



TWO-LINE PILOT'S GUIDE

WELCOME!

If you've never flown a two-line sport kite before, there's fun and excitement coming your way. NOT the static, one-line kites you played with as a kid, sport kites are completely maneuverable by pulling one line or the other, to give you fingertip control at speeds up to 60 mph. Our high performance wings combine aerospace materials such as carbon fiber, Spectra, and Mylar laminates with sophisticated wing shaping to ease you into progressively more challenging maneuvers. And with models for every application you'll find the perfect combination of performance and durability for your needs. We even make a sport kite so light you can fly it indoors in no wind at all!

Whether you're off to the beach for a weekend, or gunning for a world competition title, Prism kites are coveted worldwide as the gold standard for kite design, quality and performance. We wish you smooth winds and years of pleasure in the sky!

— The Prism Crew

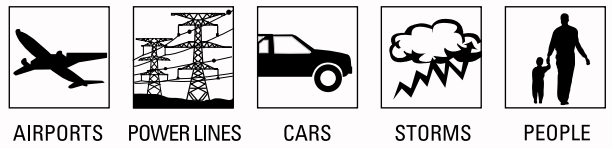
WHERE TO FLY

Your choice of flying field is the most important ingredient for success with your kite. It's easy to choose a spot where the wind is turbulent and gusty from obstacles in its path. But like whitewater in a river, wind that flows past trees, buildings and hills becomes gusty and choppy and can make controlling your kite difficult or impossible. The best place to fly is a beach or field with wind blowing in from off the water. If you have such a place available, it's worth the extra travel time to get there because you'll learn to fly in a fraction of the time. If you have to fly inland, look for wide open fields with no trees, buildings, or hills for at least a half mile upwind. With experience, you'll be able to fly in less than perfect conditions more easily, but when you're just learning, a smooth, consistent wind makes a huge difference.

SAFETY

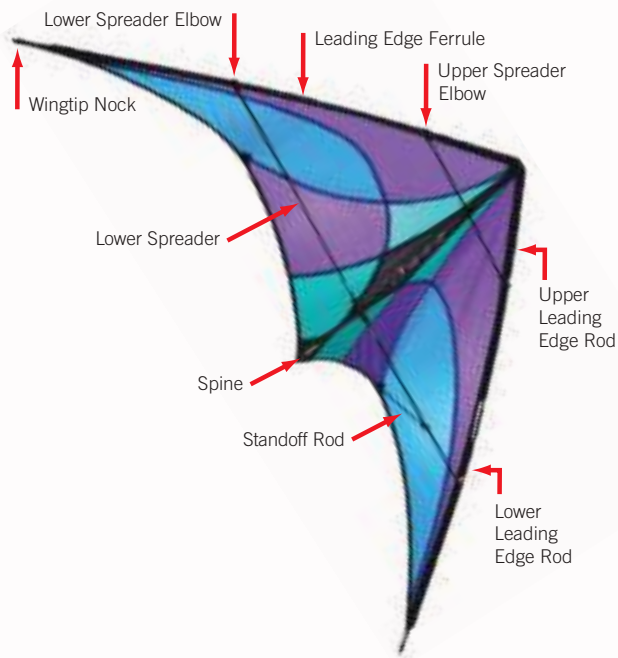
Sport kites can move fast and unpredictably, especially in strong winds. Your kite or lines could pull you into danger or seriously injure anyone in their path. Be absolutely sure your flying area is clear before every launch.

CAUTION! NEVER FLY NEAR:



Not intended for children under 14

ANATOMY



- **Upper Leading Edge Rod:** The forward edge of the wing
- **Lower Leading Edge Rod:** The back edge of the wing
- **Upper Spreader Elbow:** Connects upper spreader to upper leading edge
- **Lower Spreader Elbow:** Connects lower spreader to lower leading edge
- **Leading Edge Ferrule:** Connects upper and lower leading edge rods
- **Center T:** Connects lower spreaders to spine and each other
- **Upper Spreader:** Stiffens nose end of kite
- **Lower Spreader (2):** Stiffen main body of kite and connect to standoffs
- **Spine:** Stiffens and connects nose to tail
- **Wingtip Nock:** Hooks on to elastic to add tension to leading edge
- **Standoff Rods (2 or 4):** Tensions back edge of sail

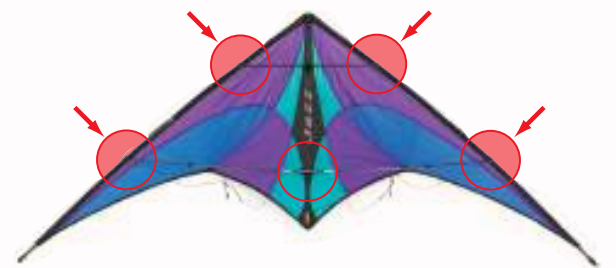
ASSEMBLY



STEP 1 - Unfold your kite and lay it out in front of you with the printed logo facing up.



