



# CastAway



The CastAway-CTD Instant, reliable data in the palm of your hand!

Pure Data for a Healthy Planet.®

## The CastAway™-CTD with profiling and analysis software

The YSI CastAway-CTD is a lightweight, easy to use hydrographic instrument designed for quick and accurate conductivity, temperature, and depth profiles. Starting with a unique six-electrode array and a flow-through cell, the CastAway makes use of commercial Bluetooth and GPS technology to make an instrument that is as usable as it is accurate.

The palm-sized CastAway-CTD can easily be deployed by hand. Each cast is referenced with both time and location using its built-in GPS receiver. Latitude and longitude are acquired both before and after each profile. Plots of conductivity, temperature, salinity and sound speed versus depth can be viewed immediately on the CastAway's integrated color LCD screen in the field.



The CastAway is a multi-functional tool that incorporates the most modern technology available - yet is simple to use. It is designed for CTD profiling down to 100 m and is easy to deploy.

Raw data can be easily downloaded via Bluetooth to a Windows computer for

detailed analysis and/or export at any time. Rugged, non-corrosive housing, AA battery power and tool-free operation reflect the technician-friendly pedigree of the CastAway-CTD. So do the simple, intuitive features – everything an operator needs to know about deploying the CastAway-CTD, viewing data and downloading the files fits in the lunchbox-sized carrying case.





#### Best used in:

- Coastal Oceanography
- Hydrology
- Aquaculture/Fisheries

#### When needed for:

- Saltwater Intrusion
- Surveying/Hydrography
- Sound Velocity Profiles
- Field Sensor Verification
- Estuarine Research
- GPS position, date and time
- Fast sampling and sensor response
- Waterproof interface works in and out of the water
- Bluetooth wireless communication
- No user calibration required
- No tools, computers or cables required!



To order, or for more information, contact YSI Environmental.

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#### ISO 9001 ISO 14001

Yellow Springs, Ohio Facility

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### **Specifications**

Memory 15 MB (750+ casts based on typical usage)

Communications Bluetooth class II, up to 10 m range

Power 2 "AA" alkaline batteries, 40 hours continuous use

Data Output Format - ASCII (CSV)

-Hypack -Matlab

Environmental - Depth range: 0-100 m

- Use temperature: -5° to 45° C - Storage temperature: -10° to 50° C

Sampling Modes - Casting (up/down)

- Point sample (moving the unit back and forth)

Software - Windows XP/Vista/7

- Geo-referenced - Multi-language

- Data plots, filtering, import/export

Accessories - Hard plastic storage/shipping case

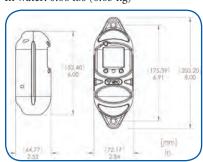
- Polyurethane jacket - 15m deployment line - Bluetooth dongle - Two locking carabiners - Three magnetic stylus pens

- Cleaning brush

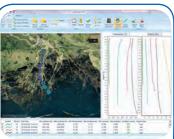
Thermistor Response Less than 200 ms

Sampling Rate 5 Hz

Weight In air: 1.0 lb (0.45 kg) In water: 0.06 lbs (0.03 kg)







A screen capture of data from a river delta in Louisiana acquired using a CastAway-CTD. The technicians collected 21 casts in less than 3.5 hours.



Each CastAway ships in this hard plastic kit, complete with accessories and quick start guide.

#### The CastAway-CTD Output Parameters

	Range	Resolution	Accuracy	Measured or Derived
Conductivity	0 to 100,000 μS/cm	1μS/cm	± 0.25% ± 5 μS/cm	Measured
Temperature	-5° - 45° C	0.01° C	± 0.05° C	Measured
Pressure	0 to 100 dBar	0.01 dBar	± 0.25% FS	Measured
Salinity	Up to 42 (PSS-78)	0.01 (PSS-78)	± 0.1 (PSS-78)	PSS-78 <sup>3</sup>
Sound Speed	1400 - 1730 m/s	0.01 m/s	± 0.15 m/s	Chen-Millero <sup>4</sup>
Density <sup>1</sup>	990 to 1035 kg/m <sup>3</sup>	0.004 kg/m³	$\pm 0.02 \text{ kg/m}^3$	EOS80 <sup>5</sup>
Depth	0 to 100 m	0.01m	± 0.25% FS	EOS80 <sup>5</sup>
Specific Conductivity <sup>2</sup>	0 to 250,000 μS/cm	1μS/cm	± 0.25% ±5 μS/cm	EOS80 <sup>5</sup>
GPS			10 m	

Based on temperature resolution and accuracy.

<sup>2</sup>Based on 100,000 μS/cm at -5° C.

31978 Practical Salinity Scale.

<sup>4</sup>Chen-Millero, 1977. Speed-of-sound in sea water at high pressures. <sup>5</sup>International Equation of State for sea water (EOS-80).