PROCEAN®



TEK System Wings
User Manual

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INTRODUCTION

Congratulations on purchasing your PROCEAN BCD Product.
Please be sure to thoroughly read and understand the contents of this user guide. Should you have any questions, please contact your nearest dealer, or our customer service department.

IMPORTANT NOTICES
Any critical information or warnings that might affect the performance of the product or result in injury to the user and/or others are highlighted with the following symbols.

CAUTION
This symbol Indicates a potentially hazardous situation which, if not avoided may result in injury

WARNING
Indicates a potentially HAZARDOUS situation which if not avoided , could cause DAMAGE to the product or serious INJURY to the user. It may also warn of wrong practices

DANGER
Indicates an imminently HAZARDOUS situation which if not avoided, will result in a serious accident , that could result in serious injury, and in extreme circumstances may cause death.

IMPORTANT NOTICE
PROCEAN reserves the right to modify any products, processes and manufacturing techniques at any time. It is the technicians responsibility to acquire the latest information and parts from PROCEAN .
Should any warnings or information in this manual be unclear or not fully understood, please contact PROCEAN before using the product.

IMPORTANT NOTICE

For your protection while using PROCEAN diving equipment we would like to bring to your attention:

1. Any use of this equipment is conditional to reading, understanding and following this user guide.

2. Use of the equipment is limited to those applications described in this guide and for purposes granted in writing from PROCEAN.

3. The equipment must be serviced annually (eg examined, serviced, and if necessary repaired) by an Authorized PROCEAN technician. This maintenance must also be documented. Please use the enclosed logbook.

4. If the equipment is improperly serviced, or repaired by persons not trained by PROCEAN, and in cases where the equipment is used for purposes not specifically designated; liability for the correct and safe function of the equipment transfers to the owner/user.

5. Instructions and statements contained in this document are based on the latest information available prior to printing. PROCEAN reserves the right to make changes at any time.

6. Local statutes and regulations must be followed when transporting this equipment.

WARNING

Failure to follow ALL warnings and instructions concerning the use and maintenance of this product mat result in serious injury and in extreme circumstances death.

WARNING

BCDS ARE DESIGNED TO PROVIDE THE USER WITH SAFETY AND COMFORT. IMPROPER USE MAY RESULT IN AN ACCIDENT, THEREFORE IT IS NECESSARY TO COMPLY WITH ALL OF THE FOLLOWING RULES.

CERTIFICATION

The verified and certified product is a **Buoyancy Compensator** (hereinafter referred to as BCD).

The EU type certification of the **BCD** was carried out according to the Regulation of the European Parliament and Council (EU) 2016/425, on the personal protective equipment in line with the following standard: EN 1809+A1:2016 „Diving equipment - Buoyancy compensators - Functional and safety requirements, test methods.

The compatibility assessment of this **BCD** system has been conducted by: **VTUPV** , Recognised certification unit nr 1103 .

Regarding the lack of EN norms for safety requirements while the use of it takes place with mixtures of higher oxygen content, the above mentioned buoyancy compensator cannot be regarded as one which has been a subject of CE certification with gas mixtures with oxygen level higher than 21% (+/- 2%) as stated in 89/686/EWG directive.

EU DECLARATION OF CONFORMITY

1. The declaration of conformity can be requested in PDF format by contacting **dealer@procean.nl**

WARNING
Non EU countries may have additional requirements or legal requirements when using this product type.

WARNING
this type of buoyancy compensator is NOT a safety jacket, nor does it guarantee a head up position at the surface

SAFETY REQUIREMENTS

1. Before every dive, carefully inspect all elements of your equipment. Additional info can be found under ***Pre-dive inspection***.

2. Do not dive with this equipment (BCD) if the are signs of damage, wear, or any sign of possible malfunction.

3. Prior to starting your dive you should conduct buddy-checks, visually inspecting the BCD against any leakages or other irregularities.

4. In case of an uncontrolled ascent, you should immediately start releasing air from the BC in order to stop or slow down the rate of ascent.

5. This device is not intended as an aid for lifting objects to the surface. It is a personal device to be used for the diver / wearer only. Any misuse could result in damage to the product, and/or injury to the user.

