


# MAIN CANOPY OWNER'S GUIDE



**BasiK Air Concept**  
559 chemin des Salles - 83300 Draguignan - France  
tel: +33 (0)494 99 12 36 - [basik.fr@free.fr](mailto:basik.fr@free.fr)

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## Overview

BasiK Air Concept thanks you for choosing one canopy from our  range.

We hope this canopy will bring you full satisfaction.

This guide is not intended to teach you how to pack a main canopy.


Its sole purpose is to show you the method which seems to be the most adapted to our canopy-range.

This guide applies to all main canopies manufactured by BasiK Air Concept.

We stay at your disposal for any further information.

Thank you again for choosing BasiK Air Concept as your canopy provider.

BasiK Air Concept

	Size	Serial #	Date of manufacture
.....	.....	.....	.....

Seek assistance of a certified rigger if you feel you cannot perform the following steps correctly. This rigger or yourself must follow precisely the following steps in order to perform a correct and safe assembly of your canopy on your harness/container.

Your ~~X~~ range canopy is delivered with lines ready to be mounted on your soft links, and each group of lines and both steering lines are installed on a dedicated plastic sheet. Soft links are delivered separately. To avoid any misrouting, you must route each soft link through each corresponding line before disconnecting the lines from the plastic sheet.

At this stage mount the soft links on your risers making sure to respect each left and right front groups and left and right rear groups. As soon as assembly is done, check if lines routing is correct and if each line is at the right place inside each group. Do not forget to have each steering line going through the right slider grommet. Left rear grommet for the left steering line and right rear grommet for the right steering line.

Assembly of steering lines to your toggles is up to your harness/container brand. So, report to your owner's guide for such instructions.

To proceed correctly, report to your harness/container owner's guide and follow the following steps.

You will find three marks on the lower steering lines (under the brake loop):

- Higher mark is a short setting and canopy will react quickly (short).
- Medium mark is a neutral setting and give a bit of delay before reacting (neutral).
- Lower mark is a long setting and give a delay before reacting (long).

Make sure to choose the right setting according to your needs and technical level of flight. We are recommending you to start with the neutral setting for the first jumps and to adjust later a more appropriate toggle setting, once you have understood how the canopy is flying. To do so, start making a knot. Once you have set the right length, proceed to a finger trapping secured by a bartack seam.

