

# INSTALLATION and USE GUIDELINE SCHROTH INTERIOR / RACING NET

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Thank you for choosing our product.

Please follow the simple installation instructions below:

- Install and attach net, using the current FIA 8863-2013 Racing Net Installation Specification Guide [see www.fia.com]. All attachment points must be capable of handling a 2250lbf [10kN] applied pull load. The front strap can be attached with wrap around option, using the 3-bar slide.
- Adjust net using the 3-bar slides to get the net as tight as possible. (see "Wrapping of Net")
- Make sure you are satisfied with the location and attach points of the net. Make sure the attachment points fulfill the FIA Regulations. (see current version of FIA 8863-2013 Racing Net Installation Specification Guide)
- 4) The net shall have a minimum of two vertical webbing straps in contact with the seat-side-head.



Risk of severe injuries or death.

Follow all FIA Safety Guidelines & Regulations and heed all Instructions and Warnings of this Installation and Use Guideline!

### **INSTALLATION PER FIA 8863-2013**

It is recommended that, where possible, the upper-strap of the racing net is positioned *inside* the seat-side-head as shown in Figure 1.

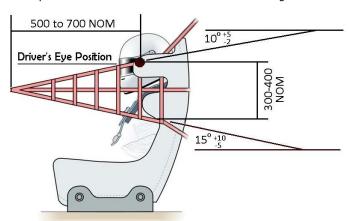


Figure 1: Positioning of net with upper-strap *inside* the seat-side-head [applicable to both Single-front-attachment design and to Dual-front-attachment design]

Note: NOM dimensions for guidance only

Where the above position cannot be achieved, for instance, if the seat-side-head and seat- side-shoulder of the seat are integrated, the upper-strap may be positioned *outside* the seat- side-head as shown in Figure 2.

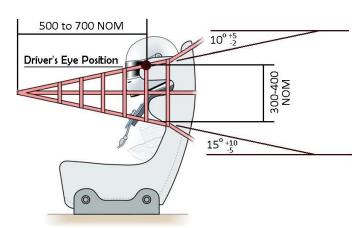


Figure 2: Positioning of net with upper-strap *outside* the seat-side-head [applicable to both Single-front-attachment design and to Dual-front-attachment design]

Note: NOM dimensions for guidance only

### When viewed from the side

- 3.1 the upper-strap¹ shall pass through the eye position +80mm(Z)-15mm(Z) and shall be angled at 10° +5/-2 relative to the horizontal plane. Additionally, the upper-strap¹ shall not run more than 40mm above the top edge of the seat-side-head. And the upper-strap² shall not run below the bottom edge of the seat-side-head.
- 3.2 the middle-strap shall be horizontal  $\pm 10^{\circ}$  relative to the horizontal plane.
- 3.3 the lower-strap $^3$  shall run along the bottom edge of the seat-side-shoulder +0(Z)-100(Z) and shall be angled at 15 $^\circ$  +10/-5 relative to the horizontal plane.
- 3.4 the merge point will, typically, be 500-700mm forward of the driver's eye position.
- 3.5 the net shall have a minimum of two vertical webbings in contact with the seat-side-head.
- 3.6 the eye position of all drivers shall be marked on the external side of the seat-side-head support.

### **Dual-front-attachment only [see Figure 3]**

- 3.7 When viewed from the side, the forward strap shall be horizontal +0-30deg
- 3.8 When viewed from the side, the upper strap shall be vertical +45deg (forward) 20deg

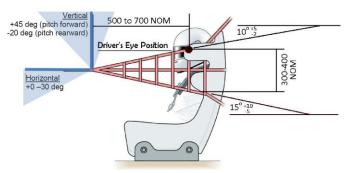


Figure 3: Positioning of net with Dual-front-attachment design

<sup>&</sup>lt;sup>1</sup> measured from top edge of upper-strap

<sup>&</sup>lt;sup>2</sup> measured from bottom edge of upper-strap

<sup>&</sup>lt;sup>3</sup> measured from bottom edge of lower-strap

### Attaching the front and rear straps of the racing net When viewed from above

produce a maximum deformation of 50mm.

### 4.1 the front straps shall be parallel to the longitudinal axis of the car ± 6° as shown in **Figure 4**.

- 4.2 the tension in the racing-net shall be such that, at any x-position of each upper, middle and lower strap of the triangle, a load of 50N applied in a lateral direction away from the driver shall
- 4.3 in order to minimise any potential interference between the frontstrap and the driver's arms or hands, a bungee may be fitted to pre-tension the net away from the driver. Such an installation should not impede the driver's egress when the quick-release of the net is disconnected. Furthermore, the requirements of 4.1 shall be satisfied before the bungee is fitted.

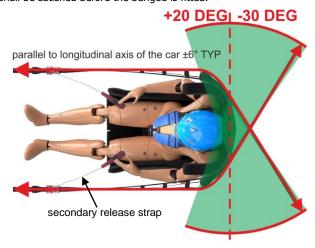


Figure 4: Attachment of front and rear straps

## SPECIFIC REQUIREMENTS FOR RACING NETS ATTACHED TO AN FIA-APPROVED 8862-2009 SEAT

The three rear-straps may be attached to an FIA-approved 8862-2009 seat providing it has the relevant marking on the label: "Valid for attaching racing nets (optional)".

Each of the three rear-straps shall attach to the seat in the same way the net has been homologated and as per the seat manufacturer's instructions.

Each of the three rear-straps shall be positioned in such a way that the strap cannot slide downward.

The rearmost vertical strap must intersect the seat-side-shoulder in side-view.

