# **OCEANREEF**° underwater, naturally.





WE WERE ALL BORN FROM THE SEA.

Maybe that's why we're so irresistibly
attracted to it

As soon as we're immersed in it, once again we turn to breathe, we feel we're back to our true natural setting. In our every effort, every thought, every dream, the sea finds its way. We yearn to be back in it to better observe it, to admire its grandness, always with new eyes.

To be back in it, to be astonished by it and to share its wonders with our friends

To be back in it to imbue new life to the very place that's been witness to the birth of it all.



# OCEANREEF° underwater, naturally.

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OCEAN REEF has more than 60 years of experience molding rubber goods and working in several different markets:

- Fashionable rubber, silicone, plastic, & multi-compound watch components
- Military protection equipment
- Respiratory PPE
- Molding of silicone, liquid silicone, rubber, plastic, and thermoplastic goods
- Engineering and manufacturing of molds for rubber/silicone plastic and thermo rubber Full face masks and underwater communication systems for diving application.

The Ocean Reef Group factories are in Genoa, Italy (Mestel Safety S.r.L - 50,000 sq. ft.) and San Diego, California, USA (OCEAN REEF Inc.-6,000 sq. ft.) 'MESTEL Safety SrL is an ISO 9001-2000 certified company and also a NATO classified supplier.

The production facility includes injection and compression presses, electronic components assembly, finished goods assembly, and testing department. The R&D includes a sophisticated rubber/silicone compounds testing laboratory, an advanced computerized self-contained breathing monitor apparatus, a 32,000 liter pool with computerized ultrasonic underwater communication control system, closed circuit audio/video for demonstration and training, and two Pro E working stations for product engineering and mold design.



During more than 60 years of involvement in the diving industry, OCEAN REEF has learned the importance of professional and commercial diving in the industry. Whatever the type of diving, most commercial and professional divers require a high-tech, durable, efficient, safe, and comfortable diving system. OCEAN REEF has developed a full face mask (integrated diving mask and regulator, or IDM) with underwater communications; a system that easily accomplishes all requirements for such demanding conditions and embraces different worlds to give divers the best solution to all their needs.

The IDM system is not just a Pull-Pace mask. It's an aggregation of diving components, combining the number one FFM with a whole worldwide range of accessories and features that could only be dreamt to be integrated in one's mask.

OCEAN REEF's revolutionary IDM's are the product of intense research and valuable experience acquired in the development and production of military protection equipment. The surface-based versions of our full-face mask have received international approval for use in the civil sector and have been adopted by specialized departments in numerous military and defense organizations for use in Nuclear, Biological, and Chemical (NBC) operations. From the Gulf Wars/Homeland security program to Antarctic expeditions, from military use to space exploration, from commercial to recreational activities, the Full Face Mask Project, which started in 1985, and involved over 50 different types of masks, has experienced a diverse range of conditions and applications, with the goal to achieve the best underwater product possible. A product that, dedicated entirely to the underwater world, could use the perfect seal that our gas masks obviously have to assure. With the development of the IDM masks for underwater use, OCEAN REEF is now recognized worldwide as THE FULL FACE MASK COMPANY, wherever you dive.

We are proudly made in ITALY manufacturers.



## WHY DIVE AN OCEAN REEF IDM (INTEGRATED DIVING MASK)

### **JAW FATIGUE**

- · Nothing to bite on.
- Frees mouth to communicate, drink.
- · Enables nose breathing.

### **FOGGING**

- · No product treatment needed
- No Pogging thanks to the air circulation system.

### MASK PRESSURE EQUALIZATION

 Breathing apparatus integrated into the mask means automatic pressure equalization at each inspiration.

### **FLOODING**

- Face seal as explained later.
- Breathing inside the mask automatically purges water through the draining/exhalation valve if water were to be inside the mask for any reason. When voluntarily flooding the mask, a couple purges of the second stage button completely clear the water from the mask.

### REGULATOR CHARACTERISTICS

- Pneumatically balanced second stage provides consistent ease of breath at any tank pressure.
- Adjustment knob provides the diver with the requested amount of air flow under all circumstances.
- Dive/pre dive lever (Venturi) helps avoid surface free flow in harsh conditions.
- CE certification in accordance with 89/686/CEE directives under UNI EN250 standard rules for underwater activities.
- CE certification includes low temperatures (<50°F or <10°C).

#### **FACE SEAL**

- · Patented bellows double "S", "spring profile", skirt.
- · Larger sealing surface.
- More comfort thanks to the "floating effect" on the face.
- · Available in 2 sizes.
- Seal capability derived from gas mask applications (CBRN tests) – the hardest test possible a face seal has to withstand.

### FIELD OF VISION

- Larger Pield of vision than competitors (italcert Certification PPE-05 Rif 1332/05).
- Visible light transfer of the visor is 92%, meaning a clearer view.
- Designed wider and sits closer to the face than other visors, giving a broader field of vision and less volume buoyancy.







- · Patented design.
- 3 way directional adjustment system: up/down, wide/ narrow, close/far. Made for maximum comfort and nose breathing.
- Pushing the mask towards the face when needed causes the plugs to create a nasal seal.

### **AIR CIRCULATION**

- Air circulation is achieved with an orinasal pocket so that CO2 build-up is not mixed with fresh air.
- One-way circulation keeps mask clear.

#### SURFACE AIR VALVE

- · Easy to grab, sturdy design.
- · Large air vents.
- Allows IDM divers to breath ambient air when at the surface, without having to take off the mask.

