



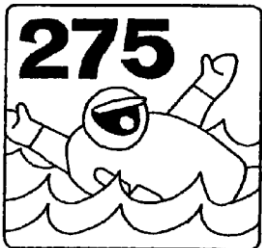
Survival Operations Specialist
SOLAS (74/96) Approved Lifejacket

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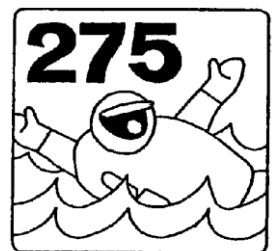
SOLAS Lifejacket Owner's Guide



Featuring - Quick Burst Zipper



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Survival Operations Specialists

"From design to development, production to servicing, our 20 years experience and knowledge in the industry has earned us a reputation as a supplier of proven quality products"

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Survival Operations Specialist

SOLAS (74/96) Approved Lifejacket

GENERAL DESCRIPTION

SOS Marine Lifejackets are a unique inflatable PFD, they are designed to be housed in and around the neck collar valise with a Quick Bursting Zipper and adjustable Waist Belt.

This lifejacket incorporates two (2) zipper pockets, one on the bottom of the valise on the wearer's right and left hand side for checking to see if the cylinder and inflation cartridge are operational.

The waist belt and back strap are constructed from 45mm webbing and features a stainless steel interlocking style buckle and webbing D ring for attaching a safety harness.

A solas flashing signal light can be fitted and would be located on the front chest area. It should be activated upon immersion in water and if necessary turned off during daylight hours.

SOLAS grade tape is located on a minimum of six (3) places on the upper side of the buoyancy chamber.

A pea-less whistle is provided for use in water.

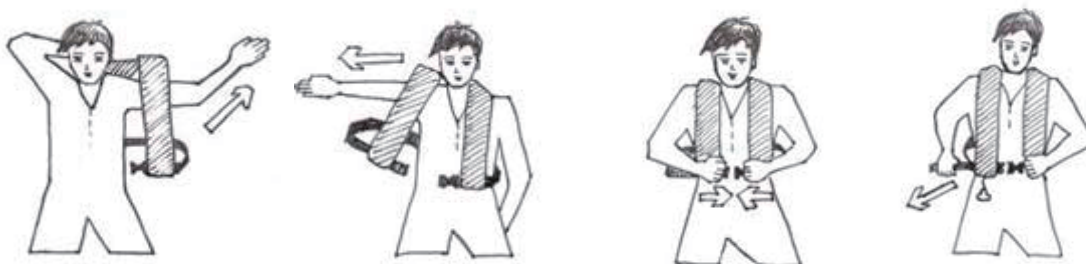
1.0 OPERATOR INSTRUCTIONS.

DONNING: Train yourself in the use of this Device:

It is *vital* the lifejacket is correctly adjusted to fit the user.

- 1.0.1 The lifejacket is donned in the conventional manner. The Yoke style lifejacket is tightly secured to the body with an adjustable waist belt with a stainless steel interlocking style buckle and webbing D ring for safety harness.
- 1.0.2 The lifejacket is fitted with crutch straps that pass between the wearer's legs and secured by side release buckles located to the wearer's right side on the waist strap.
- 1.0.3 To prevent the lifejacket riding up on a wearer when in the water it is vital that straps are properly adjusted as this may prevent the wearer being able to maintain their nose or mouth face up above the water surface.

1) Don the PFD as a Vest





2) Do up waist belt and **Tighten:**

3) Ensure red/yellow inflation lanyard is accessible.

Automatic



Manual



1.0.4 Once the lifejacket has been donned and all adjustment straps have been done up firmly, the wearer is to check that the operating toggle is correctly exposed on the right and left hand side at the bottom of the lifejacket.

1.0.5 Check that the operating toggle can be easily located, gripped and pulled for when activation is required.

1.1 MANUAL GAS INFLATION

1.1.1 Manual gas inflation is achieved by one hard pull on red/yellow toggle attached to the lanyard at the bottom right hand side of lifejacket.



1.2 AUTOMATIC GAS INFLATION

1.2.1 Automatic Gas Inflation will occur when the lifejacket has been immersed in water. Pro-Sensor is fitted with the latest all weather cartridge with the added benefit of inhibiting the accidental ingress of moisture and water spray during hot humid or stormy weather should not activate the inflation system.

