

Teledyne Oceanscience

# Z-Boat® 1250

Single Beam Echosounder  
Hydrographic Survey Boat

Portable Surveys Have Arrived!



**Teledyne Oceanscience Z-Boats®** are the number one choice for reliable, remotely controlled, hydrographic surveying in streams, rivers, lakes, and coastal waters around the world.

Whether you need to reduce survey time, keep people safe during hazardous conditions, or access hard to reach locations, there is a Z-Boat to suit your survey and your budget. The Z-Boat 1250 is easy to operate. The integrated echosounder has an embedded transceiver with digital signal processing and outputs depth & temperature using NMEA 0183 data output.

## Portable and Convenient

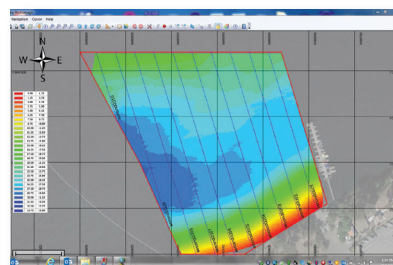
The use of lightweight, resilient ABS hulls and a collapsible sliding crossbar make the Z-Boat 1250 convenient for a single operator. Transportation to and from the deployment site is easy; simply slide the outriggers towards the main hull and pick the boat up with one hand toward the main hull then lift the unit to move it. At under 50 pounds fully outfitted with instrumentation, the unit is easily single person portable. To deploy the boat, slide the outriggers back, place the boat in the water, and start your measurement process. Now you can survey areas that were previously inaccessible with larger boats.

## Robust and Easy to Maneuver

The IP67 rated Z-Boat 1250 has an innovative propulsion system that uses two thrusters, one in each outrigger. An advanced 2.4 GHz remote control transmitter differentially adjusts the two thrusters to steer the boat. The result is a robust and highly maneuverable boat with no rudder or steering linkages. The Z-Boat 1250 can attain a 2.3 m/s (7.5 fps) top speed using the standard battery pack, and the remote control transmitter can be adjusted to provide precise control at speeds below 30 cm/s (1.0 fps).

## A Variety of Applications

The Z-Boat 1250 is ideal for a multitude of work environments including mining pits and tailings ponds, sewage treatment plants, environmentally sensitive areas, construction and inspection zones, dams and reservoirs, lakes, harbors, rivers, and more. The opportunities are endless for this compact and efficient boat!



## PRODUCT HIGHLIGHTS

- Rugged IP67 rated design
- Reduce survey time with quick and easy single-person set up and deployment
- Improve personnel safety - operate from shore without entering the water
- Real time data access directly to your shore based laptop
- Constructed of robust marine materials and components
- Small form factor makes shipping easy



**TELEDYNE OCEANSCIENCE**  
Everywhere you look™

# Z-Boat 1250

Portable SBES Hydrographic Survey Boat

## TECHNICAL SPECIFICATIONS

### Z-BOAT 1250

<b>Typical Cruising Speed<sup>1</sup></b>	1-1.5 m/s (3.3-5.0 fps)
<b>Top Speed<sup>1</sup></b>	2.3 m/sec (7.5 ft/sec)
<b>Hull Length</b>	127 cm (50")
<b>Width (extended)</b>	94 cm (37")
<b>Width (transport)</b>	64 cm (25")
<b>Height (no instrument)</b>	32 cm (12.5")
<b>Weight (no instrument)</b>	18 kg (40 lbs)
<b>Weight (typical instrument)</b>	22 kg (48 lbs)
<b>Battery Endurance<sup>1</sup></b>	1.0 m/s: ~4 hours 1.5 m/s: >1 hour
<b>Payload (typical)</b>	4.5 kg (10 lbs)
<b>Power</b>	3 @ 24 V, 4.5 AH NiMH Battery Packs
<b>Motor</b>	2 x Brushless DC Thrusters
<b>Hull Material</b>	ABS (Acrylonitrile Butadiene Styrene)
<b>Hardware</b>	Anodized Aluminum, Stainless Steel
<b>R/C Control</b>	Hitec
<b>R/C Control</b>	Modes 3: Left Throttle/Right Steer; Right Throttle/Left Steer; Dual Throttle
<b>R/C Antenna</b>	Omni Directional
<b>R/C Range</b>	750 m
<b>R/C RF Scheme</b>	FHSS
<b>R/C Frequency</b>	2.4 GHz
<b>Warranty</b>	One year on all Z-Boat 1250 components.

<sup>1</sup> Speed measured over water; speed over ground will depend on water velocity.

### SINGLE BEAM ECHOSOUNDER

<b>Depth Reading Range</b>	0.4m to 200m
<b>Depth Resolution</b>	0.01m Depth Precision: 0.25% at full range
<b>Frequency</b>	200 kHz
<b>Beam Angle</b>	9°
<b>Temperature Sensor Accuracy</b>	+/-0.05° C Temperature Resolution: 0.09° C
<b>Supply Voltage</b>	9 VDC to 40 VDC
<b>Average Current Draw</b>	150mA @ 13.6V
<b>NMEA0183 Baud Rate</b>	Configurable, default 115,200

### POWER MANAGEMENT MODULE

<b>Inputs</b>	2 - GPS & Echosounder, or ADCP
<b>Communications</b>	Bluetooth ~300m range
<b>Battery</b>	14.4V, 4.5Ah
<b>Endurance</b>	10-12 hours



*Z-Boat 1250 compact configuration for easy transport*



#### Teledyne Oceanscience

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