

USER MANUAL
buoyancy compensator Semi-Tec Explorer



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I. Introduction

Congratulations on purchasing a buoyancy compensator Semi-Tec Explorer. This compensator is the result of putting together the materials of best quality. While designing this product, we combined a reliable construction of wing with functionality of conventional ADV compensator. Thanks to its simple and reliable construction, Semi-Tec Explorer is perfect for recreational diving conducted with the use of single tanks. To manufacture this compensator, we used the knowledge and experience of many divers who gave us their opinions. We hope that this product will meet your expectations.

This Manual contains certain WARNINGS, which you should pay close attention to.

WARNING!

Indicates a procedure or situation that may result in potential damage to the product or serious injury or death for the user, if instructions are not followed correctly.

II. Warnings before first dive

WARNING!

Before using Semi-Tec Explorer, please read all of the information contained in this User Manual. Familiarizing with this manual is one of the conditions of safe and free from failures usage of the product described below.

WARNING!

This manual cannot replace a course conducted by qualified diving instructor. This manual is intended for divers who have successfully completed a diving course and that is why many issues concerning diving are described in general. Before using any of the products described in this manual, please make sure that you are properly trained and that you possess a certificate issued by national diving association.

WARNING!

Always inspect the product before diving. Should it not function correctly, do not dive and contact with your dealer.

WARNING!

If any of the information contained in this manual or directly on the product is unclear, please contact with the manufacturer or the local dealer for further information.

III. Certification

The product described in this manual was certified by notified body and complies with the directive 89/686/EEG and the norm EN 1809:2001 in full scope as well as with the norm PN-EN 250:2003 in the scope of aqualung harness. The examination was conducted by:

Polski Rejestr Statków S. A.
Notified body no. 1463

Al. Gen. Józefa Hallera 126
80-416 Gdańsk
Poland

Semi-Tec Explorer is concerned to comply with the directive 89/686/EEG if it is used with air complying with the norm PN-EN 12021. Due to the lack of regulations on safety requirements when using compensator with breathing mixtures with high oxygen content, buoyancy compensator is not approved for use with gas mixtures with oxygen content higher than 21% in accordance with Directive 89/686 / EEC.

WARNING!

In countries that are not members of the European Union may be additional considerations and legal requirements and standards for buoyancy compensators. Before using the buoyancy compensator, check the current requirements of the country in which you intend to use it.

