

Sherwood Crux - Modular BC Owner's Manual





WARNING: This manual provides some basic guidelines for certain buoyancy control techniques using your Sherwood Crux Buoyancy Compensator, but it is not a substitute for training from a professional diving instructor. If you are unsure how to weight yourself in order to achieve optimum buoyancy underwater and on the surface, do not dive with your Sherwood BC until you have obtained the necessary instruction from your diving instructor or Authorized Sherwood Scuba Dealer. Failure to weight yourself properly can create a hazardous condition that could lead to serious injury or death.

IT IS VERY IMPORTANT TO READ ALL INSTRUCTIONS AND WARNINGS PRIOR TO USING YOUR SHERWOOD CRUX BC.

Definitions of Warnings, Cautions and Notes:



A **WARNING** is used before a procedure or situation that may result in serious injury or death.



A **CAUTION** indicates a situation or technique that will result in damage to the product.



A **NOTE** is used to emphasize important points.



WARNING: This manual contains important information for the proper use and care of your Sherwood buoyancy compensator (BC). This Sherwood BC was designed with many patented features that are unique from other manufacturer's. It is therefore very important to carefully read the instructions provided in this manual in order to understand how to correctly use your BC. Incorrect use of your BC can result in serious injury or death.

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General Warnings & Precautions



- ▼ Do not use this buoyancy compensator (BC) if you have not received supervised 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.
- Before using this BC, it is important to completely read and understand all of the instructions provided in this owner's manual, any accompanying inserts, and labels or markings affixed to the BC. IF YOU HAVE ANY QUESTIONS OR DO NOT COMPLETELY UNDERSTAND THESE INSTRUCTIONS, CONSULT YOUR AUTHORIZED SHERWOOD SCUBA DEALER.
- Before diving with this BC in open water, it is important to familiarize yourself with it first in confined shallow water with the assistance and supervision of an instructor or experienced buddy. DO NOT ENTER OPEN WATER UNTIL YOU HAVE WEIGHTED YOURSELF PROPERLY AND HAVE BECOME COMFORTABLE WITH USING ALL OF ITS FEATURES AND ADJUSTMENTS.
- Before every dive, perform a complete pre-dive inspection following the instructions provided in this manual. Check to ensure that all valves 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 BC UNTIL IT HAS RECEIVED SERVICE FROM AN AUTHORIZED SHERWOOD SCUBA DEALER.
- Before entering the water, check to ensure that you can remove and ditch your weight quickly and easily, without any obstruction or entanglement with any hoses or accessories. IN THE EVENT OF AN OUT OF AIR EMERGENCY OR UNCONTROLLED DESCENT, DO NOT HESITATE TO REMOVE AND DITCH WEIGHT.
- ▼ DO NOT USE YOUR BC TO LIFT HEAVY OBJECTS TO THE SURFACE.

 Doing so may cause permanent damage to the BC, and could easily result in an uncontrolled ascent.

Warnings & Precautions (continued)

- DO NOT overinflate your BC or rely on using the power inflator to lift yourself toward the surface. 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, RAPID ASCENT, IT IS IMPORTANT TO IMMEDIATELY VENT AS MUCH AIR AS POSSIBLE FROM THE BC TO SLOW YOUR ASCENT RATE.
- ▼ DO NOT INHALE FROM YOUR ORAL INFLATOR. The BC air cell may contain harmful contaminants or gasses, which could cause suffocation or injury.
- It is important to obtain factory prescribed service for this BC from an Authorized Sherwood Dealer at least once each year, or according to the same scheduled intervals for your regulator. Annual service consists of a complete overhaul of the power inflator, and a general air leak inspection of the air cell and valve connections.
- Disassembly, repair, or lubrication must only be performed by persons who are factory trained and authorized by Sherwood Scuba. UNAUTHORIZED SERVICE WILL RENDER THE WARRANTY NULL AND VOID, AND COULD CAUSE THE BC TO MALFUNCTION.

Introduction

Thank you for choosing Sherwood Scuba. Your new BC has been designed, crafted, and assembled following the most exacting standards of any diving equipment manufacturer. Our design team is made up of enthusiasts like yourself who actively dive, and we take pride in creating products that will enhance your diving comfort and enjoyment.

To fully enjoy all the features of your BC, and understand how to properly use it, it is very important to take the time to read the instructions provided in this manual. If you have any questions, please consult your Authorized Sherwood Scuba Dealer.