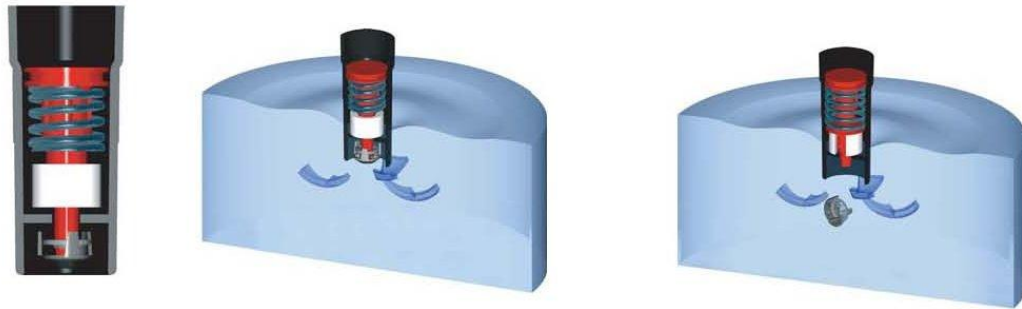


NOTE: Full performance may not be achieved using waterproof clothing or in other circumstances.



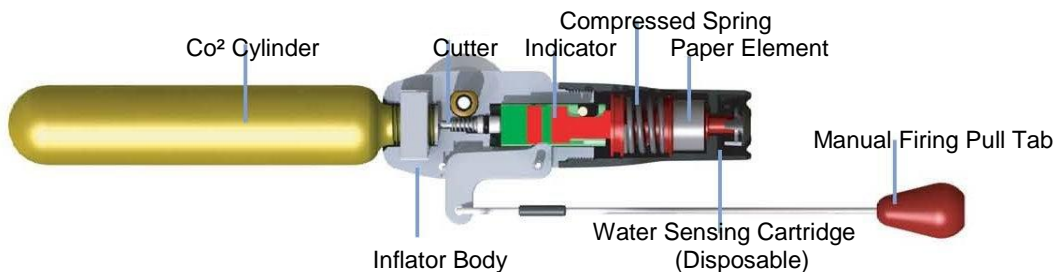
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- 1.2.2 When the automatic inflator system has fired automatically the inflator system turns to red, sensing the cartridge has activated and the CO₂ cylinder has been pierced.



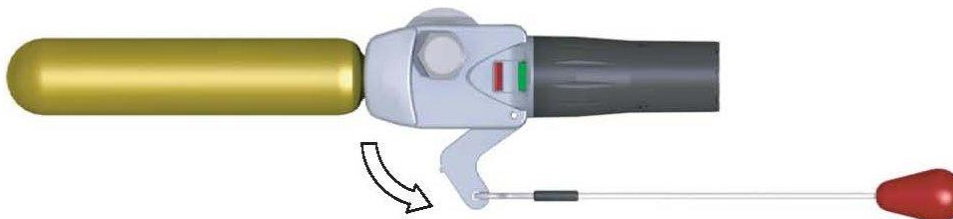
NOTE: If kept dry no service requirements for three (3) years on inflator cartridges from the date of manufacture.

- 1.2.3 The cartridge mechanism is a compressed high powered spring which is held by a paper element. When the paper element comes into contact with water it releases the spring which pushes a plunger forward.
- 1.2.4 The plunger forces the cutter into the Co₂ cylinder allowing the Co₂ to travel through the Co₂ gas hole in the inflator head and inflate the lifejacket.
- 1.2.5 Total buoyancy is normally reached in 4-5 seconds.



WARNING
This is not a PFD until fully inflated.

- 1.2.5 The automatic system is backed up by a manual override, which allows the user to pull the red lanyard and inflate the lifejacket.

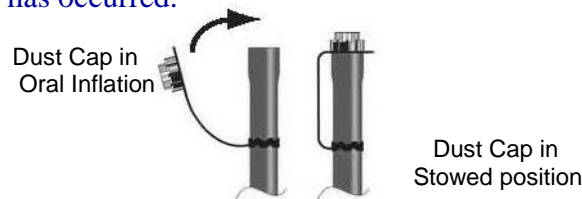


Do not pull on the red lanyard unless the auto mechanism fails to operate.



1.3 ORAL INFLATION/PRESSURE RELIEF VALVE

- 1.3.1 Inspect the relief valve for any signs of damage or cracks, check the function of the valve for its operation.
- 1.3.2 The pressure relief valve operates when the bladder has been over inflated or compressed when inflated preventing damage to the bladder. Normal pressure relief 13.8kpa, leave for a test period for 5 minutes and check to see if the valve has closed .
- 1.3.3 Manual Oral inflation is achieved by locating the manual inflation tube on the left side of the lifejacket, removing the protective cap and blowing into the tube, take care not to over-inflate the buoyancy chamber. Use oral inflation to “top-up” the buoyancy chamber or to complete inflation after partial gas inflation has occurred.

