



Customer:	Monterey Bay Aquarium Research Institute (MBARI)	Account Manager:	Kim Swords
	7700 Sandholdt Road Moss Landing, California 95039-9644 United States		8280 Willow Place Drive North, Suite 130 Houston, Texas 77070 USA
Attention Of:	Erik Trauschke	Telephone No:	+1 281 890 2120
Cc:	-	Quote Number:	QUO-44687-B4L8 rev 1
Issued By:	Jorge Gutierrez	Date:	04-January-2022

Subject: JAG - 155 - MBARI - Micro Ranger 2 Cabled Nano with Options

Erik,

Thank you for your continued interest in Sonardyne products and allowing us the opportunity to provide you this quote. I am pleased to provide the following quote for the **Micro Ranger 2 Cable Nano USBL System with Options** we have available.

Micro-Ranger 2 has been designed as a true one box battery powered USBL solution, small enough to be carried as hand luggage on commercial flights and mobilized at short notice. Micro-Ranger 2 uses a positioning technique known as Ultra-Short Baseline (USBL) to calculate the position of underwater targets. A transceiver at the surface transmits an acoustic signal to transponders attached to each of the targets you wish to track. Using the return signal from each transponder, Micro-Ranger 2 determines its range (distance), bearing (heading) and depth, displaying the results on a radar-style software display.

If you're a first-time user of USBL technology, you'll find Micro-Ranger 2 incredibly easy to use. Connect your laptop to the inbuilt Wi-Fi, then attach a transponder to each target you want to monitor the position of. With the transceiver lowered into the water, you're ready to start tracking up to 10 divers, underwater vehicles or any other underwater equipment.

To deliver the best possible positioning performance and operator experience, Micro-Ranger 2 uses the same market-leading 6G® hardware and Wideband®2 digital acoustic technology you'll find in Sonardyne's family of Deepwater USBL systems, but with significantly less cost and complexity.

Built around Sonardyne's Micro-Ranger Transceiver the USBL system can be deployed from the quayside or a vessel and is optimized for omni-directional tracking. Each system is supplied with two of Sonardyne's Nano transponders, in either NFC or cabled configurations.



USBL System Option 1:

Stock Code	Type No.	Delivery	Qty	Unit List Price USD	Line Discount USD	Discounted Total Price USD
------------	----------	----------	-----	---------------------	-------------------	----------------------------

602-0165	8243-200-02	In CH Stock	1	36,220.08	7,244.02	28,976.06
----------	-------------	-------------	---	-----------	----------	-----------

MICRO-RANGER 2 NANO WITH CONNECTOR

Basic System Description:

- 995m range
- IP67 Micro-Ranger topside containing:
 - Micro Ranger 2 USBL software (This software should only be installed on a dedicated computer running Windows 7 (UK English Version) / Windows 10 (UK English Version))
 - MRT transceiver
 - 10m topside to MRT Transceiver cable
 - GNSS antenna with 5m cable to topside
 - WiFi and Ethernet connection to PC
- **2 x Nano Transponder with Connector and Depth Sensor**
 - Nano Transponder Interface Hub
 - Euro, UK and US Mains leads



8315-0001	8315-000-0001	In CH Stock	1	8,983.11	1,796.62	7,186.49
-----------	---------------	-------------	---	----------	----------	----------

iWAND Portable Handheld Deck Test Unit

Kit contains:

- Deck Test Unit
- 6G Configuration Software
- Bluetooth Dongle



Subtotal	36,162.55
----------	-----------

Original Import Charges	2,712.19
-------------------------	----------

Grand Total (USD)	38,874.74
--------------------------	------------------

For more information on the **Micro Ranger 2** please visit us on our website link below:

<https://www.sonardyne.com/products/micro-ranger-2-shallow-water-usbl-system/>



USBL System Option 2:

