

 *prism*



ZEPHYR

INSTRUCTION MANUAL



ZEPHYR

BEAUTIFULLY BALANCED FOR LIGHTER WINDS

We designed the all-new Zephyr for folks who appreciate the finesse of flying in lighter winds and the subtler finger and wrist control it requires. While not a fragile ultralight for zero-wind flying, the Zephyr is perfect for those lighter, sweeter winds you'll crave as you learn to stall, slide, and control the kite gracefully at the edges of the envelope.

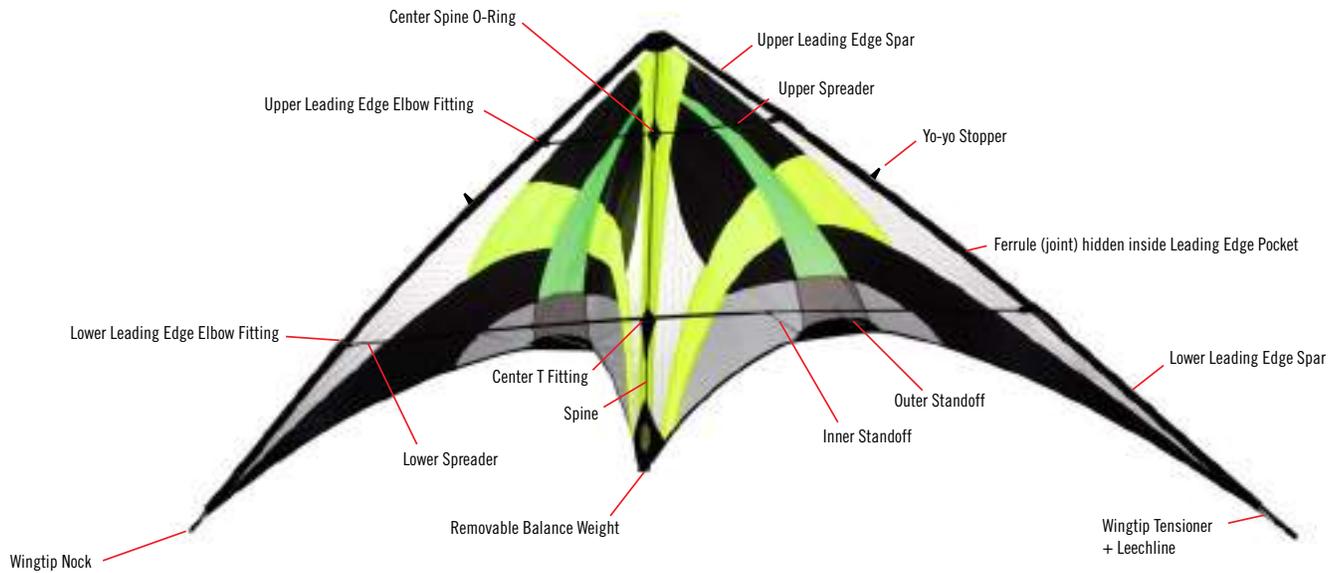
The Zephyr is beautifully balanced, as comfortable floating on its back as it is in a stall. The same hand-wrapped graphite spars we use in our top-end competition kites give you a masterful touch. Highly maneuverable in all attitudes, so you can pull off the most challenging moves with utter control. Rolls around itself easily for all the latest yo-yo moves, with yo-yo stoppers and no-snag leading edge pockets included. Comes with removable spine weights to change the balance point for different winds and flying styles.

Take the time to read this owner's manual thoroughly before your first flight. The Zephyr is designed for intermediate to advanced pilots, so we assume you are already familiar with the basics of setting up a sport kite, picking a suitable place to fly, and controlling it in the air. If you need a refresher on the basics, we recommend you check out the Pilot's Lounge area of our website at www.prismkites.com for a broad range of tips and instructional tools.

