

MultiMax

Multiple Functions, Maximum Performance



Owner's Manual

www.XSscuba.com

MultiMax

Owner's Manual

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To register your MultiMax, please visit www.xsscuba.com/warranty-registration

Introduction

Congratulations on your selection of an XS Scuba MultiMax breathable inflator. You join the ranks of those who understand that use of a breathable inflator means one less hose coming off your first stage, less risk of entanglement, a more streamlined profile, and less drag moving through the water.

Your MultiMax is a quality product built to the highest standards. The MultiMax is a product of quality design and engineering, material selection, and precise assembly methods. Each unit is 100% tested, prior to final packaging, so you know that it is operating correctly the first time you use it.

With proper care and maintenance, your MultiMax will continue to deliver its factory-new performance for many years to come.

XS Scuba hopes that you have many exciting underwater experiences ahead of you. We are excited to be part of those adventures.

Intended Use and Function

The MultiMax is designed to perform the function of a buoyancy compensator (BC) power inflator as well as an alternate air source, aka an octopus regulator. It attaches to the end of a BC's corrugated inflation hose. It is powered by a breathing-quality regulator hose, which runs from the first stage of the regulator to the MultiMax, where it connects using a large-flow connector. This hose is different from a traditional inflator hose due to its larger inner diameter which promotes adequate flow for breathing.

In an unfortunate situation where your buddy runs out of air, you can provide your buddy with the primary regulator from your mouth and simply swing the MultiMax into your mouth for continued breathing. This is a skill that needs to be discussed prior to the dive, rehearsed and then practiced in the water.

Warnings, Cautions and Notes

It is important to pay special attention to the information provided in warnings, cautions and notes, which are accompanied by the following symbols:



A **WARNING** indicates any situation that, if not avoided, could result in serious injury or death.



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 Safety Information

⚠ WARNING: Before using the MultiMax breathable inflator, you must have successfully received training and certification in the technique of SCUBA diving from a recognized training agency (or any Military or government operated diving school). Use of SCUBA equipment by uncertified or untrained persons is dangerous and can result in serious injury or death.

⚠ WARNING: Before using the MultiMax, it is important to completely read and understand all of the instructions provided in this owner's manual. Should you have any questions or do not completely understand

these instructions, consult your Authorized XS Scuba Dealer or contact XS Scuba directly.

⚠ WARNING: Keep your MultiMax in good working condition by having it serviced at least every two years at an authorized XS Scuba Dealer. Service, disassembly or adjustment must not be attempted by persons who are not properly trained to work on this breathable inflator.

⚠ WARNING: Before diving with this MultiMax breathable inflator in open water, it is important to familiarize yourself

with its operation first in confined shallow water. Do not enter open water until you have become comfortable with using all its features.

⚠ WARNING: Before every dive, perform a complete pre-dive inspection following the instructions provided in this manual. Check to ensure that the buttons are functioning properly, and no signs of damage or leaks are present. If any signs of damage or malfunction are found, do not dive with the MultiMax until it has received service from an authorized XS scuba dealer..

⚠ WARNING: The MultiMax is designed for use in water that is 50°F / 10°C and above. Use of this breathable regulator in water temperatures below 50°F / 10°C could result in the regulator freezing and leading to serious injury or death.

⚠ WARNING: The maximum intermediate pressure that can be supplied to the MultiMax is 160 psi (11 bar). Supply pressure greater than 160 psi (11 bar) could result in a mouthpiece leak or a freeflow situation.

Enriched Air Nitrox Use

Since the MultiMax is essentially a low-pressure device, operating below 145 psi (10 bar), there is no concern about using it with enriched air nitrox. It is not held to the same rigid standards as a regulator's first stage would be.