Stock Code	Type No.	Delivery	Qty	Unit List Price USD	Line Discount USD	Discounted Total Price USD
602-0166	8243-200-02	TBD	1	39,152.88	7,830.58	31,322.30

MICRO-RANGER 2 INTEGRATOR KIT

Basic System Description:

- 995m range
- IP67 Micro-Ranger topside containing:
 - Micro Ranger 2 USBL software (This software should only be installed on a dedicated computer running Windows 7 (UK English Version) / Windows 10 (UK English Version))
 - Micro-Ranger 2 Software Expansion Robotics Pack
 - MRT transceiver
 - 10m topside to MRT Transceiver cable
 - GNSS antenna with 5m cable to topside
 - WiFi and Ethernet connection to PC
- **1 x AvTrak 6 Nano with Depth Sensor**
- Nano Transponder Interface Hub
- Euro, UK and US Mains leads



8315-0001	8315-000-0001	TBD	1	8,983.11	1,796.62	7,186.49
-----------	---------------	-----	---	----------	----------	----------

iWAND Portable Handheld Deck Test Unit

Kit contains:

- Deck Test Unit
- 6G Configuration Software
- Bluetooth Dongle



Subtotal	38,508.79
----------	-----------

Original Import Charges	2,888.16
-------------------------	----------

Grand Total (USD)	41,396.96
--------------------------	------------------



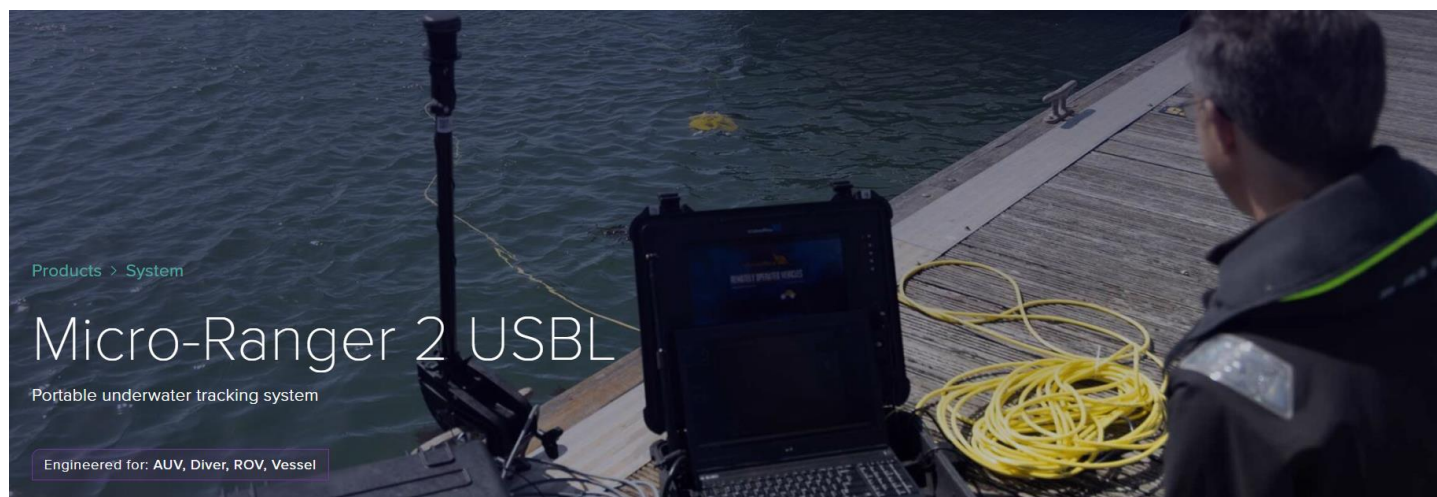
Additional Equipment Options:

Stock Code	Type No.	Delivery	Qty	Unit List Price USD	Line Discount USD	Discounted Total Price USD
620-0449	8241-007-A14	N/A	1	6,219.51	N/A	6,219.51

MICRO-RANGER 2 ROBOTICS SOFTWARE EXTENSION PACK

The Robotics Pack upgrade for Micro-Ranger 2 adds value to operations of autonomous maritime vehicles by combining tracking with modem functionality. It offers new protocols to enable tracking and communication with AvTrak 6 systems mounted on Autonomous Underwater Vehicle (AUV) or other robotic subsea systems, ASCII modem for uninterrupted ASCII data exchanges and a remote control interface to the USBL via the serial or UDP message to ease integration with Unmanned Surface Vessel (USV) systems.

