

AQUARIST  
OWNER'S MANUAL



**WARNING!**

MAKE SURE YOU HAVE SELECTED THE  
CORRECT POWER SOURCE VOLTAGE ON THE  
BACK OF THE UNIT, BEFORE POWERING ON:  
**120V / 240V**

OCEANREEF  
underwater, naturally.

# AQUARIST - OWNER'S MANUAL

## TABLE OF CONTENTS

1 - INTRODUCTION	3
2 - GENERAL WARNINGS / OWNER'S RESPONSIBILITIES	4
3 - TIPS/REMINDERS FOR USE	5
4 - FEATURES AND COMPONENTS/ PACKAGE CONTENTS	6
4.1 SURFACE UNIT	8
4.2 PROFESSIONAL SURFACE/DIVER CABLE	9
4.3 UNDERWATER UNIT 2.0	10
5 - SET-UP THE UNIT	11
6 - TROUBLESHOOTING	12
7 - MAINTENANCE AND CLEANING	13
8 - WARRANTY	14

# 1 - INTRODUCTION

For more than 75 years, OCEAN REEF has been involved in the underwater diving industry. We have contributed much to this industry, from fins and snorkels to the most modern systems of underwater communication. Through the spirit of intrepid pioneers, brilliant inventors, passionate divers, and dynamic entrepreneurs, OCEAN REEF has been able to turn dreams into reality in the underwater world.



If you lose this manual or if you should require more copies, you can download it at [diving.oceanreefgroup.com/support/](https://diving.oceanreefgroup.com/support/) or contact the Manufacturer: Mestel Safety SRL, Via Arvigo 2, 16010 Sant'Olcese (GE), IT. Phone: +39 0107082011. E-mail: [infoitaly@oceanreefgroup.com](mailto:infoitaly@oceanreefgroup.com). Website: [diving.oceanreefgroup.com](https://diving.oceanreefgroup.com)

The Manufacturer has carefully worded and edited this owner's manual. However, in no event the Manufacturer will be responsible for any damage caused by the incorrect interpretation of its content, nor due to any misprints and/or incompleteness in the text.

The Manufacturer will not accept liabilities for any damage caused by:

- Insufficient, incorrect and improper maintenance, failing to comply with the manual's recommendations
- Absence of periodic tests and checks
- Incorrect and improper use
- Failing to comply with guidelines included in the owner's manual
- Alterations and/or modifications of the product

If any of the above were to occur, considering these actions are potentially dangerous to the health and life of the users, the manufacturer is released of any responsibility and the warranty is void.

The Manufacturer is an ISO 9001:2015 certified company ([https://diving.oceanreefgroup.com/support/#ISO\\_CC](https://diving.oceanreefgroup.com/support/#ISO_CC)).

## 2 - GENERAL WARNINGS / OWNER'S RESPONSIBILITIES

### WARNINGS, CAUTIONS AND NOTES

Pay special attention to information provided in warnings, cautions, and notes that are accompanied by these symbols:



A **WARNING** indicates a procedure or situation that, if not avoided, could result in serious injury or death to the user.



A **CAUTION** indicates any situation or technique that could cause damage to the product, and could subsequently result in injury to the user.



A **NOTE** is used to emphasize important points, tips, and reminders.

### IMPORTANT

The content of this manual is based upon the latest information available at the time of print. OCEAN REEF reserves the right to modify any products, processes and manufacturing techniques at any time. It is the technicians' responsibility to acquire the latest information and parts from OCEAN REEF for service and repairs to be performed.

If the instructions provided in the manual are unclear or difficult to understand, please contact OCEAN REEF at [infoitaly@oceanreefgroup.com](mailto:infoitaly@oceanreefgroup.com) before using the equipment or attempting any repairs.



Carefully read this instruction manual before use, and keep it for future reference.



While this is a product of high quality, the user is not exempt from problems connected with the incorrect use of the product or failure to follow the rules of safe diving.



Do not modify or alter in any way the AQUARIST.



DO NOT USE the unit if it is overheating, if water has leaked the unit, if there is smoke coming from the unit or if any part is broken.



Before using the AQUARIST the user must ensure that the product has been properly inspected and maintained. (See Chapter 7 Maintenance and cleaning).



OCEAN REEF refuses all responsibility for damages caused by non-compliance with the instructions contained in this manual. These instructions do not extend the warranty or the responsibilities stated by OCEAN REEF terms of sales and delivery.



In order to maintain the warranty, service and routine, maintenance of the products must be performed by the end user as indicated by OCEAN REEF and described in chapter 7 MAINTENANCE, CLEANING AND STORAGE.

For details, contact an authorized OCEAN REEF dealer at: <https://diving.oceanreefgroup.com/shop-dealers/>

### 3 - REMINDERS AND TIPS FOR USE



**MAKE SURE YOU HAVE SELECTED THE CORRECT POWER SOURCE VOLTAGE ON THE BACK OF THE UNIT, BEFORE POWERING ON: 120V / 240V. FAILURE TO SELECT CORRECT POWER SOURCE VOLTAGE COULD RESULT IN IRREPARABLE DAMAGE TO THE PRODUCT NOT COVERED UNDER WARRANTY**



Use the original power supply cord only.  
It is your responsibility solely to assure the power supply cord works properly.