FEATURES

- Yo-yo fittings on leading edge catch your lines and let you fly normally in and out of yo-yo maneuvers
- Lightweight sail and frame for low-wind performance
- Removable spine weight adjusts weight and balance to suit your flying style
- Lightweight Icarex polyester and Mylar laminate sail
- High-performance SkyShark wrapped graphite frame
- Blended no-snag leading edge pocket design
- Included 90# x 100' Spectra lineset, flight straps and winder

PARTS DIAGRAM



INCLUDED EQUIPMENT LIST

Zephyr Kite

Upper Spreader: 5 mm pultruded carbon tube

Female Lower Spreader – SkyShark 3PT

Male Lower Spreader – SkyShark 3PT

17.5g Steel Spine Weight

Flying Lines: 90# x 100' Spectra on molded winder with wrist straps

Owner's Manual

SPECIFICATIONS

Skill level: Intermediate - Competition

Wing Span: 92.5" (235 cm)

Wind Range: 1 - 17 mph (1.6 - 27 kmh)

Speed: Moderate

Pull: Medium

Spine + Leading Edges: SkyShark P100

Lower Spreader: SkyShark 3PT

Upper Spreader: 5mm pultruded carbon

Standoffs: 2.5mm carbon

Sail: Icarex ripstop polyester / mylar laminates

Flying lines: 100' x 90 lbs Spectra

ASSEMBLY

Assemble your Zephyr for flight as you would a typical sport kite:

1. Unfold the sail and lay it out on a flat surface face up.
2. Slide the upper and lower leading edge spars together at the ferrule hidden inside the leading edge pocket. The male ferrule is glued into the upper leading edge spar, and the lower leading edge slides onto it.
3. Insert the small ends of the tapered lower spreaders into the lower leading edge elbow fittings.
CAUTION: Hold the spar within 2" of the end to prevent the rod from slipping and punching through the sail.
4. Slide the male ferrule on one lower spreader through the plastic center "T" fitting, then slip the female over it from the other side.
5. Insert the upper spreader ends into the upper leading edge fittings, being sure the upper spreader runs through the small O-ring on the center spine.
6. Insert the four standoff rods into the plastic fittings on the trailing edge of the sail.
7. Stretch the sail taut by pushing the standoffs out and inserting the standoff tips into the standoff retainer fittings on the lower spreader.
8. Tension the wingtips (below) and tension the leechline at the wingtip (optional, see next page).
9. Use a Lark's Head noose to attach your flying lines to the ends of the two long leaders on your bridle. These extra-long leaders protect your flying lines from abrasion if they are wrapped around the leading edge for yo-yo style maneuvers. They also add a little weight to your lines near the kite to help prevent them from snagging the wingtips in slack-line maneuvers.
10. Check that no bridle legs are tangled behind the spreaders.
11. Adjust the bridle tow point for the day's wind conditions (optional).

TENSIONING THE WINGTIPS

The black line at each wingtip must be tensioned and tied off before flight to give your sail the proper shape and performance. Follow the steps below for an easy way to tie it off. This adjustable method allows you to fine-tune the tension along the leading edge and compensate for stretch over the life of your kite.

NOTE: Do not fly without your wingtips tensioned as you could overstress and damage your sail.

First pass the free end around the wingtip nock and back through the loop to form a pulley. Then tension the wing, pass the around the wingtip once more, and tie off around the string with two or three half hitches.

The thinner white line at each wingtip (leechline) provides tension along the trailing edge if you prefer your kite to fly silently in stronger winds. More on the leechline on the next page.

