



Congratulations on the purchase of your new EDGE Buoyancy Compensator (BC).

EDGE has designed, engineered and tested your new BC with extreme care in order to provide you with a product that has exceptional performance, dependability and superior comfort.

EDGE takes particular pride in the personal craftsmanship that went into your BC. We hope you enjoy many years of diving pleasure with it.

IMPROPER USE OR MISUSE OF THIS BUOYANCY COMPENSATOR, OR ANY DIVING EQUIPMENT, COULD RESULT IN SERIOUS INJURY OR DEATH.

- Do not use this Buoyancy Compensator until you have carefully and completely read, understood and followed all instructions and safety precautions found in this manual, all inserts that accompanied this manual, all tags and marking found on the Buoyancy Compensators
- Proper training in swimming, SCUBA diving, buoyancy control and emergency buoyancy skills is required to safely use this product. A Buoyancy Compensator is not a substitute for these skills. The user must have successfully completed a course of training in SCUBA diving, buoyancy control and emergency buoyancy skills. This instruction should be from a certified SCUBA instructor from a recognized educational organization such as; NAUI, PADI, SDI, SSI or other .
- Retain this manual for your reference.
- Review this manual periodically and prior to diving.

This Buoyancy Compensator Owner’s Manual contains important safety and maintenance information. Read this manual thoroughly and become familiar with all of your scuba equipment before diving.

Important information on assembly, use and maintenance of your BC is designed throughout this manual with the “IMPORTANT” graphic above. This owner’s manual uses signal words to designate levels of hazard seriousness.

These signal words and their designations are as follows:

DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations

WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

FAILURE TO READ, UNDERSTAND AND FOLLOW THE PRECAUTIONS LISTED BELOW COULD RESULT IN SERIOUS INJURY OR DEATH.

- THIS IS NOT A LIFE JACKET. Emergency face up flotation may not be provided for all wearers and in all conditions.
- Do not rely on the BC to create emergency positive buoyancy or initiate or sustain an ascent in an emergency situation.
- Be prepared to deal with emergency buoyancy conditions.
- Uncontrolled ascents, descents, or loss of buoyancy control may result from misuse, unfamiliarity with operation and function of the BC, improper training, stress or panic. See topics under “intended Use” and “Valve Set up and Operation” in this manual.
- Do not dive with a BC that is damaged, leaks air or does not function properly. Before each use, inspect for proper operation, leakage or damage. Terminate any dive as safely and quickly as possible if the BC becomes damaged, leaks air or does not function properly. See “BC Examination and Procedures” in this manual.
- Always perform a pre-dive and post-dive inspection of the BC. Have your dive partner perform a cross check as well. The pre-dive, dive and post-dive BC examinations help identify equipment problems before unsafe conditions exist. See “BC Examination and Procedures” in this manual.
- This BC is a system for adjusting a diver’s buoyancy. It is not a life support system or breathing device.

WARNING

THIS IS NOT A LIFE JACKET.

Emergency face up flotation may not be provided for all wearers and in all conditions.

Excess weight may impair or prevent the proper operation of the BC. Proper weight for typical Sport diving provides neutral buoyancy at the shallow ascent stop performed before surfacing, with a deflated BC and tanks low on air. Failure to establish proper weighting that is not excessive may result in injury or death.

Descent Control

Your BC can be used to control the rate of your descent. Once you have started your descent, you can add air to the BC to compensate for any loss of buoyancy caused by water pressure compressing your exposure suit or other gear.

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1. GENERAL INFORMATION

This information has been developed for your safety. Please read and understand this manual completely before using your new BC.

The primary purpose of a Buoyancy Compensator is to make you more comfortable by enabling you to maintain neutral buoyancy at depth.

You are neutrally buoyant when you maintain a specific depth without expending significant physical effort to prevent an ascent or descent from that depth.

2. INTENDED USE

This will explain how your BC should be used for maximum safety, comfort, and enjoyment.

Weighting for neutral Buoyancy at End of the Dive

Your overall buoyancy will typically vary from the start to the end of the dive, especially as SCUBA Cylinders become more buoyant as you consume air. Weighting for neutral buoyancy at the end of the dive with a SCUBA Cylinder low on air (typically 500 psi/35 bar) allows you to comfortably stop during your ascent at 10-15 feet (3m-5m) as recommended by SCUBA certificate agencies.

Start on the surface of the water with all gear in place, floating without kicking. Your BC should be deflated and your SCUBA cylinder should be full. You will add weight to be neutrally buoyant at the end of the dive, so add the proper amount of weight to become slightly negative because of the full SCUBA cylinder. You should very slowly sink while you breathe normally. Do not add air to the BC, only add or subtract weight. Consult your SCUBA instructor for additional help in setting up your equipment and weight.

Surface Flotation

The BC can add to your surface buoyancy, making surface swimming easier. The BC alone, however, will not necessarily provide adequate surface flotation.

Descent Control

Your BC can be used to control the rate of your descent. Once you have started your descent, you can add air to the BC to compensate for any loss of buoyancy caused by water pressure compressing your exposure suit or other gear.

Maintaining neutral Buoyancy at Depth

Adjusting your buoyancy during the descent, you will arrive at your desired diving depth neutrally buoyant. Adding or releasing the correct amount of air will assist in maintaining neutral buoyancy as you change depth during the dive.

Ascent Control

By maintaining neutral buoyancy throughout the dive you will not need to add air to start an ascent. Locate the valve you intend to vent air from prior to ascent. Assume a head up position and begin kicking to initiate an ascent from a neutrally buoyant condition. As you ascend, the air in the BC will expand, increasing your buoyancy and rate of ascent. Vent small amounts of air frequently during ascent to remain neutrally buoyant and control your rate of ascent.

