



OTS
Product
Brochure

NORTHERN DIVER
COMMERCIAL SUITS & EQUIPMENT

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Guardian Full-Face Masks



The Guardian line of full-face masks (FFMs) is OTS' most recent innovation. Unlike many other FFMs which are modified gas masks, the Guardian was designed for diving from the ground up. Our design leverages the best features found on other FFMs with unique added features designed by OTS.

The second stage regulator is horizontally mounted close to the diver's face. This design minimizes the difference in ambient pressure exerted on the second stage diaphragm and on the diver's body irrespective of the diver's position—eliminating the need for manual adjustments.

A locking mechanism secures the second stage to the mask to allow removal for post-dive cleaning and storage. As a safety precaution, the locking mechanism is located inside the mask to prevent accidental release during diving.

Another noteworthy design feature is the use of a double face seal. This allows a single mask to fit more faces. No more use of rubber tubing to fit smaller faces, measuring faces to order the right size FFM, or not being able to share masks amongst large and smaller faced divers.

Accessories



Maintenance Kit

The OTS Guardian Maintenance Kit contains o-rings, valve discs, and a valve seat needed to perform annual maintenance. It even includes a spare buckle.



Elbow

The low-pressure hose "elbow" is used to re-direct the hose so that it is aligned properly and in correct position.

Guardian Full-Face Masks



ABV® Ambient Breathing Valve



Removable 2nd Stage



Internal Locking Mechanism
(part of skirt cut away)



Double Face Seal

Features of the Guardian FFM include:

- Removable 2nd stage for easy cleaning and storage (cannot be used w/o mask)
- Made of a one-piece, pliable silicone skirt combined with injection-molded, high-impact, glass-filled nylon frame and regulator housing
- Double face seal and slightly smaller/low volume oral nasal cavity to fit most faces
- Customizable nose block for equalization
- Air flow is directed up the visor face to eliminate fogging and through one-way valves in the oral nasal pocket to reduce CO₂ retention
- Second stage comes off the right shoulder and uses a standard LP hose
- Communications port for easy installation of a Buddy Phone or ear/microphone assembly to connect to OTS' Diver Communications Unit such as the Aquacom® SSB-2010
- OTS Ambient Breathing Valve® (ABV®) allows the diver to breathe ambient air at surface—thus conserving scuba air
- Includes Mask Bag and 32" LP hose

Guardian Full-Face Masks



Black/Black; GRD-BB-1
OTS #920001-001



Blue/Black; GRD-UB-1
OTS #920001-101



Yellow/Black; GRD-YB-1
OTS #920001-201



Black/Pink; GRD-BP-1
OTS #920001-031



Black/Green; GRD-BG-1
OTS #920001-041



Black/Blue; GRD-BU-1
OTS #920001-011



Black/Red; GRD-BR-1
OTS #920001-021

NOTE: Colors listed denote skirt/trim options respectively.

Through-water Communications



Buddy Phone for the OTS Guardian shown

Buddy Phone D2 2-Channel Diver Unit

Using state-of-the-art DSP technology, the new Buddy Phone® 2 continues the tradition in providing excellent through-water communications in a compact, affordable platform. It includes voice menus via push-to-talk button to control channel, volume, squelch, and a patented Hot Mic or Super Mic.



RX-100-BK 1-Channel R/O Diver Unit

The RX-100-BK Buddy Phone® Receive Only unit is an acoustic underwater listening device used with all transceivers within range and on the same frequency. The diver attaches the RX-100-BK to his face mask and upon entry, the RX-100-BK powers up and cycles to the receive mode—ready to receive a message.

Specifications

Ch 1: 32.768 kHz USB Ch 4: 31.250 kHz LSB	Channels / Frequencies	Available in: Ch 1: 32.768 kHz USB or Ch 4: 31.250 kHz LSB
0.5 watts PEP (peak envelope power)	Output Power (watts)	n / a
50 m to 500 m	Nominal Range*	50 m to 500m (dependent on xmitter)
Piezoelectric type	Transducer	Piezoelectric type
Manual activation (PTT); optional continuous transmit via voice menu	Transmit Control	n / a
Ear / Microphone Assembly integrated unit	Microphone / Speakers / Earphone	Earphone Assembly integrated unit
no / no	Rec Out / Auxiliary Speaker	no / no
Alkaline 9-volt "transistor" type #522 or Ultralife® lithium 9-volt cell	Battery Type	Alkaline 9-volt "transistor" type #522 or Ultralife® lithium 9-volt cell
~ 20 hrs	Battery Life (10% xmit duty cycle)	~ 40 hrs
Voice alert and % remain on startup / shutdown	Low Battery Indicator	Tone Alert
n / a	External Power Source	n / a
130 fsw	Maximum Unit Depth	130 fsw
Injection-molded, high-impact, glass-filled ABS plastic	Housing	Injection-molded, high-impact, glass-filled ABS plastic
Height: 5.18", Width: 3.5" Depth: 2.0", Weight: 8.1 oz (on land)	Dimensions (H x W x D) & Weight	Height: 5.18", Width: 3.5" Depth: 2.00", Weight: 8.1 oz (on land)

Through-water Communications



SP-100D2 2-Channel Station

The SP-100D2 uses state-of-the-art Digital Signal Processing (DSP) circuitry to ensure great performance and clarity. It operates with all single sideband acoustic underwater devices within range and on the same frequency. The SP-100D2 Buddy Phone is compact and operates on 16 AA alkaline batteries.



