

SHOULDER SPACING

□ The following formula is used to determine the spacing of the shoulder belts at their attachment to the harnessbar or cage.

$$\text{Formula: } Y = Z - (X * 0.50)$$

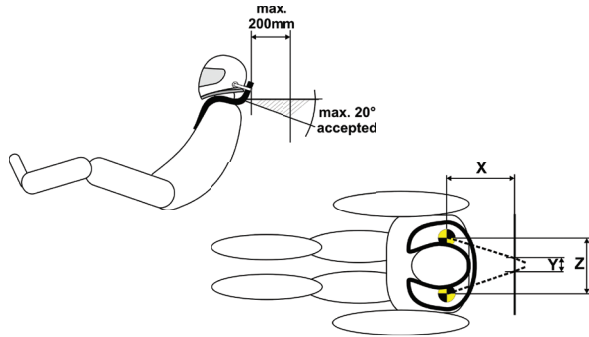
X = Distance from Shoulder Points to attachment. Measure from the highest shoulder point (on top of the HANS® if worn)

Z = Distance mid to mid of webbing at shoulder point

Y = Approximate distance between anchor points. (measured mid to mid of webbing at anchor point)

□ The shoulder belts will cross over when anchor points are located more than 450 mm (18") behind the seat back rest.

□ We recommend a distance of 8" or less from the back of the HANS to the harnessbar when possible.



For Wrap Around installation of 3" webbing.

Reduce results if using HANS specific 2"/3" webbing by 1"

Given Z=10"

X	8"	12"	16"	20"	24"	28"	32"
Y	6"	4"	3"	3"	-3"	-4"	-5"
	side by side		side by side		crossed over		

For Bolt On Installation of 3" webbing.

Reduce Results if using HANS specific 2"/3" webbing by 1"

Given Z=10"

X	8"	12"	16"	20"	24"	28"	32"
Y	6"	4"	2"	2"	-2"	-4"	-6"
	side by side		side by side		crossed over		

BELT WRAPPING

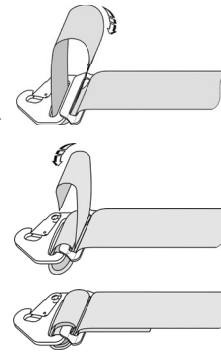
□ LV4, LV17 Lightweight Wrap

1) Place LV 4 with its thicker bar onto the bracket/latch.

2) Run strap end through slot at LV 4 and then from underneath through webbing slot at bracket/latch. Pull through at least 200 mm (8") of webbing. Fold strap end over the wider bar of LV 4 and back through the gap between bracket/latch bar and LV 4 bar.

3) Slide strap end further through the webbing slot at bracket/latch and then fold the strap end through the slot at LV 4.

4) Pull at the load taking strap and the bracket/latch to make sure, the webbing is properly clamped by the wrap hardware.



□ B40, B63 Integrated 3-Bar Adjuster Bolt-in Brackets

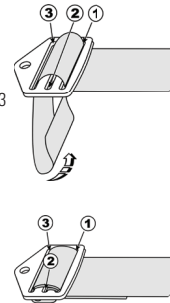
1) Webbing should wrap from the body facing side of bracket up into slot 1

2) Pull through approx. 270 Mm (11") and fold down through slot 3 temporarily leaving 50 mm (2") of slack.

3) Fold back up from the body side through slot 1 and back down through slot 2

4) Fold back through slot 3 and finally through slot 1

5) Pull the lap belt firmly to ensure the wrap is properly tight.



OTHER INFORMATION

□ High density padding is used around cage where head could potentially come in contact. Padding should be either SFI 45.1 or FIA Type A. Flat surfaces should use SFI 45.2 Sheet Padding.

□ Zip ties are used around all rollbar padding to keep it in place

□ Headrest padding - if used - should meet SFI 45.2 standards. (Very high density. Soft padding will allow the head to bounce off the headrest increasing head and neck tensions.)

□ All webbing and hardware is in good condition. No signs of damage, cuts, fading, elongation, etc. Must be within date spec for competition use (SFI 2 years from manufacturing. FIA within 5 yrs). Schroth Rallye series belts do not have an expiration date. We recommend changing them every 7-10 years or sooner depending on the condition of the webbing.

SCHROTH RACING

INSTALLATION CHECKLIST

WWW.SCHROTHRACING.COM
 800.884.BELT
 Imported by HMS Motorsport
 9A Electronics Ave, Danvers, MA 01923

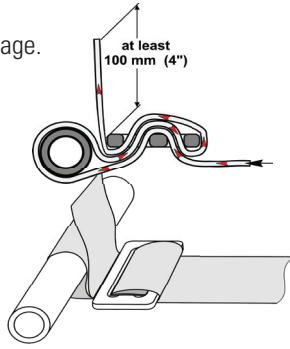
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SHOULDER BELTS

❑ Shoulder belts are correctly wrapped to the harnessbar or cage.

❑ Only one bar of the 3-bar adjuster is showing and it is adjacent to the harnessbar.

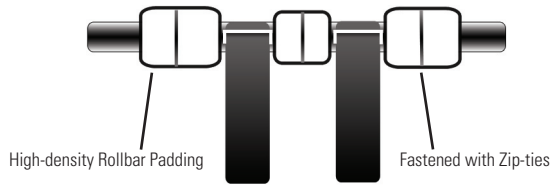
❑ 3-bar adjuster is wrapped and positioned directly against the harness bar/cage or mounting hardware.