Vent air from the BC before becoming significantly buoyant or exceeding the normal ascent rate. It is preferable to visually confirm that air is venting from valve. Continue the ascent with a comfortable, slow kick.

Make sure that the valve you intend to use for venting air is higher than the air bubble in your BC. Positioning the valve below the air bubble may prevent the bubble from being vented

Unintended Ascent

Should you experience a sudden, unintended increase in buoyancy that might occur from a loss of weight or free flowing of Stainless Power Valve (SPV), immediately assume an upright position and vent air from the Manual Dump Valves of the Buoyancy Compensator, or Oral Inflation Valve (if the BC has no Manual Dump Valve). Practice this skill under the supervision of a certified SCUBA instructor.

WARNING

Do not use your BC for buoyant accents during normal diving. This could result in loss of buoyancy control and/or a buoyant ascent at a time or speed that could result in injury or death.

Do not use your BC as an assist or "lift bag" for bringing objects to the surface. These objects may be lost during the ascent, creating a sudden increase in buoyancy and loss of buoyancy control.

Proper training in swimming, SCUBA diving, buoyancy control and emergency buoyancy skills is required to safety use this product.

Successfully complete a course of training from an instructor in SCUBA diving, buoyancy control and emergency buoyancy skills from an internationally recognized educational organization.

3. INITIAL SET UP

This section instructs you on the procedures required to initially set up your BC. For best performance and safety, it is recommended that your BC be first configured by a EDGE SYSTEMS authorized retail facility. Additional parts or accessories may have detailed instructions not covered in this section or manual. Read and follow all instructions not covered in this section or manual. Read and follow all instructions included with parts and accessories you intend to set up on this BC.

Low Pressure (LP) Hose

The LP hose connects the Stainless Power Valve to the first or primary stage of the SCUBA regulator. To install the LP hose to the SCUBA regulator, first read the Owner's manual for the SCUBA regulator to determine the location of the ports that provide low pressure air. Select an unused Low Pressure Port on the regulator first stage and unscrew the ports plug. Example below.



Check that the threads on the plug match in size and number to the threaded fitting of the LP hose. If the thread on the regulator port is different, an adapter plug will be required. Clean the O-ring on the threaded end of the LP Hose then screw the threaded fitting into the regulator port. Use a wrench to snugly tighten the threaded fitting. Do not over-tighten.

WARNING

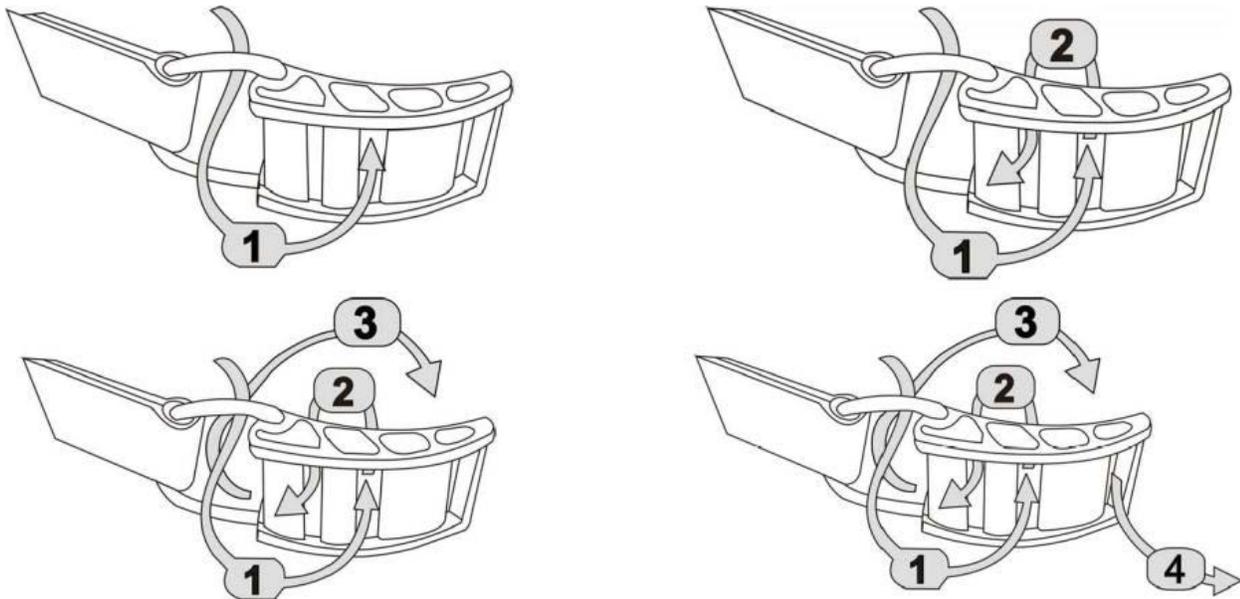
Do not attach the low pressure hose or pneumatic inflation valve of the BC to a SCUBA regulator high pressure port or an air supply with pressure in excess of 200 psi (13.8bar).

This may result in damage or explosive failure of the Pneumatic Inflation Valve or Low Pressure Hose, which could result in injury or death.

Read the SCUBA regulator manufacturer's instructions concerning connection locations and procedures.

To reduce the chance of slippage of the cylinder in the cylinder strap and backpack the rubber pad on the Heavy Duty Tank Straps band must be facing the tank.

THREADING THE TANK OR CYLINDER STRAP THROUGH THE CAM BUCKLE



NOTE: Our BCs are shipped with the nylon band pre-threaded through the buckle. You should double check the threading to ensure yours is correct. If rethreading is necessary, follow these steps:

1. Ensure that the metal bale of the buckle is as close to the rear of the BCD as possible. This provides the greatest range of adjustment.
2. With the buckle fully open, thread the cylinder band up the middle slot and back down through the slot closest to the metal bale. Pull the end to increase the tension in the band.
3. Loosely thread the webbing through the open slot in the end of the buckle, but do not cinch it tight at this time.

