

2003
SONIC
KITE MANUAL

 **CABRINHA**
KITEBOARDING CULTURE

RELEASE OF LIABILITY AND ASSUMPTION OF RISK

**DO NOT USE THIS PRODUCT UNLESS
YOU AGREE WITH THE FOLLOWING
TERMS AND CONDITIONS**

IMPORTANT WARNING!

THIS WARNING

IS FOR YOUR OWN SAFETY AND PROTECTION. IF YOU DO NOT AGREE WITH THESE TERMS AND CONDITIONS, DO NOT USE THIS PRODUCT. KINDLY RETURN THIS PRODUCT BEFORE USE, AND YOUR PURCHASE PRICE WILL BE REFUNDED IN FULL.

YOU MUST READ THIS INCLUDED USER MANUAL BEFORE USING THIS PRODUCT.

THE INFORMATION CONTAINED
IN THIS MANUAL
IS FOR YOUR REFERENCE
AND MAY BE SUBJECT TO CHANGE
AT ANYTIME.

PLEASE VISIT OUR WEBSITE AT:

www.cabrinhakites.com

FOR CURRENT UPDATES
TO THIS MANUAL.

The user of this product

is an adult who understands that the use of this product may expose the user to certain unavoidable risks, dangers, and hazards. The user of this product voluntarily assumes these risks. Before using this product, the user has carefully reviewed, understood, and agrees to comply with the terms of the User's Manual. The user of this product understands and agrees to comply with the terms of the sale. The user of this product understand that the seller is not responsible for any damage to property or injury caused by negligent operation of this product by the user, and the user releases the seller from all such liability. Kiteboarding is an adult sport. Power kites and their lines and control equipment can be dangerous to flyers and to anyone in the vicinity of their use. kiteboarding must be taken seriously and we recommend that, at least in the early stages of your use, you seek the

guidance of experienced kiteboarders. Improper and/or negligent use of this kite may result in serious injury or death to yourself and others. Do not use your kite near power lines, airports, streets and keep your kite fly lines away from people and obstacles. Always fly in an open and flat area, observe wind and weather conditions, particularly in circumstances where you may encounter winds. Never use this product near precipices. Spend time to become familiar with the operation of your kite and remember that you are responsible for its safe operation and for the safety of those around you. As you learn the sport, work within your own limitations and do not exceed them. Always use appropriate safety devices and do not attach yourself or tie yourself permanently to the kite lines. The kite is not intended for use as a flying device.

2003 SONIC KITE MANUAL

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INTRODUCTION



THANK YOU for purchasing the Sonic Snow Kite and welcome to this fascinating new winter sport.

Some major advantages of the SONIC snow kite:

- Ultra light floating batten design allows the kite to fly at a lower wind range than other kites.
- Simple construction without bridles
- Multiple possibilities for power adjustment
- Various launch and relaunch options
- Grab Handle at one Flying Line extension for easy landing also in case of emergency
- 2 Safety System options
- Quick Release at Standard Harness Line, Depower Loop and Harness Safety Leash
- High Volume Airlock Valves on every inflatable tube
- Flying lines in obvious colours for distinction from snow
- Snow Stake with soft cover to secure kite and equipment
- The kite is also suitable for usage on water

Snowkiting must be approached in an educated and safe manner. For this reason it is important to use good safety gear and to choose a suitable location.

Please read this user's manual carefully and entirely before using this kite. Do not attempt to snow kite without proper instruction. It will make this sport safer, not only for yourself, but for those around you as well.

SAFETY

SAFETY GEAR

WE STRONGLY RECOMMEND THE USE OF THE FOLLOWING PROTECTIVE GEAR:

- **HELMET**
- **IMPACT VEST / BODY PROTECTOR**
- **EYE PROTECTION**
- **SOLID SHOES WITH PROFILE**
- **SAFETY KNIFE**
- **SUITABLE GLOVES**
- **SUNSCREEN**

KITEBOARDING is an extremely diverse sport, with many disciplines and ability levels. As with all sports, there can be certain inherent risks. The following contains key safety points to remember when operating your **Cabrinha** kite:

- Always use this kite with the supplied Quick Release Harness Leash.
- NEVER permanently attach yourself to this kite, the control bar, or lines.
- NEVER use this kite as a flying device.
- NEVER touch the bridle lines or the kite lines while under tension; do not catch the kite using any of these lines.

When not in use, secure your kite very well, either with something heavy and non abrasive, or use the snow stake. Best is to deflate L.E. tube and pack it in your extended kite bag.

An inflatable power kite will still fly, even without a pilot, so be mindful of those around you and secure your kite. Your kite may cause serious injury or death if it launches unexpectedly.

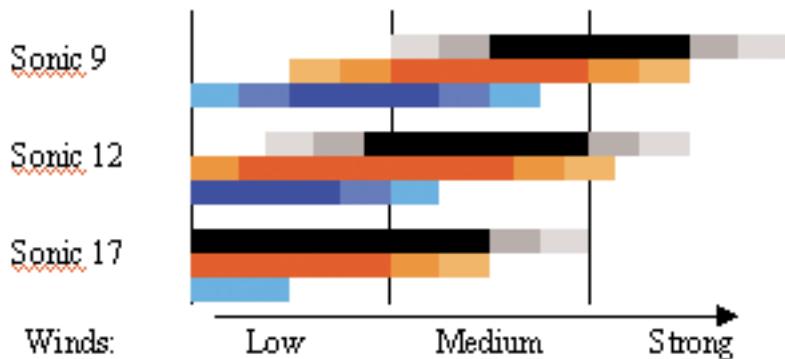
Do not lend out your gear to someone who has not been fully instructed on the use of inflatable kites. Other users should also read this user's manual and be proficient in all its points.

WIND AND WEATHER CONDITIONS

- Do not underestimate the power of the wind.
- Be aware of unpredictable and changing weather conditions.
- Avoid strong, gusty wind.
- Be educated about air and snow temperatures and wear appropriate protection against the elements.
- Do not use this product in thunderstorms.
- Consult an anemometer to determine wind speeds if necessary.
- Do not use an oversized kite.
- Consult your Wind Range Chart for correct recommended size.
- Use your common sense, if in doubt about the size go smaller rather than bigger.

WIND RANGE CHART

These general guidelines are purely for reference only. Your ability, snow / ice conditions, and board / ski size will affect your kite selection to a large extent. For instance, on hard packed snow you need less power in the kite than in soft packed snow. When choosing a kite size please use your personal experience and always refer to other riders for a size reference.



KNOW YOUR ABILITY LEVEL

- Do not attempt snow kiting without appropriate instruction.
- Do not kite alone.
- Launch, land, and ride together with a partner or have someone nearby who can keep an eye on you.
- Make sure you are in good physical condition before using this product.
- Practice flying a small, traction kite or a "trainer kite" before flying this kite. The more time spent on the "trainer kite" the safer and the faster you will learn.
- Make sure the wind and water conditions are within your ability level and that you have made the correct equipment choices.
- Always save a reserve of energy. End your kiteboarding session before you are exhausted.
- Make sure you've done your homework and that you know the safety precautions of all aspects of the sport; launching, landing, flying, riding, kiting among snow track users, self rescuing, etc.
- Never let someone who is not familiar with inflatable kites launch or catch your kite. You will endanger them, as well as yourself and those around you.

**YOU ARE RESPONSIBLE
FOR THE SAFE OPERATION
OF YOUR KITE.**

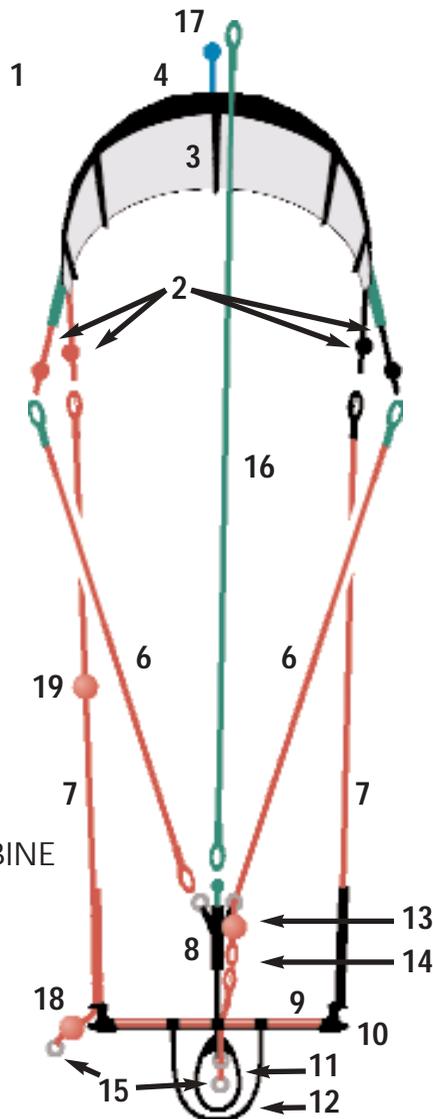
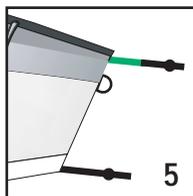
SNOWKITING LOCATIONS

- Ask either the owner of the concerning property or other riders if it is allowed to snowkite in this area.
- Observe local laws and regulations regarding the usage of this product.
- Talk to the local riders about the weather conditions and rules in the area.
- Use this product only in flat areas.
- Never use this product near precipices.
- Check the area thoroughly before launching your kite.
- Avoid launching, landing or using this product near power lines, telephone poles, trees, people, pets, buildings, automobiles, streets, and sharp objects downwind.
- Avoid crowded areas and slopes.
- Make sure you have considerable space in which to launch, land, and use this product.
- You should have at least 100 meters of space on both sides as well as downwind of you. Be especially aware of your downwind area.
- Avoid areas with rocks and other obstacles.
- Be careful and mindful of other individuals and objects.
- Be mindful and aware of the wind direction in relation to your launch area.
- Before launching, make sure you have scouted a safe landing area, in case you do not make it back to your launch spot.
- Make sure your lines do not cross a walkway or passage.
- Do not let others walk between you and your kite.
- Avoid areas with sharp obstacles, rocks and /or other obstacles.

