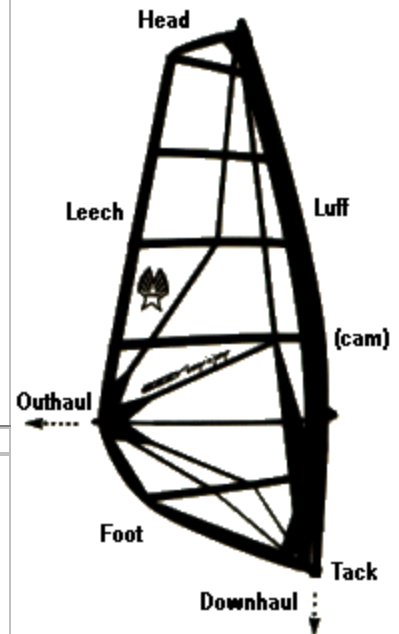


1998 Transformer

Bump & Jump

Rigging & Fine Tuning Guide



RIGGING:

1) Slide the mast through the luff sleeve. Note do not slide the mast through the cam, it should go above the cam.

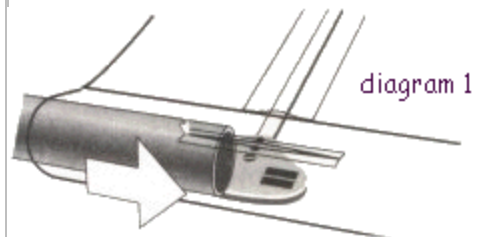
2) Attach the mast extension and cleat off the downhaul without tensioning.

Quick Tip: It is easier to attach your boom on to the mast with no downhaul tension.

3) Attach the boom and outhaul the sail to the boom length (printed on the sail). At this early stage of rigging, the sail should be outhauled flat in the boom area.

Quick Tip: The suggested boom length is measured from the center of the boom cutout.

4) Attach the cam to the mast by pushing down the batten with the palm of your hand, approximately 12" (30cm) from the luff sleeve, and snap the cam onto the mast with your other hand..



Rigging a 1998 Ezzy Bump & Jump Sail

Quick Tip: If the cam is difficult to put on the mast, check that the batten tension webbing is loosened until the Velco touches the buckle. This will allow the cam to slide further from the mast and will make it easier to get the cam on to the mast. Also, make sure the sail is outhauled flat before attempting to snap the cam onto the mast.

5) Downhaul the sail until the leech goes loose between batten #1 and #2. A good way to gauge the correct downhaul is to observe the head leech area between battens #1 and #2. For high wind sailing, the looseness should extend to the backseam on the leech panel. For light wind sailing, the looseness will end about 30cm (12") behind the backseam.

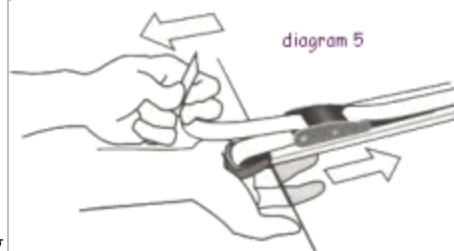
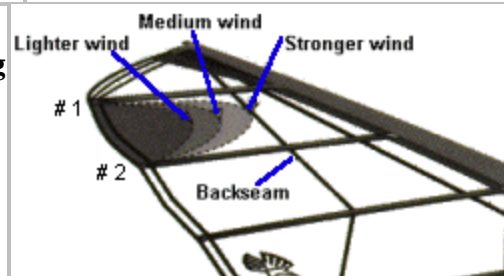
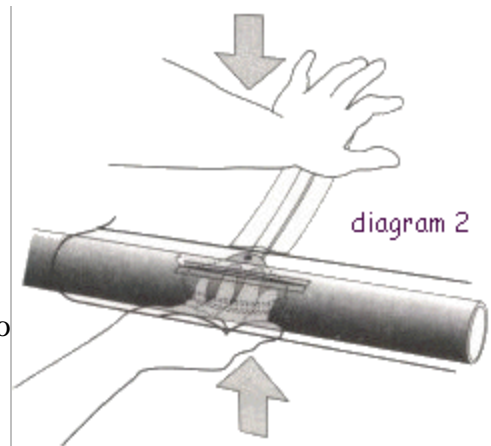
Quick Tip: The amount of downhaul tension will vary for different wind conditions. A high-wind setting requires more downhaul tension to loosen the leech and give more twist, increasing your top-end speed. Then for lighter wind, the sail will perform better with less downhaul. This gives the sail a tighter leech and better low-end power, which you will need to get on a plane quicker and be carried through lulls faster.

Quick Tip: Always keep your base extension at its shortest possible setting. If there is not enough space for downhauling and you have mast extending from the top, use the adjustable top to raise the sail up on the mast rather than extend your base.

6) Now, tension all of the battens, starting at the batten above the boom, by pulling on the batten strap while pushing the palm of your other hand against the batten end-cap. Tension all battens until the vertical wrinkles running through the pockets disappear.

Quick Tip: It is possible to over-tension the cam batten, which will cause the cam not to rotate. A quick check of this can be done by holding the sail up on land and rotating the cam by pumping the sail. The cam should rotate smoothly; if it doesn't, decrease the batten tension.

