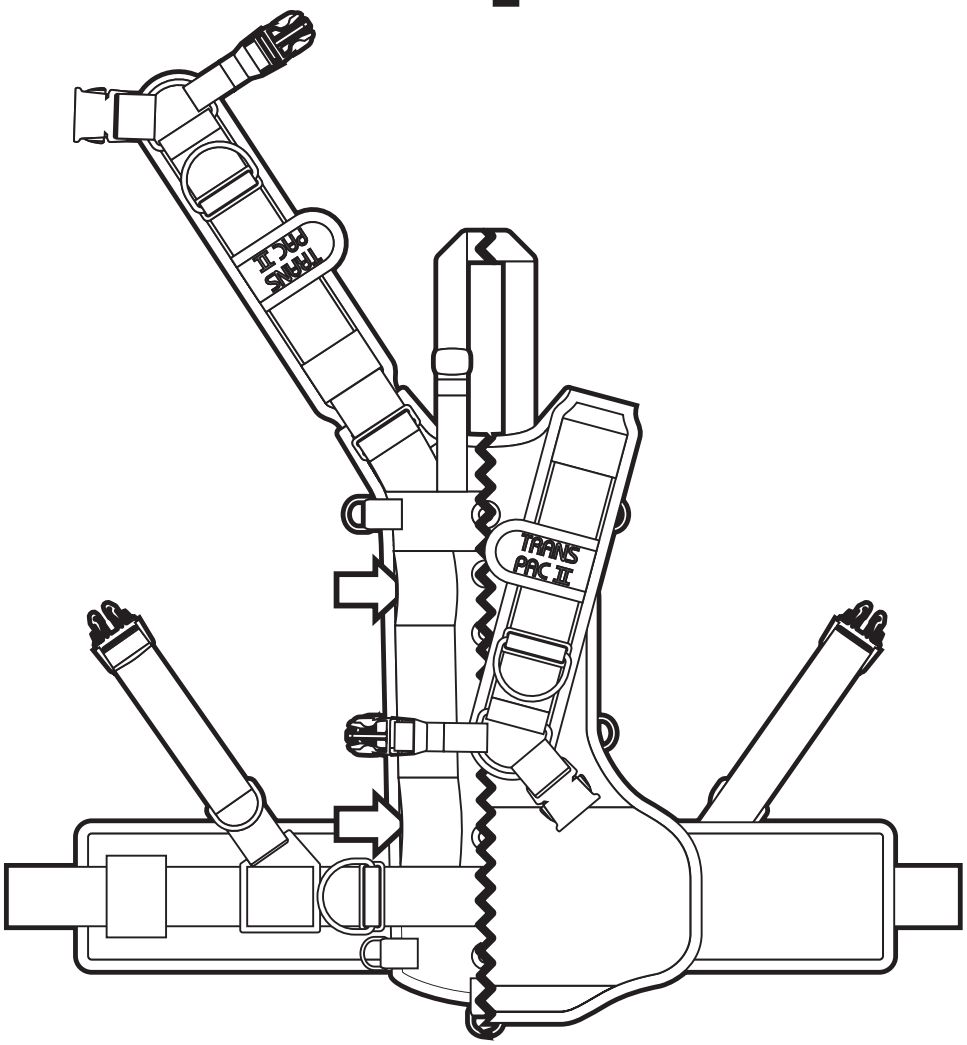
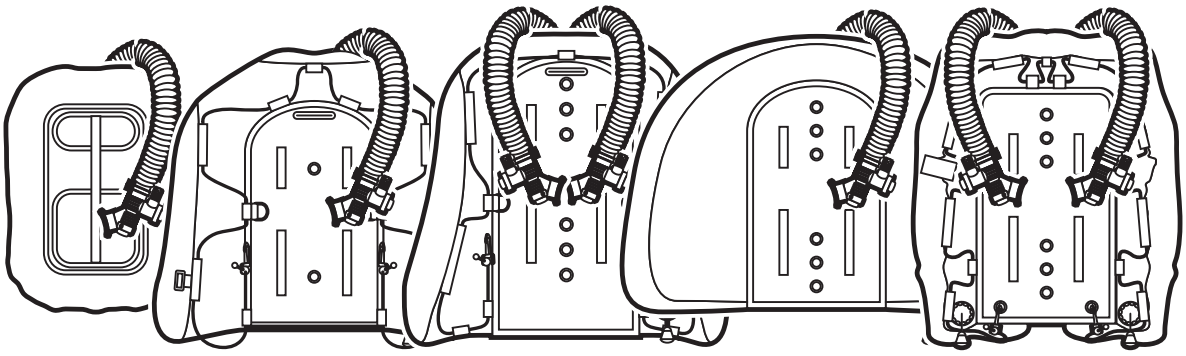
Transpac II





SINCE 1984 • ALWAYS THE GENUINE ARTICLE • "EQUIPMENT FOR SERIOUS DIVERS"

Dive Rite

117 West Washington Street • Lake City, FL 32055 • USA
Phone (386) 752-1087 • Fax (386) 755-0613
www.diverite.com

Dive Rite Transpac II Limited Warranty

- Dive Rite will—at its sole discretion—repair or replace Transpac II system components proved to be damaged by faulty manufacture or material, at no cost, for a period of up to one year (365 days) from the date of purchase.
- This warranty applies only to the original retail purchaser. It does not cover commercial or rental use, nor does it extend to units purchased from other than an authorized Dive Rite dealer.
- This warranty specifically excludes color changes, light fastness, or fading. Dive Rite does not accept responsibility for stains or transference or bleeding of color to other items.
- All air cell bladders have a limited lifetime warranty against RF welded seam separation. No warranty exists for bladder punctures.
- If we deem a Transpac II component to be beyond repair— through no fault of the user — then, and only then, will we replace the affected component(s).
- To make a claim under this warranty, the owner must have either completed and returned the Warranty Registration card at the time of purchase, or registered his/her warranty using Dive Rite's website (*www.diverite.com*). He or she must then return the damaged items to Dive Rite, along with a copy of the original purchase invoice or receipt. No warranty service will be performed for other than registered owners.
- This warranty becomes void if the Transpac system components are damaged by anything other than normal diving use, of if they have been serviced or repaired by other than authorized Dive Rite dealers.
- Repairs made under this warranty will not extend the warranty period.
- All further claims, especially for damage after diving accidents, are excluded from coverage under this warranty.
- Dive Rite has no obligation to honor any extension of this warranty.

Table of Contents

The PPE (Personal Protection Equipment) mentioned in this manual was tested and certified according to 89/686/EEC Directive, for a maximum depth of 50 meters (150 feet), by ITALCERT, Viale Sarca 336, 20126 Milano-Italy, Notified Body N° 0426 • The device is in compliance with the EN 250 (PPE of category III in accordance with 89/686/EEC Directive) and EN 1809 (PPE of category II in accordance with 89/686/EEC Directive) and it is not a lifejacket; it does not guarantee a head-up position of the wearer at the surface.

CE 0426 is the conformity marking according to 89/686/CDD Directive. The number 0426 identifies the Notified Body ITALCERT for the controls on the product according to Article 11A of the 89/686/CDD Directive (only for PPEs of III category).

Introduction

Traditionally, owner's manuals begin with statements such as, "Congratulations on your purchase of our nifty new whiz-bang product…" Such statements are, of course, entirely self-serving on the part of the manufacturer.

Nevertheless, the fact remains you've got one helluva BC on your hands. If you follow the instructions in this manual, and give the product the care it deserves, it should provide you with years of enjoyable service.

Before using your Transpac II, there are several things you must do. These include:

- ➤Obtain a minimum of entry-level open-water scuba diver training and certification from a recognized diver-training organization, such as ACUC, BSAC, CMAS, GUE, IANTD, IDEA, NASDS, NAUI, PADI, SSI or YMCA.
- ➤As part of this training, you must master all basic skills of buoyancy control, including: proper weighting; ascents; descents; surface swimming and resting; and establishing neutral buoyancy under water. This training must also cover (both at the surface and under water): the use of buoyancy-control devices (BCs); oral inflation of BCs; low-pressure inflation of BCs; and deflation of BCs using a variety of methods.
- ➤You must read and understand this manual and all other warnings that accompany the product. If you do not understand some part of this manual, contact Dive Rite using the information appearing on the cover.

Misuse of the Transpac II can result in uncontrolled ascents, descents or loss of buoyancy control. This, in turn, can cause *serious personal injury* or *death*.

Before using your Transpac II in open water, wrecks, caves or under ice, there are two things you must do. They are:

- ➤*Read and understand this manual in its entirety.* There is very little, if any, information here that does not pertain to you. Don't risk missing vital information by

picking and choosing the data you think applies to you. Why take chances? Read it all.

➤*Practice using your Transpac II in confined water before using it in more challenging conditions.* This advice really applies to any major piece of diving equipment. With buoyancy-control equipment, it is especially important to practice adding and venting air in a variety of positions. To omit this practice is to risk dangerous, uncontrolled ascents.

Additional Warnings

The Transpac II is not a Personal Flotation Device

The Transpac II *is not* a United States Coast Guard-approved Personal Flotation Device (PFD). It will not provide face-up flotation for all users and conditions.

Do Not Modify Your Transpac II

Changes to the Transpac II or use of after-market accessories can prevent its proper function or result in damage to the Transpac II.

Proper Assembly and Adjustment Required

➤Do not use either the Classic Wings or Super Wings with single cylinders. When using Rec Wings with single cylinders, always tighten the gusset control cord and elastic strap to help prevent the air cell from wrapping itself around the sides of the cylinder, trapping air. Failure to follow these instructions can prevent you from venting air from your BC and may lead to uncontrolled ascents. This can further result in *serious personal injury or death*.

➤Before each use, soak the Transpac II's tank bands in water and allow them to stretch. Be certain that the end of each tank band faces inward and rests directly against the tank(s). Each tank band must pass through the tip of its cam strap buckle, and mate with the material on the outside of the strap. Failure to do so can result in the bands loosening or coming undone during use, resulting in the possible shifting or loss of scuba cylinders in or out of the water.

➤Once you have attached your Transpac II to a single scuba cylinder, you should pick the unit up by the BC and shake it up and down a few times. This will help make sure that the tank is fastened in securely, and that the bands are tight enough to help prevent them from coming undone accidentally, later on.

➤Adjust the waist, shoulder and chest straps for a comfortable fit. Properly fitted, the Transpac II should not restrict your breathing when any of its air cells are fully inflated.