SONIC KITE OVERVIEW

THE SONIC

- 1) SONIC SNOW KITE
- 2) PIG TAILS / HANG POINTS
- 3) FLOATING BATTEN NR. 1
- 4) DACRON LEADING EDGE
- 5) STEEL RING ON CARBON LOAD TRANSFER TIP
- 6) DEPOWER LINES
- 7) STEERING LINES
- 8) CENTER LINE ADJUSTMENT STRAP
- 9) SONIC CONTROL BAR
- 10) MULTI-FUNKTIONAL BAR ENDS
- 11) QR POWER DRIVE LOOP
- 12) QR HARNESS LINE STANDARD
- 13) DEPOWER SAFETY LINE STOPPER BALL
- 14) DEPOWER SAFETY LINE
- 15) STEEL RINGS TO ATTACH HARNESS LEACH CARBINE
- 16) START LINE
- 17) LE TUBE SECURE LINE
- 18) GRAB HANDLE
- 19) STOPPER BALL FOR STANDARD SAFETY SYSTEM



QUICK RELEASE SYSTEMS



We supply a variety of **QUICK RELEASE SYSTEMS (QRS)** to aid you in your ability to release completely from your kite.

IMPORTANT QRS TIPS

- To avoid confusion, always ride with the pull tab facing the same direction. In the case of an emergency, you will know where it is.
- You should be familiar with the operation of the QRS in the event of a situation where you wish to activate the QRS feature.



QRS LEASH TETHER

The QRS LEASH TETHER incorporates the design and construction features of our proven wrist leash with the addition of a harness attachment system. This system frees the rider's hands for board handling and comfort.



QR POWERDRIVE LOOP

This harness loop attaches to the centerline adjustment strap through the Powerdrive fitting allowing "on the fly" tuning of the kite's power. Available in three sizes to suit the needs of all kite boarders. New red color P/U tubing for improved visibility.



QR HARNESS LINE - Standard

Our Quick Release Harness Line shares the same 2-point attachment and proven design of our Standard Harness Line, with the addition of our new Quick Release System.

CONTINUED



QR OPERATION



1. Grab the release tab and pull until the curved pin is free.



2. Under tension the Velcro will release the harness loop.

RESETTING THE QR



1. Slide the Velcro through the stainless steel d-ring.



4. Slide the QR pin through the retainer.



2. Fold the flap back over itself.



5. Flatten the Velcro over the top of the QR pin.



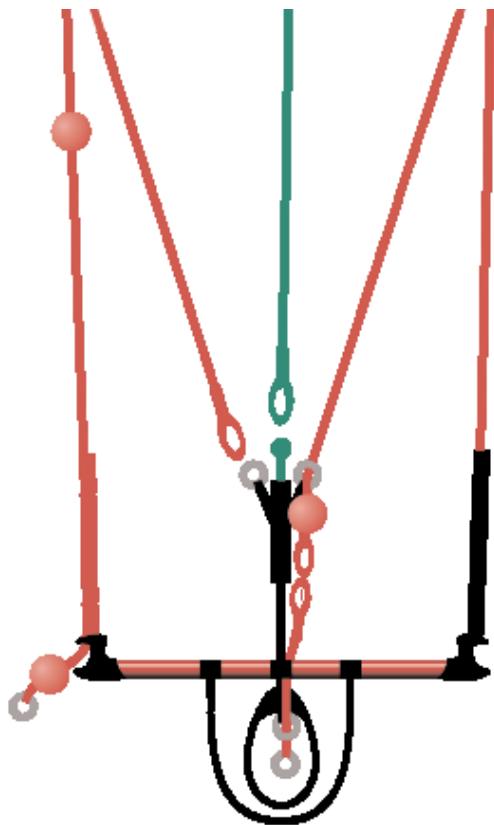
3. Guide the grommet over the QR pin retainer.



6. Close the thin Velcro around the system and slip over the neoprene snow protection cover. Your QR system is now ready for use again.

STEP 1 THE SONIC POWERDRIVE CONTROL SYSTEM

SET UP THE SONIC POWERDRIVE CONTROL SYSTEM



The **SONIC POWERDRIVE CONTROL SYSTEM** is a control system for **4-LINE** Snow Kites and comes with an optional 5th Start Line.

At purchase, the Control Bar system is assembled with 4 Flying Lines, a Standard- and Expert Safety System and a Ball Stopper on the left steering line

The optional 5th Start Line is separately enclosed in the package and can be added to the control bar if preferred, in the following way:

1. Connect end of the Start Line (that is the one with the long green sleeve) to the hang point on the top end of the Centerline Adjustment Strap.
2. Attach the other end to the Leading Edge Tube Secure Line located in the middle of the Leading Edge.

The Start Line length can be adjusted as follows:

1. Open the knot of the kite side end
2. Move the green sleeve as required
3. Make a new loop

The length is correct when the Start Line is just under tension and not pulling on the LE tube in any flying situation.

CONTINUED



STEP 1 THE SONIC POWERDRIVE CONTROL SYSTEM

SET UP THE SONIC POWERDRIVE CONTROL SYSTEM (CONT.)



The **SONIC POWERDRIVE CS** allows the rider to interactively change the power of the kite when hooked into the Powerdrive Harness Loop..

- By hooking solely into the depower loop, the rider can simply push the control bar away from his/her body to reduce the power of the kite. It is also possible to hook into both the fixed harness loop and the depower loop at the same time. This sets the kite into fixed power mode. To change back to depower mode, simply unhook from the fixed harness line while remaining in the depower loop.
- You can fine tune the power of the kite with the extra long Sonic Centerline Adjustment Strap.
- You can tune the power of the kite with the extra long Sonic Centerline Adjustment Strap without using the depower loop as well.
- Your kite should be tuned so that when the rider is hooked into the fixed harness line the kite is fully sheeted in (but not over-sheeted).

CONTINUED



STEP 1 THE SONIC POWERDRIVE CONTROL SYSTEM

SAFETY SYSTEM OPTIONS

Each safety system provides obvious advantages. For this reason we offer you the choice between Standard Safety System and Expert Safety System.

By simple transfer of the Harness Safety Leash from one steel ring to another (carbine) one you can transform your very simple safety system, which is perfect for beginners and experts to a very professional one of the highest level.

STANDARD SAFETY SYSTEM

Harness Safety Leash is connected with the steel ring on the very end of the left red covered steering line (close to the ball).

If you drop your bar it will slide along this steering line up to the Safety Stopper Ball. The kite will blow like a flag and lose most of its power.

This system provides the easiest possibility of a kite safety system. It is ideal for kite beginners and advanced riders who do not require the ability to un-spin the bar after rotation jumps. This system is also useful as an option to land the kite in various situations.

The distance that the Stopper Ball must be set from the bar is important and should be equal to the span of the kite. For example lay your kite out flat, measure the span of the kite by pacing out the length tip to tip. When you have determined the length, set the Ball Stopper on the flying line the same distance from the bar.

CONTINUED



STEP 1 THE SONIC POWERDRIVE CONTROL SYSTEM

SAFETY SYSTEM OPTIONS (CONT.)