## Canopy assembly on risers

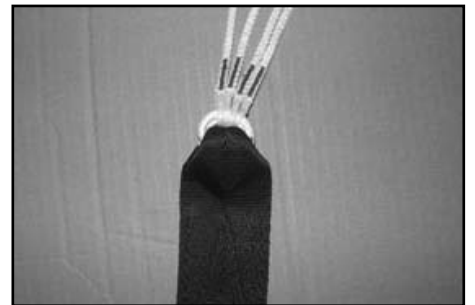
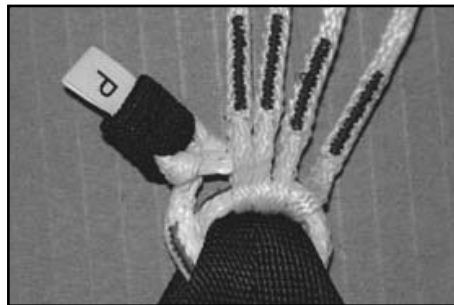
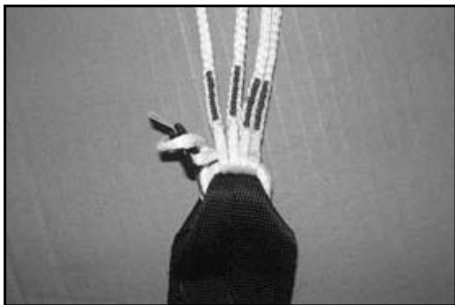
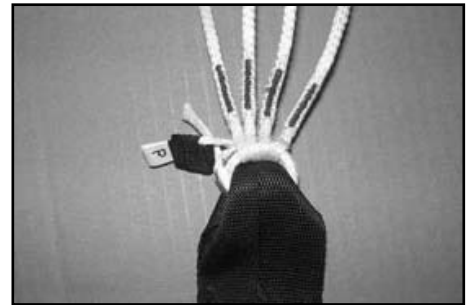
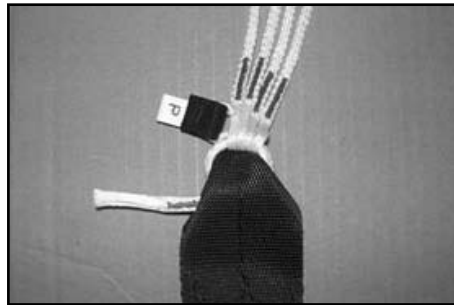
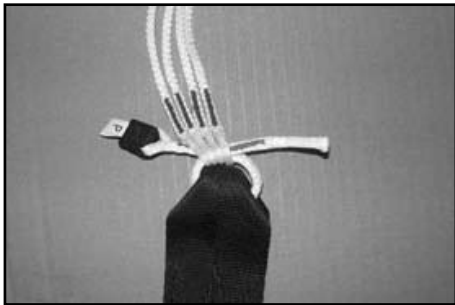
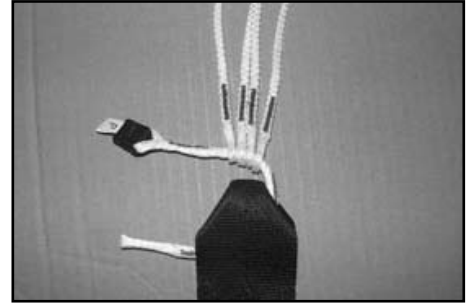
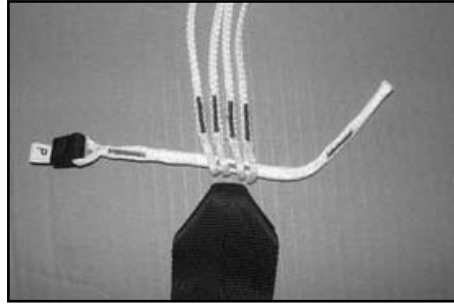
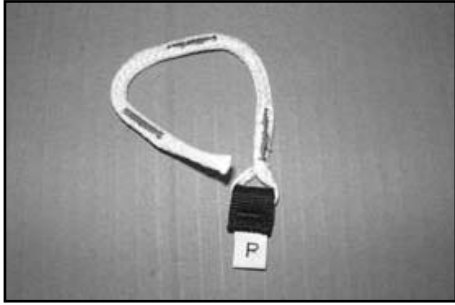
You must proceed to the mounting of the soft links on the risers by following the steps described on the pictures below. No other brand of soft link is allowed for use with Basik Air Concept canopies.

Basik Air Concept used two types of soft links:

For reserve and Tandem canopies they are identified by a "R" on the tag sewn on the links.

For main canopies they are identified by a "P" on the tag sewn on the links.

To assemble the risers on you harness/container, please report to you harness/container owner's guide.



## Packing

As soon as you start picking up your canopy after landing, you should already start organizing the packing. It is important to avoid to drag lines and canopy, main bag and bridle and pilot chute on the ground.

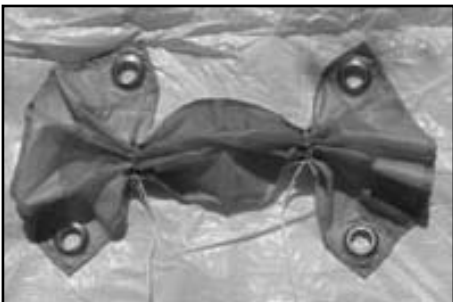
To do so, you must: be facing the canopy, walk toward it and pick up the lines like a lasso until having the slider against the canopy.



Before starting packing, it is important to check if lines are not misrouting or twisted. To check this, you must have your risers and steering lines between your fingers and your hands holding line groups as shown on the picture below. In case of crossing or twist, you must route the lines properly before going further. If you feel unable to do it, seek assistance of a qualified person.



Your slider must look like shown on the below left picture. To set it back to its normal position, you must insert the drawstring stops into the channels. This is accomplished by extending the drawstring slightly farther, and tucking the drawstring stop into the fabric channel. Grasp and pull the fabric channel from opposite ends, extending the slider to its full length and reseating the pull tab in the channel.



Now put down the harness/container on the floor by taking care of:

- having the container-side up,
- having both main risers symetrical.

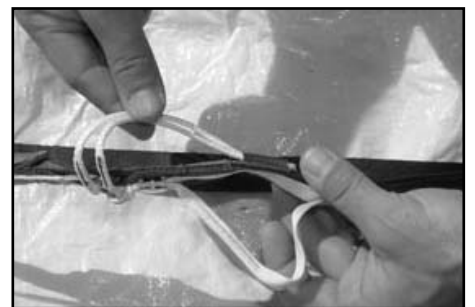


At this point, go toward the canopy and free it from main pilote chute, bag and bridle. Look at the trailing edge and go to the steering lines. Take each of them between your fingers and untwist them by rolling the line between your fingers down to the toggles.