Use Weight System Properly

➤ Gravity alone may not be sufficient to pull weights completely clear of the weight pocket, other equipment or your body, thus enabling them to be jettisoned safely. When jettisoning weights, always check to make sure the weight pockets are completely empty, and that no weights are caught on, or entangled in, other equipment. Whenever possible, hold any weight you are jettisoning away from the body before dropping it. Failure to follow these instructions may result in unsuccessful attempts at jettisoning weight which, in turn, can lead to the inability to ascend to or remain at the surface.

➤ If you do install other pockets in addition to those of the weight system, make certain these other pockets do not interfere with easy and rapid removal of weight in an emergency. Failure to do so may result in unsuccessful attempts at jettisoning weight which, in turn, can lead to the inability to ascend to or remain at the surface.

➤ If you need a weight belt, remember to fasten the Transpac II's optional crotch strap first, then put the weight belt on over it. Failure to do so will hinder your ability to release your weight belt in an emergency.

Pre-Dive Inspection Required

The examinations described in this manual will help you identify equipment problems before unsafe conditions exist. Nearly all equipment-related diving accidents are preventable by:

➤ Following the recommendations outlined in this manual.

➤ Having equipment regularly inspected and serviced by trained technicians at factory-authorized repair facilities.

➤ Before each use, check all of your Transpac II's tank bands and buckles, straps, quick-disconnect clips and the cummerbund/waist strap for wear. Have an authorized repair facility replace worn or damaged items before you use your Transpac II.

➤ If your Transpac II fails to pass any of the tests outlined in this manual, or if you have any doubt as to the safe and proper function of any of its components, do not use it. Instead, have your Transpac II inspected and, if necessary, serviced by an authorized repair facility before taking it in the water again.

Careful Inflation/Deflation Required

➤ Do not attach your Transpac II's *low-pressure inflator hose* to a high-pressure air source, such as the HP (high pressure) port of a regulator. The Transpac II's low-

pressure inflator and its supply hose can only handle pressures of approximately 150 pounds per square inch/10 bar over ambient pressure.

Read your regulator manufacturer's instructions concerning the proper connection of low- and high-pressure hoses. Installation or changing of such hoses should only be done by trained technicians working for factory-authorized dive centers. Product damage can result from improper hose connection.

- ➤Always inflate Transpac II air cells slowly, both at the surface and under water. Rapid inflation under water can result in uncontrolled ascents. Uncontrolled ascents can cause *serious lung overpressure injuries*, such as Arterial Gas Embolism (AGE). *Such serious overpressure injuries can result in death.*
- ➤Maintaining safe rates of ascent requires training and practice. The Transpac II air cells' overpressure relief valve *does not control or prevent uncontrolled ascents.*
- ➤These instructions *do not* necessarily incorporate all the steps required, under all conditions, to orally inflate the Transpac II above or below the water. Oral inflation of BCs under water requires special training and practice. This should first be attempted under controlled conditions and the supervision of a certified instructor.
- ➤Never breath from your Transpac II's oral inflator/manual deflator mouthpiece. Your Transpac II's air cell may contain contamination or gas residue that may be hazardous if inhaled.
- ➤Use of the Transpac II's oral inflator/manual deflator or overpressure relief valve for deflation may allow water to enter your Transpac II's air cell. Repeated deflation of the Transpac II under water may allow enough water to enter the air cell to substantially reduce the Transpac II's lift capacity (buoyancy) or interfere with its ability to allow the user to control buoyancy.

If you have questions regarding any of the information you find in this manual or—equally important—questions pertaining to information about the Transpac II you cannot find in this manual, contact your local authorized Dive Rite dealer. If there is no authorized Dive Rite dealer in your area, contact Dive Rite directly, using the contact information appearing on the front of this manual.

What Your Transpac II System Will and Will Not Do

Before using your Transpac II, it is important you have a realistic perspective of what it will and will not do.

What Your Transpac II Will Do

Your Transpac II is designed to do only the following:

➤Provide divers with additional buoyancy while surface swimming and resting.

➤Offset loss of buoyancy caused by exposure suit compression under water.

➤Provide a means of mounting single and double scuba cylinders and common accessories to the diver.

What Your Transpac II Will Not Do

Your Transpac II *is not* designed to do any of the following:

➤The Transpac II *is not* to be used as a diver's sole form of flotation; divers should have additional forms of flotation, such as a neoprene foam wet or dry suits, to provide buoyancy in case they need to abandon the Transpac II, or it malfunctions.

The Transpac II *is not* a United States Coast Guard-approved personal flotation device (PFD). It *will not float an unconscious person in a face-up position in all situations or under all conditions*.

➤The Transpac II *is not* a substitute for adequate swimming and scuba diving skills. (Trusting your life to any single piece of equipment is just plain stupid.)

➤It *is not* an emergency air supply. Do not attempt to breathe from the air cell mouthpiece. The bladder may contain gasses or residues that are hazardous to breathe.

➤The Transpac II *is not* a lift bag. Attempting to use it as such places a diver at extreme risk of finding him or herself in a dangerous, uncontrolled ascent.

If you have questions regarding the Transpac II's suitability for a particular purpose, contact Dive Rite at the phone numbers appearing on the front of this manual.

Transpac II Features

Here is an overview of some of the many features and benefits your Transpac II system offers you. (The numbers refer to the illustration on the next page.) You will find more specific information on these features throughout this manual.

1. Tank adjustment strap helps you mount the Transpac II harness on single cylinders at the same height each time (works with Travel, Trek and Rec Wings).

2. Padded shoulder straps—available in five different lengths—provide comfortable fit.

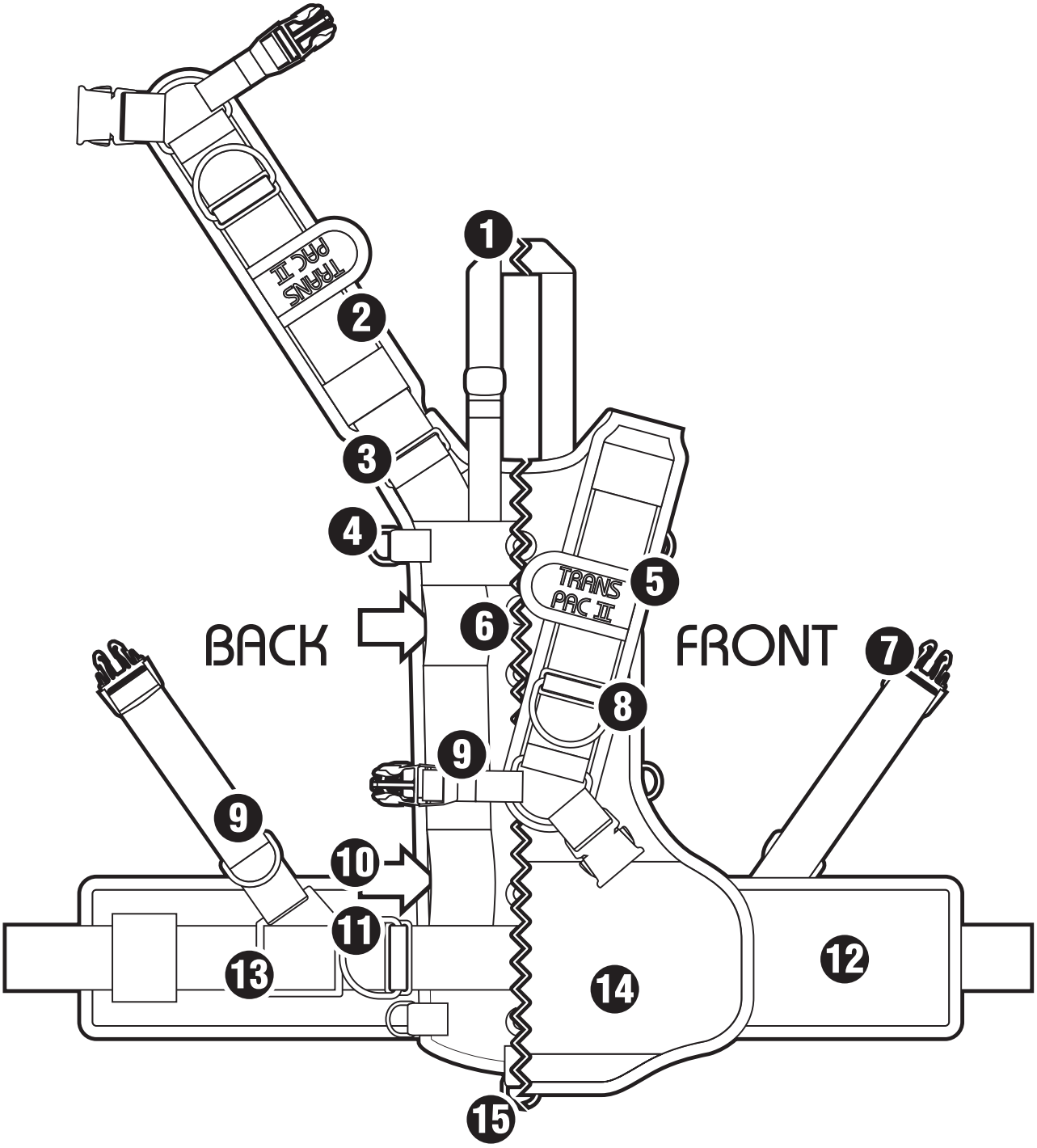


Figure 1: *Key Transpac II features.*

3. Shoulder strap attachment point enables you to add or remove D-rings from shoulder strap.

4. Three one-inch/25mm D-rings along each side of harness provide attachment points for light canisters, pony bottles and other equipment.

5. Self-closing "epaulet" on the left-hand shoulder strap helps you keep inflation hoses under control.

6. Grommetted mounting holes for doubles enable positioning of cylinders at different heights.

7. Shoulder strap quick releases feature unique, "fail-safe" design.
8. Two-inch/50 mm D-rings on each shoulder are adjustable for height and bent at a slight angle for better access. You may also add or remove D-rings from the shoulder-strap webbing.
9. Shoulder straps are easily adjustable for length and fit.
10. Mounting slots for two-inch/50 mm cam straps (included with harness) enable use with single cylinders.
11. Two-inch/50 mm D-rings on each side of waist strap are adjustable. Waist strap design enables easy mounting of pockets and other accessories. Transpacs also come with a stainless-steel, quick-release buckle.
12. Padded cummerbund helps transfer cylinder weight to hips for better fit and comfort.
13. Shoulder strap base plates, made from stainless steel, allow users to move base of shoulder strap back and forth for best fit and performance. These plates are pre-drilled to accept installation of special "Tek" D-rings for use with sidemount or stage bottles.
14. Heavily padded lumbar support and padded waist band transfer weight to hips.
15. Attachment point for optional 1056D crotch strap.

