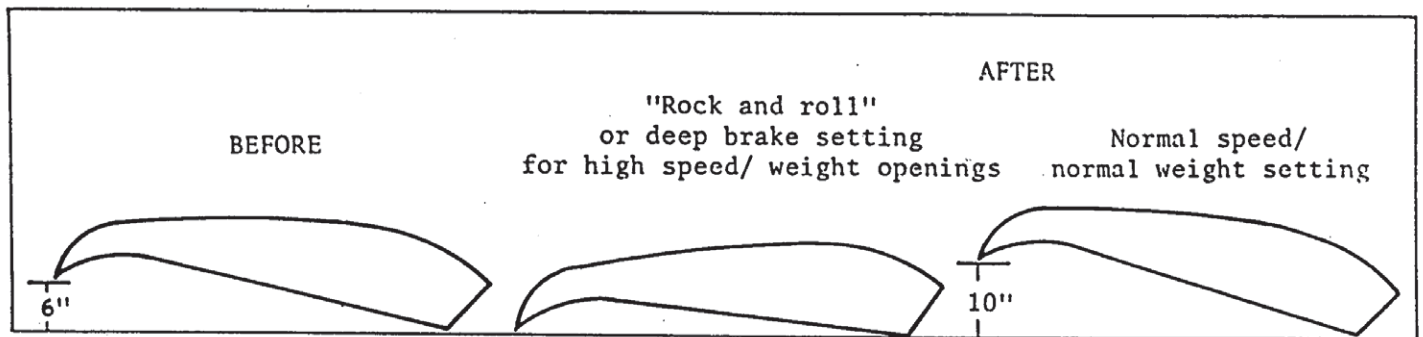


PSB#052485
 Brake Setting Modification to Tandem Vector Canopies
 May 24, 1985

Bulletin 5-24-85: Brake Setting Modification to Vector Tandem Canopies

The brake setting on the Vector Tandem Canopies you were shipped provided optimum performance for most suspended weights and deployment speeds. Under certain situations--particularly heavy loads at high speeds with a new canopy--this brake setting resulted in hard openings.

It now appears that two brake settings are needed to cover all situations. A very deep brake setting ("rock and roll") provides the softest openings at high speeds and loads. A more normal brake setting provides soft openings for most situations, and is more comfortable because the canopy doesn't "rock and roll" after opening.



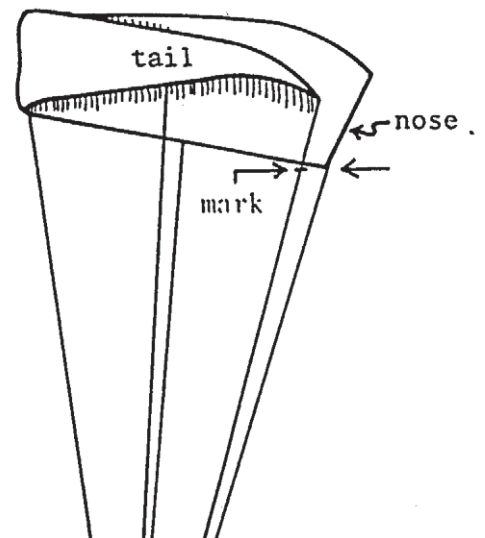
Therefore, you must modify the Vector Tandem main canopy so that both brake settings are available to you, and you must modify the Vector Tandem reserve canopy to the deep brake or "rock and roll" setting. Both canopies must be modified before the next jump.

"Deep brake setting" means using the double loops closer to the canopy, which pulls the tail down the most.

Alteration Procedure--Main Canopy

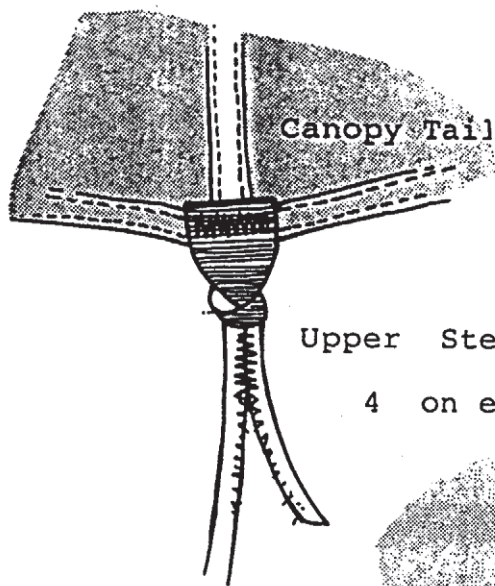
This procedure shortens the upper steering lines by 6 inches and lengthens the lower steering line by 6 inches, leaving the overall length of the steering system the same.