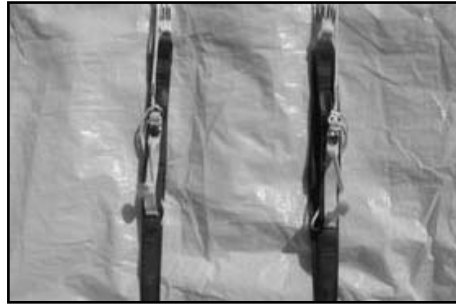


Set half brakes on by following your harness/container owner's guide.

For an Advance container type "In" and/or "Out": please follow instructions into your owner's guide too. Pictures below are showing all these Advance types steps.



As soon as brakes are on, setting of your harness/containers should look like the picture below.



Use your hands to split each line group and steering lines as shown on the picture below. Then, go toward the canopy by pushing the slider up at the same time. Move all lines groups and steering lines up on one of your shoulder, and start to pull each cell out (7 or 9).



Take all cells in one hand and flake the entire nose. Start by one side and clean each lines group A-B-C- by stowing material.



Do the same for the other side and set the slider in a cross position right in the middle.



When finished, your canopy should look like on the left picture.

Clear stabilizers when moving toward the trailing edge. Make sure none of the lines are wrapped around a slider stop on a stabilizer.

Fold all material between each steering line. All steering lines, related material and D lines group must stay set in the tail center.



Reach down and pick up the very middle point of the trailing edge (where warning panel is sewn). Raise the tail a couple of inches above the slider and hold it in place. Take both tail pieces (left and right) in one hand, and roll them together in to the middle (no more than 8 turns) by keeping tension down. Start these rolls by the lower parts of the tail. Do not roll them too much, this will not help slow down the opening but will bring back the steering lines toward the nose of the canopy. By doing so, you can create a line over configuration and have your canopy damaged.



At this point, your canopy must look like a roll. Swing it out slightly so that the lines stay taut and gently lay it on the floor. Beware to maintain tension on lines.





Have your main bag ready. Kill-line users must untwist the line and the bridle connected to the bag; these 2 items must be parallel.

Pull the kill-line bridle to reduce the lack of the inner line into the bag.



Lay on the canopy, taking care not to slack the lines and not to let the slider move out of the rolled canopy.



Make a first fold of the same depth as your main bag and maintain the canopy rolled shape with your knees.



S-fold over the remaining of the canopy, making sure to keep it tight.



Slide the main bag under the folded canopy and insert each corner of the folded canopy into it. Make sure that the bag is symmetrically filled, then lock the bag with the first two line bands. Refer to your harness/container owner's guide to verify the main bag closing sequence order.



Finish the lines stowage by keeping tension on them. Length of lines after the band must not exceed 5 cm. Check that lines are not crossing each other.

Kill-line users must, at this point, verify that the inner line is pulled until the colored line can be seen in the bridle window.

At this stage, refer to your harness/container owner's guide for further packing and assembly instructions.



## **Collapsible Slider Post-deployment Procedure**

After deploying your parachute, check the canopy and surrounding airspace. Locate the 2 pull tabs at the rear of the slider.

Grasp both tabs and pull down and back with a quick movement to the drawstring's full length. This will allow the drawstring stops to lock the slider in the collapsed position.

Release the tabs and fly normally. The slider will remain collapsed.

This procedure can be done before or after removing the half brakes, up to your habit.

You can put the slider down through your risers if you like. We do not recommend to put the slider behind your head because it could become a problem should you perform a breakaway before landing.

## **Explanations on Hard Openings**

Hard openings may come from different factors:

- Packing
- Slider setting
- Bagging the canopy
- Line stow and bands quality
- Main pilot chute
- Opening body position
- Deployment speed

### **1 - Packing**

Follow the canopy manufacturer's packing guidelines. An asymmetrical packing with lines crossing material and/or lines not taut are a hard opening cause.

### **2 - Slider setting**

The exact position of the slider inside the pack job greatly influences the opening speed of the canopy. It is important that the slider be all the way up the lines, with each and every slider grommets seated against the slider stops. There should be no twists in the lines above the slider, since they would tend to push the slider down the lines prematurely.