6. Prevent exposure of this product to extreme sunlight / heat,

7. Do not inhale air from the BC. It may contain harmful contaminants, gases, or dangerous bacteria which evolve in damp places.

8. This device should not be the only means of increasing your buoyancy. Extra buoyancy should be available by additional inflation device (Drysuit) or removing weight. In order not to drown as a result of an uncontrolled descent, in all cases you should be able to use an emergency source of buoyancy or remove the weight.
The BC CANNOT be the only source of buoyancy!

9. This BCD type is not a lifejacket, it does not guarantee a head-up position of the user on the surface. Therefore, you should al ways dive with a buddy in case of losing consciousness on the surface.

10. Do not lift or move the BC by pulling the inflator hose. Such practice may result in irreparable damage to the BC.

11. When diving in cold water (below 10 degrees Celsius), you should take into account that the inflator may freeze, as a result of which, it may supply air in an uncontrolled way, or other irregularities in its operation may appear.

WARNING

In ADDITION to your BCD system, an ALTERNATIVE means of surface support / flotation should be used.

Intended use
This BC Sidemount type is intended as an inflatable device that provides the diver with a means of controlling buoyancy.

It is not a life vest.

Risk assessment
The Wing-aircell shall provide the user with a valid form of buoyancy control when considering the risk assessment of the BC is found to be compliant with the standard EN 1809:2014+A1:2016

EDUCATION

Your ***PROCEAN*** BCD is an important piece of diving equipment .

CAUTION

You are STRONGLY advised to successfully complete a comprehensive diving course, conducted by a suitably qualified diving instructor, from one of the recognized professional training agencies, using your sidemount configuration.

Your ***PROCEAN*** BCD is a combination of products, including inlet valves using compressed air, and outlet valves (Over pressure valves) manual dump valves, weight systems, pockets, and harness.
You are therefore advised to seek education for this product type.

WARNING

You MUST therefore successfully complete a comprehensive diving courses, conducted by a suitably qualified diving instructor, from one of the recognized professional training agencies.

A Buoyancy Compensator Device (BCD) MUST be used for all sport diving activities.

MODEL DESCRIPTION

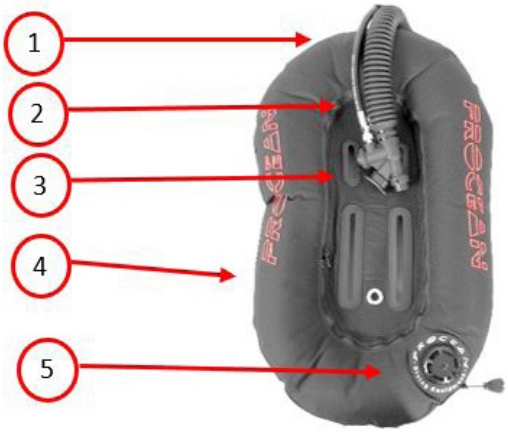
Thanks to the modular design of the PROCEAN wing system this product can be adjusted to suit every type of diving. Ranging from recreational diving with the use of a single tank, all the way up to various forms of technical diving , configurations of double tank set and stages.

Markings:

Model type-Size/production date/batch # can be read from the label.
MM-SS|YY.MM|#Batch (MM=Model SS=Size YY=Year MM=Month #batch=Production)

TEK system (aircell) Front

1. Inflator hose L.P.
2. Inflator Tube (air)
3. K-Type Power Inflator
4. Air Cell
5. Over pressure relief valve



TEK system (aircell) Rear

6. Outer Aircell zipper
7. Mounting holes
8. Mounting slotes



The BC can be used with any harness which has two mounting holes of 12mm and a spacing of 279 mm. However, we recommend using one of the high quality CE certified PROCEAN harnesses.

MODEL DESCRIPTION

TEK 30 / Air cell offering 14kg



TEK 38 / Air cell offering 18kg



TEK 45 / Air cell offering 21kg



TEK 60 / Air cell offering 27 kg



POWER INFLATOR



The outer shell of our power inflator is very robust being produced from a shockproof polymer. This polymer is highly resistant to the harsh environmental conditions found when diving.

The actual valve (Housed inside the Polymer) is made of metal, which makes it more resistant to freezing, allowing it to be operated longer than inflators made entirely of plastic.