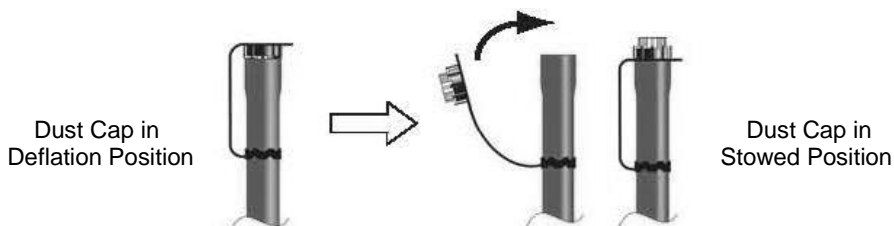


WARNING

**If the lifejacket has been inflated by the gas cylinder,
Take care not to inhale the expelled CO₂ gas.**

1.4 DEFLATING THE LIFEJACKET AFTER USE

- 1.4.1 Reverse the valve cap on top of the oral inflation tube and insert into the non-return valve.



- 1.4.2 Squeeze lifejacket to expel all the residual air from the bladder.
- 1.4.3 The lifejacket has to be completely deflated to enable it to be folded flat.
- 1.4.4 Remove cap and replace in its (stowed) normal position.
- 1.4.5 Re-Arm your lifejacket.



Before Re-Arming: Check that the cutter pin will drop below the rubber seating gasket and the expired sensor cartridge has been removed, the sensor will show green when testing.



1.5 TO RE-ARM LIFEJACKET



Automatic Pro-Sensor firing mechanism (UML)

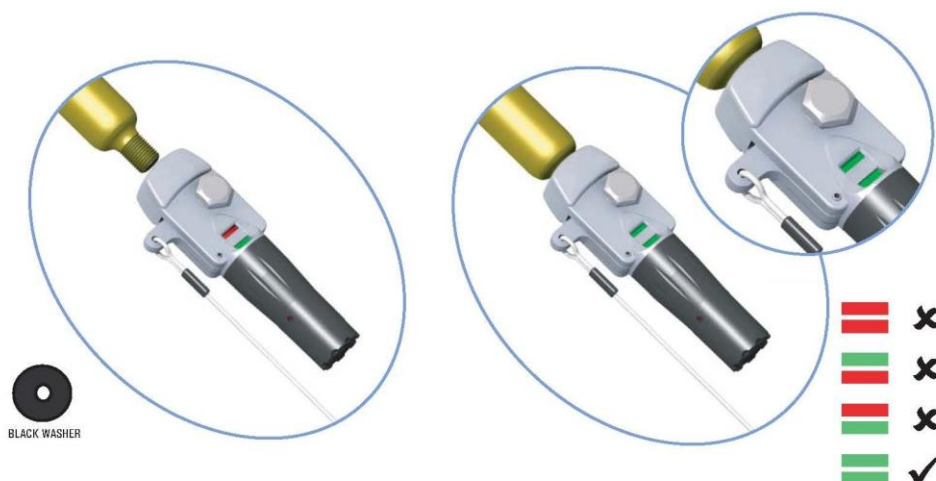


1.5.1 When the manual inflator system has been fired manually the inflator system turns to red, sensing the Co² cylinder has been pierced.


1.5.2 Service Indicator.

GREEN Unit is Operational. **RED**  and Service Unit.

 The system will  show when the product is correctly changed.

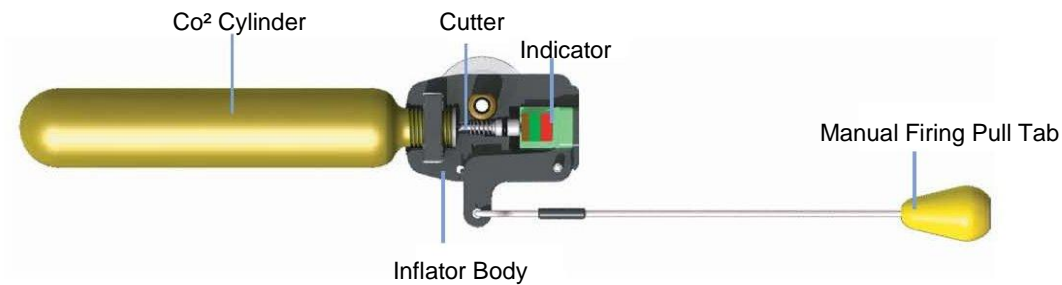




 **Before Re-Arming:** Check that the cutter pin will drop below the rubber gas seating gasket, the sensor will show green when testing.