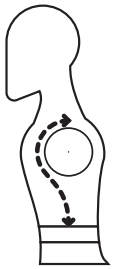
Transpac II Components

Your Transpac II is not merely a BC, but rather a system of components that enable you to customize your Transpac II for a variety of applications. In its most compact form, you might use just the Transpac II harness and Travel Wings, for traveling to a warm-water dive destination. At the other extreme, you might use the Transpac II harness in combination with Super Wings, the optional crotch strap and stabilizing plates, and a variety of pockets, for the most demanding technical diving.

This section will help you identify the components you presently own, and those you may wish to add to your Transpac II at a later date.

Transpac II Harness

The Transpac II harness is the heart of the system. All other Transpac II components attach to it. Transpac II Sizes The harness is available in five sizes, ranging from XS (Extra Small) to XXL (Extra, Extra Large). Size denotes shoulder strap length. To ensure proper shoulder strap length, measure from at point at the top of the shoulder to a point at the waist immediately below it, as shown in the accompanying illustration. Be sure to allow for exposure suit thickness.



Size	Range
XS	13.0 in/33 cm to 16.0 in/41 cm
SM	14.0 in/36 cm to 17.5 in/44 cm
M/L	17.0 in/43 cm to 22.0 in/55 cm
XL	18.5 in/47 cm to 23.5 in/60 cm
XXL	For divers >75 in/190 cm; 250 lbs/110 kg

Figure 2: *How to measure for shoulder strap length.*

Small (S) and Extra Small (XS) Transpac harnesses come with back sections and lumbar supports that are approximately 2.0 inches/5.0 cm shorter than those of larger Transpac harnesses. This is the preferred size for any diver whose back-of-neck to waist measurement is 17.0 inches/43 cm or less (a range that includes nearly all women). Any combination of Transpac shoulder harness and standard or short back section/lumbar support are available on special order.

Transpac II harnesses come with a padded "Tek" cummerbund that is in proportion to the length of the shoulder strap. It is possible, however, to order your Transpac II harness with a different size "Tek" cummerbund, or with the optional, full-length "Sport" cummerbund described on page 19. These are also available as after-market replacement items.

Tek cummerbund size ranges are:

Size	Range
XS	24 in/60 cm to 28 in/70 cm
S	28 in/70 cm to 34 in/85 cm
M/L	32 in/80 cm to 40 in/100 cm
XL	38 in/95 cm and up
XXL	For divers over 75 in/190 cm; 250 lbs/110 kg

The Transpac II harness comes with a "Sport" back pad/lumbar support, as shown in Figure 3 (next page). An optional "Tek" back pad/lumbar support is also available; see pages 19-20.

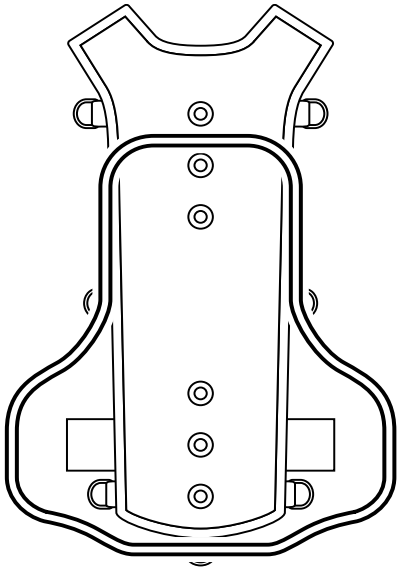


Figure 3: *Back pad and lumbar support.*

Transpac II Air Cells

Interchangeable air cells for the Transpac II are available in five styles. Each Dive Rite air cell incorporates an air-tight inner bladder, surrounded by a heavy-duty outer shell. Here are descriptions of the different air cells, and the roles each is designed to fulfill.

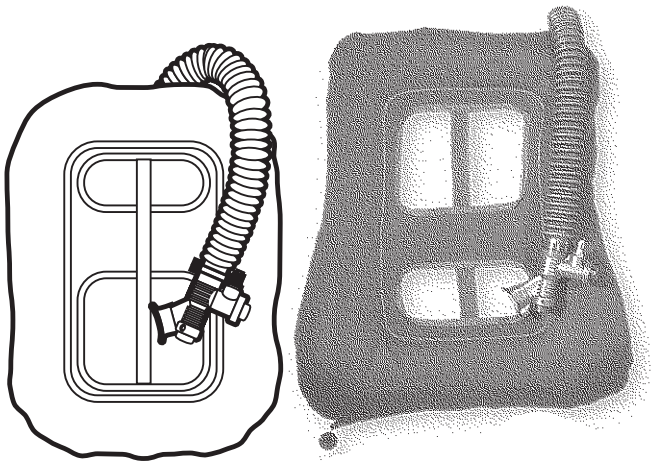


Figure 4: *Travel Wings.*

➤**Travel Wings (2071)** Travel Wings are the most compact Transpac II air cell. They can provide up to 30 pounds/14 kg of buoyancy and can accommodate back-mounted single cylinders of up to 95 cubic feet/15 litres. An elastic outer shell helps them maintain a streamlined shape. A 27-inch/69 cm low-pressure inflator hose is standard. Travel Wings are an ideal choice for divers who dive single cylinders—or who want an additional, compact Transpac air cell for use solely with singles (such as when travelling to a tropical resort destination).

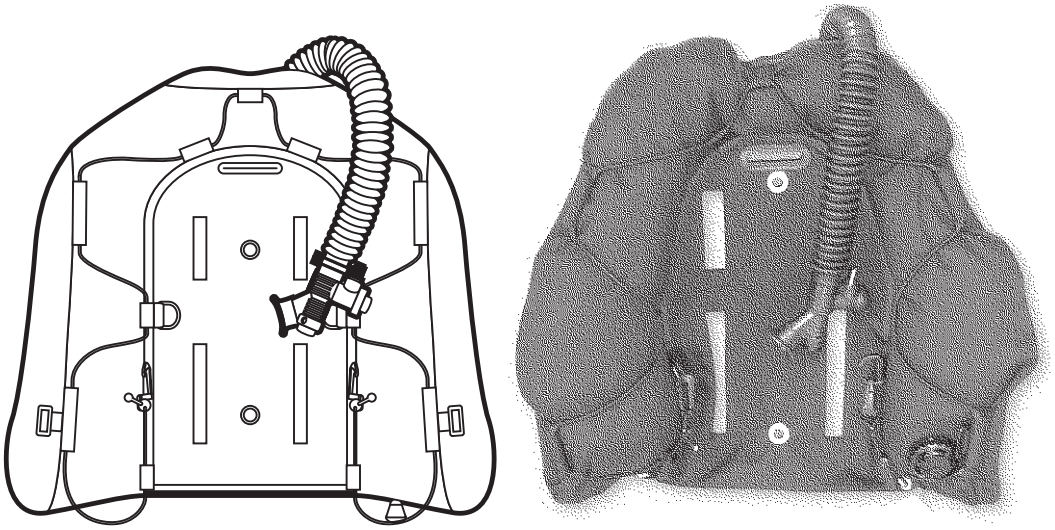


Figure 5: *Trek Wings.*

➤**Trek Wings (2060)** Trek Wings provide up to 40 pounds/18 kg of buoyancy. They are best suited for use with single cylinders of any size, and with lightweight to medium-weight double cylinders ("a shorter air cell for shorter cylinders"). Trek Wings can accommodate up to two 83-cubic-foot/13 litre back-mounted cylinders. Trek wings also incorporate a built-in gusset-control cord to help divers manage the shape and lift capacity of the air cell (see page 15 for additional information on this feature). A 27-inch/69 cm low-pressure inflator hose is standard.

Trek Wings are a good choice for divers whose time under water is divided between diving singles and lightweight doubles. They have also proven popular in areas such as Mexico's Yucatan Peninsula, where local cave divers want an air cell that is well-matched in size to the double aluminum 80s which are popular in this region, and which does not allow large pockets of air to slosh from side to side, the way larger air cells tend to do. Further, Trek Wings are clearly "the" air cell for side mounting.

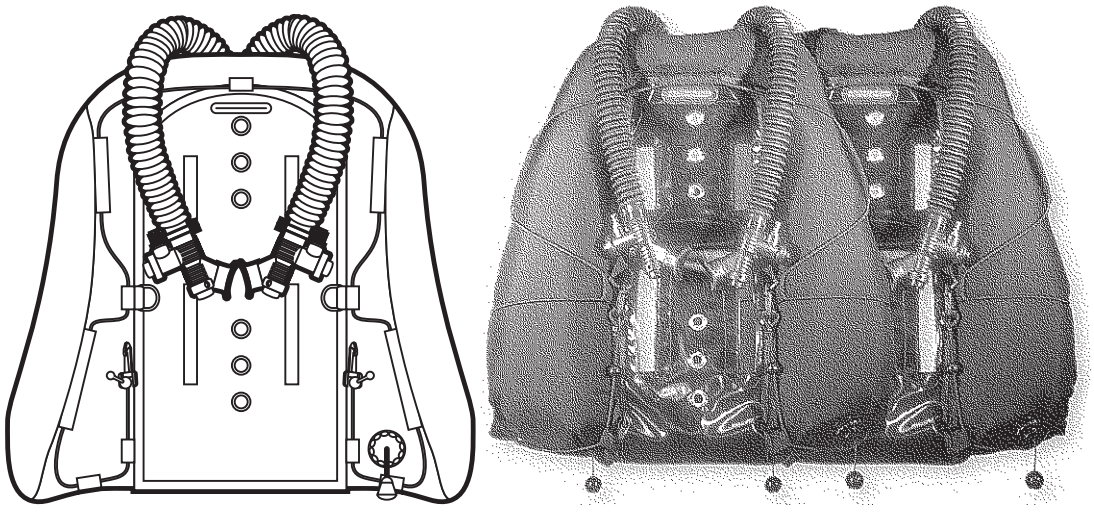


Figure 6: *Rec/Dual Rec Wings.*

➤ **Rec Wings (2074)/Dual Rec Wings (2075)** Rec Wings provide up to 51 pounds/23 kg of buoyancy. They can be used with both single and double cylinders. Rec Wings can accommodate up to two 104-cubic-foot/16 litre back-mounted cylinders. Like Trek and Super Wings, Rec Wings also incorporate a built-in gusset-control cord. A 27-inch/69cm low-pressure inflator hose is standard.