Intended Use & Function of Your BC

The main purpose for wearing a buoyancy compensator is to achieve and maintain neutral buoyancy at all times while you are underwater, regardless of changes in depth or cylinder pressure. This allows you to be much more relaxed while you dive – and safer – since you won't need to struggle against the forces of positive and negative buoyancy. Modern jacket and back inflation style BC's provide the most effective and streamlined buoyancy control, since they are specifically designed to support the diver in a comfortably balanced, face-down position while swimming underwater. Stress and exertion can now be minimized, if not eliminated altogether.

Since the introduction of the jacket style and back inflation designs, the modern BC has evolved into a consolidated harness and pack system that carries the cylinder and serves as a fixture point for second stage regulators, instrumentation, and accessories. For even greater convenience and comfort, many models are now available with integrated weight systems that can supplement or replace the weight belt.

Your BC can also provide you with non-emergency flotation to help you rest on the surface, but you should never rely on it to function as a life preserver or personal flotation device (PFD). In order to meet approval by U.S. Coast Guard regulations, a PFD must be designed so that it automatically rights you to a face-up position and supports your head out of the water on the surface to prevent drowning. The design characteristics and intended function of a PFD are therefore very different from those of a BC, since a PFD is specifically designed to function on the surface and a BC is primarily designed to function underwater.

It is important to remember that your position in the water will also be affected by other equipment you wear in addition to your BC, including your cylinder, exposure suit, or weight system. An empty cylinder, for instance, can create counter-buoyancy that could roll you into a face down position if you were to lose consciousness.

For this reason, Sherwood Scuba recommends that you always dive with a buddy, and remain close enough to them to be able to render assistance to each other in the event of an emergency. Do not depend on your BC, exposure suit, or any other equipment to hold your face above the surface in the event that you are rendered unconscious in the water while diving.



WARNING: A buoyancy compensator (BC) is NOT a lifejacket! It is not designed to provide face-up flotation in all situations, and 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.

Overview of Standard Features & Adjustments

Please take the time to acquaint yourself with your BC's features, including standard inflation/deflation valves and adjustments that can be found on every model Sherwood BC. Specific instructions for using these features will be provided throughout this manual. Additional options and special features will be explained on page 22.

Valves

Power Inflator – This assembly is actually made up of two different valves. The oral inflation valve can be used to manually inflate or deflate your BC. The power inflation valve is connected directly to your regulator's first stage, and can be used to inflate your BC with the push of a button.

Rapid Exhaust Valve (REV) This valve is connected to the power inflator with a cable, and can be opened to vent air by pulling the power inflator straight down. It works best while you are in a vertical, head up position, or in a face down swimming position.

Overpressure Relief / Rear Dump Valve - The primary function of this valve is to automatically release air to prevent damage to your BC that could be caused by overinflation. When the air pressure inside the air cell reaches 2.5 pounds per square inch (psi) over ambient, the valve will automatically open, and then close again after the pressure is below this limit. Using the ball and cord, it can also be used to rapidly dump air.







Primary Adjustment Points Sherwood Crux® BC

Cylinder Band with Buckle

This mechanism attaches your BC to your cylinder so that it is securely held at the desired height, without slipping. Some models are equipped with two cylinder bands for extra support. The nylon webbing should already be woven through the buckle(s), but instructions for re-weaving are provided in the following section, titled <u>Preparation & Setup</u>



Tank Locator Strap (not shown)

To ensure that your BC is set at the correct height on the cylinder, simply loop this strap over the cylinder valve and adjust it to raise or lower the BC. Then, fasten the cylinder band(s).

Sternum Strap

The Sherwood Crux BC is equipped with this feature to assist on keeping the shouder straps centered and at a comfortable distance. Simply slide the webbing to the desired length and buckle together; the QR system make it easy to remove after the dive.



How to attach and adjust the Waist Band and Shoulder Straps to the Harness of your new Sherwood Crux BC.

Waist Band - Prep Work

Start by laying down the Crux BC over a flat stable surface with the back side facing down. At the bottom, between the Harness and the Air Cell reach and release the Velcro flap. Completely open the Harness pad flap upwards to expose the Waist Strap connection tri-glides.







Waist Band Kit - Attaching and Adjusting

Note that the Sherwood Crux BC Waist Band kit has two sides. Insert the first side, nylon webbing first, into and through the corresponding harness waist wing. Use the single and double stitching lines as a guide to set up the decided length for each of the Waist Band sides relative to the user's needs. Now attach the nylon webbing to the metal tri-glide retainer and secure it. Repeat the same operation for the other side remembering the single or double stitching marker used on the previous side to ensure both lenghts are equal.