### DIRECTIONAL EXHAUST & DRAINING VALVE

- A B C C
- Large, one way valves drain any water and air in the mask during exhalation.
- · Purging the regulator will drain water even faster.
- Directional exhaust valve orients the bubbles away from the communication unit for better intelligibility.
   Position options are left, right, both sides and closed.

### DURABILITY AND SCRATCH RESISTANCE •

- Transparent polycarbonate visor made in Italy.
- Both sides are coated in siloxane resin for improved scratch and chemical resistance.
- Impact resistance tested by STANAG 4296 standards: impact of a steel ball traveling at 540 kph (335 mph).

#### HEAD HARNESS AND FAST ROTATING BUCKLE II

- Head harness attached to the face shield not on the skirt meaning no tearing and much better resistance to tugging.
- Six straps meaning no risk of losing reg if unconscious (much greater chance of surviving such an event) or violently hit.
- · Wide strap tips for easy grasping.
- Fast rotating buckle system (different configurations per model) for comfortable and quick doffing and donning on the surface and secure, fast operations during underwater bail out or wearing.

## **1ST STAGES & PACKAGING**



### **SL35TXINTFIRST STAGE** (code 9922)

- The IDMs are CE certified with this, high performance and balanced diaphragm first stage with anti-freeze kit.
- Adjustable intermediate pressure.
- Made of chrome plated brass, with a stainless steel piston and spring, and a Teflon seat.
- Standard yoke connection 232 bar (3364 Psi).
- 2 high-pressure ports 7/16-20 UNF.
- Flow rate of approx. 4800 I/m at 140 bar.



SL35TX DIN (code 9923)

- Same Features as previous.
- Screw connection at 300 bar (4500 Psi).





### SL35TXNITROXM26X2 (code OR009927)

- Same as previous.
- Threading in accordance with Euro rules.
- Viton O-rings and Christo lube grease.
- Compatible with Nitrox mixes up to 100%. Packaging may vary in accordance to model (Tdivers).

## PACK AGING MAY VARY IN ACCORDANCE TO MODEL

- 1 Padded zipper bag designed to hold your underwater equipment (mask, communication, first stage).
- 2 1st stage LP hose.
- 3 Visor protection.
- 4 User's manual.
- 5 Screwdriver.
- 6 Equalization extensions 3 two pieces sets (6, 10, 14 mm).
- 7 IDM diver registration card and Limited LiPetime Warranty.
- 8 Extender kit.
- 9 Extender Frame.



## IDMS (INTEGRATED DIVING MASK SYSTEMS)



Space Extender Yellow

Medium/Large code OR025107

Yellow Frame/ Yellow Silicone

Space Extender Orange
Orange Frame/ Orange Silicone
Medium/Large code OR025108

GSM G-Power SL

head set support



## **space** EXTENDER

### **EXTEND YOUR IDMs!**

You can explore the oceans snorkeling. Or, you can dive with an Integrated Diving Mask System, the Pull-Pace masks from OCEAN REEF that integrate a breathing system and countless accessories.

Today, IDMS reach their evolutionary pinnacle: the Space Extender, an upgrade to superior comfort, performance and versatility

### **EXTEND YOUR COMFORT**

Mother nature taught us to breathe through our nose, before we learned to breathe from our mouth. Why not do that underwater as well?

Air circulation improves, your jaw discomfort disappears and your mouth is free in case you might need to communicate.

Or simply to gape.

### **EXTEND YOUR FIELD OF VISION**

The exceptional vision of the Space Extender is created by the largest field of vision on the market, and by the breathing system that assures a fog free dive.

#### EXTEND YOUR SENSE OF WARMTH

The breathing system and the broad mask surface helps you maintain a comfortable temperature for your lips and nose.

This is an exceptional advantage during long dives and in Preezing water.

### **SPACE EXTENDER 100**

Specifically designed for long lasting dives and all those applications where high percentage of Oxygen in gas mixes is needed.

- · Viton O-rings.
- Christolube grease.
- 100% pure oxygen use compatible mask.
- Black ixef polymer reg cover.



#### **SPACE EXTENDER 100**

Black S/M size OR025102 M/L size OR025103

## **EXTENDER KIT**



The Space Extender is ready to extend your scuba activities to whatever you want: not only can you communicate with your buddies during the dive, thanks to the MHA2 support and the new improved NACS, but it's also equipped to mount up to 3 sport cameras (or similar systems) and a lot of free surface area to drill and customize to your needs.



### CHOOSING YOUR COLOR

### **EXTENDER KIT**

- Black OR025040
  - Yellow OR025041 Orange OR025042
  - Green OR025043 White OR025044



## FRAME

## CUSTOMIZE

### MHA2 ADAPTER

### **CAMERA/DIVING TOOLS SUPPORT**

Versatile supports with clicking, 30 degree angle rotation, to attach whatever you need to your Space Extender.









## EXTENDER CAMERA & TORCH REMOVABLE SUPPORT

code **OR025060** 

Holds anything cylindrical up to about 70mm (2.7inch) in diameter with re-openable, heavy duty zip ties.

Slide comes off when needed for handling – snaps in easily and holds in place.

Adds also horizontal angle possibilities (adding to the 30° vertical of the accessory support).

Compatible with standard GoPro Pitting.



### **EXTEND YOUR COLOR PALETTE**

### **EXTENDER FRAME**

Black OR025050

Yellow OR025051

Orange OR025052

Green OR025053

White OR025054





CHOOSING







You want to customize your IDM? Customize the style, or maybe just have a couple more surfaces to drill and mess with a little, experimenting with new ways to streamline your set up? Extender Frames are available sold separately as well, in all 5 colors. You just have to mount it on your IDMS with a click.



#### IDM DESIGNED FOR DURABILITY



### **PREDATOR**

Commercial divers' best choice, Special Corps Mask of choice, a mask that can withstand the toughest and most frequent use possible.

