

RONIN

ARMOURSYSTEMS

SPIX™

BODY ARMOUR SYSTEM

OPERATIONAL MANUAL



SUITABLE FOR THE 'SPIX™' BODY ARMOUR SYSTEM

For more information, visit roninarmour.com/spix

Revision A-EN

'SPIX™' BODY ARMOUR SYSTEM © 2024 RONIN ARMOUR SYSTEMS

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PRODUCT INFORMATION

MANUFACTURING DETAILS:

Date of Purchase: [REDACTED]
Carrier Date of Manufacture: [REDACTED]
Inserts Date of Manufacture: [REDACTED]
Workmanship Warranty: Two (2) years
Ballistic Capability Warranty: Seven (7) years
Carrier LOT Number: [REDACTED]
Inserts LOT Number: [REDACTED]
Inserts Serial Number: [REDACTED]

PRODUCT CONFIGURATION:

Carrier Model: [REDACTED]
Carrier Size: [REDACTED]
Carrier Profile/Cut: [REDACTED]
Carrier Colour: [REDACTED]
Armour Layup: [REDACTED]
Shock Absorber: [REDACTED]
Add-On Inserts: [REDACTED]

PRODUCT MATERIAL COMPOSITION:

Liner: [REDACTED]
Cover: [REDACTED]
Shell: [REDACTED]
Inserts: [REDACTED]

CARRIER MANUFACTURED BY:

Anorak Hellas L.T.D
EL081635540

372-374 Acharnon Str.,
P.C. 11145, Athens, Greece

Phone: (+30) 21 02 02 93 38

E-mail: info@anorak.gr

Web: anorak.gr

INSERTS MANUFACTURED BY:

RONIN ARMOUR ApS
DK40505458

Peter Nissens Gang 1,
6310, Broager, Denmark

Phone: (+45) 70 60 45 84

E-mail: contact@roninarmour.com

Web: roninarmour.com

RONIN ARMOUR ApS is wholly responsible for this unit's quality control and procurement.
For any questions, concerns or issues concerning workmanship within the scope of the limited warranty,
please contact us at contact@roninarmour.com or (+45) 70 60 45 84. Thank you.

1.0 - SAFETY ISSUES & NOTES

⚠️ 1.1 WARNING - HEAT STRESS

Wearing this armour system in a desert or hot climate can result in heat stress. Consuming fluids while wearing armour is vital in warm or hot environments.

⚠️ 1.2 CAUTION - SIZE & FIT

Check the label to see if the armour system is the correct size. This is extremely important to ensure adequate protection. Wearing an undersized vest can prevent vital areas of your body from being covered and protected by the armour. This could result in severe injury or death.

⚠️ 1.3 CAUTION: FLAME RESISTANCE

Keep the armour system away from open flames as the carrier lacks flame-resistant properties, and high temperatures will degrade the ballistic materials inside.

⚠️ 1.4 WARNING: WATER SUBMERSION

In the event of an unexpected submersion in water immediately remove the armour system from your person.