How to attach and adjust the Waist Band and Shoulder Straps to the Harness of your new Sherwood Crux BC.

Shoulder Straps Kit - L & R Sides - Prep Work

Note that the Shoulder Straps in the kit are Right and Left side specific. The right side has the Small Retractor Pocket in it, and it is labeled "R". The Left side has the Inflator Corrugated Tube Epaulette on it & labeled "L". Separate the Air-Cell Shoulder loop from one of the Harness lobes. Insert the upper tip of the first Shoulder Strap (opposite to the buckle side) into the Harness Shoulder

Pocket.

Shoulder Straps - Attaching and Adjusting for Length

Flip the BC over, move the air-cell shoulder lobe to expose the attachment point on the harness and the metal tri-glide. Using the sections of the Molle Chain as a guide, choose the desired length for the Shoulder Straps. For instance, passing the nylon webbing through all five Molle Chain sections will give you the longest setting possible, while if you pass it only through the first section and then insert the rest of the Shoulder Strap through, that will give you the shortest Shoulder Strap length possible. The example below shows the maximum length possible as we can see all the 5 sections of the Molle Chain.



How to attach and adjust the Waist Bands and Shoulder Straps to the Harness of your new Sherwood Crux BC.

Shoulder Straps Kit - Final Adjustments

Now lace the nylon webbing through the tri-glide to secure it.



When setting up the Shoulder Strap on the other side make sure you use the same amount of Molle Chain sections to ensure both Shoulder Straps have the same length.

Lace the Shoulder Straps through the air-cell Shoulder Retention Loops.





Make sure to locate the Upper Right Shoulder OPV string as this one would have to be guided through the available short nylon webbing loops and long shoulder loop. Tie a knot at the end of the pull-knob big enough to secure it.

Don the BC for initial fit testing. Bare in mind that things could vary depending on cylinder size and type & thickness of thermal protection used. If needed reassess both the Waist Band and Shoulder Straps adjustments in order to achieve that comfortable fit unique to you. Remember, the Sherwood Crux BC has been designed to accomodate all shapes and sizes, giving you that "Tailor Made" fit that you have been looking for on a BC.

Preparation & Setup

Sherwood Scuba recommends that you bring your BC, together with your regulator, to your Authorized Sherwood Scuba Dealer for the installation of the Low Pressure (LP) quick disconnect inflator hose that is provided with your BC. If it is not possible to return with your regulator to your Authorized Dealer, however, you may install the LP inflator hose by carefully performing all the steps in the following procedure.

LP Inflator Hose Installation



WARNING: DO NOT attach the low pressure inflator hose to a high pressure (HP) port (greater than 200 psi). This may cause the hose to burst when pressurized, which can result in serious injury.

The LP hose has a 3/8" male fitting that will only fit the standard LP ports found on most first stages, and is smaller than a standard (7/16) high pressure (HP) port. Some older regulators have HP and LP ports that are the same size (3/8"). All Sherwood regulators, and most provided by other manufacturers, have a high pressure port that is clearly marked "HP," with a small restrictive orifice that is visible when the plug is removed.

If your regulator has similar ports and you can't decide if a port is LPor HP, bring it with the hose to your dealer for installation.

- 1. To select the best LP port, mount the first stage on a cylinder valve to determine the correct orientation and hose routing.
- 2. Remove the port plug from a low pressure port on the regulator using the appropriate size wrench or key.
- 3. Your BC was shipped with the LP hose connected to the power inflator. Remove the inflator hose from the power inflator body by sliding the grooved sleeve back while pulling the fitting off the QD nipple.



4. Check the male end of the LP hose to ensure the O-ring is present and in good condition, and screw the threaded end of the hose into the port. Tighten to 40 inch-pounds (7kg/cm) with a 9/16" wrench.

Threading the Cylinder Band & Buckle



NOTE: Sherwood BC's are shipped with the nylon band pre-threaded through the buckle. If rethreading is necessary, follow these steps:

Slide the assembly close to the BC's harness.
 This provides an ample range of adjustment.
 Locate the numbers imprinted in the buckle.
 Pass the webbing under #1 first.



 Close the buckle about 100° to view the numbers on the opposite side. Pass the webbing now through #2 and reposition again to view the numbers on the first side of the buckle.