Cylinder Locator Strap

Some EDGE Systems BCs have a 1" webbing and thermoplastic slide Cylinder Locator strap. This strap is used to encircle the valve neck of the SCUBA cylinder. It prevents the cylinder strap and backpack from sliding down the SCUBA cylinder while connecting and tightening the cylinder strap. Once the proper position of SCUBA cylinder and backpack has been determined adjust this valve strap so that the preferred position can always be found.

Valve Terminology

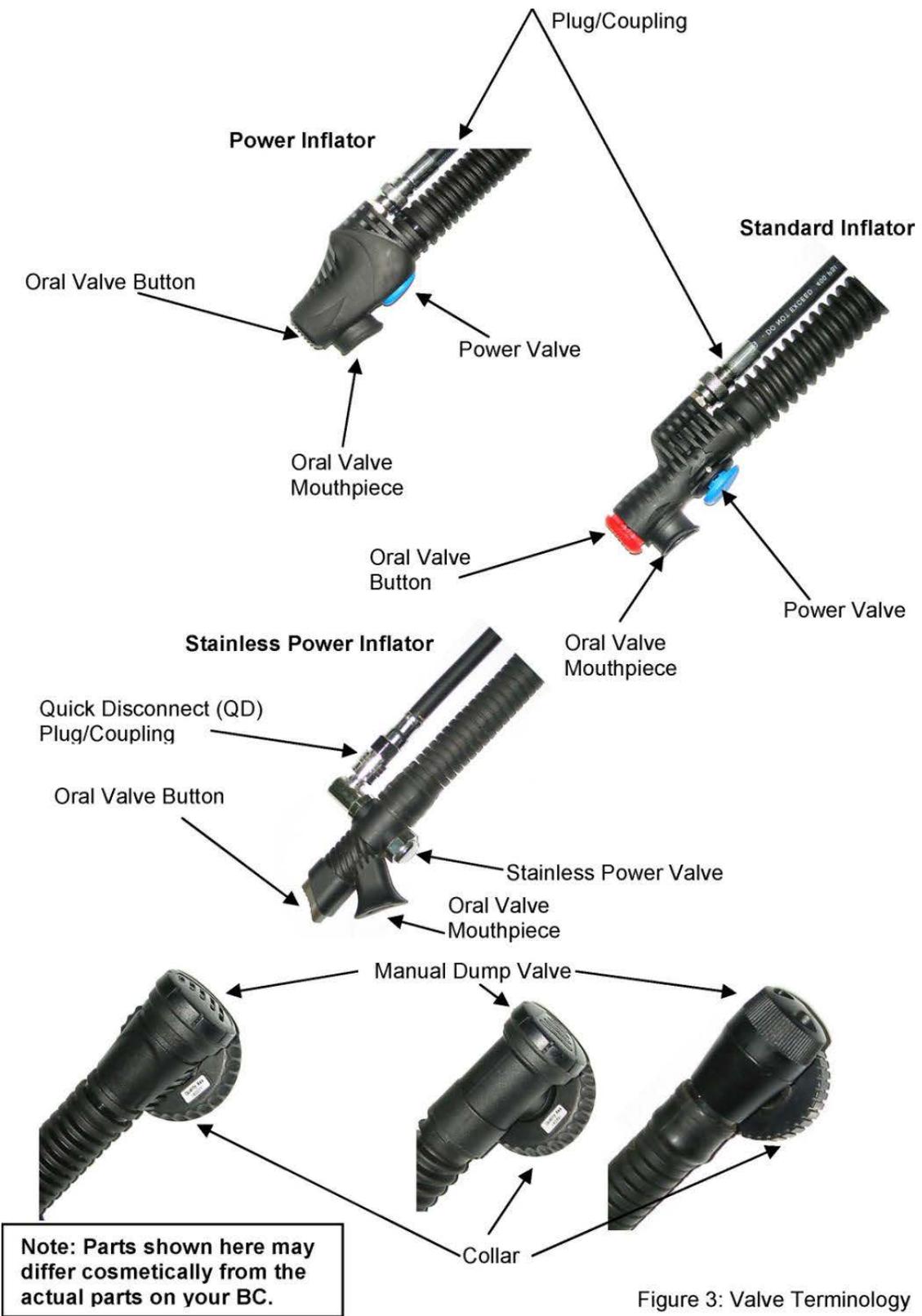


Figure 3: Valve Terminology

5. VALVE OPERATION

This section will instruct you on the set up and proper operation of your BC's valve systems.

Proper understanding of the operation of these valves is crucial to performing buoyancy control skills correctly.

Inflation of the BC can occur with the Stainless Power Valve (SPV) or the Oral Valve. Deflation may be accomplished through the Manual Dump Valve (MDV) (if your BC is equipped with one) or by the Oral Valve. On some models, the Over Pressure Valve (OPV) is equipped with a lanyard and pull knob that allows manual operation as a Dump Valve for a third means of deflation.



Connecting the Stainless Power Valve

The Stainless Power Valve allows you to inflate your BC using air from your SCUBA cylinder. This valve exists in 3 different forms: Power Inflator, Standard Inflator or Stainless Power Inflator. It is connected to the low pressure port of the first stage regulator by means of the Low Pressure (LP) hose. The LP hose is connected to the Stainless Power Valve by the Quick Disconnect Coupling on the end of the hose. The Quick Disconnect Coupling works with the air on or off.

To attach the Quick Disconnect Coupling:

- 1) Make sure that both fittings are free of contamination prior to mating them together.
- 2) Pull back the collar of the Quick Disconnect Coupling while pushing the hose firmly onto the fitting Plug found on the Stainless Power Valve.
- 3) Release the collar when the Coupling is fully seated on the Plug. Pull gently but firmly on the hose to check for a secure connection.
- 4) To disconnect, pull the Quick Disconnect Coupling collar back and disengage the LP hose from the Plug.