- Regulator cover in marine-use Anodized Anticorodal®, light weight resistant, durable aluminum.
- Reg adjustment knob, internal screw, in AISI 316 stainless steel.
- AISI 316 stainless steel frame and buckles.
- Sensitive reg adjustment knob, sturdy and easy to grab even wearing thick gloves.
- Glacier strap: HNBR rubber made head strap, designed to maintain high elasticity when exposed to very low temperatures.
- 1030 g total mask weight (2.28 lb.).
- Heavily reduced positive buoyancy, 232 g (0.5 lb.).



watch the video









watch the video

Ocean Reef has created this pack in collaboration with Team Blue Immersion to meet the needs of IDM tech divers that want to move at any moment to different configurations (side mounting, back mounting). Thanks to quick connections, dual tank valve and the IDM, tech divers can switch gases easily and with a streamline, modifiable configuration. The different length hoses included are also designed so that divers with different body sizes can choose which one is more comfortable for them by switching them around. Quick connections on your hoses diminish the number of regs needed for a more comfortable dive. Also included all the material to: hang hoses and equipment on your BC's, label your cylinders – for the most streamlined configuration possible.

Here in the drawings are two configurations suggested by TBI. Yellow hoses are for spare second stage and red hoses for primary.

### PREDATOR T DIVERS (code OR030004)

- divers
- Designed in collaboration with TEAM BLUE IMMERSION members, Dahab technical specialized divers.
- · Designed by technical divers for technical divers.
- · Doesn't compromise on the sturdy traits of the top of the line PREDATOR IDM with stainless steel components.
- O2 cleaned like a SPACE EXTENDER 100.
- · Newly designed stainless quick releases.
- · Streamlined, all black design.
- Double coated visor with high impact resistance.
- · Adjustable Flow stainless steel knob.
- Front cover made by IXEF-highly impact resistant.
- · All Viton O-rings.
- · Stainless steel frame.
- Glacier strap for low temperatures and standard strap included.
- · Protective padded bag.
- · Limited lifetime warranty.
- Male Quick connection included.

### T DIVERS HOSE PACK (code OR030005)

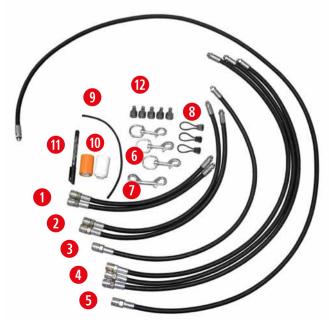
- 1 2 40cm hoses Anodized Anticorodal®/Female quick connect.
- 2 60cm hoses Anodized Anticorodal®/Female quick connect.
- 3 1 80cm hose Anodized Anticorodal®/Pemale quick connect.
- 4 3 100cm hoses Anodized Anticorodal®/Pemale quick connect.
- 5 1-2 meters hose Anodized Anticorodal®/Pemale quick connect.
- 6 3 Stainless Steel clips.
- 1 Double Stainless Steel clip.
- 8 3 Hose Retainers clips.
- 9 1-30cm Elastic rope.
- 10 2 Label Tapes (white and orange).
- 1 Label Pen.
- 5- Male quick connect parts.
  - · Available separately.















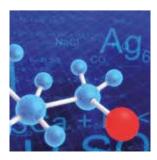
#### IDM HAZARDOUS ENVIRONMENT DIVING.





The Iron mask is a Chem Haz mask. There's nothing sweet and cuddly about this bad boy. Made to be used in the worst environments possible, this IDM can manage a high percentage of Hydrocarbons in any water environment.

- Regulator cover in marine-use Anodized Anticorodal®, light weight resistant, durable aluminum.
- Reg adjustment knob, internal screw, in AISI 316 stainless steel.
- AISI 316 stainless steel frame and buckles.
- Sensitive reg adjustment knob, sturdy and easy to grab even wearing thick gloves.
- Glacier strap: HNBR rubber made head strap, designed to maintain high elasticity when exposed to very low temperatures.
- 1090 g total mask weight (2.40 lb.).
- Heavily reduced positive buoyancy, 172 g (0.40 lb.).
- FVMQ rubber Face Seal, Inhalation Diaphragm, Exhalation Valve, Purge button: specific rubber made to withstand exposure to highly contaminated water.







## **IDM ACCESSORIES**



### **VISOR LIGHTS - INTEGRATED HEAD LIGHT**

Visor Lights pre/assembled on Predator mask - black M/L OR025006 Visor lights, pre assembled on any mask (mask sold separately) OR024502 Visor lights (applicable on any mask) 33380

- 6 powerful LED lights.
- Switch does not exclude SAV (surface air valve).
- 75-lumen output/LED.
- 100,000-hour light life.
- 12-degree beam angle.
- Light color TYP 5,500 MAX 10,000 K°.
- 3 hour burn time, depending on the type of rechargeable battery.
- Waterproof to 80 m (260 ft.).
- Rechargeable CR 123 3v lithium battery included.
- Battery charger.

NOTE: though these lights are powerful, using them as a primary light source is not recommended.

Visor Lights are available pre-assembled on a newly ordered mask (on demand) or may be applied on any IDM, using prepared adhesive tape or factory mounting (hole drilling) at customer's preference.



