



**PROTECTIVE GEAR
MANUAL BOOKLET**



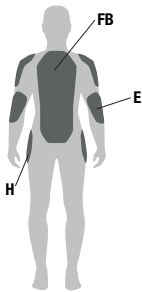
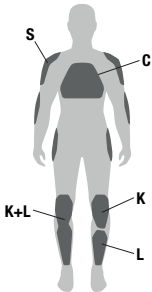
ION

BY PURCHASING THIS PRODUCT YOU BECAME PART OF OUR ION FAMILY. WELCOME AND THANKS FOR YOUR TRUST! PLEASE READ THE FOLLOWING INFORMATION CAREFULLY. WITH CORRECT USE AND CARE, THIS PRODUCT WILL GUARANTEE OPTIMAL PROTECTION FOR MANY YEARS!

APPLICATION

We developed ION protective gear to protect certain body parts from abrasion, bruises and muscle injuries, in the event that you crash with your mountain bike. This gear naturally can not eliminate the risk of serious injuries or death, but with the correct application, it can help to minimize the consequences of a crash. Therefore, do not make any adjustments to the product by yourself, as this may massively reduce its ability to protect you effectively. In this case, the warranty of this product will become void. Please be aware that our products are made exclusively for use in mountain biking.





E ELBOW AND
FOREARM GUARD
K KNEE GUARD
L SHIN GUARD
K+L KNEE AND
SHIN GUARD
S SHOULDER GUARD
FB BACK GUARD
H HIP GUARD
C CHEST GUARD

SAFETY

Our principal at ION:

We only develop and sell products that we trust and that impress us 100%! We test all protective gear under the toughest conditions in the lab as well as on trails and in bike parks. If ION products have to comply with testing standards or certification requirements, they fulfill these. Officially recognized test institutes always test our products according to the latest standards and test specifications. All tested ION Protective Gear products meet the requirements for personal protective equipment in accordance with **PPE Regulation (EU) 2016/425**.



The following European standards were taken into account in the assessment of our products:

EN 1621-1:2012 - Motorcyclists' protective clothing against mechanical impact - Part 1: Motorcyclists' limb joint impact protectors - Requirements and test methods

EN 1621-2:2014 - Motorcyclists' protective clothing against mechanical impact - Part 2: Motorcyclists' back protectors - Requirements and test methods

EN 1621-3:2018 - Motorcyclists' protective clothing against mechanical impact - Part 3: Motorcyclists' chest protectors - Requirements and test methods

You will find the official EU Declaration of Conformity for each model on our website:

www.ion-products.com/bike/service

CERTIFICATION AND LABELLING

You can recognize a certified product according to the PPE Regulation (EU) 2016/425 by the **CE** marking on the info label. You can usually find this label sewn into the top opening of the respective product under the size label and above the care label. Underneath the care label is a label with a serial number. Please quote this number if you have any complaints about the product.

For **Mountain bike knee protectors (K-PACT 47800-5900, K-PACT ZIP 47800-5970)** the Notified Body, SGS Fimko Oy, Takomotie 8, FI-00380 Helsinki, Finland. Notified Body **No. 0598** has executed the EU type examination and the EU Type Examination Certificates.



○ For Mountain bike knee protectors (K-LITE 47220-5919, K-LITE ZIP 47220-5918, K-SLEEVE AMP 47210-5902, K-PACT YOUTH 47210-5928, K-PACT AMP HD 47230-5930), Mountain bike elbow protectors (E-LITE 47220-5920, E-SLEEVE AMP 47210-5903, E-PACT YOUTH 47210-5929, SHIRT LS AMP 47230-5913), Mountain bike shin protectors (S-SLEEVE AMP 47230-5909), Mountain bike hip protectors (SHORTS AMP 47230-5912, SHORTS PLUS AMP 47230-5910) and back protectors (SHIRT LS AMP 47230-5913, SHIRT SS AMP 47230-5940, VEST AMP 47230-5914, TANK AMP 47230-5917) the Notified Body, RICOTEST - Testing & Certification Institute for Footwear & Personal Protective Equipment, Via Tione, 9, 37010 Pastrengol Verona, Italy. European Notified Body **No. 0498** has executed the EU type examination and the EU Type Examination Certificates.

EXPLANATION OF C E MARKINGS

#1 PROTECTIVE EQUIPMENT FOR MOTORCYCLE RIDERS (ISO 7000-2618)

#2 CATEGORY AND TYPE OF PROTECTOR

#3 LOW TEMPERATURE TEST PASSED (IF THE SPACE IS VACANT, THE TEST IS NOT CLAIMED)

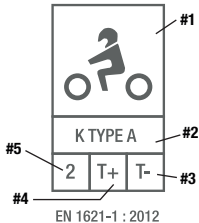
#4 HIGH TEMPERATURE TEST PASSED (IF THE SPACE IS VACANT, THE TEST IS NOT CLAIMED)

#5 PERFORMANCE LEVEL

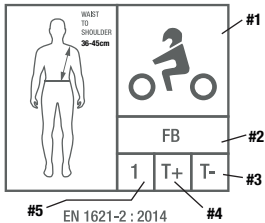




IMPACT PROTECTORS



BACK PROTECTORS



AREA OF PROTECTION

For each type of protector (S, E, K, H, L, C, K+L) the Standard defines two types of dimensions, A or B. The area protected by a type B protector is larger than that covered by a type A protector.