WARNING

Never breathe from the BC. Your BC may contain gas residue, liquid or contamination that may result in injury or death if inhaled.

Keep water out of the inflatable air cell (bladder) of the BC. Repeated use of the Oral Valve or the Overpressure Valve may allow water inside the BC, reducing the amount of buoyancy provided by the BC.

This could result in injury or death. Drain all water out of the BC after and prior to every use.

Inflating the BC with the Power Inflating Valve

To inflate the BC, press the Stainless Power Valve button. Air should enter the BC. For better control during inflation use short bursts of air by repeatedly pressing and releasing the SPV button.

Inflating the BC with the Oral Valve

The Oral Valve is typically found on the end of the airway. It allows you to inflate your BC with your exhaled breath. Use of this valve for inflation is recommended on the surface or on land prior to diving. It may be used when you cannot, or do not wish to add air to the BC with Stainless Power Valve.

- 1) First exhale a small amount of air into the mouthpiece of the valve to purge any water that may be trapped there.
- 2) With the same breath, continue to exhale while depressing the Oral Inflation Valve button.
- 3) Release the Oral Valve Button immediately prior to the end of the exhalation.
- 4) Repeat steps 2 and 3 until the desired amount of buoyancy is reached

WARNING

Consult your SCUBA instructor for training in oral inflation of the BC while underwater. Description and training of this skill is beyond the scope of this manual. Improper performance of this buoyancy skill may result in injury or death.

Proper training in swimming, SCUBA diving, buoyancy control and emergency buoyancy skills is required to safely use this product. Successfully complete a course of training in SCUBA diving, buoyancy control and emergency buoyancy skills from an internationally recognized educational organization.

Deflating the BC with Oral Valve

- Assume a head up position in the water.
- Raise the Inflator Valve above and in front of your face (this ensures the Oral Valve will be positioned above the air bubble in the BC).
- Depress the Oral Deflate Valve button and visually confirm that air is escaping from the mouthpiece. For best control, let air out in a series of short, measured amounts (Burping) while feeling the effects on your buoyancy.

WARNING

Keep sand and other contamination out of the Oral Valve mouthpiece and valve button. Under certain conditions, contamination can cause the Oral Valve to not close completely. If this occurs while diving, shake the valve while depressing it several times. If the valve leaks or remains inoperable, terminate the dive.

Diving with a leaking BC or with valves that do not operate properly may result in a loss of buoyancy control that could result in injury or death.

Deflating the BC with the Manual Dump Valve (when present)

- Assume an upright position in the water.
- Then open the Manual Dump Valve by gently pulling downward on the Inflate Power Valve Assembly. It is not necessary to use excessive force to pull on the hose assembly.
- Valve travel is limited and pulling harder will not increase the air flow.
- Close the Manual Dump Valve, stop pulling downward.

Deflating the BCD equipped with an Octo Inflator

- When breathing from a BCD equipped with a Octo Inflator the recommended valve for dumping air is the dump valve located on the right shoulder of the BCD.
- If the BCD does not have a right shoulder dump valve, then the diver must remove the Octo Inflator from the mouth to actuate the deflate button.
- With all deflation methods, hold the valve open no longer than needed. This helps prevent excess water from entering the BCD bladder through the valve.
- Do not depress the deflate button when pulling on the manual dump as water may enter the BCD through the mouthpiece.

WARNING

Air may not escape from the Manual Dump Valve in all swimming positions. If the air bubble in the BC is above the Elbow Dump Valve, as when the diver is in a horizontal or head downward position, then the air may not escape from the valve.

Failure to vent air from the BC may cause an ascent at a time or speed that could cause injury or death.

Make sure that the valve you use to vent the BC is at the highest point of the air bubble.

Over Pressure Valve Operation

The Over Pressure Valve prevents over-inflation of the BC. If the internal pressure exceeds the spring pressure in the Valve, it automatically opens and releases air to prevent damage to the BC. The valve will automatically close when the internal pressure goes below the spring pressure.

Right Shoulder Valve (Fig 6)

Most EDGE SYSTEMS BCD'S have a valve located on the right back shoulder of the BCD. This valve serves as an automatic over-pressure relief valve and can be operated manually and is especially useful when the diver is in the Fish, Snowflake, Sky-Diver or Neutral Buoyancy position.



Fig. 6

These valves have a lanyard cord and pull knob that hangs along the right front shoulder strap at the collar bone.

- To operate, orient the valve to a position higher than the air bubble in the BC usually by raising the right shoulder.
- Pull gently on the Pull-Dump Assembly until the desired amount of buoyancy is reached.
- Stop pulling to close the valve.

Lower Dump Valve (Fig 7)

Most EDGE SYSTEMS BCD'S have a Valve located at the lower rear of the BC may be equipped with lanyards and pull knobs.



Fig. 7

These Lower Dump Valves are Over Pressure or manually activated. Mainly the diver operates them most effectively in a head down orientation in the water, positioning them at the highest point of the air bubble. * When operated in the Neutral Buoyancy position they can be somewhat effective depending on how much air is in the air cell.

6. GENERAL FEATURES OF YOUR BUOYANCY COMPENSATOR

EDGE SYSTEMS manufactures Buoyancy Compensators with many different adjustments and features.

WARNING

Restriction of normal breathing while wearing your BC could result in injury or death. Adjust the BC so that it does not restrict your breathing when fully inflated. Before each use, check all bands, straps, quick-connect clips and/or cummerbund for proper adjustment to the user. Consult a certified SCUBA instructor or the retail facility where the BC was purchased for help.