Your MultiMax at a Glance

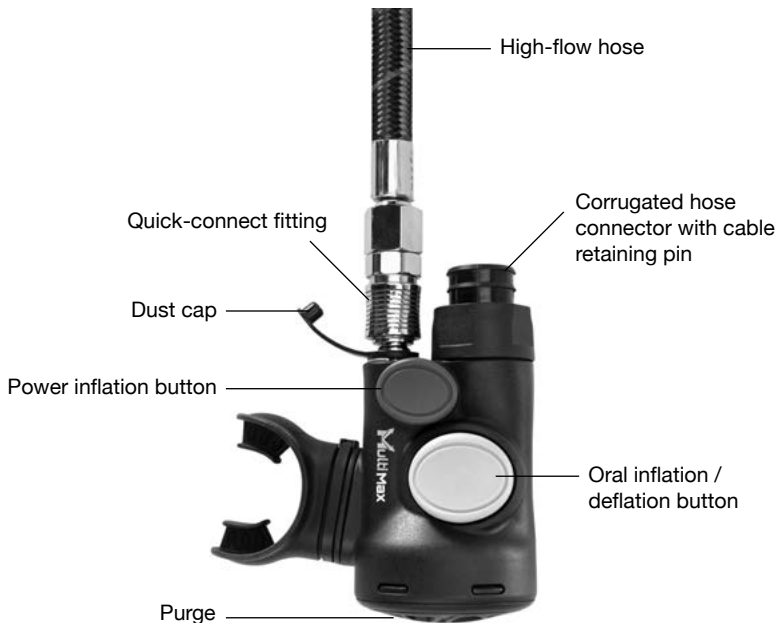




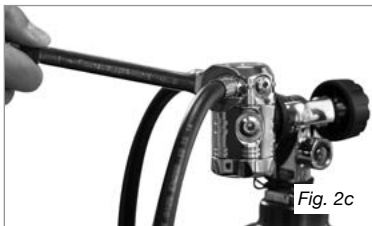
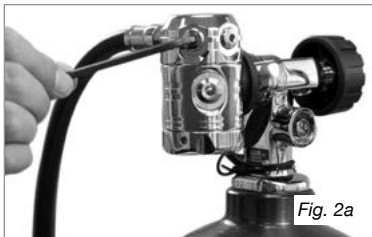
Fig. 1

Installation

 **CAUTION:** These instructions are provided as a reference to those familiar with the assembly of scuba equipment. It is strongly recommended that a professional dive store, or scuba technician, perform the installation and final check of the MultiMax.

 **WARNING:** The MultiMax's supply hose must be threaded into an intermediate pressure (IP) port, sometimes referred to as a low pressure or medium pressure port, on the regulator first stage. While its size and threads should not be compatible with a high-pressure port on a modern first stage, there are older models and adapters that would allow this mistake to be made.

1. If attached, remove the supply hose from the MultiMax by grasping the collar of the connection and sliding it away from the unit.
2. Using the appropriate size hex key, remove the desired IP port plug from the regulator first stage, keeping in mind that this hose should come over your left shoulder. (*Fig. 2a*)
3. Make certain that the o-ring is present at the base of the hose threads. (*Fig. 2b*) Thread the hose into the IP port by hand until tight. Torque to 40 in/lbs (4.5Nm) with a 9/16" wrench. (*Fig. 2c*)



4. If you have an existing inflator on your BC, remove it.
 - a. If it is clamped with one or two disposable tie wraps, carefully snip them with side cutter pliers, avoiding contact with the corrugated hose.
 - b. Pull or twist the inflator from the corrugated hose.

⚠ NOTE: In some cases, the inflator may be glued in place with rubber cement. If this is the case, work a screwdriver or similar flat tool under the hose to break the glue bond.

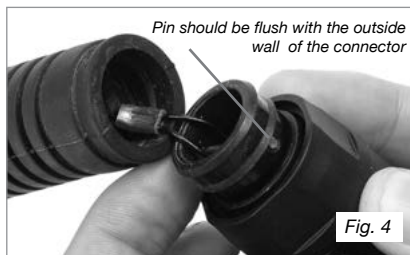
- c. Your BC airway may have an internal cable attached to

the corrugated hose connector of the inflator. This is to operate the dump valve on the left shoulder. Using an awl, or similar tool, push out the cable retaining pin to free the cable from the inflator. (Fig. 3)



5. The connector on the MultiMax is designed to attach to a 3/4" (19 mm) inner diameter corrugated hose. Again, using an awl or similar

tool, push out the cable retaining pin halfway. Loop the eye of the cable over the retaining pin and insert the pin back into the hole on the connector. The pin should now be flush with the outside wall of the connector. (Fig. 4)



