

Applies To:

Sport 3's - Reassembly after shipping in "breakdown" length, or any time rear leading edges are removed. Tuning by adjusting sail tension.

Background:

The Sport 3 uses a new leading edge construction that features a new means for adjusting the sail tension by adjusting the length of the leading edge. Refer to the diagrams and photos below.

The rear leading edge is secured in the front leading edge behind the crossbar junction with a 3/16 inch diameter clevis pin and small safety ring. The front leading edge over sleeve has two holes, 9/16" apart, and the rear leading edge has three holes, 3/8" apart, allowing for four different leading edge lengths, in 3/16" increments, with four different corresponding sail tensions. There is a stock setting, where all gliders are initially assembled, two looser settings, and one tighter setting.

During assembly of the airframe, blue tape, 15/16" wide, is applied to the rear leading edge in alignment with the rear end of the front leading edge over sleeve. When re-assembling a glider that was broken down for shipping, simply slide the rear leading edge into the front until the forward edge of the tape aligns with the end of the over sleeve. At this point, one of the holes in the rear leading edge should align with one of the holes in the front leading edge. Install the clevis pin, from the outside or forward side of the leading edge, and install the safety ring.



Right Leading edge, assembled in stock tension position.



Front and rear leading edges disassembled, showing holes.

If it is necessary to loosen or tighten the sail for tuning purposes, first dismount the sail at the rear of the leading edge by removing the clevis pin there. Remove the tape, then remove the pin at the front leading edge over sleeve, slide the rear leading edge in (to loosen) or out (to tighten) by 3/16 of an inch until the next pair of holes lines up, and re-install the pin and safety. Reapply the tape to mark the new adjustment.

If the sail tension on a glider was re-adjusted at the factory for tuning purposes, the blue tape will be moved so that it will still indicate the configuration in which the glider was test flown and shipped.

Early Sport 3's did not have the blue tape marking the stock setting. During production, a black permanent marker line is made on the rear leading edge, marking the alignment of the front leading edge over sleeve when the rear leading edge is all the way forward (loosest sail tension adjustment – 3rd one down in the diagram above). In the stock adjustment, this line should be 3/8" behind the rear edge of the front leading edge over sleeve (not lined up with the rear edge of the over sleeve) as shown in the following picture.



The diagram below shows in detail the four useable alignments if the front and rear leading edges:

- 1) Pin in the forward FLE hole and forward RLE hole – this is the STOCK tension adjustment.
- 2) Pin in the rear FLE hole and rear RLE hole – this adjustment is $\frac{3}{16}$ inch looser than stock
- 3) Pin in the forward FLE hole and middle RLE hole – this adjustment is $\frac{3}{8}$ inch looser than stock
- 4) Pin in the rear FLE hole and middle RLE hole – this adjustment is $\frac{3}{16}$ inch tighter than stock

The setting with the pin in the forward FLE hole and rear RLE hole cannot be obtained because the rear leading edge bottoms out against the rear end of the front leading edge, inside the over sleeve.

The setting with the pin in the rear FLE hole and front RLE hole can be achieved, but this is not a useable setting. This would be $\frac{9}{16}$ " tighter than stock and the sail tension in this configuration would be much too high.)

