Canopy Setup

Soft Links

We totally recommend the use of soft links, not only will they make your slider easier to drop down they will be easier to pack with and increase the life of your line set. Most riggers will install soft links for you for a small fee.

Collapsible Pilot Chutes

Using a collapsible pilot chute will improve the performance of your canopy. The increase in performance you will gain depends on the size of the canopy and the wing loading. It is a balance between the two rather than wing loading or canopy size as the pilot chute size generally remains constant rather than reducing with the canopy size.

There are two types of collapsing systems in common use, the Kill line system and the Bungee system. We prefer the Kill line however the Bungee is easier to operate and requires less packing.

If you are using a class 3 or below (below 1.25 PSF) or canopies above 160 sf this gain will be minimal and possibly not worth the complication (like in a student canopy situation).

For Class 4 (1.25-1.65 PSF) or canopies between 160 and 120 sf we recommend a collapsible pilot chute. Either a Bungee system or a kill line is OK.

For Class 5 and above (above 1.65 sf) and canopies below 120 sf it is pretty much a necessity. This situation should be used with a kill line rather than a Bungee as the speeds you can reach are leaving a smaller range between a subterminal opening and a hell canopy swoop.

On small canopies collapsing the pilotchute has a double effect, first the drag of the pilot chute has gone and secondly when the pilot chute is inflated it will drag the center of the canopy back putting a slight "V" in the canopy planform. This "V" configuration increases the canopy drag considerably as the flow of air is no longer running directly down the cell (which is relatively smooth) but at an angle across it (which is very rough due to the cells bulging between the ribs). Imagine the cross section of a canopy at any point then imagine the cross section 10 degrees off true and you will understand the need for a collapsing pilot chute in this situation.

Another effect an inflated pilot chute has is to reduce the canopies recovery arc. On a highly loaded canopy with a large recovery arc it may reduce the arc be as much as 30% by pulling the canopy up short and not letting the canopy dive for very long. This becomes especially relevant in two situations. 1) If you have been flying your canopy with an inflated pilotchute then put a collapsing system on you will need to increase the height of your hook turn as your canopy will be diving more and require more time to recover (a potentially dangerous trap) you will also be coming in faster horizontally as your canopy will have accelerated more through this longer recovery arc and through less drag (it will

behaving like a smaller canopy). 2) If you are using a Bungee system that may or may not stay collapsed during your swoop you have now lost control of the height that your recovery arc will level out at, especially a problem if your pilot chute has been inflating behind you without you knowing.

Dropping the Slider

Collapsing and lowering the slider behind your head as well as releasing some tension from your chest strap is of some benefit also. Although not providing as much gain as a collapsible pilot chute it can add some extra performance as well as changing the feel of your canopy quite a bit. By lowering and collapsing the slider we will have 3 effects.

1. The drag from the slider will be greatly.
2. The canopy will produce more lift upwards. With the slider sitting at the connector links it is restricting the spread of the canopy slightly increasing the anhedral arc, this means the outside edges of the canopy are not sitting as flat and the lift generated by the wing tips is vectored further from the vertical thus reducing the overall lifting power of the canopy.
3. Any twisting between you and the canopy will be reduced. The load from the lines that was running into your slider and chest strap and out to your hips is now running straight from the canopy to your hips which are wider and more securely attached to you than your chest strap or slider. As you turn your canopy your body will tend to move with the canopy as one unit rather than being left behind in the turn to catch up.

Again all these effects are felt more when the wing loading is higher as lift and efficiency become more important and our turns can become much faster.

If you are using a class 3 or below (below 1.25 PSF) this gain will be minimal and possibly not worth the complication (like in a student canopy situation).

For Class 4 (1.25-1.65 PSF) we recommend a collapsible slider but the chest strap gain is minimal.

For Class 5 and above (above 1.65 sf) it is pretty much a necessity to do both, the performance and feel of the canopy will both improve noticeably.

To drop the slider you must have 25mm (1") risers and either soft links or #3.5 SS links that we provide with the canopy.

The best technique for dropping the slider is

1. Open and check your canopy, do not release your breaks.
2. grab the rear risers and steer the canopy towards the DZ and clear from other canopies.
3. Making sure you are clear of other canopies reach up and using your first two fingers above the grommets slide the rear slider grommets over the links, break settings and toggles.
4. Grab the slider in the center and pull it down, it will come easily over the front risers.
5. Collapse and stow the slider. We have the option of 2 collapsing systems available on our sliders, the Velcro wrap and the draw cord.