### **DRINKING DEVICE**

Drinking device kit only (code 33080) Neptune water pouch, 1 L (.26 gal) (code 33082)

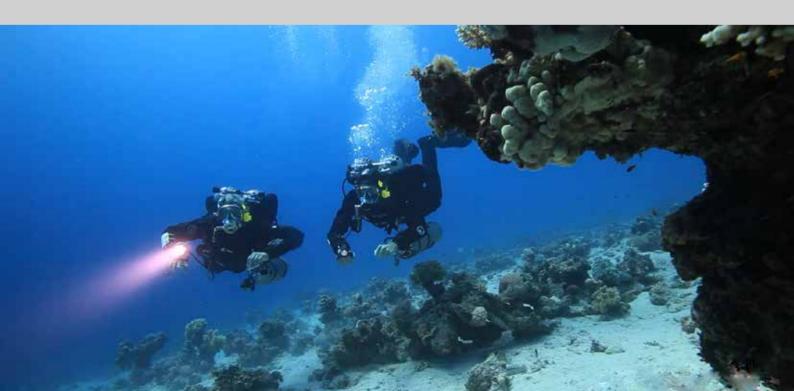
- Device for drinking underwater
- A valve on the drinking device tube allows the diver to control the flow of liquid through the device.
- The drinking device kit must be assembled by an authorized OCEAN REEF Service Center.
- Internal silicone rotating straw.
- Neptune water pouch: 1 L (.26 gal).







Use of the drinking device is strictly limited to commercial and expert certified divers.



## **IDM ACCESSORIES**







### LENS SUPPORT (code 33299)

- Designed for use with any of the IDMs.
- · Lightweight, durable.
- Easy to place and remove.
- Ability to share a mask to anyone by just removing your lenses.

### **NEW OPTICAL LENS SUPPORT**

Compatible with IDMs M/L Aria, Sea Vu Dry S/M, L/XL Easybreath M/L, L/XL

### **GLACIER STRAP** (code OR002902)

- Designed specifically for use also in low temperatures, as low as -10°C (outside air temperature).
- Made in HNBR rubben.
- Highly resistant to chemicals and solvents too.



Grey/grey OR033300



Blue/blue OR033301



Grey/blue OR033302



Blue/grey OR033303









### **DUAL TANK VALVE** (code 33049)

- Allows connection of the second stage directly to two gas sources (mix, side mounting, pony bottle).
- Allows a diver to alternate between sources, thanks to the switch, without removing the mask.

## STANDARD 9/16" TO QUICK CONNECT ADAPTER (code OR024995)

- Turns a standard hose into quick connect hose.
- Chromium plated brass.

### **SWIVEL CONNECTION** (code 33033)

- Allows free movement and streamlined configuration.
- · Chromium plated brass.
- Can be used with quick connection.







## EXTRAFLEX QUICK CONNECT HOSE (800MM, 32 INCH) (code OR024998) / QCH YELLOW (1200MM,47 INCH) (code OR024997) / COMMERCIAL QCH (code OR024996)

- Four layer technology, inner layer non-toxic polyurethane blend.
- Polyester first layer reinforcement, thermo rubber jacket.
- Polyethylene anti-scratching reinforcement.
- Commercial & professional hose requires two hands to disconnect.
- Characteristics same as the previous.



**WIRELESS COMMUNICATION** 

### GSMDC (code 33122)

- A professional use comm. unit. Powerful, clear and multichannel communication.
- Transceiver unit.
- DSP microprocessor digital driver for verbal message equalization.
- Automatic DAT system for hands-free communication.
- 2 transceiver channels.
- 2 buttons for PTT transmission, channel switching and DAT activation.
- Activating the DAT starts a 30 20 30 second cycle during which the unit will be in 1) transmission mode 2) receiving mode 3) transmission again. This way, the diver has the possibility of working with both hands free and still communicating. The DAT cycle will continue unless turned off this can be helpful in worst case scenario emergencies when the diver is in extreme distress and wants to send out a continuous message of his presence (transmission will signal to receiving units even if no words are spoken).
- DAT system is an Ocean Reef exclusive.



### GC2008 (code OR006509)

 This is a great tool that creates multiple options for professional communication alternatives



- Water proof connectors.
- Connects MHA-2 (headset) unit to ALPHA PRO X DIVERS surface unit while underwater, changing from a G-power SL configuration to a hard wire comm.
- This unit also connects the MHA-2 unit to the UWCP (under water cell phone) unit. Learn more on page 38.

### **EXAMPLE OF CONFIGURATION OR USING GC 2008**



### GSMG-POWER (code OR033124)

- Extra powered range of 500mt (1500 ft.).
- Transceiver PTT(push to talk) unit.
- External rubber treatment reduces micro bubble adhesion.
- Autonomy of approximately 25h in standby mode.
- Single channel Prequency (compatible with all units from OR and competitor units if using this Prequency).
- Allows the diver to adjust speaker volume with second button.



- Designed for use with hoods or OCEAN REEF Space Extender.
- Same features as the G-power unit.
- Includes a pair of waterproof headphones (MHA-2) that plug into the main unit with waterproof connectors.
- Includes a stainless steel clip to attach the main unit to BC.







## GC2010 (code OR006519)



- The GC 2010 acts like the GC 2008, as an adapter between MHA-2 and hardwire communication units.
- The difference is that the GC 2010 permits the simultaneous use of both wireless and hard wire communication, without having to change from one to another:
- By using the PTT communication is possible with both wireless receiving units and hardwired connected surface units. Without pressing the PTT, communication will be full duplex, hardwired only.
- Receiving will always be activated for both wireless and hardwired (if connected).



## HARDWIRED COMMUNICATION

### ALPHAPROXDIVERS (code OR033132)

### INCLUDES: UW UNIT + SURFACE UNIT + PROFESSIONAL 50 M CABLE

• This communication unit is specifically designed to meet the needs of professional and commercial divers that cannot compromise on a full duplex, hands free, super clear communication system. Cable communication is still unequaled in quality, while needing a hard connection diver to surface.

