

MAKING A TAKE-APART FIGHTER KITE

Bruce Lambert

Take-apart fighter kites are kites with a removable bow. This allows for easy packing of the kite and also allows for using different bows in the same kite. This way you could have one kite that will accommodate a wide range of wind speeds simply by changing the bow.

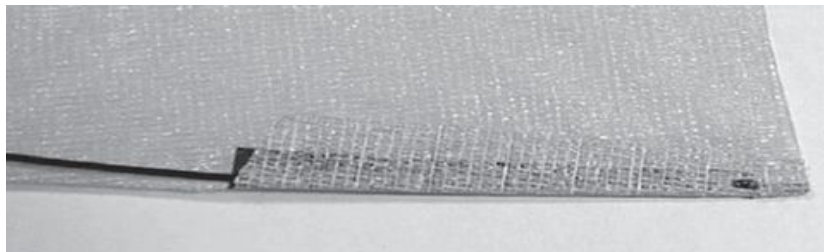
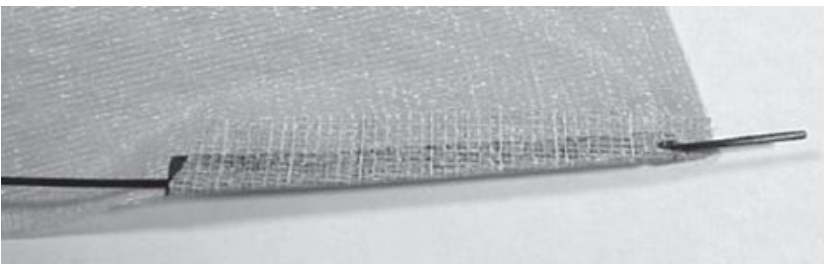
Take-apart kites require that none of the kite skin be permanently attached to the bow. Bow wingtip pockets are the perfect solution. In a take-apart kite, the pockets need to be durable enough to withstand frequent assembly and disassembly of the kite.

Use any kite plan for making a take apart fighter. Add an additional 3/8" to 1/2" to the bow hem when cutting out the skin. This is for making the bow pocket that is required. You need to decide how long from the wingtip toward the spine to make the pocket for enclosing the bow. Normally a good length for a bow pocket is about 4" -6".

Using 4"-6" wingtip pockets for the bow is a good way to keep the kite's design properties and make it a take-apart kite. However, with long wingtip pockets, it is possible to damage the bow during removal or insertion into the pockets. Because with long wingtip pockets, the entrance for the bow tip into the pocket on each side of the kite is too close to each other for the carbon fiber to bend without causing damage to the bow. You could easily break the bow trying to bend it sharply enough to get it inserted into the pockets.

Here is an easy solution that minimizes damaging the bow. Use a thin tipped soldering iron and melt a small diameter hole, about 1/16", in only the backside wall of the bow pocket.

Make the hole about 1/4" to 3/4" toward the nose from the wingtip end of the pocket. **Before melting the hole in the backside of the pocket, insert a piece of carbon rod or bamboo into the pocket to prevent the hot soldering iron tip from accidentally melting a hole through the front side of the wingtip pocket!**



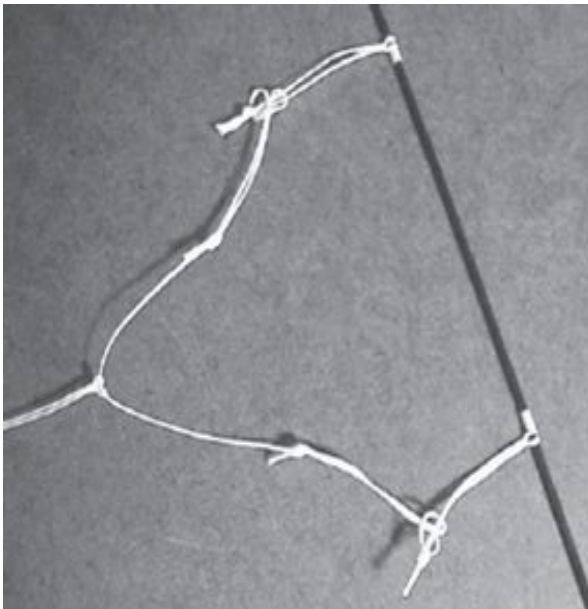
Here's how to use the hole in the backside wall of a wingtip pocket. Insert a bow tip into the pocket entrance on one side of the kite. Poke the bow tip through the pocket and through the hole you made in the backside wall of the pocket. Continue pushing the bow through the hole until you can easily insert the opposite end of the bow into the opposite wingtip pocket entrance.

After seating the second bow tip into its wingtip pocket, bend or tension the bow just

enough to allow the first bow tip to re-enter the first pocket through the hole and into the tip of the wingtip pocket.

It's a good idea to reinforce the inside of the bow pocket to increase the pocket's durability. Tape is a very good reinforcing method for a pocket and easy to attach. Just put the tape on the bow hem extending it about 1/4" outside of the hem and onto the backside of the skin. When you fold over and glue the hem, you will actually be gluing the non sticky side of the tape to the back of the kite skin. The tape reinforces the inside of the pocket.

TAKE-APART KITE BRIDLE



An easy to make removable 3-point bridle arrangement is to make two loops, each about 2" long. Larkshead each loop to the bow and secure with a drop of CA glue.

Arrange the knot used to make the loop so it is extending through the front face of the kite. Then make an upper bridle yoke. For the yoke, use about a 14" piece of bridle line. Make a 2" long loop in each end. This will make the finished yoke about 8" long with a 2" loop at each end.

Larkshead each of the loops in the yoke to the loops attached to the bow.

Use a 24" piece of line for the lower bridle line. Tie a 3" long loop in one end. Using the loop, larkshead the lower bridle leg to the center of the yoke. Tie the opposite end of the lower bridle line to the lower bridle connection point on the spine.

Make a 2"-3" long loop and larkshead it to the lower bridle leg. This is the tow connection loop. This arrangement allows you to disassemble the bridle by releasing the larkshead knots at each end of the yoke.