Standard Rec Wings have a single internal bladder and inflation hose. Dual Rec Wings have a redundant bladder and inflation hose. Rec Wings are a good choice for divers who, while they may primarily use doubles, want to be able to configure their air cell for use with single cylinders as well.

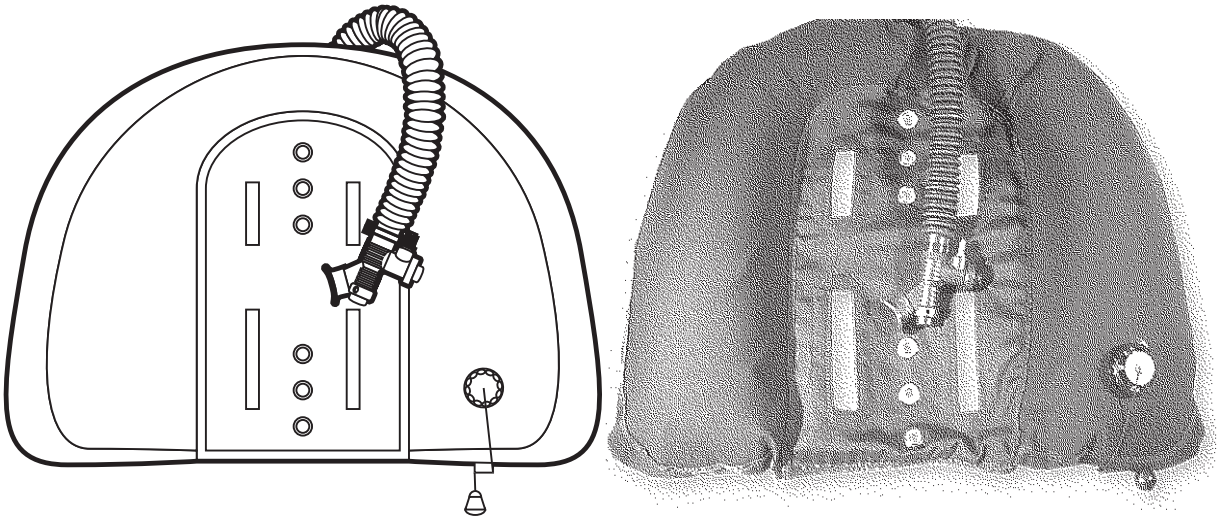


Figure 7: *Classic Wings.*

➤ **Classic Wings (2030)** Diving's first air cell designed specifically for double cylinders, Classic Wings provide up to 59 pounds/27+ kg of buoyancy. They are designed for use with medium- to heavyweight doubles (Classic Wings should not be used with single cylinders). These wings can accommodate up to two 104-cubic-foot/16 litre back-mounted cylinders, and one 80-cubic-foot/11 litre stage bottle. A 22-inch/56cm low-pressure inflator hose is standard. Classic Wings are popular among hard-core cave divers, who appreciate their simple, streamlined, "no frills" design.

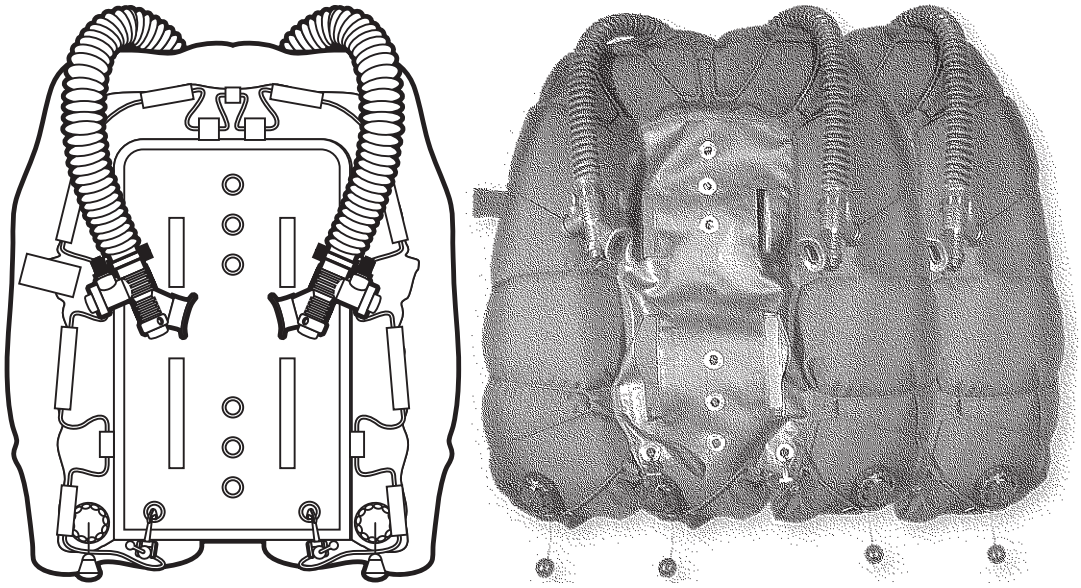


Figure 8: *Super/SuperOne Wings.*

➤ **SuperOne Wings (2076)/Super Wings (2073)** SuperOne Wings and standard Super Wings provide from up to 84 pounds/38 kg of buoyancy, depending on gusset-control cord tension. They can accommodate up to two 120-cubic-foot/19 litre back-mounted cylinders, and two 80-cubic-foot/11 litre stage bottles. (Super Wings should not be used with single cylinders.) The wings incorporate a heavy-duty outer bag and, in the case of the standard Super Wings, redundant inner bladders with separate inflators (SuperOne Wings have a single internal bladder). One or two 22-inch/56cm low-pressure inflator hoses are standard. Super Wings are designed for technical divers who need or desire both exceptional buoyancy and built-in redundancy.

More About Gusset-Control Cords The gusset-control cord found on Rec and Super Wings fulfills a variety of functions. Among them:

➤When not inflated, the cord helps compress the air cell to as small a profile as possible. This reduces drag and helps protect air cells from damage.

➤By tightening the cord, users can limit lift capacity to only that needed for a particular application (example: diving single cylinders generally requires far less buoyancy that doubles do). The benefit is that reduced lift capacity also helps reduce the likelihood of uncontrolled ascents.

➤Tightening the Trek or Rec Wings' gusset-control cord to its maximum limit helps prevent the air cell from wrapping around the sides of single cylinders.

You can tighten or loosen the gusset control cord by adjusting the clips at each side of the base of the air cell. When doing so, adjust both cords evenly.

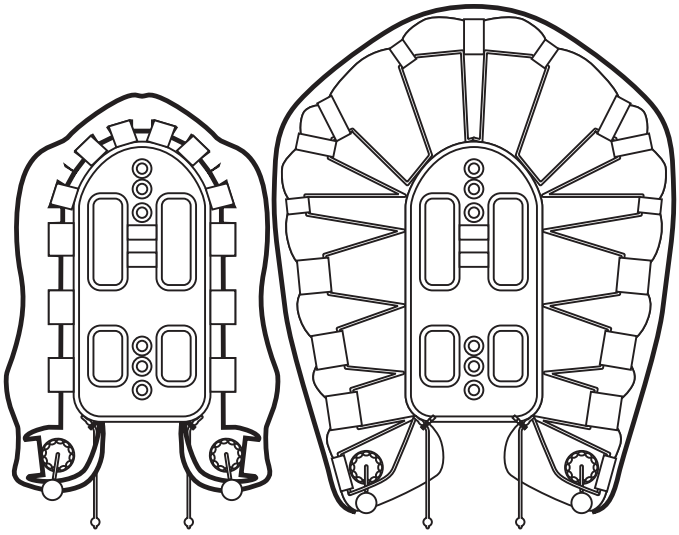


Figure 9: *The gusset-control cord found on Rec and Super Wings enables users to control the overall shape and profile of these air cells.*

Before diving with either Trek, Rec or Super Wings, you should spend time in a controlled environment, such as a pool, experimenting with gusset control cord settings. This will help you find the setting that best fits your diving needs and your overall equipment configuration.

WARNING

Before using your Trek, Rec or Super Wings in open water or other, more challenging environments, spend time in a controlled environment, such as a pool, practicing venting your wings in a variety of positions. The inability to vent such a high-capacity air cell quickly and efficiently can lead to dangerous, uncontrolled ascents. Such ascents can result in *serious personal injury* or *death*.

Air Cell Summary Here are some of the key features found on each Dive Rite air cell.

Air Cell	Maximum Buoyancy	Redundant Air Cell	Single Cylinders	Double Cylinders	Inflator Hose Length
Travel Wings	135 N/14 kg/30 lbs		●		27 in/69cm
Trek Wings	175 N/18 kg/40 lbs		●	●	27 in/69cm
Rec Wings	225 N/23 kg/51 lbs		●	●	27 in/69cm
Dual Rec Wings	225 N/23 kg/51 lbs	●	●	●	27 in/69cm
Classic Wings	265 N/27 kg/59 lbs			●	22 in/56cm
Super One Wings	370 N/38 kg/84 lbs			●	22 in/56cm
Super Wings	340 N/35 kg/77 lbs	●		●	22 in/56cm

Transpac II Accessories

Weight Systems An integrated weight system is available for the Transpac II; Dive Rite trim weights work with a wide variety of BCs and harnesses.