SSB-2010 4-Channel Diver Unit

The SSB-2010 is a 5 watt diver unit designed with professional Search & Rescue teams in mind. Standard features include: voice-operated transmitter, push-to-talk control, squelch, earphone volume, voice menu (allowing the adjustment of the SSB-2010 underwater), removable transducer, and a heavy-duty design.

Specifications

Frequency A, Channel 1: 32.768 kHz USB Frequency B, Channel 4: 31.250 kHz LSB	Channels / Frequencies	Ch 1: 32.768 kHz USB Ch 2: 32.768 kHz LSB Ch 3: 31.250 kHz USB Ch 4: 31.250 kHz LSB
0.5 watts PEP	Output Power (watts)	5 watts PEP
50 m to 500 m	Nominal Range*	200 m to 1000 m
Piezoelectric type	Transducer	Piezoelectric type
manual activation (PTT)	Transmit Control	Voice-operated transmitter (VOX) or manual activation (PTT)
HHM-3 hand-held microphone (included); THB-14 headset w/ boom microphone (optional)	Microphone / Speakers / Earphone	Ear / Microphone Assembly connected via Hi-Use Connector
yes / no	Rec Out / Auxiliary Speaker	no / no
Sixteen AA alkaline batteries	Battery Type	Eight AA alkaline cells or optional RB-11 NiMH rechargeable battery pack.
20 hours (nominal)	Battery Life (10% xmit duty cycle)	Eight AA alkaline batteries: 7 hours RB-11 NiMH battery pack (optional): 12 hours
Tone alert	Low Battery Indicator	Red flashing LED on housing and tone alert
12 VDC, min. of 1 amp. Access via front panel with use of a mini double banana plug	External Power Source	n / a
35 feet	Maximum Unit Depth	300 fsw
Underwater Kinetics 309, ABS, heavy duty	Housing	Injection-molded, high-impact, glass-filled ABS plastic
Height: 7.85", Width: 9.0", Depth: 3.7" Weight: 2.5 lbs	Dimensions (H x W x D) & Weight	Height: 8.125", Width: 4.5", Depth: 2.25" Weight: 8 oz (in water)

Through-water Communications



SSB-2001B-2 2-Channel Diver Unit

The AquaCom® SSB-2001B-2 transceiver is a 5 watt, dual-channel unit without voice menus. The AquaCom® SSB-2001B-2 can be configured to operate with virtually any style full-face mask (FFM) or mouth mask with the addition of an earphone/microphone assembly.



*Pictured with SSB-2010 (not included)

CDK-6 Surface Unit Conversion

The CDK-6 Surface Accessory Kit converts an SSB-2010, SSB-2001B-2, or SSB-1001B into a portable surface station. After a quick and easy installation, you can talk to divers within range **and** on the same channel. The Kit contains a deluxe headset w/boom microphone (THB-13) and a 55' transducer cable (TC-35S).

Specifications

Ch. 1: 32.768 kHz USB Ch. 7: 25.000 kHz USB	Channels / Frequencies	Same as SSB-2010, SSB-2001B2, or SSB-1001B diver unit attached to CDK-6
5 watts PEP	Output Power (watts)	n / a
200 m to 1000 m	Nominal Range*	200 m to 1000 m (dependent on diver unit mated)
Piezoelectric type	Transducer	Piezoelectric type
Voice-operated transmitter (VOX) or manual activation (PTT)	Transmit Control	Voice-operated transmitter (VOX) or manual activation (PTT)
Ear / Microphone Assembly connected via Hi-USE connector	Microphone / Speakers / Earphone	Ear / Microphone Assembly connected via Hi-USE connector
no / no	Rec Out / Auxiliary Speaker	yes / no
Eight AA alkaline cells or optional RB-11 NiMH rechargeable battery pack	Battery Type	Eight AA alkaline cells or optional RB-11 NiMH rechargeable battery pack
Eight AA alkaline batteries: 7 hours RB-11 NiMH battery pack (optional): 12 hours	Battery Life (10% xmit duty cycle)	Eight AA alkaline batteries: 7 hrs RB-11 NiMH battery pack (optional): 12 hrs
Red flashing LED on housing and tone alert	Low Battery Indicator	Red flashing LED on housing or tone alert
n / a	External Power Source	n / a
300 fsw	Standard Transducer Cable Length (extensions available)	n / a
Injection-molded, high-impact, glass-filled ABS plastic	Housing	Injection-molded, high-impact, glass-filled ABS plastic
Height: 8.125", Width: 4.5", Depth: 2.25" Weight: 8 oz (in water)	Dimensions (H x W x D) & Weight	n / a

Through-water Communications



STX-101 4-Channel Station

The Aquacom® STX-101 surface transceiver is a 5-watt, multi-channel, single sideband underwater telephone designed with the professional Search & Rescue teams in mind. The STX-101 offers four channels that match the SSB-2010.



