

# IBEXUL

## USER MANUAL

**YOU MUST READ THIS MANUAL BEFORE DOING ANYTHING WITH YOUR SQUIRREL EQUIPMENT**

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## ABOUT THIS MANUAL

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### **Your Squirrel IBEX.UL comes with NO WARRANTY.**

Parachuting, BASE Jumping, and wingsuit flying are extremely dangerous activities. This parachute is sold with all faults, as is, and with no guarantee or warranty of fitness for any purpose. Squirrel LLC, its members, owners, associates, and dealers, disclaim any and all liability in tort for damages of any kind, caused by negligence on the part of Squirrel LLC or otherwise. By using this parachute system or allowing it to be used by others, the user waives any liability of the manufacturer for personal injuries or other damages resulting from its use.

### **WARNING**



ALL FORMS OF SKYDIVING, PARACHUTING, BASE JUMPING AND WINGSUIT FLYING ARE INHERENTLY HAZARDOUS ACTIVITIES AND REQUIRE THE DELIBERATE AND CONSCIOUS CONTROL OF YOUR PHYSICAL BODY THROUGH THE PROPER USE OF THIS PRODUCT IN RELATION TO EVER-CHANGING VARIABLES AND DANGERS. TRAINING, PROFICIENCY, SKILL, GOOD JUDGMENT, AND BEING CONTINUALLY ALERT TO CHANGING CONDITIONS, INCLUDING WEATHER, VISIBILITY, SURFACE CONDITIONS, ATMOSPHERIC CONDITIONS INCLUDING DENSITY ALTITUDE, AND OBSTACLES, ARE REQUIRED TO LOWER THE RISK OF SERIOUS INJURY OR DEATH. DO NOT USE THIS PRODUCT WITHOUT INSPECTING IT AND ALL OF ITS COMPONENTS BEFORE EACH AND EVERY USE.



**!!!Even when properly used, this product may malfunction or fail to operate as expected.  
You risk death or serious injury each time that you use this parachute system!!!**

The IBEX.UL is a 7-cell parachute system designed for experienced parachutists. You must have at least 200 skydives and a thorough understanding of the performance differences between this canopy and other more common parachute systems before using this parachute. Do not use this parachute unless you have received training and instruction on the proper use of a 7-cell canopy constructed from low-bulk and / or O-3cfm materials. Packing, opening, flight, and landing characteristics may vary greatly from other parachutes you have previous experience with.

It is imperative that you take the time to familiarize yourself with all aspects of this parachute system in the skydive environment, and tune your DBS, before jumping it from solid objects. BASE jumping requires dedication and commitment - take it seriously, and learn to use your equipment properly before your next BASE trip.

## REMINDER

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The IBEX.UL is not a magic parachute that performs perfectly in every situation regardless of how you use it, configure it, or fly it. It is a parachute system that demands extensive training and good judgment to use safely and properly. It is critical that you fully understand each aspect of this parachute system, and that you configure it correctly for each jump. The slider, packing method, pilot chute selection, and jumper freefall technique **MUST** be adjusted for every scenario in every jump. Therefore, it is mandatory that you take the time to educate yourself on each specific aspect of this parachute system and its proper use. Mis-configuring or misusing this parachute system can easily lead to equipment failure, injury, or death.

**It is YOUR responsibility to learn to use this equipment safely, properly, and responsibly!**

And remember, even when properly used, this product may malfunction or fail to operate as expected. You risk death or serious injury each time that you use this parachute system. Being a BASE jumper means taking responsibility for your own life, death, and wellbeing. BASE is dangerous and unpredictable, and no equipment can mitigate all risk factors, nor can a manufacturer predict how all jumpers will use their equipment. Therefore: Consider yourself a test jumper!

## SKYDIVE IT FIRST!

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**BEFORE BASE JUMPING IBEX.UL, WE RECOMMEND SKYDIVING IT.**

In the skydiving environment, you can test a variety of delays and slider configurations as well as learning the stall point, brake range, and handling characteristics. Get to know your canopy well before taking it into the BASE environment!