1.5 VEST CHECKLIST

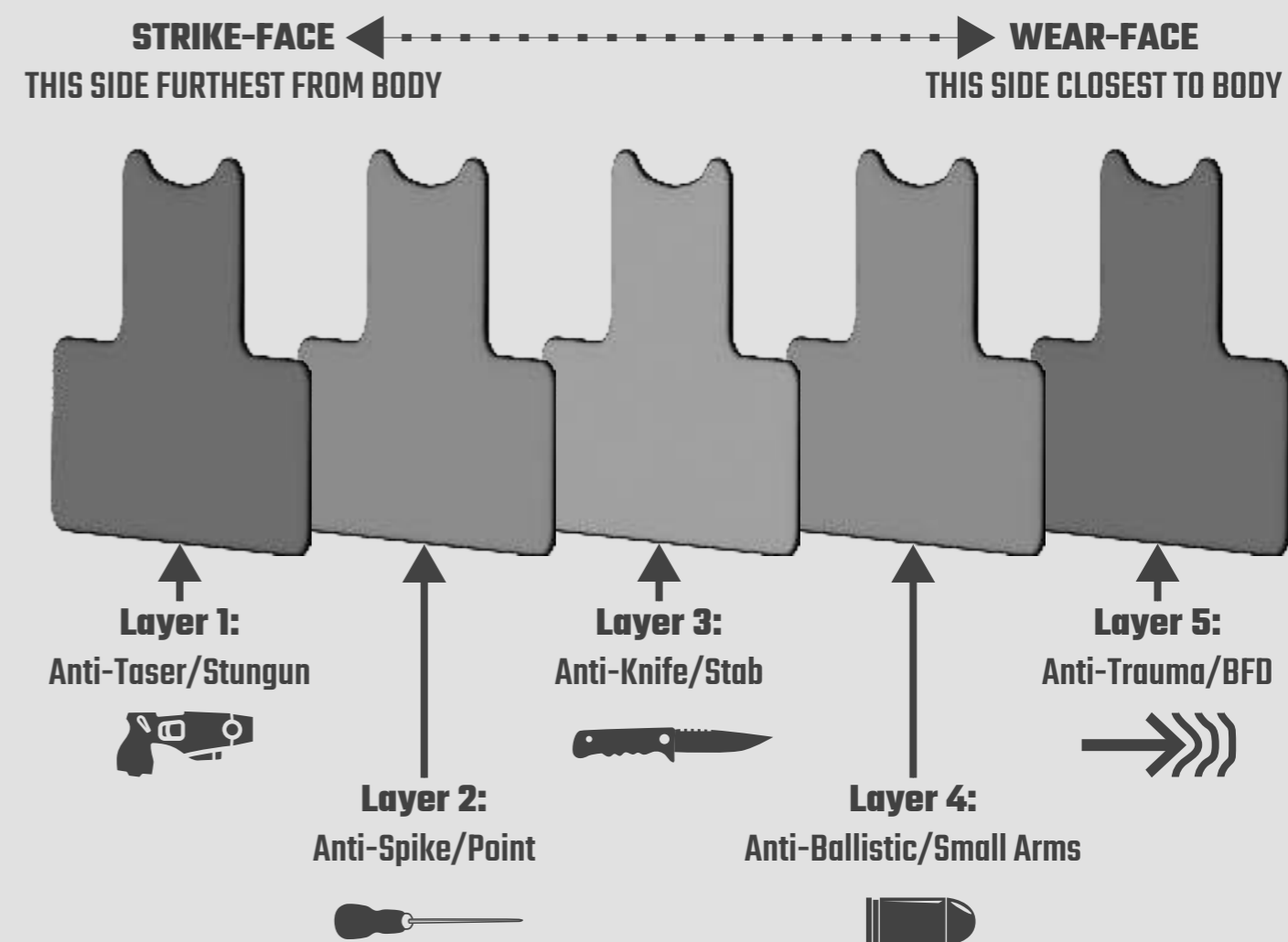
1. Check that the carrier and soft armour inserts have no tears, cuts, snags or other defects.
2. Ensure the soft armour inserts are not bunched up and extend to the extremities of the carrier.
3. Check the carrier's inside label to ensure you have the correct size.
4. Make sure you have received all components:
 - Base Carrier (Including front and back panel)
 - Front & Back Soft Armour Ballistic Inserts (Add-On panels / CARNA™ SA inserts if ordered)
 - 2x Elastic Shoulder Fixation Bands
 - 2x Elastic Waist Wixation Bands
 - Storage & Carrying Bag
 - Operational Manual

If any problems exist, return the vest immediately.

2.0 - INTRODUCTION

2.1.1 Installing Multiple Add-On Panels

It is paramount that additional panels be installed in the correct order for them to perform as advertised. Always layer panels in the order depicted below.



Refer to Chapter 2.1.3 for insert installation instructions.

⚠️ INSTALLING PANELS IN THE WRONG ORDER MAY LEAD TO SEVERE INJURY OR DEATH. ⚠️

2.0 - INTRODUCTION

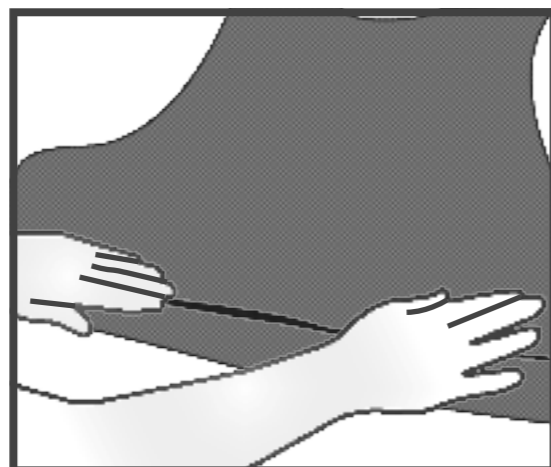
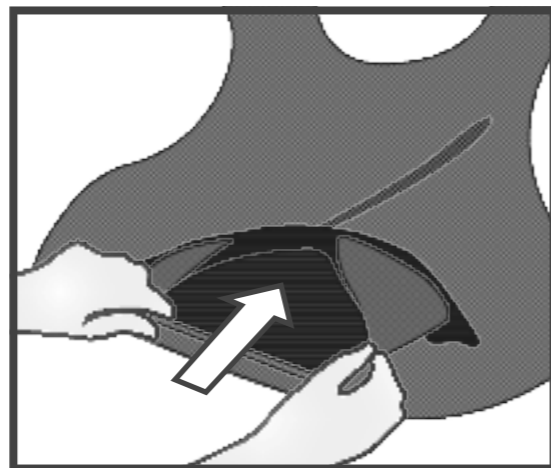
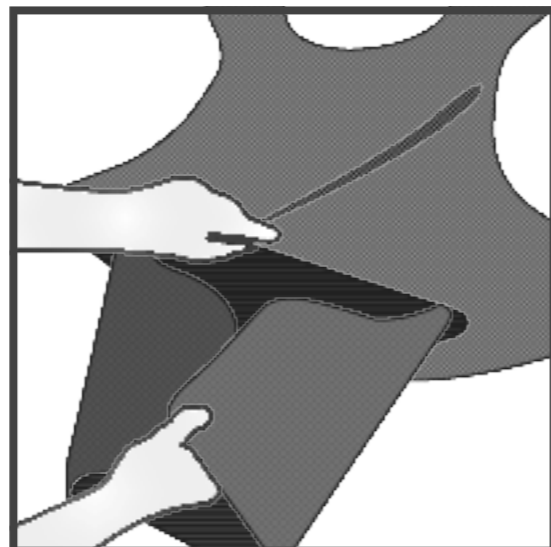
The SPIX™ is an advanced adaptable armour carrier with externally accessible folding plate pockets, allowing the operator to quickly up-armour on-scene in the event of a rifle threat, ideal for patrol vehicles and on-call security services.