EXPERT SAFETY SYSTEM

The Harness Safety Leash is connected with the steel ring on the extension (de-power safety line) of the very end of the right depower line

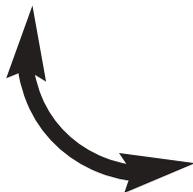
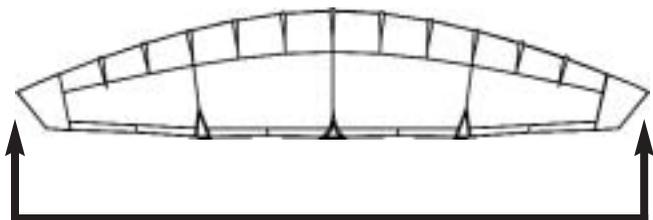
- If you drop your bar it will slide along this depower line up in the direction of the kite.
- The kite will blow like a flag and lose most of its power.
- The De-power Safety Line slides through the Power Drive Fitting in the middle of the bar. With this system the bar can be un-spun after rotation jumps without need to disconnect the Harness Safety Leash.
- The Expert Safety System provides no Stopper Ball since a second Stopper Ball could cause more tangles in the lines.

Make sure that the carbine of the Harness Safety Line is connected with the correct steel ring (the one on the end of the de-power safety line) ! Make sure that the whole system works well by pulling the De-power Safety Line at least 150 cm through the De-power Fitting at the bar before launching the kite ! Check to make sure the De-power Safety Line is still in good condition, replace it otherwise!

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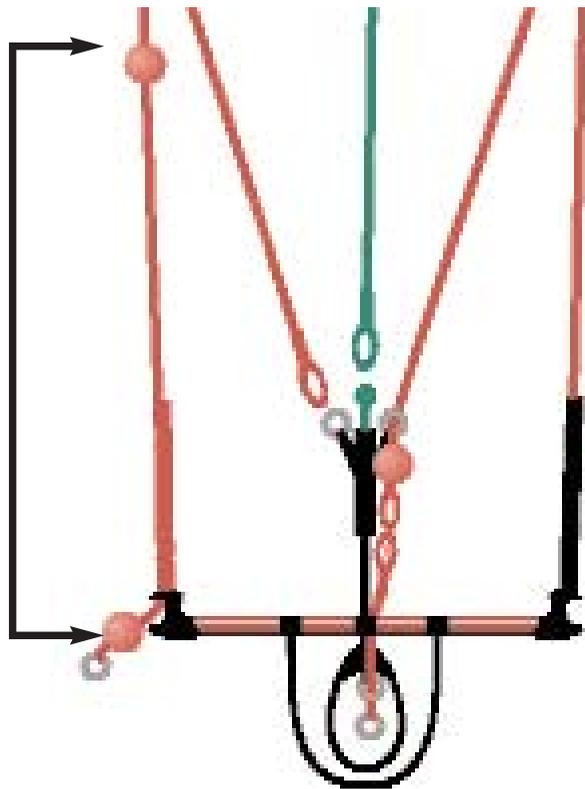


STEP 1 THE SONIC POWERDRIVE CONTROL SYSTEM



VERY IMPORTANT SETTING THE LENGTH OF YOUR QRS HARNESS LEASH

The distance the Stopper Ball must be set from the bar is important and should be equal to the span of the kite. For example lay your kite out flat, measure the span of the kite by pacing out the length tip to tip. When you have determined the length, set the Stopper Ball on the flying line the same distance from the bar.



CONTINUED



STEP 1 THE SONIC POWERDRIVE CONTROL SYSTEM

CHECK YOUR LINE LENGTHS BEFORE LAUNCHING



1. Loop a piece of line (any rope or cord) around a tree or fence post
2. Tie the line in a knot, leaving 2 ends of equal length.
3. Tie a knot at the base of each line end.
4. Set your control bars about 30 meters away
5. Lay out the leader lines toward the post. Make sure there are no obstructions in between your bar and the post.
6. Unwind and lay out the color-coded STEERING LINES between the CONTROL BAR and the post.
7. Attach the black sleeved steering line and the right depower line to the right rope end on the post.
8. Attach the red sleeved steering line and the left depower line to the left rope end on the post.
9. Walk back to the control bar
10. Make sure that the centerline adjustment strap is extended, so that the kite is set up at full power.
11. Standing directly in line with the post or tree, increase pressure on the control bar by pulling straight back toward yourself. Do this a few times to tighten the knots you have just made.
12. Now pull back hard and steady on the control bar several times.
13. Your control bar should be in line with your shoulders and should be straight and not at an angle.
14. You will find that all of the lines should have even tension under pressure- i.e. no slack in the depower lines or steering lines.
15. If your control bar is even, your **SONIC POWERLOCK CONTROL SYSTEM is ready to attach to your inflated kite.**
Proceed to SET UP | STEP 2 - INFLATING YOUR KITE.
16. If your control bar is not even, follow the instructions below in LINE LENGTH CORRECTIONS.

CONTINUED



LINE LENGTH CORRECTIONS

Beginners should adjust their kite only with the help of an advanced kiteboarder.

- Length differences less than ~10cm can be adjusted by moving the pig tail knots on your kite.
- If you cannot adjust the line length by moving the pig tail knots you can do corrections at the very end of the red and black leader lines which run through the bar end fittings.
- If needed, add a knot at the lower ends of this red and black leader lines to make them shorter.
- The thin red flying lines and the red or black cover are sewn up with an obvious white sewing thread. There are also special knots at the lower ends to prevent the thin line from slipping out of the cover ! **NEVER OPEN THESE KNOTS! NEVER CUT OFF THE LINE ENDS!**



STEP 2 INFLATING AND DEFLATING THE SONIC

INFLATING THE SONIC

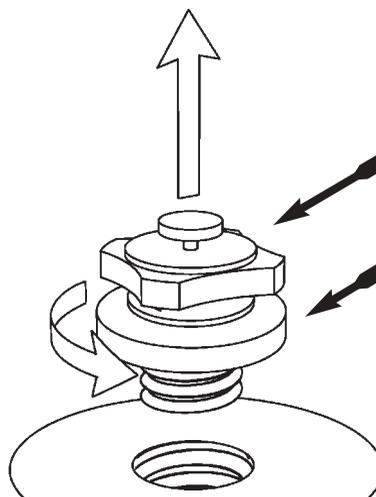
1. Make sure that the release valve is seated firmly by turning clockwise. Do not over tighten the valve when the kite is not inflated. Doing so may damage the bladder.
2. Open the inflation cap by screwing it counter-clockwise. Insert your pump-end (use the adapter tubing in case you use a hand pump) to inflate all tubes.
3. When the L.E. is fully inflated, remove pump valve and screw the inflation cap back on. Check that the release valve is secured.
4. Make sure you line up the triangle arrow with the white marker dot on the valve.
5. If this white marker dot is not in line, deflate bladder, twist valve into position, and re-inflate.

Always Line up the white marker dot with the white triangle.

NOTE: when closing valve on deflated kite, hold bladder in place to prevent twisting bladder. Do not over tighten valve when kite is deflated. You may tighten it further when kite is partially inflated again.

THE AIRLOCK VALVE

All inflatable tubes have the high volume AIRLOCK valve.



Line up the white marker dot with the white triangle.



CONTINUED



STEP 2 INFLATING AND DEFLATING THE SONIC

DEFLATING THE SONIC

To deflate the kite, you must unscrew the release valve and not the inflation cap. The release valve is the lower portion of the AIRLOCK. After deflating, clear valve of any sand, snow or debris, then seal the valve before stowing kite to prevent debris from getting inside internal bladder.

NOTE: when closing valve on deflated kite, hold bladder in place to prevent twisting bladder. Do not over tighten valve when kite is deflated. You may tighten it further when kite is partially inflated again.



CONTINUED



STEP 2 INFLATING AND DEFLATING THE SONIC

INFLATING THE STRUTS

1. Unroll your kite, with the Struts facing up.
2. Make sure your back is to the wind and that the leading edge of the kite is closest to your body.
3. Secure the kite temporarily against slipping away by attaching the carbine of the Snow stake to the LE-Tube Secure Line. Make sure that you avoid the kite from flapping longer as needed for setting up.
4. Partially inflate the center strut, then the two middle struts, followed by the end struts.
5. When inflating, hold the pump at a perpendicular angle to the kite valve. Use one hand to hold the valve steady and the other hand to operate the pump. This will help maintain the life of the internal bladder.
6. When all struts are partially inflated, go back to each strut, making sure the internal bladders are lined up correctly.
7. Confirm that the corners under the leading edge are able to fully inflate. Lightly push air around in the bladders until the corners are free and correctly lined up.
8. Now fully inflate each strut.
9. Secure the valve plug.
10. Do not over-inflate the struts, if it is fairly solid to the touch, it is fully inflated.
11. Do not under-inflate the struts, this will cause poor performance and relaunching problems.
12. Hold the pump at a perpendicular angle to the valve.
13. Use one hand to hold the valve steady and the other hand to operate the pump.

CONTINUED



STEP 2 INFLATING AND DEFLATING THE SONIC

INFLATING THE LEADING EDGE

Do not under-inflate Leading Edge. Proper inflation will make it difficult but not impossible to bend the ends of the kite in. If it is very easy to do this, the leading edge is under-inflated. Kite should be firm enough that if you turn it onto its back, wing tips should extend into the air and kite should retain its bowed shape.