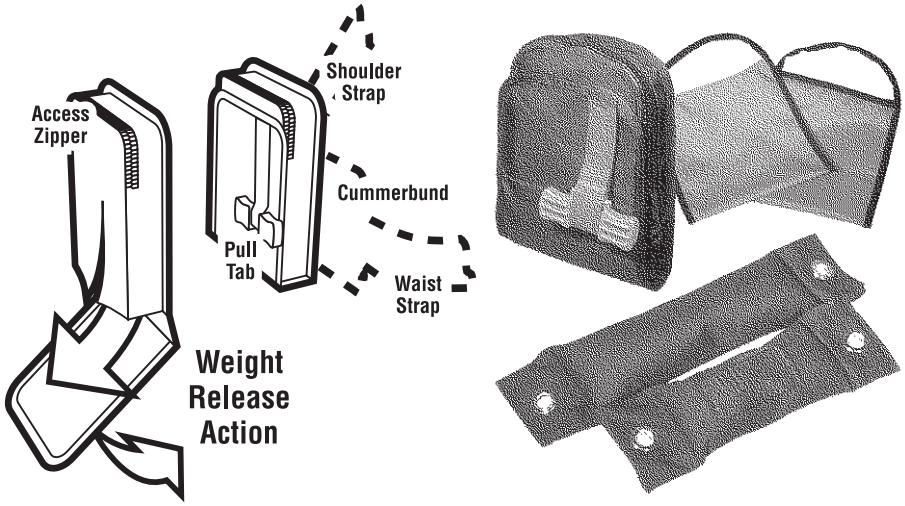


Figure 10: *The Transpac II's optional, integrated weight system, weight pocket inserts and seven- and four-pound trim weights.*

➤*Weight Pockets (2109)* The Transpac II's optional integrated weight system holds up to 32 pound/15kg (actual capacity may vary, depending on the size and shape of the weights used). Weight system components install easily on the Transpac II's 2.0-inch/50mm waist strap.

The weight system's pockets have a zipper on the top that divers can use to add or remove weight in non-emergency situations. A flap at the bottom of the pocket is held securely in place with a large Velcro® flap. In an emergency, pulling on the flap's large, color-coded tab opens the pocket.

➤*Weight Pouches (2110/2111)* Two different types of weight pouches are available for the Transpac II's optional, integrated weight system. The model 2110 pouch is designed for loose shot weight; model 2111 is designed for either normal block

weights or shot weight (model 2110 has a smaller zipper on top). Both come with a convenient carrying handle.

➤*4- and 7-Pound Trim Weights (2150-4 and 2150-7)* These can provide additional, non removable ballast, as needed. Divers can use stainless quick links to mount trim weights between the D-rings found along the side of the Transpac's back piece. Additionally, the seven-pound weights will fit between the bolts of double cylinders and the four-pound weights come with slots for 2.0-inch/50 mm webbing.

Pockets These attach to the Transpac II waist band or any other harness waist band that uses 2.0-inch/50 mm webbing.

Figure 11: *(Top Row) Mask Pocket, Thigh Pocket; (Bottom Row) Slate Pocket, Two-Zipper Pocket*

➤*Thigh Pocket* If you need the type of pocket normally installed on a wetsuit or drysuit thigh (but don't have one), this makes a handy alternative. It also enables you to keep the same items with you when you change suits. Includes internal key ring. Item number 2761.

➤*Two-Zipper Pockets* The two-zipper Diver's Pocket (2014) is large enough to hold slates, tables and similar-size items. Available in Black, Blue, Red.

➤*Mask/Utility Pocket* The standard Mask/Utility pocket (2065) holds back-up mask, jon lines and similar size items. Available in Black, Blue, Red.

➤*Slate Pocket* The Slate pocket (2016) is just the right size to hold a set of 2058 Executive Slate, plus has a built-in ring for keys. Available in Black.

Harness Accessories These accessories are designed to help you improve the comfort and/or fit of your BC harness, or to facilitate its use with a variety of cylinders.

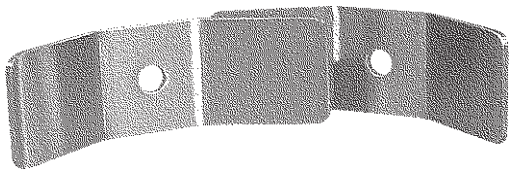


Figure 12: *Stabilizing Plates.*

➤ *Stabilizing Plates (2084)* Stabilizing plates allow the Transpac II harness and air cells to be firmly secured to nearly any set of doubles that uses industry-standard bands and bolts. They make attaching doubles quick and easy.

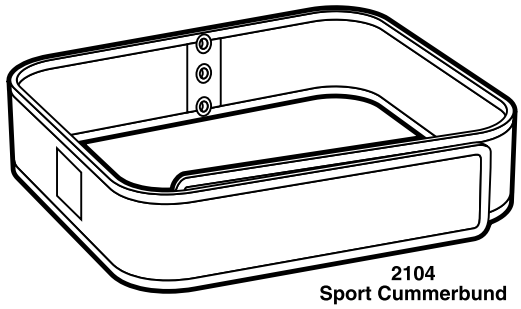


Figure 13: *Sport Cummerbund.*

➤ *Sport Cummerbund (2104)* Some divers prefer a cummerbund that completely encircles the waist. For these divers, Dive Rite offers the "Sport" cummerbund. The Sport Cummerbund is available as an after-market accessory, or may be special ordered with the Transpac II.

Size	Range
XS	24 in/60 cm to 28 in/70 cm
S	28 in/70 cm to 34 in/85 cm
M/L	32 in/80 cm to 40 in/100 cm
XL	38 in/95 cm and up

When measuring for cummerbunds, remember to allow for exposure suit thickness and circumference.

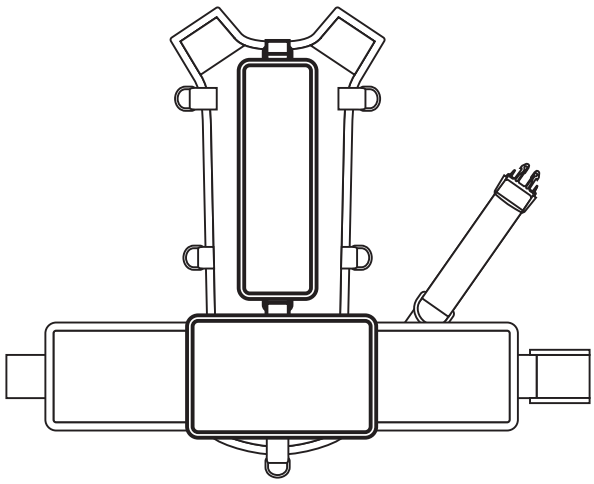


Figure 14: *"Tek" back pad/lumbar support.*

➤ *"Tek" Back Pad (2102S) and Lumbar Support (2102L)* Some Transpac users prefer using a separate back pad and lumbar support. As with the Sport Cummerbund, the "Tek" back pad and lumbar support are available as after-market accessories, or may be special ordered with the Transpac II.

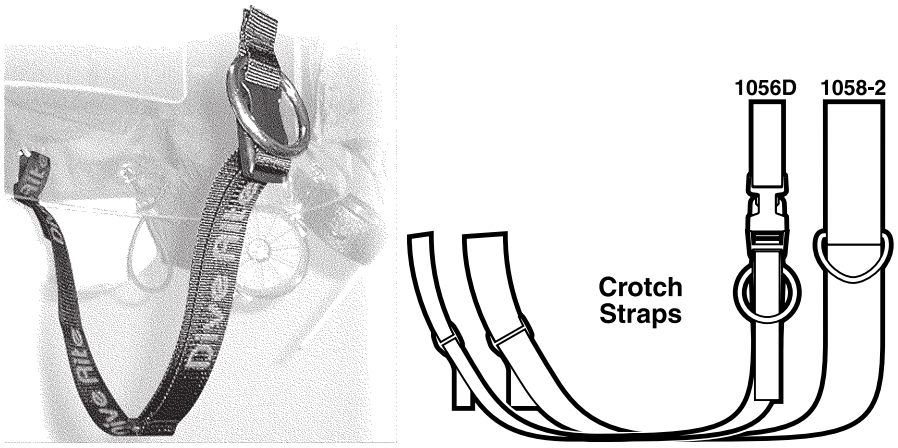


Figure 15: *Crotch straps.*

➤ *Crotch Straps* Dive Rite's two most-popular crotch straps for the Transpac II are the 1.0-inch/25 mm 1056 and 1056D. Both crotch straps are equipped with slide-release buckles; the 1056D also includes a 2.0-inch/50 mm circular ring for use with diver propulsion vehicles (DPVs).

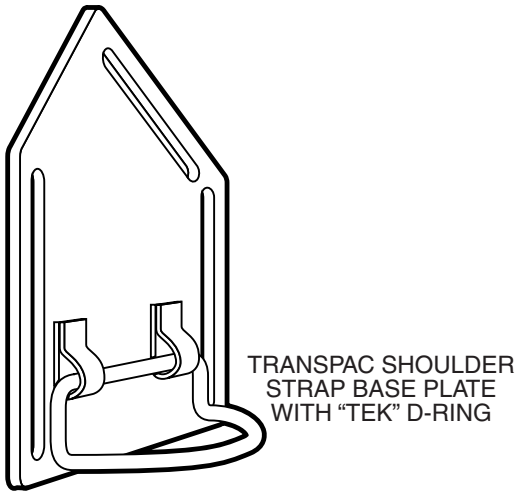


Figure 16: *"Tek" D-ring.*

➤ *"Tek" D-Rings (2769)* These special D-rings can be installed on Transpac II shoulder strap base plates. They make excellent attachment points for stage bottles.

WARNING

Changes to the Transpac II or use of after-market accessories can prevent its proper function or result in damage to the Transpac II. This can cause *serious personal injury* or *death*.

Assembling Your Transpac II System

Before you can use your Transpac II, you must first assemble its components into a configuration that best fits your needs. This section devotes itself to that assembly process. It covers:

- *Attaching Your Transpac II System to Single Cylinders* Step-by-step procedures for using the Transpac II with single cylinders.
- *Attaching Your Transpac II System to Double Cylinders* The special techniques you must follow when using the Transpac II with double cylinders.
- *Weight System* How to install and use the Transpac II's optional integrated weight system.
- *Adding/Removing Shoulder D-rings* You can not only change position of the Transpac II's shoulder-strap D-rings, you can add more or remove them, if you so choose.

If you have questions regarding any of the information you find in this manual or—equally important—questions pertaining to information about the Transpac II you cannot find in this manual, contact your local authorized Dive Rite dealer. If there is no authorized Dive Rite dealer in your area, contact Dive Rite directly, using the contact information appearing on the front of this manual.

Attaching Your Transpac II Harness to Single Cylinders

Attaching your assembled Transpac II system to a variety of single cylinders is a fairly straightforward procedure. It is largely the same as you learned in your first scuba course, and have probably been doing with other BCDs and tank harnesses from day one.

As shown in Figure 17 (next page), you will find two slots for attaching standard, single-tank cam bands on the back side of your Transpac II harness. (Two such cam bands come standard with each Transpac II harness.) Transpac II harnesses made prior to 2002 have cam bands made using industry-standard nylon cam band buckles; those made from early 2002 onward use special stainless cam band buckles (see Figure 17, next page).