2.1.2 ASSEMBLY

The SPIX™ body armour system comes pre-assembled out of the box unless otherwise requested. Reassembly will be required for proper maintenance and cleaning.

2.1.3 Installing soft armour inserts

1. Release the hook and loop around the waist and shoulders for both the front and back carrier panels to separate them.
2. Lay the carrier panels on a flat surface with the mesh padding and internal label facing up.
3. Open the bottom closure by separating the hook and loop.
4. With the label facing you, fold the left and right soft armour ballistic insert's wings to the centre of the panel.
5. Slide the folded panel into the carrier. You can insert your hand into the pocket and pull at the shoulders of the insert to get it seated correctly.
6. Unfold the left and right soft armour ballistic insert wings into the wing pockets of the carrier.
7. Close the bottom closure hook and loop evenly to prevent uncomfortable bunching.
8. Repeat the same steps for the remaining carrier piece.

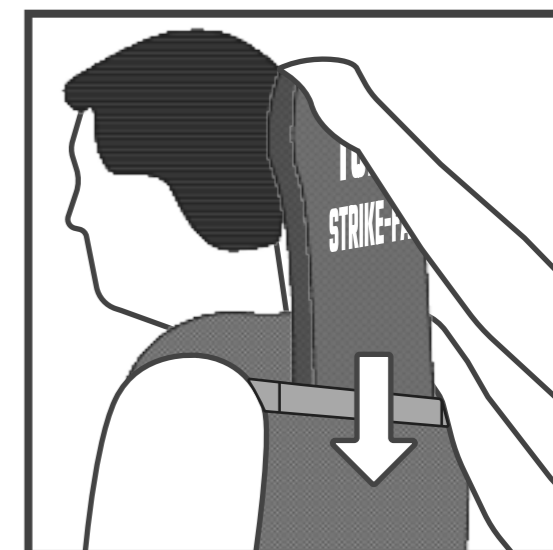
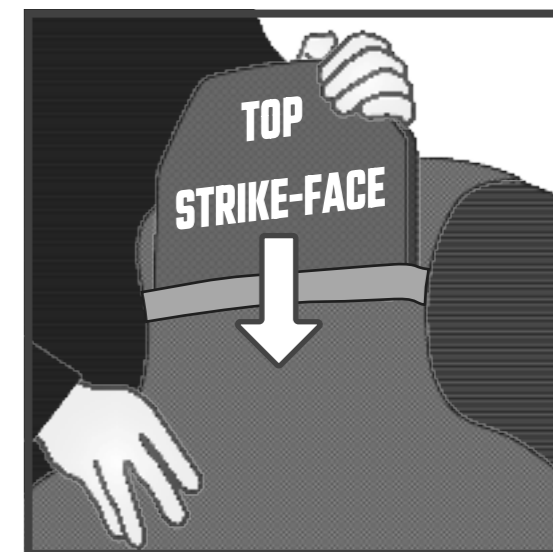


2.0 - INTRODUCTION

2.1.4 Inserting Hard Armour Plates

Hard armour plates serve to mitigate small arms fire and rifle threats, and protect the vital organs in the upper torso against wounds that might otherwise be instantly fatal. Refer to your hard armour plates for their stated level of protection.

1. Take off your carrier and place it on a table or other flat surface.
2. Open the exterior top-loading hook and loop pocket on the front of your carrier.
3. Align the hard armour plate such that the lettering denoting "TOP" is pointing towards the pocket's opening, and the lettering denoting "STRIKE-FACE" is pointing towards you.
4. Slide the hard armour plate into the space of the pocket.
5. Close the hook and loop strip evenly to prevent bunching.
6. Repeat the procedure for the hook and loop pocket on the back panel.



If the plates are being installed while the vest is being worn, have someone help you insert the back armour plate properly to ensure protection.

Please refer to the operational manual that came with your hard armour plates for information regarding maintenance, cleaning, storage, limitations and threat profiles.