STEP 2 - Join the two sections of each leading edge rod together at the leading edge connectors. Hook wingtip elastics over the wingtip nocks to tension the sail along the leading edges.



STEP 3 - Push the lower and upper spreader rods ALL THE WAY into the four rubber elbow fittings on the leading edge. Then insert LABELED ends of the lower spreader into the center T fitting.

Plug the thin standoff rods into the rubber fittings on the lower spreaders to tension the sail. If necessary, slide the fittings so all standoffs are perpendicular to the spreader.

BE CAREFUL! Hold rods tightly right at the end so they don't slip and puncture the sail.



STEP 4 - Hang the kite from the bridles as shown, checking that the kite is symmetrical and the bridle lines run clear without tangles around frame or fittings.

PREFLIGHT CHECK

Check Your Flying Lines

- Are your lines exactly the same length? If not, see *Equalizing Flying Lines* to correct them.
- Are your lines connected properly? Red loop clips to the right-hand bridle. Red wrist strap goes in your right hand, blue goes in your left.

Check for Tangles

- Are your bridles tangled around any part of the kite?
- Are your lines free and clear of any plants or tangles on the ground?

Check the Wind

- How hard is the wind blowing? 8-10 mph is ideal to start.
- From what direction is the wind blowing? If you are downwind from trees, hills, buildings, etc., control will be difficult in turbulent air.

Check for safety

- Are all people clear of your entire flying area? If you crash, what could you hit with the kite? Are you clear of vehicles, power lines, storms, tripping hazards?

FIRST FLIGHT

Most sport kites perform best in a steady, moderate breeze between 8 and 10 mph.

For your first flight, pick a place to fly that is wide open and free from obstructions to the wind. A beach with smooth wind coming off the water is ideal. Obstructions such as trees, hills and buildings will cause turbulence in the wind and your kite will be much harder to control.

Attach red and blue clips on your bridle to the corresponding colored loops at the end of your flying lines.

Lay the kite on its back facing away from the wind and walk upwind while you unwind the lines. When you reach the end hold the red wrist strap in your right hand and the blue one in your left.

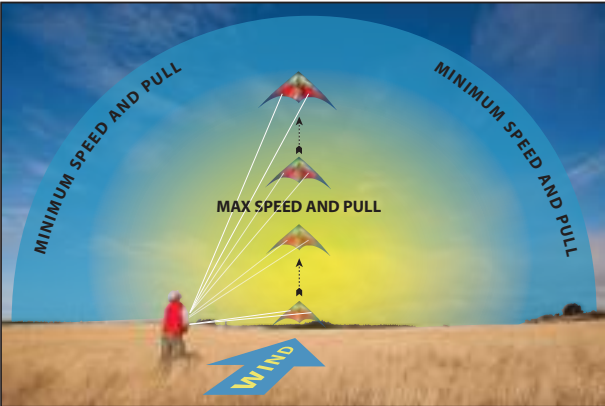
With your arms outstretched in front of you, take a step backwards and sweep your arms down and back briskly to launch. Hold your hands even and the kite should climb straight up into the sky.

Once airborne, pulling the right line slightly will turn your kite clockwise, pulling left will turn it counterclockwise. The kite will turn in the direction of your pull and keep turning until you even out your hands.

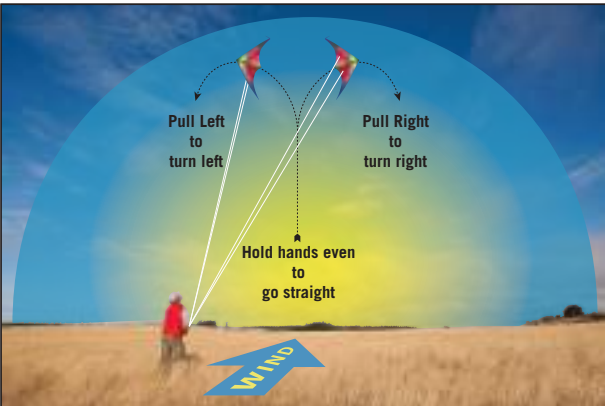
Practice making figure eights in the sky by alternating upward turns until you get a feel for keeping it in the air. If you repeatedly turn in one direction, you will build up a series of twists in the line. After around 10 twists, your lines will have noticeable friction as they slide past each other. When friction builds, make turns in the opposite direction until the twists are removed.

