### ROV System – 2024 Specifications



C-026\_Oceanus\_Mini\_2024-PR4



# A compact ROV that fits in a 12-inch diameter pipe, built with high-end features that include a 1080p full HD on-board camera and six vectorized thrusters capable of delivering lateral ROV movement.

A uniquely rugged inspection-class ROV system capable of operating to a maximum depth of  $400 m^{\circ}$  (1312 ft.)and with a top speed of up to 4 knots\*, the Oceanus Mini is ideal for performing inspections in confined areas like pipelines and holding tanks. The use of lightweight materials and a reduced footprint makes this ROV unit incredibly easy to transport and operate. Core construction of marine-grade anodized aluminum and the same robust engineering standards found in our larger ROV vectorized thruster system ensures this system will stand-up to the toughest tests.

The MarineNav Oceanus Mini ROV offers these standard features;

- Power over tether design
- Depth rating of 400m (1312ft)<sup>ø</sup>

- Up to 4 knots top speed\*
- ROV weight of 10.8 kg (23.8 lbs)
- Powerful six vectorized thruster design provides lateral movement
- 1080p high definition camera
- 2 x 1500 lumen lights (optional upgrade to 4 x 1500 lumen lights)
- ROV compatible with many Oceanus Pro ROV accessories.
- Hardshell topside ROV control system with built-in 18.5" primary video screen, 10.1" TFT touch sensitive software interface panel, built-in i7 industrial computer and 1 TB data storage (optional dual-PC configuration available)
- Oceanus Handheld Controller (v3.0), a 3-axis joystick controller featuring Hall-effect technologies and a potentiometer thumbwheel depth control.
- Protected by a 3-year limited warranty, MarineNav's Peace of Mind quarantee and Advance Replacement warranty\*





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Specifications - Overview	
Certifications	ISO 9001: 2015
Operating Environment	Fresh or salt water, 0-50°C (32-122° F)
Standard Depth Rating®	400m (1312 ft)
Maximum Speed ×	4 kn
Approximate Total Shipping Weight†	38.56 kg (85.00 lbs)
Transport Cases	Portable IP 65 rated cases (when closed), constructed of ultra high density polyethylene, neoprene o-ring and ABS latches
Owners Manual	Printed version of MarineNav operators manual included. Digital PDF version of manual saved to topside internal computer
System Tool Kit	24 sets of ROV ballast weight nuts and bolts. Spares kit includes assorted panhead screws, nuts and other fasteners for ROV
Settings	Internally saved, persist through power cycles
Warranties*	3-year limited warranty (if registered within first year of purchase). Peace of Mind guarantee, Advance Replacement warranty

THE OCEANUS JOYSTICK / HAND-HELD CONTROLLER (v3.0	)
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Specifications - Remotely Operated Vehicle (ROV)	
ROV Power	Power over tether
ROV Housing Material	Anodized marine grade aluminum
ROV Dimensions	521 mm (20.5") long, 279 mm (11.5") wide, 273 mm (10.75") height
ROV Dry Weight	10.8 kg (23.80 lb)
AUX Ports	1 auxiliary port: capable of 1 x RS485 / Manip / 12VDC)
ROV Piloting Control System	IP 65 rated MarineNav joystick/hand-held controller (v3.0)
ROV Movement and Flight Control Modes	Full depth, horizontal and lateral movement: Auto Depth, Heading Hold and ROV Stabilize modes
ROV Lights	$2 \times 1500$ lumen front lights (optional upgrade to $4 \times 1500$ lumen front lights)
ROV Camera	Internal front: 1080p with tilt control,
Camera Tilt Angle	+/- 160° Pitch (vertical rotation)
Camera Focus Range	Fixed focus 4" to infinity
Camera Field of View	120° field of view
Available Accessory Attachments + ▲	Single axis manipulator arm, USBL, Hull Crawler, Metal thickness gauge, RS485 based sonar and accessories.

Specifications - Handheld Controller (v3.0)	
Housing Materials	Anodized marine grade aluminum
ROV System Compatibility	Fully integrated with MarineNav's FCS software. Compatible with the Oceanus Mini Lite, Mini, Pro Classic and P8 Pro ROV systems.
ROV Control Array	Primary ROV control via a 3-axis joystick controller featuring Hall-effect technologies and a potentiometer thumb wheel depth control. Sixteen command buttons control essential ROV functions
Connection to Topside	Via a waterproof USB connector
Transport Case	Portable IP rated case constructed of ultra high density polyethylene, neoprene o-ring and ABS latches





