## $(\mathbf{\Omega})$ Crewsaver Safer By Design

## **USER MANUAL**



## **MARIN 290 LIFEJACKET**

ART0603 i3

## **MARIN 290 LIFEJACKET**

GENERAL DESCRIPTION GENERAL DESCRIPTION The MARIN 200 range of Lifejackets are designed for use by the forces. The high buoyancy level provides added protection when heavy work gear, equipment or clothing is worn. These Lifejackets have a single chamber fitted with a 60g CC, cylinder ensuing full buoyancy of 2900 is achieved during inflation. The MARIN 290 Lifejackets have a yellow Polyurethane coated nylon bladder with x8 pieces of reflective tape (covered by default), a whistle located on the edge of the bladder and a MED approved light.

The MARIN 290 Lifejackets are available with an automatic firing mechanism. The automatic version can be converted to manual operation by simply covering the automatic capsule with a sealing cap (included in the cover).

The MARIN 290 can be worn attached to body armour, through the use of MOLLE webbing. It can also be worn as a standalone lifejacket with the included waistbelt and crotch straps attached.

STANDARD AUTOMATIC INFLATION Automatic inflation of the Lifejacket is achieved by an efficient and lightweight automatic operating unit with replaceable capsule and Co, cylinder. Tests on this component have constantly shown 4 second inflation times from complete immersion. This unit can be manually operated by pulling down on the beaded handle located on the right hand side of the jacket.

MANUAL GAS INFLATION The gas cylinder is fired manually by pulling the beaded handle located on the right hand side of the cover.

ORAL INFLATION The lifejacket incorporates a mouth inflation tube for oral topping up and to allow for deflation after use.

LIGHT The lifejacket is fitted with a MED approved light. No action by the user is required as the light will switch on automatically when the water-activated switch is fully immersed in water. The light can be turned off by pressing the button on top of the light unit.

# IMPORTANT ONLY AUTHORISED PERSONNEL ARE PERMITTED TO CARRY OUT THESE OPERATIONS

BEFORE USE These models are ready for use when purchased. However, the following checks must be made:

The operating head can be accessed by unzipping the zip located on the top neck part of the cover. Check that the automatic firing capsule (C) is screwed fully onto the operating mechanism (B). Ensure that the capsule (C) has not been fired inadvertently by checking that the bottom indicators show green (D). Also check the expiry date on the side of the capsule. Do not use a capsule that is out of date. Check the CO<sub>2</sub> cylinder (A) is securely screwed into the operating mechanism with EXOLOK mechanism and label (F) and fit mesh sleeve (G). Check that the top indicator (D) show green. Ensure pull handle (E) is located in the garage in the jacket cover and cord is not tangled or damaged.



## ADDITIONAL INFORMATION

STORAGE At all times the jacket must be stored, preferably hung up, in a dry well ventilated area. Automatic lifejackets, exposed to any form of dampness during storage could result in spontaneous inflation. If the jacket becomes wet, it is necessary to unfold the jacket from its cover. Remove the automatic capsules if fitted and allow the lifejacket to dry naturally in a warm dry atmosphere. The automatic capsules should be stored in a dry place whilst the jacket is being dired out. Once the jacket is dry, the capsules may be refitted and the jacket pracked (See repacking instructions).

## GENERAL

ed personnel should instruct on the correct donning, operation of inflation mechanisms and oral tube Only approved personn inflation of the lifejacket

THIS LIFEJACKET MUST BE SERVICED, AT LEAST ONCE A YEAR UNDER NORMAL USE, BY AN APPROVED SERVICE AGENT.

IMPORTANT: THE LIFESPAN OF THE PRODUCT IS 10-YEARS WITH SERVICING YEARLY, EXTRA 4 YEARS WITH SERVICING EVERY 6 MONTHS.

 $\ensuremath{\text{WARNING:}}$  inflating your lifejacket using CO\_2 inflation could over pressurise and damage the lifejacket if it has already been inflated orally.

Never use a lifejacket as a cushion or in anyother way likely to cause damage.

 $\label{eq:Warning: This lifejacket is inflated by a CO_2 gas cylinder! Gas cylinders are dangerous goods. They must be kept away from children and not misued.$ 



TESTING YOUR LIFEJACKET Train yourself in the use of the device. In an emergency, there is no time to learn how the equipme orks. Crewsaver recommend that you try your Lifejacket to ascertain its performance before use i emergency. This will also help familiarise yourself with the product.

trying out your Lifejacket, remember that you may need replacement parts or rearming kits to ge your Lifejacket ready for use again.

