



# Continuous Weave Harness User's Guide

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# Buoyancy Compensator

## User's Guide

**Thank you for choosing OMS,**

OMS buoyancy compensators have been constructed from rugged materials with unique features adaptable to advanced underwater environments. The general design philosophy allows for complete system integration of a number of components achieving high lift capacities, low drag, and increased safety through redundancy. With a selection of different harnesses, different air cells and accessories, a diver can configure his or her system for the specific environment they are operating in. This equipment is intended for use by individuals with the training and experience to dive these environments safely.

### **General Precautions & 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 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 no signs of damage or leaks are present. If you find that your BC is not functioning properly or is damaged, remove it from service until it can be repaired.
- 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 serious injury or death due to embolism or decompression sickness.
- 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.
- In the event of an uncontrolled, rapid 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 reestablished.

- Do not inhale from your oral inflator. The BC may contain harmful contaminants or gasses, which could cause suffocation or injury.
- The function of your buoyancy compensator is 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). A buoyancy compensator (BC) is not a life jacket. It is not designed to provide face-up flotation in all situations, and therefore it does not meet U.S. Coast Guard regulations for a life preserver or personal flotation device (PFD).
- Have your OMS equipment inspected and serviced annually by an authorized OMS dealer or at any time you have any concerns about your equipment's function or condition.



# HARNESSES

## Continuous Weave Harness System

The OMS Continuous Weave Harness system (BP166) system includes:

- 11 feet of 2" black webbing assembled with a SS grommet in the center (main harness). Length may vary slightly.
- 3.5 feet of 2" black webbing with a loop sewn at one end (crotch strap). Length may vary slightly.
- 6 SS D-rings
- 6 SS slides
- 1 SS quick release

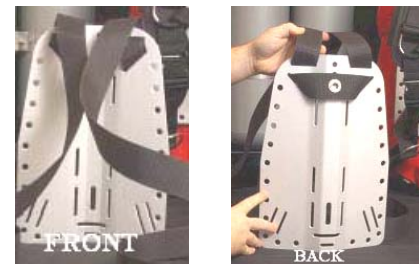
You will also need a back plate. It is recommended that you use an OMS steel or aluminum back plate. OMS back plates are superior in quality and provide smoother edges to promote a longer life to webbing and other gear that may come into contact with plate edges.

### Assembly of the Continuous Weave Harness

1. Start by inserting one end of the main harness webbing through the top slot (from the back towards the front of the back plate) and continue pulling the webbing until the grommet comes through followed by another 5" of webbing. Insert the same end of the webbing back through the angled slot below the top slot; this time from front to back. Pull the entire length through to the back of the plate until the grommet and 5" of webbing following the grommet, are through. Then turn the plate around so you're looking at the rear of the plate and insert the end of back through the angled lower slot on the opposite side of the plate. Adjust the webbing until the grommet is centered with the bolthole of the plate. Insert the same end of webbing back up and through the top slot all the way as far as it will go and pull it tight (from front to back.).

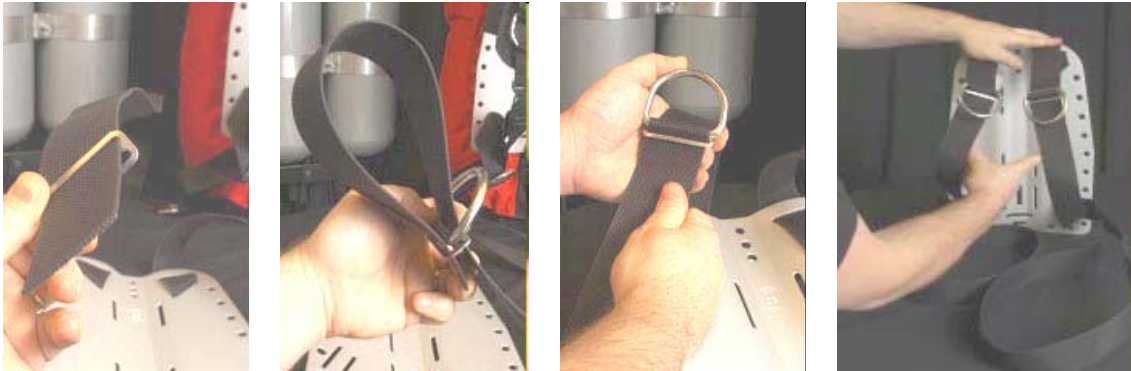


This completes the upper most assembly of the harness. Be sure that the grommet is centered with the hole in the black plate and that the harness looks like these pictures.



## **Assembly of the Continuous Weave Harness (continued)**

2. Now install the 'D' rings onto the shoulder straps by sliding the shoulder webbing through one slot of a stainless steel slide, through a 'D' ring then back through the second slot of the slide. Place the 'D' rings so they will be close to the diver's collar bone. Fine adjustments to their placement can be made after assembly.



3. Next the shoulder straps thread through the angled slots at the lower right and left corners of the plate. The webbing threads through the inner slot first from front to back then through the outer slot back to front. The free end becomes the waist band. Repeat this on both sides. Install the waist D-ring(s) on the waist strap. Some like one D-ring on the Left, some like one on each side. It's up to you but OMS includes enough for both sides. Installation is the same as the shoulder D-rings and exact adjustments should be made later while wearing your exposure suit. Their final resting place should be about mid body. Remember, adjustments to the placement of 'D' rings can be made later while wearing your exposure suit. Install the waist quick release on the left waist band so as you have a left hand release. Get it close and make adjustments later. Remember to install a pocket, knife or line cutter (if one desires to do so) on the waist strap before installing the buckle.