Our inflator is equipped with an **Oral Inflator button** #1 used to orally inflate the BCD while using the mouthpiece #2 Power inflation of the BCD is achieved by using the PI button #3. For this to function the LP hose needs to be attached at #4.

To exhaust air from the BCD use the “deflate” button #1

CONNECTING THE L.P. HOSE

PREPARATION
1. To allow for proper operation of the inflator it must be connected to the LP port of the 1st stage of the regulator using the LP hose supplied with the BC..

2. In order to connect the LP hose to the inflator you should gently pull at the sleeve of the LP hose's nozzle (step 1), and then put the nozzle onto the quick connector (step 2),
as presented in the pictures below: **Fig. 10.** LP hose connection

WARNING

The inflator supply pressure must be between 6 and 16 bar.
You should check this BEFORE connecting the LP hose to the inflator.

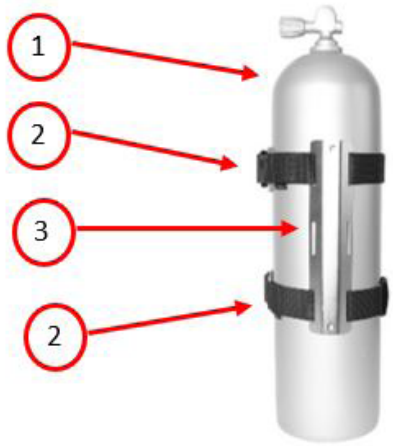
DANGER

The Low Pressure hose connection from the 1st stage of your regulator must be from a Low Pressure port only. Creating a connection to a High Pressure port will result in damaging this equipment, and could cause serious injury to the user.

CONNECTING THE CYLINDER

When connecting a single cylinder to any of the TEK wing systems it is highly recommended to use the “single cylinder adapter” which is supplied with a double cylinder strap system.

1. Cylinder
2. Attachment strap (Cylinder)
3. Single cylinder adapter



WARNING

Prior to attaching the cylinder it is suggested to soak the attachment strap(s) with water. This allows them to “stretch” a little when tension is applied.

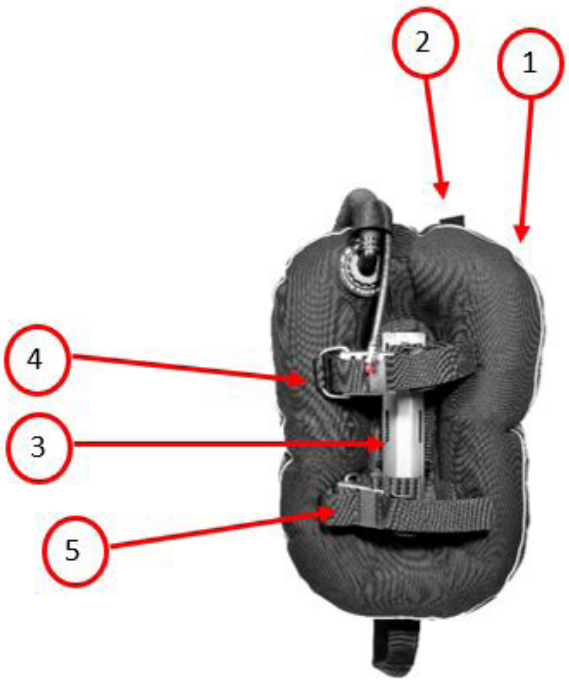
The single cylinder adapter is attached to the “air cell “ and the “back plate” using the supplied bolts in the single cylinder adapter kit which has part number # PBCP-003201-009

CONNECTING THE CYLINDER

When the single cylinder adapter is connected to one of our TEK wing systems it will have the following components.

TEK system (aircell) Rear

1. **Air Cell system**
2. **Harness (various types)**
3. **Single cylinder adapter**
4. **Attachment strap (Cylinder)**
5. **Attachment strap (Cylinder)**



DANGER

An incorrectly connected diving Cylinder may during use be loose and detach from the harness system. This could lead to an extremely dangerous situation.

CAUTION

You are Required to conduct, a Confined water check out with your instructor to determine the required weight requirement for you to achieve correct buoyancy control.

ADJUSTING THE ADJUSTMENT STRAP

Thread the strap through the back
of the buckle, and through slot #2



Fold the strap through 180 degrees.
Now pass it through slot #3



Tension the strap by using the ***cam***
action of the buckle.

