



# Immersion Suit

## Use, Care, and Maintenance Guide

Adult - Universal (Model 1409-NCA)

Adult - Jumbo (Model 1409-NCJ)

Adult - Small (Model 1409-NCO)

Child (Model 1409-NCC)



This manual contains important information. Read it!

Keep this book and the sales receipt together in a safe place for future reference. Please record your Immersion Suit's model's information:

Serial Number: \_\_\_\_\_ Purchase Date: \_\_\_\_\_ Retailer: \_\_\_\_\_

**DO NOT REMOVE THIS PAMPHLET PRIOR TO SALE**

### **SURVITEC SURVIVAL PRODUCTS INC.**

Jacksonville, Florida USA  
Telephone: 904-562-5900  
Fax: 904-562-5901  
www.survitec-spi.com

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7. Snap shut storage bag.
8. Store in an easy to reach location for quick use. Make sure that the suit does not get crushed or compressed in stowage, as this may result in a loss of buoyancy.

When able, store flat or hang on broad hanger.

### 5.0 Hypothermia

Prolonged exposure to cold water causes a condition known as hypothermia - a substantial loss of body heat, which leads to exhaustion and unconsciousness. Most drowning victims first suffer from hypothermia. The following chart shows the effects of hypothermia:

<b>HOW HYPOTHERMIA AFFECTS MOST ADULTS</b>			
<b>Water Temperature</b>		<b>Exhaustion or Unconsciousness</b>	<b>Expected Time of Survival</b>
<b>°C</b>	<b>°F</b>		
0.3	32.5	Under 15 Min.	Under 15 to 45 Min.
0.3 to 4	32.5 to 40	15 to 30 Min.	30 to 90 Min.
4 to 10	40 to 50	30 to 60 Min.	1 to 3 Hours
10 to 16	50 to 60	1 to 2 Hours	1 to 6 Hours
16 to 21	60 to 70	2 to 7 Hours	2 to 40 Hours
21 to 27	70 to 80	2 to 12 Hours	3 Hours to Indefinite
Over 27	Over 80	Indefinite	Indefinite

Immersion Suits can increase survival time because they insulate you from cold water temperatures. Naturally, the warmer the water, the less insulation you will require.

Some Points to Remember about Hypothermia Protection:

1. Always don your immersion suit before entering water.
2. Do not attempt to swim unless to reach a nearby craft, fellow survivor, or a floating object on which you can lean or climb. Swimming increases the rate of body heat loss. In cold water, drown proofing method that require putting your head in water are not recommended. Keep your head out of the water. This will greatly lessen heat loss and increase your survival time.
3. Keep a positive attitude about your survival and rescue. This will improve your chances of extending your survival time until rescued. *Your will-to-live does make a difference!*
4. If there is more than one person in the water, huddling is recommended while waiting to be rescued. This action tends to reduce the rate of heat loss and thus increase the survival time.

### 3.3 Sizing

The IMPERIAL IMMERSION SUIT™ comes in four sizes; Child, Small, Adult-Universal, and Jumbo.

**The effectiveness of this suit system in preventing hypothermia and possibly death depends on it fitting well enough to prevent the ingress of water.**

**Although the Adult-Universal size immersion suit system has been designed to fit a majority of individuals, the suit does not fit all body types equally well.**

**It is important that each person takes the initiative, where possible, to ensure the suit system they intend to wear in an emergency is of a proper size and watertight.**

See Table A for a list of sizes and measurements. Custom, oversized suits are available on request.

Size	Height Range ft./in. (cm)	Weight Range lbs. (kg)
Child (1409-NCC)	3'3"-4'11" (100-150)	40-88 (18-40)
Adult - Small (1409-NCO)	4'7"-5'7" (120-170)	88-220 (40-100)
Adult - Universal (1409-NCA)	4'11"-6'7" (150-200)	110-330 (50-150)
Adult - Jumbo (NCJ)	Over 5'7"-7'3" (170-220)	220 - >300 (100 - >150)

Table A

### 3.4 Inflating Your High Rider Ring

1. Pull back valve at the end of the high-rider ring inflation tube.
2. Bring to lips.
3. Blow air in to inflate

### 3.5 Deflating Your High Rider Ring

Pull back valve at the end of the high-rider ring and allow air to escape completely. Squeeze high-rider ring until all the air is removed.

### 3.6 Light Activation

Activate light per manufacturer's instructions.

### 4.0 Refolding/Storing Your Immersion Suit

1. Lay on flat surface with zipper in the open position one inch from the bottom.
2. Starting at the feet, roll the immersion upwards until you reach the neck.
3. Tuck face flap into the hood.
4. Fold arms over the rolled-up body of the suit.
5. Fold hood over rolled-up suit.
6. Slide lengthwise into the appropriate storage bag.

## 1.0 Immersion Suit Description

### 1.1 About Your Immersion Suit

Your IMPERIAL IMMERSION SUIT™ by Survitec Survival Products Inc. (SSPI) is designed to increase your chances of survival in cold water. Its neoprene design provides inherent floatation and insulation as a measure of protection against hypothermia. A suit maintained in proper working condition significantly increases the odds of survival in extreme cold weather conditions.

The suit can be stored easily and accessed quickly when needed. If additional buoyancy is required, an inflatable high-rider ring is equipped with the suit. It can be inflated by simply blowing air through the oral inflation hose.