Deploy your IBEX.UL after low airspeed hop-and-pop exits with short delays and longer delays.

While maintaining an awareness of your airspeed at deployment and how that equates to a certain delay in the BASE environment, determine which slider and packing configuration works best for the type of jumping you plan to do. Renting or borrowing a skydiving container system that is compatible with your IBEX.UL requires very little effort. Work with your local rigger to ensure the safe installation of your IBEX.UL in a skydive container, and take the time to learn to use this canopy.



Watch this video to learn how to adjust your toggle setting for optimal flare and handling performance, and get to know your BASE canopy in the skydive environment.

[vimeo.com/flysquirl/basecanopy](https://vimeo.com/flysquirl/basecanopy)

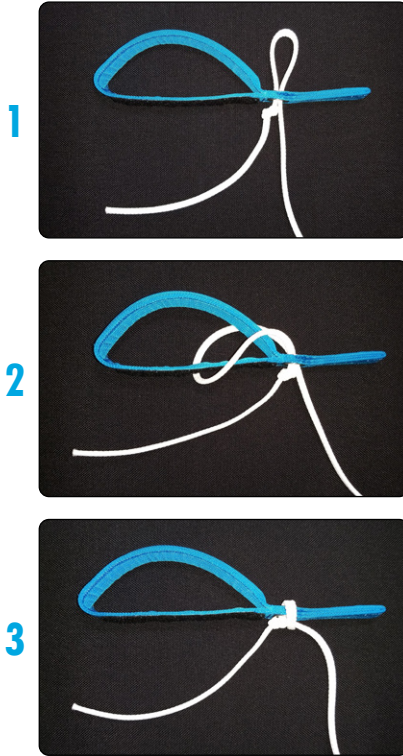
## ADJUST YOUR TOGGLE SETTING

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As shown in the video link on the previous page, you will notice that your IBEX.UL came with a simple overhand knot tied in the line a few inches from the end of the main control line.

We recommend starting with your control line toggle **set at the knot**. See photos to set toggle correctly at this knot (no untying is necessary).

It takes about two minutes to change your toggle setting, if you need to, using the simple overhand knot technique pictured below.



Please adjust your toggle setting using this method - if you use quick-release toggles, you can fingertrap a loop at the final location once you have determined the perfect toggle setting for your personal preference.

The ideal toggle setting is one where stall is easily accessible, handling feels direct, and the trailing edge of the canopy is not significantly deflected in trim flight. The ideal toggle setting will vary with factors such as arm length and personal taste - do not assume that any factory toggle setting will work perfectly for you without adjustment.

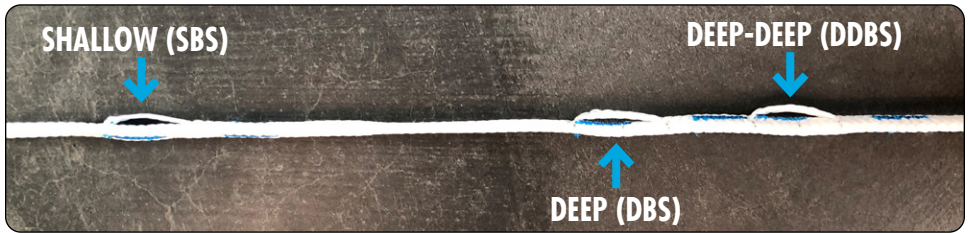
The first thing you should do is adjust the toggle setting to a length that is comfortable for your control stroke preference, your personal arm length, and your riser length. You should be able to achieve stall without great effort or needing to extend your arms too much. Also, you should be able to use the full control range when flaring for landing. Take the time to get this right. By setting your toggles to the proper length, you will have much better landings and control authority over your canopy. Testing, adjusting, and fine-tuning your toggle setting is best done in the skydiving environment, not in the BASE jumping environment.