Tighten using the cam action
Pass the webbing through slot #1.



Finally tighten the strap
This can now be fixed using the Velcro.



USING YOUR BCD

Before every dive it is required that you follow the following checks to ensure the correct operation of your BCD and all its components. These checks need to be performed before each and every dive to be sure that all of its components are working correctly.

1. Check that no element of the BC shows any signs of wear, paying particular attention to the condition of webbing, buckles, the outer shell and the LP hose.

2. Check that all adjustable components are correctly tightened. Bolts / straps / adapters / valves / hoses / single tank adapter (if fitted).

3. Check the correct function of the BCD's oral inflation system.
Place the inflator's mouthpiece to your mouth, while pressing the **Oral Inflator button**, breath out into the BCD air cell. Repeat this action inflating the BCD fully .

4. Press the LP inflator button until the automatic dump valve is activated. The automatic dump valve should open releasing air. The air supply should stop immediately after you release of the inflator button.

5. Operation of the dump valve by pulling on its cord, the valve should release air.

6. Inflate the BCD using the inflator button, now press the **Oral Inflator button**, checking that air is released from the oral inflator's hole.

7. Fully Inflate the BCD using the inflator button, leave it fully inflated for 10 minutes. If still full after 10 minutes it is OK. If not the BCD needs to be serviced by an authorized PROCEAN dealer / service centre.

WARNING

Your training needs to be updated whenever you are unsure that you have the correct skills for the equipment you have.

USING YOUR BCD

On the surface

Depending on the entry method used, you should fully inflate the BCD immediately after entering the water.

To maximise buoyancy at the surface, inflate your BCD using the LP inflator button. Stop inflating the BCD when the automatic dump valve activates. Also note correct function of the automatic exhaust valve.

DANGER

Before entering the water, add air to your BCD via the LP inflator to offer you sufficient buoyancy . Water entry without sufficient air / buoyancy in the BCD may result in unexpected descent and danger.

Descending

To start your descent, hold the inflator above your head, while pressing the **Oral Inflator button**, this will exhaust air from your BCD. Care should be taken not to descend too quickly

1. Make sure that your inflator hose is connected and that a sufficient supply of compressed air is available.

2. When proper weighting is achieved, lift arm with the automatic exhaust valve to vent air, descend feet first.

3. When under the surface, tilt over to normal swimming position.

4. While descending compensate for compression, and rate of descent by adding air as necessary to the Dry suit.

5. Whenever changing depth ALWAYS be aware of the need to control the Buoyancy of your dry suit by either adding or venting air.

Neutral buoyancy while diving

Neutral buoyancy can be maintained during the dive, using a combination of the LP inflator / exhaust valve / **Oral Inflator button** as needed. If you are unsure about the technique you should be using, consult your trainer / organisation.

Ascending

1. While ascending it is important to hold the inflator above your head, while pressing the Oral Inflator button, this will exhaust air from your BCD. Care should be taken not to ascend too quickly.

2. Ascending will create a volume and pressure increase within the BCD, this needs be compensated for by exhausting more air from your BCD.

3. It is important that your right arm is free, allowing you to keep the inflator valve as the highest point.

4. You should have good access to the exhaust valve with your right hand so that you can control the valve correctly.

5. If swimming in the Horizontal, you will need to keep the inflator valve as the highest point (this may require you to roll so that the inflator valve is the highest point).

WARNING

Your training needs to be updated whenever you are unsure that you have the correct skills for the equipment you have.

BASIC MAINTENANCE

Disconnecting
Following the dive, remove any weights from the weight pockets (if applicable), disconnect the LP hose from the inflator, and then remove the BCD from the cylinder.

Draining
Inflate the BC orally using the **Oral Inflator button** of the inflator. Next turn the BC to keep the automatic dump valve at the lowest point of the BC. Pull the valve cord, at the same time pressing the BC with your hands to make water flow out by the open dump valve. Repeat the procedure until all water is removed from the BC.

Rinsing
Every time you use the BCD, it should be rinsed thoroughly inside and out with fresh tap water. Do NOT use hot water for rinsing! To rinse the BCD inside, press the **Oral Inflator button** of the inflator while holding the inflator's mouthpiece to a water supply (tap / hose) this will allow fresh / clean water to enter the air-cell.
Fill the BCD approximately half full. Now rotate the BCD several times, to complete the cleaning process. Then drain the BCD as described in "draining" .

