AQUA LUNG®

Airsource
Owner's Manual

Copyright Notice

Airsource Owner's Manual
pn 18558 rev. 03/10

Warnings, Cautions, & Notes

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

WARNINGS indicate a procedure or situation that may result in serious injury or death if instructions are not followed correctly.

CAUTIONS indicate any situation or technique that will result in potential damage to the product, or render the product unsafe if instructions are not followed correctly.

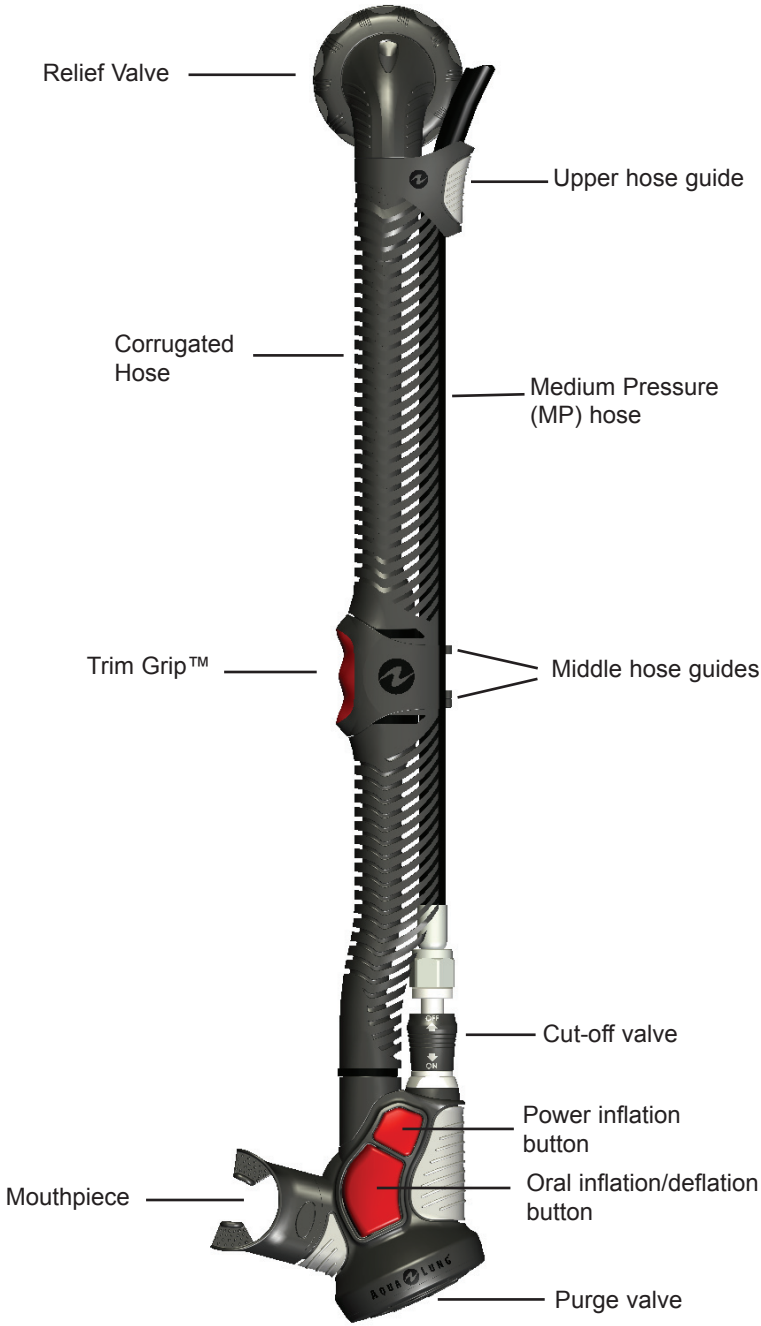
***NOTES** are used to emphasize important points, tips and reminders.*

CONTENTS

If you have any questions regarding this Airsource or these instructions, contact your Aqua Lung® retailer.

WARNING: Improper use of this Airsource could result in serious injury or death. DO NOT attempt to use this regulator until you have completely read, understood, and followed all instructions and safety precautions in this owner's manual. Be certain to understand the following guidelines and limitations.