820-0471	8243-082-A1	TBD	1	1,486.14	297.29	1,188.85
----------	-------------	-----	---	----------	--------	----------

MRT TO TOPSIDE CABLE ASSY 30m

TERMS AND CONDITIONS OF QUOTATION:

1. This Sonardyne Quotation and any Purchase Order that is issued for Products or Services is subject to and in accordance with:
 - a. Sonardyne's Supply of Products and Services Terms, a copy of which can be found at <https://www.sonardyne.com/terms/sales-usa/> or can be supplied upon request, as amended by the Terms and Conditions of this Quotation, and
 - b. applicable Product Specification(s) which can be found at <https://www.sonardyne.com/products.html> collectively called "Sonardyne Sales Terms"
2. All Purchase Orders placed against this Quotation must reference this Quotation Number and be subject to the Sonardyne Sales Terms. Purchase Orders are subject to acceptance by Sonardyne through issuance of a Sales Order Acceptance form. The prices in this Quotation remain valid for 30 days from the date of this Quotation.
3. Sonardyne reserves the right to withdraw or modify this Quotation without notice.
4. Prices quoted are in USD.

The prices may be adjusted at the discretion of Sonardyne as a result of any movement of the actual exchange rate, published by OANDA, beyond +/- USD0.03 (the daily midpoint price of the relevant trading days) between the date of this quotation and the date of a valid order placement. Alternatively, the Customer may, at Purchase Order placement, agree to purchase the products and/or services in GBP.
5. A delivery schedule for the Products and/or Services can only be confirmed upon receipt of the Purchase Order.
6. Prices quoted are **Ex Works**, subject to the Sonardyne Supply of Products and Services Terms:
 - a. Sonardyne Products: **Son, Inc. Houston, TX, USA.**
7. Prices are exclusive of any applicable taxes, levies, import or export duties or fees, which will be invoiced as applicable.
8. Any additional costs incurred, such as shipping, will be invoiced at cost +15%.
9. Products are supplied in Sonardyne standard export packaging, unless otherwise stated.
10. Prices exclude any specialist quarantine certificates, certificates of conformity or any special packaging requirements, which are chargeable in addition
11. Products may be subject to USA and other relevant export licence controls.
12. Products may include software (whether embedded in any Product or provided as a software package or otherwise).
 - a. Where this quotation refers to price in respect of software this shall be deemed to be a licence fee and therefore no transfer of ownership in any software, copyright and intellectual property rights shall be implied or given.
 - b. In the event of a Sonardyne engineer installing any software (whether at the site of the Customer or Sonardyne), it is deemed that the Customer has read and accepted the Sonardyne Sales Terms including the terms relating to provision of software.

All dealings and transactions between the Customer (and any of its representatives) and any Sonardyne company (and any of its representatives) MUST be in compliance with all applicable bribery and corruption legislation, including UK Bribery Act 2010 and US Foreign Corrupt Practices Act 1977. Sonardyne may require written assurances and evidence of compliance with the legislation.



Should you require further information concerning this Quotation please do not hesitate to contact me.

With best regards,
Jorge Gutierrez

+1 281 890 2120

<mailto:Jorge.Gutierrez@sonardyne.com>

The copyright and other intellectual property rights of any third parties which may be referenced in this Quotation are hereby duly acknowledged.