Reflective Piping

On most BCs, EDGE SYSTEMS uses reflective piping. In addition to enhancing the aesthetics of the BC, the reflective piping increases your safety while diving by making you more visible underwater

Waist and Front Closures

Waist closures may use a web and cam buckle systems, Adjustable Front Closure Buckle with a “squeeze to release” feature or may use a touch fastener closure on a cummerbund. Touch fastener closures are fastened by placing the hook and loop panels on top of each other and applying moderate pressure. Waist closures may need to be adjusted at depth if a neoprene suit is worn by the diver.

Front closures on the BC are used to keep the BC in a low drag configuration. These front closures adjust with we

Chest strap

Quick- release chest strap for prefer wearing the shoulder straps pulled close together bbing tails located in the front of the BC.

Adjustable Shoulder BCs

Shoulders straps may be adjustable on your BC. These straps adjust by a length of webbing passing through a locking feature on a quick release buckle. Tighten buckles by grasping the free end of the adjustment webbing and pulling firmly downward. Lift the front of the buckle upwards while wearing the BC to loosen.

A quick release feature may also be incorporated into the buckle. Check for two tabs on either side of the buckle that may be squeezed to separate the buckle halves.

Depth-compensating Cummerbund

On some models of EDGE SYSTEMS BCs, the cummerbund has special elastic panels. The purpose of these panels is to allow the cummerbund to remain snug around your waist while the neoprene in your exposure suit compresses with depth, thus increasing comfort.

7. POCKETS

Pockets in a BC offer you the ability to reduce the number of items you clip onto D-rings and/or safely store items that you cannot clip. However, a pocket is only as good as the use you can make it, so size and positioning play an important role.

At EDGE SYSTEMS, we place particular emphasis on these two aspects, and you will find that each pocket has been carefully thought out. In weight-integrated models, our philosophy is to completely separate the storage pockets from the weight pouches (as opposed to overlapping them) so that the functionality of one is not affected by the other.

Front Waist Pocket

Available on the top models of the classic line, these pockets are positioned below the weight system so that they can be reached without having to excessively bend the arm, and are large enough to hold a spare light or a marker buoy

Standard side-waist pocket

This kind of pocket has a vertical entry for easier access and is large enough for slates, a spare light or a marker buoy.

Weight-Integrated Pockets

The primary purpose of the integrated weight system is to provide additional comfort to the diver by moving the weights from the weight belt to the Buoyancy Compensator (BC). This reduces the number of straps that the diver must adjust, while maintaining control of the release and retention of the released weights with the diver. Creation of positive buoyancy change as a part of an emergency ascent can be performed in a manner similar to that performed with a weight belt.

8. INTEGRATED WEIGHT SYSTEM

WARNING

FAILURE TO READ, UNDERSTAND, AND FOLLOW THE PRECAUTIONS LISTED BELOW COULD RESULT IN SERIOUS INJURY OR DEATH.

- Do not rely on the BC or Weight Pouches to create emergency positive buoyancy or initiate or initiate or sustain an ascent in an emergency situation.
- Be prepared to deal with emergency buoyancy conditions.
- Uncontrolled ascents, descents, or loss of buoyancy control may result from misuse, unfamiliarity with operation and function of the BC, improper training, stress or panic.
- Always perform a pre-dive and post-dive inspection of the BC. Have your dive partner perform a cross check as well. The pre-dive, dive and post-dive BC examinations help identify equipment problems before unsafe conditions exist. See “BC Examination and Procedures” in this manual.
- Receive proper training in the use of this equipment from a certified instructor prior to use in open water.
- Ensure that you are proficient with emergency ascent procedures using this system.
- Ensure that your diving companion is familiar with and proficient in the operation of this system to diving.

This information has been developed for your safety. Please read and understand this supplement completely before using your new Buoyancy Compensator.

This supplement explains the proper installation and use of the quick release integrated weight system for EDGE SYSTEMS Buoyancy Compensator.

Primary Purpose of the Integrated System

The primary purpose of the integrated weight system is to provide additional comfort to the diver by moving the weights from the weight belt to the Buoyancy Compensator (BC). This reduces the number of straps that the diver must adjust, while maintaining control of the release and retention of the released weights with the diver. Creation of positive buoyancy change as a part of an emergency ascent can be performed in a manner similar to that performed with a weight belt.

8.1 INTENDED USE

This will explain how your integrated weight system should be used for maximum safety, comfort, and enjoyment.

Weighting for Neutral Buoyancy at the end of the Dive.

Your overall buoyancy will typically vary from the start to the end of the dive, as SCUBA cylinders become more buoyant as you consume air. Weighting for neutral buoyancy at the end of the dive with a SCUBA cylinder low on air (typically 500 psi/35 bar) allows you to comfortably perform a Safety Stop during your ascent at 10-15 feet (3m-5m), as recommended by most SCUBA certification agencies.

Start on the surface of the water with all gear in place, floating without kicking. Your BC should be deflated and your SCUBA cylinder should be full. You will add weight to be neutrally buoyant at the end of the dive, so add the proper amount of weight to become slightly negative because of the full SCUBA cylinder. You should very slowly sink while you breathe normally. Do not add air to the BC, only add or subtract weight. Consult your SCUBA instructor for additional help in setting up your equipment and weight.

Quick Generation of Buoyancy to assist in a Swimming Ascent.

Weight pouches are designed to be removed with a simple motion, allowing the diver to increase buoyancy in a manner similar to releasing a weight belt. In an emergency inspect the front of the body to visually ensure that they are free from entanglement, then drop them by pulling forward and away from the body to increase buoyancy.

WARNING

Releasing the weight pouches does not guarantee initiation of ascent under all conditions.

Properly set up, this integrated weight system allows the creation of a large change in (positive) buoyancy by removing and releasing weight pouches filled with weight. An improper equipment configuration with improper weighting may not initiate an ascent when a positive buoyancy change occurs as a result of releasing the weight pouches. This may result in serious injury or death. Review the correct equipment configuration with your SCUBA instructor prior to using this equipment in open water.