For back protection, check the illustration on page 15.

PERFORMANCE

It is very important that each rider chooses the correct level of protection, according to the accident risks they face, their riding style, and bike discipline. The Standard refers to two levels of protection. Level 2 offers more protection than level 1.



PROTECTION LEVEL

(tested with an impact energy of 50 J in ambient or wet conditions)

POSITION	LEVEL	TOTAL AVERAGE VALUE	INDIVIDUAL VALUE
BACK	1	$\leq 18 \text{ kN}$	$\leq 24 \text{ kN}$
	2	$\leq 9 \text{ kN}$	$\leq 12 \text{ kN}$
CHEST	1	$\leq 18 \text{ kN}$	$\leq 24 \text{ kN}$
	2	$\leq 15 \text{ kN}$	$\leq 20 \text{ kN}$
LIMB JOINTS	1	$\leq 35 \text{ kN}$	$\leq 35 \text{ kN}$ / $\leq 50 \text{ kN}$ <small>area A area B, C</small>
	2	$\leq 20 \text{ kN}$	$\leq 30 \text{ kN}$ / $\leq 30 \text{ kN}$ <small>area A area B, C</small>

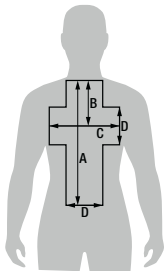
FIT, SIZE, AND POSITIONING

The fit is crucial for protective function! The pads should fit as tightly as possible to the body without pinching or restricting blood circulation. Our size tables for the respective products will give you an overview. It is best to try on different sizes until you find the perfect fit. Your ION dealer will be happy to advise you.



BACK PROTECTORS

The W-S length is the maximum vertical length, measured at the back, from the waistline to the point at which the shoulder meets the neck. To find the waistline, stand upright and pass a measuring tape around your waist 50 mm above the iliac crests.



**COVERAGE OF THE DIFFERENT DIMENSIONS (A/B/C/D)
BASED ON WAIST TO SHOULDER MEASUREMENT**

A - 72% / B - 29% / C - 44% / D - 29%

SIZING: BACK PROTECTORS

SHIRT LS AMP, SHIRT SS AMP and VEST AMP in size **XS** are using the **SAS-TEC Protector SCL-ML 13** for a W-S length of 36 - 41 cm (recommended for body height: 150-170 cm).

SHIRT LS AMP, SHIRT SS AMP and VEST AMP in size **S and M** are using the **SAS-TEC Protector SCL-L 13** for a W-S length of 41-45 cm (recommended for body height: 165-185 cm).

SHIRT LS AMP, SHIRT SS AMP and VEST AMP in size **L, XL and XXL** are using the **SAS-TEC Protector SCL-XL 13** for a W-S length of 45-50 cm (recommended for body height: 180-205 cm).



TANK AMP in all sizes are using the SAS-TEC Protector SC-1/B52 for a W-S length of 48-52 cm (recommended for body height: 155-200 cm).

Sizing Chest Protectors:

SHIRT LS AMP 47230-5913, SHIRT SS AMP 47230-5940, VEST AMP 47230-5914 are using the SAS-TECH Protector SC-1/CP8.

Protection area - C Type B.

Sizing Limb Protectors:

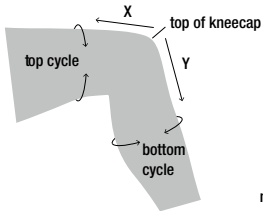
SHIRT LS AMP 47230-5913, SHIRT SS AMP 47230-5940 are using the SAS-TECH Protector SC-1/KCAair. Protection area - S/E/K Typ A, H Type B

SHIRT LS AMP 47230-5913 is also using the SAS-TECH Protector SC-1/ECAair. Protection area - E Type A.

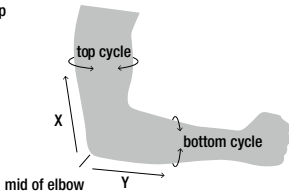
SIZING: KNEE AND ELBOW PROTECTORS / H PROTECTORS

Due to different product lengths (X/Y) there are different size tables for different products. Please check the size charts on the following pages.