### **UNDERWATER UNIT**

- This unit can be sold separately, but is designed to be used specifically with the ALPHA PRO X DIVERS SURFACE UNIT.
- The unit itself is a hardwired comm. unit.
- · Clarity of communication is outstanding.
- Range depends on cable length.
- Includes recall button.
- Speaker and microphone as Peatured in all comm. units.

ALPHA PRO X-DIVERS	110/220V	OR033132
ALPHA PRO X-DIVERS - surface unit only	110/220v	OR033133
ALPHA PRO X-DIVERS prof cable	50 meters	OR033134
ALPHA PRO X-DIVERS UW unit (w/PTT)		OR033135

### **SURFACE UNIT**

- Hardwired, full duplex surface unit for underwater communications.
- 2 ports for 2 communication cables.
- On/off and volume adjustment switches.
- · Microphone.
- Switch for communication between surface & diver 1, surface & diver 2, surface & diver 1 & diver 2.
- · Headset port (headset optional).
- External 12v power port (cable optional).
- · Battery charger port.
- Audio/video recall.
- · Incorporated speaker.
- 12V rechargeable battery.
- Underwater unit volume adjustment (For both divers).
- Stand-by autonomy: 24h.



## **CABLES HARDWIRED COMMUNICATION**

Professional Cable	yellow	per meter	8488
Water proof rubber connector 6 pins		OR005270	
DIN connector to surface unit - ALPHA PRO	X Divers	OR008616	
Professional Cable 50 mt bag			8686
Professional Cable 75-100 mt bag			8687

Professional cable (50 meters -165 ft long) (can be sold separately). Includes yellow rope exterior - 10mm diameter and 4000-newton resistance. Available in any length with an optional bag.



### CABLE FLOATER (code OR 015001)

- · Useful accessory to keep audio/video cables Floating.
- 3 pieces per pack.
- Two Velcro straps keep Ploaters in position.









### GSM CUBE<sup>3</sup> (code OB033131)

- · The most versatile unit possible.
- · Capable of communicating in three different ways: wireless, hard wired, VHF.
- It can be connected to the ALPHA PRO X DIVERS surface unit For cable hardwired communication - Full duplex, hands Free communication.
- The unit is a permanent wireless unit. Always on receiving mode For any communication on channel 1 Frequency.
- PTT button activates wireless transmission on channel 1.
- Six-pin waterproof connection permits connecting and detaching Prom cable communication while underwater.

GSM CUBE<sup>3</sup> can be connected to a separate unit in order to interface with a VHF radio and permit radio communication while on the surface. For more information read page 36.



## **PARTS AND ACCESSORIES**



• This microphone is mounted on ALL OCEAN



### DAMPER (code OR023006)

- Designed for short distance communication, or closed environment communication (Such as pools), where distortion may be caused by excessive transmission strength.
- Made of spongy material, Pull of tiny air pockets, the Damper reduces transmission power by Pitting on the UW units' antenna
   making conversation intelligible again.
- The Damper can be mounted on all our underwater wireless units.

**NEW NACS** (code OR002565) **Space EXTENDER** Light, stundy, integrated and stable.

## NACS — NEPTUNE ADJUSTABLE COMMUNICATION SUPPORT (code 033054)

- The NACS can be attached on the left side of the IDM frame, as shown, to hold your communication unit in place and over the ear.
- · Another OCEAN REEF patented feature.
- Adjustable in tilt and distance it permits easy adjustment of the unit.
- · Does not impede easy donning and doffing of the mask.
- Designed for all our units without Extender.



### **COMPARINGUNITS**

## **UNDERWATER UNITS**

	GSM DC™	GSM G-POWER	GSM G-POWER SL	GSM CUBE
CODE	33122	OR033124	OR033125	OR0033131
TYPEW	Wineless	Wineless	Wireless	Wineless/handwined
	ultrasonic	ultrasonic	ultrasonic	
ACTIVATION	Automatic	Automatic	Automatic	Automatic
TRANSMISSION	PTT	PTT	PTT	PTT
RECEIVING	Automatic	Automatic	Automatic	Automatic
SPEAKER VOLUME	No	Yes	Yes -	from the surface
ADJUSTMENT			separate	when hardwired
			headset	
SYSTEM TYPE	H-SSB	H-SSB	H-SSB	H-SSB+cable
FREQUENCY	32.768 KHz	32.768 KHz	32.768 KHz	32.768 KHz
	ch. 2 41.000			
	KHz			
WORKING RANGE (*)	200m/600 Pt	500m/1500 Pt	500m/1500 Pt	200m/600 Pt+ 250m cable
RATED DEPTH (**)	40m/120 Pt	40m/120 Pt	40m/120 Pt	40m/120 ft
POWERED BY	9V alkaline	9V alkaline	9V alkaline	9v if wireless, no power
				needed if hardwired
AUTONOMY (TOTAL)	9h	25h	25h	30h or depending on
				surface if hardwired
LOW BATTERY AUTONOMY	1h	1h	1h	1,5h when wireless
(AFTER ALARM STARTS)				
LOW BATTERY ALARM	1 beep/30 sec	1 beep/30 sec	1 beep/30 sec	w1 beep/30 sec under 6.8V
	under 7.5V	under 6.8V	under 6.8V	
DAT™	Yes	No	No	No
TRANSMIT/RECEIVE CYCLE	Yes, DAT™	No	No	No
	mode-30 sec			
	transmit-20			
	sec receive			
SQUELCH	Automatic	Automatic	Automatic	Automatic
WEIGHT WITH BATTERIES	370g/12.9 oz	370g/12.9 oz	2.3kg/5 lbs	450g