WARNING

ADDITION OF THE INTEGRATED WEIGHT SYSTEM DOES NOT MAKE THE BUOYANCY COMPENSATOR A LIFE JACKET.

Proper training and certification in swimming, SCUBA diving, buoyancy control and emergency buoyancy skills from an internationally recognized organization are requirements to safely use this product. Excess weight may impair or prevent the proper operation of the BC. Proper weight for typical sport diving provides neutral buoyancy at the shallow ascent stop performed before surfacing, with a deflated BC and tanks low on air. **Failure to establish proper weighting may result in injury or death.**

Important

Your particular model of EDGE SYSTEMS buoyancy compensator may also have non-releasable weight pockets in the back, near the tank straps or backpack. Weights placed in these pouches help achieve a perfect trim, but cannot be released. Weight must be distributed so that sufficient amounts can be jettisoned from the integrated, releasable weight pouches to guarantee positive buoyancy.

WARNING

By using both the releasable and non-releasable weight pockets built into your EDGE SYSTEMS buoyancy compensator, it may be possible to overload your unit beyond its capacity to provide neutral or positive buoyancy. An inability to initiate neutral or positive buoyancy may result in serious injury or death.

Please refer to section 14 for buoyancy compensator lift capacities.

Weight Pouch Capacity

The capacity of each removable weight pouch in EDGE systems is 10lbs/5kg. EDGE SYSTEMS Integrated Weight systems are designed to use several types of weights, including solid lead, vinyl coated and shot pouch style weights. They are NOT designed for shot to be carried loosely in the vest pouch – the shot will fall out. The specific type of weight that is used will affect the capacity of the pouch.

8.2 INSERTING WEIGHT INTO POUCHES

- 1) Release the buckle on outside of weight pouch and remove pouch from BC by pulling on D-ring. Open the [®] Velcro enclosures. Insert weights as shown in figure 24. Do not exceed capacity as described.
- 2) With the pouch facing up, first close the Velcro [®] flap over the weight opening (see figure 25). Next, close the second Velcro flap to secure the first (see figure 26).



Figure 24



Figure 25



Figure 26

8.3 INSERT WEIGHT POUCH INTO BC RETAINER

Refer to figures 27 through 30 and for this operation. Insertion of weight pouches into the retainers can be done before or after donning the BC.

- 1) Insert the weight pouch in the BC retainer so the Velcro[®] enclosures are facing out. Also, the weight pouch buckle must be sticking out from the BC retainer. Push the pouch as far back as it will go into the BC (see figure 27).
- 2) Lengthen the weight pouch buckle as far as it will go (see figure 28).
- 3) Clip together the female and male ends of the weight pouch buckles (see figure 29). **IMPORTANT:** double check that the buckles are secure by trying to pull them apart when engaged.
- 4) Pull the buckle D-ring firmly to tighten the strap. This finishes securing the weight pouch to the BC (see figure 30).
- 5) Once you enter the water, retighten the strap by again pulling on the D-ring.



Figure 27



Figure 28



Figure 29



Figure 30

WARNING

Improperly securing the pouch in the BC retainer may result in immediate loss of the pouch, generating positive buoyancy and initiating an uncontrolled ascent. This may result in serious injury or death.

- 1) **The weight pouch must be properly in place inside the BC retainer, pushed all the way toward the back.**
- 2) **The buckle clip on the weight pouch must be fully engaged with the clip on the BC. Double check that it's secure by trying to pull it apart when engaged.**



Figure 31

8.5 OPERATION

To drop weights during a dive to begin an emergency ascent, do the following:

- 1) Squeeze weight pocket buckle clips to release buckle. 2) Releasing clips puts your fingers around the female portion of the buckle. Keep hold of
- 1) Buckle and pull forward, away from the BC to release weight pouch for discarding. Alternatively, you can pull on the D-ring at the end of the buckle adjustment strap.
- 2) Hold weight pouch in front of you to check for entanglements before releasing (see figure 31).
- 3) Practice releasing both sides on handed.
- 4) Depending on your depth and circumstances, you may need to kick to begin your ascent.

WARNING

Do not configure the BC or equipment in a manner that might obstruct the removal of the weight pouches.

Failure to generate positive buoyancy in an emergency situation may result in serious injury or death. Ensure that each weight pouch, buckle and D-ring is unobstructed. Check the ability to release weight pouches prior to diving.

8.6 PRE-DIVE INSPECTION PROCEDURES

The weight pouches may either be inserted prior to or after putting on the BC. In either case, perform the following checks prior to starting the dive.

- 1) Visually inspect the weight pouches and their position in the BC retainer. Ensure that the pouches sit firmly in the retainer and that the buckles are well mated.
- 2) Check that the D-rings and buckles clips are unobstructed and can be easily grabbed with one hand.
- 3) **IMPORTANT:** With the weight pouches in place and while wearing the BC, practice finding the D-ring and buckles. Practice unclipping the buckles and pulling the female end or D-ring to remove the weight pouches.
- 4) Practice doing both actions with one hand and then with two hands. Have your dive buddy also practice releasing the buckles and removing a weight pouch completely from your BC.
- 5) Just prior to diving, always check to make sure the buckles are firmly secure.

WARNING

Practice successful release, removal and replacement of the weight pouches from the BC retainers prior to diving. While wearing the BC with loaded weight pouches installed in the BC retainers, you and your diving companion must both be able to successfully perform these skills prior to diving. Obtain instruction in the performance of these skills from an instructor of a recognized international training organization. Have an instructor also teach you how to properly weight yourself, perform buoyancy compensation underwater, emergency ascent skills and emergency buoyancy skills.