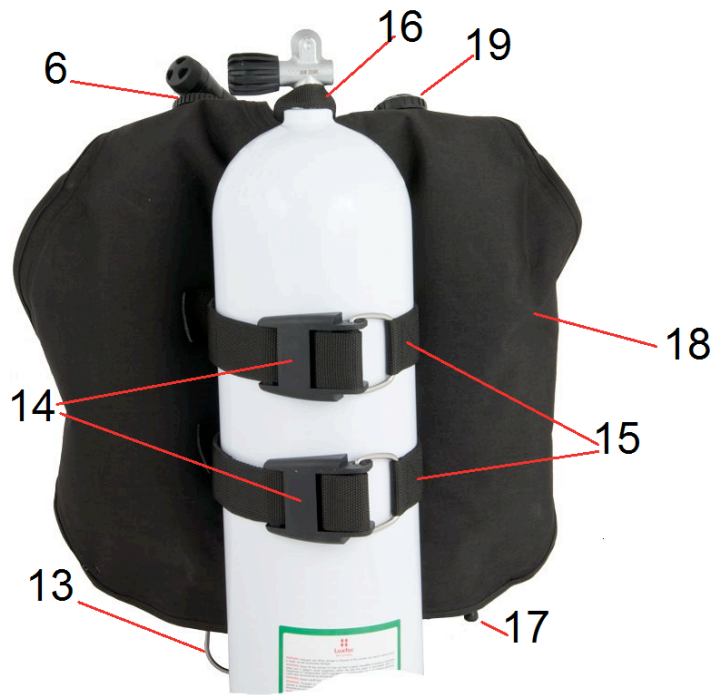
IV. Overview

In its design, Semi-Tec Explorer combines the features of technical wing as well as ADV harness. Main elements of the compensator are: wing made of Cordura 2000, aluminium backplate, regulated waist belt, chest belt, crotch strap, 8 steel d-rings for mounting small equipment, inflator with integrated exhaust valve, additional exhaust valves (on the shoulder and on the lower part in front of the wing), small pocket with zip on waist belt, 2 mini-cargo pockets for other pieces of equipment, integrated weight system.



Front view

1. Inflator
3. Inflation button
2. Dump button
4. Oral inflation mouthpiece
5. Corrugated hose
6. Inflator connection
7. QD nipple connector with LP hose type Int'l
8. Waist belt buckle
9. Shoulder belts with buckles
10. Waist belt
11. Chest belt
12. Pockets of integrated weight system
19. Upper over pressure relief valve



Back view

- 6. Inflator connection
- 13. D-ring
- 14. Tank bands' buckles
- 15. Tank bands
- 16. Additional tank locator strap
- 17. Cord of bottom over pressure valve
- 18. Bladder
- 19. Upper over pressure valve

1. Bladder

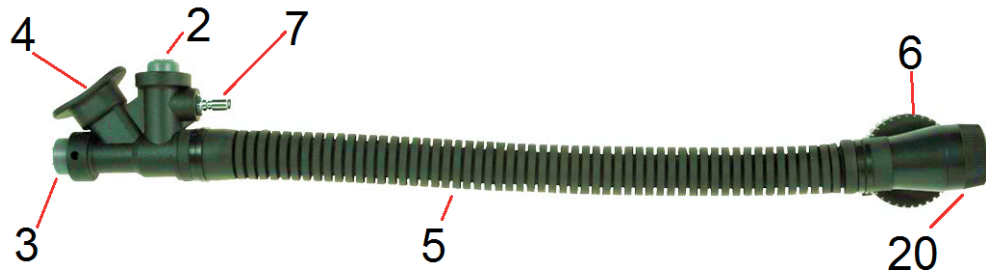
A BCD contains one elliptical bladder placed in the back. Its size is 22kg. Gas can be added to the bladder mechanically from the tank through the first stage of the regulator or by oral inflation.

Sizes and capacity of the BCD will be described later.

2. Inflator

Inflator used in this BCD is a reliable device built from weather conditions and hydrological resistant material. Type "K" inflator is equipped with inflation button allowing for adding gas to the bladder by means of first stage of regulator and the hose. At the end of the inflator is a dump button allowing for releasing gas from the bladder. This button also allows for oral inflation of the BCD.

The BCD can be also vented with the use of inflator's rapid release valve. While we are in an upright position, we should pull the inflator straight down. The valve situated at the top of the airway assembly (left shoulder) will open and the air will be vented.



Inflator

- 2. Inflation button
- 3. Dump button
- 4. Mouthpiece for oral inflation
- 5. Corrugated hose
- 6. Inflator connection
- 7. QD nipple connector with LP hose type Int'l
- 20. Inflator's over pressure relief valve

3. Harness

WARNING!

The BCD has its own harness and is not adapted to be used with additional harness

Harness allows for fixing the BCD on a diver in a safe way. It is equipped with aluminum backplate connected with the harness.



Regulated waist belt



Additional stabilizing belt-chest belt and shoulder belts

4. Backplate

Aluminum backplate is an integrated part of the BCD. The cylinder is attached to the backplate thanks to 2 bands with a buckle. The way of threading the band on the buckle will be shown later.



Backplate

5. Integrated weight system, pockets

The BCD is equipped with an integrated weight system consisting of 2 pockets on both sides of the BCD's harness. In order to take them out, we should unbuckle the safety buckle and then pull the system's handle.