Further, scuba diving requires specific techniques to avoid serious injury. DO NOT attempt to use this equipment, even in shallow water, until you have received certified scuba instruction from a recognized agency. This includes verification of your ability to master the proper procedures for dealing with an out-of-air emergency. If you are in doubt as to what this means, contact your local professional scuba retailer for clarification.


Relief Valve
Upper hose guide
Corrugated Hose
Medium Pressure (MP) hose
Trim Grip™
Middle hose guides
Cut-off valve
Power inflation button
Mouthpiece
Oral inflation/deflation button
Purge valve

INTRODUCTION

Congratulations on selecting the Airsource. This unit is the combined product of many years of research, engineering and field experience. The very latest in materials and technologies have been used in the design and manufacturing of the Airsource. All materials and components are laboratory and field tested for reliability and long life.

What is the Airsource?

The Airsource combines the function of your inflation device with an easy breathing second stage regulator. The Airsource (Figure 1) thus replaces the need for a backup second stage regulator (octopus). Combining the inflator and octopus into one integrated unit streamlines the diver and reduces bulk.

Figure 1

SAFETY INFORMATION

The Airsource is intended as a back up second stage for *recreational* scuba diving only. Therefore, in order to protect you and your equipment, please abide by the following guidelines and limitations.

Damage

Do not use an Airsource that shows visual signs of damage to the second stage or its associated hose. If the second stage regulator presents an uncomfortable resistance to breathing, or floods after clearing underwater, do not continue to dive until the problem is resolved.

Lubrication

Do not use the Air Source if it has been lubricated with a hydrocarbon based lubricant such as motor oil, light machine oil, or grease. Lubrication should be performed only by qualified technicians and should only involve the use of lubricants approved by Aqua Lung.

INSTALLATION

Aqua Lung recommends that you bring your Airsource, buoyancy compensator and regulator together to your authorized dealer for the installation of your Airsource. The retailer can also answer any questions you may have pertaining to the information in this manual. If it is not possible to return to your authorized dealer, you may install the Airsource onto your BC and attach the MP inflator hose to your first stage by carefully following the steps in the following procedure.

Attaching Airsource to BC

To install, unscrew original inflator assembly counterclockwise at the shoulder. Place new Airsource assembly onto threaded portion, and screw clockwise until tight. Make sure the o-ring gasket is in place and in good condition on the threaded portion of the BC.

WARNING: DO NOT attempt to remove the MP inflator hose from the Airsource body, as this may cause damage to the hose and/or body. The Airsource is specifically designed so that the MP inflator hose remains attached to the unit.

WARNING: DO NOT connect the inflator hose to a high pressure (HP) port (greater than 200 psi/14 bar). This may cause the hose to burst when pressurized, which can result in serious injury. If you are unsure which regulator port is medium pressure (MP) or high pressure (HP), consult your regulator's owner's manual or your dealer before attaching the hose.

The Airsource is specifically designed so that the lower unit can be easily detached and stored with your regulator.

1. Detach the medium pressure (MP) inflator hose from the hose guides at the middle (Figure 2) and top hose guides.

Figure 2

2. While holding the molded hose steady just below the Trim Grip™ (Figure 3a), grasp and turn the Trim Grip™ 1/4 turn counterclockwise (Figure 3b). Next, pull down on the molded hose to disengage the lower assembly (Figure 3c).

Figure 3a

Figure 3b

Figure 3c

3. Remove the port plug from a medium pressure (MP) port on the regulator using an appropriately sized wrench (Figure 4).

Figure 4

4. Check to ensure the hose o-ring is present and in good condition, tighten the threaded end of the hose into the port. Torque to 40 inch-pounds (4.5 Nm) with a 9/16" wrench (Figure 5).

Figure 5

5. Secure buoyancy compensator to cylinder and attach first stage regulator to cylinder valve.
6. Check to ensure the connection o-ring on the lower assembly is present and in good condition.

7. Hold the lower molded hose and Trim Grip steady, engage the Airsource lower assembly by lining up the upper and lower connection points (Figure 6a) and carefully turning clockwise 1/4 turn (Figure 6b) until it snaps into place (Figure 6c).

