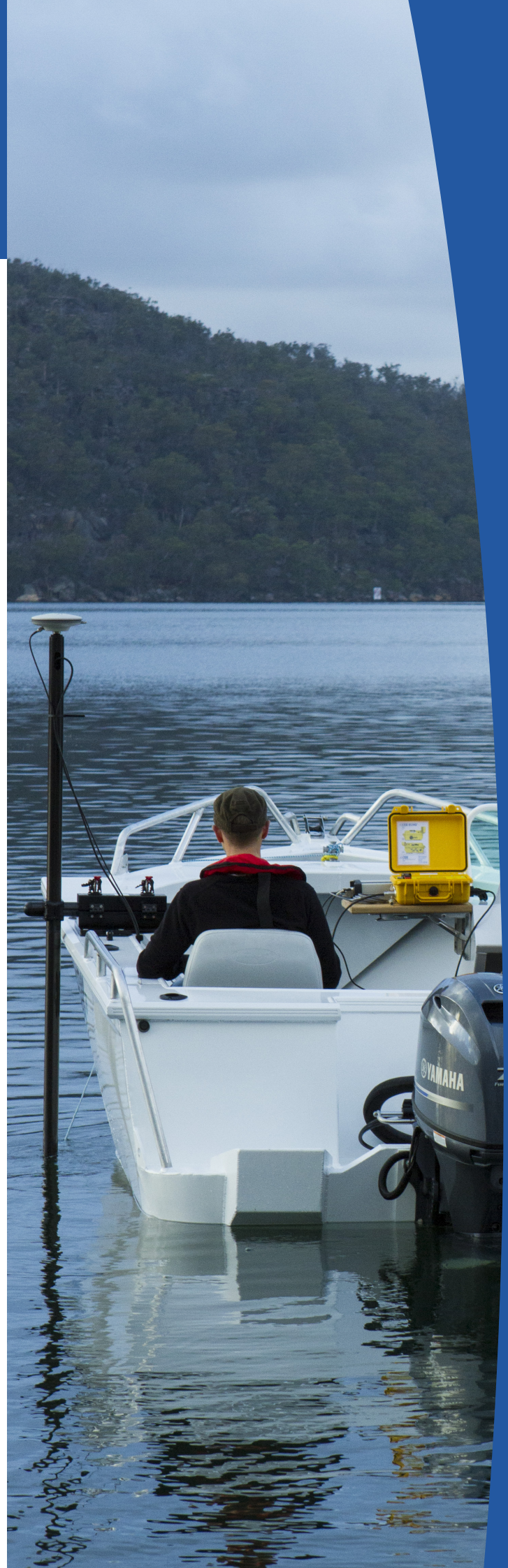
Optional wireless connectivity makes it easy to link with external hardware, including: Tablet PC, PDA and Notebook PC.

A removable waterproof USB memory stick connects to the unit making it simple to log real time data and then transfer logged survey data to a PC. All data is internally PPS time stamped when pulse is supplied.

Easily interfaced with GNSS, motion sensor and/or tide gauge for a complete data solution.



[www.ceehydrosystems.com](http://www.ceehydrosystems.com)



# CEE ECHO™

## General Specifications

### Physical

Dimensions	30.0 x 25.0 x 13.8 cm (L x W x D) 11.81" x 9.84" x 5.43"
Display	420 x 272 touch screen colour LCD
Weight	3.5 kg (7.7 lbs)
Connectors	LEMO 1K & 2K series, Industrial RJ45

### Environmental

Operating temperature	0°C – 50°C (32°F – 122°F)
Humidity	95% non condensing
Ingress protection rating	IP67

### Power

Power consumption	6.0 watts (approx operating time 10 hours)
Internal battery	Rechargeable high capacity NiMH battery 10Ah
Antenna voltage output	5.0 VDC
External power supply	Nominal 12.0 V <sub>DC</sub> @ 2A (9-30 V <sub>DC</sub> range)

### Wireless Connectivity

Bluetooth Internal antenna	0 – 50 m range*
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### Echo Sounder

Mode	Auto shallow, auto or manual
Depth range	0.15 – 200 m (0.5 – 656 ft) @ 200 kHz
(Optional)	0.75 – 200 m (2.5 – 656 ft) @ 33 kHz / 24kHz
Ping rate	1 – 20 Hertz, depth dependent
Pulse length	HF (1 – 35), LF (1 – 30)
TVG	None, LOG 10, LOG 20
Manual gain	30 – 100%
Acoustic Velocity Range	1350 – 1750m (4,429 – 5,741 ft)
Draft	0 – 10 m (1 cm increments)
Accuracy	1 cm ± 0.1% of depth
Resolution	1 cm

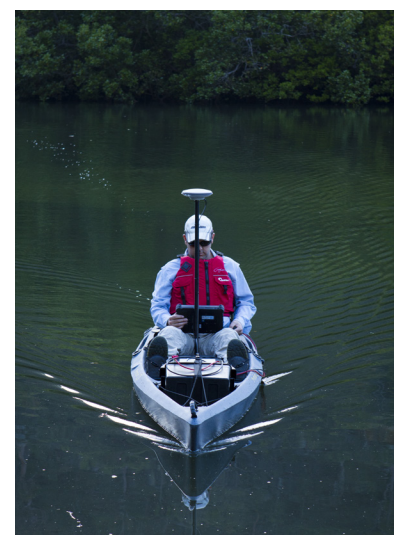
### Transducer Options

Standard 200 kHz	9° beam width @ -3dB
Narrow Beam 200 kHz	3° beam width @ -3dB
Dual 200/33 kHz	8°/19° beam width @ -3dB
Dual 200/24kHz	4°/24° beam width @ -3dB

### External Data Interfaces

GNSS input	NMEA 0183
Heave input	TSS 1 (Heave Aiding)
Tide input	CEETIDE
Compass input	NMEA 0183 HDT OR HDG

\* line of sight  
- specifications are subject to change  
- visit [www.ceehydro.com](http://www.ceehydro.com) for the complete list of specifications  
- v19070



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