1. Mark the upper control lines in this manner: Set the brakes and anchor the risers. Take one outside steering line and one outside A line and hold them side by side under approximately 10 lbs. tension. Mark the steering line at the point where the A line joins the attachment tape on the canopy. This mark will be approximately 6 inches down the steering line.



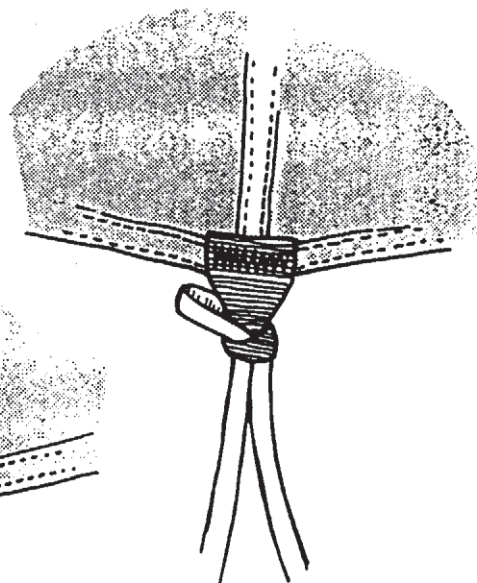
2. Hold the three remaining upper steering lines on one side next to the marked steering line under equal tension, and mark them at the same point. All four lines should be marked at the same place so they will be of equal length.

3. Carefully remove the zig-zag stitching where the free end of the line is sewn back on itself. Do not unthread the line from simply pull the line through the tape so the mark on the line is centered on the line attachment tape. Do this for all four lines. The result is upper steering lines that are of equal length and are about 6 inches shorter than before.

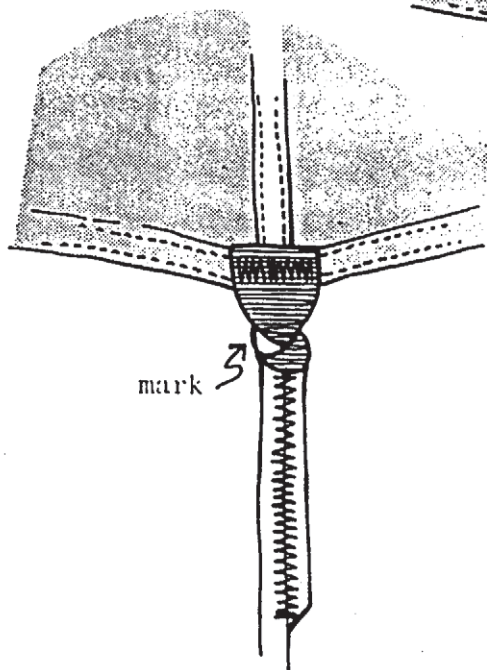


Upper Steering Line
4 on each side

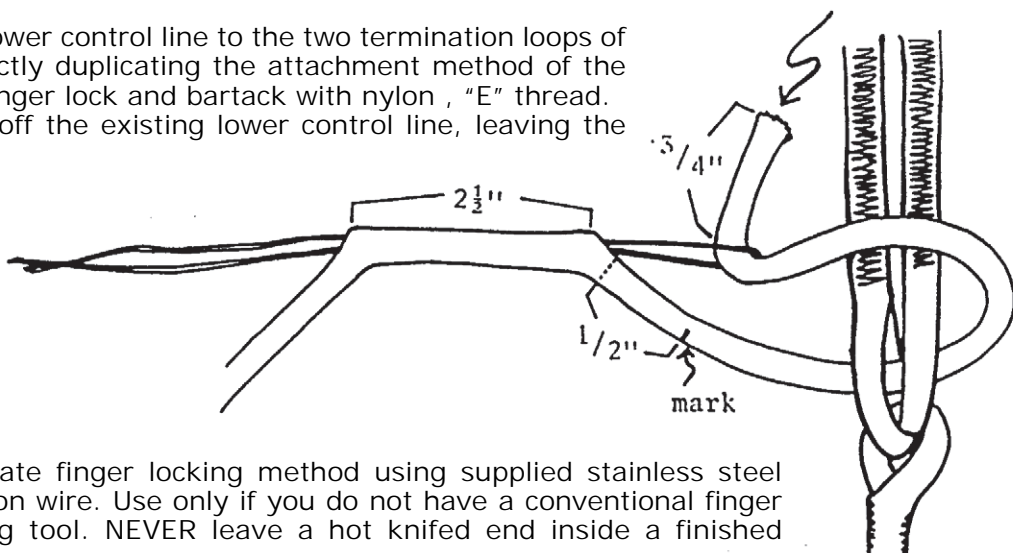
4. Check length by holding all four lines next to each other under equal tension.



