

# DRYSUIT OWNER'S MANUAL





# Introduction

## DUI DRYSUIT OWNER'S MANUAL

Congratulations on purchasing a DUI drysuit. It has been carefully manufactured to exacting standards using high quality materials. When used properly, it will make your diving more comfortable and enjoyable.

DUI's drysuits are intended for use by certified divers trained in the use of drysuits, or individuals under the direct supervision of a qualified instructor.

Even if you are an experienced drysuit diver, we urge you to take the time to read this manual. It includes many important safety techniques and information that can help you extend the useful life of your drysuit.

If the owner's manual is unavailable or lost, you can download a copy from the DUI Website at www.DUI-Online.com or a copy may be obtained by contacting DUI at:

DIVING UNLIMITED INTERNATIONAL, INC.

1148 Delevan Drive San Diego, CA 92102-2499 USA 800-325-8439 619-236-1203 619-237-0378 Fax Support@DUI-Online.com

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# DEFINITION OF IMPORTANT WORDS USED IN THIS MANUAL

Throughout this manual, we will use certain words to call your attention to conditions, practices, or techniques that may directly affect your safety. Pay particular attention to information introduced by the following signal words:

#### !!! DANGER !!!

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

#### !! WARNING !!

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

#### ! CAUTION!

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

## **CUSTOMER SUPPORT**

If any portion of this manual is unclear, or if you are unable to obtain satisfactory answers from your dive store or instructor, contact DUI at: 800-325-8439

619-236-1203

Fax 619-237-0378

Support@DUI-Online.com

www.DUI-Online.com



## IMPORTANT SAFETY INFORMATION

This drysuit is intended for use by certified SCUBA divers who have successfully completed a course in the use of drysuits or divers in training under the supervision of a qualified instructor.

#### !! WARNING !!

Follow all instructions and heed these safety precautions. Improper use or misuse of the drysuit could result in serious injury or death.

#### !! WARNING !!

This owner's manual is NOT a substitute for drysuit instruction by a qualified instructor. DO NOT USE a drysuit until you have practiced and mastered practical drysuit diving skills, including emergency skills, in a controlled environment under the supervision of a dive instructor, certified by a nationally recognized instructional organization and knowledgeable in the use of drysuits.

#### !! WARNING !!

Improper use or misuse of this DRYSUIT could result in loss of buoyancy control, including uncontrolled descents and uncontrolled rapid ascents, resulting in drowning, decompression sickness, or air embolism.

#### !! WARNING !!

Improper use or misuse of this DRYSUIT could result in exposure to thermal hazards, including rapid body overheating (hyperthermia) or cooling (hypothermia), resulting in stroke or seizure.

#### !! WARNING !!

Do not use the drysuit as a lift bag. If you use the drysuit as a lift bag and lose your grip on the object, you may become excessively buoyant.

This may result in a rapid ascent.



## !! WARNING !!

Rapid ascent is dangerous and may cause air embolism or decompression sickness, either of which can result in serious injury or death.

#### !!! DANGER !!!

Ice diving (diving in water 40°F (5°C) or less) is extremely hazardous. Do not engage in ice diving unless you have been thoroughly trained and specially equipped.

#### !! WARNING !!

Diving in an environment which is chemically, biologically, or radiologically contaminated is extremely hazardous. Although some DUI equipment can be adapted for use in some contaminated environments, special training, equipment and procedures are required. Do not dive in a contaminated environment unless you have been thoroughly trained and specially equipped. This manual should not be used as a substitute for drysuit instruction, OSHA HAZWOPER courses or contaminated water diver training. It is important that the diver understands that exposure protection does not eliminate the risks associated with contaminated water.

Read this entire manual before using the drysuit, even if you have experience in the use of drysuits. Keep the manual for future reference.

If you resell or loan the equipment to someone, be sure that this manual accompanies the drysuit and is read and understood before the drysuit is used.

Failure to follow all warnings and instructions for use and maintenance of the drysuit may result in serious injury or, in extreme situations, death.

This manual is supplied to the original purchaser of a DUI drysuit. If you have any questions about the use or maintenance of your DUI drysuit, or if you need another copy of this manual, contact DUI:



DIVING UNLIMITED INTERNATIONAL, INC.
1148 Delevan Drive, San Diego, CA 92102-2499 USA
1-800-325-8439
Support@DUI-Online.com
www.DUI-Online.com

# IMPORTANT SAFETY PRECAUTIONS AND DRYSUIT GUIDELINES

The following DRYSUIT GUIDELINES have been adopted and endorsed by several manufacturers of drysuits, including DUI:

- Complete a drysuit diving course from an instructor and stay current by practicing your skills often
- Use a buoyancy compensation device for surface flotation and back up.
- Know your equipment and emergency procedures
- Practice your drysuit diving skills under controlled conditions until they become second nature
- Dive with a dive partner who understands your drysuit system
- Use the correct amount of insulation for the water temperature in which you are diving and exercise rate
- Do not weight yourself heavier than neutral buoyancy with an empty tank.
   Your weighting should allow you to make a safety stop at ten feet upon completion of your dive with a tank containing 500 psi (34 Bar) of air or less
- Check your valves, zipper and seals before each dive
- Perform preventive maintenance and repairs on your drysuit and valves regularly, or have them serviced by a qualified individual
- · Know your limitations and do not exceed them
- Water or air temperatures below 70°F (21°C) constitute cold water diving
- Water or air temperatures below 40°F (5°C) constitute ice diving. Ice diving is very dangerous and requires special equipment, training, preparation and procedures



# INTENDED USE AND FUNCTION OF A DRYSUIT

DUI drysuits are shell drysuits and provide minimal thermal protection. The drysuits are designed to be used in combination with insulated undergarments as well as head and hand protection. The shell drysuit provides a dry air layer around the covered portions of the body. A similar example is a raincoat. As with a raincoat, the coat keeps you dry and what you wear under it keeps you warm. This approach provides you with a versatile drysuit which can be used in a wide range of diving conditions by adjusting the insulation and accessories to your personal needs.

## !!! CAUTION !!!

A DUI drysuit is intended to keep you dry, the divewear insulation you wear underneath will keep you warm. The amount of divewear insulation you will need varies due to individual diver tolerance when combining water temperature, exposure time, diver activity level and personal metabolic rate.

Some type of insulation should be worn even when diving in warm waters to lessen the suit squeeze. Diving without any insulation can become uncomfortable with little to no air inside the drysuit.

Do not wear more insulation than the diving conditions require as overheating can occur.

## SELECTING AND FITTING A DRYSUIT

DUI has 15 sizes for men and 18 sizes for women which fit a large percentage of the population. Signature Series(made to measure) is available for those individuals who do not fit one of those sizes.

When selecting the size of a drysuit start with the sizing tables for the drysuit style. The size given will represent a starting point. The key to getting the correct size is to first put on the maximum amount of divewear insulation you anticipate using.



## MEN'S DRYSUITS

Drysuit Size	SS	S	ST	MS	М	MT	LS	L	LT	XLS	XL	XLT	XXLS	XXL	XXLT
Height	64	66	68	66	68	70	68	70	72	70	72	74	72	74	76
Chest	35-37	35-37	35-37	38-40	38-40	38-40	41-43	41-43	41-43	44-46	44-46	44-46	47-49	47-49	47-49
Waist	33-35	33-35	33-35	36-38	36-38	36-38	39-41	39-41	39-41	42-44	42-44	42-44	45-47	45-47	45-47
Hips	32-34	32-34	32-34	35-37	35-37	35-37	38-40	38-40	38-40	41-43	41-43	41-43	44-46	44-46	44-46
Spine-Wrist	27-28	28-29	29-30	28-29	29-30	30-31	29-30	30-31	31-32	30-31	31-32	32-33	31-32	32-33	33-34
Floor to Crotch	32-33	33-34	34-35	33-34	34-35	35-36	34-35	35-36	36-37	35-36	36-37	37-38	36-37	37-38	38-39
Shoe Size	8-9	8-9	8-9	9.5-10	9.5-10	9.5-10	10.5-11.	510.5-11.5	10.5-11.5	10.5-11.5	10.5-11.5	10.5-11.5	12-13	12-13	12-13
30/30™ Drys	suits														
Drysuit Size	SS	S	ST	MS	М	MT	LS	L	LT	XLS	XL	XLT	XXLS	XXL	XXLT
Height	64	66	68	66	68	70	68	70	72	70	72	74	72	74	76
Chest	35	35	35	38	38	38	41	41	41	44	44	44	47	47	47
Waist	33	33	33	36	36	36	39	39	39	42	42	42	45	45	45
Hips	32	32	32	35	35	35	38	38	38	41	41	41	44	44	44
Spine-Wrist	27	28	29	28	29	30	29	30	31	30	31	32	31	32	33
Floor to Crotch	32	33	34	33	34	35	34	35	36	35	36	37	36	37	38

#### WOMEN'S DRYSUITS

Drysuit Size	SS	S	ST	MS	М	MT	MLS	ML	MLT	LS	L	LT	XLS	XL	XLT	XXLS	XXL	XXLT
Height	60	62	64	62	64	66	64	66	68	66	68	70	68	70	72	70	72	74
Chest	31-32	31-32	31-32	33-34	33-34	33-34	35-36	35-36	35-36	37-38	37-38	37-38	39-40	39-40	39-40	41-42	41-42	41-42
Waist	29-30	29-30	29-30	31-32	31-32	31-32	33-34	33-34	33-34	35-36	35-36	35-36	37-38	37-38	37-38	39-40	39-40	39-40
Hips	33-34	33-34	33-34	35-36	35-36	35-36	37-38	37-38	37-38	39-40	39-40	39-40	41-42	41-42	41-42	43-44	43-44	43-44
Spine to Wrist	25-26	26-27	27-28	26-27	27-28	28-29	27-28	28-29	29-30	28-29	29-30	30-31	29-30	30-31	31-32	30-31	31-32	32-33
Floor to Crotch	30-31	31-32	32-33	31-32	32-33	33-34	32-33	33-34	34-35	33-34	34-35	35-36	34-35	35-36	36-37	35-36	36-37	37-38
Shoe Size	5.5-6.5	5.5-6.5	5.5-6.5	7-8.5	7-8.5	7-8.5	7-8.5	7-8.5	7-8.5	7-8.5	7-8.5	7-8.5	9-10	9-10	9-10	9-10	9-10	9-10
30/30 <sup>™</sup> Dr  Drysuit Size	ysuits ss	s	ST	MS	М	MT	MLS	ML	MLT	LS	L	LT	XLS	XL	XLT	XXLS	XXL	XXLT
Height	60	62	64	62	64	66	64	66	68	66	68	70	68	70	72	70	72	74
Chest	31	31	31	33	33	33	35	35	35	37	37	37	39	39	39	41	41	41
Waist	29	29	29	31	31	31	33	33	33	35	35	35	37	37	37	39	39	39
Hips	33	33	33	35	35	35	37	37	37	39	39	39	41	41	41	43	43	43
Spine to Wrist	25	26	27	26	27	28	27	28	29	28	29	30	29	30	31	30	31	32
Floor to Crotch	30	31	32	31	32	33	32	33	34	33	34	35	34	35	36	35	36	37

#### Special Fitting Note:

Measurements are guidelines only. Different suit styles are designed to fit differently. Individual insulation needs, fit preference and even diving equipment configurations can affect the suit size selected. If you have any questions about fit, contact DUI Customer Support Team for assistance.