Bell-200 Diving Bell Unit

Primarily used in diving bells or confined spaces, the Bell-200 is designed to meet the rugged demands of commercial, scientific, and military diving. Although compact in design, the Bell-200 packs a punch. It puts out 70 watts and is set to a standard frequency of 25 kHz. Other channels are available.

Specifications

Ch. 1: 32.768 kHz USB Ch. 2: 32.768 kHz LSB	Ch. 3: 31.250 kHz USB Ch. 4: 31.250 kHz LSB	Channels / Frequencies	25 kHz USB (standard) other frequencies available.
5 watts PEP	200 m to 3000 m	Output Power (watts)	70 watts PEP
Piezoelectric type	Manual activation (PTT)	Nominal Range*	200 m to 6000 m
Hand-held microphone (included); THB-101 headset with boom microphone (optional)	yes / yes	Transducer	Piezoelectric type
Two 6-volt alkaline batteries (MN908 Duracell or equivalent) or two optional RB-6V gel-cell batteries	Two 6V alkaline lantern batteries: 20 hrs RB-6V gel-cell batteries (optional): 12 hrs	Transmit Control	Manual activation (PTT)
Tone alert	12 VDC, min. of 5 amps. Access via front panel with use of a mini double banana plug	Microphone / Speakers / Earphone	Optional headset/boom mic connected via mil-spec connector
35 ft	Injection-molded, high-impact, glass-filled ABS plastic	Rec Out / Auxiliary Speaker	n / a
Height: 6.50", Width: 14.00", Depth: 10.60" Weight: 12 lbs		Battery Type	External 24 V @ 10 amps power, minimum.
		Battery Life (10% xmit duty cycle)	n / a
		Low Battery Indicator	Red flashing LED on housing and tone alert
		External Power Source	n / a
		Maximum Unit / Standard Transducer Depth	Transducer, 2000 fsw (Bell-200 is for dry environments only)
		Housing	Sealed NEMA enclosure
		Dimensions (H x W x D) & Weight	Height: 4.75", Width: 10.25", Depth: 4.40"

*Range based on water conditions [i.e., noise level]; acoustic ambient range can be greater or less than stated.

Through-water Communications



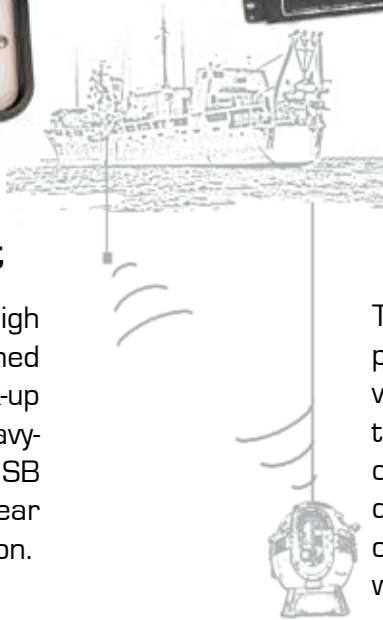
STX-101SB Diving Bell Surface Unit

The Aquacom® STX-101SB is a high power surface transceiver designed to operate with the BELL 200 back-up communications system. Using a heavy-duty 35' transducer cable, the STX-101SB has 70 watts of power to ensure clear communications in virtually any condition.



STX-101SBR Diving Bell Surface Unit

The Aquacom® STX-101SBR is a high power, two-channel, rack mounted version of the STX-101SB designed to operate with the BELL 200 back-up communications system. Using a heavy-duty 35' transducer cable with 70 watts of power, clear communication is assured with the STX-101SBR.



Specifications

8.0875 kHz USB OR 25 kHz USB	Channels / Frequencies (top and bottom represent different models)	8.0875 kHz USB and 11kHz LSB OR 25 kHz USB and 32.768 USB
70 watts PEP	Output Power (watts)	70 watts PEP
200m-6000m (up to 10km w/ 8 kHz transducer)	Nominal Range*	200m - 6000m (up to 10km w/ 8 kHz xducer)
Piezoelectric type	Transducer	Piezoelectric type
Manual activation (PTT)	Transmit Control	Manual activation (PTT)
Hand held; dynamic, 200 ohm / heavy duty front panel speaker with on/off control	Microphone / Speakers / Earphone	Hand held; dynamic, 100-1000 ohm / heavy duty front panel speaker with on/off control
yes / no	Rec Out / Auxiliary Speaker	no / no
Supplied with (2) RB-6V rechargeable gel cells. Do not use alkaline batteries.	Battery Type	n/a
6 hrs.	Battery Life (10% xmit duty cycle)	n/a
Red flashing LED on housing and tone alert	Low Battery Indicator	n/a
12v DC @ min 4 amps	External Power Source	24v DC @ min 10 amps
n/a	Maximum Unit/Standard Transducer Depth	n/a
Injection-molded, high-impact, glass-filled ABS plastic	Housing	Aluminum rack chassis
Height: 6.50 in., width: 14.00 in., depth: 10.60 in. Weight: 12 lbs. (with batteries)	Dimensions (H x W x D) & Weight	3.50" x 18.4" between center of mounting screws (17.0 case) x 8" depth

Hardwire Systems



ComBox 1-Diver Station

A compact, self-contained one diver air intercom, the ComBox allows clear 2-wire communications using a powerful 20-watt amplifier. With a rugged PTT control and "Silver Bullet" front speaker, the ComBox will deliver years of reliable service.