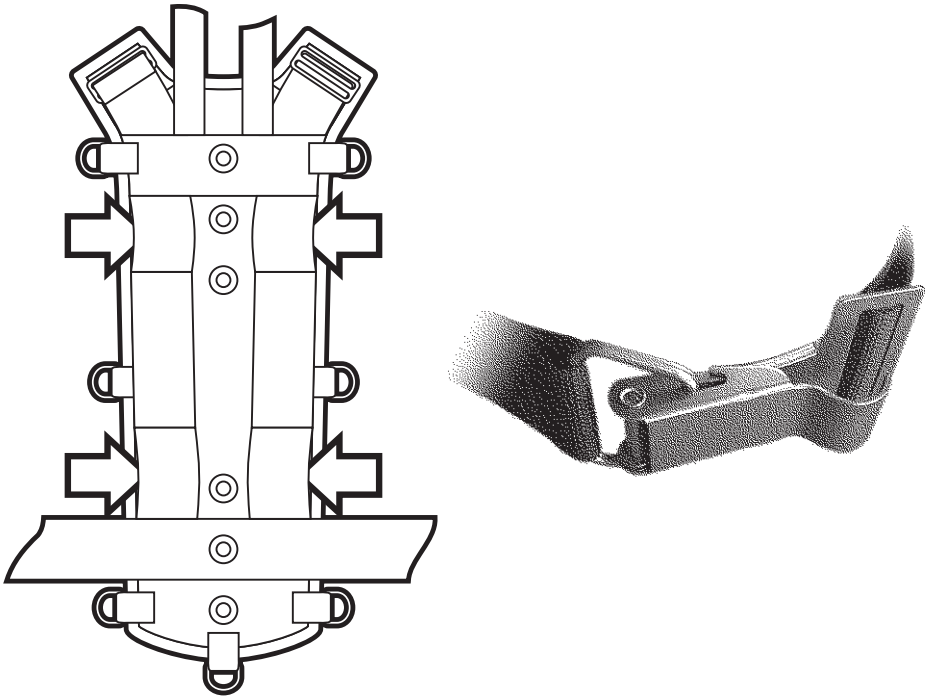


Figure 17: *Slots for attaching single-tank cam bands; stainless cam band buckle.*

Figure 18 shows how the harness, Travel or Rec Wings air cell, cam straps and single cylinder should look when fully assembled. Notice that the air cell is sandwiched between the tank and harness.

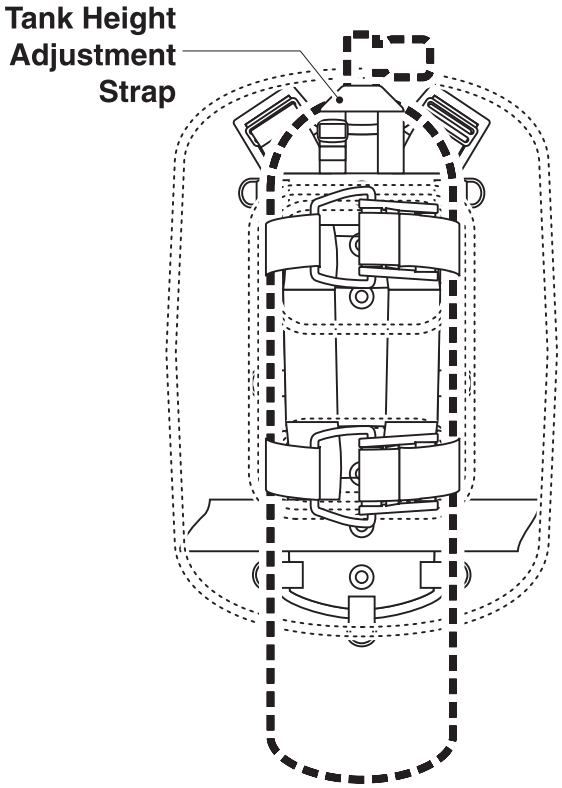


Figure 18: *Positioning of cam straps and air cell with single cylinders.*

WARNING

Before each use, soak the Transpac II's tank bands in water and allow them to stretch. Failure to do so may allow these bands to loosen during use, resulting in the possible shifting or loss of scuba cylinders in or out of the water. This, in turn, can cause *serious personal injury* or *death*.

Once you have attached it to a single scuba cylinder, you should pick the unit up by the BC and shake it up and down a few times. This will help make sure that the tank is fastened in securely, and that the bands are tight enough to help prevent them from coming undone accidentally, later on. Remember, accidental loss of air supply can cause *serious personal injury* or *death*.

If your "shake test" reveals that the straps are not tight enough, unfasten them and see if you can make them tighter. If you have difficulty with this, it is probably because you either did not soak the straps first in water, or did not thread them as shown in Figure 18.

One final note: You will most likely find your Transpac II works best with single cylinders if you remove the back (spine) pad.

WARNING

Before each use, check all scuba tank buckles and bands for wear. Have an authorized repair facility replace worn or damaged items before use. Failure to replace worn or damaged scuba tank buckles and bands could lead to loss of scuba cylinders or of the Transpac II assembly itself. This could lead to *serious personal injury* or *death*.

Tank Height Adjustment Strap

When attaching your Transpac II to single cylinders, you will probably want to take advantage of the tank-height adjustment strap, shown back in Figure 18. This strap is designed to hook over the cylinder valve and help you achieve a consistent height setting each time you put your Transpac II on a tank. You can also use this strap as a carrying handle when your Transpac II is not attached to a scuba cylinder.

The tank-height adjustment strap fastens and adjusts with a belt slide. You will need to experiment with it to find the adjustment height that is right for you. Many divers have a fear of hitting themselves in the back of the head with a tank

that sits too high in its harness. In reality, most recreational dives wear their tanks far too low.

There is a simple test to ensure that your tank is sitting high enough in its harness. That test is: *Can you reach back and easily turn your tank's on/off valve(s)?* If you can, great! If not, your tank should probably be higher.

Sooner or later, nearly all of us manage to jump in the water with our air turned off. If we can reach the tank valve to turn it on, this is merely an inconvenience. If we cannot reach our tank valve, what would otherwise be merely an embarrassment can turn into a life-threatening situation.

Eliminating Tank Wrap-Up

Before using any other back-inflation style air cell with single cylinders, there are some things you should be aware of. Figure 19 shows the tendency back-inflation-style BCs have when used in conjunction with single cylinders. Air inside the cell causes it to wrap around the tank. This traps air above the level of the BC hose elbow when the diver is in a normal swimming position. Thus, when the diver attempts to vent air from the BC, he or she may not be able to do so.

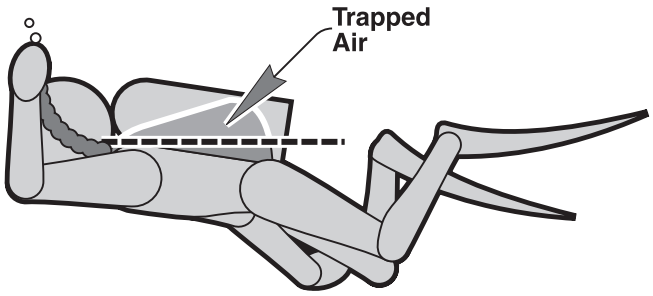


Figure 19: *Tank wrap-up causes trapped air, making it difficult to vent the air cell while in a normal swimming position.*

Figure 20 shows the benefit of eliminating tank wrap-up. The entire air cell is now below the level of the BC hose elbow. Thus, when the diver attempts to vent air, either by using the remote exhaust valve in the hose elbow or by holding the end of the hose up and depressing the oral inflation/manual deflation button, he or she will be able to vent air more easily. Travel Wings, Trek Wings and Rec Wings each employ a method of helping divers avoid single-tank wrap-up.

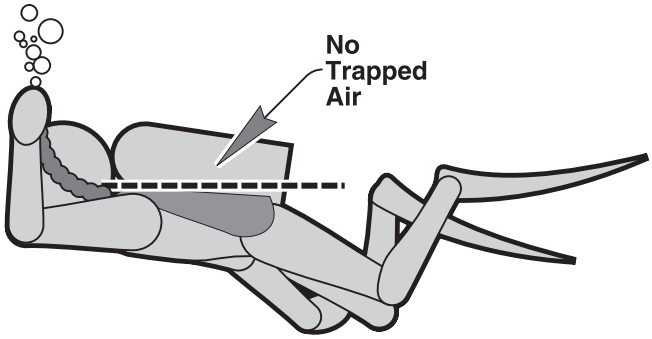


Figure 20: *Eliminating tank wrap-up makes it much easier to vent the air cell while in a normal swimming position.*

In the case of Travel Wings, the elastic outer bag helps the BC maintain the most streamlined shape possible, regardless of whether it contains air or not. This design greatly minimizes any tendency toward tank wrap-up. On Trek and Rec Wings keeping the gusset control cord as snug as possible will help keep single tank wrap-up to a minimum.

WARNING

Do not use either the Classic Wings or Super Wings with single cylinders. When using Trek or Rec with single cylinders, always keep the elastic strap and gusset control cords as snug as possible. Failure to do so can prevent you from venting air from your BC and may lead to uncontrolled ascents. This can further result in *serious personal injury* or *death*.

Attaching Your Transpac II System to Double Cylinders

The method you will use to attach your Transpac II to double cylinders will depend on the size and configuration of those cylinders. In Europe and elsewhere, a common configuration for compact double cylinders is that shown in Figure 21.

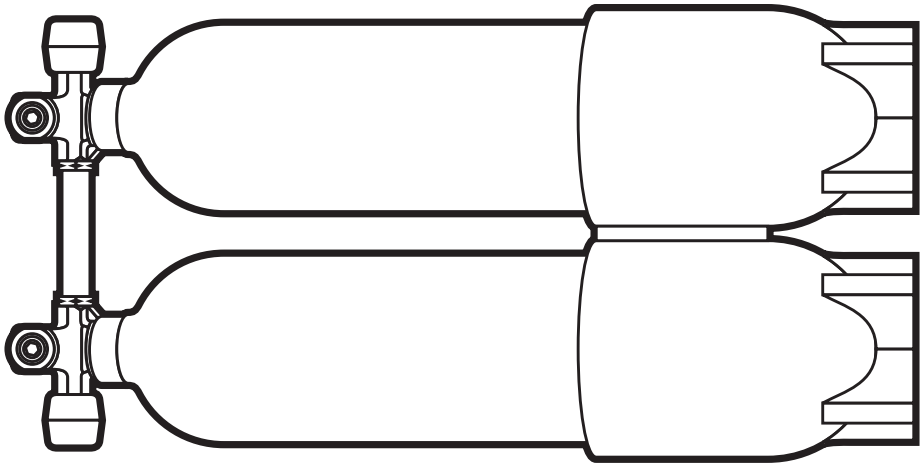


Figure 21: *Compact double cylinders.*
Here the manifold and tank boot hold the cylinders together as a single unit. You can treat such cylinders as though they were a large single tank, and attach them to your Transpac II with cam straps. If the standard Transpac II cam straps are not long enough, you can replace them with Model 2032D straps, which accommodate a wide variety of double cylinders.