5. Resew the free end of the line back on itself for a length of 3 inches. Cut off the excess free end.

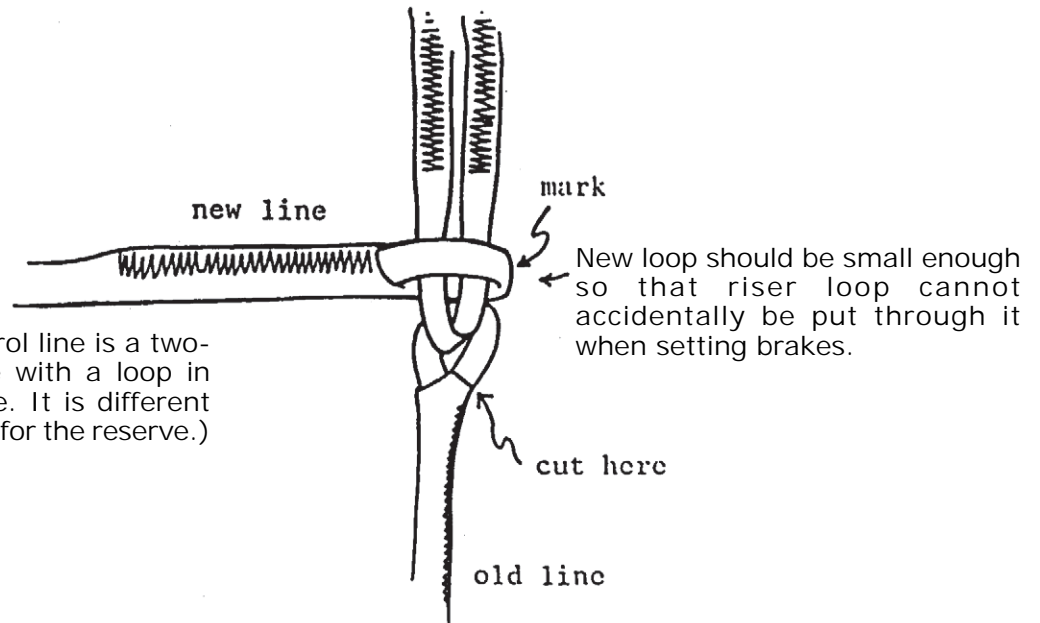


6. Attach the supplied new lower control line to the two termination loops of the upper control lines, exactly duplicating the attachment method of the existing lower control line Finger lock and bartack with nylon, "E" thread. (See illustration.) Then cut off the existing lower control line, leaving the new one in its place.

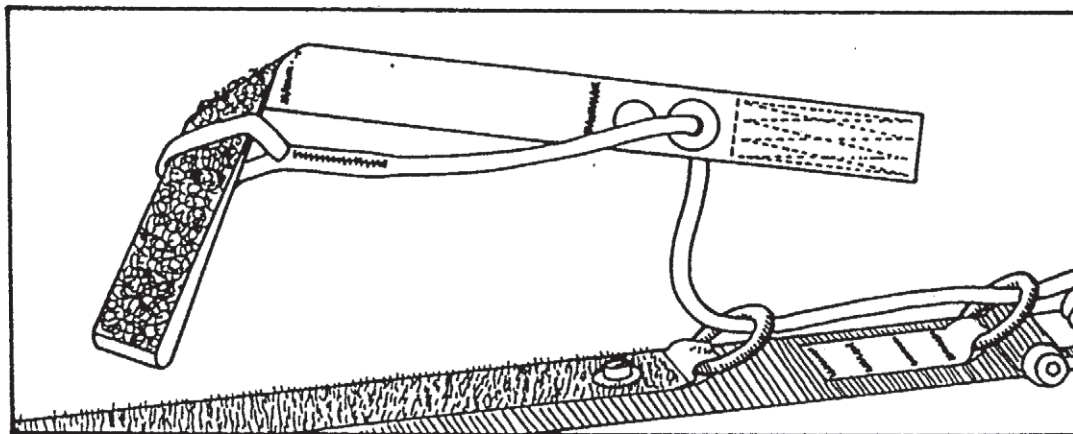


Alternate finger locking method using supplied stainless steel Aviation wire. Use only if you do not have a conventional finger locking tool. NEVER leave a hot knifed end inside a finished

(Note: The supplied lower control line is a two-piece assembly of 900-lb. line with a loop in one end and two in the middle. It is different from the one-piece line supplied for the reserve.)