DO NOT FORGET TO SECURE THE KITE.

Your inflated kite is now ready to be attached to your assembled control system.

CONTINUED 

SECURING YOUR SNOW KITE

In any situation when securing your kite, be aware of the following:

- Always secure in the best possible way. An unattended kite is dangerous. A good option is sand-bags
- Make sure that the Snow Stake is anchored firmly into the ground when you use it.
- Do not place the kite exposed to the wind and do not let it flutter.
- Do not let the LE tube slide on the snow. This will shorten the life of your kite
- Never secure your kite with rocks or sharp objects; they will shorten the life of the kite.
- Make sure your kite and lines are no danger to any others.
- Wind your lines onto the bar when you are not using your kite. This will keep the area free and will prevent other people, etc. from getting tangled in your equipment.
- Never approach your kite from the leeward side

Securing the kite can be done in the following ways:

- If the kite lies in the snow face down on the LE tube with lines under tension, you can secure it temporarily against slipping away by attaching one of the harness lines to the carabine on the Snow Stake (attention: this is only possible in light wind conditions)
- If the kite lies on the snow while being pumped up, you can secure it temporarily against slipping away by attaching the carabine of the Snow Stake to the LE Tube Secure Line.
- In case you don't use the kite during a break, it is best to deflate the LE tube and pack the kite into the extended kite bag.

STEP 2 INFLATING AND DEFLATING THE SONIC

THE SONIC LOAD TRANSFER TIP



The **SONIC ROD BATTEN**

comes pre-installed.

If the rod has been removed, replace the rod as follows:

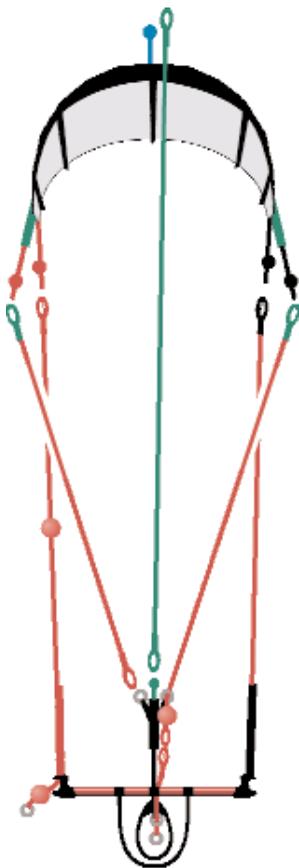


- 1) Slide the batten into the back of the batten pocket, slide it all the way forward in the batten pocket.
- 2) Use the Velcro adjustment located at the trailing edge of the batten pocket to secure batten and tension you do not need positive tension in the wing tip material.



STEP 3 ATTACHING THE SONIC TO THE CONTROL SYSTEM

STEP 3 ATTACHING CONTROL LINES



Once you have completed **SET UP|STEPS 1 and 2**, you are ready to connect your Control System to your inflated kite.

1. With your lines laid out, carry the kite to the end of the flying lines furthest from your control bar. Make sure the leading edge is facing into the wind.
2. Secure the kite
3. You will notice four connection bridles on your kite (2 on each wingtip
4. For tuning purposes you can move these knots or add some.

Proceed to SET UP|STEP 3 - DOWNWIND or UPWIND LAUNCH SET UP

CONTINUED



STEP 3 ATTACHING THE SONIC TO THE CONTROL SYSTEM

STEP 3 DOWNWIND LAUNCH SET UP

(bar and lines extend downwind from the kite)

1. Lay the bar 30 meters downwind of the secured kite so that the tips are facing the control bar. When setting the bar up downwind of the kite, you must turn the bar upside down before walking the lines out. This means that the red sheathed steering line is on the right, while the black- sheathed lines is on the left.
2. Walk out the steering lines and attach them to the back bridles on the trailing edge (Remember, red-to-red; black-to-black)
3. Walk out the depower lines and attach them to the front bridles on the leading edge. Make sure that the depower lines do not cross the steering lines.
4. If you want to use the grey Start Line attach it now.

YOUR KITE IS NOW READY TO FLY.

Please see the sections of this manual that relate to safety and make sure you are familiar with the conditions before launching the kite.

CONTINUED



STEP 3 ATTACHING THE SONIC TO THE CONTROL SYSTEM

STEP 3 UPWIND LAUNCH SET UP

(bar and lines extend upwind from the kite)

This is the necessary set up when performing an expert self-launch.

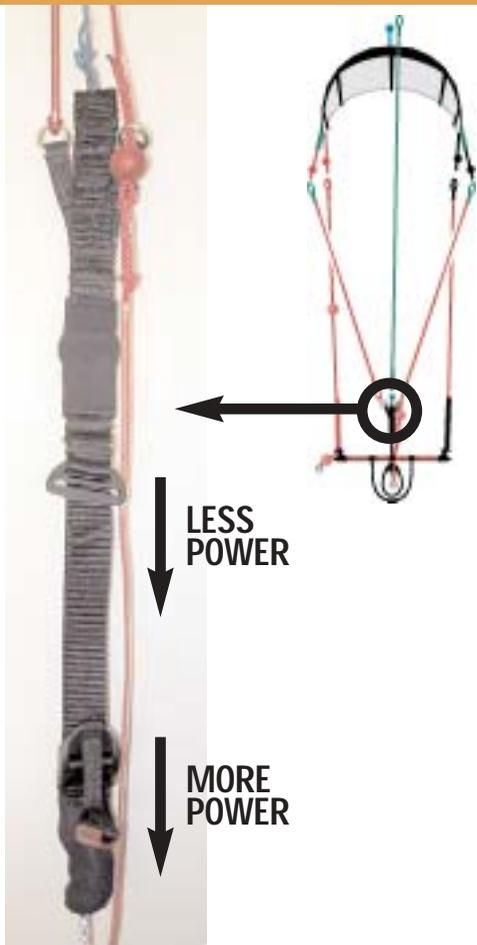
- 1) Lay the bar 30 meters upwind of the kite so that the kite tips are facing away from the bar. The control bar should be right side up.
- 2) Walk out the steering lines and place them parallel to each other on the ground about 4 ft. apart, near the kite. (Remember, red sheathed lines on the left and black sheathed lines on the right)
- 3) Walk out the depower lines and place them in between the back lines, parallel to each other.
- 4) Place steering lines wide apart, so the kite will lie between them.
- 5) Place kite on top of the depower lines so the wing tips of the kite are pointing downwind and near the ends of your steering lines.
- 6) Secure the kite.
- 7) Attach the steering lines to the back connection points from outside next to the kite.
- 8) Attach the depower lines to the front connection points from the inside of the kite. (Remember, red-to-red, black-to-black).
9. If you want to use the grey Start Line attach it now.

YOUR KITE IS NOW READY TO FLY.

Please see the sections of this manual that relate to safety and make sure you are familiar with the conditions before launching the kite.



SONIC TUNING TIPS



Proper tuning is essential for best performance. A properly tuned kite increases its efficiency, speed, and allows the kite to depower correctly. The following guidelines will help you to properly tune the kite to suit your style of riding. It makes no difference if you use the Start Line or not.

1. All models have their desired sweet spot that is achieved by the correct tension of the steering (back) and depower (front) lines.
2. Fine-tuning of the kite is done by making small adjustments to the centreline adjustment strap (C.A.S.). Do not 'over sheet' the kite. The first objective is to set the kite's maximum power while allowing it to fly efficiently across the sky. More power and quicker turning is achieved by tensioning the steering (back) lines (sheeting in the kite). There is however, a point of diminishing returns. Too much back line tension will cause the kite to fly slowly across the sky and not allow it to fly to the edge of the power window.

