



CRUX 3R USER MANUAL

Congratulations on your purchase of a Squirrel CRUX 3R ("product"). By purchasing this product, you acknowledge that engaging in sky-diving, base jumping, parachuting, and "wingsuiting" is an inherently dangerous activity that requires training, proficiency, and skill. Use of this product may result in serious injury or death. Do not use this product without inspecting it and all of its components before each and every use. You acknowledge and agree that even when properly used, this product may cause serious bodily harm or even death. You, the purchaser, acknowledge and agree that this product is intended for inherently dangerous recreational purposes, and you assume all risk, responsibility, and liability whatsoever from any and all injuries (including death), losses or damages to persons or property arising from the use of this product sold by Squirrel, LLC to you, the purchaser.

Squirrel is not liable for any special, consequential, incidental, punitive, or indirect damages or anticipated profits, however caused, in relation to the purchase and use of this product. In no event shall Squirrel's total liability to you, as purchaser, or your assigns, heirs, representatives, and other similarly situated persons, for all damages, losses, and causes of action exceed the purchase price paid by you, the purchaser, for this product. This product has been purchased by you "as is" and without warranties of any kind, either express or implied. To the fullest extent permissible pursuant to applicable law, Squirrel, LLC disclaims all warranties, express or implied, including, but not limited to, warranties of title and implied warranties of merchantability and fitness for a particular purpose.

Please read this carefully before doing anything with your new container system

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THE SYSTEM

The CRUX 3R is a BASE harness / container system with 3-ring risers. It is imperative that you take the time to learn the proper assembly, packing, and closing procedures before you use this system. If you are unsure of any aspect of the assembly or use of this system, stop use immediately and seek professional instruction. We recommend that you assemble and pack this container system under the guidance / instruction of a qualified BASE instructor or parachute rigger.

CLOSING LOOPS

Your CRUX 3R is shipped with two sets of closing loops.

You must adjust the closing loop length to your parachute pack volume and packing style.

The CRUX 3R top closing loop can be installed in the floor-plate, or the top flap, depending on jumper preference, packing method, and/or canopy volume requirements. The floor-plate loop position will result in a more compact and lower profile finish. Using the top flap loop installation will allow for a more traditional folding technique and more volume.



Note: only use Squirrel OEM closing loops for either location.

Floor Plate Loop: For all terminal, tracking, wingsuit, and high-air-speed jumps

To use the floor-plate loop, select one of the longer loops included with your CXUL and install through the back of the floor plate. Be sure to use the included metal washer and an overhand knot.

Top Flap Loop: Recommended only for subterminal use

To use the top flap loop location, insert the padded plastic wedge into the V-shaped pocket on the top flap. Select a shorter closing loop, install a washer & knot, and thread through the grommet. The loop should fit snugly in between the flap and the stiffened wedge. **Do not use this closing method for any jump where the container will be exposed to high amounts of relative wind.**



PACKING TIPS

Common techniques used to pack other 2-pin container systems, which use a floor-plate closing method for the top pin, will work for the CRUX 3R as well. Please keep these points in mind:

1. If using the floor plate for the top loop, then we recommend placing your pull-up cord through the top closing loop before placing your canopy in the container (easier to access once the parachute is covering the loop).
2. You can place the tailpocket in the packing tray regular or inverse, high or low. However, the placement shown here has proven to work well with this container.

3. You **MUST** place enough canopy bulk in the upper section of the container to create adequate flap tension. A significant amount of canopy bulk should be above the top closing loop. Leaving some empty space at the top of the container will help to keep the top section low-profile and wrinkle-free, **but you must ensure that enough canopy bulk is high enough in the container to make the top edges of the side flaps lay tightly and securely.** Flying at high airspeeds may cause improperly seated or inadequately tight side flaps to catch air and possibly open the pin cover flap.
4. The second fold should be at the bottom of the container. Leave the parachute bridle attachment point exposed so the bridle route is clean.
5. When your CRUX 3R is closed, the main pin cover flap should be cleanly seated. Check your placement of the packjob volume. It should be dispersed evenly from corner to corner and match the shape of the container. If too much volume is directly under or around the top pin, the main pin cover flap may not seat properly. Your canopy should be folded into a flat and rectangular configuration matching the container.
6. The small tuck tab **MUST** be placed **below** the flap as shown.



