2004

KITE MANUAL
BT:NITRO | CO2 | ACCESS

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 PRO-TECTION. IF YOU DO NOT AGREE WITH THESE TERMS AND CONDITIONS, DO NOT USE THIS PRODUCT. KINDLY RE-TURN THIS PRODUCT BEFORE USING IT, 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 understands 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 or streets, and keep your kite fly lines away from people and obstacles. Always fly in an open area, observe wind and weather conditions, particularly in circumstances where you may encounter offshore winds or strong winds. Do not attempt to use your kite on water until you are confident and comfortable with its use on land. 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. If you intend to use the kite on water, always use appropriate safety and floatation 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 nor indeed is it intended as a means of flotation.

2004 KITE MANUAL

CONTENT

INTRODUCTION

THANK YOU for purchasing a Cabrinha kite and welcome to the sport of kiteboarding. As you may know, the excitement of kiteboarding is attracting people of all ages from all corners of the globe. It's one of the most dynamic and fastest growing sports of the new decade.

It can also be overwhelming if not approached in an educated and safe manner. That's why we have supplied this extensive user's manual. It will help to educate you about your new kite and about the safe ways in which to use it. It also contains information regarding the set-up, care and maintenance of your new kite so that you can spend as much time on the water as possible.

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

photo: stephen whitesell

SAFETY

SAFETY GEAR

We strongly recommend the use of the following protective gear:

- **GLOVES**
- **EYE PROTECTION**
- **SUNSCREEN**
- **SAFETY KNIFE**
- **HELMET**
- **NEOPRENE WET SUIT**
- **FOOT PROTECTION**
- **LIFE JACKET, IMPACT VEST OR FLOTATION VEST**

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.

- Be familiar with the set up and use of the supplied security systems: the Quick Release and the Recon Security Leash & Relaunch System (Recon).
- Make sure your Recon System is rigged according to the supplied instructions, and that your Recon compatible kite is used with a Recon compatible control bar system.
- Always use your Cabrinha kite with a security system.
- **Never** permanently attach yourself to this kite, the control bar, or lines.
- **Never** use this kite as a flying device.
- **Never** touch the kite lines while under tension; do not catch the kite using these lines.
- When inflated, but not in use, secure your kite with sand or with something heavy and non-abrasive); the more weight the better (see "Kite Care" for more information). An inflatable power kite will still fly, even without a rider, 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 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.
- Check your gear before going on the water. Insure that your flying lines, safety systems, kite, board, etc. are all rigged properly and are in working order.

SAFETY

WIND, WATER and WEATHER CONDITIONS

- Do not underestimate the power of the wind.

- Be aware of unpredictable and changing weather conditions.

- Avoid "offshore" wind conditions and use extreme caution in "onshore" wind conditions.

- Avoid strong, gusty wind.

- Be careful of wave conditions, especially when learning.

- Be educated about tides and rip currents.

- Be mindful of your ability level. Do not kiteboard if conditions are beyond your ability level.

- Be educated about air and water 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 the correct recommended size. Use your common sense. If in doubt about what kite size to use, choose smaller rather than bigger.

SAFETY

WIND RANGE CHART

		10 MPH	15 MPH	20 MPH	25 MPH
BT:NITRO	5.5				25 ++
	6.5				25 ++
	7.5				25 ++
	8.5			20 - 25 ++	
	10.0			20 - 25	
	12.0		12 - 24		
	14.0		10 - 20		
	17.0	8 - 18			
	20.0	8 - 15			
CO2	6.5				25 ++
	7.5				25 ++
	8.5			20 - 25 ++	
	10.0			20 - 25	
	12.0		12 - 24		
	14.0		10 - 20		
	17.0	8 - 18			
	20.0	8 - 15			
ACCESS	5.0				25 ++
	7.0		15 - 25		
	9.0		12 - 24		
	12.0	10 - 22			
	15.5	8 - 18			

These general guidelines are purely for reference only. Your body weight, ability level, water conditions, and board size will also affect kite selection.

When choosing a kite size, please use your personal experience and always refer to the riders on the water for a size reference.

SAFETY

KNOW YOUR ABILITY LEVEL

- Do not attempt kiteboarding without appropriate instruction.

- Do not kite alone.

- Launch, land, and ride together with a partner or have someone on shore 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 you are a proficient swimmer before using this product in or near the water.

- Make sure the wind and water conditions are within your ability level and that you have made the correct equipment choices.

- Never kiteboard further from shore than you are able to swim back.

- 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 other water users, self rescuing, etc.

- Understand the technique of self-rescue before using this product in or near the water.

