

# HALCYON Contour™ BC



OWNER'S MANUAL



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# HALCYON BUOYANCY COMPENSATOR OWNER'S MANUAL

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## WARNINGS, CAUTIONS, AND NOTES

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



**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.**

**WARNING:** This manual provides essential instructions for the proper fitting, adjustment, inspection, and care of your new Buoyancy Compensator (BC). It is very important to take the time to read these instructions in order to understand and fully enjoy the features that are unique to your specific model. Improper use of your BC could result in serious injury or death.

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## CONTACTING HALCYON

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## GENERAL PRECAUTIONS AND WARNINGS

- Before using this Buoyancy Compensator (BC), you must receive instruction and certification in SCUBA diving and buoyancy control from a recognized training agency. Use of SCUBA equipment by uncertified or untrained persons is dangerous and can result in serious injury or death.
- Read this owner's manual completely before attempting to use your BC, and become familiar with it first in a controlled environment, such as a swimming pool, in order to weight yourself properly and to become comfortable with using its many features and adjustments.
- Before every dive, perform a complete pre-dive inspection according to the procedure prescribed in this manual to ensure that all components are functioning properly and that no signs of damage or leaks are present. If your BC is not functioning properly or is damaged, remove it from service until it can be repaired by an authorized Halcyon Dealer.
- Before every dive, as part of your pre-dive inspection, ensure that all components of your BC system are securely connected.
- Your BC is not a lift bag. DO NOT use it to bring heavy objects to the surface. Doing so may cause permanent damage to the BC and could also result in an uncontrolled ascent.
- DO NOT overinflate your BC. Control all ascents. A rapid, uncontrolled ascent may cause arterial gas embolism or decompression sickness and could lead to serious injury or death.
- In the event of an uncontrolled ascent, it is important to immediately begin venting air from the BC. Continue venting air to slow your ascent rate if neutral buoyancy cannot be re-established.
- In an emergency such as an out-of-air situation or uncontrolled descent, it is important to remove and jettison weight immediately. DO NOT depend solely on using your BC's power inflator to lift you to the surface.
- DO NOT inhale from your oral inflator. The BC may contain harmful contaminants or gasses, which could cause suffocation, serious injury, or infection of the lungs.
- Disassembly, repair, or lubrication must not be attempted by persons who are not factory-trained and authorized by Halcyon. Unauthorized service will render the warranty null and void.
- Factory-prescribed service for this BC should be performed at least once annually by an authorized Halcyon Dealer.
- Annual service consists of a complete overhaul of the power inflator and a general air leak inspection of the bladder and valve connections.



**WARNING: Your Buoyancy Compensator (BC) is NOT a lifejacket; it does not guarantee a head-up position of the wearer at the surface. It does not meet U.S. Coast Guard regulations for a life preserver or personal flotation device (PFD). If you become unconscious in the water without a buddy present to immediately assist you, you may suffer serious injury or death from drowning.**

Your Buoyancy Compensator is primarily designed to help you maintain neutral buoyancy while in a comfortably balanced, face-down swimming position underwater. It is also designed to provide you with flotation so that you can rest on the surface, but it is not designed to function as a life preserver or personal flotation device (PFD). In order to meet U.S. Coast Guard regulations, a PFD must be designed so that it automatically rights you to a face-up position and holds your head out of the water on the surface. The design characteristics of a personal flotation device are therefore different from those of a Buoyancy Compensator. The ability of any flotation device to float you in a face-up position can also be affected by other diving equipment you wear, including a cylinder or exposure suit, and whether it can be inflated before you lose consciousness.

For this reason, it is important to always dive with a buddy and to maintain close proximity with him or her at all times. Do not depend on any flotation device to hold your face above the surface in the event that you are rendered unconscious in the water while diving.



**WARNING: While this manual provides some basic guidelines for certain buoyancy control techniques, it is not a substitute for training from a professional diving instructor. Failure to weight yourself properly may create a hazardous condition that could lead to serious injury or death. If you are unsure how to weight yourself in order to achieve optimum buoyancy underwater and on the surface, do not dive until you have obtained the necessary instruction from your diving instructor or an authorized Halcyon Dealer.**

If you have any questions regarding your Buoyancy Compensator or these instructions, contact your Halcyon Dealer or Halcyon at: (386) 454-0811.