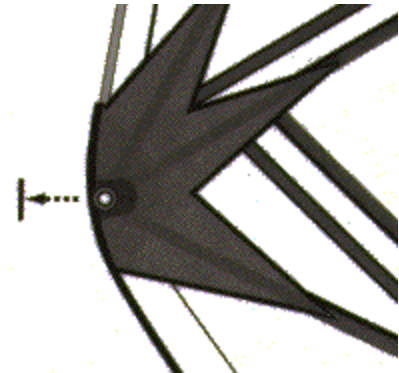
Quick Tip: The foot batten can be tensioned without opening the foot batten protector by placing one hand on the mast while pulling the batten tensioner strap.



7) Release the outhaul totally and then re-tension it. For light wind, pull the clew out approximately 2.0cm (3/4"). For stronger wind pull the clew out approximately 4.0cm (1 1/2").

Quick Tip: Before adjusting the outhaul, push the cam to make sure it is rotated to one side of the mast.

Use 2.0 cm of positive outhaul.



8) Check that the camber is not over-rotated. This can fatigue the cam and the batten and lead to possible breakage. If the cam is over-rotated, you need more downhaul.

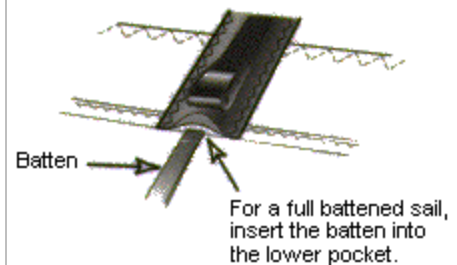


9) Tension the tack-strap until the edge of the sail beside the tack grommet touches the side of the mast.

Quick Tip: The correct shape in the lower part of the sail will be attained when the tack-strap is fully tensioned.

TO CHANGE FROM CAMBERED SAIL TO FULL BATTENED SAIL:

- 1) Outhaul sail fully.
- 2) Release cam batten tension at leech end.
- 3) Release all downhaul tension.
- 4) From the opening in the luff sleeve, pull out the camber and batten.
- 5) From the leech end, insert the tapered end of the batten into the lower of the two batten pocket openings.
- 6) Tension the batten.
- 7) Downhaul until the upper leech goes loose (see again Rigging, step #6).
- 8) Release the outhaul totally (make sure all battens are rotated on to the same side of the mast) and then re-tension it. For light wind, outhaul approximately 4.0cm (1 1/2"). For stronger wind, outhaul approximately 6.0cm (2 1/4").



Quick Tip: With the outhaul released in full batten mode, the clew will sit closer to the luff and will therefore require more tension on the outhaul. The final boom length, however, will be the same for full battened and cambered settings.

De-Rigging

Following this de-rigging sequence will prolong the life of your sail and avoid possible sail damage.

- 1) Release batten tension (pushing the release lever located on the center of the buckle) and tack-strap.
- 2) Release downhaul.
- 3) Snap cam off mast.
- 4) Release outhaul and remove boom.
- 5) Slide mast out of luff sleeve without creasing sail.
- 6) Roll the sail from the top tightly, to prevent creasing.

SAIL CARE

Sunlight:

- Sunlight will break down all sailcloth in a relatively short time (300 hours of direct sunlight).
- Don't dry your sails off in the sun! It is better to dry them in the shade or roll them up wet.

Creasing:

- Creasing damages sail cloth. When rigging and de-rigging, try not to crease your sail or let it flap in the wind.

Sand:

- Sand will scratch the sailcloth film and can clog the batten tensioners. Try to roll your sail sand free.

Cleaning:

- Use a mild soap and water with a rag to clean your sail. Harsh solvents may damage the sail cloth.
- Contrary to what most people think, you do not need to fresh-water rinse your sail.

Storage:

- Sail cloth should not be left under tension. After sailing, always release your batten tension.
- Never leave sails fully rigged for long periods of time. Always release the downhaul and outhaul until the mast has no bend.

TROUBLE SHOOTING:

Rigging a 1998 Ezzy Bump & Jump Sail

PROBLEM:	POSSIBLE SOLUTION:
Camber is difficult to get on the mast	1) Make sure the batten tensioner is completely released while snapping cam on. 2) Make sure the sail has no downhaul tension and is outhauled fully before snapping cam on.
Camber does not flip	1) Camber batten too tight, release a little batten tension. 2) Cam is under-rotated, need less downhaul.
Camber comes off mast	1) Camber is over-bending, need more downhaul. 2) Mast diameter is larger than normal, lengthen the webbing straps on the cam.
Foot batten does not flip	1) Foot batten has too much curve, give more downhaul and outhaul. 2) Foot batten is over-tightened, release some batten tension.
Sail feels heavy	1) Leech is too tight, try more downhaul.
Sail feels too powerful	1) Sail is too deep, try more outhaul and downhaul. 2) Mast is too stiff, check that you are using the correct mast.
Sail lacks power	1) Sail is too flat, try less outhaul and less downhaul 2) Mast is too soft, check that you are using the correct mast.