CONTINUED



SONIC TUNING TIPS (continued)



WINGTIPS
PARALLEL



OVER SHEETED



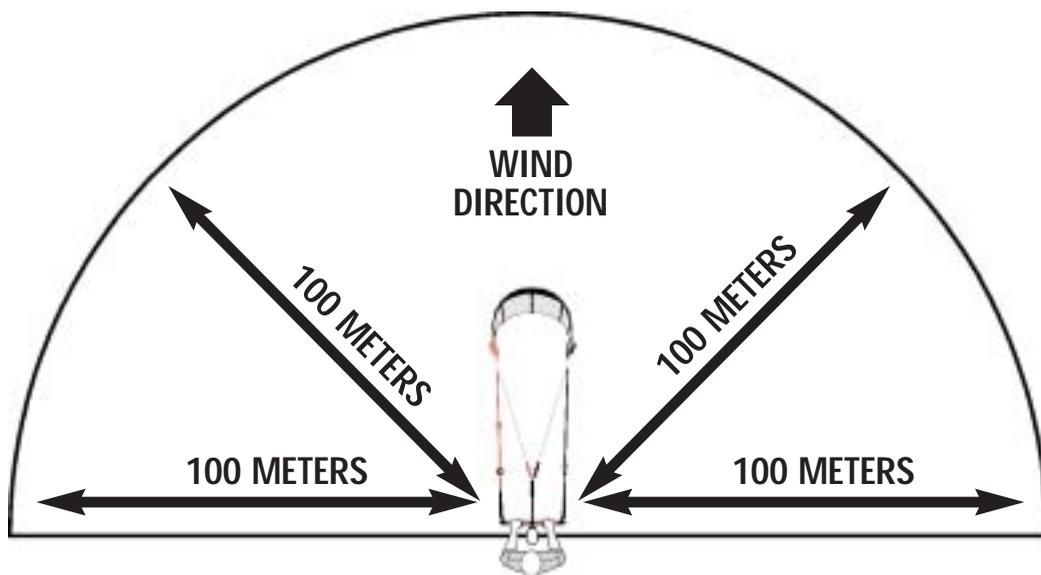
UNDER SHEETED

3. With the kite directly overhead, hook into the fixed harness loop and observe the angle of the wingtips in relation to the other inflated battens. A common tuning is achieved when the wingtips are parallel to the inflated battens and the steering (back) lines are taught. If the wingtips are flared outward at the leading edge the kite will be over sheeted.
3. Unsheet and depower the kite by pulling on the C.A.S. until the desired effect is achieved. The more you pull on the C.A.S. the less power the kite will have. Keep in mind that you will still be able to depower the kite through the PowerDrive loop, so do not depower too much with the C.A.S. To increase power, lift up with the plastic loop on the C.A.S.

KITEBOARDING BASICS

AREA OF OPERATION

This is the 100 meters of area to each side and downwind of the pilot . Do not launch your kite if you do not have this safe distance between yourself and other people, or obstructions.



KITE POSITIONS, ZONES and POWER

NEUTRAL POSITION

This is the position just above the pilot's head in the sky). If the pilot keeps the control bar steady and parallel to his/her shoulders, the kite will naturally "park" itself in this position. It is a position in which the kite will have the least amount of pull and is most steady. When in the neutral position, if the kite luffs, it will move slightly away from the user, in a downwind direction. If kept steady, when the kite receives a gust, it will pull and again fly back into the neutral position. The neutral position is also where you may "park" the kite in order to rest, reel in your board, etc. In this position, the kite still has power, so keep in mind that although it is relatively stable in this position, it may still pull you. This is the safest position in which to keep the kite when learning.

NEUTRAL ZONE

This is the area that includes the neutral position and the area to the left and right of the pilot. It encompasses the most upwind or windward positions in which to fly the kite. When flown here, the kite has the least amount of power or pull. This is one of the safer zones in which to fly the kite.

POWER ZONE

This is the area in front and to the sides of the pilot, but excluding the neutral position and



zones. It is the area in which the kite has the most power and pull. When flown in this area, the kite can be powerful and dangerous, so avoid flying your kite in this zone when learning.

GENERATING POWER

One way to generate power from your kite is by steering your kite from low to high or from high to low in the sky. The movement of your kite in the sky creates lift, which creates power. Keep this in mind, especially when learning. When bringing the kite from a low position up to the neutral position, the movement of the kite actually creates power and generates speed, so be prepared. When underpowered, you may use this ability of the kite to your advantage by creating power and speed to get planning.

STEERING THE SONIC

KEY POINTS TO REMEMBER

- When practicing steering a kite on land, always remember that your kite has extreme power. Be prepared and be safe.
- When first learning to fly your kite, always keep your eyes on the kite.
- Steer slowly. Do not make any abrupt motions with the control bar.
- Keep in mind the power of the kite.
- Never turn the control bar like a car steering wheel. It is ineffective for steering the kite and may actually cause the kite to become out of control.

STEERING THE KITE TO THE LEFT



- 1) Hold the bar with both hands, shoulder distance apart.
- 2) With your eyes on the kite, slightly pull on the control bar with your left hand, pulling it toward your body.
- 3) This will allow your left arm to bend and your right arm to extend.
- 4) Pull slowly. The quicker your movements, the faster the kite will turn and the more power it will create.
- 5) Once the kite starts to turn, it will continue to turn left unless you tell it otherwise.
- 6) Be ready to steer the kite back into the neutral position.

STEERING THE KITE TO THE RIGHT

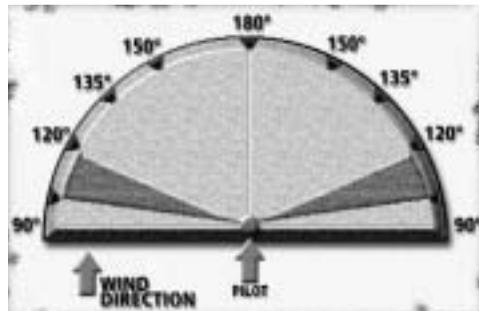


- 1) Hold the bar with both hands, shoulder distance apart.
- 2) With your eyes on the kite, slightly pull on the control bar with your right hand, pulling it toward your body.
- 3) This will allow your right arm to bend and your left arm to extend.
- 4) Pull slowly. The quicker your movements, the faster the kite will turn and the more power it will create.
- 5) Once the kite starts to turn, it will continue to turn right unless you tell it otherwise.
- 6) Be ready to steer the kite back into the neutral position.

LAUNCHING & RELAUNCHING

LAUNCHING OVERVIEW

- Choose an area where you have at least 100 meters of space to your left and right and especially downwind of you.
- Set up your equipment so that your kite is downwind of where you will be launching, but most importantly, so that it is at an angle off of the wind.
- **DO NOT SET UP YOUR KITE FOR A STRAIGHT DOWNWIND LAUNCH!** The kite will launch with too much power and you will endanger the lives of yourself and those around you if you launch in this manner.
- Basically, if the wind is at your back, and straight downwind is at a 180-degree angle, then you will want to set your kite at about a 100-degree angle off the wind, either to the left or to the right of you.
- The more the kite is positioned into the wind when you launch, the less power it will have when it goes up, and the safer your launch will be.
- Your partner will stand with the kite while you will stand 30 meters away at your control bar.
- **MAKE SURE YOU LAUNCH SLOWLY AND SAFELY, AND LAUNCH THE KITE AT AN ANGLE, NOT STRAIGHTDOWNWIND!**



THE SONIC HAS SEVERAL LAUNCH AND RELAUNCH POSSIBILITIES:

1. Launching with a partner
2. Launching with Expert Self Launch System
3. Launch / Relaunch using the Start Line
4. Quick Relaunch

CONTINUED



LAUNCHING & RELAUNCHING

LAUNCHING WITH A PARTNER

LAUNCHING YOUR KITE WITH A CAPABLE PARTNER IS THE SAFEST AND RECOMMENDED LAUNCH METHOD!

Once you have thoroughly checked your lines, your gear, and your launching and landing sites, you are ready to launch your kite.

- 1) First, attach the QRS harness leash.
- 2) Organize a clearly defined release signal that you both understand.
- 3) Have your partner stand with the kite at 100 degrees off of the wind.
- 4) Your partner should hold the kite in the middle of the leading edge, with the leading edge vertical and pointing into the wind.
- 5) Your partner should stand behind the kite and not to the side or in front of the kite. Your partner should NOT touch the bridle or flying lines.
- 6) With the control bar in your hands, take a few steps back to take the slack out of the flying lines.
- 7) Signal your partner to let go of your kite. It is important that your partner lets you steer the kite out of his or her hands.
- 8) Your partner should NOT throw the kite into the air. Instruct him/her against doing this BEFORE you launch. When the kite is thrown into the air, it hinders the ability of the kite to launch properly. the kite may either launch too abruptly and powerfully or it may not launch at all. It is a very dangerous way to launch.
- 9) Once your partner lets go of the kite, have him/her move upwind of you and out of your way.
- 10) With both arms extended, SLOWLY steer the kite up into the neutral position. Do this by slowly pulling toward you on the side of the bar attached to high side of kite. DO NOT make any abrupt motions. The slower you steer the kite into the neutral position, the safer and the more in control you will be.
- 11) Your arms will remain extended above your head, with the bar even, while the kite is in the neutral position.
- 12) Walk slowly to your Snowboard or skies, without losing sight of your kite
- 13) DO NOT HOOK INTO THE HARNESS LINE WHEN LAUNCHING! If you do, you will not be able to safely and quickly utilize your QRS harness leash system if necessary.
- 14) If anything goes wrong with the launch, you should be ready to let go of the bar and utilize the QRS harness leash.
- 15) WARNING: the more wind there is during your launch, the faster everything will happen. That's why it is important that you launch the kite slowly and safely.

LAUNCHING & RELAUNCHING

LAUNCHING WITH EXPERT SELF-LAUNCHING SYSTEM

THIS OPTION IS ONLY RECOMMENDED FOR EXPERT RIDERS WHO ARE CONFIDENT WITH THE SIMILAR SELF-LAUNCH ON THE BEACH.