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Specifications - Tops	side Controt Case
Topside Power	Input: 100/240 V AC 50/60 Hz, System fully operational in 60 seconds
Topside Control Case	Rugged waterproof case, transport requires one person, IP 65 when closed, IP 62 when open
Topside Unit Housing Material	Ultra high density polyethylene, neoprene o-ring and ABS latches
Topside Dimensions	508 mm (20.0") long, 355.6 mm (14.0") wide, 203.2 mm (8.0") height
Topside Unit Weight <sup>‡</sup>	19.41 kg (42.8 lbs)
Topside Safety Features	Bender Isometer and GFCI circuit breaker
Topside Computer	i7 industrial
Data Storage	1 TB solid state drive topside, 32 GB solid state drive ROV
IMU (Sensors)	Always on, Integrated with accelerometer & magnetometer measuring telemetry including tilt, roll, pitch, and heading, auto heading, auto depth functionality
Topside Ports <sup>π</sup>	2 USB, 1 LAN (Ethernet), 1 Multi Port
Wireless	Wi-Fi video broadcast to multiple devices simultaneously via integrated antenna. Wireless specification 802.11 ac/b/g/n on 2.4/5 GHZ
Video Output	HDMI video output
Primary Display	18.5" TFT active matrix panel, 1600 nits brightness (full daylight readable), 1920 x 1080 resolution.
Secondary Display	10.1" TFT Touch active matrix panel, 1000 nits brightness (full daylight readable), 1280 x 800 resolution
Topside Unit Software OS	Linux OS (MarineNav Proprietary software interface)
On-Screen Display (OSD)	Real-time data including recording time, voltage, water temperature, depth, date/ time stamp, heading and attitude is overlaid or embedded with video, Operator input lines available, GPS co-ordinates displayed as overlay option when paired with accessory, enabled data entry field with customized logo available
Depth Gauge	Calibrated in meters or feet (user selectable)
Video Recording	.MKV or MP4 video formats to PC hard drive (.MKV is default video format. Select MP4 option using FCS software)

Specifications - ROV Tether & Deployment Systems	
ROV Tether	Rapid deployable, neutrally buoyant tether with water-tight cable connections
Maximum Tether Length	500m (1640.4 ft) maximum tether length (sold separately)
Tether Deployment Systems	Optional system upgrade with deployment systems with maximum tether capacity of either 180m, 350m or 600m tether (tether sold separately

#### STANDARD TDS WITH 10M DECK LEAD

Maximum 180m tether capacity (tether sold separately)

#### MEDIUM TOS WITH 10M DECK I FAD

Maximum 350m tether capacity (tether sold separately)





#### THE OCEANUS MINI / PRO TOPSIDE CONTROL SYSTEM

A hardshell, IP rated self contained control hub featuring built-in 18.5" video display panel, a 10.1" TFT touch-sensitive software interface panel, built-in i7 industrial computer and 1 TB SSD







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#### Terms and Conditions

#### THREE-YEAR LIMITED WARRANTY

- \* MarineNav's Three Year Limited Warranty applies to customers who haved purchased one of the following ROV systems; an Oceanus Mini, an Oceanus Pro Classic, an Oceanus P8 Pro, or an Oceanus Ultimate ROV system. An initial two-year limited warranty is made available when your eligible MarineNav Oceanus ROV is registered within the first year of purchase. For the warranty to remain valid all regimented ROV scheduled maintenance must be completed according to manufacturers guidelines. At the completion of the initial two-year limited warranty period a third year extension is provided to those customers who have adhered to all regimented ROV maintenance as outlined by manufacturer. Warranty restrictions apply;
- a) MarineNav Ltd warrants that tether supplied with ROV systems or supplied separately will be free from defects in materials and workmanship under normal use and service for a period of ninety (90) days from date of shipment.
- b) MarineNav Ltd warrants that tether whips that were provided as part of an ROV system at time of original shipment will be free from defects in materials and workmanship under normal use and service for a period of six (6) months from date of shipment.
- c) MarineNav Ltd warrants that thruster motors that were provided as part of an ROV system at time of original shipment will be free from defects in materials and workmanship under normal use and service for a period of one (1) year from date of shipment. This does not include wearable parts such as propellers, which are considered a consumable item. Tampering, misuse and regular wear are not covered by warranties.
- d) MarineNav Ltd warrants that the ROV float block that was provided as part of an ROV system at the time of original shipment, or purchased separately will be free from defects in materials and workmanship under normal use and service for a period of three (3) months. The three-month warranty does not cover normal wear such as scuffs, scrapes indentations, or other damage to the float block caused by external environmental factors.
- e) MarineNav Ltd warranties exclude corrosion that may occur on ROV metallic parts caused in part by improper cleaning and storage of ROV after each mission. Refer to your owner's manual for proper cleaning and maintenance of your ROV system.