Now locate #3 and pass the webbing trough. At this point, with the band over the tank, it is possible to cinch it tight to secure the tank.



4. While holding tension tight over the tank with Step 4 one hand, now locate #4 and pass the rest of the webbing through & secure it with the Velcro.



Attaching the BC to the Cylinder

- First, wet the cylinder band(s) and then fit the BC over the cylinder.
 Loop the tank locator strap over the cylinder valve and adjust it as needed to hold the BC at the desired height and position.
- While holding the cylinder secure, pull the free end of the cylinder band until there is a very tight fit between the pack and the cylinder.
- 3. Close the buckle halfway to hold the cylinder band taut, and thread the end of the band through the open slot in the end of the buckle.
- 4. Pull the cam buckle closed so that it snaps down against the cylinder. Fasten the end of the webbing securely over the loop Velcro on the cylinder band.
- 5. Test the tightness by vigorously pulling and shaking the BC by the shoulder straps.



WARNING: The cylinder band may initially stretch after it becomes wet. Always wet the band prior to attaching your BC to the cylinder, apply enough tension to ensure that the cylinder is held completely secure. Test this connection before every dive. If the cylinder is allowed to slip free from the BC while you are diving, you could become separated from your air supply, which could result in serious injury or death.

Use With Double Cylinders

Sherwood BC's are sold with single cylinder harnesses only, and are not designed to accommodate twin cylinders.

No modification or additional hardware is currently available to upgrade the Sherwood Crux BC for use with twin cylinders.

The use of double cylinders can lead to potentially dangerous situations underwater, including the inability to achieve positive buoyancy due to increased weight, and exposure to decompression sickness due to extended dive profiles.



WARNING: Do not attempt to modify your Sherwood Crux BC for use with more than one cylinder. Doing so could damage the structural integrity of the BC Harness System, and could lead to its failure underwater.

Integrated Weight Systems

The Sherwood Crux BC is equipped with built-in compartments and pockets to hold non-releasable and releasable weights. Either "soft weight" (pouches filled with lead shot) or solid weight can be used, but soft weight is strongly recommended, since it will fill the weight compartment to its fullest capacity and provide maximum comfort.

It is very important to read the following instructions in order to understand the the difference between these two types of weight pockets and how to use them correctly.



Non-Releasable Weight

Your Crux BC is equipped with non releasable weight compartments located on the tank bands, one on each side of the air cell.

These are each designed to hold up to 5 lb (10 lb as a pair) of weight to supplement and counter-balance the releasable weight that you wear on your weight belt or Built-In releasable pockets. Note that it is possible to acquire two



additional pockets for custom trim configurations.

THIS WEIGHT IS NON-BELEASABLE HOWEVER.

THIS WEIGHT IS NON-RELEASABLE, HOWEVER, AND MUST NOT BE USED AS YOUR PRIMARY SOURCE OF BALLAST.

To install weight in each compartment, unfasten the side-squeeze buckles to open each flap. Drop in the weight and refasten the buckle.

It is important to remember at all times that weight installed in these compartments CANNOT be released during an emergency situation. Before diving with non-releasable weight installed in your BC, it is extremely important to check your buoyancy in shallow water while wearing the BC attached to a fully charged cylinder. While standing in chest deep water, completely deflate the BC and verify that you can easily achieve positive buoyancy by ditching your releasable weight. For more information about weighting and performing a buoyancy check, refer to the section titled, <u>Diving with Your Sherwood BC</u>.



WARNING: The non-releasable weight compartments should only be loaded with weight that supplements the releasable weight carried on your weight belt or your BC's releasable weight pockets. Do not install weight into the non-releasable weight compartments unless you are certain you can achieve positive buoyancy at depth by ditching your releasable weight while your BC is completely deflated. You may otherwise experience difficulty ascending to the surface in an emergency situation, which could lead to serious injury or death due to drowning.

Weight Retention System

Your Sherwood Crux BC is also equipped with two releasable weight pockets, located on each side on the posterior area of the waist band. These pockets can be easily identified by their QR buckle and the plastic puller release located below the pocket. Each releasable pocket contains an individual pouch to assit on containing the weight that it is designed to hold.



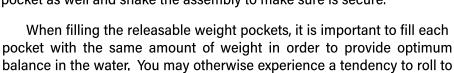
Filling the Weight Pockets

To fill the releasable pockets with weight, it will be necessary to first remove each one of the inner holding pouches from the respective compartment by unzipping the upper portion of the release pocket.

