

# RACING SEATS TILLETT



- Comfortable to wear
- Chest impact protection
- Thinnest protector available
- Composite support panels
- Anti shock foam
- Chest angle adjustment
- Damage resistant exterior
- Elasticated strap for breathing
- Harness adapts to movement
- Lightweight and stylish

Tillett Racing Seats were the first company to innovate the use of a hard load spreading layer on a karting rib protector. Our designs have led the development of karting rib protection since 1996. Many features in our products have been influenced by past and present World Champions from karting to F1.

The P1 Defender is a complete all round body protector and is made to exceed the latest 8870-2018 FIA safety specification. It retains the industry leading rib protection and comfort of the standard P1, whilst adding protection to the front and rear to mitigate other potential impacts.

The P1 Defender uses a unique composite manufacturing process to make the load spreading panels tough, lightweight and thin. The panels have carefully sculptured profiles, formed from many years of experience gained by moulding personalised specials to drivers with major rib problems. The panels spread the loads throughout the stronger areas of the rib cage whilst unweighting the lower ribs that float and cannot take pressure.

A very special anti shock foam is used inside the P1 Defender which is designed to absorb impact and is covered with Lycra to add comfort. This material achieves a very high performance within a thin section, making the P1 Defender the thinnest karting body protector available. This means that your kart seat size is unaffected by the addition of the protection, avoiding the need to use a larger seat to accommodate the rib protector and therefore allowing the pelvis and femur bones to give additional support.

Please note that a 8870-2018 rib protector such as the P1 Defender is mandatory in all official CIK FIA karting events.



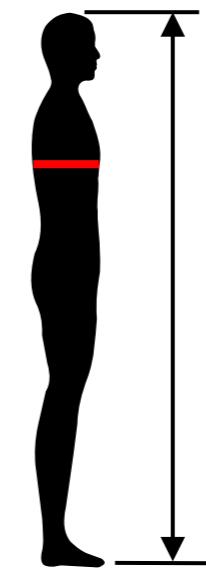
## Size guide

The P1 DEFENDER is available in sizes relating to height and chest circumference.

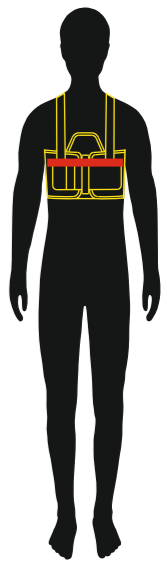
Each height window has a number of circumference choices.

**To wear it as intended by the FIA regulation, your height must fit in the correct height window, or one height category shorter.**

To find your correct chest circumference use a measuring tape pulled tight around the chest. The measurement position shown on the diagram as a red line, is around nipple height for men and young children. The driver should breathe in and out, taking note of the average circumference. It is strongly advised to choose a rib protector that is not too large. When sizing a rib protector, the fit should be viewed exactly as you would fit a crash helmet, with no gaps and definitely not loose. If the driver is between sizes choose the smaller size and **always use the additional 30 mm adjustment at the rear before choosing the next size up.**



Size	Driver Height	Chest circumference
C	<1160	63 - 73 cm
C+	1160/1340	69 - 78 cm
XS-	1340/1520	59 - 68.5 cm
XS	1340/1520	70 - 80.5 cm
XS+	1340/1520	78 - 89 cm
S-	1520/1700	68 - 80.5 cm
S	1520/1700	78 - 90.5 cm
S+	1520/1700	88 - 100.5 cm
M-	1700/1880	78 - 92 cm
M	1700/1880	88 - 101.5 cm
M+	1700/1880	98 - 118.5 cm



## COLOUR OPTIONS



With the CIK karting body protector, the correct height of side panel is regulated. The height of the user is measured from the bottom of the feet to the top of the head with the subject standing upright and wearing neither shoes nor helmet. You must choose a protector that matches your height, if the circumference required falls outside of your height range, or one height size down, a special may be required to keep the protector fit within in the regulations.