⚠️ INSTALLING PANELS IN THE WRONG DIRECTION MAY LEAD TO SEVERE INJURY OR DEATH ⚠️

⚠️ IMPROPER INSTALLATION OR USE OF THE PLATES MAY RESULT IN INJURY OR DEATH. ⚠️

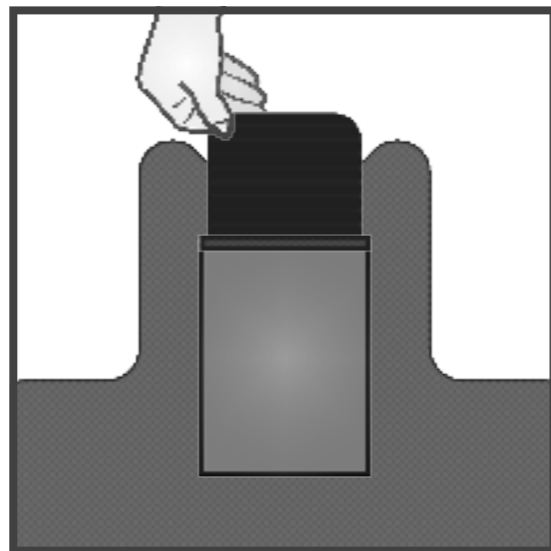
2.0 - INTRODUCTION

2.1.5 Inserting CARNA™ SA Inserts

CARNA™ SA inserts will mitigate critical injuries, such as rib or sternum fractures, alongside severe numbness from damaged vertebrae in the event you're struck by a ballistic threat, while not restricting movement and providing exceptionally efficient energy dispersal without the risk of fracturing or breaking during impact.

Their low-profile and direct integration into the soft-armor insert means they do not inhibit movement.

1. Remove your soft armour ballistic insert from the carrier.
2. Locate the in-sewn pocket on the body side of your soft armour ballistic insert.
3. Slide the CARNA™ SA insert into the respective pocket space. Read the insert's label to determine if it is cut to fit into the front or the back soft armour ballistic insert.
4. Refer to Chapter 2.1.1 for soft armour ballistic insert installation instructions.



The directionality and orientation of CARNA™ SA inserts have no impact on performance. Each CARNA™ SA insert is cut uniquely for the back and front soft armour ballistic inserts.

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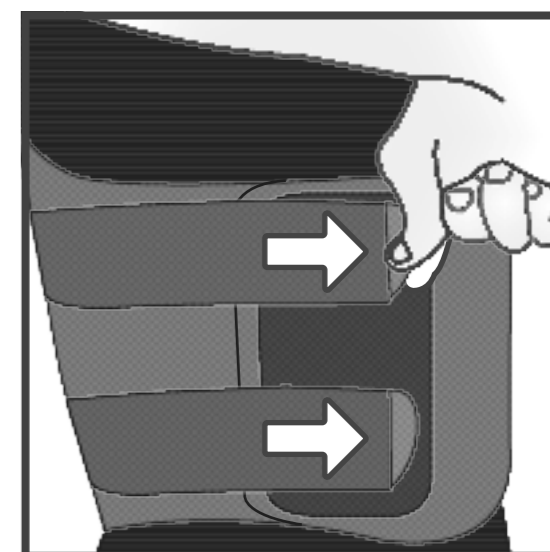
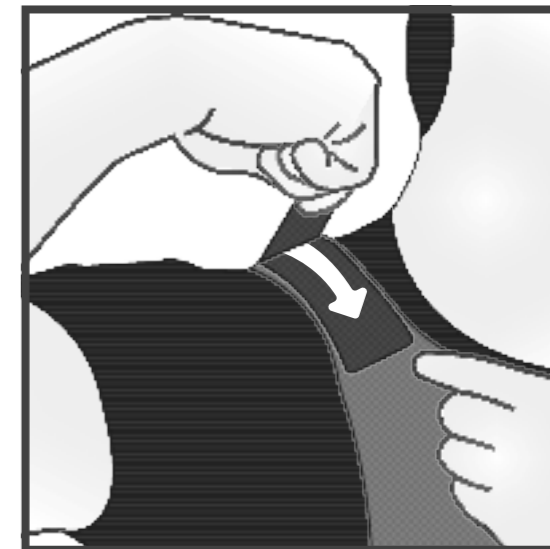


2.0 - INTRODUCTION

2.2 Donning The Vest

The following is a recommendation, and certain individuals may find other methods of donning more comfortable or easier to perform.

1. Regulate the length of the shoulder straps by moving the hook and loop pad up or down to get a tight and comfortable fit for the top of the vest.
2. With both shoulder straps fastened, put the vest on over your head. Note the back panel will feature a logo and sizing label.
3. While looking into a mirror, grab either of the exterior waist straps and fasten them to the front carrier panel as evenly as possible.
4. Continue moving the waist hook and loop straps further inwards until the vest is tight but not so tight as to inhibit comfortable breathing.
5. Take a deep breath, and ensure the vest sits comfortably.
6. If you have the included shirt tails installed, tuck the shirt tail fabric into your pants to ensure stability and prevent the vest from riding up.