Product should be stored in shade and cool location.  
Do not expose to extreme low and high temperatures.  
Do not leave the product under direct sunlight.  
Operating temperature: 0°C (32°F) and +40°C (104°F)



Do not dismantle or repair the communication unit by yourself



Before powering, please make sure the power port is dry.  
Store in a safe, dry place.



When not in use or at the end of each use, make sure that the surface unit has been turned off.



Make sure there is no dirt, debris or water in any part of the unit, especially in the rubber 6 pin connector. If any dirt, debris or water is found, remove it.



Before diving, check the surface unit cables connections.



This product should not be exposed to chemical products such as sunscreen or insect repellents as some components may melt or damage plastics.



Talking and listening while underwater requires practice. With experience, divers will become more proficient in the use of the communications system.



Avoid the unit from falling or be knocked around.

## 4 - FEATURES AND COMPONENTS/ PACKAGE CONTENTS

AQUARIST CODE OR033180 INCLUDES:



The AQUARIST is a hardwired half / full-duplex underwater communication system for conversations between the surface (public) and one divers.

This communication unit is specifically designed to meet the needs of underwater live event/presentation with public / audience and to connect to a mixer / PA system.

It makes it possible for a diver in a tank / pool (ie-aquarium) with an IDM to communicate with an outside audience (extending the capability of an integrated loudspeaker of a typical surface unit) and the audience and viceversa for the audience to communicate back to the diver.

Moreover, the volume of the underwater unit can be adjusted from the surface mixer **(not included)** to allow the divers to obtain maximum communication clarity during the dive.

The unit that CAN OPERATE BOTH 110V/220v **Make sure you have selected the correct power source voltage on the back of the unit, before powering on!**

## Technical characteristics

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### INCLUDES:

- 2x 2m/ 7ft XLR female to male cables.
  - External power supply cord + adapter
  - 110v power / 220v power switch (both managed by same unit).
  - Weight: 1,8 Kg/ 4 Lbs (Surface unit only)
  - Size 23x20x10 cm/ 9x8x4 inch
- 

### REQUIRES:

1. OCEAN REEF IDM for diver.
  2. 6-pin to surface DIN, yellow, roped cable. We offer various standard lengths or length can be customized to accommodate customer's need. Max 200m/600ft. (see pag. 9)
  3. Alpha Pro 2.0 uw unit (see pag. 10)
- 

The surface unit receives the input audio of an underwater hardwired comm unit (Alpha pro 2.0 - OR033160). In case of unique distortions due to aquarium filters (rare), we can provide a specific filter connection that can be hooked on the existing unit / system the customer has (contact OCEAN REEF at [infoitaly@oceanreefgroup.com](mailto:infoitaly@oceanreefgroup.com))

The surface unit has an audio out that can connect to a PA system/mixer. (canon XLR standard).

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## 4.1 SURFACE UNIT



1. Serial Number
2. Separate ON/OFF power switch on the back of the unit
3. **VOLTAGE switch - unit that CAN OPERATE BOTH 120V/240V - Make sure you have selected the correct power source voltage on the back of the unit, before powering on!**
4. ON LED
5. Half /Full Duplex switch (Half Duplex only for diver - see pag.10)
6. Microphone / mixer / PA system in
7. Diver audio out port to mixer
8. Port for diver audio in (uw unit 6 pin cable to surface DIN connector - Diver cable (up to 200 metres and underwater unit 2.0 sold separately (see page...))



## 4.2 PROFESSIONAL SURFACE/DIVER CABLE

(sold separately - REQUIRED TO FUNCTION THE UNIT)



**Professional surface/diver cable**  
(50meters -165 ft long)  
(Sold separately code OR033134)

6 pin cable/wire with yellow rope exterior. The cable's diameter is 10mm with a resistance of more than 4000 Newton.

The cable includes waterproof rubber 6 pin connector at the diver side and DIN metal connector on the surface side.

The Professional cable is also available at any length on request (up to 200 metres).

75 m / 264 ft OR033166 - 100 m / 328 ft OR033167 - 150 m / 492 ft OR033168 - 200 m / 656 ft OR033169



4000 N is the tear up strength, audio signal may be lost earlier!



It is fundamental to pay attention that the cable does not get stuck



If needed, it is possible to keep the cable slightly buoyant, by attaching a small buoy or floating device to the cable a few feet away from the underwater unit.



It is a good idea to connect the cable through OCEAN REEF cable fleeter (available as optional) to the BC jacket, avoiding any traction between the surface and the underwater unit.