- 1) First you have to attach the expert self launch line to one of the steering lines with a simple knot. Position: about ~ 40 cm away from the kite side end.
- 2) Drive the Snowstake into the snow in a way that it can withstand a firm pull.
- 3) Set your kite face down, with the leading edge into the wind, at 100 to 110 degrees off of the wind.
- 4) Secure the kite by connecting the LE Secure Line with the Snow Stake carbine
- 5) Next, wind your lines out from the kite to the launching spot
- 6) Check to make sure your lines are connected properly.
- 7) Once you have thoroughly checked your lines, your gear, and your launching and landing sites, you are ready to set your kite up for self-launch. Turn the kite on its side, with the leading edge facing into the wind.
- 8) Thread the Pro Start Line (which is tied to the Steering Line):
 - a) Through the D-ring located at the wing tip and
 - b) Through the Snow Stake carbine
 - c) Through the D-ring again
 - d) Through the carbine again, then make a lace knot
 - e) Make sure that that the kite is in a stable position and does not move
- 9) Make sure that the flying lines and bridle (if applicable) are free and will not catch on the struts or the Snow Stake when you self-launch.
- 10) Check that all lines are clear and are placed on the lee side of the snow stake. Check if the lace knot is tight enough to keep the kite secured for a while and walk quickly back to your bar.
- 11) Attach the QRS harness leash to your harness bar.

CONTINUED



LAUNCHING & RELAUNCHING

LAUNCHING WITH EXPERT SELF-LAUNCHING SYSTEM (CONT.)

THIS OPTION IS ONLY RECOMMENDED FOR EXPERT RIDERS WHO ARE CONFIDENT WITH THE SIMILAR SELF-LAUNCH ON THE BEACH.

- 12) With the control bar in both hands and at chest height, take a few steps back to take the slack out of the flying lines.
- 13) This will release the lace knot.
- 14) Next, SLOWLY steer the kite into the sky by pulling toward you on the side of the bar attached to high side of kite. DO NOT make any abrupt motions. The slower you steer the kite into the neutral position, the safer and the better.
16. As you take a few steps backward and steer the kite up into the sky, the kite will fill with wind and continue to rise.
17. Continue to steer the kite into the neutral position—SLOWLY.
18. Your arms will remain extended above your head, with the bar even, while the kite is in the neutral position.
19. With your back to the wind, walk slowly to your snow board or skies, keeping in constant check with the kite. You should know what it is doing at all times.
20. DO NOT HOOK INTO THE HARNESS LINE WHEN LAUNCHING! If you do, you will not be able to safely and quickly utilize your QRS harness leash system if necessary. If anything goes wrong with the launch, you should be ready to let go of the bar and utilize the QRS harness leash system.
21. WARNING: the more wind there is during your launch, the faster everything will happen. That's why it is important that you launch the kite slowly and safely.
22. WARNING: DO NOT set your kite up for self launch and then wind out your lines. Make sure your lines are laid out and are correct before you set your kite in self-launch position. The kite may launch accidentally while you are winding out your lines.

LAUNCHING AND RELAUNCHING USING THE START LINE

- When you drop your kite on the snow, know that the kite may re-launch on its own, often when you least expect it.
- When your kite lies fully downwind on the snow with the LE tube down, you can flip it over by pulling on the Start Line.
- Steer the kite onto its side by pulling toward yourself on one side of the bar and pushing on the other.
- Basically, you will be pulling on the bottom line of the kite and creating slack in the top line.
- Be patient. Your kite will respond to your instructions, but sometimes you must be patient, especially in light wind.
- Your kite will slowly work its way to one side—to the edge of the wind window.
- Be careful since it sometimes re-launches very quickly.
- Once it is at the edge of the window, pull on the top line by pulling on the opposite side of the bar, this will steer the kite up. Slowly steer your kite into the neutral position and level out your bar.

LAUNCHING & RELAUNCHING

QUICK RELAUNCH

In good wind conditions the kite will land after steering mistakes etc. on its side in a position, which makes it easy to launch it very quickly again without need of using any of the above-described methods. When this happens, be prepared for a wind gust to re-launch your kite. It often does not take much to re-launch the kite, so be prepared. It may launch before you are ready !



LANDING THE SONIC

LANDING OVERVIEW

IN ANY LANDING SITUATION, BE AWARE OF THE FOLLOWING:

- Land and secure your kite only at places without rocks, sharp objects
- Make sure that the Snow Stake is anchored well into the ground when you use it
- Do not let the LE tube slide on the snow
- Do not let the kite flutter in the wind

THE FOLLOWING POSSIBILITIES TO LAND THE KITE ARE RECOMMENDED:

1. Land the kite with a partner.
2. Land the kite about 110 degree off the wind on its LE tube.
3. Land the kite about 110 degree off the wind by using the Standard Safety System

CONTINUED



LANDING WITH A PARTNER

IN ANY CASE, THE MOST RECOMMENDED LANDING OPTION IS WITH A CAPABLE PARTNER HELPING YOU.

- 1) You should always determine adequate landing spots before you launch your kite.
- 2) Having done that, make sure that when you are ready to finish kiting, that your landing location is still safe, un crowded and unobstructed.
- 3) Never land your kite over, on top of, or near others, especially if they are downwind of you. You should have an area clear of people, pets, power lines, trees and other obstructions.
- 4) Make sure your partner has been instructed on how to land your kite properly.
- 5) Slowly steer your kite into the wind and to your partner.
- 6) Your partner should be on the windward side of your kite as he/she approaches it.
- 7) Once the kite is nearly touching the ground, your partner should grab the kite at the middle of the leading edge strut.
- 8) He she should grab the kite in the same location on the kite as when it was launched.
- 9) Your partner should NOT grab the kite bridle or flying lines.
- 10) Your partner should AVOID grabbing the kite by either wing tip. Grabbing the kite by the wing tip will often cause it to flip or spin; the kite will also be hard to manage.
- 11) Your partner should continue to hold the kite until you secure it.

LANDING THE SONIC

LANDING OFF THE WIND ONTO LEADING EDGE TUBE

THIS OPTION IS ONLY POSSIBLE IN LIGHT WINDS, WITH STRONGER WINDS, THE KITE WILL NOT TIP IN A STABLE POSITION WITH THE LEADING EDGE FACING DOWN.

1. Land the kite about 110 degree off the wind and let it tip into a stable position lying on the LE tube, tips facing towards the wind
2. Attach the depower loop to the carbine of the well anchored snow stake to secure the kite for a short time against slipping downwind
3. Wait until the kite is in a stable position on the snow.
4. Move quickly to the kite and secure it safely.

LANDING OFF THE WIND USING THE STANDARD SAFETY SYSTEM

1. Attach the harness Safety Leash to the steel ring on the left bar end.
2. Land the kite about 110 degree off the wind and let it tip into a stable position lying on the LE tube, tips facing towards the wind
3. Grab the ball firmly at the extension of the left steering line
4. Drop the bar => the kite will blow like a flag and loose most of its power.

ATTENTION: THE KITE CAN STILL HAVE A STRONG PULL

5. Wait until the kite is in a stable position on the ground
6. Attach the carbine of the well anchored snow stake to the steel ring on the left bar end.
7. If the carbine is not available this line can also be attached to another suitable stable mooring
8. Move quickly to the kite and secure it safely.

KITE FABRIC REPAIRS

MAJOR TEARS

For a major tear in the kite fabric, consult your dealer for a reputable kite repair loft.

MINOR TEARS

For a minor tear in the kite fabric, you may repair the tear with kite repair tape. Your kite has been supplied with an adhesive kite repair material.

- 1) Clean and dry your kite.
- 2) Lay the kite flat and on a clean, dry, smooth surface.
- 3) Cut two pieces of repair tape the same size, making sure they are each big enough to cover the entire tear.
- 4) Carefully cover one side of the tear with a piece of the repair tape. Gently rub the tape smoothly onto the surface of the kite.
- 5) Next, cover the opposite side of the tear with the second piece of repair tape, in the same manner as before.
- 6) Make sure the tape is secure.

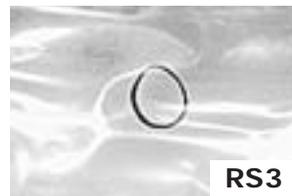
STRUT and LEADING EDGE BLADDER REPAIRS

KEY POINTS TO REMEMBER:

- Before attempting to repair one of your kite bladders, make sure your kite is clean and dry. Always keep your kite pump, valves and bladders free of sand, water and other things that will dirty them.
- Make sure the bladders are deflated.
- Avoid repairing your kite on the beach or in dirty, dusty, windy areas. It is best to find a clean, dry spot out of the wind. A grassy spot is ideal.
- You will need a set of flying lines and a bladder repair kit (supplied with kite) before you begin to repair the bladder.