### **3 - Bagging the canopy**

The correct canopy folding and slider position must be maintained while putting the canopy in the bag. If it goes into the bag disorganized, it will likely come out disorganized and open hard. You must take time to learn how to put clearly the canopy into the bag. If it is asymmetrical, the main bag could go up turning and create line twists as well.

### **4 - Line stow and bands quality**

Lines must be released one stow at a time. When the pilot chute pulls the bag it rapidly decelerates the bag. If the lines are not stowed securely to the bag they can all slip out at once. This is what we call "line dump"; this can lead to a very dangerous out of sequence opening. If the canopy is released from the bag and start opening before it has reached line stretch, opening will be hard. Canopy will start filling with air almost instantly while canopy and lines go everywhere. This scenario can damage canopy, lines, risers and really cause serious injuries. So check for quality band retainers and switch them often.

## 5 - Main pilot chute

The pilot chute has big influence on canopy deployment. The size, type of fabric, length of bridle, apex length, mesh size, and aerodynamic shape all affect the deployment of the parachute. We are not going to speak about all of these aspects, parachute manufacturers know what kind of pilot chute must be used. You just have to check the following:

Pilot chute must be replaced every 250 jumps if made of F-111 fabric.

Pilot chute must be replaced every 450 jumps if made of zero-porosity fabric.

Pilot chutes made of ZOP fabric tend to provoke bad openings because of their slipping capability when released. Inner kill-line retract jump after jump because of the heat friction when activating. Jump after jump the pilot chute will collapse because of this retraction and the pilot chute will lose efficiency. This line must be replaced every 250 jumps.

## 6 - Opening body position

Too many think they are stable on opening just because they are in a belly bell position. Many are not aware that they are moving in different directions because of a slight tilt. What's more, when you are watching your pilot chute after releasing it, your shoulders are not parallel anymore. This pitch difference between both shoulders can be up to 40 cm; this difference is reported to your risers and your lines as well, leaving little chance for an on-heading opening. It is also important to be relaxed into your harness during deployment to avoid any asymmetric opening. Last thing, any action on risers can create turns on opening.

## 7 - Deployment speed

Our canopies are made to be used at a maximum velocity based on a belly bell position plus 15%. If you open at a higher speed, you might experience a severe hard opening.

We hope that these explanations will help you understand some of the reasons which may cause hard and bad openings.

## **Maintenance and Repairs**

Only an experienced and certified rigger can repair our canopies. Material and toolings used for such repairs must be the same as original material and toolings used for manufacturing. Heavy repairs like replacing a load bearing cell must be done only in our factory unless an agreement has been given to a repairing facility.

**Performance canopies X-FLY**

	X-FLY 9	X-FLY 11	X-FLY 13	X-FLY 15	X-FLY 16	X-FLY 18
Commercial name						
Top skin surface	100,81ft <sup>2</sup>	116,57 ft <sup>2</sup>	134,05 ft <sup>2</sup>	151,82 ft <sup>2</sup>	164,43 ft <sup>2</sup>	188,44 ft <sup>2</sup>
Equivalence size	89ft <sup>2</sup>	107ft <sup>2</sup>	120ft <sup>2</sup>	135ft <sup>2</sup>	150ft <sup>2</sup>	170ft <sup>2</sup>
Shape	Semi elliptique	Semi elliptique	Semi elliptique	Semi elliptique	Semi elliptique	Semi elliptique
Number of cells	9	9	9	9	9	9
Number of loading ribs	10	10	10	10	10	10
Number of divider ribs	9	9	9	9	9	9
Material	PN 4	PN 4	PN 4	PN 4	PN 4	PN 4
Construction	Dans le droit-fil	Dans le droit-fil	Dans le droit-fil	Dans le droit-fil	Dans le droit-fil	Dans le droit-fil
Aspect ratio	2,426	1: 2,362	1: 2,341	1: 2,382	1: 2,380	1: 2,372
Span cm	15,64ft / 4,77m	16,594 ft / 5,058 m	17,716 ft / 5,400 m	19,02 ft / 5,799 m	19,783 ft / 6,030 m	21,14 ft / 6,444 m
Chord cm	5,97ft / 1,821m	4,59 ft / 1,4 m	6,95 ft / 2,118 m	7,38 ft / 2,25 m	7,67 ft / 2,339 m	8,18 ft / 2,494 m
Suspension lines (725UN)	Spectra 725-T	Spectra 725-T	Spectra 725-T	Spectra 725-T	Spectra 725-T	Spectra 725-T
Steering lines (1000 UN)	Spectra 1000-T	Spectra 1000-T	Spectra 1000-T	Spectra 1000-T	Spectra 1000-T	Spectra 1000-T
Lower steering lines (1000 UN)	Spectra 1000-T	Spectra 1000-T	Spectra 1000-T	Spectra 1000-T	Spectra 1000-T	Spectra 1000-T
Maximum certified air speed deployment kts	Limitation harnais	Limitation harnais	Limitation harnais	Limitation harnais	Limitation harnais	Limitation harnais
Maximum recommended suspended weight kg	65 kg/144 lbs	73 kg/162 lbs	82 kg/181 lbs	92 kg/204 lbs	102 kg/226 lbs	115 kg/254 lbs
Minimum suspended weight kg	40 kg/89 lbs	50 kg/111 lbs	55 kg/122 lbs	60 kg/133 lbs	65 kg/144 lbs	70 kg/155 lbs
Maximum altitude opening meters	7000 M / 22965 Ft	7000 M / 22965 Ft	7000 M / 22965 Ft	7000 M / 22965 Ft	7000 M / 22965 Ft	7000 M / 22965 Ft
Volume cu inch	235	265	280	325	360	375
Maximum wing loading	1,43	1,39	1,35	1,34	1,37	1,35
Minimum wing loading	0,88	0,95	0,91	0,88	0,88	0,82