During the dive the surface operator must slowly feed the cable out to the underwater diver as needed, while keeping voice contact. It is not advised to simply throw the cable into the water. The same procedure should be used when the dive is completed and the cable has to be brought on board.

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### ALSO AVAILABLE - SOLD SEPARATELY AS ACCESSORY:



1 Floating cables option.



2 Cable floaters (x3 package) useful accessory to keep audio/v cables floating avoiding entanglement

3 Cable fleeter avoid any traction between the surface and the underwater unit

## 4.3 UNDERWATER UNIT 2.0

(sold separately - REQUIRED TO FUNCTION THE UNIT)

### Underwater unit 2.0

(Sold separately code OR033135)



- Waterproof piezoelectric speakers (X2)
- D-Mic microphone
- 6 pin waterproof connector
- Weight: 0,3 Kg / 0.66 lbs

The Underwater unit can be connected to any OCEAN REEF mask using the OCEAN REEF Extender Frame.



The connector between the cable and the underwater unit can be disconnected and connected again underwater



When used with Aquarist, the UW Alpha Pro 2.0 unit can operate in full or half duplex.  
Half duplex --> press PTT to communicate  
Modes depending on Aquarist mode selection.

## 5 - SET-UP THE UNIT



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## 6 - TROUBLESHOOTING

Problem	Probable cause	What to do
<b>The surface unit does not turn on</b>	1. Damaged power supply cord or wrong voltage settings	1. Contact OCEAN REEF customer service.
<b>The underwater unit does not receive</b>	1. Surface unit power turned off 2. Cables not properly connected 3. Low volume 4. Flooded underwater unit	1. Switch on the surface unit 2. Check cables connection 3. Check mixer settings 4. Return to surface, rinse in fresh water and send to OCEAN REEF service center
<b>Surface is not receiving</b>	1. Volume too low 2. Power turned off 3. Flooded microphone on underwater unit	1. Check mixer settings 2. Turn on the surface unit 3. Return to surface, rinse in fresh water, replace mic
<b>No trasmission only in half duplex mode from diver</b>	1. PTT button not being operated by diver 2. PTT button damaged/ not working	1. Instruct diver to speak while pressing PTT. 2. Return to surface, rinse in fresh water, replace mic.

### Replacing the Mic (D-Mic cod. 008598)

Remove the MIC assembly from the mask, unscrew few threads of the two little side screws and pull off the Mic. Replace with the new one being careful not to overtighten the little screws to avoid damages to the contacts and to mount the microphone in the same direction.



## 7 - MAINTENANCE, CLEANING AND STORAGE

### 7.1 MAINTENANCE AND CLEANING

The unit will work perfectly if the periodic program of maintenance and cleaning collected in Table 2 is applied during its whole life from the first use.

General and visual inspection means checking that all the components and parts are not damaged, and verifying there is not any wear and tear. No damages must be detected on the product. If damages are detected, the product cannot be used until repair.

TYPE OF ACTION	FIRST USE	BEFORE EACH USE	AFTER A DIVE
GENERAL FUNCTION CHECK	X	X	
GENERAL AND VISUAL INSPECTION	X	X	
CLEANING /RINSING (UNDERWATER UNIT ONLY AND CABLE)			X

Table 2: Periodic maintenance program



**For optimum longevity of the product and the proper functioning of its parts, we recommend rinsing the underwater unit and the cable thoroughly with fresh water after every use. DO NOT clean the product with any abrasive materials.**

**No chemical should be used. We recommend drying the unit with a soft, clean cloth.**



Do not use solvents (such as diluents) to clean the unit. They can cause irreparable damage. Only use neutral detergents.



Use fresh water to remove the seawater from your UW unit after each use. The product must be stored completely dry.



Do not expose the unit to direct sunlight for prolonged periods of time.



Power off surface unit each operation.

## 8 - WARRANTY

1. The Aquarist is guaranteed to be free of material or manufacturing defects for a period of 24 months from the time the unit is purchased.
2. For the duration of the above mentioned warranty, the Company's responsibility is limited to replacement of any parts that are defective and that have not been used incorrectly or handled negligently. The product must be returned to the outlet from which it was bought.
3. Even during the warranty period, this warranty shall not be valid where:
  - Damage was caused by incorrect handling or carelessness.
  - Damage was caused by the product falling after it was purchased.
  - Damage caused by fire, earthquake, floods, lightning, or other natural disasters.
  - The warranty card is not produced.
  - Your name, the date of purchase, and the distributor's name do not appear on the warranty card.
  - The product has not been serviced as required through an OCEAN REEF authorized service center.
  - The product has been tampered with or has been repaired/serviced with non-original parts

You can find a copy of this and other OCEAN REEF manuals online on our website. In order to limit our paper consumption, and as a part of our environmental friendly and responsible approach, OCEAN REEF recommends, in case you lose or damage this manual, to consult the documentation present online rather than print it out.

Please refer to our web site:  
[diving.oceanreefgroup.com/support/](https://diving.oceanreefgroup.com/support/)



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# NOTES:

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