6. While keeping the cable retaining pin stationary, slide the corrugated hose over the connector of the MultiMax.

7. Secure the corrugated hose using the “no-bump” tie wrap that came with your MultiMax, or a common nylon tie wrap.

Operating the MultiMax

1. Inflation

a. Just as with a standard BC power inflator, there are two options for adding air to your BC. You can use the smaller, blue power inflator button or the larger, gray oral inflation button.

i. Power inflation, is the most common. Simply depress the blue button in short bursts, as needed, to route air from you cylinder into your BC.

ii. Oral inflation, which is less common, is done by placing your mouth over the mouthpiece, fully depressing the large, gray oral button, and exhaling air into the mouthpiece. Release the button to capture the exhaled air. Fully depressing the large, gray button seals off the regulator exhaust valve so that exhaled air will be routed into the BC.

2. Deflation

a. There are multiple ways to dump air from a BC, two of which can be done with the MultiMax.

i. Cable-activated rapid exhaust valve – Grasp the

MultiMax, being careful not to depress either of the buttons, and pull downward. This will pull on the internal cable inside of the corrugated hose, causing the rapid exhaust valve at the top of the airway to release air.

ii. Manual deflation out the mouthpiece – This less common method requires that the diver be in a vertical orientation. With your left hand, hold the MultiMax above the BC. Depress the large, gray inflation/deflation button, allowing air to escape out of the mouthpiece. Release the button to close the valve.



NOTE: While using method ii, do not continue depressing the oral button after all the air has escaped the BC. Doing so will allow water to enter the BC.


3. Use as An Alternate Air Source
 - a. The MultiMax is a fully-functional second stage regulator and may be used as an alternate air source in an emergency situation. To breathe, put the mouthpiece in your mouth. Purge the water by either pressing the purge button, or exhaling prior to inhaling.
 - b. You should test the breathing performance of the

MultiMax before each dive.

c. In the event of an emergency air sharing situation, the assisting diver should offer their primary second stage to the diver requesting to share air. The MultiMax then becomes the primary regulator for the assisting diver.

d. Using the MultiMax in an emergency causes no variation to the buoyancy capability of the vest.

e. While using the MultiMax as your second stage regulator, all inflation and deflation procedures as outlined in this manual are still applicable.

 **WARNING:** Never push the deflation button during use of the MultiMax as a breathing device. This leads to breathing the gas that is inside your BC, which could be low in oxygen content, contaminated or harmful.

Pre-Dive Inspection

1. Inspect the MultiMax and the associated hoses for any sign of damage. If damage is found, do not dive.
2. After confirming that the inflator hose is firmly attached, slowly open your cylinder and pressurize the Multimax.

3. Operate the power inflate (blue) button and blow some puffs of air into the BC using the oral inflate (gray) button as outlined above.
4. Operate the purge valve to verify a strong, high-flow purge. The regulator should not continue to flow once the purge button is released. It should be silent.
5. Breathe off the MultiMax. It should deliver an adequate volume of air with little effort. Afterward, it should not leak air. It should be silent.
6. Close the cylinder valve and purge the remaining air in the hoses. Place the MultiMax in

your mouth and try to inhale. This should create a vacuum in the MultiMax. There should be no sensation of air flowing into the device. An airflow may indicate a leak in the mouthpiece, large inhalation diaphragm or the exhaust valve. If a leak is detected, do not dive until repaired.

7. If the MultiMax passes the steps above, reopen the cylinder valve in preparation for your dive.

Care and Maintenance

1. Soak, or rinse, in fresh water
 - a. Unit pressurized:
 - i. Ideally, you should leave your MultiMax pressurized with air and soak it in warm, fresh water. While still pressurized, cycle each of the buttons repeatedly.
 - ii. If a warm water soak is not available, rinse with tap water from a garden hose with a low-pressure nozzle. Let the water flow into the mouthpiece and out the exhaust port

- b. Unit unpressurized:
 - i. Soak or rinse with tap water from a garden hose with a low-pressure nozzle. Let the water flow into the mouthpiece and out the exhaust port.
 - ii. **Do not depress the purge button!** Depressing the purge button allows water to back flow into the breathing valve. This can leave mineral deposits and/or contaminants. This can accelerate the time until the next service.
2. After rinsing, shake any excess water out of the unit.