Integrated weight system, pockets

- 21. Buckle protecting the pockets
- 22. Pocket of integrated weight system
- 23. Handle
- 24. Small pocket with a zip on waist belt
- 25. Mini-cargo pocket

Pockets can be used for storing small pieces of equipment. Velcro closing protects the diver from losing the content of the pockets.

WARNING!
Small pockets and mini-cargo pockets cannot be used for storing weights.

V. Attaching the BCD to the cylinder

The cylinder is attached to the BCD with the use of cylinder bands with buckles. Additional tank locator strap is useful while mounting the BCD on the cylinder. Closing the buckles in a proper way guarantees safety during the dive.

WARNING!
If the cylinder is mounted on the BCD improperly, it may slip free from the BCD, which can result in serious danger.

We should first loop the tank locator strap over the cylinder valve.



Then the tank locator strap should be adjusted at the desired height and position. After this we should thread one of the bands on the buckle in a proper way, which is shown on the cam buckle.

The band should be threaded in a following order:



After threading the band on the buckle, we should tighten the band so that after closing the buckle it will be impossible to move it.
Do the same with the second band.

The choice of maximum capacity of a tank to the size of the BCD:

BCD size	Type of a tank [dm ³]	Displacement of BCD [kg]
S/M	up to 18	22
L/XL	up to 18	22

WARNING!

Improper balance can cause drowning.

The diver should have only such amount of ballast, which will enable him to maintain a depth of 3m, with the BCD completely emptied and with the tank's pressure of 50 bar.

VI. Adjusting the BCD

You receive a complete, ready to use BCD. However, to make it more comfortable and safe, you should adjust the shoulder belts and the waist belt.

The BCD should be adjusted when fully inflated. The shoulder belts should be adjusted when the diver bends forward and the waist belt, when the diver inhales air.

The buckle on the waist belt can be moved as follows:



Chest belt should be adjusted at full inspiration.

Crotch strap should be fastened and adjusted loose.

VII. Attaching the regulator to the tank's valve.

Inflator must be connected with the LP port in the first stage of the regulator by the use of LP hose, which is sold together with the BCD. Just open the valve and attach the LP quick disconnect hose to the power inflator.

WARNING!

Inflator may be powered with the pressure of 6 to 17 bar. Before connecting the inflator to LP hose, make sure that the pressure supplied by the regulator is in this range.

VIII. Pre-dive inspection

Before every dive, it is necessary to carry out control of the operation of all elements of the buoyancy compensator. Even if you dived on a given day using your compensator, check the operation of all its elements before diving again.

1. Check if any of the compensator's elements does not show signs of damage, paying particular attention to the condition of belts, buckles, inflator, the outer shell of the compensator and the inflation hose.
2. Examine the operation of the inflator as well as all of the dump valves.
3. Check the functioning of oral inflation by inflating the BCD.
4. Check the functioning of the inflation button until the over pressure valve starts operating.
5. Pull the cord of bottom over pressure valve and check if the BCD is deflating.
6. Inflate the BCD by the use of inflation button and then push the inflator's dump button and check if the air comes out from the mouthpiece. Repeat a few times.
7. Fully inflate the BCD with the use of inflation button and leave it for 5 minutes. After 5 minutes the BCD should be still fully inflated. If it has deflated, **DO NOT ATTEMPT TO USE THE BCD**. It should receive service from an authorized Scubatech dealer.
8. Before the dive check if the tank's valve is open.
9. Check if the tank will not slip free from the band.

WARNING!

Do not leave the BCD in the direct sunlight for a long time.

IX. Diving

1. Entering water

Before entering the water, the BCD should be inflated.

WARNING!

Each diving should be conducted in the presence of other diver/divers possessing proper diving certificates issued by a recognized diving association.

WARNING!