Figure 6a

Figure 6b

Figure 6c

8. Slide the medium pressure (MP) hose into the upper (Figure 7) and middle hose guides.

Figure 7

INFLATION

Operation of the Cut-off valve

The Cut-off valve is a feature unique to the Airsource, which allows the air supply to be turned off or on by pushing the device up or down. When the Cut-off valve is pushed down (Figure 8a), air is supplied to the hose. To stop the supply of air, simply push the Cut-off valve in an upward direction (see Figure 8b). The Cut-off valve eliminates the need to detach the MP hose to stop the air supply in the unlikely event of automatic inflation; simply push the valve up to stop the air supply.

Figure 8a

Figure 8b

BC Inflation

Just as with a conventional inflator, *power (MP) or oral inflation* can be utilized when using the Airsource. Both procedures need to be practiced to become familiar.

Medium Pressure (MP) Power Inflation

The power inflator is a **primary** means for adding air to the flotation cell. The power inflation system enables you to inflate the BC simply by pressing the small red inflation button (Figure 9). With practice you will soon be able to quickly make buoyancy adjustments without interrupting your diving activity.

Figure 9

NOTE: *Whenever inflating or deflating your BC, be sure to make small but frequent adjustments. Larger adjustments make the maintenance of neutral buoyancy difficult.*

CAUTION: If when pressing the red inflation button there is no airflow, confirm the Cut-off valve is in the air on (down) position.

Oral Inflation

The oral inflator is a **secondary** means for adding air to the flotation cell. It may be used when you are unable to, or do not wish to add air with the power inflator.

1. Before depressing the oral inflation/deflation button (Figure 10), exhale a small amount of air into the mouthpiece in order to purge any water that may be trapped. This will reduce the amount of water that may be introduced into the BC.

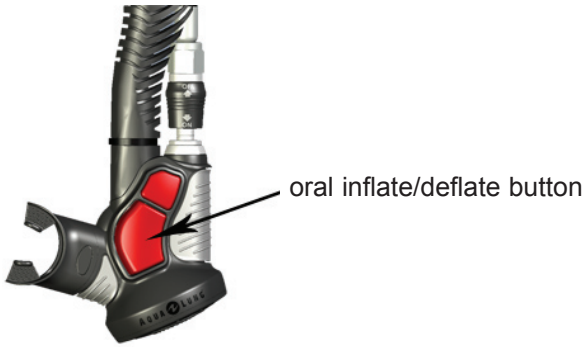


Figure 10

2. After the water is purged and without removing the mouthpiece from your mouth, immediately depress and hold down the large red oral inflation/deflation button and, with the same breath, continue to exhale into the mouthpiece. Release the oral inflation button immediately after exhalation in order to stop the release of air from the flotation cell.

NOTE: *It is important to prevent sand and other debris from entering the mouthpiece. These objects can contaminate the valve mechanism and, under certain conditions, prevent it from closing completely. If this should occur, operate the oral inflator several times while shaking it underwater. If this action is not successful, terminate the dive until the situation is remedied.*

DEFLATION

Normal deflation of the BC should be accomplished by utilizing the Trim Grip™, as well as dump valves. Please refer to your BC owner's manual for model-specific valve locations. Air can also be vented manually through the mouthpiece by pressing the oral inflate/deflate button.

WARNING: If during your pre-dive check, or at any time during the dive you find that the Relief Valve will not fully close and seal or will not fully open and vent air, DO NOT continue the dive. Continuing the dive under these circumstances could result in serious injury or death.

WARNING: The Airsource does NOT come equipped with an Over Pressure Valve. It must be rigged to a BC that features an Over Pressure Valve. If you have questions regarding the features of your BC, ask your local authorized Aqua Lung® dealer.

Deflation by the Relief Valve

The Relief Valve provides the primary convenient means for exhausting air from the BC. The valve opening located at the top of the BC must be above the body when submerged for venting to occur. This is best achieved by moving toward an upright position when venting air.

1. To activate, simply pull downward on either the Trim Grip™ or the Airsource body. (Figure 11). This action transmits force through internal stainless steel cables and opens the valve at the shoulder to allow air to vent from the BC.
2. Releasing the Trim Grip™/body closes the valve.