Each suit is equipped with a whistle and retro-reflective tape. The whistle is secured to the suit by a lanyard cord and clipped onto the pocket. The pocket also acts as a location for attachment of an approved lifejacket light or an optional Personal Locator Beacon (PLB). See Section 2.1 for information regarding lifejacket light attachment

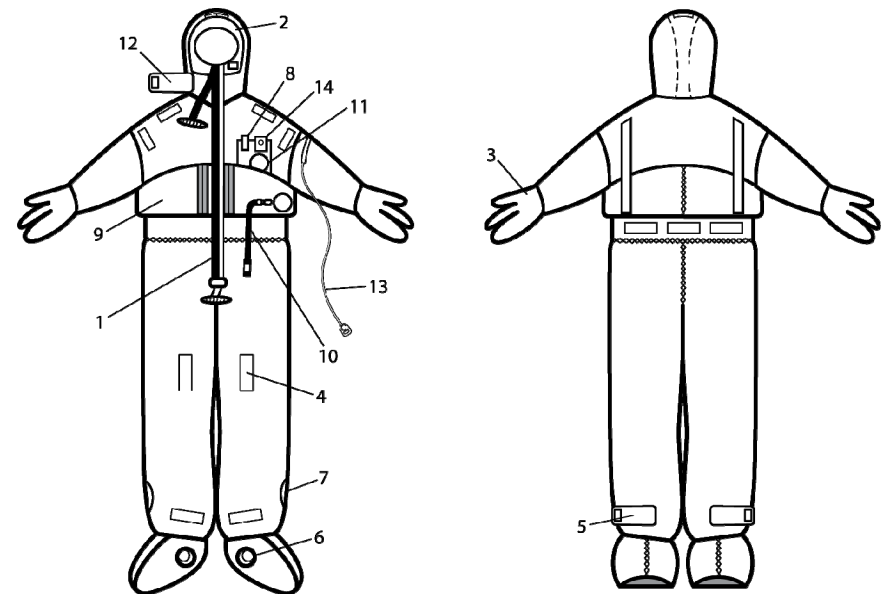


Figure 1

- |                          |                                     |                       |
|--------------------------|-------------------------------------|-----------------------|
| (1) Zipper               | (7) Purge Valves                    | (12) Spray Shield     |
| (2) Face Seal            | (8) Whistle                         | (13) Buddy Line       |
| (3) Gloves               | (9) High Rider Ring                 | (14) LifeJacket Light |
| (4) RetroReflective Tape | (10) High Rider Ring Inflation Tube |                       |
| (5) Ankle Straps         | (11) Pocket                         |                       |
| (6) Toe Valves           |                                     |                       |

## 2.0 Care and Maintenance

Your immersion suit is manufactured to strict compliance standards. This does not excuse the importance of at least quarterly inspections by the user. SSPI recommends approved service station inspections every 3 years. Suits MUST be inspected annually at 10 years of age. Failure to adhere to manufacturer's guidelines may lead to injury or death on the part of the user.

### 2.1 User Inspection

Suggested quarterly inspections by the user should include the following:

Lay the suit on a flat, clean surface. Check the Immersion Suit for rips, tears, holes or punctures that indicate damage. See that all seams are securely sewn, and that the fabric, straps, and hardware are still strong.

Check zipper for ease in closure. Ensure all zipper teeth are in place. Check the zipper slider pull cord for damage and proper attachment to the slide mechanism. If zipper fails to close, send to service station or manufacturer immediately for repair.

Wax front and back of zipper with beeswax. Slide the zipper up and down 3 times to work in the beeswax. There should NEVER be a build up of wax between the zipper teeth. Use nylon brush to remove excess wax. Examine for obstructions in slider.

Glue any minor tears with neoprene contact cement.

Ensure black high rider ring is in place. Check by inflating and submerging in water or let stand for 24 hours to detect leaks. Check inflation hose for any deterioration and/or leaks. If a leak is found, replace high-rider ring.

Ensure retro-reflective tape is in place. Requirements call for 300cm<sup>2</sup> on front and 100cm<sup>2</sup> on back. Replace where necessary.

Ensure two-tone whistle is attached to suit.

Ensure a Transport Canada approved PFD light is attached in accordance with manufacturer's instructions. The light must be replaced on or before manufacturer's expiration date.

Ensure suit is stenciled with Transport Canada approval number & owner's or vessel's name.

### 2.2 Cleaning

**CAUTION:** DO NOT DRY CLEAN OR USE SOLVENTS OR CLEANERS ON SUIT.

1. After use, rinse with cool or lukewarm fresh water.
2. Allow to drip dry.
3. Store with zipper in open position.

**CAUTION:** DO NOT STORE IN A HIGH TEMPERATURE AREA.

After cleaning, turn the suit inside-out and hang on a large, sturdy hanger (common wardrobe hangers will not support the suit). When the inside of the suit is completely dry, turn the suit back to its original position, return to the hanger, and wait until dry.

### 2.3 Storage Bag

Check closures on storage bag as well as the general condition of the bag for ease of removal of the suit. Ensure that donning instructions are legible. Be sure that the bag and size are correct for that particular suit.

### 2.4 Professional Servicing

If there is any damage, contact SSPI for repairs. For the location of the nearest SSPI authorized service facility or to obtain full factory service, product literature, or customer assistance contact the address below.

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## 3.0 Instructions for Use

### 3.1 Pre-Donning Inspection

Follow the steps in Sec. 2.1 to check the condition of your Immersion Suit.

### 3.2 Putting Your Immersion Suit On (Donning)

1. Remove suit from bag.
2. Pull on as you would a pair of coveralls.
3. Pull hood over head.
4. Close zipper with a slow, even pull.
5. Inflate high-rider ring. Pull back valve at end of high-rider ring inflation tube. Bring to lips. Inflate.



Figure 2