

About Your Northern Diver Drysuit

Thank you for purchasing your new Northern Diver drysuit. If you are only used to diving in a wetsuit or semi-dry then you are in for a very pleasant surprise and will be pleased with the difference it will make to your diving.

Drysuits are very simple to use but we strongly recommend that you practice your drysuit diving technique under controlled conditions in the presence of a qualified diving instructor before taking to the open water.

If you have previous experience of drysuit diving we recommend that you read this manual for its safety tips and maintenance requirements.

Northern Diver use the latest technology combined with attention to detail and strict quality control to ensure your suit provides you with years of trouble free service. Our fully integrated quality management system (which complies with BS EN ISO 9001 & ISO 9002) allows us to adopt a planned and disciplined approach to all aspects influencing quality. With the information in this manual you can ensure that your suit remains in good condition.

If you find any part of this manual is not clear then don't hesitate to contact us. Similarly, if you are unable to understand any information about your drysuit, from whatever source, get in touch. We are here to help.

If there is anything that isn't included in this drysuit manual that you need to know then please get in touch. Also, if you have any ideas for anything that you feel we could help divers with, we are more than willing to listen.

Northern Diver Australia Pty Ltd
Suite 2
96 Manchester Rd
Mooroolbark
3138
Australia

Telephone:
03 9727 4662

Fax:
03 9727 3907

email: enquiries@ndiver.com.au



***Warning** - Northern Diver strongly recommends that you undergo training with a suitably qualified instructor before taking to the open water with a drysuit.*

Drysuit Accessories

HOOD

The water temperature where you intend to use your drysuit will require that you also wear a hood. Northern Diver neoprene hoods are available as an attached dry hood or a separate vented hood. There are various options available.



GLOVES

Hand comfort and protection in cold water requires gloves. There is a large choice of glove types available from standard to gauntlet designs. Dry gloves and the Cuff-Ring System are also available.

FINS

If you previously dived in a wetsuit or semi-dry suit you may find that the boots on a drysuit are a size larger than your diving booties because of the heavy duty construction of our boots. You may find it necessary to adjust your fins or purchase a pair in a larger size.



WEIGHTS

You are likely to require more lead than when diving in a wetsuit or semi-dry suit to compensate for the additional buoyancy of the drysuit. Ankle weights are also an option as many divers prefer the trim this gives them in the water. Your diving instructor should be able to help you with your buoyancy set up.

Our website at www.ndiver.com.au is always open or give us a call on:

03 9727 4662

ADJUSTING THE LATEX WRIST SEAL

If you have adjustable latex seals on the wrists of your drysuit, they may only need trimming if you have large wrists. Use a similar technique to that used for trimming the neck seal, allowing the hole to be approximately 20% smaller than the diameter of your wrist when the circumference is measured. As previously, there needs to be some stretch for the seal to work properly so remove a little at a time. If too much rubber is trimmed the seal is likely to leak. Again, use large sharp scissors and make long cuts to ensure a cleaner cut.

ANY DAMAGE CAUSED TO YOUR NECK SEAL OR DRYSUIT BY TRIMMING IS NOT COVERED BY YOUR WARRANTY

Finally, the edge of all trimming should be as smooth as possible. Any rough or jagged edges are prone to tearing when the suit is worn. Trim any uneven edge slightly to leave as smooth a finish as possible.

ATTACHING THE INFLATION HOSE

Your Northern Diver drysuit is supplied with an inflation hose. This should be connected to your regulator's first stage using a low pressure outlet. If you have any doubts about doing this please contact your approved Northern Diver centre or your equipment service centre.



CEJN Type Part Name: valve016

Hansen Type Part Name: 18npt male hansen plug

It is also possible that your drysuit may have the Blowgun inflation system. Contact us if in doubt.

KNOW YOUR VALVE TYPE!

Always remember that it can be frustrating if, in the future, you order a replacement part for your inflation system and we send you the wrong part.

If in any doubt give us a call on 03 9727 4662 or email info@ndiver.com.au

PUTTING ON YOUR UNDERSUIT

Extra thermal protection can be gained by wearing items such as thermal underwear or t-shirts underneath your undersuit. Thermal socks can also add to your comfort level. It is easiest to sit down and pull your undersuit on up to the waist. Some undersuits, such as the Northern Diver SPX range, have footloops which prevent the undersuit legs rucking up when putting on your drysuit. Standing up will assist you in putting your arms into the undersuit. Do not use excessive force when getting the undersuit over your shoulders - if you have difficulty enlist the help of someone (and reciprocate when they need help!). Finally, close the zip ensuring no fabric or underwear is caught in the zip teeth.

PUTTING ON YOUR DRYSUIT

Most Northern Diver drysuits are shoulder entry - if yours is not a shoulder entry most of these guidelines are still relevant.

It is important to remove jewellery and watches before putting on your drysuit. These items can easily damage wrist and neck seals.

Open the drysuit zip fully. Fold the torso of the suit inside out down to the waist. For ease of dressing, sit down and put your feet into the legs of the suit (if your suit has braces ensure they are on the outside of your legs as you insert your feet).

Stand up, pulling the suit up to your waist. Slide your (optional) braces to a good but not too tight fit.

WRIST SEALS

Some under suits, such as the Northern Diver range, have thumb loops which assist in preventing the undersuit rucking up when inserting your hands through wrist seals.