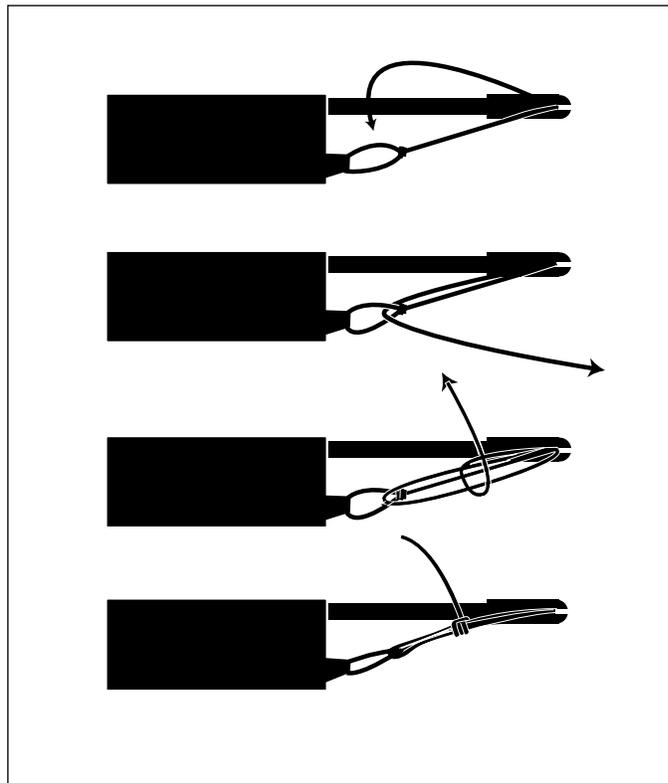


Figure 1: Tensioning the wingtips

LEECHLINE

The leechline is the white Spectra line that runs inside the trailing edge and dangles out a few inches at each wingtip. If this line is tensioned and tied off at the wingtips, it stabilizes the trailing edge of the sail and prevents it from fluttering in flight, keeping the kite silent. With the leechline loose, the sail will buzz in flight, especially in stronger winds. By adjusting the tension on the leechline you can set the kite up

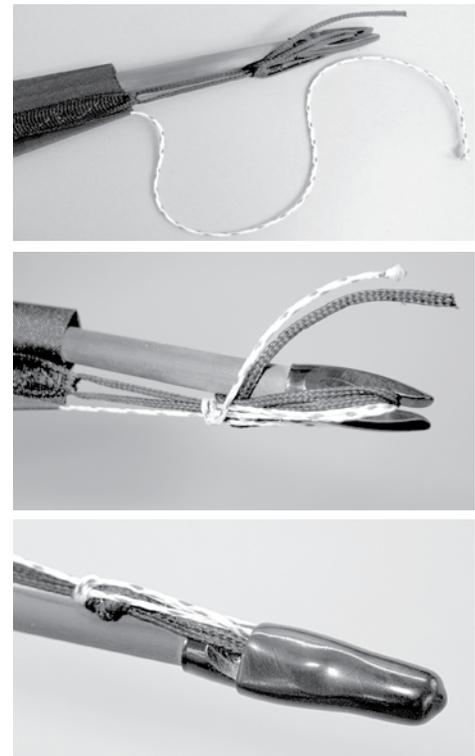
for your preferred flying style. We tend to prefer the tight precision and reduced pull of a loose leechline, but some pilots don't like the noise and prefer the silky-smooth feel of a silent setup. There's no need to tension the leechline for your first flights; we suggest you get to know the kite first and then if you want to mess with it, follow the directions below.

TO TENSION YOUR LEECHLINE:

1. With the kite fully framed and the wingtips tensioned, use an overhand knot to tie a loop in the leechline about 2" long and hook it into the plastic nock at one wingtip.
2. At the other wingtip, pull enough tension on the leechline to slightly wrinkle the back edge of the sail and then ease off just until the wrinkles disappear.
3. Holding this tension, use a permanent marker to mark the line right where it hooks over the plastic nock.
4. Release the tension, fold the leechline on the mark you made and tie another overhand loop 1-2" long.
5. Hook the second loop over the nock and you're ready to fly.

FLIGHT PERSONALITY	
TIGHT LEECHLINE	LOOSE LEECHLINE
Less precision and tracking	Best precision and tracking
Silent flight	Buzz in flight
Smoother feel	Less pull
Harder pull	Less speed
More speed	

Figure 2: Tensioning the leechline



SPINE WEIGHT

The T-shaped steel weight included with your Zephyr allows you to change the balance of the kite for advanced tricks such as yo-yos and other "pitch unstable" moves in stronger winds. The removable weight slides into the tip of the spine and is secured by the Velcro strap around the tail. It adds 17 grams (.6 oz) to the kite and moves the center of gravity slightly lower, giving the kite a more radical edge and allowing you to flip it on its back and into yo-yo maneuvers with less effort.

Adding weight also tames the kite in stronger winds (10+ mph) because the wind has to do more work to keep it flying. With weight, your Zephyr will fly slower and pull less hard as the breeze comes up, a nice bonus that lets you fly one kite in a wider wind range. Advanced pilots typically use the weight in winds above 10 mph, or with a particularly aggressive flying style.

NOTE: While the spine weight makes some advanced tricks easier, it reduces the kite's stability and can make things harder for pilots who aren't yet ready for advanced tricks like yo-yos. We suggest you make your first flights without the weight and get to know the kite well before you experiment.



YO-YO STOPPERS

The Yo-Yo is an advanced trick in which you flip the kite on its back and then all the way around so that the lines are wrapped one or more times around the kite. Many other radical combinations are possible based on the yo-yo. The two rubber fittings

clipped on your leading edge between the upper and lower spreader elbows act as hooks to catch your lines in a position that lets you steer the kite around in a rolled-up position before you unroll it with a crowd-pleasing flourish.