#### BEFORE PUTTING ON A DRYSUIT:

- Check the fit of the divewear. Ill-fitting divewear insulation will affect the fit of the drysuit.
- Check the fit of the seals see the seal sizing portion of this manual
- Review the instructions in this manual on how to put on the drysuit

# PUT THE DRYSUIT ON OVER YOUR DIVEWEAR & COMPLETE THE FOLLOWING FIT EVALUATION:

The drysuit should not restrict breathing

Feet should not be cramped

Ease of breathing: There should be no restriction when taking a deep breath

Complete the range of motion exercises:

Overhead reach: Reach up with both hands as if you were trying to reach the valve on your tank; you should be able to do this without the drysuit pulling up tight in the crotch

Cross your arms reach: Reach across the chest with both arms (like you were hugging yourself.) You must be able to reach and operate the exhaust valve on the left shoulder

Crouch and reach: Kneel down, sit back over your heals and lean forward. This position checks the leg length and torso length at the same time. The drysuit should not be restrictive or binding



FIG-2 RANGE OF MOTIONS EXERCISES

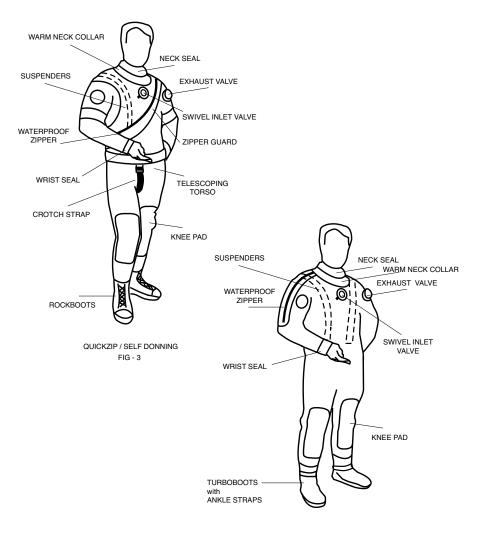
The fit of a drysuit is important and, if you are between sizes, the larger size is the better choice. If problems are noted in any of these areas a different size or a Signature Series (made-to-order) should be selected.



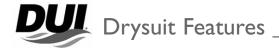
# COMMON DUI DRYSUIT FEATURES

The following features are found on most QuickZip™ and Classic-style self-donning drysuit models and shoulder-entry drysuit models.

#### FIG 3 & 4 DRYSUIT FEATURES



SHOULDER ENTRY FIG - 4



## **DRYSUIT VALVES**

Your drysuit is equipped with an inlet and exhaust valve for controlling the air volume inside your drysuit. The inlet valve allows you to put air into your drysuit during descent as needed or to inflate the drysuit while at the surface for additional flotation. The inlet valve body swivels and allows the drysuit inflation hose to be routed around the right or left side of the diver.

The exhaust valve is used to vent unnecessary air from the drysuit. The exhaust valve can be used to release air automatically or can be manually operated. Most diving is done with the exhaust valve in the automatic mode at the lowest opening pressure which keeps the smallest amount of air in the drysuit. Set the valve to the lowest opening pressure by rotating the valve body completely counterclockwise until you reach a stop (see the section on MAINTAINING BUOYANCY CONTROL DURING THE DIVE for more information.) To vent air from the drysuit in the automatic mode make the valve the highest point in the drysuit; i.e., lift your left elbow up so that the valve is at the highest point on your arm.

The manual exhaust mode is used primarily on the surface when additional flotation is needed. In the manual mode, the valve is set at the highest opening pressure by rotating the exhaust valve body fully clockwise until a stop is reached. To vent air from the drysuit, position the valve at the highest point and fully press down on the valve. The valve can be manually operated to vent air from the drysuit even in the automatic or partially closed mode.

## VALVES FOR DIVING IN CONTAMINATED WATER

DUI has special inlet and exhaust valves for contaminated water diving. THESE ARE COLORED YELLOW.

A contaminated water inlet valve is equipped with special fluorosilicone orings to minimize the risk of exposure to contamination. While fluorosilicone orings are more chemically resistant than traditional rubber orings, it does not eliminate the risk of exposure. The type of chemical, repeat exposure to chemicals or extensive chemical exposure should be taken into consideration prior to each dive.

A contaminated water exhaust valve includes a double exhaust diaphragm and a check valve made with fluorosilicone to minimize the risk of exposure to contamination. The double exhaust helps to minimize the possibility of water leaking into the suit through the valve. While the fluorosilicone check valve is more chemically resistant than traditional check valves, it does not eliminate the risk of exposure. The type of chemical, repeat exposure to chemicals or



extensive chemical exposure should be taken into consideration prior to each dive.

Because the double exhaust makes the valve taller and it sits higher on your arm, the vent rate will be slightly slower than a regular exhaust valve. While vent rates are impossible to validate in the field due to differences in body positioning and insulation, care should be taken to always have a slow and controlled ascent and dive the exhaust valve in the fully open position.

Decontamination of the valves is critical to the care and maintenance of your suit. It is very possible that you will need to replace your valves if they are exposed to high concentrations of hydrocarbons and other chemicals.

#### !!! DANGER !!!

Diving in an environment which is chemically, biologically, or radiologically contaminated is extremely hazardous. DUI offers a line of drysuits specifically for these types of diving operations. However, even with these specialized drysuits, special training, equipment and procedures are required. Do not dive in a contaminated environment unless you have been thoroughly trained and specially equipped.

# **NECK, WRIST & ANKLE SEALS**

The neck and wrist seals provide a watertight seal around the neck and wrist. Sizing adjustments must be made to get a proper fit and seal. Latex and silicone seals are most common, however neoprene seals are available.

Most DUI drysuits are outfitted with DUI's patented ZipSeals™. These offer the ability to change out seals in minutes. See page 25 for detailed information.

DUI's 30/30 drysuit is equipped with latex ankle seals.

## **BOOTS**

Most all DUI drysuits come with an attached boot. There are three main types of boots:

## **ROCKBOOTS**<sup>TM</sup>

Socks are attached to the drysuit to keep the feet dry. The socks are sized to



provide room for divewear insulation socks. RockBoots<sup>TM</sup> are then worn over the socks to provide protection, ankle support and improved traction. This is the preferred boot for beach divers or divers who like the added durability of a separate boot.

### TURBOBOOTS™

This option is selected when the diver prefers a completely attached boot.

The sock has a sole similar to a sneaker, has a softie-sole installed on the inside of the sock and has an ankle strap. This is the preferred boot for divers who like exceptional ankle flexibility for finning.

## TURBOTEC™ BOOTS

This boot is similar to the TurboBoot but has Kevlar® reinforcements on the toe, top of the boot and the heel. This boot is an upgrade and is ideal for divers who like the flexibility of the TurboBoot and want the added durability of Kevlar®. These divers typically dive often and/or spend extended periods of time in their drysuits.

## WATERPROOF ZIPPER

The waterproof zipper provides a watertight closure and allows for putting the drysuit on and removing it. The waterproof zipper is one of the most important parts of your drysuit. Read the instructions on the use and care of the waterproof zipper before using. Misuse could result in permanently damaging the zipper.

For tips to help you care for your drysuit zipper, go to DUI-Online.com/zipper.

# COMMON FEATURES ON QUICKZIP™ & CLASSIC-STYLE SELF-DONNING DRYSUITS

## **SUSPENDERS**

Suspenders hold the crotch of the drysuit up which improves leg movement. The suspenders also allow the upper half of the drysuit to be worn down around the waist before or between dives.

## **TELESCOPING TORSO**

The telescoping torso section provides extra room for putting the drysuit on



or removing it. The extra material then folds over at the hips when the extra length is not needed.

### **CROTCH STRAP**

The crotch strap holds the telescoping torso section in place when the drysuit is in use.

## WARM NECK COLLAR

The warm neck collar is used in combination with the warm neck hood. The bib on the warm neck hood is tucked under the warm neck collar. The design minimizes water circulation around the neck and helps to keep the neck warm.

### ZIPPER GUARD

The zipper guard provides a protective covering for the waterproof zipper.

## **ACCESSORIES FOR DRYSUIT DIVING**

There are several accessories that will make diving with your DUI drysuit easier and more enjoyable.

The following drysuit accessories are available from your DUI dealer. For additional information contact your DUI dealer, visit DUI's website at www.DUI-Online.com or contact DUI Customer Support.

## **DIVEWEAR INSULATION**

DUI has a complete line of insulation garments specifically designed for the diving environment. Visit DUI-Online.com to learn about the different materials and designs available and for help in selecting the best combination of garments for your diving needs.

## **DUI ULTRA DRYSUIT HOODS**

Warm Neck Hood: The warm neck hood provides additional thermal protection to the neck area and is designed work in conjunction with the warm neck collar available on most DUI drysuits.

Standard Hood: This hood is used with drysuits not equipped with warm neck collars.



## WEIGHT & TRIM SYSTEMS

DUI Weight & Trim Systems are a comfortable way to wear 6 to 40 pounds of weight. Typical weight belts can slip during a dive and be very uncomfortable on the lower back and hips. Many weight-integrated BCD's require that the weight be worn higher on the body thus making the diver swim in the head-down position or have their feet feel like they are floating.

Weight & Trim Systems are a harness that allows the shoulders to hold the weight alleviating lower back discomfort. It also allows the diver to adjust where the weights are located - up, down, forward and back - so the diver can place the weights where they are most comfortable.

It is said there are two types of divers; those that love the DUI Weight & Trim System and those that have never dived it!

## **DRY GLOVE SYSTEMS**

Dry glove systems should be considered when diving in water temperatures below 54°F (12°C) to minimize the risk of non-freezing cold injures. Current options include:

ZipGloves<sup>™</sup>: A ZipRing is permanently attached to your drysuit and the glove attaches to your drysuit with that ring. No wrist seal is typically used and liners are used on your hands for insulation.

Dry-5 Non-Integrated Glove System: Insulated dry gloves with latex wrist seals attached and worn over the top of the drysuit wrist seals.

## DRYSUIT INFLATION SYSTEM

A drysuit inflation system is for divers who do not want to use their breathing gas to inflate their drysuit. It consists of a 6 cubic foot aluminum cylinder, mini regulator with hose and a mounting system. It can be used with single or double tanks.

## OTHER ACCESSORIES

## **ANKLE WEIGHTS**

Many newcomers to drysuit diving find that ankle weights are helpful in adjusting trim while in the water. Experienced drysuit divers often consider ankle weights as "training wheels" to be removed as soon as possible because of the additional effort required to swim. It is recommended that recreational



divers wear no more than 2.5 Lb (1 kg) on each ankle.

#### ! CAUTION!

Do not wear fins that are too tight. If you block the blood flow to the feet, you may suffer cold and disabling foot cramps.

### LATEX & SILICONE SEALS & TRIMMING GUIDES

The sizing guide below is for new DUI standard and silicone latex seals only. Do not use these guidelines for heavy-duty or RS-style latex wrist seals or neoprene seals.

If you have any questions, please contact your local DUI dealer or contact DUI Customer Support at 800.325.8439, 619.236.1203 or Support@DUI-Online.com.