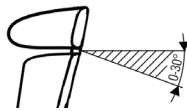
❑ Shoulder belt 3-bar adjusters are not obstructing the belt flow through the shoulder belt opening and are positioned BEHIND the seat back - as close as possible to the bar.

❑ The belt is not twisted or constricted through the shoulder belt opening in the seat. Shoulder openings allow direct passage from the top of the HANS or shoulders - directly to the attachment points.

❑ Shoulder belts are securely fixed in position so that they can not slide horizontally on the harness bar or roll cage.



❑ Shoulder belts run down from HANS or shoulder to the harnessbar at an angle from 0° to a max of -30°. In no case should the shoulder belt run at an upward angle from the shoulder or HANS to the attachment points.

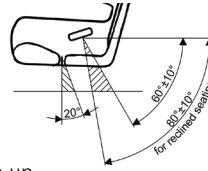


Note: In Approved seats, up to 45° angles are approved for use with Schroth Rallye series belts (includes QuickFits).

❑ Shoulder belts are secured with the proper spacing between the anchor points and cross over each other as needed. (see chart on last back page)

LAP BELTS

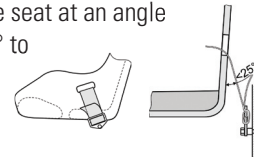
❑ The angle of the lap belt is between 60° (touring cars) and 80° (formula cars) measured from the horizontal allowing the lap belt to ride properly over the pelvis. An angle less than 50° may allow submarining and cause the lap belt to ride up into the abdomen causing injury to the soft tissue region.



❑ When wearing the lap belt - the webbing is not bunched or folded around the seat opening. It must lay flat. The adjusters are not "caught" or positioned in the opening which may cause accidental release or failure when loaded.

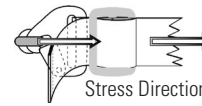
❑ Check beneath the webbing path to ensure it is not rubbing on any edges of bolts, seat brackets, or seat openings that might cut or abraid the webbing.

❑ The lap belt is positioned close to the seat at an angle (as shown at right) not more than 25° to 30° off the seat.



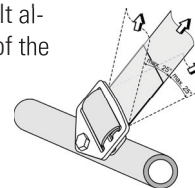
❑ The snap hooks are correctly clipped to the eye bolts with the latch towards the bottom and secured with wire or a cotter pin.

❑ The snap-on bracket does not bind on the eye bolt when pulled in the direction the belt is worn. Adjust alignment of eye bolt using additional wavy washers.



❑ The wrap in end of a bolt-in or snap-on bracket has the 3-bar adjuster as close to the bracket as possible and the final loop of the wrap is complete.

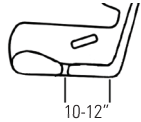
❑ The bolt-in lap belt bracket pivots at the bolt allowing the webbing to align with the flow of the webbing across the lap with an even load across the bracket. Use a pivot sleeve or a lock nut and red locktite and back it off just enough to pivot.



❑ The webbing load of any bolt-in or snap-on bracket must be in plane with the flat side of the bracket. Pulling at a 90° angle will reduce the maximum load of a bracket 60%!

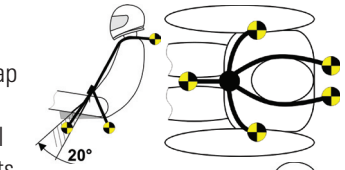
ANTI-SUB STRAPS

❑ The sub-strap opening in the seat bottom is positioned properly.

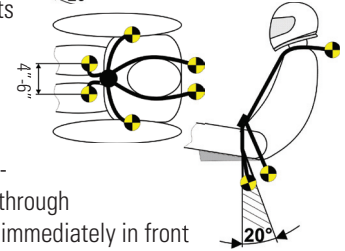


❑ Sub-strap must not be routed around the front of the seat.

❑ A 5-point (single) sub-strap is center mounted 10-20° forward of the tangential plane of the shoulder belts thru the sub-strap hole.



❑ A 6-point (dual) sub-strap is mounted a minimum of 20° rearward from perpendicular drawn to the floor through sub-strap hole in the seat immediately in front of the groin. Two points of attachment should be approx 4" to 6" between (2" to 3" left and right of the centerline).



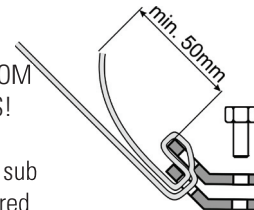
Note: FORMULA CARS where the driver is sitting on the sub-straps: Attach sub-straps rearwards in approximately the same location as the lap belts. This type of setup is typically used with a "Formula Style" or "Hybrid Style" looped sub-strap.

❑ Adjusters on the sub-straps are not positioned or caught in the sub-strap opening in the seat.

❑ Snap-on or bolt-in brackets are attached properly with approved backing plates using the hardware provided by the harnessbelt manufacturer.

NOTE: NEVER MIX HARDWARE FROM DIFFERENT MANUFACTURERS!

❑ If using Double Brackets for bolt-in sub strap applications, wrap is as pictured with 50mm of extra webbing.



❑ The sub-strap webbing is pulling in the proper plane on the hardware.