## HALCYON CONTOUR™ COMPONENTS

### Fitting Your Halcyon Contour™

The Halcyon Contour™ provides superior buoyancy control and trim adjustment for divers in any underwater environment. Each component of the system works together to provide you with safe, efficient control of your gear while under water and on the surface. The harness system provides a precision fit by adjusting to fit most body types.

To properly fit your Halcyon Contour™, begin by suiting up with the same thermal protection that you will use with your BC. If you plan to dive with a drysuit, make sure to include all undergarments. In addition to the thickness of the drysuit, a full set of thermal undergarments can add considerable bulk and have a dramatic impact on the sizing of the harness.

You can adjust the Halcyon Contour™ without the use of special tools by using the triglide fasteners on the top of the shoulders and on the crotch strap. To adjust the shoulder straps, loosen the triglide fasteners where the webbing feeds through the slots (figures 1 and 2). Using equal amounts of webbing from the top shoulder attachment, adjust the straps so the belt sits at waist level. Adjust the chest D-rings to suit your equipment needs.



Figure 1

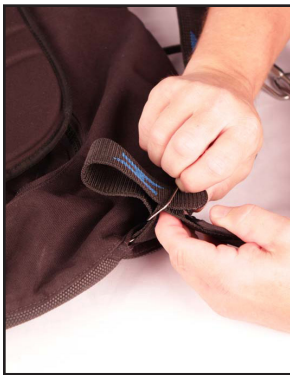


Figure 2

the top OPV string. Remove the pull dump and the string, cut the plastic protection sheath, re-thread the pull string, and attach the pull dongle.

The side bungee straps should hold the tank valves level with the side of the diver. You can lengthen or shorten the bungee loops by releasing the knot and adjusting as needed. Tuck the remaining tail into the protective sheath in order to reduce abrasion and entanglement.

To adjust the crotch strap, buckle the waist strap without running it through the crotch strap. Now pull the crotch strap up to the waist belt. Set the length so the top of the crotch strap loop extends one half inch (12mm) over the top of the waist belt. After sizing the strap, you should adjust the top D-ring on the crotch strap assembly as shown in figures 3 and 4 (next page).



The crotch strap and waist buckle should be fitted as snugly as is comfortable. Do not over-tighten the waist belt so much as to restrict breathing. When adjusting the waist belt, make sure to set the buckle so that it is off to your right side. With the buckle in this position, the crotch strap is unable to accidentally open the buckle.

Be sure to adjust the top pull dump as needed to compensate for the diver's size. After the system is fitted, you will be able to identify the appropriate length of the protection sheath for



On land, your harness should be snug but not uncomfortably tight. In the water, your harness should be snug enough to prevent notable motion of the cylinders as you change orientation, but not so tight as to bind or restrict your movement.

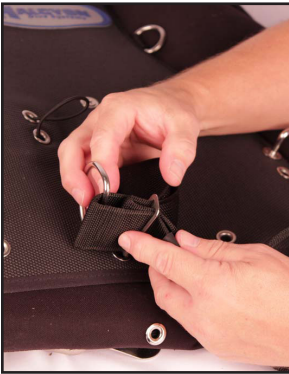


Figure 3

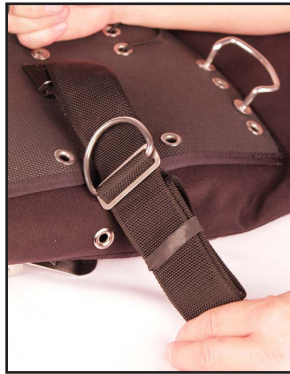


Figure 4

### Weighting Your Halcyon Contour™

The Halcyon Contour™ provides for quick and easy adjustment of your ballast. Your system includes two weight pockets (figure 5) that can be configured near the shoulders or near the lower back.



Figure 5

Divers can also purchase additional weight pockets and use both locations. Each pocket holds 5lbs (2kg), allowing up to 20lbs (9kg) of ballast. You may fix these pockets at the upper (figure 6) and/or lower (figure 7) part of your Halcyon Contour™.

