

Turning a HQ Symphony 2.2 into a 4-line screamer. *Mod by Rob Eubank*

The HQ Symphony is a spry sport kite with enough pull to pique the interest of a beginner and enough speed to keep it interesting. All around, it's an excellent starter foil. It's quick to master and very predictable in a wide range of winds. With a little bit of sewing, a simple ribbon lanyard and some extra string and handles, it can be transformed into a 4 line screamer with maneuverability you can't find in any other foil kite and without the extra pull of the Beamer, Crossfire or Toxic kites. This document will show you how to create and sew tabs to the trailing edge of the kite and will even teach you my way of making the bridle as slick in the wind as possible.

Materials

- A two line foil Kite** (*I highly recommend the HQ Symphony 2.2 but other options like the HQ Speed series are also quite capable of being modified. Once you move past certain price points however, it may be cheaper to just buy a four line kite than to try and modify a higher end, two line and then add the expense of handles and line.*)
- Ribbon style lanyard** (*the type given out at trade shows or with season passes at some theme parks*)
- Sewing machine** to sew the tabs along the bottom margin of the kite.
- Extra Kite line** (*Bridle line is even better*) *I used Shanti Skybond 350# but any high modulus line will do. Your line selection will affect your ability to back splice the bridle lines but they can be sewn or even tied as needed. Stiffer line helps prevent tangling of the bridles. The kite comes with 80ft 220# lines. If you purchase a 100ft 300# set of Shanti Skybond, the excess line from equalizing the set makes perfect bridle line.*
- An extra set of lines to match your flying lines** (*I'd recommend moving the factory lines to the brakes and getting a set of something 300# or better for the main flying lines.*)
- Set of quad handles.**

Making the Tabs

Cut the lanyard into 8 equal pieces discarding the joining sleeve. Basically you need eight pieces 2 inches or so in length. Fold each piece in half and sew a single seam across halfway from the fold. This seam will be your marker when sewing the tabs on your kite.



Prepare the kite

Lay out your kite and find the midpoint of the bottom. Going from there out to the edges of the wingtips, mark your four control points. Placement should be roughly equal but should be located at thicker parts of the bottom seam where multiple layers of fabric meet whenever possible. Notch the lanyard pieces in so they sandwich the bottom seam of the kite and check for symmetry. Once checked, you can triple-stitch each notch to the bottom hem (See Above) of the kite being careful not to venture into the baffles with your stitching.



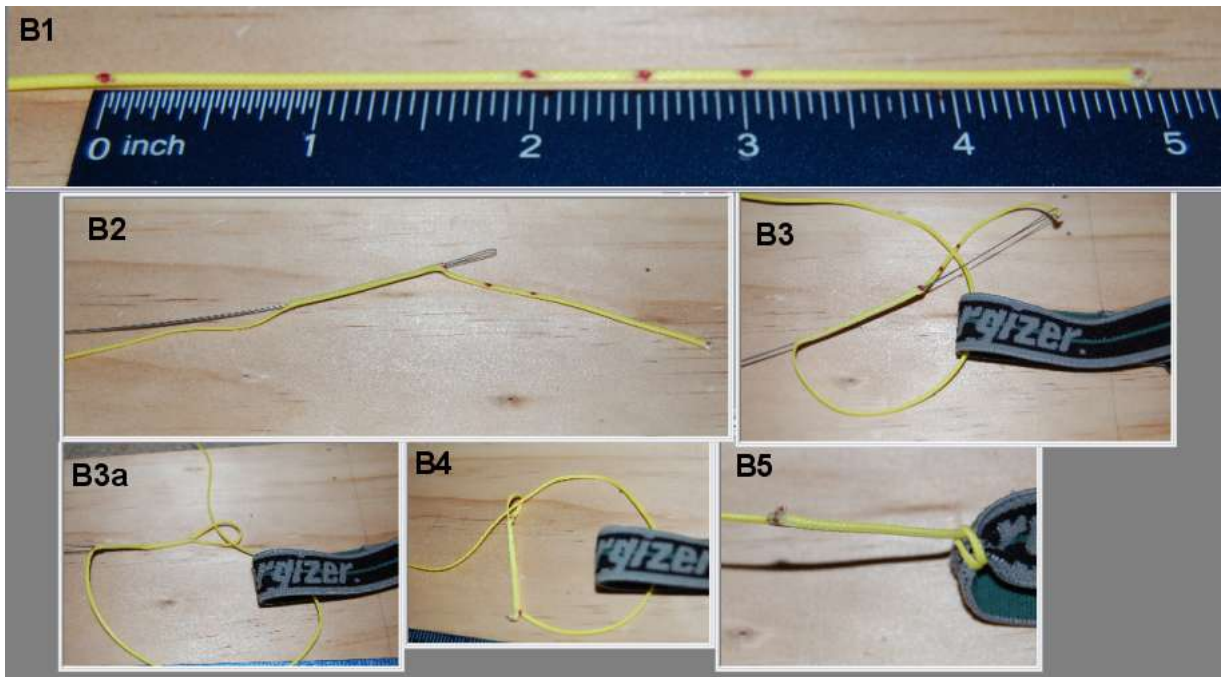
Have someone hold up the kite by the bridle and take a mental note of the profile of the kite. Note the bridle lines at the wing edge are shorter than the ones in the center. You'll want to make sure as you attach your bridles you leave enough slack that the kite can still be flown in two line mode and that applying brakes affects the trailing edge of the kite across the entire edge. The picture below shows attachment points and gives bridle lengths for a 2.2, but there will be a bit of trial and error tuning your bridles the first time. Lengths do not have to be perfect but must be very close especially between to opposite sides of the sail. I also opted to put a 9th attachment point in the center of mine to assist with "dive stops" but this isn't needed as subsequent kites with 8 points performed just fine without it. I recommend to make the 24" and 28" as well as the 26" and 30" lines one continuous piece. Lengths for this method are one piece 58" & one piece 62". Once back-spliced and looped, a simple square knot/larks head will suffice to attach the main brake bridle (Orange) This also requires less splicing and allows the bridles to be tuned easier once your mods are complete. (For reference lengths are listed from attachment point to attachment point. Listed lengths also do not include back splicing and larks head space. Add 3" to each end. The small tuft you see on each bridle is the end of the line pulled back through at the 0" mark as shown in B1-B5)

Creating the bridles

I used 350 Skybond for my bridles along with some other line suitable for sleeving to thicken the main attachment points.

Using a ruler measure and mark the last 5 inches of line at the 0", 2", 2.5", 3" & 5" points(B1). Insert a sleeving tool into the line at the 0" mark exiting the line at the 2" mark(B2). Catch the tip of the line, ensuring it wraps around itself (B3) where you want to form the larks head (*Energizer Strap for demonstration purpose*) and pull it back through until the 2"

and 3" marks line up (B3a, B4) with each other leaving the 2.5" mark at the end of the loop. Tighten up the loop by pulling on the end (B5) and then subsequently tighten the larks head down. The line's own tension will create a sturdy loop "Chinese finger trap fashion" without knots that would create drag.



Disclaimer: Image above has been edited to remove the 5th lines which are not needed for this mod.