Latex and silicone neck and wrist seals are trimmed to fit to provide a comfortable water-tight seal. Latex seals are tapered and have a series of trim lines (small raised lines running around the outside surface of the seal.) The trim lines start at the seal opening and with each line gets progressively bigger. These lines can be used as a guide when trimming the seals to keep the line even. A good pair of scissors is needed to make smooth cuts. If possible, use a brand new pair of scissors and use these exclusively for trimming latex or silicone seals. Use the Seal Sizing Tables to determine the best starting point for you.

Start by measuring the circumference of your neck and wrists and compare these measurements to the Seal Sizing Table. This will establish a starting point. If your wrists are different sizes you can trim each seal to match each wrist.

Try on the seal (it isn't necessary to put the entire drysuit on to try the neck seal.) For the neck seal, position the seal as low on your neck as possible. It should be snug, but not tight. If you are new to drysuit diving, a snug neck seal may feel a bit uncomfortable out of the water. Once in the water, a properly trimmed neck seal is comfortable.

To create an adequate seal, approximately 1"-1.5" of latex should lay flat against the skin.

Wrist seals should be worn just above the wrist bone\*. They should be snug but not tight and should not restrict blood flow to the hands. If you experience tingling in your hands, trim seals further.

If this is the first time you have trimmed seals and you are concerned about over trimming the seals, start by moving down two sizes smaller than on the Seal Sizing Table. If the table recommends trimming at line 5, start by trimming



at line 7 and check the fit. If the seal is overly snug you can trim on line 6. You can even trim between the lines.

\*A percentage of divers have tendons that cause an indentation when the wrist is flexed. This may cause leakage when the wrist is flexed during the dive. In this case the diver should wear the seal higher on the wrist (up the arm) past the tendons.

**Special Note on Latex Ankle Seals:** There is only one trim line on latex ankle seals. In the event you receive a drysuit and the ankle seal has not been trimmed, trim the ankle seal on the trim line.

**Special Note on ZipSeal Neck/Hood Combo:** When sizing a latex neck seal in the ZipSeal Neck/Hood combo, the trimming guidelines for the neck seal portion differ from trimming a standard neck seal. In a standard neck seal, it should be trimmed so that I" - 1.5" of latex lay flat against the neck. However, when a latex neck seal is included as part of a Neck/Hood combination, the neck seal should be trimmed so that 0.5" - I" of latex lay flat against the skin. This allows for the diver to more easily put on the neck and hood combination while still providing an adequate seal on the neck.

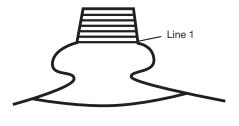
#### FIG 5 - LATEX & SILICONE NECK SEAL SIZING TABLE

Below is a guide chart for trimming DUI latex and silicone neck seals. Remember, these are only guidelines. If unsure, trim at least two lines smaller than recommended and only trim one line at a time. Be sure to use the silicone chart for sizing silicone seals and the latex chart for sizing latex seals.

#### SPECIAL NOTE FOR SILICONE SEALS

Due to the stretch, some divers prefer to wear the silicone seals more snugly than latex seals. Older or heavier divers may prefer a looser fit than shown below.

Neck Measur	ement	Seal Trim	Line		
Inches	mm	Silicone	Latex		
< 11	279	13			
11.5	292	12			
12	304	12			
12.5	318	11			
13	330	11	11		
13.5	342	10	10		
14	356	9	9		
14.5	368	9	8		
15	381	8	7		
15.5	394	٥	6		
16	406	7	5		
16.5	419	/	4		
17	432	6	3		
17.5	445	0	2		
18	457	5 - 3	1		
18.5	470	3-3			

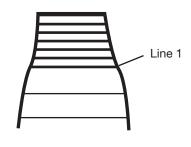




#### FIG 6 - LATEX & SILICONE WRIST SEAL SIZING TABLE

Below is a guide chart for trimming DUI latex and silicone wrist seals. Remember, these are only guidelines. If unsure, trim at least two lines smaller than recommended and only trim one line at a time. Be sure to use the silicone chart for sizing silicone seals and the latex chart for sizing latex seals.

Wrist Measu	rement	Seal Trim	Line		
Inches	mm	Silicone	Latex		
4.5	114	10	10		
5	127	9	9		
5.5	140	8	8		
6	152	٥	7		
6.5	165	7	6		
7	179	6	5		
7.5	191	5	4		
8	203	4	3		
8.5	216	3	2		
9	229	2	0 - 1		



## !! WARNING !!

Compounds and additives to neoprene and latex can cause allergic reactions in some people.

## **NEOPRENE SEALS**

Neoprene seals are made from the same material used to make wetsuits. The seal material is normally 1/8"-3/16" (3-5 mm) in thickness. Though neoprene neck and wrist seals are provided in different sizes, size adjustment may still be needed (keep in mind that a neoprene seal will stretch and become slightly larger with use.) If your seals are too tight, you can stretch them yourself by pulling the seal over something a little larger than your neck or wrist. For a neck seal, a SCUBA tank is common and for wrist seals, a bottle or can is often used. Once the seal(s) are stretched over the item, leave them for about twelve hours. If they are still too tight after this they may need to be trimmed.

To trim the seal use a good pair of scissors and trim off only 1/8" (3 mm) of length at a time checking the fit between cuts. As with latex seals the neoprene seal should not be overly tight or restrict blood flow.

#### !! WARNING !!

A neck seal that is too tight can restrict the blood flow to your brain, resulting in serious injury or death.



#### !! WARNING !!

A wrist seal that is too tight can restrict the blood flow to the hand resulting in discomfort, loss of sensation and predispose the hands to cold injuries.

Special Note: Remove all jewelry which can damage or get caught in the seals.

## WRIST SEALS

### LATEX & SILICONE

- To prevent the Divewear from bunching up in the drysuit sleeve, place the thumb loops located inside the divewear sleeve openings over the thumb or grasp the cuff of the garment with the finger tips
- Pull on the sleeve to where your fingers are sticking out of the seal by I" -2"
- · Bring the fingertips of the hand together forming a point
- · With two fingers from the other hand stretch the seal sideways and pass the hand through the seal
- The latex seal should lay flat against the skin and there should be no wrinkles in the sealing surface. Make sure the thumb loops and/or divewear material is not under the sealing surface

Lubricating seals: This is a matter of preference. Common lubricants include talc, soapy water and Liquid KY. Do not use silicone lubricants which can build up on the suit resulting in problems when repairs are needed.

Special Tip: Soapy water is an excellent lubricant for putting the wrist seals on and off. Use one part dishwashing soap to ten parts water and put in a spray bottle. Spray a small amount of the soapy water on the inside and outside of the wrist seal before putting your hand inside the sleeve.

# NEOPRENE CONE (SMOOTH SEALING SURFACE **INSIDE SEAL)**

- · Put on using the same method as the latex wrist seals
- Neoprene Fold Under Cone (Smooth Sealing Surface on outside of seal to

be folded under to create a seal)

- · Put on using the same method as the latex wrist seals
- Fold under a minimum of 1" (25 mm) of the seal opening so that the smooth sealing surface is against your skin

## **NECK SEALS**

## LATEX & SILICONE

- · Place the seal on top of your head
- From the outside of the suit, grasp the neck seal by placing both hands on the inside of the seal
- Stretch the seal wide with your hands flat (do not dig your fingernails into the neck seal). Your thumbs should remain on the outside of the seal
- Spread the neck seal as wide as you can, turn your head to the side and pull the neck seal over your head
- The seal should lay flat against your neck. There should be no wrinkles or folds or any items under the seal, i.e. divewear collar, hair, etc.

## **NEOPRENE**

- Place the seal on top of your head
- From the outside of the suit, place your hands flat on the outer surface of the seal
- Push your head up through the neck seal while using your hands to slide the neck seal over your head. Stop when the top edge of the neck seal reaches your chin
- To make a seal fold the top edge of the neck seal under while the seal is still
  at your chin. Fold the top edge of the seal down and in around the neck.
  Approximately 2" of the smooth surface of the seal should be flat against the
  neck. There should be no wrinkles or folds or any items under the seal, i.e.
  divewear collar, hair, etc.



# **ANKLE SEALS**

The DUI 30/30 is equipped with latex ankle seals:

- If the drysuit has a protective ankle cuff, undo the velcro and pull back the protective cuff completely exposing the ankle seal
- Put the foot all the way through the leg but not into the ankle seal
- With both hands, insert your fingers into the seal from the outside of the suit
- Stretch the seal as wide as possible while pulling it over your foot
- The ankle seal should lay flat against your skin right above the ankle bone. Be sure there are no wrinkles or folds or any items under the seal, i.e. divewear



# WRIST SEALS

### LATEX & SILICONE

- Insert the index and middle fingers of the left hand under the right wrist seal. Slide the fingers along the inside of the wrist, keeping your fingernails against the wrist and away from the seal
- Grasp the sleeve material between your fingers and thumb and pull your arm out of the seal but not out of the sleeve. Slide the drysuit off the right shoulder
- Put your right arm around your back and, with your left hand, grasp the
  material of the right sleeve. Pull the sleeve off your right shoulder and arm.
   Remove your left wrist seal in the same way and pull the left arm free of the
  sleeve

# NEOPRENE CONE (SMOOTH SEALING SURFACE INSIDE SEAL)

- Pull the sleeve up as far as you can on your arm
- Pull the sleeve down to invert the seal so the nylon lays flat against your forearm
- Insert the fingers of your opposite hand, grasp the sleeve where the wrists seal meets the sleeve and pull seal and sleeve off

# NEOPRENE FOLD UNDER CONE (SMOOTH SEALING SURFACE ON OUTSIDE OF SEAL)

- Unfold the end of the seal so that it is no longer turned under (nylon is laying against your skin)
- Insert the fingers of your opposite hand and pull the seal down and over your hand



## **NECK SEALS**

### LATEX & SILICONE

- From the outside of the suit, reach through the top of the neck seal with both hands
- Spread the latex neck seal as wide as you can with your hands flat (do not dig your fingernails into the neck seal). Be sure that your hands are inside the seal only and not inside the neck ZipRing. (If your fingers are inside the neck ZipRing, it will make the ZipRing smaller and may make the seal more difficult to remove.)
- While spreading the neck seal, lift with your arms as you tuck your head to your chest. Put your head under the seal and out of the drysuit
- Should you require assistance, have your dive partner put his/her hand inside
  the zipper opening under the inlet valve. Gently lift the front of the drysuit
  until it is over your head. Do not strain the drysuit zipper

#### NEOPRENE NECK SEAL

- Unroll the neck seal so it is no longer turned under (nylon is laying against your skin)
- Grab the neck seal with your hands on either side of your head and pull it up until the leading edge is at chin level
- Slide your fingers down inside the seal until the edge of the seal and grab with your fingers and thumb. Tuck your chin into your chest and, while turning your head slightly to the side, pull up on the seal

## **ANKLE SEALS**

- If the drysuit has a protective ankle cuff, undo the velcro and pull back the protective cuff completely exposing the ankle seal
- From the outside of the suit, reach through the bottom of the ankle seal with your fingers from both hands
- With your fingers inside the seal and thumbs on the outside, reach through and grab the fabric of the suit
- · Carefully pull the suit over the foot



# INSTALLING & USING DUI ZIPSEALS™ & ZIPGLOVES™

#### !! WARNING !!

Improper use or misuse of ZipSeals and/or ZipGloves could result in suit flooding and loss of buoyancy control, including uncontrolled descents and uncontrolled rapid ascents, resulting in drowning, decompression sickness, or air embolism. Always check ZipSeals attachment prior to every dive.