### **COMPARINGUNITS**

ALPHA PRO X DIVERS (U/W UNIT)	GSM G.DIVERS	M101A G.DIVERS
OR033135	OR033109	33107
hardwired	Wireless	Wireless
	ultrasonic	ultrasonic
Automatic	Automatic	Automatic
Pull duplex	PTT	No
Automatic	Automatic	Automatic
Yes	No	No
from the surface		
cable	H-SSB	H-SSB
	32.768 KHz	32.768 KHz
max 250m cable	200m/600 Pt	No
40m/120 Pt	40m/120 Pt	40m/120 Pt
no power needed	9v	9v
depending on surface unit	30h	30h
depending on surface unit	1,5h	1,5h
No	1 beep/30 sec under 6.8V	1 beep/30 sec under 6.8V
No	No	No
No	No	No
No	Automatic	Automatic
400g	370g/12.9 oz	280g

OCM O DIVERS

MAIOAN O DIVERO

ALDUA DDO V DIVEDO (IL/W HAIT)



Comm units like GSM G-divers, or M101A that can be found in our recreational line are 100% COMPATIBLE with units in this catalogue.

<sup>(\*)</sup> The operating distance is affected by obstacles, air bubbles, thermo-clines, temperature and salinity. (\*\*) Does not include other depth limits that may apply.



## **WIRELESS COMMUNICATION**







### M105DIGITAL (code OR033126)

- Surface to diver unit.
- Transceiver unit.
- Allows communication with any number of divers wearing wireless comm units.
- Direct communication with PTT walkie-talkie.
- Uses 6V DC lead battery. Allows up to 48 hours of operation.
- Can be powered with a 12V DC source.
- Activated only when the antenna is connected to the unit to prevent unwanted loss of power.
- 10mt (approx. 33ft.) transducer cable length. Available in different lengths on request.
   Long cables may require amplifier mounting.

### M105DIGITAL DC

(code OR033128)

- Surface operator can easily change from one channel to the other by pressing a button, distinguishing two different lines of communication if needed.
- Same characteristics as the M105 digital.
- Has the addition of a second transceiver channel.

#### Comes with:

- Headphone connection.
- · Volume control.
- Speaken
- Water resistant case pressure compensation valve.
- · Battery charger.
- Easy to read LED battery tester which shows the power status of the battery.
- Transducer cable.
- · Bag.
- · Microphone.

#### Available accessories:

- Audio out cable. (code 8590).
- · Headset. (code 8589).
- Tuner for >50 meters M105 Antenna. (code OR008609).
- Splitter for connecting 2 antennas with M105 or M105DC. (code OR023001).
- External power cable code 8594.





## **AUDIO / VIDEO**

### **GAMMA 105**

(code OR033107 NTSC; code OR033108 PAL)

- This is an audio/video surface unit. Integrates wireless audio and hardwired video.
- Ultrasonic surface communication unit: 10 m (33 ft) transducer cable, microphone, external power supply cable, audio port, headphone port, volume control, and loudspeaker.
- 7 inch 16:9 color LCD monitor, speaker, audio and video port, brightness and color controls.
- Video port for external video recorder or monitor.
- 12V battery.
- Battery charger connector.
- 12V battery charger.
- CCD Micro Video Camera with underwater housing and mounting bracket. Also sold separately.
- 50 m (165 Pt) camera cable. Available length on request.

### GAMMAALPHA (code OR033104 NTSC; OR033105 PAL)

- The Gamma Alpha is similar to the Gamma 105, but where the latter integrates a wireless M105 unit and video, the Pirst integrates Alpha Pro X divers hardwired communication with video.
- Gamma Alpha can receive audio and video from two divers.
- 7 inch 16:9 color LCD monitor, brightness and color controls.
- On/Off and speaker volume adjustment switch.
- Speaken
- Microphone.
- Switch for communication between surface & diver 1, surface & diver 2, surface & diver 1 & diver 2.
- Headset port (headset optional).
- · Audio/video recall from divers.
- 12V rechargeable battery + battery charger.
- 2 plugs for audio connections to divers.
- 2 plugs for video connection to two divers.
- 3 video out plugs.
- Underwater unit volume adjustment (for both divers).
- Switch for the video: 2 positions to show the video of diver 1 or diver 2.
- External power charger, 12V (cable optional).
- Stand-by autonomy: 24h.
- 1 professional surface/diver cable (50 meters, 165 ft. long) (can be sold separately). (code OR033134)
- 1 underwater unit (alpha pro x divers uw unit) (can be sold separately). (code OR033135)
- 1 video cable (50 mt, 165 ft. long) (can be sold separately). (code OR008575)
- 1 CCD micro video camera (can be sold separately). (code OR008573 NTSC; code OR008574 PAL).





### **COMPARINGUNITS**

## SURFACEUNITS

	M-105 DIGITAL W/BATTERY TESTER	M-105 DIGITAL DC W/Battery Tester	ALPHA PRO X DIVERS (SURFACE)
CODE	OR033126	OR033128	OR033133
ТҮРЕ	Wireless ultrasonic	Wineless ultrasonic	Hardwired
ACTIVATION	Upon antenna connection/	Upon antenna	switch
	switch	connection/switch	
TRANSMISSION	PTT	PTT	Pull duplex W/PTT
RECEIVING	Automatic	Automatic	Automatic
SPEAKER VOLUME	Yes	Yes	Yes
ADJUSTMENT			
SYSTEM TYPE	H-SSB	H-SSB	cable
FREQUENCY	32.768 KHz	32.768 KHz	
		ch. 2 41.000 KHz	
WORKING RANGE (*)	200m/600 Pt	200m/600 Pt	cable up to 250m
POWERED BY	Rechargeable 6V lead	Rechargeable 6V lead	Rechargeable 12V
AUTONOMY (TOTAL)	48h	48h	24h
LOW BATTERY AUTONOMY	1.5h	1.5h	na
(AFTER ALARM STARTS)			
LOW BATTERY ALARM	1 beep/30 sec under 4.8V	1 beep/30 sec under 4.8V	na
DAT™	No	No	na
TRANSMIT/RECEIVE CYCLE	No	No	na
SQUELCH	Automatic	Automatic	na
WEIGHT WITH BATTERIES	2.3kg/5 lbs	2.3kg/5 lbs	2.3kg

