

SEAWARD SURVEYOR 0900P

Model: SWT-USV-0900P



A compact and portable intelligent USV for single-person bathymetric survey and high-precision shallow-water sounding.

Endurance
4 h @ 2 m/s

Hull weight / Load
3 kg / 25 kg

Maximum Speed
7 m/s

Applications

- * Hydrographic Survey
- * Underwater Topographic Mapping
- * Underwater Structure Survey
- * Dock Wall Survey
- * Bridge Scour Monitoring

Key Features

- * Multi-purpose USV platform
- * Monohull anti-roll design
- * Large moon pool cabin
- * 50 kg payload capacity
- * 6-hour endurance at 2 m/s

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Remote Control Range

Up to 2.5 km point-to-point

Hull Size

850 x 576 x 290 mm

RTK Positioning Accuracy

Hori. ± 8 mm + 1 ppm /
Alt. ± 15 mm + 1 ppm

Echosounder Depth Range

0.1-300 m

Sensor Expansion Capability

Internal moon pool design supports rapid integration of MBE, SSS, ADCP, and water quality sensors for flexible survey missions.



Highly Integrated & Easy Operation

Simplifies field bathymetry work with a highly integrated system, allowing operators to complete singlebeam surveys easily using only one remote controller.



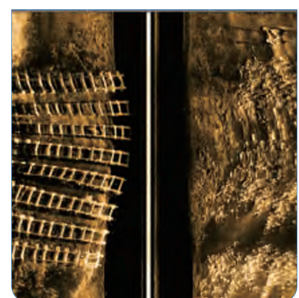
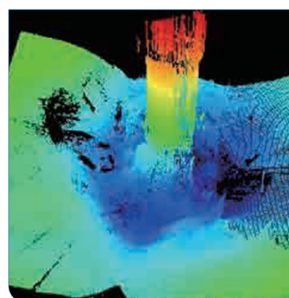
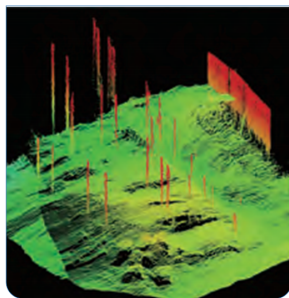
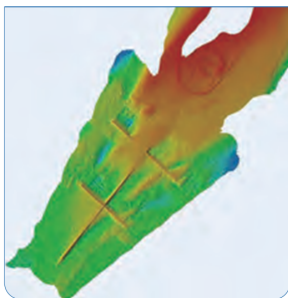
Powerful Propulsion & Anti-Entanglement Design

High-speed ducted thruster enables stable operation in strong currents, while the detachable design helps prevent entanglement from weeds, fishing nets, and floating debris.



Lightweight Carbon-Fiber Hull

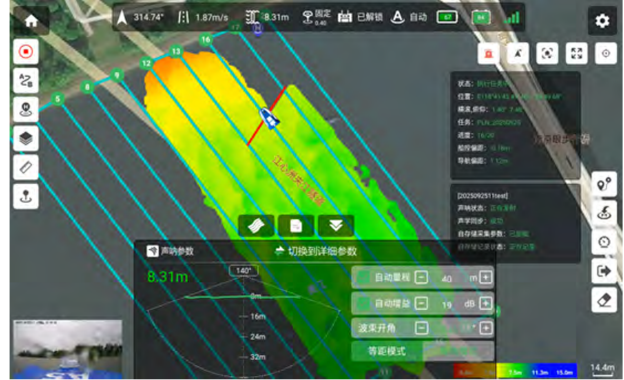
Built with carbon fiber and Kevlar composite materials, the hull delivers high strength, reduced weight, corrosion resistance, and stable performance for long-duration survey missions.



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HxSurvey Master Android Software

Integrated Android-based software for USV control, navigation, singlebeam sounding, route planning, real-time video display, and GNSS/depth data recording, supporting DXF and KML import for efficient hydrographic survey operations.



System	Item	Parameter
Ship	Size	850 x 576 x 290 mm
	Hull weight / Load	3 kg / 25 kg
	Hull materials	Polymer polyester carbon fiber, Kevlar
	Ship design	M-type / Level 3 wind / Level 2 waves
	Navigation light	4 h @ 2 m/s (optional with additional battery packs)
Power	Cruise	7 m/s
	Maximum speed	Ducted thruster, easy disassembly and replacement
	Thruster	8S, 35Ah lithium battery
Safety	Battery	Millimeter-wave radar with a detection range of 20 m
	Obstacle avoidance	Automatic switching between daytime and night vision functions; supports manual image capture
	360° Camera	IP68; thickened anti-collision strips and double-layer anti-sinking hull design
Comm.&Control	IP rating	Fearless of rollover; automatic self-righting (optional)
	4G Comm.	Unrestricted distance; real-time transmission of sounding, positioning, and image data
	Operating mode	One-click switch between manual and automatic cruise modes
Controller	Home	Low battery, automatic home upon loss of contact; single-point or multipoint home along designated routes
	Remote control dist.	Point-to-point 2.5 km max.
	Screen	Android 13 system; 7" screen (optional 10")
High precision positioning device	Memory	64 GB (optional 256 GB)
		RTK GNSS
Echosounder	SBE	Frequency: 190–216 kHz Beam angle: 6.5° Depth range: 0.1–300 m Depth accuracy: ±10 mm + 0.1%h Depth resolution: 1 cm
	HxSurvey Master Android Software	One-click connection to all sensors Set parameters related to ship control and echosounder Display analog and digital water depth, real-time ship speed, coordinates, GNSS status, and current ship position Import DXF and KML files as maps or navigation plan lines; manual drawing with parallel and area lining functions Real-time camera video display Record GNSS data and depth data for post-processing