Insert one arm into the suit sleeve.

A couple of fingers from your other hand can help the seal pass over your hand. Take care as long

fingernails can damage the seal. Keep your fingers together as you

push your hand through the seal. The wrist seal should be flat against

your wrist. Ensure there is no material from your undersuit

trapped beneath the seal as this may cause a leak. If you have any

channels caused by tendons when you move your hand, pull the wrist

seal as far as you can up your forearm. The procedure should be repeated for the other arm.



Neoprene wrist seals may be lubricated with baby lotion or lubricating jelly. Talcum powder may be used for latex seals.

**CAUTION - A BUOYANCY COMPENSATOR (STAB JACKET, ABLJ, BC, etc.) IS ESSENTIAL FOR DRYSUIT DIVING
YOU SHOULD NOT DEPEND ON YOUR DRYSUIT AS YOUR ONLY SOURCE OF BUOYANCY**

CONNECTING/DISCONNECTING YOUR INFLATION HOSE

The inflator hose from your regulator first stage should be fed beneath your arm. To connect it to the inflator valve on your drysuit hold the hose just behind the fitting and pull the collar back. This collar is spring loaded and will slide back when you let go of it. Holding the collar back, push the end of the hose onto the inflator valve fitting. Push the collar forward to lock it in position. Ensure the hose is attached properly and push the inflator button to check that it is functioning properly.

To remove the hose, hold the end of the hose just behind the fitting and push it towards the inflator valve. Hold the hose in this position and pull back on the spring loaded collar. This should disconnect the hose from the inflator valve.

The inflator hose should connect and disconnect from the inflator valve regardless of whether your air tank is turned on or off.

CAUTION - ENSURE THE INFLATOR HOSE HAS A CLEAR PATH TO YOUR INFLATOR VALVE WITH NO TIGHT BENDS OR KINKS

For the latest product information and much more visit

www.ndiver.com.au

After Diving

The zip must be fully opened before attempting to remove your drysuit. Failure to open completely may result in the zip being damaged.

Clean the zip by rinsing with fresh water. If the zip is particularly dirty with sand or dirt after diving it can be cleaned by using an old toothbrush and fresh water (mild soapy water can be used for heavy soiling).

Lubricate the zip with Northern Diver's ZipLube or wax by rubbing the teeth and stringers before each new dive and after cleaning. A complimentary pack of wax/Zip-Lube is included with your new suit. Replacements can be ordered from Northern Diver (see page 17).



It is important to do this - if not regularly lubricated the zip may seize up and fail.



Applying wax to the outside teeth of the zip

**DO NOT USE SILICON SPRAY TO LUBRICATE YOUR DRYSUIT ZIP
THIS CAN DAMAGE THE SUIT AND THE MATERIAL USED AS THE BASE OF THE ZIP**

LATEX SEALS MUST BE PRESERVED WITH TALCUM POWDER AFTER DIVING

LATEX SEALS

Clean the Latex seals using cold fresh water. Latex seals will perish quickly if any kind of moisturising cream, body oils or oil is applied to them. After dives clean the seals using mild soapy water to remove dirt and body oils.

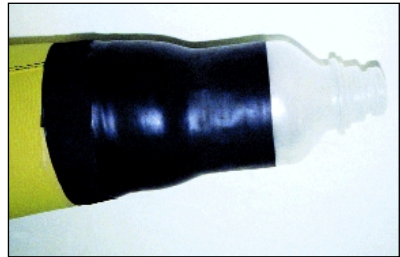
TESTING FOR LEAKS

Should you wish to test your drysuit for leaks after a period of storage, you can do this in your bath. Plug the wrist and neck seals very carefully. A bottle or similar object may be used for this. Connect the inflator hose to an air supply and the suit and inflate the suit. Immerse the suit in a bath and look for any bubbles.

Pouring soapy water over the offending area also easily identifies any leaks.



Neck seal plugged



Wrist seal plugged

IMPORTANT INFORMATION

1 - Follow all instructions. Improper use of a drysuit can cause loss of buoyancy control including uncontrolled descents and ascents including serious injury or death.

2 - Improper use or misuse of a drysuit can result in exposure to thermal hazards and rapid body overheating or cooling which could result in stroke, seizure, hypothermia and death.

3 - This manual is NOT a substitute for proper qualified drysuit instruction and is not supplied as such. This manual is supplied as a guideline for drysuit maintenance only.

4 - Diving in conditions that contain chemical, biological or nuclear contaminants is extremely hazardous and should not be attempted without being specially trained and equipped. The Northern Diver suit you have purchased has not been adapted for use in polluted or abnormal conditions and is therefore not covered under warranty.

Be aware that it is normal for the inside of a drysuit to be damp with perspiration and a small amount of water should not be assumed to be because of a leak or suit failure.

DROPPED OR LOST WEIGHT BELT

If you intend to practise this procedure, you should do so only under the close supervision of a suitably qualified instructor in a controlled environment. Do not attempt to drop your weight belt until you are clear about the emergency procedures in your training.



From the freezing temperatures whilst filming in Antarctica to the remote depths of European cave diving exploration, Northern Diver is the drysuit of choice. Our drysuits have been used in very different and extreme situations, from the military to the emergency services, from expedition exploratory diving to holidays and weekend wreck diving. The Ultimate Drysuit System.