The Draw String can be simply pulled down and pulled tight then thrown behind your head. This system is easy to operate but does not collapse the slider as well.

The velcro is best used with a piece of 25mm hook Velcro sewn vertically on the collar of your jumpsuit, Fold the velcro tail over the hook on the slider for packing as to leave a tail that is easy to grab, after opening pull the slider down and in front of you and twist it several times, tear off the tail and stick it on your collar. This method collapses the slider more to provide more visibility and less drag but is harder to use.

6. Pop the chest strap, pull the adjuster back and away from you with your fingers until the chest strap stops moving or is almost against the stop (only do this if there is a stop) some of our customers have ordered rigs with extra long chest straps to help spread the canopy. Do not release the chest strap completely as there will be nothing stopping you falling forwards out of the harness. Also be aware that if you cut away (say in a canopy collision situation) your handles will be in different positions and your harness will be slack.
7. Release your brakes.

At first this whole process might take you half your canopy ride but with a little practice you will have it down to 10-20 seconds. The most important thing we can stress here is not to loose awareness of other canopies or the DZ while you do this, it is hard to watch where you are going and stow your slider and there is likely to be others in the area doing the same and not looking out for you. Keep glancing around while you are doing this checking for other canopies and the DZ location, the canopy can be steered quite well on rear risers.

Tube Stows

Many people are anti tube stows for a variety of reasons, we watch a lot of people using tube stows in the field successfully without any problems. We have also seen people having opening problems then solving them through the use of rubber bands. If you are using tube stows successfully then keep going however if you have or develop inconsistent openings try tight rubber bands for a while.

Line Dump

Line dump occurs when the line stows are short enough and loose enough to allow the lines to drop from the bag during the snatch of the bag lifting off your back. This may cause bad openings or increase the chances of malfunctions due to out of sequence line deployment. In the worst case the locking stows may dump or more commonly break and dump the canopy from the bag before line stretch. To reduce the chances of this happening keep a good eye on your stows and replace any worn stows as well as keeping your stows tight and line bites a good size.

Pack Volume

The pack volume of your canopy will reduce slightly over the first 20-40 jumps as the fabric softens through use. At the same time the coating that is on the fabric will become less slippery. After the canopy has been used a little you may find it much easier to pack than when brand new.

Maintenance

Canopy Setup
Packing

General

Apart from the line set (We'll talk about this next) your canopy should require very little maintenance. You should give your canopy a visual inspection approx every 100 jumps or possibly get your rigger to do it during your repack cycle. Look for tears in the fabric burns around the slider, stabilisers, bridle attachment and tail as well as broken stitches. The other main things to look for are damaged or rough slider grommets and loose connector links or damaged soft links

Line Trims

Spectra line goes out of trim over time. Some lines will shrink and some may stretch. Stretching is mostly caused by loads on the line pulling the weave closer together and shrinkage is caused by heat as the slider runs up and down the lines at high speed. Unfortunately the lines with the most load on

them are the lines in the front in the center of the canopy and the lines that take the most wear and heat from the slider are the outside lines so they do not go out of trim evenly. As the canopy goes out of trim the front center of the canopy will lift up and slightly change the canopies overall angle of attack. As this happens over hundreds of jumps you willmore than likely not notice this too much. Your canopy has actually been trimmed from the factory to allow for this slightly and so as it gets a long way out of trim it remains useable.

The problem is that which lines stretch or shrink at what rate is unpredictable. We have seen canopies that have been over 100mm out on some lines still performing acceptably. We have also seen canopies develop problems only 40mm out of trim that have been solved by retrimming. If your canopy is opening, landing and stalling without a noticeable drop of in performance or bad characteristics we suggest letting any one line getting up to 60mm out of trim for canopies below 115sf and 70mm for canopies above 115sf before retrimming or relining. If your canopy is not performing as it should and any one line is more than 30mm out of trim then in this scenario also retrim or reline the canopy.