Improper use or misuse of ZipSeals and/or ZipGloves could result in suit flooding and exposure to thermal hazards, including rapid body cooling and hypothermia. Always check ZipSeals attachment prior to every dive.

# WRIST ZIPSEALS

#### **INSTALLING WRIST ZIPSEALS**

1. Your drysuit must be equipped with ZipRings on the sleeves



2. Apply a small amount of soapy water into the grooves on the wrist ZipSeal (I part mild dish soap to 10 parts water)



3. Invert the seal so you can get your fingertips on the inside of the ZipRing (this will help you press the rings together)



4. Insert the entire ring of the ZipSeal into the sleeve



5. Line up the grooves on the wrist ZipSeal with the grooves on the sleeve. Press together. You should feel the grooves "click" together



6. Repeat the procedure on the other sleeve

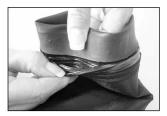
Remember: ALWAYS double check each ZipSeal before every dive to ensure the grooves are securely snapped together

#### **REMOVING WRIST ZIPSEALS**

I. While holding onto the ring on the sleeve, gently insert the tip of your finger into the groove on the ZipSeal



2. Gently peel back the wrist ZipSeal while pulling the ring on the sleeve outward. Remove the rest of the wrist ZipSeal from the sleeve



3. Repeat on the other sleeve

#### SPECIAL NOTE FOR SILICONE WRIST ZIPSEALS:

The silicone wrist ZipSeal will only work on Generation 2 wrist ZipRings. These rings were installed on suits beginning mid-2009.



Generation 2 Wrist ZipRing
This ring is smooth and has no seam in center.



Generation I Wrist ZipRing
This ring has a noticeable seam in center.

If your DUI drysuit has the Generation I wrist ZipRing, you will need to have your DUI retrofitted if you want to use silicone ZipSeals. Please contact our Service Department at 800.325.8439 or Support@DUI-Online.com

# **NECK ZIPSEALS**

#### INSTALLING A NECK ZIPSEAL

- I. Your drysuit must be equipped with a ZipRing on the neck. Turn the suit inside out
- 2. Spray a small amount of soapy water into the grooves on both sides of neck ZipSeal (1 part mild dish soap to 10 parts water)



3. Pull the double ring on the drysuit slightly apart



4. Completely insert the neck ZipSeal into the ZipRing on the drysuit and line up the grooves



5. Press the grooves together with your fingertips until you feel the grooves "click" together

Remember:There are two sides of the drysuit neck ZipSeal and both sides need to be locked in place



6. After pressing them together run your fingers around the neck ZipSeal once more to ensure it is secure on both sides of the neck seal



7. Turn the suit right side out before diving

**Special note:** When installing a ZipSeal neck/hood combo, make sure the opening of the hood is facing forward directly over the inlet valve.

#### REMOVING A NECK ZIPSEAL

Removing a neck ZipSeal can be more difficult as it is locked between two rings

I. Insert your fingertip between the ZipRing on the neck seal and the ZipRing on the drysuit



2. Insert your thumb between the ZipRing on the neck seal and the ZipRing on the drysuit to loosen the ring



3. Gently pull the neck ZipSeal out of the ZipRing on the drysuit



#### STORAGE OF ZIPSEALS

Not going to be using your drysuit for a while? Removing the ZipSeals from the drysuit and placing them in an airtight container will help them last longer. Be sure to remove as much air from the container as possible. As the latex seals used in DUI's ZipSeals are natural rubber, storing the ZipSeals in this manner will help reduce deterioration by ozone.



## **ZIPGLOVES**<sup>TM</sup>

THERE ARE TWO TYPES OF ZIPGLOVES: ZIPGLOVES AND ZIPGLOVES-WD.

#### INSTALLING ALL ZIPGLOVES

I. Your drysuit must be equipped with ZipRings on the sleeves. Remove the wrist ZipSeal from the sleeve (see Removing Wrist ZipSeals on page 25)



2. Apply a small amount of soapy water into the grooves on the ZipGlove (I part mild dish soap to 10 parts water)



3. Invert the ZipGlove so you can get your fingertips on the inside of the ZipRing (this will help you press the rings together)



4. Line up the palm of the ZipGlove with the seam on the arm of the drysuit (make sure you are putting the correct hand on the sleeve - i.e. left glove on the left arm)



5. Line up the grooves on the ZipGlove with the grooves on the sleeve



6. Press together. You should feel the grooves "click" together



7. Run your fingers along the entire ring to ensure they are secure



8. Repeat the procedure on the other sleeve



#### REMOVING ZIPGLOVES

Remove ZipGloves the same way as removing wrist ZipSeals. Please see page 25.

#### **DIVING WITH ZIPGLOVES**

Put on the liner before putting your hand in the gloves. More than one liner can be worn at a time for colder water applications. The liners are made with fast drying insulation which is used in a wide variety of industrial cold/wet applications.

After putting on the drysuit with ZipGloves, secure the wrist strap on the gloves. Do not over tighten the wrist strap as this could restrict blood flow to the hands.

## ZIPGLOVES-WD<sup>TM</sup>

This unique system is intended for dives where the risk of a glove leaking as a result of damage is high or the diver prefers to have a redundant seal on their wrist. To provide this redundant seal, ZipGloves-WD are equipped with a WristDam $^{TM}$ ; a donut-shaped wrist seal.



When properly fitted, the WristDam allows air to travel between the suit and gloves during the dive for added warmth and comfort. The WristDam will also mitigate water intrusion should the glove become damaged during the dive.

#### TRIMMING THE WRISTDAM

I. Turn the opening of the ZipRing inside-out as it will make it easier to get to the inside WristDam



2. Use the trim lines for fitting the WristDam to your wrist size. The lines on the WristDam are only a guide. You can make smaller adjustments to the opening size by trimming less on the WristDam



3. The rings are counted from the outside in. The ring farthest from the opening is ring 1. A new pair of gloves has the WristDam trimmed on line 8



Wrist Size	Trim Ring
5.5"	8 (untrimmed
6"	7-8
6.25"-6.5"	6-7
6.75"	6
7"	5-6
7.25"	4-5

#### CHECKING THE WRISTDAM FOR A PROPER FIT

You want to try on the gloves first (when they are not attached to a drysuit) to ensure you have a proper fit. A proper fit means the WristDam is snug enough to keep water out yet allows air to flow underneath it when the hand is flexed.

1. With the gloves not attached to a drysuit, put on a liner



2. Bring your fingers together in a pointed cone and put them through the WristDam on the ZipGlove-WD



3. Position the glove on the hand. Make sure the liner does not lie under any portion of the WristDam. The WristDam should be positioned at the small of the wrist





Not correct

## CHECKING THE WRISTDAM FOR PROPER FUNCTION

While putting the glove on, excess air will become trapped in the glove. You will notice this when you close your hand making a fist, the glove will balloon. If the WristDam is properly trimmed, the glove will vent the excess air when the hand is closed into a fist and the wrist is flexed.



If the WristDam is too loose, the glove will not trap the air and could allow water to leak into the drysuit if the glove is punctured. No ballooning is noted when the hand is closed into a fist.

If a WristDam is too tight, the glove will not properly vent air when the hand is closed into a fist and the wrist is flexed. A seal that is too tight can restrict blood flow to the hands. Additional trimming may be required if the WristDam is too tight.

#### **INSTALLING ZIPGLOVES-WD**

Installation of the ZipGloves-WD is the same as installing ZipGloves.

#### PUTTING ON A DRYSUIT WITH ZIPGLOVES-WD INSTALLED

- 1. Put on the drysuit as outlined in the DUI Drysuit Owner's Manual
- 2. Put on liners before putting your arms into the drysuit sleeve. It is best to hold the thumb loop on the divewear insulation between the thumb and index finger and release it as soon as your fingers touch the WristDam. This keeps the divewear insulation thumb loops from getting under the WristDam and rendering them ineffective
- 3. Bring your fingers together in a pointed cone and put them through the WristDam on the ZipGlove



4. To get the WristDam in the correct position on the wrist, push the wrist ZipRing down towards the hand to insure that the WristDam is at the small of the wrist



5. Check the WristDam for proper sealing and venting by closing the hand into a fist. When you do this, the glove should balloon. Check that the air can be vented from the glove by flexing the wrist (bring it toward you) while the hand is still in a fist. The air should vent into the drysuit sleeve. If the glove does not balloon when the hand is closed into a fist, something is interfering with the WristDam sealing. The glove should be removed and put on again



- 6. Secure the wrist straps. Do not over tighten as this could restrict blood flow
- 7. Repeat the process with the other arm/hand

#### **DIVING WITH ZIPGLOVES-WD**

- I. During the descent or during the dive, gas can be added to the gloves by simply raising your hand above the high point in the suit above the exhaust valve. You may need to close your hand and flex your wrist to get them to inflate slightly
- 2. To vent gas from the gloves simply place the hands lower than the suit exhaust valve. You may need to close the hand and flex the wrist inward
- 3. If for some reason you are experiencing difficulty getting gas to move between the glove and the drysuit, you can position the glove low or high as needed and, with your other hand, pinch the ZipGlove and pull the ZipRing away from the wrist. This will open a path between the glove and drysuit allowing air into or out of the ZipGlove-WD

HINT: Do not let anything come between the WristDam and the wrist. Clothing can cause leaking and/or flooding should the glove become damaged.

Before using other makes of gloves as a liner, check that they do not interfere with the function of the WristDam.



#### ZIPGLOVE & ZIPGLOVE-WD - MAINTENANCE

- I. After diving, rinse the exterior of the glove with fresh water along with the rest of the drysuit.
- 2. If any moisture got into the glove (i.e. puncture or perspiration), remove the gloves to ensure that the inside of the gloves dry completely.

#### ZIPGLOVE & ZIPGLOVE-WD - REPAIR

If you think you have a puncture or leak in your glove:

- I. Remove the glove from your drysuit.
- 2. Turn the glove inside out and fill with water.
- 3. Water will drip from the hole.
- 4. Mark a I" diameter circle around the hole.
- 5. Allow to dry completely.
- 6. Apply AquaSeal to this I" area. Follow the instructions provided by AquaSeal.
- 7. Allow to dry completely.
- 8. Turn right side out and attach to drysuit.

REMEMBER: Before diving, ALWAYS check that your ZipRings are locked in place.



# CONNECTING THE DRYSUIT INFLATOR HOSE TO YOUR REGULATOR

The drysuit comes with an accessory low-pressure (LP) hose to provide low-pressure air to the drysuit inlet valve. The hose needs to be installed by your DUI dealer in one of your regulator's LP 3/8" (9.5 mm) ports. The swivel inlet valve allows the hose to be routed under the right or left arm.

#### **NOTES TO INSTALLER:**

#### !! WARNING !!

Never connect the low-pressure inflator hose to a highpressure port on your regulator. If the hose is connected to a high-pressure port, it may fail without warning causing severe personal injury.