The BCD is a device, which can get damaged as every other technical device. Diving organizations recommend to double diving buoyancy devices while diving. If you do not have extra buoyancy devices, you need to be able to increase buoyancy (through, for example, dropping ballast).

WARNING!

Buoyancy compensator is not a rescue vest: it does not guarantee the user position with his head up on the surface.

2. Descending

In order to descend, we should deflate the BCD with the use of power inflator, holding it above our head. We should carefully observe the SPG and our diving buddy, so that we do not descend in an uncontrolled way or lose our partner.

3. Under the water - controlling the buoyancy

Neutral buoyancy underwater is achieved by inflating or deflating the BCD to compensate for the changes of buoyancy at depth. While deflating the BCD, the inflator should be held above the diver's head so that the air flows out freely. We can also pull the inflator and then the BCD will be deflated by the dump valve on the inflator. The BCD is equipped with a wing-type buoyancy bladder, which has a tendency to lay the diver in a flat position. Position of the diver, however, is dependent on the amount of ballast used in an integrated ballast system.

WARNING!

None of the BCDs is equipped with mechanical method of buoyancy control. The user must constantly control the buoyancy by himself.

WARNING!

The BCD cannot serve as a device for taking out objects from the bottom.

WARNING!

The BCD is not a breathing device. It is not recommended to breathe from the bladder due to hygienic considerations as well as difficulties in maintaining neutral buoyancy.

4. Ascending

WARNING!

Remember that rapid and uncontrolled ascend can lead to serious injury or death.

WARNING!

Buoyancy compensator is not a rescue vest: it does not guarantee the user position with his head up on the surface.

While ascending we should control our speed and properly vent the air from the BCD by the use of inflator (by pulling it) or the cord of dump valve on the shoulder. If we are in head down position, we should vent the BCD with the use of over pressure valve at the bottom.

After ascending, the BCD should be fully inflated again so that the diver is buoyant on the surface. Stop inflating the BCD when the automatic over pressure valve starts functioning.

X. Service after diving

1. Dismantling

After the dive, disconnect LP hose from inflator and then separate the tank from the BCD.

2. Draining the BCD

Orally inflate the BCD. Put the BCD with the inflator down to gather all water inside the BCD above the valve. Press and hold the button on the oral valve and completely drain the air cell of water.

3. Rinsing the BCD

The BCD should be rinsed outside and inside with fresh water after each dive. It is especially recommended after diving in salt or chlorinated water. However, after diving in supposedly clean inland waters, the BCD should also be rinsed. Direct water through the oral inflator and flush the interior of the air cell. After this, drain the BCD as described above. We should drain the BCD with lukewarm, clean water. Make sure that all water was removed from the BCD.

4. Drying

Fully inflate the BCD and let it dry inside and out before storing. Dry the BCD in shadow in a dry and airy place.

WARNING!

Never dry your BCD in direct sunlight or close to heaters.

XI. Storing

Do not allow the BCD to chafe against any sharp objects, which could puncture the air cell. Do not install heavy or sharp objects on the BCD. Avoid any contact with oil, gasoline or any other solvents. Make sure that the BCD is completely dry inside before storing it.

XII. Maintenance

The BCD should be rinsed after each dive. Periodically or in case of soiling do the cleaning with special chemicals.

WARNING!

The BCD must not be cleaned with the use of detergents, cleaners or solvents, which are not intended for BCDs.

We recommend using the BCD cleaner available on www.scubatech.pl



McNett B.C. Life effectively removes salt and chlorine crystals from the inside of the bladder and breaks down salt and chlorine on the outside, too. With its silicone conditioning formula, BC Life extends the life of all BCD parts, from rubber fittings and valves to the shell. It's safe to use on all dive equipment and scuba gear. In case of heavy contamination please contact Scubatech for additional information.

XIII. Servicing

All kinds of repairs should be performed by trained personnel at authorized service.

The BCD can only be serviced with the use of spare parts provided by the manufacturer.