Extract the inner pouch and unzip it to fill it up with with the corresponding weight.

Close the zipper and re-insert the pouch inside the releasable pocket; re-zip the corresponding pocket as well and shake the assembly to make sure is secure.

one side if one pocket is more heavily loaded than the other.



It is also important to remember that between 80% to 90% of the total weight planned to be carried that day must be installed inside the releasable weight pouches.



Releasable Weight Pocket Installation



WARNING: Before every dive, it is important to inspect the QD buckles of the release system of the Weight Pockets of your BC to ensure that they are properly and securely fastened, and free of any signs of damage that may impair their function. Carefully follow the instructions provided to fill up the inner pouches with weight and install them inside the Releasable Weight Pockets. Accidental release of the weight pockets may otherwise result in an uncontrolled ascent, wich could lead to serious injury or death due to decompression sickness or embolism.

The weight pockets should be installed while the BC is fully deflated, either before or after it is donned. It is much easier, however, to install them before donning the BC. If the weight pockets are filled to their maximum capacity and installed into the BC, Sherwood Scuba strongly recommends that you should seek the assistance of a buddy before attempting to don the BC. You may otherwise risk injury, due to muscle strain or a temporary loss of balance.

For information about using the integrated weight system and ditching weight, refer to the section titled, <u>Diving with Your Sherwood BC</u>.

Donning the BC



CAUTION: To avoid possible injury and/or damage to your equipment, Sherwood Scuba recommends that you should always don your BC with assistance from a buddy.

- Ensure that the side-squeeze buckles of both shoulder straps are securely fastened. Fully extend each strap to its maximum length by pulling up on the tab of the lower slide buckle, and then pulling the webbing down until the D-ring slides up near the buckle.
- 2. While your dive buddy holds the cylinder supported behind you, reach back to place your arms through the shoulder straps.
- While your buddy continues to hold the cylinder, fasten the waist band snug around your waist. The best positioning is between your hip and rib cage. The weight of the cylinder should rest on the lumbar region (lower part) of your back.
- 4. After your buddy has released the cylinder and the BC feels comfortably supported on your hips, bend forward at the waist and adjust the shoulder straps to a comfortable length by pulling straight down on the D-rings.



NOTE: Remember, adjusting the shoulder straps too tightly will transfer the cylinder weight from the hips onto the shoulders, and may restrict your arm movement.

- 5. Readjust the waist band if necessary, so that it is comfortably snug but not restricting, with an overlap of at least 3 inches.
- 6. Fasten the sternum straps, and pull the free ends until they are comfortably snug but not restricting.



WARNING: Be sure to avoid overtightening your BC's adjustments. Check to ensure that you can move your arms comfortably and take deep, full breaths. Overtightening can restrict your respiration and blood circulation, which can lead to serious injury or death.

Pre-Dive Inspection

Before each use, the BC must be visually inspected and tested. NEVER dive with a BC that shows any signs of damage to its air cell or valves until it has been serviced by an Authorized Sherwood Dealer.

Inspection Checklist:

- Connect the 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.
- Ensure that the air cell does not contain any water from a previous dive or from internal rinsing. An excessive amount of water inside the air cell can reduce the BC's internal air volume and lift capacity.
- 3. Manually operate the lower overpressure valve (OPV) by pulling on the attached ball and cord to release air from inside the BC and then fully inflate the BC until the OPV valve opens. Examine the operation of the OPV valve by repeatedly inflating the BC to ensure that it opens to relieve excess pressure, yet closes immediately afterward to allow the air cell to remain fully inflated.
- 4. Check the function of the oral inflator button, rapid exhaust valve (REV), and OPV to ensure a rapid and unobstructed exhaust from each valve. Fully inflate the BC once again, and disconnect the Power Inflator to listen for any leakage.



CAUTION: If any leakage can be heard, or if the air cell begins to deflate within 5-10 minutes, DO NOT attempt to use the BC until it has received service from an Authorized Sherwood Scuba Dealer.

- Make a final tension check of the cylinder bands to ensure that they are as tight as possible and the cylinder is securely held without any noticeable slippage. Retighten if necessary.
- 6. Before entering the water, check the non-releasable weight compartments to ensure they are closed, and the releasable weight pockets to ensure that they are correctly installed into to the BC . (See Setup & Installation).