7. Thread lower control line through both steering line guide rings on the riser, then attach toggle as shown in diagram.



8. Compare modified steering system on one side of canopy to-existing steering system on the other side. The overall length from canopy trailing edge to toggle should be the same (plus or minus 1 inch).

9. Set the brakes using the upper loops (deep. brake mode) and anchor the risers. Compare the tail of the canopy to the nose; the line attachment points on both should line up.

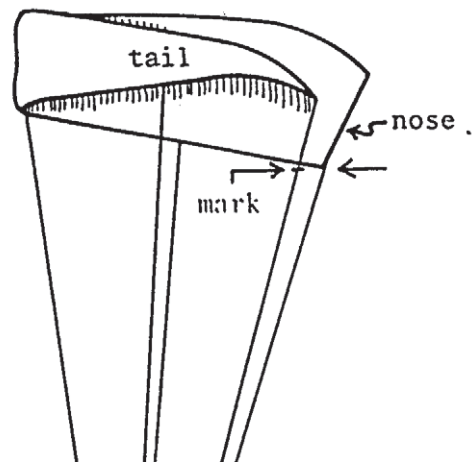
10. Repeat steps 1 through 7 for the other side of the canopy. Compare the steering system on both sides of the canopy; they must be identical. 11. Be sure stabilizer modification has been accomplished before repacking canopy. If you are not sure, contact us.

12. Log and return confirmation card to the Relative Workshop.

Procedure--Reserve Canopy

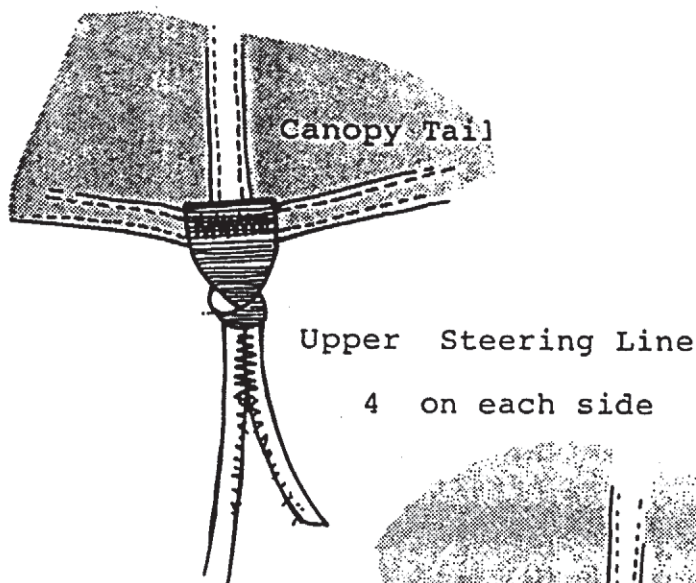
This' procedure shbrtens the upper: steering lines by 6 inches and lengthens the lower, steering line by 6 inches, leaving the overal length of the steering system the same.

1. Mark the upper control lines in this manner: Set the brakes and anchor the risers. Take one outside steering line and one outside A line and hold them side by side under approximately 10 lbs. tension. Mark the steering line at the point where the A line joins the attachment tape on the canopy. This mark will be approximately 6 inches down the steering line.