Regulator first stages have LP ports which are 3/8" (9.5mm) and are smaller than the high-pressure (HP) port(s) which are 7/16" (11 mm.) However, care must be taken with older regulators where the HP and LP ports are all 3/8" (9.5mm). In most cases, HP ports are marked HP. However, if the output pressure of the port is in question it should be checked. The maximum output pressure of a LP port should be 200psi (13.8 bar.) Once an LP port has been located and the plug removed, check that the O-ring is present and in good condition on the hose. Also check the hose fitting to ensure the threads and O-ring are free from dirt or debris. Install the threaded end of the hose into the port using a 9/16" (14 mm) wrench. Do not over tighten. The fitting should be tightened to 3.3 ft-lb (14.7 N.)

#### !! WARNING !!

Do not substitute a short hose for the DUI hose supplied with your drysuit. If the hose is bent, kinked or restricted when worn, the inflator valve of the drysuit may not operate correctly.



#### BEFORE YOUR FIRST DRYSUIT DIVE

Before using your drysuit for the first time:

- · Complete a drysuit diving training course
- Completely read the manual and become familiar with diving and emergency procedures
- Complete the fit check
- · Adjust the neck and wrist seals to insure proper fit
- Select the correct insulation/divewear and accessories for the planned dive
- Have the drysuit inflation hose connected to your regulator
- Check for proper fitting of all other equipment such as fins, weight system, BCD, etc.

# PREPARING TO DIVE WITH YOUR DUI DRYSUIT

#### PRE-DIVE INSPECTION OF YOUR DUI DRYSUIT

Inspect the seals on your drysuit before diving. If a seal is cracked, sticky or worn, replace it before diving.

Check your drysuit zipper before diving. If you cannot close the zipper with two fingers, lubricate it with DUI ZipStick zipper wax. To do this, close the zipper and lubricate the outside of the zipper only. Inspect the zipper for damaged teeth, or teeth out of alignment. These signs indicate a damaged zipper. If such signs are evident take your drysuit to the nearest DUI dealer for inspection and repair.

#### ! CAUTION!

Do not use silicone spray on your zipper. A build up of silicone can make your drysuit difficult to repair.

If your drysuit has been in storage for over a month, perform the above inspections well before your scheduled dive. Allow sufficient time to obtain necessary materials and repairs. Before each dive, check the inflator valve and the exhaust valve. The inflator valve should be tested by hooking up your regulator to a full air cylinder and pressing the inflate button.



To check the exhaust valve, tie off the wrist and neck seals with rubber bands and inflate the drysuit until air exhausts through the exhaust valve. Grasp the exhaust valve; press it to check the manual override function.

#### PUTTING YOUR DRYSUIT ON

Note: If the weather is warm, set up all of your other equipment before putting on your divewear and drysuit.

- Remove all jewelry that can damage or get caught in the drysuit or seals
- Review Putting the Drysuit Seals On. The fit of wrist and neck seals should have been checked and seals trimmed if needed

Note: Make sure the zipper guard and waterproof zipper is completely open when putting on your taking off the drysuit.

#### QUICKZIP™ DESIGN

#### FIG-7 STEPS FOR PUTTING ON YOUR DRYSUIT



- I. Open up the zipper guard and the waterproof zipper completely
- 2. Open up the drysuit by folding it at the waist exposing the suspenders. The suspenders should be completely exposed and laying outside the fold
- 3. Make sure the crossover in the suspenders is in the back of the drysuit. Pick up the drysuit as if it is pair of pants



- 4. Step into the lower half of the drysuit just like a pair of pants. If footing is not stable such as on a rocking boat it is best to sit down to start the process
- 5. Pull the drysuit completely up around the waist. Be sure to pull the suit up by the material and not the suspenders. Pull the suspenders up over the shoulders. Adjust the suspenders length with the slide on the two front straps. The suspenders are to keep the crotch in place and do not need to be tight
- 6. Pull the excess drysuit length up under the arms (this will give you the maximum amount of material to pull over your head)
- Carefully insert your left arm into the left sleeve using the appropriate method of putting the seal on for the type of seal that is on the drysuit. Adjust the seal so that it seals properly
- 8. Bring the sleeve no higher than the middle of your upper arm
- 9. Repeat the process with the right arm and adjust the wrist seal
- 10. Bring the suit up so that it is now on your shoulders
- 11. Bring the shoulders of the drysuit on top of your head and pull the seal down over the head using the appropriate method of putting the seal on for the type of seal that is on the drysuit
- 12. Fold the excess drysuit length at the hips and connect the crotch strap
- 13. With the zipper now laying smoothly around the body check that nothing is sticking out and there are no twists in the zipper
- 14. Using the left hand grasp the suit in the center of the back at the fold and, with the right hand, grasp the waterproof zipper pull handle and pull it around the side
- 15. Only a minimal amount of force should be required to close the waterproof zipper. If resistance is high or increases, stop, backup the slider and check the zipper. The zipper track should lay flat with no twist and there should be nothing caught in it. Proceed once the problem has been corrected. The waterproof zipper is one of the most important parts of the drysuit. Do not force it
- 16. Pull the waterproof zipper up flush with the stop at the end of the zipper. Give it one extra pull to make sure the zipper is completely closed.
- 17. Once the waterproof zipper is closed, grasp the slider on the zipper guard on the left shoulder and pull it down until closed



#### CLASSIC-STYLE SELF-DONNING DESIGN

- 1. Complete steps 1-13 listed on pages 40-41
- 2. Grasp the waterproof zipper pull on the left shoulder and pull the zipper closed. Do not use force. If resistance is high or increases, stop, backup the slider and check the zipper. The zipper track should lay flat with no twist and there should be nothing caught in it. Proceed once the problem has been corrected. The waterproof zipper is one of the most important parts of the drysuit. Do not force it
- 3. Pull the waterproof zipper down flush with the stop at the end of the zipper. Note: It is easier to do this if you pull the slider with the right hand and at the same time grasp the closed end of the zipper in the front of the chest with your left hand to provide resistance.
- 4. Once the waterproof zipper is closed, grasp the slider on the zipper guard on the left shoulder and pull it down closed

#### SHOULDER-ENTRY DESIGN

Note: The following directions will work on all shoulder-entry DUI drysuits, with or without suspenders

- I. Open the waterproof zipper completely, then open up the drysuit by folding it down to the waist.
- Open up the drysuit by folding it down to the waist exposing the suspenders. The suspenders should be completely exposed and laying outside the fold.
- 3. Check the boot alignment to determine the front of the drysuit.
- 4. Step into the lower half of the drysuit like a pair of pants. If footing is not stable such as on a rocking boat it is best to sit down to start the process.
- 5. Pull the drysuit completely up around the waist. Be sure to pull the suit up by the material and not the suspenders. Pull the suspenders up over the shoulders. Adjust the suspenders length with the slide on the two front straps. The suspenders are to keep the crotch in place and do not need to be tight.
- 6. Pull the excess drysuit length up under the arms (this will give you the maximum amount of material to pull over your head)
- 7. Carefully insert your left arm into the left sleeve using the appropriate



method of putting the seal on for the type of seal that is on the drysuit. Adjust the seal so that it seals properly

- 8. Repeat the process with the right arm and adjust the wrist seal
- 9. Pull the shoulders of the drysuit over your head and put your head through the seal using the appropriate method of putting the seal on for the type of seal that is on the drysuit
- 10. Have your dive partner close the zipper while holding your arms out straight and to the side
- II. Look over your shoulder and check that the zipper pull is pulled up flush with the zipper stop

#### **ROCKBOOTS™**

Special Note: It is recommended you select the maximum amount of insulation you will require for your coldest diving needs and wear this whenever you dive. This will ensure that your drysuit sock, RockBoots and fins will always fit the same.

To have the DUI RockBoots fit properly, it is important to get the drysuit sock and insulation pushed all the way forward into the toes of the DUI RockBoot. Pressure on the toes from both the drysuit sock and the insulation can result if this is not done correctly. It could be uncomfortable until it works loose. To insure maximum comfort, use the following procedure:

- After putting on your drysuit, insert your foot (with maximum insulation) into the DUI RockBoot
- 2. Push your toes as far into the boot as possible. Should you find you are unable to get your foot into the boot completely, simply grab the sole of your boot with your hand and, while pushing the DUI RockBoot on your foot, pull up on the tab on the heel. By using this method you will be able to get the DUI RockBoot on your foot. Your toes may feel pressure at this point
- 3. Pull upward on the laces to make it reasonably snug on the foot
- 4. Lift up your foot and hit the back of the heel against the ground. This pulls the foot out of the DUI drysuit sock and insulation and into the back of the boot. This will alleviate any pressure on the toes
- Tug on the laces to the preferred tightness and secure them using the cord lock



6. Wrap the excess lace ends around the ankle at the top of the boot. If you have extra lace, wrap it around the Velcro® flap then tuck the Velcro® "pile" flap at the end of the laces under the Velcro® "hook" tab on the back of the boot.

#### TURBOBOOT™

Turbo soles are a tennis shoe style sole attached to the bottom of a DUI drysuit sock. This is an option provided on some special order drysuits. These hard sole boots are attached to the drysuit and are not used with the RockBoots<sup>TM</sup>. Putting on turbo sole boots:

- 1. Loosen the Velcro® ankle straps
- 2. Slip feet into boots when pulling on the drysuit
- 3. Secure Velcro® ankle straps snugly around ankle

#### ZIPSEAL NECK/HOOD COMBINATION

If your drysuit is equipped with a latex neck/hood combo, you must wear a hood liner for insulation AND for creating an air space. The air space is required for the diver to equalize his/her ears.

A latex hood is designed to provide exposure protection only and does not provide thermal protection. Therefore, a hood liner appropriate for the water temperature is needed to provide thermal protection.

#### **!! WARNING !!**

A ruptured ear drum could occur if a liner is not worn and the diver is unable to equalize.



#### DIVING WITH YOUR DUI DRYSUIT

#### !! WARNING !!

This owner's manual is NOT a substitute for drysuit instruction by a qualified instructor. DO NOT USE a drysuit until you have practiced and mastered practical drysuit diving skills, including emergency skills, in a controlled environment under the supervision of a dive instructor certified by a nationally recognized instructional organization and knowledgeable in the use of drysuits.

Drysuit diving is an acquired skill that requires specialized training, practiced under controlled conditions and adequate exposure time for the diver to adapt to open water diving in a drysuit system.

Complete the fit check and seal sizing before preparing to dive. Practice putting on and taking off the drysuit and seals so it becomes second nature.

#### PREPARING TO DIVE

#### !! WARNING !!

Maximum workrate levels vary due to the individual diver tolerance when combining water temperature, exposure to high ambient air temperatures and personal metabolic rate.

- · Assemble all diving gear and have it ready to dive
- Put on your divewear insulation appropriate for the diving conditions
- Put on your DUI drysuit
- Open drysuit exhaust valve fully by turning counterclockwise
- Vent excess air from drysuit: Place a finger under the neck seal and squat down venting all the air from the drysuit. Remove your finger from under seal and stand up
- Put on the remainder of equipment



#### **ENTERING THE WATER**

- Partially inflate your BCD before entering the water
- A giant stride entry is the most common water entry from a boat. When
  entering the water feet first, the excess air in your drysuit will be forced into
  the upper parts of the drysuit. Make sure that the exhaust valve is
  completely open before entering the water

#### !! WARNING !!

Do not jump in the water with excess air in the drysuit. The excess air in the drysuit is forced upward in the drysuit when entering the water. This excess can collect around the neck seal or up the sleeves where it has no outlet. Jumping from significant heights with excess air in the drysuit can produce a blow to the chin sufficient to render the diver unconscious.