The carrier wings should be parallel where they overlap to ensure maximum protection.

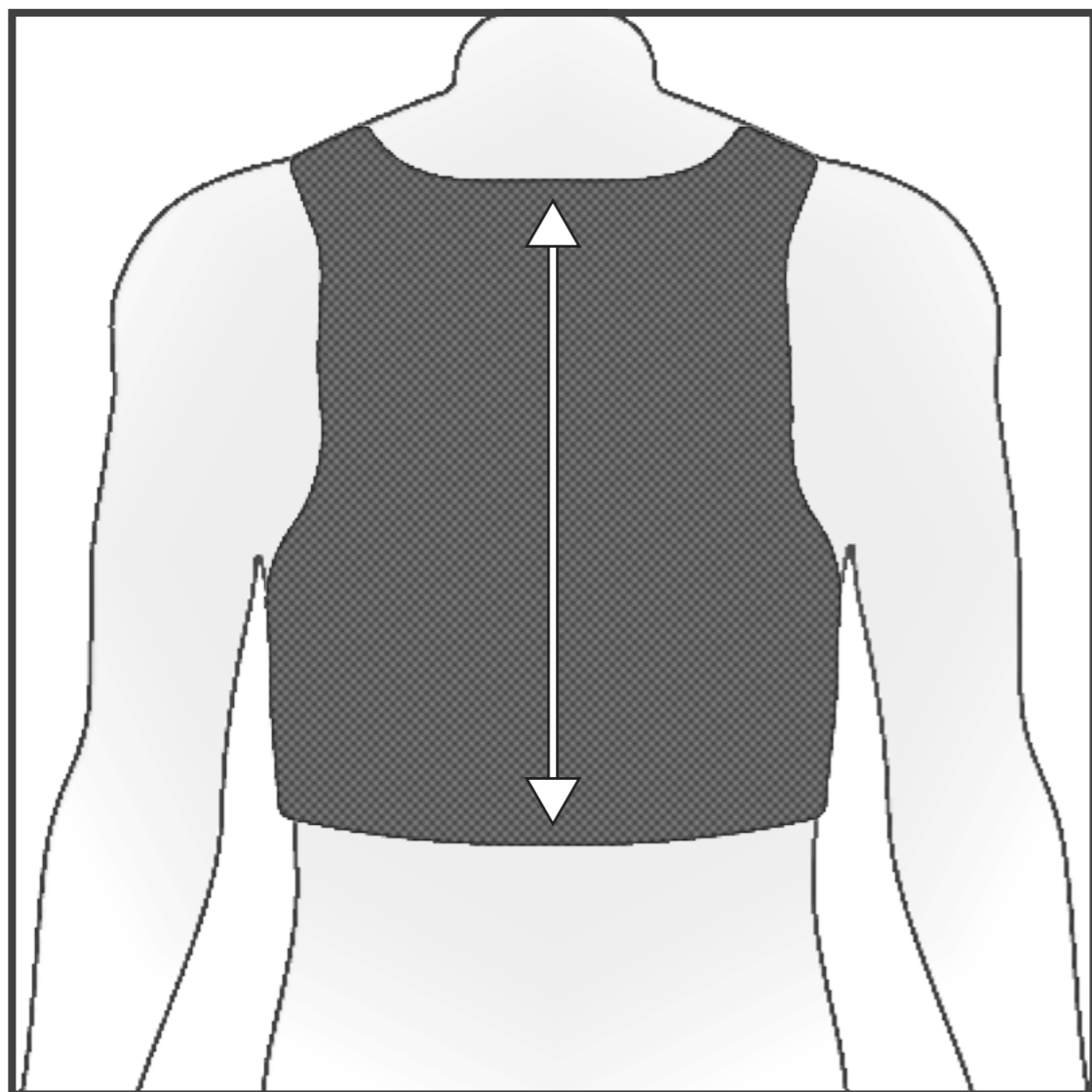
Doffing may be done by only undoing one side of the exterior waistband. This makes the vest quicker to don in the future, as only one strap must be adjusted.

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2.0 - INTRODUCTION

2.3 Fit Check

After donning your armour, check to ensure it is providing adequate coverage. The front panel's top terminating point should sit **2.5-3 cm (1")** below the suprasternal notch, while the bottom terminating point should sit **2.5-3 cm (1")** above your natural waistline or navel.



There should be no gap in the soft armour ballistic inserts in the sides of the vest unless the carrier is explicitly designed without wings.

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3.0 - BALLISTIC CAPABILITIES

Soft armour ballistic inserts are variable and are chosen at the time of purchase. The table below denotes the tested threat profile for the soft armour ballistic insert with which the vest was configured. Check the insert label to see if the model, lot, and serial number designations match.