- If still pressurized, operate the purge button and power inflate button to blow out any excess water. Towel dry.
3. Do not store the MultiMax with air pressure supplied to it.
 4. Whenever you remove the QD inflator hose, be sure to install the protective inlet cap. This keeps water and contaminants from entering the inlet and reaching the breathing valve (see 1.b.ii above).
 5. Store the MultiMax in a ventilated, cool, dry place, out of direct sunlight.





CAUTION: DO NOT store your regulator in a hot environment or near an electric motor, which produces ozone. Prolonged exposure to heat, ozone, chlorine fumes or ultraviolet rays can cause premature degradation of your regulator's soft parts and hoses.

Dealer Inspection and Service

Do not assume that your MultiMax is in good working order because it has received little use since its last servicing. Storage can be hard on a breathable inflator as seals and other soft parts can take a set and dry out.

You must obtain factory authorized service from an XS Scuba Dealer at least once every two years. Your MultiMax may require more frequent service depending on the amount of use it receives and the type of environmental conditions that it is subjected to.

 **WARNING:** Be sure to have your regulator serviced at least once every two years by an XS Scuba Dealer. Your personal safety and the mechanical integrity of your MultiMax may depend on it.

 **WARNING:** Do not attempt to disassemble, or repair, the MultiMax. Disassembly and service of

the MultiMax must only be performed by an authorized, XS Scuba repair technician, or by the factory.

Warranty

XS Scuba offers a 2-Year Limited Warranty against defects in material and workmanship on the MultiMax.

This warranty is limited and subject to the following restrictions:

1. The warranty is offered to the original owner only
2. The MultiMax must have been purchased from an authorized XS Scuba dealer.

3. This warranty does not cover normal wear. Factory prescribed service by an authorized XS Scuba Dealer is required at least once every two years.
4. Some parts are subject to wear under minimal or normal use.
5. O-rings, seats, filters, diaphragms, valves, tie wraps, mouthpieces and hoses should be inspected for wear on a regular basis. Replacement of these items is usually necessitated based upon normal wear rather than defects.
6. This warranty does not extend to damages caused by improper use, improper maintenance, neglect, unauthorized repairs, modifications, accidents, fire or casualties.
7. Cosmetic damage, such as scratches dents or nicks, is not covered by this warranty.
8. This warranty does not extend to MultiMax used for rental, training, commercial or military purposes.
9. This warranty is limited to repair or replacement at the discretion of XS Scuba.



NOTE: All warranty transactions must be accompanied by proof of original purchase from and authorized XS Scuba dealer. Be sure to save your sales receipt along with proof of prior service.

XS SCUBA DISCLAIMS AND EXCLUDES ANY LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states in the U.S, and some foreign countries do not allow exclusions or limitations of liability for incidental or consequential damages, so this may not apply to you.

MultiMax Specifications:

Materials

Case	Fiberglass reinforced nylon
Diaphragm	Silicone Rubber
Exhaust Valve	Silicone Rubber
Spring	Stainless Steel
Demand Valve	Chrome-plated Brass
Weight (w/o QD and hose)	5.3 oz. (150 g)
Average Flow Rate	340 liters/min.
Demand Valve Design	Downstream, Venturi-assisted
Working Pressure	125-150 psi (8.6-10.5 bar)
Corrugated Hose Connection	Accepts Hoses w/ 3/4" (19mm) Inner Diameter
Inflator Hose	Miflex brand, Milano, Italy
Hose length	26 in. (66 cm)
Male thread	3/8"- 24 UNF

ANNUAL SERVICE RECORD

Date	Dealer's Name	Technician's Name	Service Performed

The logo for MultiMax features a stylized 'M' where the two vertical strokes are replaced by upward-pointing arrows. To the right of this 'M' is the word 'MultiMax' in a bold, sans-serif font. The 'M' in 'MultiMax' is also stylized with a white diagonal line running from the top-left to the bottom-right.

MultiMax