1.6 TO RE-ARM LIFEJACKET

Manual Pro-Sensor firing mechanism (UML)



1.6.1 When the manual inflator system has been fired manually the inflator system turns to red, sensing the Co² cylinder has been pierced.



1.6.2 Service Indicator.

GREEN Unit is Operational. **RED**  and Service Unit.

 The system will show  when the product is correctly changed.





1.7 INSPECTION SERVICE

- 1.7.1 The lifejacket has a zipper inspection opening on the wearer's right hand and left hand side at the bottom of the valise. To see if the cylinder or the inflation cartridge are still operational, the sensors are **GREEN** unit is operational as in (fig1) and (fig2). If the sensor is **RED** Stop and Service.



(fig1)



(fig2)

- 1.7.2 Unzip and move the zipper slide back around to the bursting element and the other zipper below the bursting element to the bottom of the valise.
- 1.7.3 Unscrew anti-clockwise and remove cylinder.
- 1.7.4 Automatic lifejackets unscrew anti-clockwise automatic inflator head cartridge, if fired replace it with a new cartridge. When replacing screw right up ensuring there is no gap between the cartridge and the inflator head and do up hand tight.
- 1.7.5 The inflation cartridge must be replaced at the end of date expired on the cartridge or if “out of date” before the next inspection or when activated.
- 1.7.6 Check your lifejacket for signs of wear and abrasions.
- 1.7.7 Check air-holding properties of the lifejacket by orally inflate until it assumes its normal shape (firm) and leaving overnight. If air loss does occur, return to SOS Marine or its agent for service.
- 1.7.8 Whilst the gas cylinder is removed, examine the firing head and rubber gas seal make sure when testing that the manual inflation lanyard returns freely and that it is in the closed position. Test its operation by pressing on the cutter pin to see if it travels freely, the unit sensor will show **GREEN** when testing.
- 1.7.9 Inspect the light and battery for any signs of damage or cracking and ensure that the light is firmly attached. Check the expiry date stamp of the battery to ensure the light will be still serviceable by the next inspection period. If the battery will be “out of date” before the next inspection, discard and replace the battery.



1.7.10 Replace gas cylinder-screw-up until tight.

1.7.11 Replace oral inflation cap.

1.8 WEBBING HARNESS AND FITTINGS.

Visual inspections before use:

1.8.1 Inspect all webbing and components and attachment points for wear deterioration or contamination by oil's lubricants or other contaminating substances that may cause damage, check all metal fittings for signs of damage cracking, distortion and corrosion.

NOTE: If any doubt regarding the serviceability, it should be returned to SOS Marine or its agent for assessment and or replaced.

1.8.2 **WARNING:** The deck safety harness is suitable for an adult wearer of 50 kg or more.

1.8.3 **WARNING:** The deck safety harness and safety line are intended to prevent the user falling overboard. They do not provide protection against falls from height.

1.8.4 **WARNING:** The deck safety harness and safety line may transmit very large forces. Only attach to strong Hooking Points or Jack-lines.

1.8.5 **WARNING:** Unless the deck safety harness is supplied with Automatic Tension, it is unsafe to wear this harness loose, the harness shall be worn tightly in order to be effective."

1.8.6 **WARNING:** Use of a sailing harness to prevent falls overboard presents several risks, in case of capsizing or sinking, the boat may take you down as such, ensure that any tether used has quick release under load hardware, this harness has not been designed for all arrest, lifting or climbing and should not be relied upon in any of these instances.

1.9 TECHNICAL DATA (Bladder Assembly)

1.9.1 Personal Application:

Fits adult body weight of 50kg or more with a Chest 76-132cm

1.9.2 LEVEL 275: Made to comply: ISO 12402-2

For Offshore, extreme conditions, special protective clothing heavy equipment.