# ACHIEVING NEUTRAL BUOYANCY AT THE SURFACE

Diving safely requires a precautionary safety stop at 10-15 feet (3-5 m) before surfacing. Additional weight is needed to allow neutral buoyancy with 500 psi (35 Bar) or less remaining in the cylinder. After achieving neutral buoyancy at the surface with a full tank of air, add an amount of weight equal to the weight of the air in your full cylinder. Use the following procedure to check your buoyancy while using single or double cylinders.

#### ! CAUTION!

Your weight requirements will change from fresh water to salt water.

#### ! CAUTION !

Weight requirements are different for different cylinder sizes and combinations and a buoyancy check should be done with the configuration with which you plan to dive.



#### ! CAUTION!

Your weight requirements will change with changes in the amount of divewear insulation worn under the drysuit.

- To check your weighting, enter controlled water fully dressed in your scuba unit, drysuit and insulation
- Vent all of the air from your drysuit by assuming a vertical position in the
  water and opening the drysuit exhaust valve completely by turning it
  counterclockwise until it stops. Lift your left elbow to make the exhaust
  valve the highest point in the drysuit
- Vent air from your BCD until you become neutrally buoyant with your lungs full of air. When you exhale you will start to descend. When you are neutrally buoyant only the top of your head remains above the surface
- If you are not neutrally buoyant and continue to descend adjust your weight until you are neutral with your BCD fully deflated
- Once you have reached neutral buoyancy with a full tank and your BCD is fully deflated, add additional weight to compensate for a near empty tank.
   See the table below for the estimated weight to be added

#### ESTIMATED CHANGES IN CYLINDER WEIGHT

The following table provides an estimate as to the change in the weight of a single cylinder during the course of a dive assuming 80% of the air is consumed. For double cylinders, multiply by two.

#### FIG-8 TABLE SHOWING CHANGES IN CYLINDER WEIGHT

Volume Air in Cylinder Approximate Weight Change

Cu-ft	liters	Weight lbs	Weight kg
40	1452	2.6	1.2
50	1815	3.2	1.5
60	2178	3.8	1.7
72	2614	4.6	2.1
80	2904	5.1	2.3
95	3449	6.1	2.8
100	3630	6.4	2.9
120	4356	7.7	3.5



# MAINTAINING BUOYANCY CONTROL DURING THE DIVE

Diving with a drysuit requires both buoyancy and trim control. Both of these require controlling the drysuit's free-air-volume. The free-air-volume is the bubble of air which can freely move around inside the drysuit. This volume of air is not part of the air trapped in the undergarments. The free air volume contributes little or nothing to the overall insulation value. However, this roving bubble is always moving to the highest point of the drysuit as you change your attitude in the water. If the roving bubble is too big, it can lead to trim problems such as the feeling your feet are floating up. The diver can measure the size of this bubble by rotating the body to a vertical position and holding one arm up over the head thus allowing the free air to move up this arm. The drysuit will be collapsed around the arm up to the bottom of the bubble. When the bubble is larger then half the length of the forearm it is getting too big. It is best to keep the bubble small and, if it starts to grow, vent the excess volume off and add air to the BCD to attain neutral buoyancy.

Once on the surface in a vertical posture with your head out of the water, you will notice that there is more pressure on your legs than on your chest. This is normal any time you are in the water and have your head higher than your feet. The drysuit should feel as though it is squeezing you gently all over your body. Though the sensation is quite different than that experienced when wearing a wetsuit, you won't notice it after a few dives or when you are in a horizontal position.

#### ! CAUTION!

User has to adjust the amount of air in the drysuit to adequately loft insulation. Insufficient air can result in the diver being cold.

#### ! CAUTION!

Different tank sizes and different tank materials will require different amounts of weight to compensate for the change in buoyancy from a full tank to an empty tank.

#### **DIVING WITH A SINGLE TANK**

As the diver consumes air from a single tank during the dive, the diver will become more buoyant. Depending on the size of the cylinder, this weight change can be as much as 5-6 lbs (2-3 kgs) over the course of the dive. To offset this weight change, a volume of the air totaling 4-6 pts (2-3 l) is needed.



This volume of air can be placed in the drysuit or BCD or distributed between both. Many divers are able to maintain neutral buoyancy during the dive by simply adding air to their drysuit. However some prefer to add air to their BCD keeping a smaller free-air-volume bubble in the drysuit for better trim control.

#### DIVING WITH MORE THAN A SINGLE TANK

Because of the greater weight change during the course of a dive, the diver should keep the free-air-volume bubble in the drysuit to a minimum and do most of the buoyancy compensation with the BCD.

#### STARTING YOUR DIVE

At the start of your dive, make sure that the exhaust valve is completely open by turning the valve fully counterclockwise. To automatically exhaust any air in the drysuit, lift your left elbow to raise the valve to the highest point of your body. Keep your wrist lower than your elbow. With your mask on, you may not be able to see the valve, but you should be able to hear the air exiting from the valve. Descend by venting all of the air from your BCD.

#### **DESCENDING**

Once you drop past ten feet (3 m), you will start to descend faster. Leave the exhaust valve all the way open. Do not close the exhaust valve. Add air to your drysuit in short bursts, a little bit at a time. The short bursts will control the volume of air going into your drysuit and will help keep the valve from freezing open when air or water temperatures are below 40°F (5°C). Add just enough air to eliminate any uncomfortable squeeze. If you add too much air, your descent will stop.

To equalize a foot squeeze, you must get air into your boots. Air can only enter the boots if you are parallel to the surface or in a slight feet-up attitude.

#### !! WARNING !!

Some drysuit materials can change buoyancy with depth.

#### !! WARNING !!

Do not close the drysuit exhaust valve all the way while you are underwater. The valve has been designed to vent automatically whenever the valve is at the highest point of your body. Closing the valve increases the amount of air



trapped in the drysuit and may lead to a loss of control.

Rapid ascent is dangerous and may cause air embolism or decompression sickness, either of which can result in serious injury or death.

#### OBTAINING NEUTRAL BUOYANCY AT DEPTH

When you reach the desired depth, add just enough air to the drysuit and/or BCD to make yourself neutrally buoyant. Remember to add only small amounts of air. Check the results before adding more. One of the keys to drysuit diving is to dive with the minimum volume of air in your drysuit. Proper weighting is essential to dive with a minimum volume of air in the drysuit.

Use your drysuit and/or BCD to adjust your buoyancy. If you pick up additional weight during your dive (game, salvage items), use a lift bag to raise the additional weight to the surface. A small lift bag can be attached to a goody bag if necessary. If the lift bag becomes too buoyant and you are unable to control it, you can always release it.

#### !! WARNING !!

Any gas mixes other than air such as Argon and oxygen enriched air to inflate a drysuit requires specialized training.

#### !! WARNING !!

Do not use your drysuit as a lift bag. If you do and you lose your grip on the object, you may become excessively buoyant. This may result in a rapid ascent.

#### !! WARNING !!

Maximum operating depth is determined by the users training and experience levels.

#### ASCENDING IN YOUR DRYSUIT

At the end of your dive, take a moment to check your drysuit exhaust valve before beginning your ascent. Make sure that the exhaust valve is completely open by turning it counterclockwise until it stops.

Your ascent must be slow and controlled. As you start toward the surface, you will become positively buoyant because the air in your drysuit and/or BCD is expanding. Vent air from the drysuit exhaust valve and/or BCD as



needed to maintain neutral buoyancy. You should be able to stop your ascent at any time by simply exhaling.

#### !! WARNING !!

Your first few drysuit ascents should be made next to a weighted line which can be used to regain control of the ascent if necessary.

Monitor your rate of ascent using your dive computer or timer/depth gauge. Stay within the ascent rate limits of your dive computer. If you are not using a computer, maintain the rate recommended by the tables you are using.

#### ! CAUTION!

Stay within the maximum rate of accent specified by a specific decompression computer and/or tables being used.

Control your ascent by raising or lowering your left arm.

If you are ascending too fast, raise your left arm higher to allow the drysuit to vent more air. If raising you left arm does not slow your ascent adequately, push in on the exhaust valve to activate the manual override.

If you are negatively buoyant and have difficulty ascending, lower your left arm and add a burst of air to your drysuit to add buoyancy. Once you begin to ascend, be prepared to vent air through the exhaust valve.

Be prepared to stop your ascent at any time. Control your rate of ascent so that you are able to make the recommended safety stop at 10' - 15' (3-5 m.) Once you have reached the surface, inflate your BCD before swimming back to the beach or boat.

#### SURFACE SWIMMING

Inflating your BCD will allow you to swim comfortably on the surface without inflating your drysuit. Inflation of your drysuit while on the surface will place pressure on your neck. Many divers find such neck pressure uncomfortable.

Some divers like to close the exhaust valve all the way while surface swimming to ensure positive buoyancy and prevent water from leaking into the drysuit through the valve. Although it is acceptable to close the valve completely while on the surface, be sure to adjust the exhaust valve to the open position before submerging again.



#### **EMERGENCY PROCEDURE SKILLS**

#### !! WARNING !!

The following emergency procedures should be practiced in a controlled environment (such as a pool) under the supervision of an instructor certified by a nationally recognized agency before the drysuit is used in open water. This manual is NOT a substitute for hands-on training and development of practical skills. KNOWING the procedures is NOT enough. You must be able to PERFORM the emergency procedure skills. Like any skill, it is acquired by DOING, not simply by reading.

Master the following emergency skills (except as noted) before using the drysuit in open water:

#### INVERTED POSITION (AIR IN FEET)

If you are positively buoyant and turn upside down, you will find yourself drifting toward the surface feet first. It is very important to regain control immediately, because air cannot be vented from the drysuit if you are upside down.

### If you find yourself upside down when you are close to the bottom:

- · Swim hard toward the bottom
- Push off the bottom with your hands
- Roll to an upright position
- Immediately vent your drysuit through the exhaust valve

#### If you find yourself upside down in mid-water:

- Kick hard toward the bottom
- Bend forward at the waist
- Roll to an upright position
- Immediately vent your drysuit through the exhaust valve

If you are unable to recover to an upright position and are experiencing an



uncontrolled ascent, flare your body to reduce the speed of your ascent. Spread your arms and legs away from your body, get your fins parallel to the surface of the water, and try to slow your ascent by creating drag. Be sure to continue exhaling as you ascend.

#### !! WARNING !!

Flaring is a final effort to be used in an emergency only. Do not practice this skill unless you are under the direct supervision of a qualified instructor certified by a nationally recognized instructional organization. Rapid ascent is dangerous and may cause air embolism or decompression sickness, either of which can result in serious injury or death.

#### INFLATOR VALVE STUCK OPEN

If the inflator valve becomes stuck in the open position, immediately disconnect the low-pressure inflator hose from your drysuit inflator valve and vent any excess air through the drysuit exhaust valve. The most effective way of disconnecting the hose is to push the hose forward into the inlet valve while pulling back on the quick disconnect flange. Practice this skill with gloves on until you are able to disconnect the hose quickly and easily.

If you forget which direction to turn the exhaust valve to open it (counterclockwise), you can manually vent through the automatic valve. Lift your left elbow until it is the highest point of your body and push down on the valve. Air will be exhausted from the drysuit.

If you are unable to vent enough air through the exhaust valve, open the neck seal or wrist seal(s) to allow air to escape. Water will enter the drysuit.