CAUTION

You should avoid pressing the LP Power Inflator when cleaning the BCD, as this could cause water ingress into the valve of the power inflator, which in turn could cause corrosion / damage of the valve.

Drying
After every use, you should dry the BC thoroughly. When drying, the BC should be fully inflated and hung in a dry, airy and dark place. When drying, do not expose your BCD to direct sunlight or extreme heat!

Storing
Store your BC partially inflated and hung in a dry and dark place away from sharp objects, lubricants, fuels or solvents.

WARNING

Your training needs to be updated whenever you are unsure that you have the correct skills for the equipment you have.

PROCEAN BCDs cannot be repaired by the user. All repairs should be performed only by an authorized service centre.

Only use official PROCEAN spare parts when requesting a service schedule of your PROCEAN product.

The only maintenance procedure which may be performed by the user is rinsing the BC in fresh water. It is recommended after diving in salt or chlorinated water. On no account should detergents, cleaning agents or solvents be used for cleaning the BC.

CAUTION

This product should be serviced after each 150 dives, or 12 months, whichever is reached first. This service needs to be conduct by an authorised centre. Failure to conduct this service could affect the products performance.

WARRANTY TERMS

1. This warranty is valid for a period of TWO years against the aircell excluding hoses and valves.
2. This warranty is against manufacturing defects, and faulty material ONLY. It does NOT include normal wear and tear attributed to the product being used
3. When any part of the product excluding hoses, valves, (after technical assessment and testing) proves to be defective (excluding normal wear and tear) within a period of two years from date

WARRANTY TERM - VALVES

1. The warranty for the valves is valid for a period of one year for the ORIGINAL PURCHASER.
2. This warranty is against manufacturing defects, and faulty material ONLY. It does NOT include normal wear and tear attributed to the valves being used.
3. When any part of the valves, (after technical assessment and testing) proves to be defective (excluding normal wear and tear) within a period of one year from date of purchase, they will be repaired or replaced free of charge.

WARRANTY TERM - HOSES

1. The warranty for the valves is valid for a period of one year for the ORIGINAL PURCHASER.
2. This warranty is against manufacturing defects, and faulty material ONLY. It does NOT include normal wear and tear

WARRANTY VALIDITY

1. This warranty will only be valid when the service record has been completed, filled in, dated and stamped.
2. This booklet, and the completed service record MUST be returned when ANY form of warranty claim is submitted.
3. Warranty is void by unauthorized repairs.
4. This warranty is VALID for the ORIGINAL purchaser only.

SPECIFICATIONS

Outer Fabric: *1100 denier*

Shell Fabricc *420 denier*

Bouyancy	*TEK*	*30*	*14 kg*	*140 N*
	TEK	*38*	*18 Kg*	*180 N*
	TEK	*45*	*21 Kg*	*210 N*
	TEK	*60*	*27 Kg*	*270 N*

Possible Cylinder configurations:

	TEK	*30*	*18 / Liter*
	TEK	*38*	*18 / Liter*
	TEK	*45*	*2 * 15 / Liter*
	TEK	*60*	*2 * 18 / Liter*

Cylinder Diameter should be between 140 mm and 220 mm

K-Valve Inflator

has an allowed supply pressure of 6 – 15 Bar.
offers the maximum exhaust of air from this BC

This BC has min / max operating Temperatures of

Water	|	-2 °c to 40 °c
Air	|	-20 °c to 60 °c

EU DECLARATION OF CONFORMITY

1. The declaration of conformity can be requested in PDF format by contacting **dealer@procean.nl**

CONNECTING THE HARNESS

The adjustment and harness system you are referred to the harness manual.

Please refer to our **Harness system / Mounting kit**

The harness can be selected and adjusted to meet your specific needs.

Should you have questions then please refer to your dealer or our web site for FAQ.

You can also mail out technical department using

Technical@PROCEAN.nl

CAUTION
Your complete system must be assembled and checked before entering the water.

PURCHASE AND SERVICE RECORD

Event	Description	date
1. Purchase		
2. Service		
3. Service		