The net straps shall not be twisted by the seat guides and attachments or constrained in a way that is not prescribed in the seat and net manufacturers' instructions.

### **INSTALLATION AND LOADS**

### **Load Case for Attachment Points**

The front-straps of each Racing Net shall have a single attachment to the car. The attachment shall be designed to sustain 10kN MIN with 15mm MAX deformation.

Each rear-strap of the Racing Net shall attach to the car at a separate position. The attachments shall be designed to sustain 10kN MIN with 15mm MAX deformation.

### **Fitment of handed Nets**

Nets are typically handed; left or right. The net horizontal webbing shall be located towards the driver, to provide the smoothest surface for the helmet to glide on, with the net vertical webbing located away from the driver.

#### Quick release mechanism

When the driver is seated in his racing position with seatbelts tightened, he must be able to reach and open the quick release mechanism of both nets.

In addition, the position of the quick release mechanism must allow rescue crews to easily access and open them.

### Positioning main triangle of the racing net

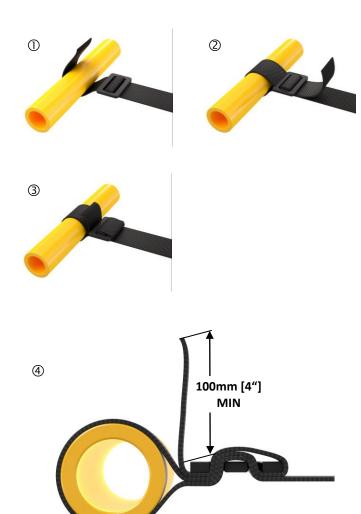
In order to ensure optimal protection, it is imperative that the driver is, first, correctly fitted to the FIA-approved 8862 or 8855 seat.

Once this has been achieved, the FIA-approved 8863 Racing Net shall be installed as detailed below; with the upper strap positioned relative to driver's eye position (with additional limits in Z relative to the seat-

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side-head) and the lower-strap positioned relative to the seat-side-shoulder.

### WRAPPING OF NET



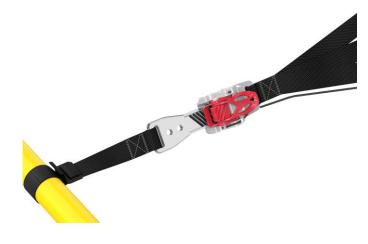
# NET OVERVIEW PUSH BUTTON BUCKLE RELEASE



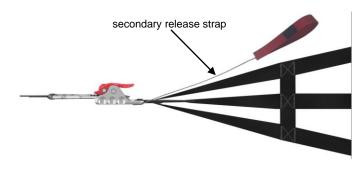
To release or in an event of an emergency requiring exit or extrication, push red release button on front of the automotive style push button buckle.

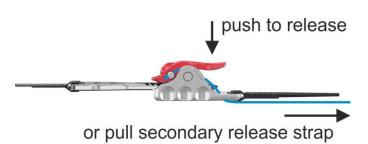
### [Optional stabilization fixation to rollcage – this fixation is not load bearing.]

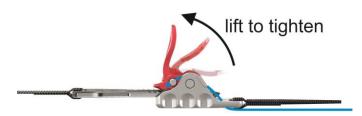




### **DOUBLE TAKE RATCHET SYSTEM RELEASE**







### **5 POINT NET BUCKLE SYSTEM**





this figure shows the right 5 Point Net Buckle System 09577

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### **FIXATIONS TO ROLLCAGE**

Optional stabilizing fixation to rollcage – this fixation is not load bearing.

Latch/Tongue and Ratchet should be installed upwards at a 90°  $\pm 15^{\circ}$  orientation.



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### **5 POINT NET BUCKLE SYSTEM RELEASE**

Press red PRESS button...



this figure shows the  ${\bf correct}$  installation of the right 5 Point Net Buckle System 09577



this figure shows the **wrong** installation of the right 5 Point Net Buckle System 09577



this figure shows the **correct** installation of the left 5 Point Net Buckle System 09077



this figure shows the **wrong** installation of the left 5 Point Net Buckle System 09077

.... and all latches, except one, will release from the buckle



this figure shows the **correct** installation of the right 5 Point Net Buckle System 09577



this figure shows the **wrong** installation of the right 5 Point Net Buckle System 09577



this figure shows the  ${\bf correct}$  installation of the left 5 Point Net Buckle System 09077



this figure shows the **wrong** installation of the left 5 Point Net Buckle System 09077

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### **CARE AND MAINTENANCE**

### INSPECTION

Inspect the net thoroughly for damage before each use.



Cut and Abrasion as shown here require a net exchange.

Make sure that the inspection of the net is included in regular checkups of the race car and its equipment.



Risk of severe injuries or death.

Never use any net that is cut, torn or damaged in any way! Replace it immediately, cut the old one in half, and discard the old net so that it cannot be used again. Cuts, tears and other damage to the net will greatly reduce its effectiveness, may cause it to fail.

### **AFTER AN ACCIDENT**



Risk of severe injuries or death.

Always replace a net used during an accident. It is unfit for further use. The net may otherwise fail in subsequent accident.

Replace it immediately.

FIA and other sanctioning bodies require that inspectors cut the net, or cut the labels off the net, after an accident.

Always inspect all anchorages for damages such as deformations or cracks, after an accident.

Strictly follow the recommendations of the roll cage manufacturer if a repair should be necessary.

Re-use a net that has been in an accident of any type cause serious injuries or death.

### **Notes:**

### **ADDRESSES AND COPYRIGHTS**

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