

## PHANTOM® H-1750 USV

## POWERFUL • EXPANDABLE • RUGGED

The Phantom® H-1750 USV is a powerful, 1.75m, remotely controlled, battery-powered, catamaran-style unmanned surface vessel (USV) designed and manufactured by Deep Ocean Engineering to conduct measurements of currents, bathymetry, discharge and surveys in a variety of environments.

The advanced technology of the Phantom® H-1750 USV can be equipped with GPS, depth sounder, sonar and a variety of sensors, and is hand-built with a rugged, lightweight hull constructed of aluminum.

The standard Phantom® H-1750 USV utilizes two Torqueedo thrusters and is capable of achieving speeds up to 1.7m/s (3.8mph), and it has a range of up to 2km distance with remote control and extended with mission planning software and GPS. The electronics compartment is spacious and hatch accessible, and the vessel is portable and easily deployable.

The Phantom® H-1750 USV includes a one-year manufacturer's warranty.



## APPLICATIONS OF THE PHANTOM® H-1750 USV

The Phantom® H-1750 USV is designed for use in numerous applications on the surface of waterways, including water quality, bathymetry, discharge monitoring, port security, river and shallow water surveys. It can be integrated with third party sampling options for data acquisition.

## THE DEEP OCEAN ENGINEERING ADVANTAGE

Deep Ocean Engineering, Inc. is a USA based manufacturer of powerful, expandable, rugged underwater and surface drone vehicles, headquartered in the technology capital of the world, Silicon Valley, California. Its legendary Phantom® lines of ROVs and USVs, many of which have been in use around the world for decades, are integrated with the latest digital technology and the highest quality components available in the market today, including thrusters, sonar, cameras, lighting, navigation software (GPS) and power.

## VEHICLE SPECIFICATIONS\*

Length	1750mm (5.74ft)
Width	1270mm (4.17ft)
Chassis	Non-Corroding Aluminum Alloy Stainless Steel Hardware
Payload	60kg (130 lbs)
Weight	290lbs with Removable Ballast
Top Speed	1.7m/s (3.8mph)
Survey Speed	1.2m/s (2.7mph)

## STANDARD FEATURES

Ethernet and Serial Channels
Modular Design
Real Time Telemetry
Dual Torqueedo Thrusters
Autonomous Mission Ready with GPS
Disassembly of Hull Components for Transportation and Shipping

## APPLICATIONS

Port Security
Harbor Inspections
Shallow Water Lake and River Surveys
Bathymetry
Scientific Research
Water Quality Surveys in Contaminated Waters
Discharge Monitoring

## ELECTRICAL SPECIFICATIONS\*

Range (in proper conditions)	Up to 2km (1.24mi.) with remote control, extended with mission planning software and GPS
Battery Life @ Top Speed	1 hr
Battery Life @ Survey Speed	3 hrs
Antenna	Omni-directional
Radio Frequency	2.4 GHz
Remote Control Command & Data Link	WiFi with Serial Server (2km Range)
Instrument Power	24V LiFePO <sub>4</sub> 9.6 Ah Battery

## INTEGRATION OPTIONS

Side Scan Sonar
LIDAR
ADCP
Sub-bottom Profiler
Multibeam Echosounder with Motion Sensor and Dual GPS Heading
Automated Multibeam Sonar Deployment with Remote Control
Multi-Constellation GPS with RTK
Scaled up Models
HD Video Camera
Running Lights for Night Ops

\* Specifications subject to change 07032019