Line Sets

On a Zero-P canopy the canopy will generally outlast the lineset by several times Spectra line has a limited life and will generally need replacing any ware from 300-600 jumps for 500lb line and 500-1000 jumps for 725lb line. The life of your lines will depend on several factors like your weight, the cleanliness of your packing environment, the number of lines (7-Cell or 9-Cell), how well you look after them and the condition of your slider grommets. Linesets should be monitored for wear and trim and retrimmed or replaced as you would a set of tyres on a car. The things to look out for are trims (discussed later), wear spots, snags and worn stitching. Often wear spots can appear quite bad but still retain much of their strength (such as wear by velcro) and sometimes a line can appear in quite good condition and be weakened considerably (often underneath a fingertrap). A simple test is to squeeze the line between your thumb and finger and slide it along, if the line or wear spot gets thinner it is more than likely weakened. Other common wear spots are the lower brake lines and the corner lines where they meet the connector links. You can monitor the condition of your lines easily while packing, about every 50 jumps have a closer look, If you are unsure of something check with your rigger. One of the best things you can do to improve the life of your lines is to use soft links and monitor the condition of your slider grommets

Packing

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1) Select Spot

Find a suitable area and refreshment (Non-alcoholic)

2) Set Brakes

Set according to container manufacturers instructions. Set the brake line to the outboard side of the toggle keeper as the brake line pulls to the outside of the riser.

3) Separate Risers Front to Back

Split the risers from front to the back ensuring they are not twisted at the harness and walk the slider up to the canopy with the front riser lines in one hand and the rear riser lines and brake lines in the other. At this point check for any misrouting of the lines visually then shake the canopy vigorously until the canopy has all fallen into position and appears flaked between the stabilisers. Milk any slackness from the lines and repeat as required until the canopy is clean and the lines are tight.

4) Separate Risers Side to Side

Looking back down the line groups now split the line groups between the left and right riser groups, step over the lines so you are not between them then visually check the continuity to the container again for misrouted lines a second time. As you split the lines this direction the slider will become square and the canopy will rotate so the nose is towards the container, now bring the line groups all together ensuring the stabilisers are level from side to side and hang the canopy over your shoulder or on a packing hook.

5) Tidy Nose

Bring the canopy high on your shoulder so you can reach it easily and rotate it 180 degrees so you are looking in the nose and dress the nose so all the cell openings are tight and even (This looks unusual on the EXTreme series of canopies as the high point of the cell is in between ribs and covered instead of open).

6) Dress Nose

At this point apply the nose packing method you wish to use for controlling your opening.

A good starting point - is to leave the nose dressed and push it back into the canopy so it will sit loose and behind the slider.

To make the opening harder - Draw the nose out as required so it is more and more exposed, even spreading it so it can grab the air easily.

To make the opening softer - Roll the nose more and more as required, roll it tightly so the rolls pivot around the "A" line attachment points and again push into the heart of the canopy. This will have to be done after the rest of the canopy is dressed so keep it rolled and pinched between your legs until you are ready.

To make the opening much softer - Do the same as above but pull the slider through the "A" lines at the center of the canopy so it sits in front of the nose blocking the path of the air into the nose.

After dressing the nose rotate the canopy back 180 degrees the so it is again pointing towards the container (make sure you turn it back so you don't twist the lines) and if necessary secure your nose configuration between your legs.

7) Clear Canopy

Now starting at an "A" line on the front corner of the canopy (Where the stabiliser starts) work your way right around the outside edge of the canopy clearing any fabric that is not cleanly positioned and drawing any fabric on the outside edge of the canopy out from the canopy. Start with the stabiliser and work back then across the tail to the other side then back up the opposite stabiliser to the opposite corner "A" line. Make sure there are no twists or lumps of tangled fabric in the canopy as you do this. Also check the stabiliser stops are sitting at the same height and the slider is sitting squarely against them with the sides of the slider dressed between the stabiliser stops the grommets are sitting on. At this point you should check for any slack lines and pull them tight by milking the slackness up into the canopy and pulling the canopy tight where the loose line was.

8) Centre Tail on Canopy

Now reach down and bring the center of the tail up to the base of the canopy, the center of the canopy is easily located as it has the makers panel attached right there (on the EXTreme series the center of the canopy has no rib and is in the cell center - again where the makers panel is located). Grab the brake lines and bring them almost together at full stretch in the center of the canopy behind the tail. At this point if you are holding the nose with your legs release it and position it in the canopy.

9) Wrap Tail Around Canopy

Wrap the tail around the canopy making sure you do not drag the brake lines away from the tail center and towards the nose and bring both sides together close to you and away from the canopy.

10) Twist Tail Behind Conopy

Twist the tail together tightly until the canopy is held in a tight bundle and the twists wrap together tightly around the lines at the top. Be sure you only have the tail in your twists and do not wrap the nose into the tail.