## BRAKE SETTINGS

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Slow forward speed in DBS is an essential safety feature and something that we care a lot about. You will notice that your IBEX.UL is delivered with three brake settings: a Shallow Brake Setting (SBS), a Deep Brake Setting (DBS), and a Deep-Deep Brake Setting (DDBS).

- The shallow setting is intended for slider-up deployments and is the primary setting for this parachute.
- The Deep and Deep-Deep Brake Settings should rarely be used. These deep settings are intended only for highly competent jumpers who may need to jump the IBEX.UL slider down/off very occasionally. This canopy is intended mainly for slider-up use with the SBS.



We recommend testing your Deep and Deep-Deep settings at a forgiving object. Start with the Deep (middle) setting. The settings are intentionally deep – if you observe excessive forward speed in the Deep settings, this is when the Deep-Deep can be considered. If you feel the canopy “rock back” on opening in the Deep-Deep setting, then revert back to the Deep (middle setting). If the Deep (middle) setting is still too deep, **then you need to tune your DBS**. Contact us if you have any questions at all about this important process. Note: the Shallow setting will likely not need to be adjusted.

## TUNE YOUR DEEP BRAKE SETTING (DBS)

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**In the skydive environment, or while jumping from a large and forgiving object, tune your DBS!** A tuned DBS is critical to your safety when opening near objects. Work with your mentor or BASE instructor to learn how to measure and mark the stall point of your canopy, and adjust the DBS accordingly.

## FLIGHT CHARACTERISTICS

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The IBEX.UL is suitable for qualified and responsible BASE jumpers of beginner to expert ability.

As with every new canopy, take time to learn how the canopy flares and **adjust the length of the main brake lines** as noted above, if necessary.

The rear-riser response with brakes stowed is direct and effective. Learn to use this technique for rapid heading changes. It is important to understand how the canopy responds to riser inputs with brakes stowed and un-stowed, in a safe environment. In many cases, it is safer and more efficient to correct an off-heading by using brakes only. Practice all object avoidance skills in a safe location, before you need them. Remember: We do not rise to the occasion, we sink to our level of training. Proper reactions must be trained, in order to be executed safely.

## SLIDER

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The IBEX.UL standard slider size and aspect ratio was chosen for use on terminal (primarily) slider-up jumps. It is a standard fine-mesh design that has proven to work well across a range of typical slider up delays and wingloadings.

There are many variables that control parachute opening speed. Jumper velocity and body configuration, pilot chute type, wingsuit or tracking suit type, line material (Spectra or Dacron) and line condition (new or used), and atmospheric conditions will all affect the opening speed and the resulting force on you and your equipment. For instance, deploying your IBEX.UL from a steep terminal track with a large PC and an improperly stowed slider would be a bad decision, and the resulting hard opening could damage you or your equipment. Conversely, a low airspeed slider up deployment opening near terrain, would be hazardous. It is up to you to understand the differences.

Due to the large amount of variables, particularly in jumper airspeed and body configuration, it is impossible to create a set of fixed guidelines for the configuration of your equipment. You must choose the configuration based on progressive and conservative jumping with large safety margins.

If you are jumping terminal slick or with a tracking suit, or doing high airspeed deployments, we recommend caution and a careful evaluation of your method of slider control, slider stowing, packing techniques, and PC size.

## SLIDER-GATE

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The slider-gate is a method of containing your control lines (brake lines) in the same manner as the standard tail-gate used for slider-off configurations. As shown in the photo, the slider-gate should contain your brake lines. It is also acceptable to contain your brake lines + inner C/D lines. We recommend three wraps of a small rubber band (such as is pre-installed on your IBEX.UL), in the same manner that you would secure the tail-gate.