In order to adjust this position, you may remove the corresponding bolts (figure 8) and retighten in the preferred location.



Figure 6



Figure 7

When considering the total weight, bear in mind that the goal of any SCUBA configuration is to create a system that allows diver control at both the beginning and the end of a dive. Proper weighting involves balancing a number of factors, including: increased surface buoyancy (particularly in a neoprene suit before compression); the weight of your breathing supply (reduced as the dive continues); and the need to remain neutral at 10' (3m), assuming an empty cylinder (or cylinders). Typically, more than 80% of the weight a diver wears to sink a neoprene suit is needed only within the first atmosphere. At depth, compression of the material forces the diver to offset the reduction in lift with additional buoyancy. Furthermore, divers must ensure sufficient weight to counteract empty cylinders near the surface where the neoprene suit is not compressed and will begin to exert additional lift.



Figure 8

### Accessories

Your Halcyon Contour™ is designed to offer notable flexibility with respect to configuration of a primary light and/or argon bottles. Many sidemount divers will likely prefer to use the Halcyon EOS™ cordless light, but some applications

will require the use of a corded light. In this case, divers may wish to use the included D-rings to attach a primary light as in figure 9. A bungee loop can be added for additional security. Optional mounting straps can be purchased which allow an argon bottle or primary light to be fitted to the bottom of the Contour™ (figure 10).



Figure 9



Figure 10



**CAUTION:** It is important not to overweight the diving rig with too much fixed weight; this configuration may not allow sufficient removable weight, preventing the diver from “ditching” the weight and swimming to the surface during an emergency.



**CAUTION:** You should be certain, through in-water testing prior to a dive, that without any air in your buoyancy compensator you are capable of swimming against the weight of your configuration with full tanks and all weight in place. You need to verify that you are able to manage your scuba configuration in the event of a buoyancy compensator failure.

## PRE-DIVE BC SYSTEM INSPECTION

Before each use, the BC must be given a thorough visual inspection and functional test. Never dive with a BC that shows signs of damage until it has received a complete inspection and service from an Authorized Halcyon Dealer. Periodically, it is advised to check the buoyancy compensator OPV for damage or corrosion and the harness webbing for signs of wear. If your harness shows significant wear, replace the webbing before diving.

### Inspection Checklist

1. Connect the wing’s power inflator to a clean air source via the LP quick-disconnect hose. Depress and release the inflator button intermittently to ensure that the airflow is unobstructed, and that the airflow stops completely when the button is released.
2. Manually operate the overpressure (OP) valve by pulling on the attached string to test spring and valve integrity. Fully inflate the buoyancy wing until the OP valve opens. Regular inspection of the OP valve for corrosion or damage is recommended.
3. Examine the operation of the OP valve by repeatedly inflating the wing to ensure that the valve opens to relieve excess pressure, yet closes immediately afterward to allow the bladder to remain taut and fully inflated.
4. Check the function of the oral inflator button, rapid-exhaust valve, and overpressure/manual dump valve to ensure a rapid and unobstructed exhaust from each valve. Listen closely for any leakage with the wing fully inflated but not connected to a low-pressure air source. If there is any suspicion of leak, submerge and—once equalized to depth—check for continued bubbling.
5. Check that all weight is secure and verify that pockets are in proper position.
6. Make a final check of tension of bungee straps holding your SCUBA cylinders to ensure that they have not loosened due to stretching. Ensure there is no damage on these straps.





**WARNING: Loss of the weight system pockets can occur if they are not secured properly. Unintentional release of weight pockets underwater may lead to an uncontrolled ascent, and could result in serious injury or death.**



**WARNING: If any leakage can be heard, or if the bladder begins to deflate within 5-10 minutes, DO NOT attempt to use the BC until it has received factory-prescribed service from an Authorized Halcyon Dealer.**

## BC SYSTEM CARE AND MAINTENANCE

With proper care, your Halcyon Contour™ will provide many years of reliable service. The following preventative maintenance must be performed to extend the life of your BC.