If sufficient air still cannot be vented and you are experiencing an uncontrolled ascent, flare your body to reduce the speed of the ascent. Spread your arms and legs away from your body, get your fins parallel to the surface of the water, and try to slow your ascent by creating drag. Be sure to continue exhaling as you ascend.

#### ! CAUTION!

If you continue to push in on the exhaust valve after all of the air is exhausted from the drysuit, water may enter the drysuit.



#### INFLATOR VALVE STUCK CLOSED

If the inflator valve is stuck in the closed position, stop your descent and terminate the dive immediately. Use the buoyancy control device as needed to control buoyancy. Return to the surface while venting the expanding air in the drysuit.

#### LEAKING EXHAUST VALVE

If the exhaust valve is stuck open, the drysuit will not hold air properly. It is also likely that water will enter the drysuit through the open valve.

If the exhaust valve is stuck open, terminate your dive immediately. Use the buoyancy control device as needed to control buoyancy and return to the surface.

#### **EXHAUST VALVE STUCK CLOSED**

If the exhaust valve is stuck in the closed position, air cannot be properly vented from the drysuit. This may result in an uncontrolled ascent.

If the exhaust valve is stuck in the closed position, either open the neck seal or a wrist seal to release air. When this emergency procedure is followed, some water will enter the drysuit.

If sufficient air still cannot be vented and you are experiencing an uncontrolled ascent, flare your body to reduce the speed of the ascent. Spread your arms and legs away from your body, get your fins parallel to the surface of the water, and try to slow your ascent by creating drag. Be sure to continue exhaling as you ascend.

#### SLOW AIR LEAK IN INFLATOR VALVE

If you find a slow leak in the inflator valve, disconnect the low-pressure inflator hose and terminate the dive immediately. Ascend while venting the expanding air in the drysuit through the exhaust valve as normal.

#### LOSS/INTERRUPTION OF AIR SUPPLY

If your air supply is interrupted or lost, terminate your dive immediately. Control your rate of ascent by venting air from the drysuit through the exhaust valve.



#### FLOODED DRYSUIT

In the event of a zipper failure or other catastrophic drysuit failure, your drysuit may flood. If your drysuit is flooded:

- Inflate your BCD to establish positive buoyancy
- Position the leak as low as possible to minimize air loss
- · Perform a controlled ascent
- Terminate the dive

#### ! CAUTION!

The above emergency skills may be practiced in a heated pool under the direct supervision of a qualified instructor certified by a nationally recognized instructional organization.

If you are unable to establish positive buoyancy by inflating the BCD, only then should you consider dropping your weight. Even a small amount of cold water introduced inside the drysuit may "feel" like a catastrophic failure. It is imperative that you make every effort to ascend using your BCD before ditching your weight. If the drysuit "feels" flooded, but in fact is not flooded, the inflation of the BCD plus the ditching of the weight could result in EXTREME POSITIVE BUOYANCY. Depending on the volume of air inside the BCD and the amount of weight carried, some drysuit divers could be as much as ONE HUNDRED POUNDS positively buoyant. Such buoyancy would be impossible to control and would result in a very rapid and uncontrolled ascent.

#### !!! DANGER !!!

Ditching your weight belt after inflating your BCD can result in the imminent danger of serious bodily injury or death. Do not ditch your weight belt unless anything other than an immediate, rapid, and uncontrolled ascent to the surface will result in imminent death.



#### DROPPED/LOST WEIGHT BELT

#### ! CAUTION!

The emergency procedures for dropped/lost weight belt should be read and understood. Do not practice these skills except in a controlled environment under the direct supervision of a qualified instructor certified by a nationally recognized instructional organization.

If you drop or lose your weight belt attempt to recover the weights. If you are unable to recover the weights:

- Grab hold of anything you can (ascent line, anchor line, rock) and vent your drysuit
- If you are still unable to control your ascent, assume the flare position
- · Remember to continue to exhale as you ascend

# ADJUSTING YOUR DUI DRYSUIT BETWEEN DIVES

In warm weather you can unzip your drysuit while you're out of the water between dives.

#### ! CAUTION!

Adjust divewear insulation to avoid overheating.

If you are still too warm, either remove the upper portion of the drysuit or remove the drysuit entirely.



#### REMOVING YOUR DUI DRYSUIT

- Remove all other SCUBA equipment, including the hood, before removing your drysuit.
- If the outside of your drysuit got dirty during the dive, wash off the dirt before removing the drysuit. Pay particular attention to the waterproof zipper. Unzip your zipper completely. If you have a zipper guard, make sure that both zippers are completely open.

#### ! CAUTION!

If the zippers are not fully open when putting on or removing the drysuit, the zippers may be damaged.

## QUICKZIP™ AND CLASSIC-STYLE SELF-DONNING DRYSUITS

FIG-9 REMOVING DRYSUIT



Undo the crotch strap that holds the torso of the drysuit in place. Pull the
drysuit up so that the excess torso length of the drysuit rides as high on
your chest as possible.



- Removing a Latex, Silicone or Neoprene Neck Seal Review Taking the Drysuit Seals Off / Neck Seals in this manual
- Removing Latex, Silicone, Neoprene Cone or Neoprene Fold Under Wrist Seals

Review Taking the Drysuit Seals Off / Wrist Seals in this manual

- On the right wrist, grasp the sleeve material between your fingers and thumb and pull your hand out of the seal but not out of the sleeve. Slide the drysuit off the right shoulder
- Put your right arm around your back and, with your left hand, grasp the
  material of the right sleeve. Pull the sleeve off your right shoulder and arm.
   Remove you left wrist seal in the same way and pull the left arm free of the
  sleeve

#### SHOULDER-ENTRY DRYSUITS

- Review Taking the Drysuit Seals Off / Neck Seals in this manual
- Grasp the sleeve material between your fingers and thumb and pull your hand out of the seal
- Remove one arm pulling it back through the zipper opening. Then repeat the
  process on the second arm. Do not pull the sleeves inside out when
  removing the arms from the drysuit. Inverting the arms while removing the
  drysuit can strain and damage the zipper ends

#### REMOVING THE DRYSUIT FROM YOUR BODY

- Remove the RockBoots<sup>™</sup> or, in the case of the TurboBoot<sup>™</sup> option, undo the ankle straps
- Slide the suspenders off your shoulders (if your drysuit model has them) and unfold the drysuit down to your waist. Sit down to remove your legs



#### **TROUBLESHOOTING**

The following are the most common issues if you are experiencing a leak in your DUI drysuit:

#### LEAKING AT THE WATERPROOF ZIPPER

This may be caused due to the following reasons:

- Not completely closing the waterproof zipper: Check to see that the zipper is completely closed before using the drysuit.
- 2. Zipper fraying: If the zipper material is fraying the threads can get caught in the zipper teeth. Remove any excess threads with a small pair of sharp scissors. Be careful not to cut any of the rubber just the loose threads.
- 3. Broken zipper reinforcement: This is at the end of the zipper. This can be caused due to overstressing the zipper when putting the drysuit on and removing it. If the zipper reinforcement has been broken, the zipper must be replaced.

#### LEAKING AT THE NECK OR WRIST SEALS

This may be caused due to the following reasons:

- 1. Seals are not laying flat against the skin: Check to see that the seals are laying flat against the skin with at least 1" of sealing surface and there are no wrinkles or folds.
- 2. Hair or clothing is preventing a seal: Check to make sure there is no hair or clothing under the sealing surface
- 3. Trimming the seals too big: Replace the leaking seal with one that is smaller (has more lines on the seal).

#### LEAKING AT THE WRIST SEALS

Approximately I in 3 people have prominent wrist tendons when grasping objects such as an anchor line or boat ladder. If you experience leaks when doing this, we suggest these following options:

- 1. Seal the wrist seal higher on your arm, past the area with the prominent tendons.
- 2. If you are using heavy-duty latex seals, replace with regular latex or silicone seals.
- 3. If you are using regular latex seals, replace with silicone seals.
- 4. Use DUI ZipGloves as they will replace the need for wrist seals.

#### LEAKING EXHAUST VALVE

The most common issues are:

- 1. Dirt, sand or foreign object is inside the valve:
  - a. Open and close the valve 3 times and tap it
  - b. Push the button 3 to 4 times
  - c. Flush the valve with fresh water from your faucet or garden hose
- 2. Pinched diaphragm (This is less common and is only needed should #I not correct the issue):
  - a. Remove the backplate of the exhaust valve
  - b. Flush the valve with fresh water from your faucet or garden hose
  - c. Check to make sure the diaphragm is laying flat and is not pinched. If it is pinched, un-pinch it so that it lays flat
  - d. Reattach the backplate on the exhaust valve
- Reverse squeeze In some cases, if very little or no air is inside the suit, a reverse squeeze can allow a few drops of water into the suit. Try one of the following suggestions:
  - a. Add a little more air into the suit
  - b. After completely opening the valve, turn the valve closed 2 clicks
- 4. Swimming at the surface in rough waters: If you are diving in waters with rough surface conditions and will be swimming close the valve. Small amounts of water can enter the valve from the side in these conditions. Be sure to open the valve before you begin your dive.

#### LEAKING INLET VALVE

Check to see that the inflator hose is completely attached to the inflator valve. If the hose is not attached and the inflation button is pushed, this can allow small amounts of water to enter the drysuit.

#### OTHER MISCELLANEOUS LEAKS

Visually examine the area where the leak was experienced and look for a tear or puncture. If it is not visible, the drysuit should be leak tested.

Should you have any questions or concerns, please contact DUI Customer Support at Support@DUI-Online.com

(800)325-8439 or (619)236-1203



### CARE AND MAINTENANCE OF YOUR DUI DRYSUIT

Proper maintenance of your drysuit will greatly extend its useful life.

When finished diving for the day, rinse the outside of your drysuit thoroughly with fresh water. Pay particular attention to the zipper and valves.

Flush the exhaust valve and the inlet valve with running water. Blow the valves dry with compressed air after flushing.

#### !! WARNING !!

Drysuit valves must be cleaned after each use in the same way that your regulator must be cleaned. Inlet valves may stick due to a build-up of salt in the valve. Exhaust valves may stick due to lint, dirt, sand or hair in the valve.

If the inside of your drysuit became wet, rinse the inside of the drysuit also.

Latex Seals: Wash latex seals with a mild soap and water solution after every twelve dives or before storage of the drysuit. Accumulated body oils will shorten the useful life of latex seals.

Silicone Seals: Due to the nature of the material, silicone seals can attract dirt and lint. Use mild soap and water and a soft cloth to clean your DUI silicone seals when needed.

After rinsing the drysuit, open the zipper, and hang the drysuit by the socks/boots over a line or drying rack in a shady spot to dry.

When the drysuit is completely dry outside, feel the inside of the drysuit (all the way down to the socks/boots.) If there is any moisture inside the drysuit, turn the drysuit inside out and allow the inside to dry as well.

Do not hang your drysuit in the sun.