WARNING: The releasable weight pockets may fall out unexpectedly if the Q.R. connections are not securely fastened. Involuntary release of both weight pockets can cause a sudden increase in buoyancy and rapid ascent, and could lead to serious injury or death due to arterial gas embolism or decompression sickness.

Diving With Your Sherwood BC

Rules For Personal Weighting

Before diving with your new Sherwood BC, it is important to establish the correct amount of weight you will need to wear to achieve neutral buoyancy, without being too heavy (negatively buoyant) or light (positively buoyant). While following the procedure you were taught in your basic or open water training course, it is important to observe some basic rules for properly weighting yourself:

- Be aware of the factors that can cause your personal buoyancy to change, including personal weight loss or gain, the type and thickness of the exposure suit you wear, and the buoyancy characteristics of your cylinder when it is full and empty.
- Weight yourself in chest deep water while wearing all your equipment, including exposure suit and BC, with the cylinder you will be using while it contains no more than 500 psi (40 bar).
- Experiment with different amounts of weight until you are able to float at eye level on the surface while holding your breath, and slowly begin to sink as you exhale.
- 4. Conduct a personal buoyancy check whenever your body weight has changed, of if you use a different cylinder, BC, or exposure suit.

Diving With a Releasable Weight System

It is important to remember that the releasable weight pockets are connected to the BC independently of each other, unlike a weight belt that has only one release mechanism, and must be released accordingly. This feature provides you with the advantage of being able to ditch only half your weight initially, and



thereby maintain better control of your ascent rate in an emergency.

In the event of an emergency that requires you to ditch your weight, firmly pull the release knob of each weight pocket downward and away from the pocket. The internal weight pocket will drop out away from the external weight pocket that contains it.



CAUTION: To avoid injuring other divers, always look below you before dropping weight.



WARNING: Ensure that your releasable weight is not obstructed by any straps, lines, etc. DO NOT add weight to your BC anywhere other than the designated weight compartments, since doing so may prevent you from being able to ditch weight in an emergency. Failure to ditch weight in an emergency may lead to serious injury or death due to drowning.

Before diving with a BC that features a releasable weight system, it is very important to explain its function and design to your dive buddy, to ensure that they are as familiar with it as you are so they can assist you in an emergency.

Inflating Your BC

Oral Inflation

To orally inflate your BC, hold the oral inflator mouthpiece to your mouth and Inflation Button depress the oral inflator button while exhaling into the mouthpiece. Release the button when done or while taking another breath, and repeat this procedure until the BC is satisfactorily inflated.





NOTE: Oral inflation of your BC underwater is a practiced skill that must be achieved under the supervision of your diving instructor, since it requires the removal of your second stage regulator from your mouth.

Power Inflation

To connect the LP hose, grip the grooved sleeve at the connection fitting between your thumb and index finger, and slide the sleeve back. Place the fitting over the inflator valve QD nipple, and firmly push inward while releasing the sleeve. Check to ensure that the hose is securely attached.

To inflate your BC, depress the power inflator button. Do not hold the inflator button depressed continuously underwater, as this could cause you to become excessively buoyant. Instead, depress the button in short bursts until you become neutrally buoyant.



WARNING: Do not rely on the power inflator as the only means for inflating your BC. It is important to maintain proficiency in the skill of orally inflating your BC. You may otherwise be unable to achieve positive buoyancy in an emergency situation, which could lead to a more serious incident.

Venting & Dumping Air

Throughout the course of a dive, it will be necessary to vent or dump air from the BCD using one of the three methods described in the following instructions. Each method uses a valve that is in a different location, and is designed either to vent air or dump it very quickly. The method you should choose will depend on whether you are descending feet-first, head-first, maintaining neutral buoyancy underwater, or controlling your ascent. To release air as effectively as possible, remember to utilize the valve that is at the highest point on the BCD and nearest to the surface, depending on your position in the water.



WARNING: Whenever you ascend, whether intentionally or accidentally, you must simultaneously vent air from the BC as needed to maintain buoyancy control. If air is allowed to expand inside the BC unchecked, you may experience a rapid, uncontrolled ascent, which could lead to serious injury or death due to arterial gas embolism, decompression sickness, or drowning. To regain buoyancy control during an uncontrolled ascent, you must dump air from the BC as quickly as possible until you have stopped ascending.

Venting With the Oral Inflator

Air can be vented through the inflator by holding the inflator above your head and depressing the oral inflator button. This method is recommended for making an initial feet-first descent, but is not as effective while you are in a facedown swimming position.