- TIPS:
- Expect to crash more than once before you can keep the kite in the air. Most people take at least half an hour in steady winds to get the hang of it.
 - After an “unplanned landing,” avoid damaging your kite by inspecting it closely for loose parts or tangles before you re-launch.
 - DON'T hold your arms over your head or outstretched to the side as you fly. Keep your arms together and in front of you or you'll lose control easily.
 - DO use small movements so you don't over-control. Expert pilots use mostly fingers and wrist to feel and control the kite.
 - DO keep the kite moving and high in the wind window so you have time and control to react.
 - DON'T try to do radical tricks before you master the basics. If you practice basic maneuvers till they're wired, the tricky stuff will come easily.

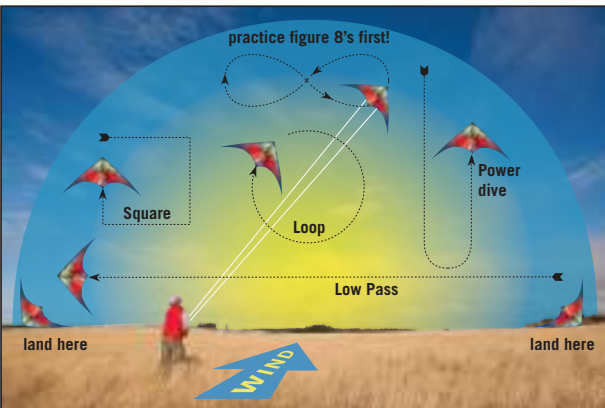
THE WIND WINDOW



LAUNCH



STEERING



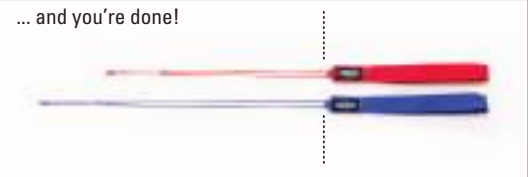
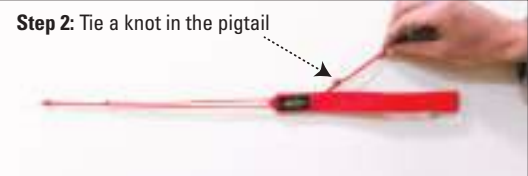
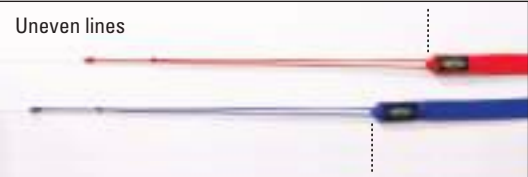
BASIC MANEUVERS

LIGHT WINDS: Light wind flying takes extra practice. The trick is to keep tension on the lines at all times by constantly moving around on the field. Gain altitude by walking backwards, and regain lost ground by moving forward while the kite glides down and away. Use a shorter, lighter lineset to decrease the weight and drag on your kite. Maximize lift by adjusting your bridles for light winds. (See *Tuning*)

STRONG WINDS: In strong winds (18+ mph), consider using stronger flying lines. For most kites, you'll want at least 150# lines when the wind comes up. If you have a kite that pulls hard, 200# or even 300# lines are the minimum for windy days. Longer, heavier lines slow the kite down and give you time to react. You can also adjust the bridles to reduce lift and pull. (See *Tuning*)

VIDEOS AND MORE INFORMATION: Go to the website at www.prismkites.com/support for video tips on more advanced tricks, tuning, and flying your sport kite.

EQUALIZING FLYING LINES: Flying lines can stretch with use or occasionally end up uneven during manufacturing. Our “Equalizer” adjustable flight straps incorporate adjustable-length pigtails that you can shorten in seconds to equalize your lines. Just tie an overhand knot to shorten whichever side is too long - for an instant fix without even walking to your kites.