Figure 3: Yo-yo fitting installation



TUNING TIPS

SPINE WEIGHT
Best for winds over 8 mph
Makes kite flip easier onto its back or into a fade
Reduces speed and pull in higher winds
Reduces stability and makes some tricks more difficult; best for advanced pilots

TIP TENSIONERS
Never fly without tensioning your wingtips
See photos for a quick and easy knotting method
Maximum tension reduces pull and speed in strong winds
Minimum tension increases lift in light winds

LEECHLINE	
TENSIONED	LOOSE
Keeps trailing edge from buzzing	Creates drag by fluttering trailing edge
Adds speed and pull	Adds precision and straight tracking
Reduces precision	Reduces pull and speed
	Our preferred setup in higher winds

BRIDLE	
LIGHT WINDS (1-6 MPH)	Move tow points up (toward nose) – adds lift but decreases response
MODERATE TO STRONG WINDS (9-14 MPH)	Move tow points down (away from nose) – improves response and makes stalls/landing easier
OVERPOWERING WINDS (15+ MPH)	Move tow points up to light wind setting in strongest winds to reduce stress on frame and avoid breakage

Make all adjustments 1/4" at a time.

CARE AND REPAIR

The materials in your Zephyr are durable and designed for a long life with minimal maintenance. Here are few tips to keep it healthy:

Give your kite a pre-flight inspection before you launch to be sure everything is properly assembled, your frame is intact, and your bridle and lines aren't worn. Keep the sail out of the sun when not in use to keep the colors from fading. Beach sand is abrasive and will wear on bridles and fittings, so do what you can to dust off the sand after a session at the beach. Compressed air works great for this if it's available, and a freshwater rinse is a good idea if your kite has been swimming in salt water. Keep your kite out of hot car trunks and avoid using solvents to clean the sail as they can dissolve the adhesives in the seams.

To fold up your kite the way we do at the factory, disconnect the upper and lower leading edges at the joints and fold the lower leading edges up against the upper leading edges. Then fold the leading edges against the spine so all the spars are next to each other. Tuck the standoffs into the sail and roll the sail neatly up to (but not around) the bundle of leading edges and spine. Try to avoid wrinkles as you fold as they break down the coatings in the sail and cause it to stretch out. Use the Velcro strap provided or a rubber band to bundle it all together, and don't forget to include your upper and lower spreaders.

FRAME REPAIRS

The carbon spars in your kite will not fatigue, but occasionally you may break one learning new tricks or pushing the limits in high winds. Replacing a spar is quick and easy and many pilots carry a couple of extras when traveling just in case. Spare parts for all Prism kites are available direct from our website at www.prismkites.com.

SAIL REPAIRS

Your sail materials will last a long time unless you like to fly near cactus or barbed wire fences. Tears can also happen during assembly and disassembly if a spar slips in your hands. Most tears and punctures can be invisibly repaired using a special transparent adhesive film called Tedlar, which sticks to the back of the sail and is unaffected by moisture or UV from the sun. Tedlar repair tape is available from the spare parts section of our website and will not affect the performance of your kite on the average tear.

If your repair requires sewing, remove the frame from the kite and send us just the sail so we can get you a quote and take care of it for you. There are very few mishaps that can't be effectively fixed by our talented in-house repair team. To send in a repair, download our repair form from the website and include it with your sail so we know who you are and how we can help.

WARRANTY

At Prism our warranty is pretty simple: if you're not happy, we're not happy, and we'll do what it takes to make things right. If the retailer from whom you purchased is unable to help, drop us a line and we'll get things sorted out. Damage due to normal wear and tear (or those occasional moments of stupidity) can almost always be repaired for a reasonable charge.

IMPORTANT: Kites are easy to fix, but human beings are not. Read the instructions carefully before you fly and be sure you know how to be safe. Our sport kites can fly 60+mph and pull you off your feet on a breezy day; they're nothing like the kites we flew as kids. Evaluate the situation carefully before you take to the air, and use good judgment to keep yourself and those around you safe when you fly.

CONTACT

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CAUTION!

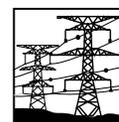
Your kite can fly faster than 50 mph in strong winds. NEVER FLY NEAR:



People



Airports



Power lines



Cars



Storms



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