Failure to adequately perform these skills by the wearer of the BC can result in unsuccessful weight release during an emergency situation, which can result in serious injury or death.

9 POST-DIVE INSPECTION PROCEDURES

Upon completion of the dive, remove the weights from the pouches and rinse all your gear in fresh water.

10. BC EXAMINATION AND PROCEDURES

Pre-dive, dive and post-dive BC examination helps to identify equipment problems before unsafe condition exist. Many BC related diving accidents are preventable by following these simple steps, and by having all equipment regularly inspected by an authorized EDGE SYSTEMS equipment repair facility.

WARNING

DO NOT DIVE with a BC that does not pass any of the Pre-Dive, Dive or Post-Dive inspection points and tests. Have the BC inspected by an authorized repair facility. **Loss of buoyancy control or air holding integrity could occur, resulting in serious injury or death.**

Pre-Dive Visual inspection and Valve Test:

- 1) Examine the entire BC for cuts, punctures, frayed seams, excessive abrasion, loose/missing hardware and other damage of any kind.
- 2) Inspect the Oral Valve, Stainless Power Valve, Manual Dump Valve and Over Pressure Valve(s) for cracks, damage, or contamination.
- 3) Operate the Stainless Power Valve (with the LP hose attached and charged with air pressure), Oral Valve, Manual Dump Valve and Over Pressure Valve, checking for proper operation and resealing. If the OP Valve has a Pull Dump, test it by pulling on the cord.
- 4) Inflate the BC through the Oral Valve until BC air bladder is firm. Listen and check for leaks. Let the BC stand inflated for 30 minutes or more, then check the BC for loss of air.
- 5) Fit the BC to a SCUBA cylinder, pull up on the BC while attached on the SCUBA cylinder, checking that the BC will not slip while diving.
- 6) While wearing the BC, adjust the straps and other attachments on the BC for a comfortable fit that does not restrict breathing. Make these adjustments with the BC inflated and while wearing the exposure suit you intend to dive with.
- 7) Check quick release weight pockets or systems that retain weight (if your BC is equipped with them). Make sure that their retention systems are fully engaged and attached, can be released, and the weight removed from your equipment quickly.
- 8) Cross check all valves operation and visually inspect your BC with your dive partner before each dive, prior to entering the water.

WARNING

DO NOT DIVE with a BC that is damaged, leaks air, or does not function properly. Before each use, inspect for proper operation, leakage or damage. Terminate any dive as safely and quickly as possible if the BC becomes damage, leaks air or does not function properly.

Final Inspection Just Before Diving.

This is the last BC check before you begin your actual dive. The examination can be performed on the beach, on the boat, or on the water surface next to the boat.

- 1) Check the Stainless Power Valve and the Over Pressure /Dump Valve(s): Inflate the BC with the Stainless Power Valve until the over Pressure Valve opens to exhaust the excess air.
- 2) Leak Check: Leave the BC inflated for 60 seconds and check for any leaks. If at the water surface, you may not hear any leaks, but you may see a steady stream of air bubbles which could indicate a leak. Use your dive buddy to help with this check.
- 3) Check the manual Dump Valve: Deflate the BC using the Manual Dump Valve. You should hear the air exhausting out of the valve cap located near the top of the shoulder.
- 4) Check the Oral Valve: Inflate the BC with the Oral Valve. Leave the BC inflated for 60 seconds and check for any leaks. Deflate the BC using the Oral Valve.

Post – Dive: BC Cleaning and Examination

- 1) Rinse the BC thoroughly inside and out with fresh water after every use.
 - Fill the BC Inner Bladder, approximately ¼ full with clean fresh water through the Oral Valve.
 - Orally inflate the BC and shake to distribute water inside of the BC.
 - Hold the BC and down, depress the Oral Valve Button, and allow all water and air to drain from the Oral Valve mouthpiece.
 - Repeat one or two more times.
 - Rinse the entire BC with fresh water by dipping in a tub or spraying with a hose.
 - Rinse all valves (, SPV, MDV, OPV) to make sure all sand and other debris is removed.
- 2) Dry the BC laid out flat, or hanging, Dry completely if storing.
- 3) Check for air retention by inflating the BC, letting it stand for 30 minutes then checking for loss of air.

WARNING

Over time, sand, dust or other debris may cause the valves in your BC to not seal perfectly. If this is the case bring the BC to any EDGE GEAR dealer, EDGE GEAR service center or send it to EDGE GEAR, 5208 Mercer University Dr., Macon, GA 31210, United States to have the valves checked and cleaned.

Avoid Prolonged or repeated exposure to chlorinated water, such as in swimming pools. Wash your BC immediately after any use in chlorinated water. Chlorinated water can oxidize fabrics and materials on your BC, thereby shortening their life, and cause colors (especially neon) to fade. Damage and fading from prolonged exposure to chlorinated water is specifically not covered under warranty.

Contamination of the Stainless Power Valve can result in improper operation. This may cause a loss of buoyancy control or air holding ability that could result in injury or death.

- To avoid contamination, treat your Stainless Power Valve in the same manner as your SCUBA regulator second stage.
- While cleaning the BC, it is recommended to leave your regulator connected to a SCUBA cylinder and pressurized. Keep the pressurized LP hose connected to the Stainless Power Valve.
- While cleaning the BC, do not depress the Stainless Power Valve if it is un-pressurized, as contamination may result.
- Never fully inflate the BC with the Stainless Power Valve when internally washing the BC. Water inside may not expel quickly enough to prevent damage to the bladder or airway.

11. STORAGE

Store your BC, after it has been fully dried, by partially inflating and then placing it in a cool, dark, dry location. Keep sharp objects from coming in contact with the BC. Do not rest heavy object on the BC and avoid dragging it over rough surfaces. Avoid prolonged or repeated exposure to direct sunlight or excessive heat. The sun's ultraviolet rays will shorten the life of the fabric and cause colors to fade.