MK2-DCI 2-Diver Station

The versatile MK2-DCI provides one or two divers with clear communications in either 2-wire or 4-wire mode. In 4-wire mode, up to 6 divers can be 'stacked' and communicating with each other.

Specifications

2-Wire	Mode	2-wire or 4-wire
1	# of Divers	1 to 6
Front Panel push-to-talk	Transmit Control	Front Panel push-to-talk (optional HHM-2 hand-held microphone with PTT available)
Ear / Microphone Assembly connected via Hi-USE® Connector (diver) optional THB-CBX2 headset available (tender)	Microphone / Speakers / Earphone	Ear / Microphone Assembly connected via Hi-USE® Connector (diver) optional THB-2A headset available (tender)
yes / yes	Rec Out / Auxiliary Speaker	yes / yes
8 or 16 AA alkaline batteries or two RB-11 NiMH battery packs (user must modify foam battery holder)	Battery Type	Two 6-volt alkaline lantern batteries with springs (MN908 Duracell or equivalent) or two optional RB-6V gel-cell batteries
10 hrs (nominal) (8 AA batteries)	Battery Life (10% xmit duty cycle)	20 hrs (nominal)
n / a	Low Battery Indicator	Green / Yellow / Red LED Indicator w/ tone alert
12 VDC, minimum of 3 amp. Access via front panel with use of a mini double banana plug.	External Power Source	12 VDC, minimum of 1 amp. Access via front panel with use of a mini double banana plug.
Underwater Kinetics 309, ABS, heavy duty	Housing	Ultra high impact ABS (UK 613 Ultracase)
Height: 7.85" Width: 9.00" Depth: 3.70" 3.5 lbs	Dimensions (H x W x D) & Weight	Height: 6.5" Width: 14" Depth: 10.6" Weight: 14.0 lbs

Hardwire Systems



MK-7 BuddyLine 2-Diver Station

The MK-7 BuddyLine is a compact, self-contained air intercom that gives clear communications in the 4-wire mode (round robin). The MK-7 was specifically designed for Search & Rescue teams to have an underwater communication device that required minimal set-up time.



MK-IV 3-Diver Station

The MK-IV Three-Diver Intercom is designed to support military diving profiles. It allows two divers and a standby diver to communicate via hard-wire communications in addition to the surface tender. Auxiliary connector for use with HeO₂ (Helium) de-scramblers is also included.

Specifications

4-Wire	Mode	4-wire
1 or 2	# of Divers	1 to 3
n / a	Transmit Control	Only necessary with optional HHM-MKIV microphone
THB-7A headset included	Microphone / Speakers / Earphone	(Non-powered) 150 ohm microphone; 300 ohm speaker; THB-16 headset (optional); HHM-MKIV (optional)
Converter on host connector	Rec Out / Auxiliary Speaker	yes / yes
Eight AA alkaline batteries or RB-11 NiMH rechargeable battery pack	Battery Type	Rechargeable, lead acid, 12 V, 5 Ah
12 hrs using eight AA alkaline batteries	Battery Life (10% xmit duty cycle)	14 hrs continuous use (full charge)
n / a	Low Battery Indicator	Green / Yellow / Red LED indicator
n / a	External Power Source	90-264 V AC, 47-63 Hz, 5 amps DC 125 mA
Injection-molded, high-impact plastic	Housing	Molded composite housing; 0.080" stainless steel, powder coated front panel
Height: 6.725" from bottom of unit to top of connector Width: 4.35" from latch to latch Depth: 3.0" from front knob to rear buckle Weight: 1.5 lbs (with batteries)	Dimensions (H x W x D) & Weight	Height: Lid on: 15" Lid off: 9" Width: 13.75" Depth: 12.5" Weight: 28 lbs

MILITARY



STX-101M 8-CHANNEL STATION

The Aquacom® STX-101M transceiver is a 10 watt, 8-channel through-water surface station designed to meet the demanding profile of the military diver. It operates with virtually all OTS Aquacom® and Buddy Phone® transceivers.



SSB-1001B1 8-CHANNEL DIVER UNIT

The Aquacom® SSB-1001B1 transceiver is a high power, 10 watt, 8-channel single sideband underwater communications unit configurable to operate with virtually any style full-face mask (FFM) or mouth mask. With the addition of a CDK-6 Surface Accessory Kit, it is easily converted into a portable surface station.