If the pack-job appears messy and disorganized, consider redoing it with improved technique. Your CRUX 3R must be packed cleanly in order to function properly. If you are unsure, do not jump it. Contact Squirrel immediately with any questions or concerns.

CONTAINER CLOSURE

Always double check pin tension, orientation, and closure. There are many ways to pack a container incorrectly. There is one best practice for packing and closing this container. The bridle should be routed between the grommets, to the top loop, then the bottom. The pins should be frowning to the right. In this configuration. With appropriate closing loop length, there should be consistently low pin tension and minimal tendency to lock. It is imperative that you close the container as directed.

1. Route the bridle from the attachment point on your parachute between the top and bottom closing loop from left to right. Make sure that the Velcro tab on the bridle is affixed to itself and free of any twists or knots. Make sure that both closing loops have the washers installed properly and that they are adjusted to the correct length to provide the correct pin tension for the volume of your parachute.
2. Insert the top pin through the top closing loop from left to right, frowning.
3. The bridle must be flat and free of any twists. Locate and align the bottom pin. Insert the bottom pin through the bottom closing loop from left to right, frowning.
4. Check that both pins are “frowning” from left to right and that the ends of the pins are pointing to the right.
5. Fold the bridle slack between the top and bottom pin back onto itself along with the closed Velcro fold. Both of these folds should occur between the top and bottom pins.
6. Hold the Velcro tab and excess bridle between the pins with one hand, while you carefully close the pin protector flap.
7. Tuck the top of the pin flap and the right side of the pin flap around the left side flap, tightly covering the pins and bridle.
8. Tuck the excess bridle under the right-side flap and then under the bridle protection flap and then into the BOC pouch.

PIN TENSION FOR SLIDER UP JUMPING

Pin tension for wingsuit, tracking, and terminal airspeed jumps must be high enough to ensure secure side flaps and secure pin placement against the relative wind that will be acting on your container. With the pin cover flap open, you should be able to gently move your container around on the floor by pulling on the bridle just below each pin, without the pin releasing.

Please watch this video: <https://vimeo.com/flysquirrel/pintension>



3-RING RISERS

The CRUX 3-ring risers are the result of laboratory load testing and field testing by our R&D team and Squirrel team jumpers.

Note that the CRUX 3-ring risers are “reverse”. When assembled, the rings will be facing the jumper.

Our mission for the CRUX 3-ring risers was to create the strongest, most durable, and most dependable 3-ring risers available. The CRUX 3-ring risers have been load tested to more than 20 kN (per riser) in static and dynamic loads, which significantly exceeds industry norms for load bearing capacity.

It is critical that the risers are properly assembled, used, and maintained. Failure to properly assemble, use, or maintain the risers will result in increased risk of injury or death.

USE

We recommend using the **Double-Cable Configuration** (pg. 6) for nearly all BASE jumping applications. The double-cable configuration increases load resistance and adds some protection against accidental cutaway.

The **Single-Cable Configuration** (pg. 6) may be used where an emergency parachute cutaway might be necessary (such as in the case of water landings).

The CRUX 3-ring riser system is **NOT designed for skydiving**. The double-cable configuration must not be used under any circumstances in the skydiving environment.

The CRUX 3-ring riser system is **NOT designed to be released under load**. Do NOT cutaway your parachute in flight. All parachute equipment has a failure point. Subjecting any risers or any type of equipment to extreme or unusual loads may result in failure, serious injury, or death.

ASSEMBLY

Cutaway Handle

Ensure the cutaway cable is properly threaded through the harness, and the handle is seated firmly in place. See Maintenance for information on maintaining the cable.



3-Rings

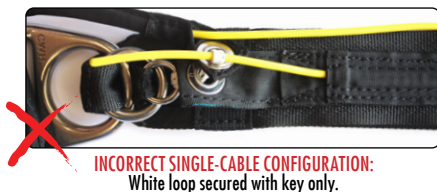
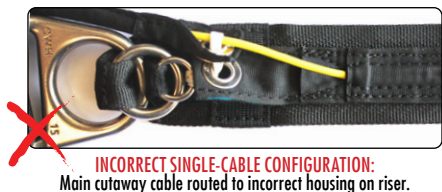
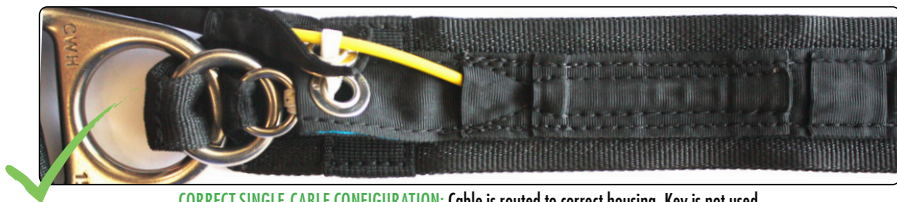
1. Holding the risers parallel to the harness ring, thread the middle ring (on riser) through the large ring (on harness). Fold the middle ring back toward the riser.
2. Thread the small ring through the middle ring, ONLY.
3. Thread the white loop through the small ring ONLY, then through the riser grommet.
4. Then pass the white loop through the grommet on the cable housing. The flat side of the cable housing should be against the riser.



