CAUTION – IMPORTANT
READ THIS BEFORE SETTING UP YOUR GLIDER

LEVER TYPE BATTEN TIPS

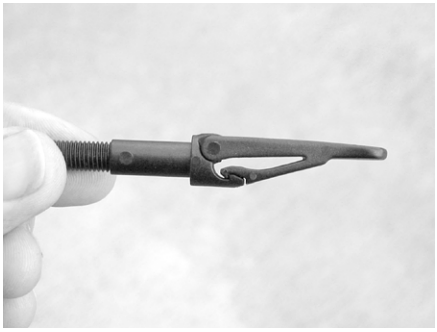
Your glider is equipped with a new type of rear batten tip that requires a specific procedure to use, and is subject to being broken if the proper procedure is not used. Please read all of the following, and practice the procedure on the spare batten tips supplied before setting up your glider for the first time.

The new Lever Type tip incorporates a hinge and a snap locking latch mechanism, as well as a threaded shank which allows for adjustment of the overall batten length, and hence the chord-wise tension that the batten puts on the sail.

The new tips are relatively easy to use, but there are a few things that are important to know, and there is a specific procedure that must be used for unlocking the latch on the tip. Please take a few moments at this time to practice this procedure on one of the spare tips provided.

Practicing Un-Locking the Latch

1. Hold one of the spare batten tips as shown in the first photo (Fig 1), and examine the latch portion that secures the rear part of the tip in the extended position. Note that the latch consists of two overlapping hooks. Because of this design, the latch cannot release if there is any upward pressure on the rear of the tip.
2. To release the latch, grasp the rear part of the tip as shown in Fig 2, with you thumb on top of the tip, and the side of your index finger at the first knuckle under the latch portion in the position shown. (Make sure your thumb and finger are as far forward on the tip as possible, without being on the front part of the tip. Positioning your finger even a little too far to the rear will greatly increase the squeezing force required in the next step to unlock the latch.)
3. Apply a slight downward pressure on the top of the tip (to insure that there is no initial upward pressure which would lock the latch), and squeeze upwards on the latch portion to release the latch as shown (Fig 2).
4. Next rotate the rear of the tip upwards as shown in Fig 3. NOTE: If you feel resistance to the tip rotating upward, stop – you have not properly disengaged the latch. You should not feel any resistance, nor should you hear any click or other sound as you unlock the latch and rotate the rear of the tip upwards. (If you do hear a click when you rotate the rear upwards, you have probably broken, or partially failed the hook portion of the latch on the rear part of the tip. If this happens, you will need to replace this rear portion.)



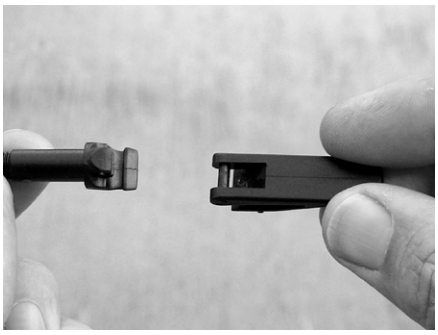




Practice unlocking the latch repeatedly until you can do it without difficulty. Then, practice doing it with your eyes closed. When you are unlocking the latch in order to remove your battens when breaking down your glider, the tip will be hidden from your view below the sail. You will need to be able to unlock the latch easily without having to look at it. Again, the steps in brief are:

1. Grasp the tip between your thumb and index finger, just behind the latch.
2. Press down slightly on top of the tip, and squeeze up on the latch.
3. Pivot the rear of the tip upwards.

Note On The Hinge Mechanism and Replacing The Rear Portion



The batten tip is manufactured in two pieces, which snap together at the hinge point. (Fig 4) The hinge consists of a C shaped channel at the top rear of the front portion of the tip, and a pin at the top front of the rear portion. The pin snaps into the C channel and forms the hinge mechanism.

It is relatively easy to pop the hinge apart, by pressing down on the top of the rear portion of the tip. If you apply too much downward pressure when following the procedure described for unlocking the latch, this is what will happen. This does not constitute a failure of the tip, you can just snap the hinge back together. If you need to replace the rear portion of the tip, simply pop the old piece off, and snap on a new one. Normally, if you do break the latch mechanism on the tip, the part that will fail will be the hook part on the rear portion of the tip, so it is relatively easy to fix by snapping on a new rear piece.

To Install The Battens



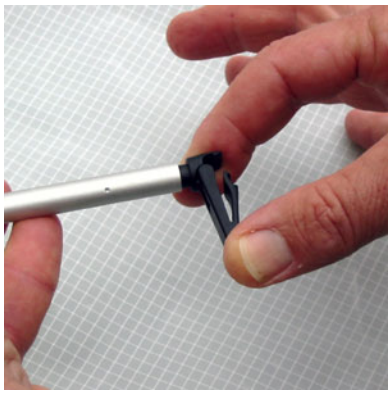
1. Insert the batten into the sail as you would normally. Hold the batten by the aluminum part when inserting. Avoid holding the batten by the rear tip, or applying any significant force on the tip itself during installation.
2. Unlock the latch and pivot the rear of the tip upwards (following the procedure described above). See Fig 5
3. Turn the trailing edge of the sail upwards and fit the tab on the batten tip into the gap in the hem of the sail. Fig 6
4. Pivot the rear of the tip downwards until the locking latch snaps together. (Note: The tip will usually make an audible click when you rotate it down into position, even if the hook portion has been broken. After snapping the latch into place, check that it is secure by applying slight upward pressure on the rear of the tip.)



To Remove The Battens

1. Unlock the latch, and rotate the rear of the tip upwards.
2. Pull the trailing edge of the sail off of the end of the batten tip.
3. Pivot the tip downwards until it locks again.
4. Remove the batten – taking care to minimize the force applied to the batten tip itself.

Adjusting Batten Tension



A maximum adjustment range of about 5/8" (16mm) is provided by the threaded portion of the front part of the batten tip. Your glider will come to you with the battens properly adjusted for length and tension. If you need to adjust batten tension follow these guidelines:

To shorten the batten and loosen the batten tension, rotate the tip clockwise to screw the tip into the batten. Rotate counterclockwise to lengthen the batten and increase batten tension. (Fig 7)

Note, battens inboard of the crossbar junction should be adjusted with fairly little tension, especially on the most inboard battens. Note that with the leverage provided by the lever type tip, it is easy to over-tension the battens. A good way to judge batten tension is to note how the visible tension on the sail changes as you lever the tip down into the locking position. When judging tension, before levering the tip down, make sure the batten is fully inserted. If adjusting a batten tip that is supported by a reflex bridle line, un-hookthe bridles when checking adjustment. Observe the indications of slackness in the sail along the batten pocket as you lever the tip into position. On the inboard battens, you should not see the slack begin to be pulled out of the sail until the tip is almost fully engaged – the lever portion will be within 20 to 30 degrees of the horizontal engaged position. On the battens outboard of the crossbar junction, you should see the slack begin to pull out of the sail when the lever is still up at about a 35 to 40 degree angle. This represents a difference in tension of about one quarter inch, or about 7mm.