### Preventative Maintenance

Avoid repeated or prolonged use in heavily chlorinated water. Prolonged exposure to chemically treated water can damage the BC's material. Do not allow the BC's wing to chafe against any sharp objects or rough surfaces that could abrade or puncture the bladder. Do not set or drop heavy objects, such as block weights, on the BC's wing. Store the wing partially inflated to reduce the possibility of puncture. Avoid prolonged exposure to direct sunlight and extreme heat. Nylon fabric may fade when exposed to the sun's ultraviolet rays, and extreme heat may damage the integrity of the BC's welded seams. Avoid any contact with oil, gasoline, or other solvents or contaminants.



**CAUTION: Recommended working pressure of the Halcyon BC inflator is 120 psi (8.3 bar) to 160 psi (11 bar).**



**CAUTION: Operating temperature range of the Halcyon BC system is -20 celsius (-4 fahrenheit) to 70 celsius (158 fahrenheit). All prudent/known safeguards and procedures should be observed when diving in near or sub-freezing temperatures on the surface and below.**

### Post-Dive Maintenance

To prevent permanent damage from corrosion, salt crystals, or chlorine, thoroughly rinse the BC inside and out with fresh water after every day of use, using the following procedure:

1. Pressurize the power inflator with low-pressure air via the quick-disconnect hose.
2. Using a garden hose or other fresh water source, direct water through the oral inflator to flush the interior of the bladder, and then thoroughly rinse the exterior of the BC and harness.



**CAUTION: Before rinsing, ensure that the power inflator is pressurized with air. This will prevent foreign particles and contaminants from entering the valve mechanism in the event that the inflator button is accidentally depressed.**

3. Completely drain the bladder of water, either through the oral inflator or through the overpressure valve, being careful to avoid operating the power inflator.
4. Inflate the BC and allow it to dry inside and out before storing. Store the BC partially inflated, away from direct sunlight, and in a cool, dry, clean area.

## APPENDIX

### Warranty Information

All warranty requests must be accompanied by proof of original purchase from an Authorized Halcyon Dealer. Be sure to save your sales receipt, and present it whenever returning your Contour™ for warranty service. Halcyon warrants, to the original purchaser only, that the Halcyon Contour™ will be free of defects in materials and/or craftsmanship under normal diving use for one year from the date of purchase, provided proper care is performed on all materials as described within this manual. Should your Halcyon Contour™ prove to be defective for any reason (other than those listed in the limitations section below) it will be repaired or replaced (at Halcyon's discretion) free of charge excluding shipping and handling charges. All correspondence concerning this warranty must be accompanied by a copy of the original sales receipt. Repair or replacement is Halcyon's only responsibility and your only remedy under this warranty.



**WARNING: It is dangerous for untrained and uncertified persons to use the equipment covered by this warranty. Therefore, use of these products by an untrained person renders any and all warranties null and void. Use of SCUBA equipment by anyone who is not a certified diver, or who is not receiving training through a recognized certification agency, shall render void all warranties, expressed or implied.**

ALL WARRANTIES, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION TO A PERIOD ENDING ONE YEAR FROM THE DATE OF PURCHASE. Some states in the U.S. and certain foreign countries do not allow limitations on the duration of implied warranties, so this may not apply to you. This warranty gives you specific legal rights. You may have rights that vary from state to state and country to country.

HALCYON MANUFACTURING DISCLAIMS AND EXCLUDES ANY LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. SOME STATES IN THE U.S. AND CERTAIN FOREIGN COUNTRIES DO NOT ALLOW EXCLUSIONS OR LIMITATIONS OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS MAY NOT APPLY TO YOU.

#### The following restrictions apply to this warranty.

1. This warranty extends to all power inflator parts and to the seams of the BC wing bladder.
2. This warranty does not extend to abrasion, punctures, or tears of the bladder, or seam separation caused by chemical attack, including prolonged exposure to chlorine.
3. This warranty does not extend to damages caused by improper use, improper maintenance, neglect, unauthorized repairs, modifications, accidents, fire, or casualty.
4. Cosmetic damage, such as scratches, fraying, and nicks are not covered by this warranty.
5. This warranty does not extend to equipment used for rental, commercial, governmental, or military purposes.
6. This warranty covers products purchased in the United States. For warranties that may apply elsewhere, please contact your local representative.
7. Failure to meet any of the above requirements will render the warranty null and void.



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