ARMOUR MODEL:
[REDACTED]

ARMOUR LOT NUMBER:
[REDACTED]



ARMOUR SERIAL NUMBER:
[REDACTED]



3.1 Threat Profile

[REDACTED IN ONLINE VIEWER]



3.0 – BALLISTIC CAPABILITIES



3.2 IMPROPER USE & WARNINGS



 Using the vest without its accompanying soft armour ballistic inserts or hard armour inserts provides no ballistic protection and may lead to severe injury or death. 



 Placing the soft armour ballistic inserts in the wrong direction may adversely affect the ballistic performance of the vest and may lead to severe injury or death. 



 Do not expose to temperatures exceeding **70°C (158°F)**, as this will damage the materials inside the soft armour ballistic insert. 



 The performance of the soft armour ballistic inserts may change with time and wear. Please refer to **Chapter 4.0** and ensure you follow directions regarding care and handling. Failure to do so may result in severe injury or death. 

 Do not use the soft armour ballistic inserts with another manufacturer's carrier or in any unauthorised configuration. The panels are designed to work only with the supplied carrier. Using the soft armour ballistic inserts in any other configuration may negatively impact the ballistic coverage and performance, leading to severe injury or death. 

 Wearing a smaller sized vest than recommended can prevent vital areas of your body from being covered and protected by the armour. This could result in severe injury or death. 

 If you experience severe weight gain, weight loss or other bodily alterations, please refit your vest and ensure you still have adequate coverage. 

 Signs of improper care of any system components will void the limited warranty. These may include but are not limited to creasing in the soft armour ballistic inserts, tears or holes in the carrier, large stains, highly worn threads/seams, visible water damage, and soft armour ballistic inserts having tears or holes. Regardless of the system's age, the limited warranty will not cover any damage from improper use, care or handling. 

 Not following the care instructions in **Chapter 4.0** meticulously and regularly inspecting your vest may lead to severe injury or death. 

3.0 – BALLISTIC CAPABILITIES

3.3 LIMITATIONS

This armour system cannot protect against all threats. - This vest has been tested per NIJ 0101.07 and VPAM BSW 2006 against the threats written on the system's soft armour ballistic inserts and/or hard armour inserts. Wearing this system does not exempt you from taking appropriate protection measures when faced with a threat.

Soft armour ballistic inserts do not protect areas they do not adequately cover - Strenuous movement and physical exercise may cause the vest to shift on the body, affecting actual coverage. Reaffix the vest if it has shifted.

The vest may not provide adequate protection against edge hits. - If the vest is hit close to the edge of the panel of the soft armour ballistic insert, there may not be adequate material nearby to dissipate the energy of the munition or the material may be moved out of the way entirely, resulting in severe injury or death.

Multiple shots impacting in close proximity may compromise the vest's ability to perform against munitions it is rated against. - Due to the nature of the material layup within the soft armour ballistic inserts, layers may be compromised when struck multiple times, potentially leading to the vest being penetrated, causing severe injury or death.

If the vest is struck at an angle, the munition may ricochet or slide off the vest. These ricochets may travel at a high velocity and can cause severe injury or death.

Unless expressly stated on a soft armour insert or an add-on insert, this product provides no inherent protection against contact shots, fragmentation threats, spikes, picks, knives or other sharp and blunt objects.

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4.0 - CARING FOR YOUR VEST

4.1 CLEANING

4.1.1 Carrier

- Before performing **any kind** of cleaning of the carrier, **remove** soft armour ballistic inserts.
- Remove dirt from the outer surface of the vest using a cloth or soft bristle brush.
- Hand clean using a sponge soaked in a solution of lukewarm water and mild detergent or antimicrobial soap or machine wash by placing the carrier in a bag for delicate clothes, and wash using a cold water cycle for delicate garments.
- Air-dry the carrier on a flat surface until it dries completely. **DO NOT** dry in direct sunlight.
- Ensure the carrier is completely dry before re-inserting the soft armour ballistic inserts.
- **DO NOT** attempt to dye or fix discolourations.



4.1.2 Soft Armour Ballistic Inserts

- Soft armour ballistic inserts are cleaned **ONLY** by removing loose dirt from the surface with a cloth or a soft brush.
- If the soft armour ballistic inserts become wet, allow them to air dry in a flat position away from heat sources and direct sunlight.
- If soft armour ballistic inserts become saturated with liquids such as gasoline, bleach or lubricants, replace them immediately.
- **DO NOT** submerge the inserts in any liquid; **DO NOT** iron; **DO NOT** bleach; **DO NOT** machine wash; **DO NOT** dry clean; **DO NOT** apply solvents to the ballistic inserts. **FAILURE TO FOLLOW THESE INSTRUCTIONS WILL DESTROY YOUR SOFT ARMOUR BALLISTIC INSERTS.**

4.2 INSPECTIONS

Turn in your vest/ballistic inserts if:

- They have been struck by any weapon, be it ballistic, stab/slash or pointed instrument.
- The carrier is torn or damaged beyond repair.
- The ballistic inserts are “bunched”, and lumps cannot be flattened.
- The hook and loop closures cannot be closed or come loose when fitted.
- The webbing is torn or damaged beyond repair.
- The vest can no longer be adequately cleaned or is discoloured.
- If any components have been exposed to temperatures exceeding **70°C (158°F)**.