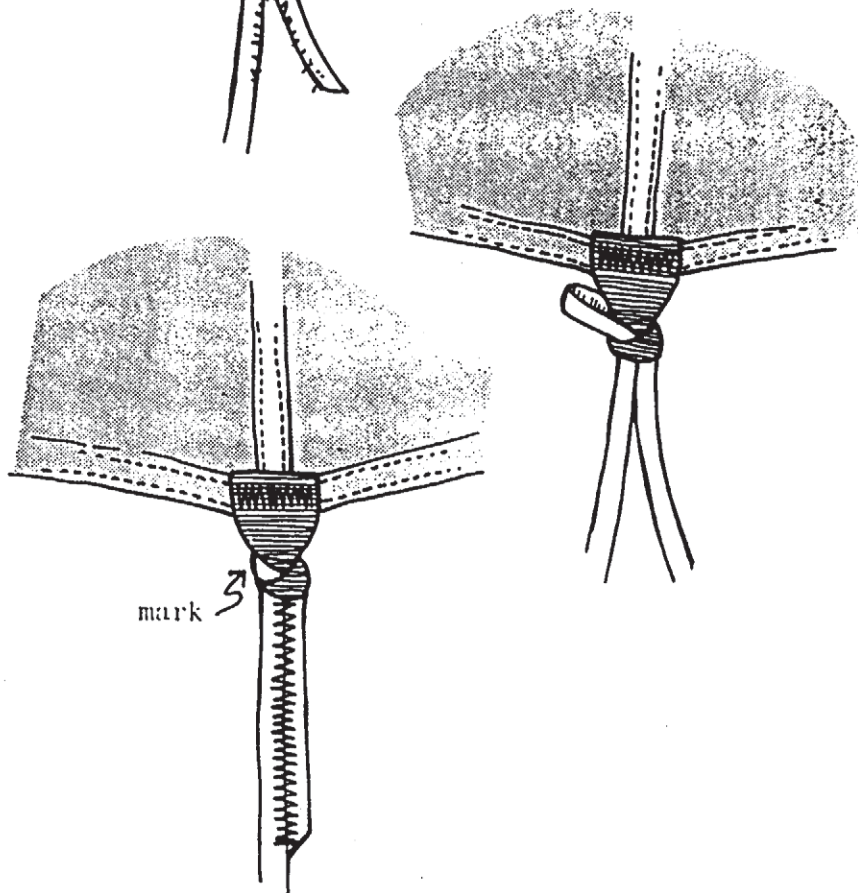


2. Hold the three remaining upper steering lines on one side next to the marked steering line under equal tension, and mark them at the same point. All four lines should be marked at the same place so they will be of equal length.

3. Carefully remove the zig-zag stitching where the free end of the line is sewn back on itself. Do not untread the line from the tape; simply pull the line through the tape so the mark on the line is centered on the line attachment tape. Do this for all four lines. The result is upper steering lines that are of equal length and are about 6 inches shorter than before.