#### PEACE OF MIND GUARANTEE

- 1) When purchasing an Oceanus ROV system, our customers are entitled to a comprehensive maintenance service package free of charge. To qualify for the free comprehensive system maintenance program, ROV customer must ship their Oceanus ROV to a MarineNav-certified service center within the first 25 operational hours. ROV operational hour count recorded and saved to the Oceanus ROV operating system. The customer is responsible for payment of shipping costs to and from a MarineNav-certified service center.
- 2) MarineNav provides full coverage, for a period of twelve months, of any design or structural enhancements to any component of your ROV purchase. This includes the ROV, topside control case and MarineNav manufactured attachments. MarineNav will replace any hardware components on your ROV which have been upgraded or enhanced within your 12-month period of ownership. The 12-month period begins when the shipment is received based on the shipment tracking number. The upgrades occur during your ROV's scheduled routine maintenance at a certified MarineNav service center.
- 3) MarineNav will provide ROV system software upgrades free of charge of our proprietary Flight Control Software over the normal operating lifespan of your purchased ROV system. Lifetime software updates require customers to have both reliable Internet and telephone connections. The software updates are done remotely by our in-house computer technicians. A phone call is requested to assist the customer through simple steps in connecting the ROV to allow remote access.

#### ADVANCE REPLACEMENT WARRANTY

MarineNav Ltd will in exceptional circumstances provide advance replacement of equipment under our original manufacturer warranty and subject to the following Terms & Conditions. We will agree to provide advance replacement when we determine, in our sole and absolute discretion, that a defect in manufacturing and/or materials has caused equipment that we supplied to become inoperable, unsafe, or otherwise unsuitable. Advance replacement is subject to all other terms, conditions and exclusions of our Advance Replacement Guarantee and original manufacturer warranty.

Advance replacements are only provided on the condition that the client shall return the defective equipment to MarineNav Ltd within three (3) business days. Should the items being returned not be received by MarineNav Ltd. within three (3) days from the date of the client's receipt of the advance replacement, the client agrees that the advance replacement equipment will be chargeable to the client at full value. Any deviations from this condition shall be at MarineNav Ltd.'s sole and absolute discretion. Return freight costs on and risk of loss or damage to equipment being returned are the responsibility of the client.

When the returned equipment is received back, it will be inspected and reviewed by one or more service technicians and/or by quality control personnel. If it is deemed by MarineNav Ltd., in its sole and absolute discretion, that the returned equipment has suffered physical damage, excess wear and tear beyond what is considered typical, or if it was damaged by misuse or operation outside of the normal and intended purpose of the equipment, the client agrees that repair and/or replacement costs will be chargeable at the value determined by MarineNav Ltd.

MarineNav Ltd will pay freight costs for shipping advance replacement equipment to the client location at a standard level of service. If the client requires expedited or express service this may be chargeable to the client at the discretion of MarineNav Ltd.

- While possible to dive to a maximum depth of up to 400m using an ROV system outfitted with a standard ROV float block, repeated dive missions beyond 300m will shorten the float lifespan and may lead to eventual float block failure. MarineNav requires users to upgrade their ROV with an optional Deep Water Buoyancy ROV float block for repeated deep dive missions exceeding 300m. Contact MarineNav for product details and pricing.
- × Maximum speed test conducted with absence of all ballast weights.
- † The approximate total shipping weight is calculated on the combined weight of a standard Oceanus ROV submersible, ROV ballast weights, Oceanus topside control case, Oceanus Joystick/ Hand held controller (v3.0) and all included hardshell shipping cases. The approximate total shipping weight does not include ROV tether or other ROV accessories.
- The ROV dry weight is calculated on a standard Oceanus Mini ROV without ROV ballast weights, additional system upgrades or ROV accessories.
- + Some accessories require use of the Marinenav Multiport communication system.
- Oceanus ROVs may exceed recommended depth ratings of available accessories. Consult manufacturer specifications for all accessories prior to use.
- <sup>‡</sup> The topside unit weight is based upon a standard Oceanus Mini / Pro topside control system consisting of a IP rated hardshell case, metal housings for the internal i7 computer, SSD drive and built in display panels. The Optional upgrade option to a dual PC configuration increases the topside unit weight.
- The Mini/Pro Topside Control Case is a component common to both the Oceanus Mini and Oceanus Pro ROV systems. It is equipped with one LAN (Ethernet) port for use with the Oceanus Pro ROV. The Oceanus Mini ROV is not Ethernet capable and cannot utilize the LAN port.

MarineNav Ltd. is an ISO 9001:2015 certified company. Our certified Quality Management System ensures that each unit we produce adheres to the strictest standards and complies with customer requirements.

While we strive to ensure the accuracy of all items and descriptions in this document, this is not always possible. Specifications, options, and availability are subject to change without notice.