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4.0 - CARING FOR YOUR VEST

4.3 STORAGE

When storing, you should always:

- Clean all components and ensure they are dry before storing.
- Attach all components and insert all ballistic inserts into the carrier in the same manner as when worn. This prevents the loss of components.
- Store the carrier as flat as possible to avoid bunching or stressing the materials.
- It is recommended that the system be stored in a plastic bag to keep out dust, dirt and moisture.
- Store in a dry environment at room temperature (Between 15-40°C / 59-104°F)
- Do not store in direct sunlight.
- Storing your vest in the back seat or the trunk of a car is not recommended.



Failure to follow the instructions and warnings in this product’s operational manual automatically voids the warranty in all respects, including but not limited to any ballistic warranty, and could lead to severe injury or death.



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5.0 – INTERIM REPAIRS

A compromised carrier or ballistic panel should be exchanged at the earliest convenience, but if this is not immediately practical, the following interim repairs can be performed:

5.1 Carrier

Duct- or rigger's tape can be used to fix tears or holes in the carrier, keep the vest closed and tight to the body, or repair any hook and loop that might have been damaged.

5.2 Soft Armour Ballistic Inserts

The outer cover can be temporarily repaired using waterproof cloth-backed tape. Please note that exposure to moisture or sunlight will compromise the materials inside. Immediately exchange the ballistic panel if the internal fibers are visible.

Interim repairs might be the appropriate response under certain circumstances, but performing an interim repair voids the limited warranty and can result in severe injury or death.

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6.0 SUPPLIERS & MATERIALS

[REDACTED IN ONLINE VIEWER]

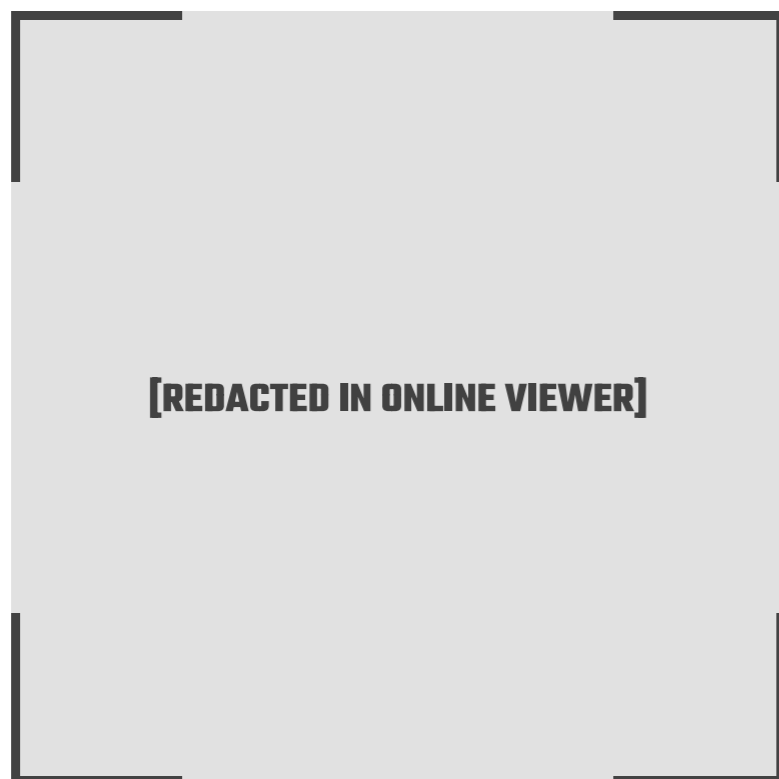
7.0 END OF LIFE AND DISPOSAL

⚠ Wearing an expired piece of body armour may expose you to material degradation that can lead to severe injury or death in the event it gets struck by a ballistic threat. ⚠

Our **End-of-Life Program** is designed to provide a responsible solution for disposing of products that have reached the end of their safe operating period.

By scanning the Q.R. code on this page, you can see information about the warranty status of your vest, and when the warranty has expired, submit it for decommissioning through the same page.

SCAN FOR WARRANTY DATA OR DECOMMISSION



You can read more about our end-of-life programme on our website at: roninarmour.com/eol