NOTE: Depressing the oral inflator while the BC is empty may allow water to enter the air cell.

Venting With the REV Rapid Exhaust Valve

Inside the power inflator's corrugated hose is a cable that attaches the power inflator to the rapid exhaust valve at the top of the airway assembly. You can vent air from the BC by holding & pulling straight down on the power inflator.

This valve provides an effective and convenient way to vent air from the BC while you are in either a static upright or faceup swimming position, and is more convenient to use than the oral inflator.



Lower OPV/ Dump Valve

All Sherwood BC's have an overpressure relief (OPV) valve that is located on the lower rear portion of the air cell. The primary function of this valve is to protect the air cell from overpressurization by automatically venting air when the internal pressure of the air cell reaches a certain level (about 2.5 psi



over ambient). It can also be opened manually to quickly dump air by pulling on the ball and cord assembly.

This valve is most useful for dumping air as quickly as possible while making a head-first descent, or swimming in a face-down position.



CAUTION: The proper function of the overpressure relief valve is essential to prevent damage to the BC air cell. Unauthorized service or tampering may render this valve inoperable, and could cause the air cell to leak or burst. This type of damage is not repairable, and is not covered under the terms and conditions of the Sherwood Warranty.



NOTE: Most training agencies recommend that you should descend in an upright, feet-first position, in order to maintain a slower and more controlled descent. This is especially true if you experience difficulty equalizing your ears, or if you are descending in low visibility conditions.

Right Shoulder OPV/ Dump Valve (not featured on all models)

The Sherwood Crux BC features a redundant OPV/ Dump valve, located at the top of the right shoulder. A puller and cord assembly extends to the shoulder buckle assembly for quick dumping of air.



Post Dive Care & Maintenance

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

- Avoid prolonged exposure to direct sunlight and extreme heat. Nylon fabric can quickly fade when exposed to the sun's ultraviolet rays, and extreme heat may damage the welded seams of the BC's air cell.
- ▼ Avoid repeated or prolonged use in heavily chlorinated water, which can cause the BC fabric to discolor and decay prematurely.
- ▼ Do not allow the BC to chafe against any sharp objects or rough surfaces that could abrade or puncture the air cell. Do not set or drop heavy objects such as block weights on the BC.
- ▼ Avoid any contact with oil, gasoline, aerosols, or chemical solvents.
- ▼ To preserve the life of the air cell, thoroughly rinse it inside and out with fresh water after every day of use, following these steps:
- 1. Pressurize the power inflator with low pressure air via the LP hose.
- 2. Using a garden hose, direct water through the oral inflator to flush the interior of the air cell, and then thoroughly rinse the exterior of the BCD. Before rinsing, ensure that the power inflator is pressurized with air. This will prevent debris and contaminants from entering the inflator valve if the inflator button is accidentally depressed.
- 3. Completely drain the air cell of water through the lower OPV/dump valve by pulling the ball/cord assembly.
- 4. Fully inflate the BC, and allow it to dry inside and out. Then store it partially inflated, away from direct sunlight, and in a clean, dry area. Do not store the BC in an enclosed space, such as a car trunk, where it may be exposed to temperatures below 0°F (-18°C) or above 120°F (49°C).
- 5. To avoid stress on the air cell or harness assembly, remove all weight from the non-releasable and releasable compartments before storing the BC. Soft weight, especially, can discolor the BC over time.



CAUTION:DO NOT attempt to perform any disassembly or service of your Sherwood BC . Service requiring disassembly must only be performed by a factory trained Sherwood technician. To obtain any service or repair, it is important to bring your BC to an Authorized Sherwood Scuba Dealer.

Optional Accessories & Special Features

You can purchase the following accesories for your new BC from your authorized Sherwood Dealer.

AKONA BC Pro Kit™

This kit allows you to mount the following accessories on your BC to keep them within easy reach, including a small knife, a flashlight w/small retracting lanyard, and a retracting lanyard for your instrument console.

AKONA Safety Tube™

This high-vis surface signal device can be inflated to a length of 40", but is carried inside a compact 5.5"x 2.75" nylon bag that can be clipped to your BC.

Gemini™ Inflator Regulator

To streamline your system with less hoses and keep your octopus where you'll always be able to find it, you'll want the Gemini™ - a backup second stage regulator that 'doubles up' as Power Inflator/Deflator and it is worn connected with your BC's corrugated tube. This option is available separately from your Authorized Genesis / Sherwood Dealer, and can be added to any Sherwood BC. Gemini™ is available in Yellow, Blue or Red.