4. Now prepare the crotch strap for installation by installing a 'D' ring on a slide just like the shoulder straps. Slide another stainless steel slide onto the crotch strap opposite the looped end. The non-looped end of the crotch strap will feed through the lower middle slot from the back then weave through the stainless steel slide. Adjustments to the length of the crotch strap will be made here and the looped end will thread onto the waist band.

## **Assembly of the Continuous Weave Harness (continued)**

5. Put on your exposure suit to check adjustments. Try it out in the water and fine-tune it as necessary. The main harness should fit comfortably and not be too tight. Be sure it's not sloppy. Adjust the shoulder/chest D-rings to your collarbone. Adjust your waist (s) D-rings to mid body (side). The crotch strap should be a loose fit with around an inch of slack (when pulling it up through the legs it will come an inch or so higher than the waist strap). The rear D-ring on the crotch strap (closest to the cylinders) should be adjusted to where it is easily reachable and won't interfere with the cylinders or the divers fin kick. The scooter ring should be located a few inches from the bottom of the loop. You can turn it inside the loop when you don't need it. Accessorize and fine-tune your new harness to your style of diving. This is what your completed harness should look like.





# Operations

## Pre-Dive Checks

- Check all fittings and connections for damaged components (cracks, tears, etc.)
- Inflate each bladder until the dump valve vents, leave inflated for 30 minutes.
- On dual bladder models test each bladder separately (do not inflate both bladders at the same time)
- With the bladder fully inflated check that pull dump cord or folds in the bladder are not trapped by the retraction bands
- Check the security of weight systems before entering the water.
- After entry, inspect units for bubbles indicating leaks.
- Test pull dumps for smooth operation and positive seal.

## Operations

- **WARNING :** 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 injury or death.
- Inflate the bladder with short controlled bursts of air by pressing the inflate button.
- The unit can be inflated orally through the oral inflator. Depress the deflate button completely and exhale into the oral inflator.
- On dual bladder models, the bladder against the diver's back is the primary bladder. Do not inflate both bladders at the same time. This could decrease the overall lift provided by the jacket.
- Deflate the jacket by pressing the deflate button on the inflator or by pulling a pull dump. Use proper descent techniques taught in scuba training.

**WARNING! Repeated improper use of the Oral Inflation/ Deflation mechanism or dump valves assemblies may allow water to enter the BC with a subsequent reduction in buoyancy. Reduced buoyancy can cause a loss of buoyancy control resulting in PERSONAL INJURY OR DEATH**

## Post-Dive Checks

- Connect the inflator to an air supply to pressurize the inflator mechanism then use a garden hose to direct fresh water into the oral inflator while pressing the deflate button.
- Partially inflate the unit and allow the water to wash around the interior of the bladder. Drain completely and store partially inflated away from temperature extremes and direct sunlight.
- Do not attempt to service a malfunctioning piece of equipment. Take it to an authorized OMS dealer for repair.



# WARRANTY

## WARRANTY AND LIMITATION OF LIABILITY

1. OMS® warrants to the purchaser that goods sold by OMS® to the purchaser will be free from manufacturing defects in materials and workmanship for a period of ninety (90) days after the date of purchase from an authorized OMS® dealer.
2. EXCEPT AS EXPRESSLY SET FORTH IN SECTION 1 'WARRANTY AND LIMITATION OF LIABILITY', COMPANY MAKES NO WARRANTIES TO THE PURCHASER, WRITTEN OR ORAL, EXPRESS, IMPLIED OR STATUTORY, IN ANY MANNER OR FORM WHATSOEVER INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE OR PURPOSE, WHICH ARE HEREBY EXPRESSLY DISCLAIMED.
3. The warranty does not apply to goods that have been subject to abuse, misuse, neglect, improper installation or alteration after delivery to the carrier for shipment to the purchaser. At OMS'® request, the purchaser shall return goods to OMS® at its Middletown, NY, office for verification that the warranty set forth in these terms and conditions as limited by this paragraph is applicable. Any such returns are subject to the provisions in the RETURN POLICY Section.
4. In the event OMS® determines that the warranty set forth above in #1 of this Section are limited by #3 in this Section is applicable to any goods, OMS® shall, as the purchaser's sole remedy, replace, repair or at OMS'® sole discretion, issue to the purchaser a credit for an amount not to exceed the original purchase price paid by the purchaser for the affected goods. OMS® shall have no liability with respect to warranty claims made by the purchaser more than ninety (90) days after OMS'® sale of the goods involved to the purchaser. In no event shall OMS® be liable to the purchaser for a special, incidental or consequential damages. OMS® shall have no liability to the purchaser for any delay or failure in carrying out its obligation to the purchaser for reasons beyond OMS'® control, including without limitation, acts of God, war, natural disasters, labor disputes, changes in or compliance with laws, regulations or governmental policies and shortages of supplies and services. OMS® may extend delivery until any such cause of delay has been removed, or at its option, cancel the undelivered portion of any order so affected without liability to the purchaser; except for the return of any payment made by the purchaser to OMS® with respect to any undelivered portion of the order so canceled.