KNEE



ELBOW



K-PACT / K-LITE / K-LITE ZIP
(X=10 cm / Y=15 cm)

S 37.7 cm - 41.8 cm (X)
 33.5 cm - 36.1 cm (Y)

XL 46.6 cm - 49.0 cm (X)
 40.5 cm - 42.8 cm (Y)



M 41.8 cm - 44.2 cm (X)
 36.1 cm - 38.3 cm (Y)

XXL 49.0 cm - 51,5 cm (X)
 42.8 cm - 46.0 cm (Y)

L 44.2 cm - 46.6 cm (X)
 38.3 cm - 40.5 cm (Y)

K-PACT AMP HD/ K-PACT ZIP
(X=10 cm / Y=15 cm)

S 37.7 cm - 41.8 cm (X)
33.5 cm - 36.1 cm (Y)

M 41.8 cm - 44.2 cm (X)
36.1 cm - 38.3 cm (Y)

L 44.2 cm - 46.6 cm (X)
38.3 cm - 40.5 cm (Y)

XL 46.6 cm - 49.0 cm (X)
40.5 cm - 44.3 cm (Y)

K-SLEEVE AMP
(X=15 cm / Y=25 cm)

S 41.5 cm - 44.5 cm (X)
33.0 cm - 35.0 cm (Y)

M 44.5 cm - 47.5 cm (X)
35.0 cm - 37.0 cm (Y)

L 47.5 cm - 50.5 cm (X)
37.0 cm - 39.5 cm (Y)

XL 50.5 cm - 53.5 cm (X)
39.5 cm - 42.0 cm (Y)



K-PACT YOUTH
(X=7 cm / Y=13 cm)

YS 28.0 cm - 31.0 cm (X)
24.0 cm - 27.0 cm (Y)

YM 31.0 cm - 33.0 cm (X)
27.0 cm - 29.0 cm (Y)

YL 33.0 cm - 35.0 cm (X)
29.0 cm - 31.0 cm (Y)

S-SLEEVE AMP
(Y=25 cm)

S 33,5 cm – 36,1 cm

M 36,1 cm – 38,3 cm

L 38,3 cm – 40,5 cm

XL 40,5 cm – 42,8 cm

E-PACT / E-LITE / E-SLEEVE
(X=15 cm / Y=10 cm)

S 26.0 cm - 28.5 cm (X)
21.0 cm - 24.7 cm (Y)

M 28.5 cm - 30.5 cm (X)
24.7 cm - 26.7 cm (Y)

L 30.5 cm - 32.5 cm (X)
26.7 cm - 28.7 cm (Y)

XL 32.5 cm - 34.5 cm (X)
28.7 cm - 30.7 cm (Y)

E-SLEEVE AMP
(X=15 cm / Y=15 cm)

S 26.0 cm - 28.0 cm (X)
19.0 cm - 21.0 cm (Y)

M 28.0 cm - 30.0 cm (X)
21.0 cm - 23.0 cm (Y)

L 30.0 cm - 32.0 cm (X)
23.0 cm - 25.0 cm (Y)

XL 32.0 cm - 35.0 cm (X)
25.0 cm - 28.0 cm (Y)



E-PACT YOUTH

(X=10 cm / Y=10 cm)

YS 18.0 cm - 21.0 cm (X)
16.0 cm - 19.0 cm (Y)

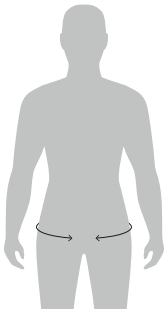


YM 21.0 cm - 23.0 cm (X)
19.0 cm - 21.0 cm (Y)

YL 23.0 cm - 26.0 cm (X)
21.0 cm - 24.0 cm (Y)

HIP PROTECTORS

Proper fit is essential for maximum protection. Please check the hip's circumference in the size chart on the following page.



SHORTS PLUS AMP, SHORTS AMP
HIP CIRCUMFERENCE

XS 85 cm - 90 cm

XL 109 cm - 114 cm



S 91 cm - 96 cm

XXL 115 cm - 120 cm

M 97 cm - 102 cm

L 103 cm - 108 cm

CLEANING

Even your protectors need care. Simply remove coarse dirt with water and a brush or cloth. If necessary, you can apply a mild soap solution. Never use strong cleaning agents or solvents. Some products can also be machine washed as described on the care label.



IMPORTANT: For all limb protectors the PADS must ALWAYS be REMOVED before washing. The main protector of VEST AMP, SHIRT SS AMP and SHIRT LS AMP also have to be removed before washing. You can remove the protector through the slot inside. Protective gear like TAMK AMP where the protective pad cannot be removed may be washed as described on the product label. Improper cleaning may damage the protector and possibly impair its protective effect and flexibility.



STORAGE AND TRANSPORTATION

Our products should be stored dry, well-ventilated, and away from direct sunlight and extreme temperatures. Do not put heavy objects on top of the products or transport them folded or twisted. This can damage fabrics and plastic materials.

WARNING

The protective effect of the pads can be negatively affected by aging, excessive exposure to sunlight, dirt, improper cleaning, or improper use. Pay attention to the material! Examine it thoroughly before each use. Pay special attention to the closures and seams. Your local dealer will help you if you notice faults or damage to the material, seams, or closures.




IMPORTANT

Never use the pads if there are obvious signs of damage or wear and tear, cracks and/or deformation, the closures do not work, or straps are defective. If necessary, the pads must be disposed of in accordance with the relevant regulations.

WARRANTY

The legal warranty regulations of the respective country in which the product was purchased apply.





ION is a division of
BOARDS & MORE GMBH
Rabach 1
4591 Molln, AUSTRIA

www.ion-products.com

SURFING TRAILS

www.ion-products.com