## **COMPARINGUNITS**

GAMMA ALPHA	GAMMA 105	M100 G.DIVERS
NTSC OR033104	NTSC OR033107	33165
PAL OR033105	PAL OR033108	
Handwined+video	Wineless+video	wireless
indipendant	indipendant switches	upon headset connection
switches		
Full duplex W/PTT	PTT	PTT
Automatic	Automatic	Automatic
Yes	Yes	Yes
cable	H-SSB	H-SSB
	32.768 KHz	32.768 KHz
	upon request	
cable up to 250m	200m/600 Pt	200m/600 Pt
Rechargeable 12V	Rechargeable 12V	9v (not included)
12h	12h	30h
na	45min	1h
na	na	1 beep/30 sec under 6.8V
na	na	na
na	na	na
na	Automatic	Automatic
5,8kg	5,6kg	760g

<sup>(\*)</sup> The operating distance is affected by obstacles, air bubbles, thermo-clines, temperature and salinity.



M100 G-divers can be found in our recreational line.

## SPECIAL PRODUCTS, ACCESSORIES & CUSTOMIZATION

### B2D - BOAT 2 DIVER KEY WEST UNDERWATER COMMUNICATION SYSTEM (node OR023015)

#### WHAT IS THE B2D KEY WEST?

This brightly thought suit case holds all the needed to keep your submerged team of divers well under control, while controlling your budget too. A lot more affordable than military grade conventional recall systems, the B2D is transportable, lightweight, resistant and customizable. Receiving units (M101A) can be worn on any conventional mask strap, or held between two or more divers for a group communication. These units can receive messages From the boat (M100) within a range of 200m/600 ft.

The portable surface unit is easy to use - PTT transceiver, just like a VHF radio. The unit turns on when the headphones are inserted into the plug. Once the antenna is placed in the water, communication is possible.

Underwater units don't require training to be used and turn on when in the water.



- WARN YOUR DIVERS OF HAZARDS OR WEATHER CHANGES.
- RECALL THE DIVERS TO THE BOAT.
- COMPLETE COMPATIBILITY WITH ALL THE OCEAN REEF PRODUCT RANGE.
- SUIT UP YOUR BOAT WITH A PROFESSIONAL, YET AFFORDABLE DIVER RECALL SET.





### **B2D - KFY WFST**



- 10 m (33Pt) transducer.
- Headphones.
- Operates on one channel Operates on 9V batteries. and 9V batteries.



### 1 M 10 1A

- Automatic activation in the
- 30 hrs approximate operating
- Low battery alarm.



### 1 HIGH IMPACT. WATER PROOF SUITCASE.

- Yellow, for better recognition on the boat.
- Padded interior for easy fitting and secure handling.
- Low weight and ready for 2 more M101A units (extras sold separately).

## COMMUNICATION = SAFETY, SIMPLE.



2 Space Extender Integrated Diving Masks



1 M105 DC Surface 2 channel s transceiver unit



1 Sports bag



2 M101A Receiving underwater comm units



1 M100 Portable surface com unit



2 GSM DC double channel uw comm units



2 Quick Connection hoses





## SPECIAL PRODUCTS, ACCESSORIES & CUSTOMIZATION

### ALPHA UNDER WATER CELL PHONE (UWCP) (code OR033122)

UWCP is a unit that connects a diver to a surface cellular phone.

Its use is not limited to underwater phone calls, but to all that can be done, having the possibility to use this communication potential (long distance communication, cell phone utility potential).

- · Can be installed on any IDM mask.
- 40m cable.
- Quick release waterproof cable connection that allows the diver to separate from the cable at any moment.
- · Quick release connection bayonet to surface unit.
- Impact and water resistant surface unit.
- · Custom made buoy.
- · Water reserve pouch in the buoy for more stability.
- · Diver Plaas.
- Bluetooth connection interface to connect your own cellular phone.
- · Cellular phone with "voice dialing" required.
- · Ask for more info.







### **GSM VHF** (basic configuration code OR033123)

- · VHF device connects to GSM CUBE unit.
- · Dedicated specifically to rescue teams.
- · Designed in collaboration with Italian Red Cross.
- Waterproof modified, radio-carrying bag. Holds a variety of radio models.
   Connectors must be custom made in factory for the chosen radio model.
   The radio can be attached to the BC.
- PTT buttons allow channel selection and ability to activate communication without having to take the IDM opp.
- VHF communication can occur only on the surface with a range determined by the chosen radio device.
- · Underwater wireless communication.
- VHF and underwater comm unit. Have separated power sources.
- Please ask for details.



**NEPTUNE II MASK** (code 33357 black small/medium; code 33001 medium/large; code 33012 yellow medium / large)

- · For use with conventional regulators.
- 3 DIN ports, two of which are dedicated to fit adapters for conventional regulators (once mouthpiece is removed). Remaining port is ready to fit comm. unit.
- · Directional exhaust valve.
- Easy Doffing system.