1.9.3 Harness and Safety line and webbing D Ring attachment the following products conforming to ISO 12401: 2009.

1.9.4 Quick Burst Zipper meets all relevant requirements of: ISO 12402-7.



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- 1.9.5 Multi chamber two separate bladders Spanish yellow 210 Denier Nylon single-side polyurethane coated air and water with ultraviolet resistance. All seams and fitting points are high-frequency welded and air tight.
- 1.9.6 The Valise is made of 500D Nylon Cordura WR finish.
- 1.9.7 SOLAS LIGHT AND BATTERY: - IF FITTED
Water-activated flashing light with manual override.
(Press to turn off in daylight hours)
Weight: 90grammes Visibility: 2.2km
Duration: 8 hours Battery Life: 5 years
- 1.9.8 SOLAS grade reflective tape is located in a minimum of six (3) places on the upper side of the buoyancy chamber and if fitted two (2) places on the hood.
- 1.9.9 Buddy Lifeline and Toggle.
- 1.9.10 Protective Hood.(if fitted)
- 1.9.11 Waist Belt lifting strop.
- 1.9.12 A pea-less whistle is provided for use in water.
- 1.9.13 Weight includes bottle approx. 1100gm.
- 1.9.14 Jaguar Oral inflation/relief Valve 6 ½” Black.
- 1.9.15 United Moulders Limited Fittings.
(Fit only UML fittings to Bladders marked UML)
Automatic/Manual Inflation System is United Moulding Limited:
Manifold Brass UMO 1655/A
Automatic Pro Sensor Inflator Valve ½
Automatic Pro Sensor Inflator Cartridge
Manual Pro Sensor Inflator Valve ½
- 1.9.16 Manual gas inflation only lifejackets are special purpose, marked in accordance with ISO 12402-6
- 1.9.17 Co² Cylinders: 60 gram disposable cylinder operating mechanism.

NOTE: Fit only cylinders that the weight is compatible with the weight indicated on the lifejacket. The gas weight of the cylinder to be fitted is stencilled on the front of the buoyancy chamber directly below the operating head.

WARNING
Gas cylinders are dangerous goods and to be kept away from children.
Gas cylinders are not to be misused.



2.0 HYPOTHERMIA.

2.0.1 Prolonged exposure to cold water causes a condition known as hypothermia -a substantial loss of body heat, which leads to exhaustion and unconsciousness.

2.0.2 Most drowning victims first suffer from hypothermia. The following chart shows the effects of hypothermia and how hypothermia affects most adults.

NOTE: How hypothermia affects most adults:

Water Temperature	Exhaustion and	Expected Time
°C (°F)	Unconsciousness	of Survival
0.3 (32.5)	Under 15 min	Under 15 -45 min
0.3-4 (32.5-40)	15-30 min	30 -90 min
4 -10 (40-50)	30-60 min	1 - 3 hrs
10 -16 (50-60)	1 -2 hrs	1 - 6 hrs
16 -21 (60-70)	2 -7 hrs	2 - 40 hrs
21-27 (70-80)	2-12hrs	3 hrs to Indefinite
Over 27 (over80)	Indefinite	Indefinite

2.1 TWELVE MONTHLY SERVICE

2.1.1 The PFD component of this lifejacket should be serviced a minimum of once every twelve (12) months. Return the PFD lifejacket to SOS Marine or its agent for complete and authorised annual servicing and repairs.

NOTE: It is recommended that lifejackets that are continuously in use are to be inspected from initial issue and checked for serviceability every six (6) months.

The point of contact for service bookings is Ron Smith Email: ron@sosmarine.com.au

2.2 CLEANING AFTER IMMERSION IN SALT WATER.

NOTE: Hand Wash (ONLY)



2.2.1 After immersion in salt water the lifejacket assembly must be rinsed in fresh water. Avoid water ingress into oral inflation tube and the inflation manifold when cleaning.

2.2.2 When cleaning always remove the automatic inflation cartridge and Co² cylinder before rinsing.



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2.2.3 Do not use chlorine bleaches or washing detergents.

2.2.4 Oil and stains should be removed by washing with acid-free soap and rinsed thoroughly in fresh water.

2.2.5 Allow to dry naturally. (Keep out of direct sunlight)

NOTE: Under no circumstances should you try to repair a lifejacket yourself, if you are in any doubt regarding the serviceability of your lifejacket it should either be replaced or returned for testing and repair.

DO NOT



CAUTION

DO NOT wash in washing machine or spin or tumble dry.
DO NOT use other than recommended solvents or cleaning agents

NOTE: When lifejacket assembly is completely dry it must be subjected to the full maintenance procedure.

2.3 STORAGE.

2.3.1 Store the lifejacket in a dry, well ventilated area. It must not be subjected to extremes of temperature above + 60°C or below -30°C. Do not expose the lifejacket to bright sunlight for extended periods when not in use.