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General: a) Deflate the jacket completely by reversing the cap of the oral inflation tube and inserting it into the end of the tube. Remove as much gas as possible by squeezing the jacket. If the jacket was inflated by the CO<sub>4</sub> cylinder care must be taken not to breath in the expelled gas, otherwise discomfort in breathing will be experienced.



b) Unscrew the fired capsule before removing the spent cylinder.

c) If the Lifejacket has been in salt water or contaminated water, it is essential to rinse out in fresh water first. Hang the unfolded Lifejacket in a warm and dry atmosphere. Allow to dry out completely.

- d) Once dry, inflate by mouth and check for damage. If damage has occurred, return to Crewsaver for repair or to their accredited agent. DO NOT ATTEMPT ANY REPAIRS YOURSELF OR ANY RIGHTS UNDER MANUFACTURERS GUARANTEE WILL BECOME VOID. Providing the jacket is sound, a new cylinder and capsule may be fitted to the lifejacket.
- e) The MARIN 290 is fitted with an approved light. If the light has reached the expiry date the light must be replaced with a new approved unit.

f) The Lifeiacket should now be repacked ready for use (see repacking instructions).

RE-ARMING YOUR AUTOMATIC OPERATING MECHANISM Always re-arm your lifejacket ready for use before you stow it away. The operating mechanism must be thoroughly dried before re-arming. When re-arming your lifejacket it is important you use only Crewsaver supplied components. For your nearest supplier contact Crewsaver or see www.crewsaver.com



The operating mechanism is now re-armed. Both indicators should show green. DO NO USE if either indicator is red. See www.uml.co.uk for more details on the UML Pro-Elite Mechanism.



## MANUFACTURERS INFORMATION

The service label for the jacket it attached to the back neck of the bladder and it is visible when the inspection pocket is opened.



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DO NOT USE A VACUUM PUMP TO DEFLATE THE LIFEJACKET



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## CREWSAVER SURFACE LIGHT

STANDALONE LIFEJACKET

290

MARIN

The Crewsaver CSL is a high powered white LED water activated surface mounted lifejacket light. The unit is powered by a Duracell Ultra 123 Lithium/Magnesium Dioxide battery. The minimum and maximum light output levels are in excess of IMO requirements. The light is fitted with a water activated switch, which when immersed in water will be the unit flexing. in water will start the unit flashing.

The product life of the CSL is clearly marked by an expiry date. This is printed on the end of the CSL. Upon expiry the light should be removed by prising off the plastic securing clip take care not to damage your lifejacked during this procedure. A new CSL should be fitted.



No action by the user is required as the light will switch on automatically when the water-activated switch is fully

Care must be taken when fitting this type of light to ensure that the light is positioned as high as possible on the lifejacket, but that the lead will still remain fully submerged in water.

## ROUTINE SERVICE

Units are maintenance free, however the following checks should be made at least annually:

- de at least annually: Check the expiry date on the end of the light. Replace light if the expiry date has passed. Inspect light for signs of corrosion and damage. Test the light by pressing the switch (see image below). The light must flash, press the light switch again to turn the flashing off (This will not affect the automatic operation of the light). If the light loss not flash - the unit has expired -and must be replaced. Operation should also be checked during the lifejackets service.
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The CSL light is supplied with a fixing clip (a). The clip is to be placed behind the fabric light retainer (b). The light is secured by pressing the clip onto the back of the light (c).





## **Product Description** Artwork MARIN 290 User Manual ONLINE VERSION Crewsaver Safer By Design USER MANUA S LIFEJACKET MUST BE SERVICED, AT LEAST ONCE A YEAR UNDER NORM USE, BY AN APPROVED SERVICE AGENT. MARIN 290 LIFEJACKET ARTOGES m G G G G Over sty, Infaining much and utwals for damage. If damage has sourced, return to Cenesarov for re-tract assessment as a second statement of the secon B D C A F de and scorer onto the operative Score lightly removing these is The CBL light is supplied with a fixing slip [a]. The slip is in in its planed derival the fidels light relations [6]. The light is searched by pressing the slip axis for has had a fit is light [a]. The operating methy

Changes from Previous Issue:			
Date	Specification Issue Number	PAA Reference No.	Changes to Previous Issue
06/04/2023	i1		First Issue
18/06/2024	i2	PAA-00160	Attachment to body armour instructions updated
21/06/2024	i3	PAA-00161	Spec numbers corrected

# Authorised by:

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The CSL light is supplied with a fixing clip (a). The clip is to be placed behind the fabric light retainer (b). The light is secured by pressing the clip onto the back of the light (c).