Specifications

Ch 1: 32.768 kHz USB Ch 2: 32.768 kHz LSB Ch 3: 31.250 kHz USB Ch 4: 31.250 kHz LSB	Ch 5: 28.500 kHz USB Ch 6: 28.500 kHz LSB Ch 7: 25.000 kHz USB Ch 8: 25.000 kHz LSB	Channels / Frequencies	Ch 1: 32.768 kHz USB Ch 2: 32.768 kHz LSB Ch 3: 31.250 kHz USB Ch 4: 31.250 kHz LSB	Ch 5: 28.500 kHz USB Ch 6: 28.500 kHz LSB Ch 7: 25.000 kHz USB Ch 8: 25.000 kHz LSB
10 watts PEP	Output Power (watts)	10 watts PEP		
200 m to 3000 m	Nominal Range*	200 m to 3000 m		
Piezoelectric type	Transducer	Piezoelectric type		
manual activation (PTT)	Transmit Control	Voice-operated transmitter (VOX) or manual (PTT)		
Hand-held microphone (included); THB-101 headset with boom microphone (optional)	Microphone / Speakers / Earphone	Ear / Microphone Assembly connected via Hi-USE® Connector		
yes / no	Rec Out / Auxiliary Speaker	no / no		
Two 6-volt alkaline lantern batteries (MN908 Duracell or equivalent) or two optional RB-6V gel-cell batteries	Battery Type	RB-11 NiMH battery pack, 12 V, 2 amp-hours.		
10 hrs alkaline 6 hrs gel-cell	Battery Life (10% xmit duty cycle)	7 hrs alkaline 8 hrs NiMH		
Tone Alert	Low Battery Indicator	Red flashing LED on housing and tone alert		
12 V DC min 9 amps; front panel MS connector	External Power Source	n / a		
n / a	Maximum Unit Depth	300 fsw		
Ultra high impact ABS (UK 613 Ultracase)	Housing	Injection-molded, high-impact, glass-filled ABS plastic		
6.5" x 14.0" x 10.6" 12 lbs with batteries	Dimensions (H x W x D) & Weight	8.125" x 4.5" x 2.25" 0.5 lbs (in water)		



MAG-1001S



MAG-1003PS

The Magnacom® MAG-1001S surface station is a 70 watt, dual-channel single sideband surface station designed to meet the demanding needs of the military. The Magnacom MAG-1001S has many useful features and comes standard with battery, battery charger, and transducer.

A through-water unit only, the Magnacom® MAG-1003PS is a variation of our Magnacom MAG-1003D designed to be a portable surface unit. It features dual channels and comes standard with rechargeable NiMH batteries and a charger.

Specifications

Low-frequency / High Frequency Pair: Ch. A: 8.0875 kHz USB / 28.500 kHz LSB Ch. B: 11.0000 kHz LSB / 32.768 kHz USB	Channels / Frequencies (Ch.A or Ch.B available separately)	Ch. A: 28.500 kHz LSB Ch. B: 32.768 kHz USB
70 watts PEP	Output Power (watts)	70 watts PEP
6000 m to 10000 m**	Nominal Range*	> 6000 m in calm sea; 1000 m in sea state 6 on Channel A.
Piezoelectric type	Transducer	Piezoelectric type
manual activation (PTT)	Transmit Control	Voice-operated transmitter (VOX) or manual activation (PTT)
Hand-held, dynamic, 200 ohm impedance	Microphone / Speakers / Earphone	Dynamic earphones and dynamic 150-ohm microphone model THB-13
yes / no	Rec Out / Auxiliary Speaker	no / no
Use RB-6V rechargeable batteries only (not alkaline)	Battery Type	RB-14 NiMH battery pack, 12 V, 2 amp-hours. Includes spring contact pad
8 hrs (assuming 20% duty cycle)	Battery Life (10% duty cycle)	4 hours on high-power Ch. A 8 hours on low-power Ch. B
Tone Alert	Low Battery Indicator	Red flashing LED on housing and tone alert
12 V DC min 9 amps. Access via front panel with use of MS connector	External Power Source	n / a
35 fsw	Standard Transducer Length	35 fsw
Ultra high impact ABS (UK 613 Ultracase)	Housing	Injection-molded, high-impact, glass-filled ABS plastic
6.5" x 14.0" x 10.6" 12 lbs with batteries	Dimensions (H x W x D) & Weight	8.5" x 4.5" x 2.25" 1.5 lbs

MILITARY

**US MILITARY
ONLY**



SW-1000-SC

The Magnacom® SW-1000-SC is the most advanced, state-of-the-art underwater communication unit to date. A powerful 70-watt transmitter and diver-to-diver hardwire connection ensures long-range communications via through-water mode and secure communications via hardwire. An optional "Buddy Line" allows multiple divers to participate on the secure line.



MAG-1004-TAC

The Magnacom® MAG-1004-TAC is a variant of the Magnacom® MAG-1004HS using a shorter (approx 4' cable) and locking connectors. The powerful 70-watt transmitter ensures long range communications. The Secure Mode allows the users a secure way to communicate.

