

# Line Kit Installation

Apex BASE  
Instruction for FOX and FLiK canopies.  
Fully Cascaded Line Kit

Items needed (*italicized items included*)

- Apex BASE Owners Manual
- *Line kit from Apex BASE*
- 550 lbs Spectra line at 10 inches
- 42 stitch Bartack- stitch size of 2 mm x 20 mm (center start and stop– recommended)
- E thread (silver recommended)
- Finger trapping tool
- Qualified parachute technician with a thorough understanding of ram air parachutes

Confirm size of line kit with canopy.

Remove all existing lines from canopy.

Separate lines by group

- A (8 same color)
- C (8– 2 different color- TGF)
- B-D (16– 2 TGF)
- Control lines (2- mirror images)

Suspension Lines

1. Locate the cascade mark on the A-lines. Larks head the end, closest to the cascade mark, to the A-line attachment tabs.
2. Locate the cascade mark on the C-lines. Larks head the end, closest to the cascade mark, to the C-line attachment tabs. The 2 TGF lines must be on each side of the center cell.
3. Locate the B-D-lines. Larks head the finger trapped end to the respected B-D-line attachment tabs. The 2 TGF lines must be on each side of the center cell at the D line attachment tabs.
4. Create cascade with A and B lines. Remove twists from the line, working away from canopy. Finger trap with entry at A-line dot , align dots. All remaining line must finger trap, do not trim.
5. Create cascade with C and D lines. Remove twists from the line, working away from canopy. Finger trap with entry at C-line dot , align dots. All remaining line must finger trap, do not trim. The 4 TGF lines must pair with respected lines.

Control Lines

1. Separate control lines Left and Right. Refer to drawing LKI-1.
2. Remove twists from the line. Pass one upper control line through proper line tab, from outside toward center. Fold line at first mark from end. Finger trap with line entry at second mark. All remaining line must finger trap, do not trim. Repeat steps 1 and 2 for remaining upper control lines.

Stabilizers

1. Locate the lines adjacent to the stabilizers. Tighten the line attachment larks head knot.
2. Measure from the bottom of the line attachment tab, see Stabilizer Slack chart, marking the B, C, and D lines.

Stabilizer Slack
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FOX	185	205	225	245	265	285	315
Inches							
B	3.5	3.7	3.9	4.0	4.2	4.4	4.6
C	8.2	8.6	9.0	9.4	9.8	10.1	10.6
D	15.6	16.5	17.3	18.0	18.7	19.4	20.4

FLiK	200	220	242	266	293	322
Inches						
B	4.1	4.3	4.5	4.7	4.9	5.2
C	10.7	11.2	11.7	12.3	12.9	13.5
D	19.3	20.3	21.3	22.3	23.4	24.5

**Tail Gate Loop**

1. Locate the center left C-line. Tighten the line attachment larks head knot. Measure from the bottom of the line attachment tab, see cart below, marking the center left C-line.
2. Create cats-eye by finger trapping the piece of Spectra on each side of the mark. Leaving a 3/16 inch (5 mm) gap at the mark. Spectra line may be trimmed AFTER bartacking.
3. Mark 1 inch (25 mm) on each side of the cats-eye.

FOX	185	205	225	245	265	285	315
Inches	4.25	2.75	2.75	3.25	3	2	2

FLiK	200	220	242	266	293	322
Inches	1.7	1.8	1.9	2	2.1	2.2

**Bartack** 42 stitch, 2 mm x 20 mm, E thread.

1. Locate A-B cascade. Confirm dot to dot alignment. Bartack through finger trapping centered on line. End of Bartack must be on (to minus 1/8 inch) the entry point.
2. Repeat Bartack #1for C-D cascades.
3. Locate upper control lines. Confirm fold at dot alignment. Bartack through finger trapping centered on line. End of Bartack must be on (to minus 1/8 inch) the entry point.
4. Align edge of the stabilizer with mark on line. The B and C lines must attach forward of the metal washer. The D lines must attach at the corner of the stabilizer. Bartack through line and stabilizer reinforcement, centered on line.
5. Locate Tail Gate Loop. Bartack x 2 through the Dacron and Spectra line. Bartack should start at the 1 inch mark and proceed away from the cats-eye.

Bartack count

- Suspension lines x 16.
- Upper control lines x 8 OR x 10
- Stabilizers x 6
- Tail Gate x 2

Inspect work

Assemble on links. See Owners Manual for continuity.

Check trim. Compare trim with Owners Manual specification.

Please email Apex BASE with the following information. To [todd@apexbase.com](mailto:todd@apexbase.com)

- Type and serial number of canopy
- Work completed (line kit installed and any other repairs)
- Work completed by whom
- Date work was completed