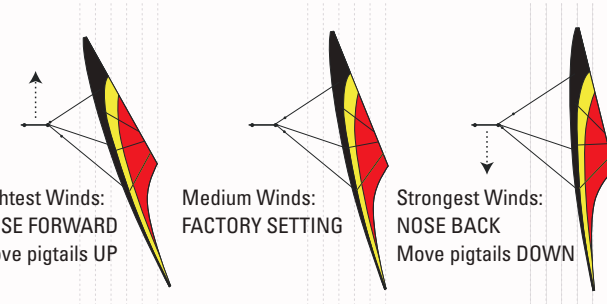
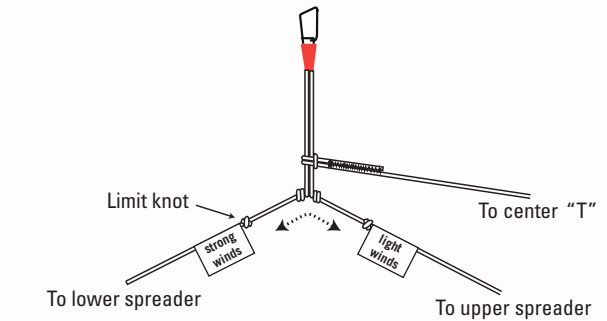


TUNING FOR DIFFERENT WINDS

While it's not necessary to adjust your bridle, small adjustments will help you fly your kite more easily in a wider wind range. The more you fly the more you will be able to feel the differences that tuning makes. On sport kites, the bridle determines the exact angle the kite holds to the wind as it flies (the “angle of attack”). Tipping the nose slightly further forward or further back affects the speed, pull, and turn radius of the kite.

Angle of attack adjustments can be made by moving the color-coded pigtails along the bridle legs. Your kite will come with the pigtails on the factory setting, which is at the midpoint between two knots spaced about 1” apart. The factory setting works best in the light to moderate side of your kite's wind range.

Once you've gotten to know your kite, try moving the pigtails slightly above or below the factory setting, moving them only 1/4” at a time. You'll find that the kite flies easier in light winds with the pigtails slightly higher (nose tipped forward), and in strong winds you'll find it turns easier and pulls harder with the pigtails lower (nose tipped back). **DO NOT MOVE THE PIGTAILS BEYOND THE LIMIT KNOTS ON EITHER SIDE OF THE FACTORY SETTING.**



CARE AND REPAIR

The advanced materials in your kite are durable and designed for a long life with minimal maintenance. Keep your kite out of the sun when not in use to keep the sailcloth 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.

STORAGE: 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 over time, but occasionally you may break one learning new tricks or pushing the limits in high winds. Replacing a spar is quick and easy - many pilots carry a couple of extras when traveling just in case. Spare parts for all current Prism kites and many discontinued models are available direct from our website at www.prismkites.com.

SAIL REPAIRS: Your sail will last a long time unless you like to fly near cactus or barbed wire fences. Tears can also happen during assembly or disassembly if a spar slips in your hands. Most tears and punctures can be invisibly repaired using a special transparent adhesive film which sticks to the back of the sail and is unaffected by moisture or UV from the sun. Repair tape and other repair materials are available from the spare parts section of our website at www.prismkites.com.

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.

REPAIR KIT: A handy kite repair kit with everything you need for most common repairs is available from Prism retailers and our website at www.prismkites.com. It includes a handy instruction booklet with a wealth of useful repair tips.

FLYING LINES

Your sport kite can be flown on a wide variety of lengths and strengths of Spectra flying line depending on the wind conditions. Longer, stronger lines slow the kite and reduce pull in strong winds. Shorter, lighter lines reduce drag and let you fly in the very lightest winds. Many pilots travel with three or more linesets to get the widest wind range out of their kites. For ultimate performance, try our professional grade Modulus™ Spectra lines, specially braided, pre-stretched and coated for minimum diameter and stretch.

Sometimes lines stretch unevenly over time, creating a tendency for the kite to turn more easily in one direction. If left and right lines are more than 1 inch different in length, our Equalizer flight straps make it easy to even them out in seconds. (See above)

Lines can wear and break if you fly regularly in sand or strong winds. Retie the two ends using a blood knot if it breaks in the middle, or tie a new loop in the end using a double overhand loop if it breaks at the end. Then stretch both lines out together and tie a new loop in the longer line so that your two lines are once again equal in length (within 1/2”).

USEFUL KNOTS

Double Overhand Loop: Used to finish the end of your flying lines.

Step 1

Step 2

Step 3

Blood Knot: For joining a split in your flying lines.

Lark's Head Knot: Secure flying lines to the kite and wrist straps.

OUR WORD At Prism we're confident you're going to have a great time with every product we make. But if for any reason you're not happy and your retailer is unable to help, let us know and we'll do what it takes to make things right. Damage due to normal wear and tear can almost always be repaired at a reasonable charge. Spare parts for all Prism kites can be ordered direct from our web store at www.prismkites.com.

prism
KITE TECHNOLOGY

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