



## Hydrographic Echo Sounder Survey System with Built-In Precision Trimble RTK GNSS Positioning.

The CEESCOPE™ RTK BD990 is CEE HydroSystems latest “all in one” Trimble hydrographic echo sounder, including a fully integrated Trimble Maxwell™ 7 OEM GNSS receiver, scalable from L1-only to high precision RTK with CMRx. The CEESCOPE™ is a complete single beam survey system in a compact and waterproof case, including a dual channel single beam echo sounder, internal battery power, touchpad LCD user interface, data logger, UHF radio for receiving RTK corrections and the Trimble multi-constellation BD990 receiver. This latest CEESCOPE™ design is aimed at surveyors using existing Trimble site base station networks, to ensure compatibility with GNSS receivers broadcasting RTK corrections in Trimble data formats. The CEESCOPE™ allows convenient user access to the Trimble receiver through a standard web browser interface, for easy adjustment of settings and uploading firmware and activations. Cell phone VRS (Trimble CenterPoint™ RTX) corrections may be received through the CEESCOPE RTCM port or direct Ethernet inputs.

### CEESCOPE Echo Sounder Specifications:

Weight:	3.6 kg (8lbs)
Ping Rate:	1 - 20Hz
Depth Range:	0.2 - 200m (0.6 - 650 ft)
Transducers:	24 kHz, 33 kHz, 200 kHz
Accuracy:	1cm ± 0.1% of depth
Echogram:	3200 samples per ping
Output:	Ethernet, Bluetooth, RS232
Data logger:	USB interface, 16GB
Battery:	Run time 6 hrs
External:	12V or 110/240V AC
RTK:	Satel 3AS UHF 400-470MHz

### CEESCOPE Internal GNSS Specifications:

Channels:	336
Type:	Maxwell™ 7 OEM BD970
Signals:	GPS: L1/L2/L5 GLONASS: L1/L2/L3 BeiDou: B1/B2/B3 GALILEO: E1/E5A/E5B/E5AltBOC/E6 QZSS: L1/L2/L5 SBAS: L1/L5
Ports:	1x Ethernet, 1X RS232
Reference:	CMR/CMR+/CMRX/RTCM2/RTCM3
Output:	Up to 20Hz
NMEA out:	Yes
RAW data:	No
Accuracy:	Single baseline RTK: H: 0.008m +1ppm V: 0.015m +1ppm DGPS: 0.25m (H) 0.5m (V) SBAS: 0.5m (H) 0.85m (V)