REPAIRING STRUT BLADDERS

- 1) First, lay the kite out with the struts facing up.
- 2) Detach the Velcro closure at the base of the damaged strut. This will open up the sleeve of the strut and will allow you access to the bladder. [fig. **RS1**]
- 3) Next, separate the valve plug from the Velcro closure so that the valve is free from the strut's sleeve. This will essentially disconnect the bladder from the sleeve. Keep track of the valve plug for later use.
- 4) Tie one flying line around the valve. Cinch it down well on the valve. Do not tie the knot through the hole on the valve or you may damage it
- 5) Gently insert the valve down into the strut sleeve.
- 6) Go to the base of the sleeve and gently pull the bladder out of the sleeve, leaving the flying line through the sleeve. Having the flying line through the sleeve will allow you to easily replace the bladder once it is repaired. [fig. **RS2**]
- 7) Inflate the bladder and plug the valve so that it maintains air.
- 8) Submerge the bladder in water to locate the hole. A bathtub or large sink full of water is best.
- 9) Look for bubbles to locate the hole.
- 10) Once you have located the leak, dry the area and mark the hole with a circle. A permanent marker works best for this. [fig. **RS3**]
- 11) Dry and clean the rest of the bladder with a soft towel.
- 12) Again, deflate the bladder.



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REPAIRS

STRUT and LEADING EDGE BLADDERS

REPAIRING STRUT BLADDERS (CONTINUED)

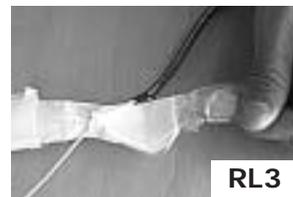
- 13) Decide whether to use the glue or a patch supplied in your bladder repair kit.
- 14) If the hole is on a seam, you will need to glue the area.
- 15) If the hole is on a flat area of the bladder, remove the backing on one of the patches and press it onto the bladder, covering the hole.
- 16) Set the bladder aside for approximately 20 minutes to dry.
- 17) Again, inflate the bladder and check to make sure it is now holding air.
- 18) If you have repaired the holes in the bladder, coat the entire bladder in talcum powder to assist insertion.
- 19) Deflate once again.
- 20) Tie the flying line from the end of the strut opening onto the valve.
- 21) Lay the bladder flat at the end of the strut, so that you may now feed it back into the sleeve.
- 22) Gently feed the valve into the sleeve, followed by the rest of the bladder.
- 23) From the valve opening of the sleeve, you will pull the flying line out of the sleeve, while pulling the bladder back into place.
- 24) Once the bladder is replaced, pull the valve back into the hole of the sleeve and remove the flying line from its base.
- 25) Re-attach the Velcro at the base end of the sleeve. [fig. **RS4**]
- 26) Re-attach the valve plug.
- 27) Inflate the strut partially to make sure the bladder fits into all four corners of the sleeve.
- 28) Inflate the strut entirely or deflate it if you are going to store the kite.



RS4

REPAIRING LEADING EDGE BLADDERS

- 1) First, lay the kite out with the struts facing up.
- 2) Detach the Velcro closure at each end of the leading edge strut. This will open up the sleeve of the strut and will allow you access to the bladder. [fig. **RL1**]
- 3) Separate the Airlock valve assembly from the leading edge. Carefully lift the retainer ring from the bladder. Keep track of the assembly for later use. [fig. **RL2**]
- 4) For the next step, you will need two flying lines. Starting with one end of the leading edge, tie one line around the wing tip end of the bladder. Cinch the line down well. Follow the same procedure with the other end of the leading edge bladder. [fig. **RL3**]
- 5) Next, gently push the valve down into the strut sleeve.
- 6) Now, access the leading edge bladder through the Velcro access pocket near the leading edge valve. [fig. **RL4**]
- 7) Gently pull one side of the bladder out of the sleeve at a time, leaving the flying line through both sides of the sleeve. Having the flying line through the sleeve will allow you to easily replace the bladder once it is repaired.
- 8) Inflate the bladder and plug the valve so that it maintains air.
- 9) Submerge the bladder in water to locate the hole. A bathtub or large sink full of water is best. You will need to submerge one section of the bladder at a time in order to locate the hole. Look for air bubbles to locate the hole.



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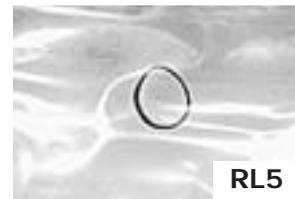


REPAIRS

STRUT and LEADING EDGE BLADDERS

REPAIRING LEADING EDGE BLADDERS (CONTINUED)

- 10) Once you have located the leak, dry the area and mark the hole with a circle. A permanent marker works best for this. [fig. **RL5**]
- 11) Dry and clean the rest of the bladder with a soft towel.
- 12) Again, deflate the bladder.
- 13) Decide whether to use the glue or a patch supplied in your bladder repair kit.
- 14) If the hole is on a seam, you will need to glue the area.
- 15) If the hole is on a flat area of the bladder, remove the backing on one of the patches and press it onto the bladder, covering the hole.
- 16) Set the bladder aside for approximately 20 minutes to dry.
- 17) Again, inflate the bladder and check to make sure it is now holding air.
- 18) Deflate once again.
- 19) Tie each flying line to the corresponding ends of the bladder.
- 20) Lay the bladder flat near the access pocket and fold it, accordion style, so that you may feed each end back into the sleeve.
- 21) Starting with one end, feed the bladder into the access pocket.
- 22) Walk to one end of the leading edge and gently pull on the flying line, while holding the end of the sleeve. Slowly feed the bladder back into this side of the sleeve.
- 23) Next, follow the same instructions with the other side of the bladder, until the valve is near the hole and the bladder is fully inserted.
- 24) Once the bladder is replaced, pull the valve back into the hole of the sleeve.
- 25) Re-attach the Velcro closures at each end of the sleeve.
- 26) Re-attach the Airlock valve assembly.
- 27) Inflate the Leading Edge partially to make sure the bladder fits into all four corners of the sleeve.
- 28) Inflate the strut entirely or deflate it if you are going to store the kite.



RL5

Due to the often extreme nature of kiteboarding, a thorough approach should be taken when caring for your kite and all its associated rigging.

A frequent inspection of the kite should be made in order to identify punctures, tears, or abrasions in the canopy or struts. It is also necessary to check the fly lines for wear and to untie knots which often reduce the breaking strength of the fly lines.

BETWEEN SESSIONS

Never leave an inflated kite unattended for a long period of time. Winds may shift or change and the kite may become unsecured and fly off. Be aware that this happens easily on snow. Do not leave an inflated kite (secured or not), directly exposed to the wind for any length of time. This allows the trailing edge to flutter excessively, which can damage the kite. If you must leave the kite exposed to the wind on the track, place sufficient amounts of sand-sacks between each batten and near the trailing edge to minimize or stop the fluttering and secure it additional to this with your Snow Stake.

Do not leave an inflated kite (secured or not), directly exposed to the wind for any length of time. This allows the trailing edge to flutter excessively, which can damage the kite. If you must leave the kite exposed to the wind on the beach, place sufficient amounts of sand between each batten and near the trailing edge to minimize or stop the fluttering.

PROPER STORAGE

It is recommended to wash your kite with fresh water and dry thoroughly before rolling and storing. Do not place heavy objects on the bag containing the kite because the carbon rods may be damaged.

Wash your control system with fresh water from time to time by placing the entire control system (with lines wound onto the bar) into a bucket of fresh water and let it sit for 5 minutes. Allow to dry thoroughly before storing in a dry location.

KITEBOARDING TERMINOLOGY

TRAINER KITE - a kite that may be used on land to simulate the motions used in kiteboarding. It is an excellent instructional and learning tool. Despite its small size, this kite still has power, so be alert.

INFLATABLE KITE - a kite with inflatable tubes designed to float the kite and to facilitate water re-launchability.

TWO-LINE INFLATABLE KITE - a water re-launchable kite with two flying lines and inflatable tubes. This kite usually has a bridle system.

FOUR-LINE INFLATABLE KITE - a water-re-launchable kite with four flying lines and inflatable tubes. This kite does not usually have a bridle system.

STRUTS - the outer fabric tubes found on your kite. They house the inner inflatable bladders, which are filled with air to give structure to the kite.

FANGS - Metal teeth that engage /disengage the depower loop on the Powerlock.

BLADDER - the inner inflatable tube found within the leading edge and the struts of the kite. (Imagine a bike—it has both a tire on the outside and an inner tube which holds air).

LAUNCHING - the motion in which the pilot steers the kite from their partner's hands into the sky.

SELF LAUNCHING - a technique in which the pilot launches the kite without assistance, usually by weighting down a wing tip with sand until he/she is ready to launch.

RE-LAUNCHING - the motion in which the pilot steers the kite off of the water and back into the sky.

BODY DRAGGING - this is an instructional tactic/step in which the pilot flies the kite from the water, but without the board. The pilot will launch the walk to the water, and basically drag in the water, practicing flying, re-launching and self-rescue techniques.