NOTE: *It is not necessary to exert an excessive downward pressure to activate the Relief Valve. When you pull on the Trim Grip™, you will feel the hose stretch, allowing the exhaust valve to open. The travel of the valve is limited to less than 1/4". Pulling harder will not increase the air flow. Maintain downward pressure until the desired buoyancy is reached. It is not necessary to raise your arm overhead when using the Relief Valve system.*

Figure 11

Oral Deflation

The oral inflation/deflation valve is secondary means for venting air from the BC. Most users vent air through the dump valves. However, you may find it easier to expel the last portion of air remaining in a nearly empty BC by utilizing the oral inflation valve.

1. Move into an upright position so that you can hold the Airsource above the BC.
2. With the Airsource in the left hand, raise the assembly to a position nearest the surface of the water.
3. Depress the oral inflation/deflation button allowing air to exhaust in small increments until the desired buoyancy is achieved.
4. Release the button allowing the valve to close.

NOTE: *Do not hold the oral inflation/deflation button open after all the air has been exhausted. Doing so may allow water to enter the BC. Also, whenever inflating or deflating your BC, be sure to make small but frequent adjustments. This will minimize the amount of water entering the BC.*

BACK UP SECOND STAGE REGULATOR

The Airsource is a high performance, pneumatically balanced second stage regulator, and it operates the same as a standard second stage regulator. To breathe, put the mouthpiece in your mouth. Purge the water by either pressing the purge button, or exhaling slowly and continuously. You should test the breathing performance of the Airsource before each dive.

WARNING: The procedure to deal with an Emergency Out-of-Air situation should be reviewed before every dive. Make sure your dive buddy is familiar with the operation of the Airsource and what role it plays in an out-of-air situation.

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 Airsource then becomes the primary regulator for the assisting diver.

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

Inflation

While breathing normally from the Airsource, push the power inflator button to inflate the BC. For oral inflation, breathe in normally through the mouthpiece, then depress the inflate/deflate button and breathe back out through the mouthpiece. Release the oral inflation button immediately after exhalation in order not to allow the air to escape from the air cell. Instead of the air escaping through the exhaust valve, the air will be diverted into the air bladder. (Figure 12)

Figure 12

Deflation

The Trim Grip™ (Figure 13) is exclusively designed to allow deflation of the BC through the Relief Valve while breathing from the Airsource. The Trim Grip incorporates dual activating cables for the Relief Valve. This, combined with the angled mouthpiece, allows you to pull downward on the Trim Grip hose without removing the Airsource from your mouth. The increased hose length allows for greater range of head movement.

Figure 13

PREDIVE INSPECTION PROCEDURES

For your safety and to ensure the longest life of your equipment, we suggest the following checklist to be followed each time before you enter the water:

1. Visually inspect the Airsource and the attached hoses for signs of deterioration or damage. If such signs are present, do not dive with the equipment.
2. Slowly open the tank valve to allow air to bleed into the regulator gradually.
3. Confirm the Cut-off valve is in the open (down) position. Press the second stage purge button on the Airsource to verify sufficient air flow. The regulator should not continue to flow after the button is released.
4. Place the Airsource in your mouth and take several slow, deep breaths. The regulator must deliver an adequate volume of air without requiring excessive effort. If you are in doubt regarding this test, consult your scuba instructor or an Aqua Lung® retailer for advice.
5. Close the Cut-off valve and purge the remaining air in the regulator. Try to inhale normally from the second stage mouthpiece on the Airsource. This should create a vacuum in the second stage, and there should be no signs of air flowing into the regulator case. Air flow may indicate a leak at the mouthpiece, diaphragm, or exhaust valve. If a leak is detected, do not use the Airsource until it is repaired.
6. If the Airsource passes the above predive check, reopen the Cut-off valve in preparation for the dive.
7. Once you have donned all your gear and are ready to enter the water, always have your dive partner perform a final inspection cross check of the Airsource and all other gear.

CARE AND MAINTENANCE

The Airsource is constructed from carefully selected materials, which are chosen to resist corrosion. However, the corrosive effects of the environment in which diving equipment is often used cannot be entirely eliminated. Further, the presence of sand and other minerals can interfere with the normal operation of the equipment, and repeated prolonged exposure to chlorine can accelerate deterioration of some components. Therefore, your equipment will perform better and last longer if it is rinsed with fresh water after each day's use.