Specifications

Ch. A: 25 kHz USB Ch. B: F2 (special)	Channels / Frequencies	Ch. A: 28.500 kHz LSB Ch. B: 32.768 kHz USB
70 watts PEP	Output Power (watts)	70 watts PEP
1000 m to 6000 m	Nominal Range*	1000 m to 6000 m
Piezoelectric type	Transducer	Piezoelectric type
Voice-operated transmitter (VOX) or manual activation (PTT)	Transmit Control	Voice-operated transmitter (VOX) or manual activation (PTT)
Ear / Microphone Assembly connected via Hi-USE® Connector	Microphone / Speakers / Earphone	Ear / Microphone Assembly connected via Hi-USE® Connector
n / a	Rec Out / Auxiliary Speaker	no / no
RB-14 NiMH battery pack, 12v, 2 amp-hours. Includes spring contact pad	Battery Type	RB-14 NiMH battery pack, 12 V, 2 amp-hours. Includes spring contact pad
4 hours on high-power Ch. A 8 hours on low-power Ch. B	Battery Life (10% duty cycle)	4 hours on high-power Ch. A 8 hours on low-power Ch. B
Red flashing LED on housing and tone alert	Low Battery Indicator	Red flashing LED on housing and tone alert
n / a	External Power Source	n / a
300 fsw	Maximum Unit / Standard Transducer Depth	300 fsw
Injection-molded, high-impact, glass-filled ABS plastic	Housing	Injection-molded, high-impact, glass-filled ABS plastic
8.25" x 4.5" x 2.25" 0.5 lbs (in water)	Dimensions (H x W x D) & Weight	8.25" x 4.5" x 2.25" 0.5 lbs (in water)

*Range can be more or less than stated and is dependent on water conditions (i.e., depth, noise, thermoclines, etc.). A combination of high sea state and acoustic shadowing will severely limit range.



MAG-1003D

A through-water unit only, the Magnacom[®] MAG-1003D is a variation of our Magnacom[®] SW-1000-SC, but without secure communications. It is a 70-watt, two-channel unit and comes standard with rechargeable NiMH batteries and a charger.



MAG-1004HS

The Magnacom[®] MAG-1004HS is a variant of the SW-1000-SC created for Homeland Security applications with different frequencies and without a “sleep mode.” A powerful 70 watt transmitter ensures long-range communications and a diver-to-diver hardwire connection provides secure communications.

Specifications

Ch. A: 28.500 kHz LSB Ch. B: 32.768 kHz USB	Channels / Frequencies	Ch. A: 28.500 kHz LSB Ch. B: 32.768 kHz USB
70 watts PEP	Output Power (watts)	70 watts PEP
1000 m to 6000 m	Nominal Range*	1000 m to 6000 m
Piezoelectric type	Transducer	Piezoelectric type
Voice-operated transmitter (VOX) or manual activation (PTT)	Transmit Control	Voice-operated transmitter (VOX) or manual activation (PTT)
Ear / Microphone Assembly connected via Hi-USE [®] Connector	Microphone / Speakers / Earphone	Ear / Microphone Assembly connected via Hi-USE [®] Connector
no / no	Rec Out / Auxiliary Speaker	no / no
RB-14 NiMH battery pack, 12 V, 2 amp-hours. Includes spring contact pad	Battery Type	RB-14 NiMH battery pack, 12 V, 2 amp-hours. Includes spring contact pad
4 hours on high-power Ch. A 8 hours on low-power Ch. B	Battery Life (10% duty cycle)	4 hours on high-power Ch. A 8 hours on low-power Ch. B
Red flashing LED on housing and tone alert	Low Battery Indicator	Red flashing LED on housing and tone alert
n / a	External Power Source	n / a
300 fsw	Maximum Unit / Standard Transducer Depth	300 fsw
Injection-molded, high-impact, glass-filled ABS plastic	Housing	Injection-molded, high-impact, glass-filled ABS plastic
8.25" x 4.5" x 2.25" 0.5 lbs (in water)	Dimensions (H x W x D) & Weight	8.25" x 4.5" x 2.25" 0.5 lbs. (in water)

Ancillary Products



WT-MK2 Wireless Tender

The WT-MK2 works with the MK2-DCI along with most existing diver intercom systems operating in full-duplex. It consists of a base unit connected to the diver intercom that transmits to a wireless transceiver unit with a heavy duty headset. It comes with internal rechargeable batteries and a battery charger.



DRS-100B Diver Recall System

The DRS-100B alerts divers within range with either voice, a solid tone, or an intermittent tone. You can also feed sound into the water (e.g. music, pre-recorded announcements) via a line-in connection located on the front panel. The DRS-100B also has a listen mode allowing the user to listen to marine and/or man-made noise.

Specifications

n / a	Channels / Frequencies	n / a
n / a	Output Power (watts)	Recall & tone: 132 watts (in high-power mode); Voice: Adjustable up to 132 watts
75 m to 400 m	Nominal Range*	100 m (voice); 300 m (tone)
n / a	Transducer	Anodized aluminum
Continuous full-duplex	Transmit Control	Push-to-talk, front panel (optional hand-held with PTT available)
Heavy duty headset permanently connected to wireless unit	Microphone / Speakers / Earphone	HSM-10
no / no	Rec Out / Auxiliary Speaker	yes / no
Four AA NiCad batteries in belt pack; Four AA NiCad batteries in base unit	Battery Type	Two 12 volt, 2.6 amp-hour, maintenance-free rechargeable cells (in series)
5 hrs	Battery Life (10% xmit duty cycle)	5 hrs at 20% duty cycle (Recall / Tone mode) 3 hrs nominal using aux. input (medium volume)
Battery Low Indicator Light	Low Battery Indicator	Flashes at approximately 20 volts
n / a	External Power Source	24 VDC; 7 amps maximum; 75 mA (idle)
n / a	Maximum Unit / Standard Transducer Depth	25 fsw
	Housing	Ultra high impact ABS (UK 613 Ultracase)
Height: 5.5" Width: 7.0" Depth: 2.5" Weight: 1 lb	Dimensions (H x W x D) & Weight	Height: 6.5". Width: 14.0" Depth: 10.0" Weight: 15 lb

Earphones, Microphones & Headsets

Hot Mic® (ME-16R)



The patented ME-16R Hot Mic evolved from many years of research and development into a true studio-quality, noise canceling microphone that can withstand the harsh marine environment and depth changes (while flooded) of up to 12 fsw. The Hot Mic is the ultimate microphone for television and film.