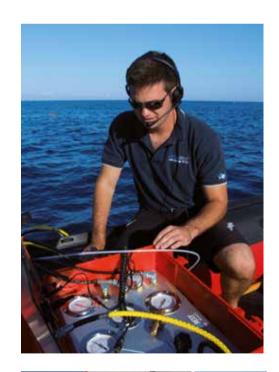


### NEPTUNE SPACE 50/60 PSI (code 33366 small/medium; code 33367 medium/large)

These masks have the intermediate pressure of the regulator set up at 50/60 PSI allowing the use of the mask with an alternative surface air supply (hookah). Performance of the Neptune Space 50/60 regulator depends on the stability of intermediate pressure provided by the surface air line supply. The Neptune Space 50/60 PSI also includes a Limited Lifetime Warranty.

## ACM BASE UNIT (DIN) (code OR036000) ACM BASE UNIT (INT) (code OR036001)

- Lightweight, portable control box for surface air supply + communication (if requested) operations.
- If communication is requested, a ALPHA PRO X DIVERS unit is installed into the ACM (underwater units not included) permitting full duplex with max 2 divers. Cables will then run down with surface air supply cables.
- Depth Gauge/Pneumo Systems: Dual reading gauges continuously monitoring the diver's depths from 0-70m (0-230ft). Maximum recommended user depth: 40m, 130ft FSW.
- Depth Monitoring/Pneumo Knob is used to meter the flow of air used for depth measurement.
- The Stainless Steel Air Outlets Pittings connect the diver's air supply hose to the ACM, providing a strong, reliable, corrosion resistant connection. Shut-off valves allow the isolation of one diver's air supply from the other.
- Regulator Adjustment Knob controls the air pressure delivered to the diver's umbilical. Variable pressure settings are obtainable.
- Selector Valve Handle is used to choose either one of the air supply cylinders. Individual cylinders may be changed out without interrupting the dive.
- High Pressure (HP) Supply Gauges directly monitor the pressure in each of the air supply cylinders.







## SPECIAL PRODUCTS, ACCESSORIES & CUSTOMIZATION

### M105 MIXER (code OR006512)

This accessory allows for the connection between the M105 Digital/M105 Digital DC and an external amplifier or recorder. The Mixer takes its power directly from the M105 and does not need a separate battery. Audio output cables (Anodized Anticorodal®/RCA Connectors) are not included.



### CUSTOM BROADCASTING/ CONFERENCE CALL

Custom made systems for underwater live broadcasting, conference calls, audio & video, one way or 2-way communication (i.e. Skype calls!). Excellent for education, TV, shows, presentations, exploration etc.



#### **AOUARIUM AND SHOWS INSTALLATIONS**

Custom made systems for wireless/hardwire communication between submerged personnel/surface/ other. Connection to facility amplification for public interaction (i.e. Scripps Aquarium).



### CONVENTIONAL REGULATOR ADAPTER (code 33020 small; code 33021 medium)

 A special adapter allows the connection of several kinds of regulators. The adapter is available in two sizes, medium (standard) and small. This adapter fits in place of the surface air valve.



## **TOOLS, MAINTENANCE & SERVICING**



### **MEASURING KIT** (code 33075)

- For determining mask size.
- · Measuring tool (caliper).
- Full-Pace mask size recommendation chart.
- · Measuring instructions



### NOZZLE ADJUSTMENT TOOL (code 9754)

 An essential tool for every Ocean Reef Service Center -used to adjust the 2nd stage according to factory specs.



### **IDM REGULATOR ADAPTER** (code 9794)

 This tool fits on a conventional test bench or may be used with a portable one. It is useful for technicians who set up and check Space mask regulators prior to mask assembly.



PORTABLE TEST BENCH (code 9805)

 Portable test bench for OCEAN REEF IDM and conventional regulators.



**IDM TOOLS** (code 9799)

 Contains the tools required Por servicing the IDM masks (in combination with the nozzle adjustment tool).

## **BECOME AN ITC!** (International Training Center)

















(International Training Center)

#### Bonaire

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watch the video



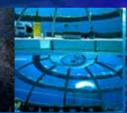
#### Ocean Reef

relies on the innovative technology of Augmented reality developed by Blinkar, in order to improve the experience of the reader with digital contents and multimedia, easy to consult. The interactive contents are indicated by the logo (logo blinkar). To activate these contents you just have to install the app Blinkar, focus the image and start with a clic.











## OUR STORY, OUR ADVENTURE

4 years ago Sengio Gamberini was enjoying his summer vacation in Noli, Italy. Scuba diving has always been not only a business related activity, but a passion and a hobby deeply rooted inside him. Everything related to life in the ocean always has had a special place in his heart. His life could be described as constant hard working, family and the ocean.

Having said that, you can easily understand that nobody was surprised when he came up with yet another idea to work at while on vacation.

But this time the idea sounded really, really strange...

watch the video

So, there he goes, he makes a couple of phone calls and starts building, with the help of his team at Ocean Reef Group, a number of small transparent balloons – then, they sink them and fill them with air while underwater, they anchor them and ultimately, plant seeds in a vase inside!

The idea he had was to utilize the properties of the large bodies of water - constant temperature, united with the natural evaporation of a surface of liquid in contact with an air space - to try creating an underwater greenhouse!

Years of experimentation down the road, a number of biospheres created, basil crops, rough seas that destroyed everything, live web streaming from underwater, studies, data collecting, we now move the experiment's site to the next level: more biospheres, more designs, more sensors, more cabling, hydroponic culture, more webcams etc etc.

Find out more at www.nemosgarden.com

# **OCEANREEF**° underwater, naturally.

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