The Airsource corrugated hose can be separated into two parts, which meet in the middle and are connected by the Trim Grip™. The lower half (including the MP hose) can be cleaned and stored with the first stage of your regulator. The upper half can be cleaned, and remain on the BC until its next use. Detach the medium pressure (MP) inflator hose from the hose guides at the top and middle attachment points. While holding the molded hose steady just below the Trim Grip™, grasp and turn the Trim Grip™ 1/4 turn clockwise, and pull down on the molded hose to disengage the lower assembly. After proper cleaning, hold the lower molded hose and Trim Grip™ steady. Engage the Airsource lower assembly by lining up the upper and lower connection points and carefully turning counter-clockwise 1/4 turn. Slide the medium pressure (MP) hose into the middle and upper hose guides.

NOTE: *When inserting the lower half of the Trim Grip™ into the upper half, make sure to rotate counterclockwise to prevent parts from being damaged. When inserted correctly, the lower half of the Trim Grip™ will only rotate in a counterclockwise direction. Avoid using excessive force when connecting the two parts.*

The recommended procedure for cleaning your Airsource is as follows:

1. Ideally, you should soak the entire Airsource in warm tap water (less than 120˚F/40˚C) to loosen mineral deposits. A large plastic trash can filled with fresh water is useful for rinsing all of your diving equipment.
2. If warm water soaking is unavailable, rinse the Airsource in tap water. If no air pressure is supplied to the Airsource, **DO NOT DEPRESS THE PURGE BUTTON!** Pressing the purge button can cause water and mineral deposits to reenter the unit, which can accelerate deterioration over time.
3. Remove any remaining excess water from the Airsource by thoroughly wiping it dry with a soft towel. After it is dry, reconnect it to a scuba cylinder and depress the purge button and the power inflator button to rid the unit of excess water. Do not store the Airsource with air pressure supplied to it.

4. Store the Airsource in a clean equipment box or sealed plastic bag in a cool, dry, dark place.

NOTE: *Do not use any cleaning solvents for soaking or rinsing. Do not attempt to lubricate or preserve any part of the regulator with aerosol cleaners or silicone spray. This is not necessary, and the propellant and other chemicals in these compounds can seriously damage the Airsource.*

SCHEDULED MAINTENANCE & SERVICE

For your records, please fill out the dealer information. To register your Airsource, please log on to www.aqualung.com within 30 days. Be sure to maintain records as proof of performance of maintenance. The information below is provided for your convenience.

The Airsource should be inspected/serviced by a qualified repair technician. Inspections should occur annually or more frequently (every three to six months) if used heavily, in dirty water, swimming pools, or it is not operating correctly. Heavy use is considered to be more than 100 operational hours within one year.

As described in the warranty statement, your annual regulator inspection and service must be performed by a qualified Aqua Lung® repair facility. To ensure best service at all times, please fill out the following service registration log, and have your dealer sign and date it in the appropriate spaces each time the regulator is taken for inspection or repair.

WARRANTY INFORMATION

All warranty transactions must be accompanied by proof of original purchase from an authorized dealer. Be sure to save your sales receipt, and present it whenever returning your regulator for warranty service.

Limited Lifetime Warranty

Aqua Lung warrants to the original purchaser that the product will remain free from defects in material and workmanship throughout its useful life; provided that it receives normal use, proper care, and prescribed dealer service subject to those restrictions stated below.

This warranty does not apply to units subjected to misuse, abuse, neglect, modification, or unauthorized service. This limited warranty is extended only to the original purchaser for products purchased directly from an authorized dealer, and is not transferable.

This warranty is limited to repair or replacement only at the discretion of Aqua Lung America.

WARNING: It is dangerous for untrained and uncertified persons to use the equipment covered by this warranty. Therefore, use of this equipment by an untrained person renders any and all warranties null and void. Use of scuba equipment by anyone who is not a trained or certified diver, or receiving training under the supervision of an instructor, could lead to serious injury or death.

ANNUAL SERVICE & INSPECTION RECORD

Serial No.: _____

Purchase Date: _____

Store Name: _____

Date	Dealer Name	City, State	Tech Initials

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2340 Cousteau Court, Vista, CA 92081
(760) 597.5000 www.aqualung.com

Literature PN 18558 Rev. 03/10