## CARE AND MAINTENANCE

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When properly cared for, the IBEX.UL will last for several years. The factors that will shorten the lifespan of your canopy are primarily Moisture, Heat, UV Exposure, Hard Openings, and Improper Storage:

- Keep your canopy dry at all times. All moisture exposure will degrade the coating which provides the correct level of porosity to the cloth. Avoid water landings, and try to keep your canopy away from moist or wet landing areas. Never pack or store your canopy when wet or damp. If your canopy becomes wet or damp, hang dry it in the shade, NOT in direct sunlight.
- Do not store your canopy in a hot location. Avoid leaving it in hot vehicles, for instance.
- Do not expose your canopy to unnecessary or excessive UV / sunlight - obviously your canopy is not allergic to the sun, but we don't recommend letting it sit out in direct sunlight unnecessarily.
- Avoid hard openings at all times. Pack appropriately, and moderate your airspeed at deployment. Excessively hard openings may damage your equipment, and may result in serious injury or death.
- For periods of extended non-use, store your canopy unpacked, in a cool, dry, dark location, away from solvents, batteries, or any chemical that will damage or degrade synthetic materials. Exposure to car battery acid or even the fumes emitted from car batteries will degrade or completely ruin your canopy and other nylon equipment. Always discard / destroy any equipment that has had exposure to battery acids or harmful solvents.
- Keep your canopy clean, and out of the dirt and dust as much as possible. Allowing any type of dirt, sediment, or debris to accumulate inside your canopy or on the exterior surfaces will degrade your canopy's lifespan. Packing a dirty canopy will cause sediment to abrade the surfaces of the materials.

A necessary part of maintaining your canopy is understanding and recording its usage. We recommend logging every jump that you make on your IBEX.UL, and recording deployment parameters for each jump such as wingsuit, non-wingsuit, type of wingsuit, estimated airspeed, etc.

In addition to you inspecting the equipment before each jump, your IBEX.UL should be thoroughly inspected by a certificated rigger every 200 jumps or annually (whichever comes first), or whenever it is potentially exposed to harmful conditions including but not limited to those listed above.

# TECHNICAL SPECIFICATIONS

Size [PIA] (ft <sup>2</sup> )	Area Flat (m <sup>2</sup> )	Recommended Wingloading	Mid-Range Exit Weight* (lbs/kg)	Upper-Range Exit Weight* (lbs/kg)	Canopy Weight (lbs/kg)	Load Test (kg)
190	17.65	0.70 - 0.79	142/64	150/68	5.51/2.5	145
200	18.58	0.70 - 0.79	149/67	158/72	5.73/2.6	145
210	19.51	0.70 - 0.79	156/71	166/75	5.95/2.7	145
220	20.44	0.70 - 0.79	164/75	174/79	6.17/2.8	145
230	21.37	0.70 - 0.79	171/78	182/83	6.39/2.9	145
240	22.3	0.70 - 0.79	179/81	190/86	6.83/3.1	145
250	23.23	0.70 - 0.79	186/85	198/90	7.05/3.2	145
260	24.15	0.70 - 0.79	194/88	205/93	7.28/3.3	145
270	25.08	0.70 - 0.79	201/91	213/97	7.5/3.4	145
280	26	0.70 - 0.79	209/95	221/101	7.72/3.5	145
290	26.94	0.70 - 0.79	216/98	229/104	7.94/3.6	145

\* Exit Weight = Jumper + All Equipment. If you are unsure of your Exit Weight, you can add 18lbs/8kg to your naked weight as an estimate.

## CONTACT US

Please consider the following important points:

1. We designed, tested, and built your canopy.
2. Our job is to make sure that you fly as safely as possible, while having the most fun possible.
3. Our job is to help you understand, use, and progress with your canopy.
4. Our job is to answer your questions, and we like our job.

For these reasons, we highly recommend that you contact US (SQRL) if you have any questions about any product that we make. We 100% guarantee that the information you receive from us will be more relevant, more accurate, and more thorough than anything you can find in facebook comments, internet forums, or even your DZ gear shop guru. So, again, call us. Email us. Together with your dealer & the local SQRL pros near you, we're here to help.

*-Matt, Mike, Will, Marty, & All the Team*

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**THANK YOU FOR FLYING SQUIRREL!**