Super Mic®



The Super Mic is an acoustically balanced, noise canceling microphone with high-quality acoustic response and clarity. The microphone is capable of immersion to any depth without sustaining damage. There is no need for plastic bags or other make-shift devices to protect the Super Mic. This revolutionary design will out-perform virtually all other microphones and is quickly becoming the standard for underwater communications.

Commercial Diving Ear & Microphones



Using a patented, piezoelectric design, OTS has designed and built replacement earphones that will last significantly longer than competing products. Due to their unique properties, they must be used as a set and cannot be mixed

and matched with other earphones or microphones. Designed for the most popular commercial diving bandmasks and helmets, they are currently available for:

- Gorski GS2000S
- Kirby Morgan Superlite 18 & 28 Band Masks
- Kirby-Morgan Superlite 17, 27, 37,47 and 57 Helmets

Waterproof Headset



Designed for the US Military, this headset is completely waterproof and submersible. It features either one or two patented ceramic earphones as well as our patented Super Mic® microphone. The earphone(s) have gel ear pads for comfort and durability. The microphone

comes with a removable voice director to channel and amplify the user's voice. The microphone sits on the end of a custom fabricated boom designed to allow frequent repositioning.

The headset comes standard with an OTS patented Hi-USE® connector, but may be ordered with any connector.

Connectors & Common Configurations



THB-2A
for
MK2-DCI



EMD-2
for
KM-M48 Supermask



Hi-USE®

The OTS designed Hi-USE® connector is waterproof with beryllium-copper sockets and durable pins made of Navy brass. They can be disconnected/reconnected underwater at any depth.



AMP-4M

AMP connectors are reasonable alternatives to our Hi-USE® connector. The connector with the gripper ring is the male AMP, and the connector without the gripper ring is the female.



Banana Plug

Banana plugs are commonly used in the commercial diving arena. They can be easily stacked, allowing multiple divers to have communications. Note: For a helpful page on connectors, go to www.otscomm.com/connectors.shtml.



RCL-7A Charging Station

The RCL-7A Multi-Battery Charging Station is designed to charge up to six NiMH double battery packs along with a variety of units, including the STX-101 and MK2-DCI.

Full-Face Masks

Interspiro Divator MKII (“AGA Mask”)



The Interspiro line of diving full-face masks (FFMs) are high quality masks and have been field proven by Government, Military, Commercial & Public Safety Teams around the world. The FFMs are primarily used with scuba, but are often utilized with surface supplied gas as well as rebreathers.

The Divator II has been tested by Duke University to 1,800 ft (unmanned test) and found to be extremely reliable. Many professional divers around the world choose the AGA FFM. With the addition of our OTS Ambient Breathing Valve® (ABV-1), standby divers as well as divers on the surface can effortlessly conserve their gas supplies by breathing surrounding air through the ABV®.

All the Interspiro full-face masks have been tested by the U.S. Navy Experimental Diving Unit (NEDU) and are Approved for Naval Use.

Underwater communication is achieved by the addition of an Ear/Microphone Assembly (shown on left), which allows for through-water communications when paired with a communications unit like the SSB-2010, or hard-wire communications via the CR-4 ComRope. Alternatively, for a more compact/less expensive option, a Buddy Phone® can be installed on the FFM for through-water communications.

Accessories



Ambient Breathing Valve®

The ABV-1 Ambient Breathing Valve® allows the diver to breathe ambient air at the surface, thus conserving the breathing gas in their cylinder. We can install the ABV-1 on your existing Divator

MKII visor, or you can purchase the ABV-2 (a visor with the valve pre-installed).



Supply Hose

The HSA-2 supply hose converts the 2nd stage regulator on the Divator MKII from a metric to an imperial hose fitting. The HSA-2 fits most American standard 1st stages.



Minor Maintenance Kit

The Interspiro Divator MKII minor maintenance kit contains two valve discs, an exhalation diaphragm, valve housing, valve cone diaphragm, and various

o-rings. The kit contains 'soft parts' to perform annual maintenance. Only sold to certified technicians.



Major Maintenance Kit

The Interspiro Divator MKII major maintenance kit contains two valve discs, an exhalation diaphragm, a sealing piston assembly, a counter pressure assembly, push pad, valve

housing, head harness, and various o-rings. Only sold to certified technicians.