BALL STOPPER - Small plastic ball That stops the QRS harness leash from sliding too far up your lines.

KITEBOARDING TERMINOLOGY

WATER STARTING - the motion of the pilot in which he/she goes from sitting or lying in the water to standing on the board.

GYBING - the motion in which the pilot changes the direction of the board he/she is riding. The pilot switches from a starboard tack to a port tack or vice versa.

PLANING - the point in time in which the pilot gets the board skimming on the water.

LANDING - the motion in which the pilot steers the kite into their partner's hands on shore.

QRS-QUICK RELEASE SAFETY- connection points on the control systems that release in emergencies. QRS -harness leash (Patent) that is attached to the rider and kite, designed to disconnect you in emergencies.

CONTROL BAR - the steering device the pilot uses to steer the kite.

HARNESS - a piece of equipment used to temporarily attach the rider to the control bar harness line. This enables the rider to save energy by utilizing their body weight and all of their muscles to hang on to the kite. Most common are the waist harness (attaches around the torso) and the seat harness (attaches to the waist and around the legs)

KITEBOARDING - the term in used to describe the sport of power kiting on water.

KITESURFING - another term used to describe the sport of power kiting on water, but in waves.

OVERPOWERED - a situation in which the pilot has a kite too powerful for his/her ability level, weight, strength, and/or wind conditions.

UNDERPOWERED - a situation in which the pilot has a kite not powerful enough for his/her, weight, strength, and/or wind conditions.

REACH - a direction of travel relative to the wind direction. Generally 90-160 degrees off the wind.

LULL - a term used to describe wind when it lessens in strength, for any amount of time. A term also used to describe the complete de-powering of a kite.

LUFF - a term used to describe what happens to the kite in a lull.

WIND TERMINOLOGY

ONSHORE - wind is blowing directly or to a great extent directly from the water toward the land. Utilize caution when operating your kite near water in this wind direction.

SIDESHORE - wind is blowing from the left or from the right, in a perpendicular direction to the shore. Ideal wind direction for kiteboarding.

OFFSHORE - wind is blowing from the shore, directly or to a great extent out to the water. Do not operate your kite near water in this wind direction.

SIDE OFFSHORE - wind is blowing from either the left or the right and from the shore out to the water. This is a combination of offshore and sideshore wind. Do not operate your kite near water in this wind direction.

SIDE ONSHORE - wind is blowing from either the left or the right and from the water toward the land. This is a combination of onshore and sideshore wind. Utilize caution when operating your kite near water in this wind direction.

GUSTY WIND - wind is inconsistent and varies considerably from one strength to another.

DOWNWIND - the direction in which the wind is traveling.

UPWIND - the direction from which the wind is blowing.

LEEWARD - the downwind side of the kiteboarder.

WINDWARD - the upwind side of the kiteboarder.

KNOTS - a measure of speed based on nautical miles. 1 knot = 1 nautical mile per hour.

1 knot = 1.15 miles per hour.

1 knot = 1.85 kilometers per hour.

MPH - Miles Per Hour. A measure of speed

1 mph = 1.6 kilometers per hour.

BEAUFORT SCALE - a system for estimating wind strength based on the effects wind has on the physical environment (eg. the behavior of waves, smoke, etc.). Instruments are not used to determine wind strengths in this point scale (0 = calm to 12 = hurricane).

Here are some basic things to consider when sharing areas with other users:

SAFETY

- Follow the safety instructions outlined in this manual.
- Follow the safety instructions posted at your snowkite spot.
- Utilize common sense safety.
- Do not touch other people's gear, unless instructed to do so by the owner. Picking up their bars, kites, etc. may disrupt a set-up ritual they have.

SETTING UP

- Set up only the gear that you plan on using immediately.
- Set up in an area where you have plenty of room.
- Set up in a manner conducive to having multiple users in the area.
- Roll up your lines when not in use.
- Always keep other people, pets, obstacles and kites in mind when launching.
- Yield to other area users. Be courteous and cooperative.
- Deflate and put away kites you will not be using immediately.
- Always be ready to lend assistance to other kites. The favor may be returned sooner than you think.



CABRINHA LIMITED WARRANTY

(Cabrinha is a division of Neil Pryde Ltd.)

Every Cabrinha product is subjected to rigid pre-sales quality control tests and is backed by our comprehensive warranty policy below.

WHAT THIS WARRANTY COVERS

General

Neil Pryde Ltd. ("Cabrinha") warrants this Product to be free of major defects in materials and workmanship when this Product is used for ordinary recreational activities by the original purchaser for a period of 90 Days from the original date of purchase (as evidenced by the relevant purchase receipt) subject to the following terms and conditions.

Specific product warranties

This Warranty is valid only when the warranty card accompanying this Product is properly filled out and returned to Cabrinha within seven (7) days from the original date of purchase.

IMPORTANT NOTICE: This Product is designed for, and is intended to be used by ordinary purchaser for recreational purpose or use only. This Product is not designed for commercial use where it is subject to continuous or high volume repetitive usage over an extended period of time.

WHAT THIS WARRANTY DOES NOT COVER

This Warranty does not cover the following:

1. Costs of return shipments to Cabrinha
2. Damage caused by alterations, modifications or changes not authorized or approved by Cabrinha in writing, or due to service and/or repairs done by anyone other than Cabrinha or an Cabrinha

authorized repair facility, or due to accident, abuse, misuse or improper use, neglect, or failure to perform normal maintenance in accordance with the instructions set out below or in the user's guide accompanying this Product.

3. Damage caused by extended or excessive exposure to sunlight (or ultra-violet radiation), improper handling or storage, or failure to follow instructions provided with this Product;
4. Damage caused by anything other than defects in materials or workmanship.
5. This Product when being used in commercial, rental, teaching or instructional programs or activities, or in competition of any kind.
6. This Product when being classified as second-hand.
7. Consequential and incidental damages or expenses, including damages to property or for personal injury; and
8. Damage caused by any use of this Product as a toy.
9. Normal wear and tear, including scratches and fading;
10. Damage caused by the use of this Product in areas with rocks, sharp objects, waves or shore break.
11. Damage caused by the over-inflation of the bladders
12. Normal wear and tear, including scratches, punctures, rigging with components other than Cabrinha components.

CONTINUED



WARRANTY

HOW TO MAKE WARRANTY CLAIM

Cabrinha will make the final and conclusive determination in relation to each claim under this Warranty on a case-by-case basis, which may require inspection and/or photos of this Product, which clearly show the defect(s), if any. This information must be sent to the Cabrinha Distributor of this Product in your country, postage prepaid [or via your local authorized Cabrinha dealer]. This Product can be returned only if the Cabrinha distributor in advance of returning this Product gives a return authorization number (RA). The RA number must be clearly labeled on the outside of the package, failing which such package will be refused. Any product must be shipped CLEAN and DRY.

If this Product is considered to be defective by Cabrinha, this Warranty covers the repair or replacement (by the same or similar model) or refund of all or part of the purchase price of this Product only (which alternative and/or the appropriate amount, if any, shall be decided by Cabrinha at its sole and absolute discretion). Cabrinha will not be responsible for any costs, losses, or damages incurred as a result of loss of use of this Product.

THE ORIGINAL PURCHASE RECEIPT MUST ACCOMPANY ALL WARRANTY CLAIMS. THE NAME OF THE RETAILER AND DATE OF PURCHASE MUST BE CLEAR AND ELIGIBLE ON SUCH RECEIPT.

WHAT TO DO TO KEEP THIS WARRANTY IN EFFECT

This Warranty is voided if any unauthorized repair, change, alteration or modification has been made to any part of this Product. The warranty for any repaired or replacement product (as the case

may be) is good from the date of the original purchase only.

There are no warranties, which extend beyond the warranty specified herein.

ADDITIONAL RIGHTS

This Warranty does not affect, and is in addition to, any statutory rights that you may have under or by virtue of any applicable law.

HOW TO OBTAIN WARRANTY SERVICES

To obtain warranty service of this Product, or if you have any questions about any products of Cabrinha or their respective user's instructions, please contact:

For Information e-mail: support@cabrinhakites.com
or your local Cabrinha Distributor.

WARNING
IT IS THE USER'S RESPONSIBILITY TO CAREFULLY READ THE ATTACHED USER'S GUIDE AND INSTRUCT ALL USERS ON THE PROPER USAGE AND MAINTENANCE OF THIS PRODUCT.

For USA purchasers only:

All warranties implied by State law, including the implied warranties of merchantability and fitness for a particular purpose, are hereby limited to the duration of this Warranty. Some States do not allow limitations on how long an implied warranty lasts, so the foregoing limitation may not apply to you. With the exception of any warranties implied by State law (as hereby limited), this Warranty is exclusive and in lieu of all other warranties, guarantees, agreements and similar obligations of manufacturer or reseller. This Warranty gives you specific legal rights, which vary from State to State.