11) Lay Down And Remove Air

Lay the canopy on the ground and put your knee on the base to hold it in position as you squash the air upwards and out of the canopy. Do this slowly so you allow the air to escape and not disturb your pack job. Wrap the canopy into a tidy sausage slightly wider than your deployment bag.

12) Fold up Canopy Base

Fold the canopy into a deployment bag sized bundle. Make the first fold upwards so the base is pointing up into the inside of the folds and not hanging out the bottom of your deployment bag getting messy as you are trying to stuff it in. This is the area where your slider, stabiliser and nose are sitting and is the heart of the opening sequence, the least they can be disturbed the better.

13) Control Canopy

Finish folding the canopy by sandwiching the canopy base with the next fold to hold it there. Pinch the tail together underneath this fold to help control the fabric and keep pressure on it with your knee to not allow the canopy to expand. Keeping the bundle tight and not allowing it to expand will help you a lot with getting it in the bag.

14) Shape to Bag

Fold the excess fabric under the last fold and position the bridle attachment so it will be located near the grommet in your deployment bag. At this point cock your collapsible pilot chute system if you use one.

15) Place in Bag

Place the canopy in the bag then follow the container manufacturers instructions for container closing. When placing the deployment bag into the container we recommend around 500mm of slack before the first line stow so the bag has a clean initial lift off at low speed with out being disturbed by the first line stow.

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Icarus Canopy Specifications

Jump to :- Icarus EXTreme-FX Icarus Safire Icarus Omega

IcarusEXTreme-VX

Canopy	Size	Pk Vol	MSW	Weight
	Sq.Ft	Cu.In	Lbs	Lbs
Icarus EXTreme-VX 69	69	186	166	3
Icarus EXTreme-VX 74	74	200	178	3
Icarus EXTreme-VX 79	79	213	190	4
Icarus EXTreme-VX 84	84	227	202	4
Icarus EXTreme-VX 89	89	240	214	4
Icarus EXTreme-VX 94	94	254	226	4
Icarus EXTreme-VX 99	99	267	238	4
Icarus EXTreme-VX 104	104	281	250	5
Icarus EXTreme-VX 109	109	294	262	5
Icarus EXTreme-VX 114	114	308	274	5
Icarus EXTreme-VX 119	119	321	286	5

Jump to :- Icarus EXTreme-VX Icarus Safire Icarus Omega

Icarus EXTreme-FX

Canopy	Size	Pk Vol	MSW	Weight
	Sq.Ft	Cu.In	Lbs	Lbs
Icarus EXTreme-FX 69	69	221	152	3
Icarus EXTreme-FX 74	74	237	163	3
Icarus EXTreme-FX 79	79	253	174	4
Icarus EXTreme-FX 84	84	269	185	4
Icarus EXTreme-FX 89	89	285	196	4
Icarus EXTreme-FX 94	94	301	207	4
Icarus EXTreme-FX 99	99	317	218	4
Icarus EXTreme-FX 104	104	333	229	5
Icarus EXTreme-FX 109	109	349	240	5
Icarus EXTreme-FX 114	114	365	251	5
Icarus EXTreme-FX 119	119	381	262	5

Jump to :- Icarus EXTreme-VX Icarus EXTreme-FX Icarus Omega

Icarus Safire

Canopy	Size	Pk Vol	MSW	Weight
	Sq.Ft	Cu.In	Lbs	Lbs
Icarus Safire 99	99	298	178	4
Icarus Safire 109	109	320	196	4
Icarus Safire 119	119	342	214	4
Icarus Safire 129	129	364	232	5
Icarus Safire 139	139	386	250	5
Icarus Safire 149	149	408	268	5
Icarus Safire 169	169	452	300	6
Icarus Safire 189	189	496	300	7
Icarus Safire 209	209	540	300	8
Icarus Safire 229	229	584	300	8

Jump to :- Icarus EXTreme-VX Icarus EXTreme-FX Icarus Safire

Icarus Omega

Canopy	Size	Pk Vol	MSW	Weight
	Sq.Ft	Cu.In	Lbs	Lbs
Icarus Omega 99	99	278	149	4
Icarus Omega 109	109	298	164	4
Icarus Omega 119	119	318	179	4
Icarus Omega 129	129	338	194	5
Icarus Omega 139	139	358	209	5
Icarus Omega 149	149	378	224	5
Icarus Omega 169	169	418	254	6
Icarus Omega 189	189	458	284	7
Icarus Omega 209	209	498	300	8
Icarus Omega 229	229	538	300	8

Prices & Ordering Information

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