Full-Face Masks

Mantis Full-Face Mask

The Mantis is a low volume full-face mask (FFM) manufactured with a one-piece, non-ridged silicone skirt available in either a black or clear configuration. The Mantis FFM is an ideal piece of equipment designed to fit the needs of today's demanding sport and technical divers. Its low-volume skirt is designed to fit a wide range of face sizes.

The Mantis FFM is designed to be used with your existing second stage regulator, accounting for its more economical price. Simply remove the second stage bite mouthpiece, insert it into the FFM, and attach with a new zip-tie. The dual tempered, anti-fog lenses of the Mantis FFM offer exceptional visibility and clarity. The design of the Mantis FFM allows for traditional, and more familiar, Valsalva-type ear equalization similar to a standard diving mask. The Mantis FFM incorporates a five-strap (spider type) system that securely attaches the mask to the diver's head and incorporates quick release buckles at its base.

The Mantis FFM is designed with dual accessory ports for use with OTS underwater communications or an alternate air source.



Accessories



Surface Air Valve

The Surface Air Valve allows the diver to breathe ambient air at the surface, thus conserving the available gas in their cylinder. The SAV is available at time of mask purchase or can be easily installed later.



Mask Bag

The OTS Mask Bag, featured on page 24, is a great way to store your Mantis Full-Face Mask.



Supply Hose

OTS carries a large supply of standard low-pressure 2nd stage supply hoses in a variety of lengths.



Available in Black or Clear skirts.

Dive Lights

GFFM Rail Light System



The GFFM Rail Light System gives your GFFM an extremely easy-to-use, versatile, and functional multi-tool—giving you the options needed for utilizing most of today's ever changing technologies (lighting, video, audio, microphone, etc.). When mounted, the LED light is adjustable to give you the perfect angle needed to maximize field of vision. With the use of the optional articulated mount, the GFFM can be equipped with a video camera, microphone, or virtually any other accessory that attaches to the all-purpose system.

Rail Light features:

- LED light is adjustable up and down for the perfect angle
- No tools needed for rail attachment
- Specifically designed for the GFFM
- Hands free and eye-level precision
- Only 2 hand screws needed for secure fit
- Articulated mount allows for utilization of a variety of instruments



SARlite



This compact and long lasting system has 3 different light sources in one—and is what makes it so successful. The high-beam spotlight is perfect for long range lighting and is powerful enough to see across a river, valley, or into the ocean depths. The white LEDs provide an excellent work light and long burn time of 10 hours. In addition, the Green LEDs are perfect for preserving night vision and double as the light systems' reserve mode, using little power.

SARlite features:

- 3 in 1 light – Green and White LEDs, 15 W halogen highbeam spot
- Burn times: 2:20 hrs @ 15 W halogen high-beam, 10 hrs on White LED low-beam, 20+ hrs on Green LEDs
- NiMH 6 V, 4.5 Ah battery (includes 2.5 hr Intl. Smart Charger)
- Military spec EO Wet Connectors
- Soft Hand Mount design for "hands-free" light use.
- OTS GFFM mask mount (also for Interspiro AGA)
- Battery size: 3.9" wide x 4.8" tall x 1" thick
- System weight: 1.6 lbs (.3 lbs negative UW)



Gear Bag

The OTS gear bag is designed to prolong the life of your FFM and/or communications equipment. It features configurable compartments and can store two FFMS, a single FFM and diver unit, and headset and portable surface unit.



The bag is made out of 420D nylon with polypro webbing and corrosion resistant plastic hardware (D-rings, strap hooks, grommets, tri-glide [on strap] and zipper sliders). It also has Velcro compatible tricot lining, closed-cell foam padding, and a shoulder strap with rubberized shoulder pad.

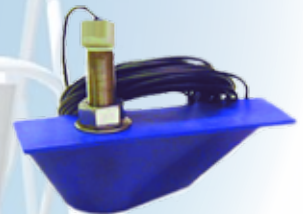


Full-Face Mask Bag

The OTS designed FFM storage bag protects your FFM, thus extending the life of your gear. It is made of ballistic nylon, features drain holes in the bottom, and a nylon mesh opening on the top to facilitate drainage and drying after FFM use. The FFM is normally placed upside down to allow water to drain out of the oral-nasal pocket.

TA-32M Hull Mount Transducer

Many Search & Rescue teams have equipped their boats with a hull mount transducer assembly. This allows the boat to communicate without dangling a transducer over the side. OTS offers this product in various frequencies and designs to match your system. Call us today for a quotation.



VSB-2 Video Connector

The VSB-2 connects an Aquacom® SSB-2010, SSB-2001B-2, or SSB-1001B to an underwater video housing (includes bulkhead connector). It allows the capturing of real-time communications between divers and/or the surface without having to synchronize audio and video during editing.

ComRope

Our ComRope is 100% nylon, 7/16" static kernmantle rope with four custom-designed wires down the center to ensure crisp, clear communications with virtually no crosstalk or interference. We offer ComRope either by the foot or complete with connectors that suit a specific need.



ComRope Bag

The OTS ComRope bag is manufactured from a heavy-duty, high visibility mesh that features a reinforced mouth with an adjustable nylon drawstring cord. A convenient side opening on the bag allows access to the topside connection of the ComRope.





Photo by Michael R. Pelissier

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