To attach higher capacity double cylinders to your Transpac II, the doubles must be bolted together with Dive Rite 1033 or 1033W tank bands, or their equivalent. The bands should be spaced so that the bolt centers are exactly 11.0 inches/28cm apart. Doubles used with Dive Rite "Wings" BCDs and traditional back plates are already set up this way.

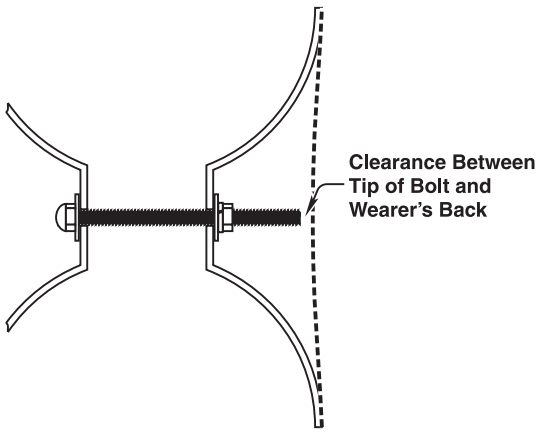


Figure 22: *Bolt clearance.*

As shown in Figure 22, the bolts should protrude quite a distance from the center of the bands—but not so far, however, that they will gouge the wearer in the back.

Figure 23 shows how to attach double cylinders, air cells and harnesses to one another using 2084 stabilizing plates. (To access the harness bolt holes, you will need to temporarily pull the back pad/lumbar support away from the inside of the harness.) As with single cylinders, the air cell is sandwiched between the cylinders and harness.

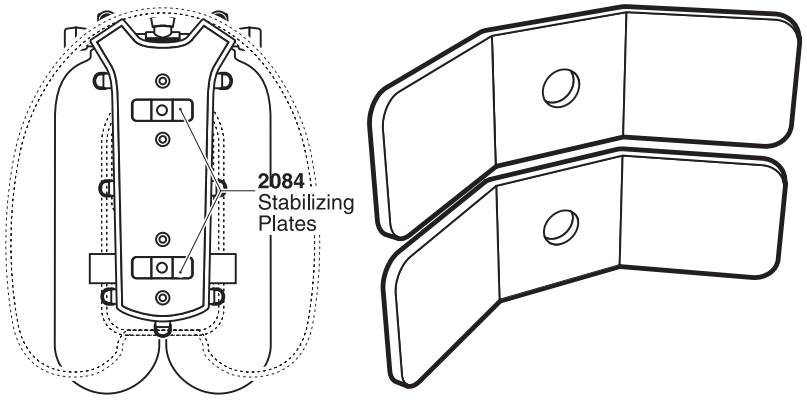


Figure 23: *Proper positioning of doubles, air cell, harness and stabilizing plates.*

Tighten the 2084 stabilizing plates in place using the wing nuts that come with the tank-band bolt kit, as shown in Figure 23. Turn the wing nuts until they are as tight as you can get them.

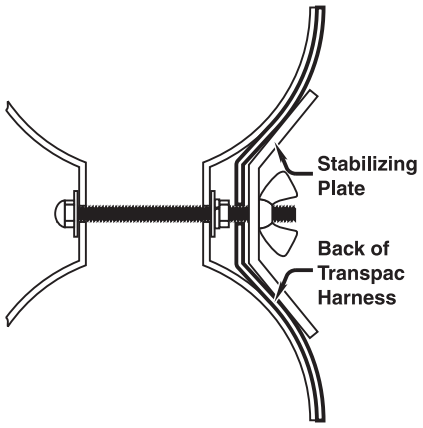


Figure 24: *This is what happens when you tighten the wing nuts.*

Attaching/Using Optional Crotch Strap

The nature of the human body is such that, while it is easy to design a harness capable of holding considerable weight when a person is in a vertical or horizontal position, it is not as easy to support that weight when the person goes into an inverted (head-down) position. This is why users of doubles and other heavyweight cylinders often choose to add crotch straps to their systems. When in an inverted position, the crotch strap helps keep the cylinders from sliding down and whacking the diver in the head.

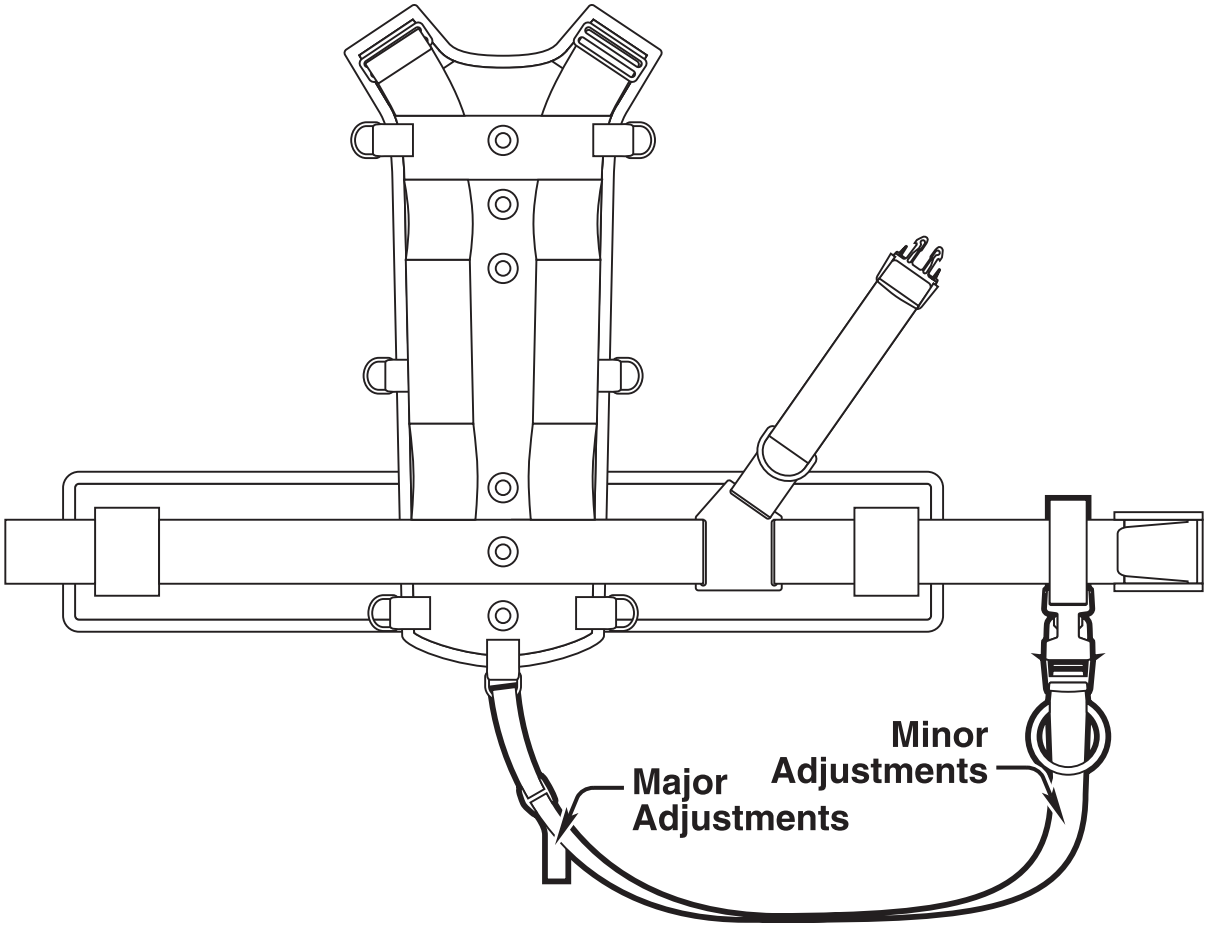


Figure 25: *Crotch strap installation.*

As Figure 25 shows, crotch straps thread into the 1.0-inch/25mm D-ring at the base of the harness. The belt slide supplied with the crotch straps allows users to make major adjustments; minor adjustments can be made at the compression-release fitting at the front of the crotch strap.

WARNING

If you need an auxiliary weight belt, remember to fasten the crotch strap first, then put the weight belt on over it. Failure to do so will hinder your ability to release your weight belt in an emergency. This could lead to *serious personal injury* or *death*.

Installing the Optional Integrated Weight System

To install Transpac II weight pockets, all users must do is thread that portion of the waist band which passes through the shoulder strap base plate so that it captures the rear-most of the pocket's two vertical webbing slots. The shoulder strap itself goes through the upper, horizontal webbing slot. Once installed, the back of the pockets should look exactly like what is shown in Figure 26.

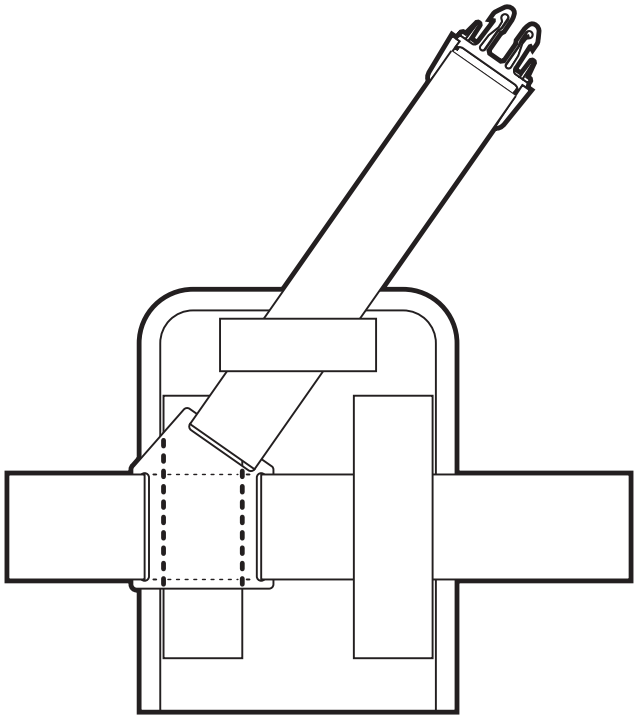


Figure 26: *Weight pocket installation.*

Additional Considerations

The design of the Transpac II's 2.0-inch/50mm waist strap allows the flexibility to install pockets in a wide variety of ways. Depending on what pockets you choose and the length of the waist strap you have to work with, there may be some limitations on how or where you can install pockets.