2.3.2 It should not be stored in compressed or cramped conditions which may cause damage or deterioration. It is crucial that the lifejacket is folded correctly at all times when not in use in order to protect the internal components.

2.3.3 If the storage conditions are met, the lifejacket can remain in storage between maintenance periods.

2.4 PREPARATION PRIOR TO RE-PACKING.

2.4.1 No PFD inflatable component shall be re-packed into its valise until a full inspection has been carried out.

2.4.2 When the PFDs inflatable buoyancy component has been deemed serviceable complete the following operations.



2.5 RE-PACKING INSTRUCTIONS.

NOTE: Incorrect packing, fitting of incorrect components may result in failure to operate or inflate properly.

- 2.5.1 Extract air/gas by squeezing out all residual air from the bladder or with vacuum pump, until the bladder is flat and crinkled, via the depressed valve in the oral inflation tube.
- 2.5.2 Pull the buoyancy into shape, by laying it out face up on packing bench.
- 2.5.3 Before re-packing inspect to ensure co² cylinder and automatic/manual valve, oral valve-cap, whistle and lifting loop are set up for operations and the zipper slide is back around on the cylinder side for repacking.
- 2.5.4 Fold (i.e. Pleat) the deflated bladder starting at the side and fold inwards to the width of the valise, fold the bladder with the inflation valve toggle line facing outwards and the toggle is protruding fully from the small opening near the bottom if the valise on the wear's right hand side.
- 2.5.5 When closing the zipper making sure that the Velcro flap is secure over the bursting element.
- 2.5.6 Fold (i.e. pleat) the top of the bladder into the top of the valise collar, fastening the zipper together around the top of the valise.
- 2.5.7 Perform the same action on the opposite side of the valise, fold the bladder with the light facing outwards and oral valve into a narrow pleat making sure that the lifting loop is in place and fastened, then insert it into the side of the valise closing the zipper on that part of the valise.
- 2.5.8 On completion tuck the ends of the zipper and slide into the small opening pocket on the bottom part of the valise on both sides completing the operation.
- 2.5.9 Lifejacket is ready for operational use.

APPENDIX

1.0 SPARE PARTS

- 1.0.1 Cylinders 60 gram
60 gm cylinder should be regularly checked and tightly
Fitted into inflator
Product Number SOS-5259



SOS-5259
60G Cylinder
NSN: 4220/661411553



- 1.0.2 Auto inflation head UML, complete
Replacement of automatic inflation mechanism
IMPORTANT: This inflator can ONLY be fitted to bladders marked (UML)
Product Number: SOS-6101



- 1.0.3 Water Activated SOLAS Flashing Light.
The Solas is activated upon immersion in water and can be turned off during daylight.
Product Number: SOS-5593



- 1.0.4 Manual Inflation Mechanism
Replacement of manual inflation mechanism
IMPORTANT: This inflator can ONLY be fitted to bladders marked (UML)
Product Number: SOS-6102



- 1.0.5 Automatic Inflation Bobbin
Replacement water sensing cartridge trigger for all UML Automatic Inflation lifejackets
Product Number: SOS-6100-2



LIFEJACKET NOTES:




MODEL:		
DATE:		SERIAL NUMBER:
OWNER'S NAME:		
SERVICE DATE	NEXT SERVICE DATE	AUTHORIZED FACILITY STAMP

Getting Familiar with your Lifejacket and Inflator.

Testing Your Lifejacket.

- If you want to test your lifejacket in the water, open the lifejacket and follow the manufactures instructions.
- Manual lifejackets remove the co² cylinder from the inflator.
- Automatic lifejackets remove the automatic inflation cartridge and co² cylinder from the inflator.
- Don the lifejacket, following the manufactures instructions.
- Inflate the lifejacket through the oral inflation tube until firm.
- Go swimming, if you are not a competent swimmer ensure the test is performed in safe shallow waters.
- Have help at hand, familiarise yourself with the way you float when wearing the lifejacket.
- After your swim allow the lifejacket to dry naturally (keep out of direct sunlight)
- When completely dry deflate. (Procedure will be in accordance with the owners technical manual)
- Replace the co² cylinder and automatic inflation cartridge.

The sensor will show  when the inflator is correctly charged (see rearming your Pro-Sensor)



AUTOMATIC



MANUAL

Disclaimer: SOS Marine uses reasonable care to ensure that the content of these instructions are current and accurate. Our company does not accept any responsibility for miss interpretation of these guideline instructions.