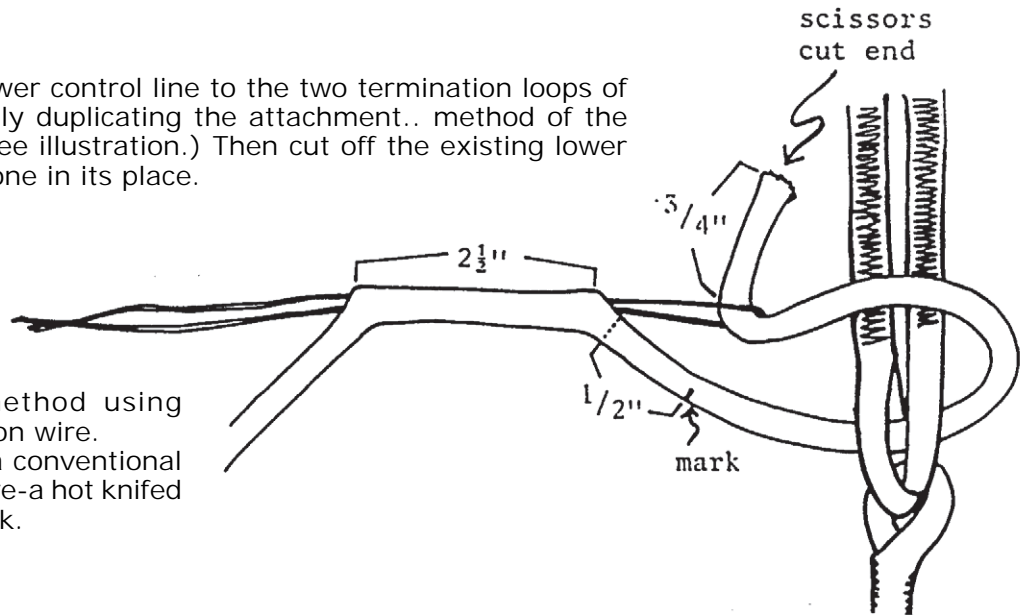


4. Check length by holding all four lines next to each other under equal tension.

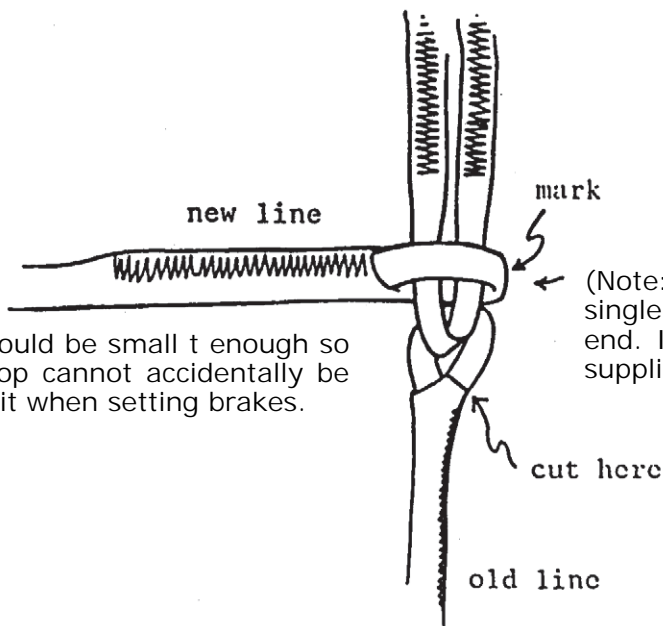


5. Resew the free end of the line back on itself for a length of 3 inches. Cut off the excess free end.

6. Attach the supplied new lower control line to the two termination loops of the upper control lines, exactly duplicating the attachment method of the existing lower control line. (See illustration.) Then cut off the existing lower control line, leaving the new one in its place.



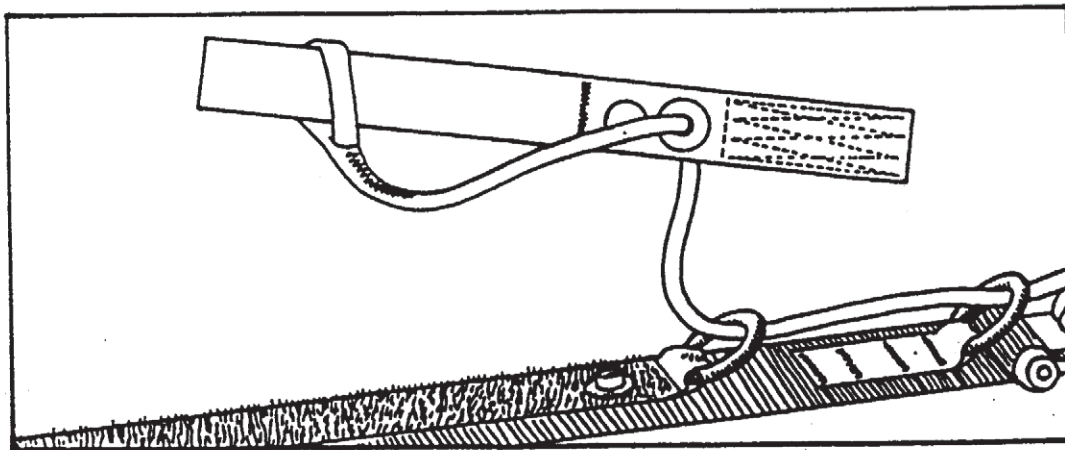
Alternate finger locking method using supplied stainless steel Aviation wire. Use only if you do not have a conventional finger locking tool. NEVER-leave-a hot knifed end inside a finished fingerlock.



New loop should be small enough so that riser loop cannot accidentally be put through it when setting brakes.

(Note: The supplied lower control line is a single piece of 900-lb. line with a loop in one end. It is different from the two-piece line supplied for the main.)

7. Thread lower control line through steering line guide ring on riser, then attach toggle as shown in diagram.



8. Compare modified steering system on one side of canopy to existing steering system on the other side. The overall length from canopy trailing-edge to toggle should be the same; although the brake loops should be approximately 6 inches closer to the canopy.

9. Set the brakes and anchor the risers. Compare the tail of the canopy to the nose; the line attachment points on both should line up.

10. Repeat steps 1 through 7 for the other side of the canopy... Compare the steering system on both sides of the canopy; they must be identical. 11. Be sure stabilizer modification has been accomplished before repacking canopy. If you are not sure, contact us.

12. Log and return confirmation card to the Relative Workshop.

Use

Use the upper (deep) brake setting for suspended weights of more than 320 lbs. and freefall delays of more than 8 sacs.

Use the lower brake setting for suspended weights of less than 320 lbs. or freefall delays of less than 8 seconds, regardless of suspended weight.

Be sure both brakes are set the same.

If you don't know the weight or delay of the next jump, always pack the canopy with the deep brake setting.

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