WARNING

If you do install other pockets in addition to those of the weight system, make certain these other pockets do not interfere with easy and rapid removal of weight in an emergency. Failure to do so may result in unsuccessful attempts at jettisoning weight which, in turn, can lead to the inability to ascend to or remain at the surface. This can cause *serious personal injury* or *death by drowning or other causes.*

Adding/Removing Shoulder Strap D-Rings

To add or remove D-rings from Transpac II shoulder straps, or to replace shoulder straps with those of a different size, you will need to know how to thread and unthread the 2.0-inch/50mm webbing found at the top of each strap. Figure 27 shows how. Among the things you will need to bear in mind:

- If you are replacing shoulder straps, you will first need to insert the Velcro®-tipped tab at the top of each new strap into the corresponding slot on the Transpac II backpiece. Make certain each tab goes in as far as possible. An effective way to do this is to first place the tab inside a small plastic bag, before inserting it in the slot. After the tab is in place, pull the bag out the top of the slot. Doing so will help ensure that both sides of the Velcro® do not make contact until the tab is completely in place.
- As the Figure 27 shows, the shoulder strap webbing is designed to pass through two stainless belt slides (weight retainers). The top slide is permanently sewed to the Transpac II backpiece. The lower slide goes on the shoulder strap webbing. Note that the webbing passes through this lower slide twice, to help ensure the strongest possible hold.

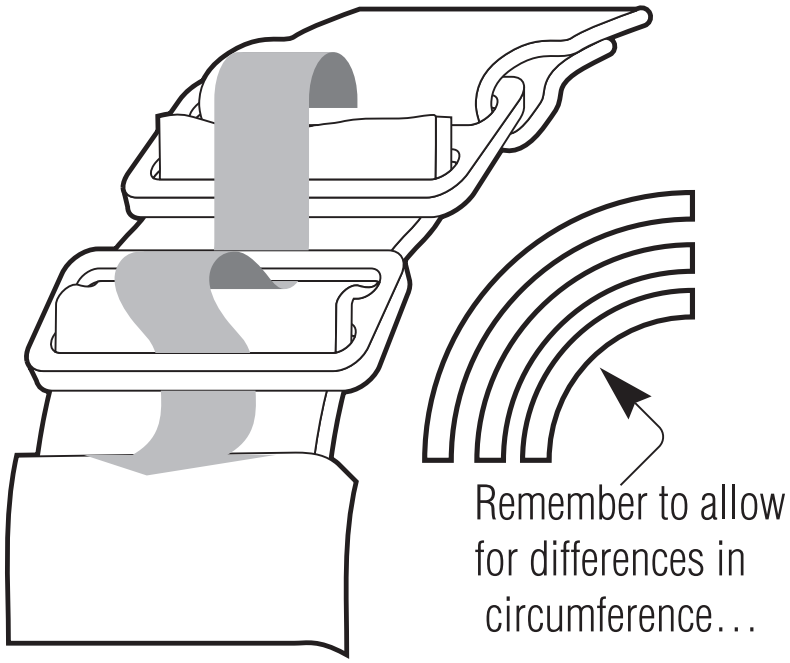


Figure 27: *Rethreading shoulder strap webbing.*

Remember that, due to the curvature of the shoulder strap, the webbing needs to be slightly longer than the strap beneath it.

Using Your Transpac II

Having correctly assembled your Transpac II system, you are ready to use it. This section covers some important things you need to know, and some important steps you need to follow, when doing so. It is not intended as a replacement for certified, professional instruction in scuba diving and buoyancy control. Among the things this section covers:

- *Donning and Adjusting Your Transpac* A guide to achieving the best possible fit and performance.
- *Post-Dive Maintenance and Care* The steps you must follow, after every use, to protect your Transpac II from harm.

As before, if you have questions regarding any of the information you find in this manual or—equally important—questions pertaining to information about the Transpac II you cannot find in this manual, contact your local authorized Dive Rite dealer. If there is no authorized Dive Rite dealer in your area, contact Dive Rite directly, using the information appearing on the front of this manual.

Donning and Adjusting Your Transpac II

A snug, secure fit is among the chief benefits of the Transpac II system. To help ensure a snug, yet comfortable fit, follow these steps:

1. Before donning your Transpac II, loosen the shoulder and cross-chest straps.
2. Don the Transpac II and fasten the waist strap so that it is comfortable.
3. Fasten the cross-chest strap but do not tighten it.
4. Partially tighten the shoulder straps.
5. Partially tighten the cross-chest strap.
6. Repeat steps 4 and 5 until you achieve the most comfortable fit.
7. If installed, fasten the optional crotch strap. (Remember not to don your weight belt until after the crotch strap is fastened.) If the crotch strap does not fit securely, tighten it by pulling down on the free end of the strap.
9. Rock gently from side to side to make sure the harness is tight and secure.
10. Fully inflate the BC to ensure it will not restrict your breathing or movement.

WARNING

Adjust the waist, shoulder and chest straps for a comfortable fit. Properly fitted, the Transpac II should not restrict your breathing when its air cell is fully inflated.

Before each use, check your Transpac II's bands, straps, quick-disconnect clips and the cummerbund/ waist strap for wear. Have an authorized repair facility replace worn or damaged items before you use your Transpac II.

Inflation and Deflation Procedures

An Important Note Regarding Redundant Bladders Both the Dual Rec Wings and Super Wings contain a primary bladder which you inflate and deflate through the large-diameter inflation/deflation hose located on the *left* side of the air cell. In the event of bladder or air-hose failure, these air cells also contain a back-up bladder. You inflate and deflate the back-up bladder with the inflation/deflation hose located on the *right* side of the air cell.

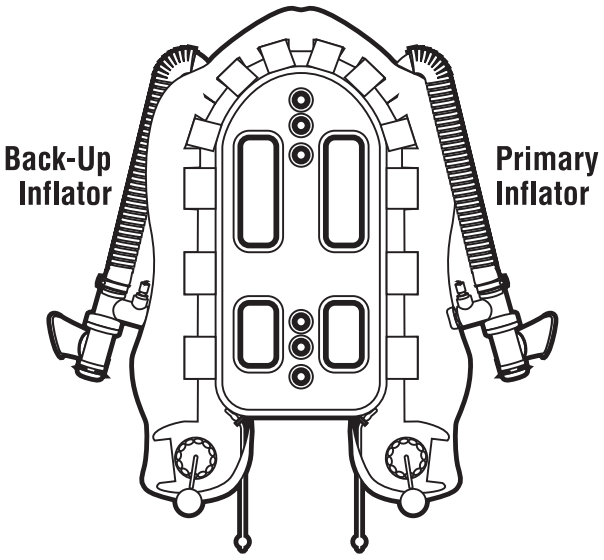


Figure 28: *Location of primary and back-up inflation hoses.*

Keep the large-diameter inflation/deflation hose for the back-up bladder readily available. On the Super Wings, you will find a retaining strap for the back-up bladder hose on the right side of the air cell. We recommend that you keep a low-pressure inflator hose attached to this large-diameter hose during each dive.

Post-Dive Maintenance and Care

With proper care and service, your Transpac II can provide you years of safe, enjoyable use. Without this care, your BC can become damaged and be either unserviceable or dangerous to use.

General Maintenance Procedures

- ➤The sun's ultraviolet rays can fade and damage your BC, shortening its life. *Store your Transpac II away from sunlight and excessive heat.*
- ➤Keep *sharp objects* from coming in contact with your Transpac II.
- ➤Take care when handling your Transpac II. *Do not rest heavy objects on it or drag it over rough surfaces.*
- ➤Periodically *lubricate* the low-pressure inflator hose coupling and quick-disconnect plug with silicone lubricant.

Do not disconnect the large-diameter inflation hose elbow/remote exhaust from the air cell body. Detachment and re-attchment of this component requires use of a special tool, and should only be attempted by a qualified technician working under the supervision of an authorized Dive Rite dealer or distributor. Attempts to remove and/or replace this component without the necessary training and tools may result in *permanent damage* to the inflation hose assemply or air cell.

- ➤Due to the type of material used in the construction of your Transpac II, you should clean it only with fresh water and mild detergent. *Chemicals, strong detergents and cleaning solutions can damage your Transpac II and shorten its life.*
- ➤Have your Transpac II *inspected yearly by* your local, authorized Dive Rite dealer.

Steps to Follow After Every Dive

Perhaps the greatest threat to your Transpac II's long life is the presence of contaminants in its air cells. Salt water, in particular, poses a very serious threat. When it evaporates, salt water leaves behind razor-sharp crystals that can easily puncture air cell fabric. Other substances can cause the inside surfaces of your air cell to permanently stick to one another. To help prevent this from happening, follow these steps:

1. Begin by draining any water that may have collected in your BC during the dive. To do so, at least partially inflate the BC, then turn it over so that the hose elbow is at the lowest point. Depress the oral inflator/manual deflator button while squeezing gently on the air cell. Continue to do so until all the water is out.
2. Refill the BC with fresh water, until it is approximately one-quarter full. Inflate the BC the rest of the way with air.
3. Turn the BC over and over, so that the fresh water has the opportunity to rinse all of the BC's interior surfaces.
4. Repeat step 1 to drain the fresh water from the BC.
5. Repeat steps 2, 3 and 4 one or two more times.
6. Rinse the exterior of the BC by immersing it in a tub or fresh water, or spraying it gently with a hose.
7. Inflate the BC until it is nearly full, and let it stand for 30 minutes. After 30 minutes, check for loss of air.
8. Lay the Transpac II out flat or—better still—hang it upside down for several hours, to allow it to dry thoroughly.
9. Store the Transpac II partially inflated, in a dry, dark place.

Seriel Number_____

Notes:_____