12. MAINTENANCE

Inspection and Service Interval.

Your BC should be inspected and maintained at an Authorized Service Center at least once a year, more often if you dive frequently. Any damage caused by your failure to properly maintain your BC is not covered by the warranty. The EDGE SYSTEMS dealer that sold you the BC will have a list of these facilities.

There is a space in this section for the Dealer to record their address and phone number should you need to contact them.

Cleaning and Lubrication.

Use only a soft cloth with fresh water and mild soap for cleaning. Chemicals, strong detergents, and special solution could damage the BC or shorten its life. Periodically lubricate the Quick – Disconnect Plug and the Coupling O-ring with a silicone, such as Dow Corning 555® or a Teflon based lubricant such as Christo Lube. Any other part lubrication should be performed at an Authorized Service Center.

Locating Service and Support.

The EDGE SYSTEMS dealer that sold you your Buoyancy Compensator will be able to assist you with additional questions regarding product operation, warranty, and service. Your EDGE SYSTEMS dealer will have the latest information on Authorized Service Center locations, or Service Centers in other locations around the world.

Dealer address and telephone information recorded here: (Dealer to affix stamp)

13. GENERAL SPECIFICATIONS Shelf life

Shelf life is seven years for a new unused jacket when deflated and stored in a sealed container or bag at typical room temperature, with no exposure to UV.

Operating Temperature range

Air -4o to 122oF -20o to + 50o C. Water 28o to 104o F -2o to + 40 o C.

WARNING

Special instruction in cold water diving methods, and the specific use of this product in cold water, is required prior to cold water diving. (Temperatures below 45oF/8oC). This instruction is beyond the scope of this Manual.

Diving without this instruction could result in injury of death. Consult your SCUBA instructor for this instruction prior to using this product in cold water.

14. GENERAL BCD SIZING CHART.

	Small	Medium	Large	X-Large	XX-Large
Chest	34"-38.5"	36"-40"	39"-42.5"	41"- 46"	42"-50"
Waist	24"-29"	29"-34"	34"-39"	39"-45"	45"-50"
Height	5'2"-5'7"	5'6"-5'9"	5'9"-6'	5'11"-6'8"	6'0"-6'10"
Weight (Lbs)	95-130	140-170	170-200	205-235	220-260

SCUBA Cylinder Selection and Configuration.

Buoyancy of SCUBA regulator, SCUBA cylinder and valve combinations vary with material, weight, pressure rating, and contents. Your BC is designed to work with a wide range of SCUBA cylinder sizes and configuration; however, the exact combination should be chosen with care, with attention to the intended use, and with an understanding of the skill level required to manage the equipment.

Maximum single and double SCUBA cylinder size specification (in liters) for the BC is found on a SCUBA cylinder pictogram on the warning label. This label is found on the BC.

If the double SCUBA cylinder pictogram has an "X" in it, then the BC has been designed for single SCUBA cylinder use only.

Addressing the vast number of SCUBA cylinder/ valve/ regulator/ BC combinations is beyond the scope of this manual to describe. Consult your SCUBA instructor or retail facility to determine if your BC will provide adequate buoyancy for your equipment configuration.

Maximum dimensions for SCUBA cylinders: Diameter - 8" - 20.4 cm Height - 31" – 79 cm

Maximum Cylinder Size vs. BC Buoyancy.

N	BUOYANCY		CYLINDER SIZE IN LITERS	
	KGS	Lbs	Single Cylinder	Two Cylinders
50-130	5-13	11-29	15	N/A
140-210	14-21	30-46	18	12
220-310	22-31	47-70	21	15
320+	32+	71+	21	21

WARNING

Failure to configure your equipment so that you can maintain neutral buoyancy while diving could result in injury or death. Proper training in swimming, SCUBA diving, buoyancy control and emergency buoyancy skills is required to safely use this product.

15. WARRANTY

EDGE Gear warrants to the original consumer purchaser that your Buoyancy Compensator (BC) will be free from defects in materials and workmanship appearing within one years from the date of purchase, under normal use and reasonable maintenance, except that the length of the warranty of the Thermoplastic Rubber (TPR) airway hose is one year from the date of purchase. EDGE warrants to the original consumer purchaser that for the period of two years the seals and welded seams on the air cell on any EDGE BC purchased from an Authorized EDGE main Dealer will be free from defects in materials and workmanship under normal use and with reasonable maintenance in accordance with recommended EDGE maintenance procedures or their equivalent. These warranties do not apply to any BC used commercially; and no warranty is given on any BC purchased used, second hand, or from anyone other than an Authorized EDGE Gear dealer.

As its sole obligation, and your sole remedy, EDGE will repair or replace (at EDGE sole option and expense) any BC, or any components, which EDGE finds to be defective.

To obtain warranty service, you must deliver your BC, together with proof of purchase from an authorized dealer, to any Authorized EDGE dealer, or to any EDGE Service Center. If you send the BC for service, you must pay all shipping and associated charges.

This warranty does not cover damage resulting from improper use, improper maintenance or care, or unauthorized repair, and does not cover the fading or bleeding of material dye.

ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE , ARE LIMITED TO ONE YEARS FROM THE DATE OF PURCHASE. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

EDGE WILL IN NO EVENT BE LIABLE FOR LOSS OF USE OF ANY BUOYANCY COMPENSATOR OR ANY OTHER INCIDENTAL, CONSEQUENTIAL OR INDIRECT COSTS, EXPENSES OR DAMAGES. Some states do not allow limitations on how long an implied warranty lasts so the above limitations may not apply to you.

No salesperson, dealer or representative is authorized to make any modifications to this warranty, or to make additional warranties on behalf of EDGE.

This warranty gives you specific legal rights, and you may also have other rights, which vary from states to states.