To test the light Press once to turn on and again to turn off.



## MARIN 290 STANDALONE DONNING









## PLACEMENT ON BODY ARMOUR (FRONT)





If the back neck tab is not in the correct position, as shown above, adjust the position of the jacket using the back buckles and webbing (highlighted).



On the back neck of the jacket is a black fabric tab (highlighted) which indicates if the jacket when fitted is in the correct position. When the user is correctly wearing the jacket the tab should sit horizontally up against the back of the users neck.

# IMPORTANT ENSURE THE CYLINDER AND FIRING MECHANISM ARE INSERTED INTO THE STRAPS HIGHLIGHTED BELOW



WARNING THE INSPECTION ZIP CANNOT BE OPEN FOR INFLATION

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PLACEMENT ON BODY ARMOUR (BACK)

To fit the back of jacket onto the body armour from the top right and left large spaces (HIGHLIGHTED) COUNT 1 IN and 4 DOWN. At this point thread the buckle through. Insert the MOLLE clip back through the 7 DOWN space so the MOLLE clip matches the previous orientation shown.



IMPORTANT ENSURE THE CYLINDER AND FIRING MECHANISM ARE UNDENEATH THE BLADDER RETAINING STRAP (HIGHLIGHTED)

CYLINDER PLACEMENT

BACK NECK TAB

## PULL HANDLE POSITION

There are two potential positions for the pull handle, FRONT and BACK. OPTION 1: FRONT



## MAGAZINE POCKET PLACEMENT





MARIN 290 BODY ARMOUR ATTACHMENT

FRONT

Image: Construction of the second se

Lay body armour out flat and position MARIN 290 on top.

MARIN 290 BODY ARMOUR ATTACHMENT

2 TRONT

To fit the front of jacket onto the body armour from the top right and left large spaces (HIGHLIGHTED) COUNT 1 IN and thread the buckle through

Image: Second second

Thread the buckle back through the 2 DOWN space.

MARIN 290 BODY ARMOUR ATTACHMENT
MARIN 290 BODY ARMOUR ATTACHMENT
MARIN 290 BODY ARMOUR ATTACHMENT

5
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7

Image: Comparing the state of the state

Thread the buckle back through the 4 DOWN space.

Repeat for other side

To fit the front of jacket onto the body armour from the top right and left large spaces (HIGHLIGHTED) COUNT 1 IN and 4 DOWN. At this point thread the buckle through. Insert the MOLLE clip back through the 7 DOWN space so the MOLLE clip matches the previous orientation shown.



Thread the buckle through the highlighted piece of webbing on the jacket and back through the 3 DOWN space.



Check all MOLLE clips follow the orientations shown above.

MARIN 290 BODY ARMOUR ATTACHMENT





After jacket has been secured, put on the body armour/jacket.

Use the Back Neck Tab to ensure ther jacket is fitted correctly.

Use the Back Adjuster Buckles, if needed, to allow the jacket to sit in the correct position.

## MARIN 290 BODY ARMOUR ATTACHMENT

12



Check that the Pull Handle is in the correct position, as there are two options.

MARIN 290 PACKING INSTRUCTIONS

Before packing, ENSURE the jacket is in the orientation above with the panels and lights fitted correctly.



Ensure zip slider is in the starting position. FOLD up the bottom left of the bladder as far as it will go.



FOLD the outer left side in towards the centre as far as it will go. CONCERTINA the inner left side three times towards the outer left side.

MARIN 290 PACKING INSTRUCTIONS

MARIN 290 PACKING INSTRUCTIONS

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CONCERTINA the top of the bladder down as far as it will go. FOLD in both of the corners of the bladder. Before zipping, ENSURE the cylinder in being held by the STRAPS inside the cover.

ENSURE the inspection zip is CLOSED.

## MARIN 290 PACKING INSTRUCTIONS



CONCERTINA fold should pack like diagram A. ZIP up left hand side of cover.



ZIP up the top of the cover.



FOLD up the bottom right of the bladder as far as it will go.

FOLD the outer right side in towards the centre as far as it will go. CONCERTINA the inner right side three times towards the outer right side. CONCERTINA fold should pack like diagram A. Zip up right hand side of cover to complete packing.



ENSURE the packed jacket resembles the image above