Utility Pockets - Two Sizes





It is always a great idea to have extra storage in your BC that is both practical and low-profile.

Knife or other hardware mouning plate.



Ideal for knife sheaths of various sizes or additional hardware.

Dealer Inspection & Service

- You should never assume that your BC will function properly on the basis that it has received little use since it was purchased or last serviced. Remember that prolonged or improper storage can still result in internal corrosion and/or deterioration of O-ring seals and valve springs, as well as air cell seam degradation.
- 2. It is imperative that you obtain factory prescribed service for your BC at least once a year from an Authorized Sherwood Scuba Dealer, including a general air leak inspection and complete overhaul of the power inflator and OPV valve. Your BC may require this service more frequently, depending on the amount of use and quality of maintenance that it receives.
- If the BC is used for rental or training purposes in salt, chlorinated, or silted fresh water, it will require prescribed dealer service every three to six months. Use in chlorinated water will greatly accelerate the deterioration of most components, and require more frequent service.
- 4. DO NOT attempt to perform any disassembly or overhaul service of your BC. Doing so may cause the BC to dangerously malfunction, and will render the Sherwood Warranty null and void. All service must be performed by an Authorized Sherwood Scuba Dealer.



NOTE: A Service & Repair Log is provided in the rear of this manual.

Limited Two Year Warranty

Sherwood BCs are warranted to be free of defects in materials and workmanship for a period of two years following the date of original purchase. This warranty is limited and subject to the restrictions listed below. This warranty only covers products purchased from an Authorized Sherwood Dealer.

WHAT IS COVERED

All non-wearing valve parts and the welded seams of the BC air cell are covered under this warranty. Should any part of your Sherwood BC be found defective, Sherwood Scuba, at its discretion, will repair or replace the component at no charge to you.

WHAT IS NOT COVERED

- ▼ This warranty does not extend to abrasion, punctures, or tears of the air cell, or seam separation caused by chemical attack; including prolonged exposure to chlorine.
- ▼ This warranty does not extend to damages caused by improper use, improper maintenance, neglect, unauthorized repairs, modifications, accidents, fire, or casualty.
- Cosmetic damage, such as scratches, fraying, and nicks are not covered by this warranty.
- ▼ This warranty does not extend to equipment used for rental, commercial, or military purposes.

WHAT YOU NEED TO DO

- ▼ Keep a copy of the original purchase receipt and subsequent inspections with this manual.
- ▼ Your Sherwood BC must be inspected and serviced by an authorized Sherwood repair facility at least once a year, within 6 weeks before or after the one year anniversary date of your purchase or last servicing.
- ▼ Provide proof of original purchase and annual servicing by an Authorized Sherwood Scuba Dealer in the form of receipts/invoices.
- ▼ Keep this manual, your original purchase receipt, and subsequent inspection receipts in a safe place for future reference.

DISCLAIMERS/EXCLUSIONS

Failure to have your BC inspected/serviced within the specified time will void the warranty.

The repair facility must sign your inspection record at each annual service. Failure to do so will void the warranty.

This warranty is nontransferable from the original owner. No salesperson, dealer or representative is authorized to make any modification to this warranty.

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 and certified diver, or receiving training under the supervision of an instructor, could lead to serious injury or death.

This warranty gives you specific legal rights. You may have rights which vary from state to state and country to country.

SHERWOOD SCUBA 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, consequential, or indirect costs, expenses, or damages incurred while using this product, so this may not apply to you.

RETURNING YOUR BC FOR SERVICE

Whenever your BC requires annual service or warranty repair, it is important to bring it to an Authorized Sherwood Scuba Dealer. Be sure to provide the dealer with some form of proof of purchase such as your original sales receipt & service records. For the location of the Sherwood dealer nearest you or additional information, visit our website at:

www.SherwoodScuba.com

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Purchase Date	BC Model	Serial No	
YEAR 1			
Dealer		Date	
Service Technician Sign			
Dealer		Date	
Address			
Service Technician Sign	nature		
Dealer		Date	
Service Technician Sign	nature		
Dealer		Date	
Dealer		Date	
Service Technician Sign	nature		



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www.SherwoodScuba.com

Sherwood Scuba equipment is for use only by persons trained and certified by a recognized scuba training agency.