#### WATERPROOF ZIPPER CARE

Your waterproof zipper is the heart and soul of your drysuit. Just like eating right and getting exercise is good for your heart, the DUI Drysuit "Surgeon General" has some recommendations for you to help your drysuit zipper live a long and happy life:

• Do not "muscle" in or out of your drysuit - it stresses the ends of the zipper 60



- Make certain your zipper is open all the way when putting on and taking off your suit
- Before taking off your self-don suit, undo your crotch strap and pull the telescoping torso above your waist - this will give you plenty of room when pulling the suit over your head
- · Rinse your zipper with fresh water after every dive day
- Lubricate your zipper after every dive day with zipper wax or DUI ZipStick on the exterior portion of the drysuit zipper
- · Do not use silicone spray as it attracts dirt
- Every six months or 25 dives, gently scrub you zipper with a soft toothbrush using mild soap and water. Lubricate your zipper after this
- If your zipper is fraying, remove any excess threads with a small pair of sharp scissors, be careful not to cut any of the rubber just the loose threads
- Store your drysuit with the waterproof zipper in the open position

#### !! WARNING !!

For decontamination procedures for Public Safety divers, please see the CXO Drysuit Manual and Risk Management for Public Safety Divers Program

Should you have any questions concerning the care and maintenance of your DUI drysuit, please contact DUI's Repair Services Department at 619.236.1203 or 800.325.8439, Monday through Friday, 8:00am-5:00pm Pacific Time or e-mail Support@DUI-Online.com

#### **DRYSUIT STORAGE**

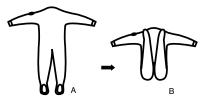
Proper storage will extend the life of your drysuit. Store your drysuit in a cool dry place on a wide hanger and the zipper open. The storage area should be free of ozone generators, such as electric or gas appliances. If you must store the drysuit in areas with ozone generators it is best to fold the drysuit loosely with the zipper open and place it inside a sealed plastic bag.



#### FOLDING YOUR DUI DRYSUIT IN DRYSUIT BAG FOR TRANSPORTING

#### FIG-II HOW TO FOLD YOUR DRYSUIT

- A. Lay the dry suit with the zipper open face down on a clean, flat surface with the arms out to the sides. Pull the shoulders up so that the zip seal neck is laying flat.
- B. Fold the legs up so that the toes of the drysuit go just beyond the shoulder line.
- C. Fold the bottom portion of the drysuit toward the upper portion, making approximately a 12" (300 mm) folded section.
- D. Fold once more so that the bottom of the last fold now rest at about the shoulder line.
- E. Tuck the wrist seals into the sleeves and fold sleeves across the entire package. Slide the folded drysuit into the DUI drysuit bag.
- F. Larger drysuits may require folding the suit in half to fit into drysuit bag for transporting.



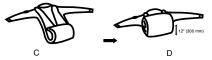




FIG - 10

#### HANGING DRYSUIT FOR STORAGE

For storage between dives the drysuit is best hung in a cool, dry space away from ozone generators, i.e. electric motors, gas pilot lights and sun light. The suit should be hung up on a quality drysuit or wetsuit hanger.

- The zipper should be left in the open position.
- Any hard accessory dry glove ring installed on the wrist seals should be removed. This does not include ZipSeals<sup>™</sup> or ZipGloves<sup>™</sup>.
- Place suit on hanger taking care not to damage the neck seal with the hanger hook. If the suit is equipped with a neck ZipSeal<sup>™</sup>, hang the suit so the back of the neck ring is up against the hanger's hook. Insure the neck ZipSeal<sup>™</sup>



ring is hanging flat and does not have sharp bends.

#### LONG TERM STORAGE (LONGER THAN TWO MONTHS)

- Hang the suit up as listed above and, if the suit is equipped with latex
   ZipSeals™, remove the seals and store them in plastic bag or plastic
   container taking care to keep the rings on the ZipSeals™ in their normal
   shapes; wrist round and neck flat. This will reduce the effects of ozone aging
   of the seals. It is not necessary to remove silicone ZipSeals™.
- If hanging is not an option, follow the instructions for folding the suit. For long term storage, make sure the suit is completely dry and fold suit very loosely paying particular attention to the ZipRings™ to insure they are kept in their normal shapes; wrist round and neck flat. After the suit is folded, place in a large plastic bag to reduce the effects of ozone aging of the seals, and store in a cool, dry space.

#### METHOD FOR DISPOSING OF DRYSUIT

Use the appropriate receptacle for disposing of drysuit at the end of its useful life.



# DIVING UNLIMITED INTERNATIONAL, INC. LIMITED WARRANTY

Diving Unlimited International, Inc. (DUI) warrants that your DUI drysuit (except for the neck seals, wrist seals, zipper and valves) will be free from defects in materials and workmanship for a period of seven (7) years from the date of original retail purchase. DUI warrants that the zipper, the exhaust and inlet valves, and the crotch strap are free from defects in materials and workmanship for a period of one (1) year from the date of original retail purchase with proof of purchase.

DUI warrants that the neck and wrist seals will be free from defects in material and workmanship for a period of ninety (90) days from the date of original retail purchase with proof of purchase.

DUI warrants that the Weight & Trim Systems, DiveWear, RockBoots, Glove Systems and other accessories will be free from defects in materials and workmanship for a period of one (I) year from the date of original retail purchase with proof of purchase.

DUI warrants that the BlueHeat™ jumpsuit and accessories will be free from defects in materials and workmanship for a period of two (2) years from the date of original retail purchase and the battery one (1) year from the date of original retail purchase with proof of purchase.

Any product determined by DUI to be defective in materials or workmanship in accordance with the above warranties will be repaired or replaced at the option of DUI, free of charge, when received at the factory freight prepaid, together with proof of purchase. The original warranty date applies regardless of whether the item is repaired or replaced.

This warranty is expressly in lieu of all other warranties. Any implied warranties of merchantability or fitness for a particular purpose are limited to the same duration as this express warranty.

This warranty does not cover, and DUI shall not be liable for incidental or consequential damages. Some states do not allow the exclusion or limitation of implied warranties, incidental or consequential damages, so the above limitations and exclusions may not apply to you.

This warranty does not cover fading or any damage resulting from misuse, abuse, neglect, alteration, failure to perform maintenance as instructed, damage caused by contaminants, or unauthorized repair or service.

This warranty does not cover any representation or warranty made by dealers beyond the provisions of this warranty.

This warranty does not cover costs incurred for normal repair, inspection and preventative maintenance.

This warranty is a consumer warranty extended only to the original retail purchaser, and does not apply to drysuits or equipment used for commercial purposes.

You must establish proof of purchase to obtain warranty service or replacement. Proof of purchase may be established by completing the Warranty Registration Card and mailing to DUI.

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



#### IN THE USA

DUI has an extensive service facility offering the highest quality repair services for your DUI drysuit and equipment:

DIVING UNLIMITED INTERNATIONAL, INC.

1148 Delevan Drive

San Diego, CA 92102-2499 USA

Tel: 800.325.8439 or 619.236.1203

Fax: 619.237.0378

Support@DUI-Online.com

**DUI-ONLINE.COM** 

#### INTERNATIONAL

DUI has distributors throughout the world to provide exceptional in-country repair services. For the most current international distributor listing, please visit DUI-ONLINE.COM or e-mail Support@DUI-Online.com



### Responsible Diver Code

#### ARE YOU A RESPONSIBLE DIVER?

#### RESPONSIBLE DIVER CODE

As a responsible diver, I understand and assume all the risks I may encounter while diving.

My responsible Diving Duties include:

#### I. Diving within the limits of my ability and training.

As a responsible Diver, I understand...

- my certification card qualifies me to engage in diving activities consistent with my training and experience.
- the importance of continuing my diving education in the form of supervised activities and training, such as night diving and deep diving specialties.
- the need to keep proficient in my diving skills and to refresh them under supervision if I have not been diving recently.
- there are no limits to what I can learn about diving. The more I know, the safer I'll be.
- my maximum depth should be limited to my level of training and experience.
- I must have training in the proper use of equipment.
- the value of getting specific training in the proper use and application of specialized equipment, such as drysuits and computers.

### 2. Evaluating the conditions before every dive and making sure they fit my personal capabilities.

As a Responsible Diver, I recognize...

- the need for being familiar with my dive sites and the importance of getting a formal orientation to unfamiliar dive sites from a knowledgeable local source.
- the dangers of overhead environments (caves, wrecks, etc.) and the need to seek specialized training before doing such diving.
- I should postpone my dive, or choose an alternate site, if I evaluate the dive site conditions as being more difficult than my experience and training level.
- I should use a surface support station, such as a boat or a float, whenever feasible.

### 3. Being familiar with and checking my equipment before and during every dive.

As a Responsible Diver, I understand...

• that simply owning my equipment does not give me the knowledge and



### Responsible Diver Code

ability to dive safely.

- I must have training in the use of my equipment.
- I should maintain comfort in the use of my equipment through practice.
- my equipment must be equal to the type of diving I will be doing.
- I need to check that my equipment is operating properly before each dive.
- my equipment must be treated with respect and properly maintained and serviced.
- my equipment must be serviced according to manufacturer's specification by a qualified service technician.
- I must follow manufacturers' recommendations on the use of my equipment and must not modify it to perform in a way not intended by it's maker.
- I need to be properly trained before using EANx (Nitrox) and must use proper EANx-designated equipment displaying the appropriate markings.
- the importance of being able to easily release my weights if in distress.
- the value of an alternate air source and low pressure buoyancy control inflation system.
- how to adjust my weights for neutral buoyancy at the surface with no air in my buoyancy control device.

#### 4. Respecting the buddy system and its advantages.

As a Responsible Diver, I recognize...

- I need to keep my diving emergency response skills sharp through practice and mental role playing.
- the importance of planning my dives with my buddy, including communications, procedures for reuniting if separated and emergency procedures.
- diving the plan which my buddy and I agreed to follow helps provide a safe dive.
- · I should always deny the use of my equipment to uncertified divers.

#### 5. Accepting the responsibility for my own safety on every dive.

As a Responsible Diver, I know...

- the importance of maintaining good mental and physical fitness for diving.
- I must not dive while under the influence of alcohol or drugs.
- postponing the dive is the correct action if I am suffering from a cold, hangover, flu or other health deficiency that may cause complications.
- to be watchful for and avoid overexertion.
- diving will be safe if I listen carefully to dive briefings and respect the advice



### Responsible Diver Code

of those overseeing my diving activities.

- the operators I dive with are not responsible for my decisions and actions.
- I should be proficient in dive table use and make all dives no-required decompression dives, allowing for a margin of safety, ascending no faster than 60 feet/18 meters per minute and making a safety stop at the end of every dive.
- to always breathe continuously while diving and never skip breathe or hold my breath.
- proper buoyancy should be maintained at all times buoyant for surface swimming, neutral while swimming underwater.

#### 6. Being environmentally conscious on every dive.

As a Responsible Diver, I ...

- am careful about what I touch underwater.
- do not break plants or coral or collect "souvenirs".
- · respect laws on size and limits for game.
- · collect and dispose of trash I find while diving.
- let dive buddies, resorts and dive operators know how I feel about environmental responsibility.
- never dive in a manner that would hurt the environment.

The resorts and operators I dive with:

- use mooring bouys whenever available or anchor in areas free of live bottoms.
- give thorough environmental briefings to divers before they enter the water.
- contain photo processing chemicals for proper disposal.
- · dispose of trash responsibly.
- uphold environmental regulations and game limits.

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Join the Pack. Be a DOG!

It's about adventure. It's about friendship. It's about FUN!
That's what being a DOG is all about. Now that you are the proud owner of quality DUI equipment, you are a member of the DUI Owner's Group... the DOGs. Just visit the DUI website to register and learn about all the benefits.