Cable Configurations

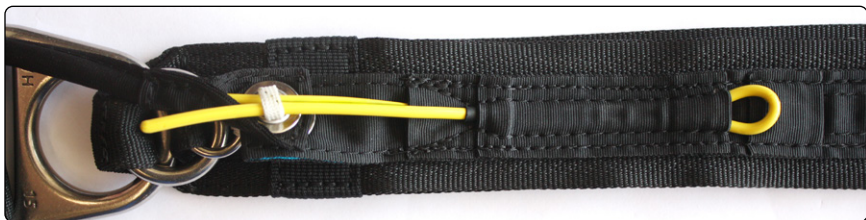
Single-Cable Configuration:

1. There should be 5.5 in. (14 cm) of excess cable extending past the cable housing grommet.
2. Thread the yellow cutaway cable from the main cable housing through the white loop.
3. It should then pass into the correct channel on the riser. **NOTE THAT THERE ARE TWO CHANNELS.** The main cutaway cable should be seated only in the lower channel.



Double-Cable Configuration:

1. Assemble the Single-Cable Configuration as above.
2. Then, insert the short cable key from the top (Maillon or parachute side) of the risers.
3. Insert the end of the cable through the white loop.

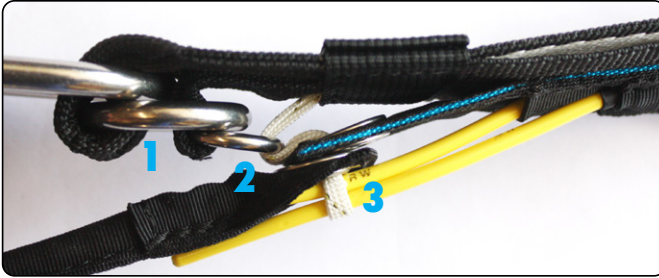


4. Then tuck the looped-cable-end into the dedicated webbing cover so that it cannot back out on its own.



INSPECTION

1. Each ring passes through only one other ring.
2. The white loop passes through only the small ring.
3. The white loop passes through the grommet on the end of the cable housing without twisting.
4. The cable-key should be inserted from top down, in its dedicated channel on the riser.
5. The main cutaway cable should be inserted from harness to riser and properly seated in its dedicated channel on the riser.
6. Nothing passes through the white loop except the yellow cutaway cable, and the cable-key.
7. The 3-Ring release handle is securely fastened to the harness.



ENSURE THAT:

- All 3 rings are aligned in parallel planes. Always ensure that the 3-ring assembly is not inverted or stuck at an angle. This is particularly important when preparing for unpacked jumps, where the risers are hanging at an abnormal angle before loading.
- The rings overlap each other and maintain metal-to-metal contact.
- The smallest ring is not pulled tight against the grommet. The white loop should be long enough to allow it a small amount of movement.
- Your 3-ring risers must match the correct illustrations, exactly. If your riser assembly does not match the illustrations, it will not function correctly. If you need assistance, contact Squirrel before use or enlist the help of a rigger who is experienced with this specific CRUX 3-ring system.

MAINTENANCE

All load bearing parachute equipment must be stored properly away from corrosive materials, solvents, moisture, sunlight, or any other element that may degrade materials.

Inspect 3-ring assembly including the white loop before every jump. It should not be frayed or worn. All riser rings should be smooth and free of corrosion. All cables should slide without excess resistance and be free of kinks or damage.

The cutaway cable should be lubricated with a light coating of food-grade silicone. Check the cutaway cable frequently to ensure proper function.