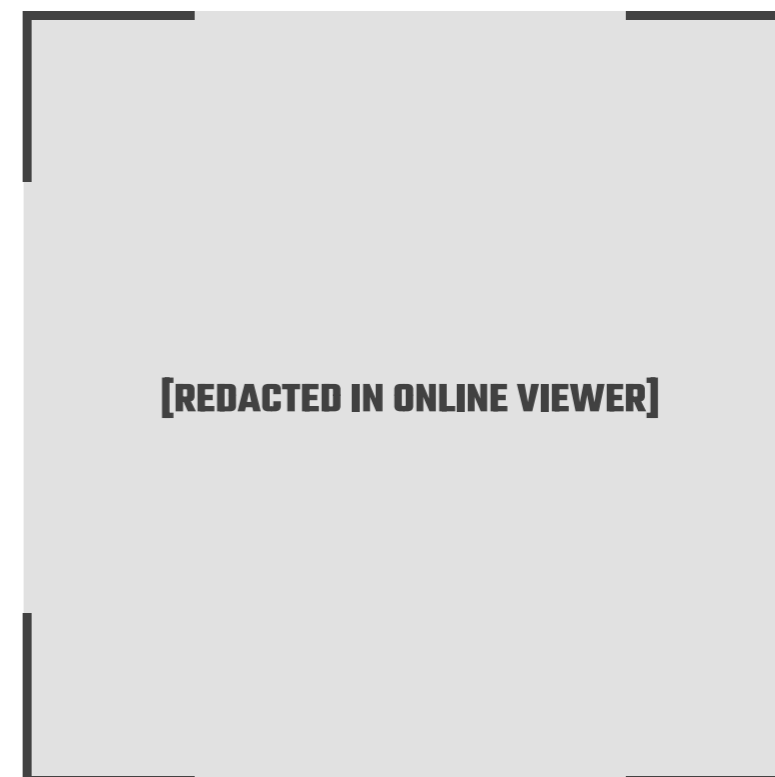
Alternatively you may contact us with questions through an email at contact@roninarmour.com or by calling **(+45) 70 60 45 84**.

8.0 PRODUCT REGISTRATION

Due to the nature of our products and the importance of their reliability, we offer a registration form that requires your consent to store your contact information for the entire validity period of your product.

We do this so that we may contact you if we ever discover a manufacturing defect for a given lot number. This can be caused by many reasons, ranging from mistakes made on our end to receiving defective materials from our suppliers.

SCAN TO REGISTER YOUR PRODUCT



You can read more on our website at: roninarmour.com/product-registration

Alternatively you may contact us with questions through an email at contact@roninarmour.com or by calling **(+45) 70 60 45 84**.

9.0 LIMITED WARRANTY

Unless a separately issued warranty covers an individual product, RONIN ARMOUR ApS (“RONIN ARMOUR”) warrants that all components, accessories, peripherals, and parts will be free from defects in material or workmanship under regular use and service for a period of two (2) years from the date of delivery. The soft armour ballistic inserts sold in connection herewith shall not be defective in their ballistic performance, materials, or construction for a period of seven (7) years from the date of delivery. All repairs covered by this warranty shall be performed at RONIN ARMOUR or other such facilities designated by RONIN ARMOUR unless RONIN ARMOUR specifically directs that repair services be performed at another location. Any defect corrected and found to be within this scope of the warranty will be repaired by RONIN ARMOUR, and RONIN ARMOUR will bear all charges for transport costs, labour and materials. If it is determined that no fault exists by RONIN ARMOUR or the damage to be repaired was caused by the negligence of the user, its agents, employees or customers, you agree to pay all charges associated with each such repair. No statement, recommendation or assistance made or offered by RONIN ARMOUR through its representatives to the user, its agents, employees, or customers in connection with the purpose or intended use of any RONIN ARMOUR product shall be or constitute a waiver by RONIN ARMOUR of any of the provisions of this warranty or change RONIN ARMOUR’s liability under this warranty.

EXCEPT WHERE PROHIBITED BY LAW, THE WARRANTY DESCRIBED ABOVE CONSTITUTES THE SOLE WARRANTY MADE BY RONIN ARMOUR EITHER EXPRESSED OR IMPLIED. THERE ARE NO OTHER WARRANTIES EXPRESSED OR IMPLIED THAT EXTEND BEYOND THE FACE HEREOF, HEREIN, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL RONIN ARMOUR BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES EVEN IF ADVISED OF SUCH DAMAGES, AND THE USER, ITS AGENTS, EMPLOYEES, OR CUSTOMERS REMEDIES SHALL BE LIMITED SOLELY TO THE REPAIR OR REPLACEMENT OF NONCONFORMING UNITS OR PARTS, WHICH AMOUNT SHALL NOT EXCEED THE TOTAL PURCHASE PRICE OF THE PRODUCT UNDER WARRANTY.

Any tampering, misuse or negligence in handling or use of the product renders the warranty void. Furthermore, the warranty is void if, at any time, the user, its agents, employees or customers attempt to make any internal changes to any of the components of a product; if any external component attached by the user, its agents, employees or customers creates conditions exceeding the tolerance of the product; or if any time the serial number is removed or defaced.

OPERATION OF THE PRODUCTS THAT RENDERS THIS WARRANTY VOID WILL BE DEFINED TO INCLUDE ALL OF THE POSSIBILITIES DESCRIBED IN THIS SECTION, TOGETHER WITH ANY PRACTICE THAT RESULTS IN CONDITIONS EXCEEDING THE DESIGN TOLERANCE OF THE PRODUCTS.