**Intermediate canopies X-Fun**

	<b>170</b>	<b>190</b>	<b>210</b>
<b>Top skin surface</b>	<b>16,7m<sup>2</sup> / 180ft<sup>2</sup></b>	<b>19,6 M<sup>2</sup> / 211,4 Ft<sup>2</sup></b>	<b>20,3 m<sup>2</sup> / 218,51 Ft<sup>2</sup></b>
Shape	Semi elliptique	Semi elliptique	Semi elliptique
Number of cells	9	9	9
Number of loading ribs	10	10	10
Number of divider ribs	9	9	9
Material	OLWFC17/LCN0065	OLWFC17/LCN0065	OLWFC17/LCN0065
Construction	droit fil	droit fil	droit fil
Aspect ratio	2,108	2,226	2,344
Span cm	19,48ft / 5,94 m	21,67ft / 6,6 m	23,82 ft / 7,26 m
Chord - Ft / m - (center cell)	8,24ft / 2,514 m	8,68ft / 2,64m	9,088 ft / 2,77 m
Chord - Ft / m - (external cell)	7,12ft / 2,172 m	7,55ft / 2,30m	7,97 ft / 2,43 m
Suspension lines (725UN)	Spectra 725-T	Spectra 725-T	Spectra 725-T
Steering lines (1000 UN)	Spectra 1000-T	Spectra 1000-T	Spectra 1000-T
Lower steering lines (1000 UN)	Spectra 1000-T	Spectra 1000-T	Spectra 1000-T
Maximum deployment speed kts	150 Kt	150 Kt	150 Kt
Maximum recommended suspended weight kg	95 kg/210 lbs	110 kg/243 lbs	120 kg/265 lbs
Minimum suspended weight kg	45 kg/100 lbs	50 kg/110 lbs	50 kg/110 lbs
Maximum altitude opening meters	7000 m	7000 m	7000 m
Volume cu inch	396	462	491
Weight lbs/kg	2,800Kg	3,300Kg	3,700 Kg
Maximum wing loading	1,17	1,15	1,22
Minimum wing loading	0,56	0,52	0,50
Descent rate brakes set on m/s	3,9	3,08	2,91
Average descent rate full flight m/s	7,8	6,36	6,04
Airspeed rate brakes set on m/s	9,89	9,44	8,95
Average airspeed rate full flight m/s	14,3	13,89	13,65
A lines lenght cm - CL04 / 03 / 02 / 01	340/340/340/340	361/361/361/361	383/383/383/383
B lines lenght cm - CL04 / 03 / 02 / 01	347/347/346,5/346	368/368/367/367	389/389/387,5/387,5
C lines lenght cm - CL04 / 03 / 02 / 01	365/365/362/360	386/385/383/382	407/405/404/403
D lines lenght cm - CL04 / 03 / 02 / 01	388/387/384/379,5	411/410/406/402	434/433/428/424,5
AB trim cm - CL04 / 03 / 02 / 01	224,5/224,5/223,5/223,5	238/238/237/237	251,5/251,5/250,5/250,5
CD trim cm - CL04 / 03 / 02 / 01	265,5/264,5/261,5/257	281/280/276/272	296,5/295,5/291,5/287
Steering lines lenght cm	419	436	453