LIGHT BUCKLES

The CRUX 3R features aluminum plate buckles. Be sure to assemble them correctly, and inspect them before every jump. Webbing must pass around the middle bar of the small buckle. The entire small buckle then passes through the hole in the larger buckle. Confirm that the webbing fold back end is under (below) the large buckle's outside edge.

Do not twist the leg strap before attaching buckles, and as with every other part of your equipment, do a thorough pre-jump check to verify proper leg and chest strap assembly and routing.

The stopped ends of the leg straps provide up to 3000 lbs of resistance in the case of some mis-routings.

See photos for **GOOD** and **BAD** routing.

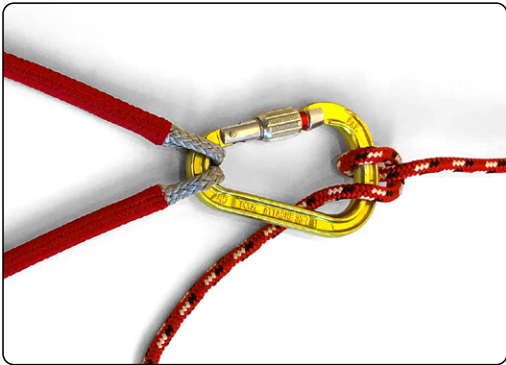


RAPPEL ANCHOR LOOPS, AND RAPPEL SLINGS

Rappel Anchor Loops are now a standard feature on our harnesses. If you choose to use the SQRL Rappel Slings, attach the sling to the anchor loop as in the photo below (pass the sling through the anchor loop, then the sling through its own loop, to form a lark's foot knot on the anchor).

The two slings should be attached with a locking carabiner. You can then use a rappel / belay device or a Munter Hitch to rappel.

Note that it is recommended to backup all load bearing systems such as with a sling connecting your chest strap and the locking biner. Never attempt to rappel without proper knowledge, instruction, or guiding. The anchor loops and rappel slings are for static weight only, do not use them as climbing harness anchors and never dynamic load these points.



CONTAINER SHAPE



The CRUX 3R's packing tray opens into a fully-flat configuration. The CRUX 3R's diamond-shaped bottom corners should be folded inside the container when closed. They can be folded up against the sidewall, or down against the bottom flap. To avoid wrinkles or an uneven surface, gently compress the packed rig to smooth out the container.

PC PLACEMENT



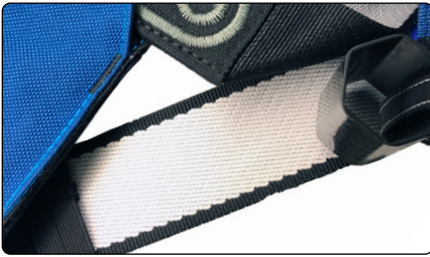
The BOC PC is placed in a manner that the handle of your PC should not be obstructed by the corner of your container. When you reach back to take it, the PC handle should be the first thing you touch.

CHEST STRAP



The CRUX 3R's chest strap is made from 3000 lb. nylon webbing, and the non-slip milled aluminum buckle is rated to over 14 kN.

DYNEEMA BLEND WEBBING



The CRUX 3R's webbing is a blend of Dyneema and polyester. The Dyneema provides a high level of strength while the polyester provides structure. Dyneema fiber is durable and more resistant to environmental factors compared to classic nylon. This webbing has a >31 kN (7000 lbs) breaking strength when new.

GENERAL INSPECTION AND MAINTENANCE

The critical junctions of the CRUX 3R are easy to inspect. All major bartacks are made with contrasting color thread and are easily accessible. Always inspect your CRUX 3R before each use and discontinue use immediately if you see any evidence of wear or damage. Always check your entire container system, and all equipment, for signs of wear or degradation before every use. NEVER ASSUME that your equipment is in perfect working condition and always use extreme caution when trusting any single component of your equipment with your life.

CONTACT US

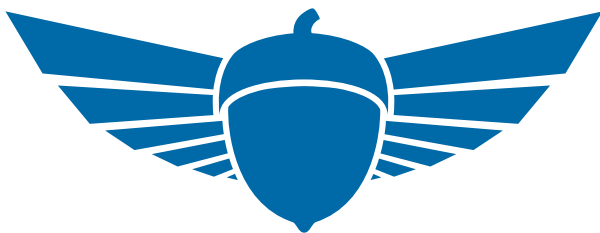
Please consider the following important points:

1. We designed, tested, and built your equipment.
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 in your gear.
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!