# F1 DEFENDER

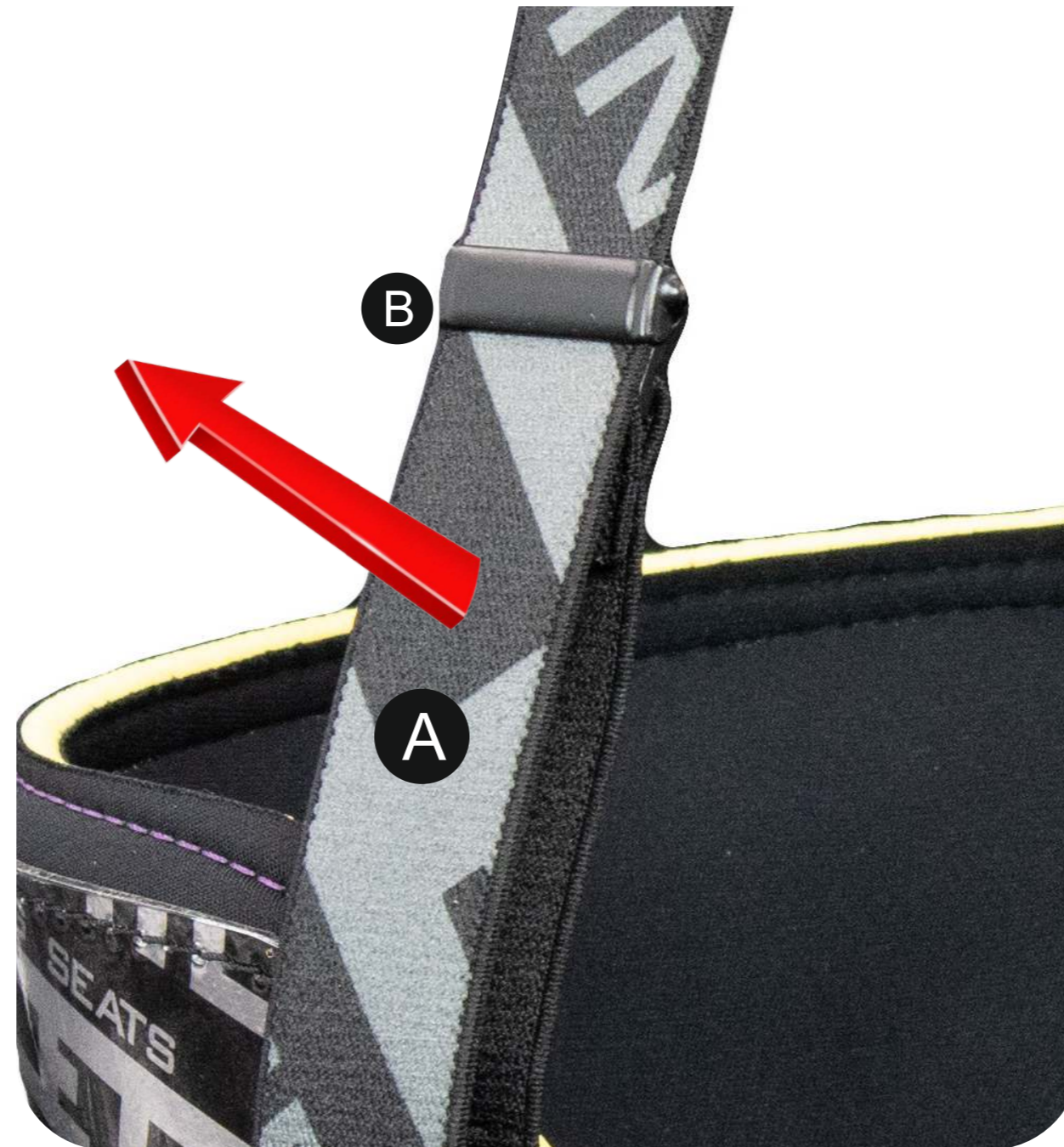
*FLEXIBLE- TO ALLOW THE DRIVER TO TWIST THE TORSO, ROTATE THE SHOULDERS AND PUSH ON THE STEERING WHEEL*

*EASY TO ADJUST- QUICK AND SIMPLE MECHANISM TO LOCK IN THE PREFERRED FIT*

*EASY TO USE- THE FLEXIBLE STRAPS ALLOWS AN EASY ON AND OFF MOTION BETWEEN USE*



## ADJUSTING THE HARNESS STRAP



To adjust the harness, simply pull the strap (Part A) away from the driver to undo the lever clip (Part B). Next, feed the strap through the lever clip to either reduce or increase the length of the harness.



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Maximum front adjustment is achieved when there is a minimum of 10 mm of Velcro overlap between the main front strap and the front hook velcro receptor.



If the protector is closed up to the minimum gap at the front and is still loose, choose a size with a smaller circumference.



There will be a larger gap at the top if your chest is V shaped. A larger gap at the bottom will occur if your chest is square shaped.



The rear has 30 mm more adjustment. Always use this extra adjustment before choosing a larger circumference.



The rear of the two halves will only be parallel if you have an average chest angle.

**Pronounced seat fixing bolts around the rib area of the seat can damage the rib protector or race suit if not covered, as they can create an extreme pressure point against the hard shell of the rib protector.** If your seat has the space in the rib area, we advise that the bolt heads should be surrounded by a minimum of 5mm of firm foam. Use of Tillett ultra low profile stainless steel fittings help prevent this problem and reduce potential pressure point damage. If possible, keep the protector between races fully assembled with your setup and stored in a way where the side panels can not be crushed out of shape. Clean with mild soap and water. Do not use a solvent cleaner.

## FITTING THE RIB PROTECTOR

The P1 DEFENDER must be setup correctly to match the drivers chest profile. It is designed to be worn high and it will not match your torso shape if set too low. The P1 Defender has many adjustments, not only at the front and rear for circumference but also to adapt to varying chest angles. The rear adjustment is set from the beginning and rarely changed thereafter. To lock this angle in accurately, outside assistance is helpful. The driver should hold the two halves of the protector on the ribs and allow them to sit at the natural angle formed by the shape of the chest. The assistant then places on the rear joining panel centrally, locking the angle and width of the two main panels. The rear joining panel, once in position will cover any gap. If you are sized on the upper limit for this size of protector, you should expect to use the full 30 mm rear adjustment. The panels can touch but should not overlap. If the driver has an angular V shaped chest shape, there will be a larger gap at the top of the two panels.

To attach the front strap, pull the Velcro through the central guide on the chest protector. The wide front Velcro strap must remain within the front chest protector guide. Tuck the left side of the chest protector inside the rib protector and fix the Velcro strap to the hook receptor on the outside. The front strap does not need to be pulled really tight for the protector to be effective, just tight enough to stop it from being loose. Using the shoulder harness clips, adjust them to lift the protector to the correct height.

It is a condition of the FIA that when seated in the kart, the top of the chest protection shall not be more than 25 mm below the top of the sternum. Please take note that all Tillett rib protectors are designed to be worn under your race suit and over a thin t-shirt.

The Tillett Chest protector fits inside the rib protector. This feature is unique and by keeping the protection closer to the body it helps spread the load enabling a thinner and more comfortable part. The chest protector is designed to form to the drivers chest shape over time. Please note that you must not disconnect the separate parts from each other, or modify the product in order to comply with the FIA regulation.

**Contact area between seat and Rib Protector with holes cut at bolt points to flatten load area**