- Never let someone who is not familiar with inflatable kites launch, catch, or use your kite. You will endanger them, as well as yourself and those around you.

- You are responsible for the safe operation of your kite.

SAFETY

KITEBOARDING LOCATION

- Observe local laws and regulations regarding this product and the usage area.

- Talk to the local riders about the weather conditions and beach rules.

- Check your area thoroughly before launching your kite.

- 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 and downwind of you. Be especially aware of your downwind area.

- Be mindful and aware of the wind direction in relation to your launch area.

- Avoid areas with rocks and/or shallow or exposed reefs.

- Avoid launching, landing or using this product near power lines, telephone poles, trees, people, pets, buildings, automobiles, streets, sharp objects downwind and airports.

- Avoid crowded beaches and waterways.

- Make sure your lines do not cross a walkway or passage.

- Do not let others walk between you and your kite.

- Be careful and mindful of other water users, including windsurfers, boaters, jet-skiers, swimmers, floating objects,etc.

- Before launching, make sure you have scouted a safe landing area, in case you do not make it back to your launch spot.

KITE OVERVIEW
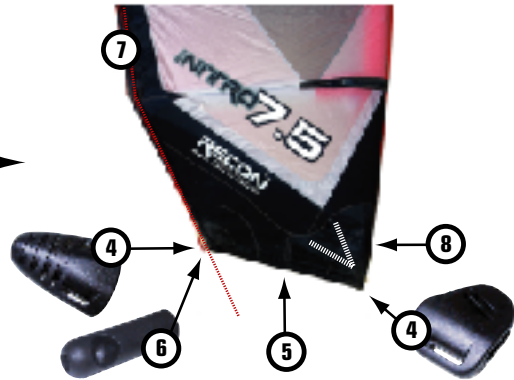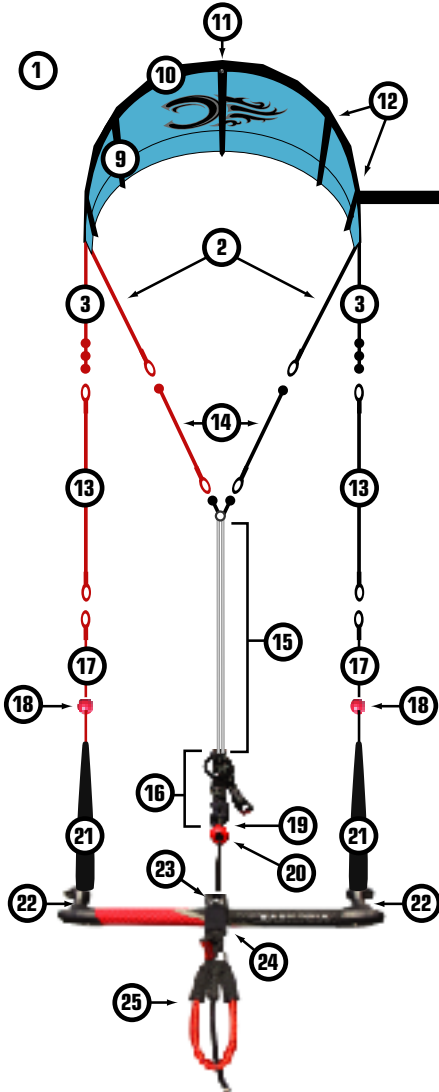
1.   4-Line Kite
2.   Recon Bridle Assembly
3.   Recon Rear Pigtail
4.   Recon Tension Fitting (front/rear)
5.   Recon Load Transfer Tip
6.   Recon Tension Bullet
7.   Recon Activation Line (on trailing edge)
8.   Rescue Handles
9.   True Match 3-D Battens
10. Multi-Segmented Dacron Leading Edge
11. Airlock High Volume Valve
12. Standard Inflation Valves
13. Steering Lines (Rear Control Lines)
14. De-power Lines (Front Control Lines)
15. Recon Center Leader Line
16. Centerline Adjustment Strap w/ Recon QR System
17. Leader Lines
18. Re-launch Assistance Ball Grips
19. Line Stopper
20. Recon Release Handle
21. Bar Floats
22. Multi-Functional Bar Ends
23. Powerlock Fitting
24. Powerlock De-power Line with Quick Release
25. Recon Harness Loop w/ Security Pin

*diagram not to scale

IMPORTANT INFORMATION

The **Recon Security Leash & Re-Launch System [RECON]** is standard equipment on all of the 2004 Cabrinha inflatable kites. This patent pending system is both a unique security leash and a re-launch system, which allows the rider to immediately turn off the power of the kite by activating the Recon's quick release handle. The same features that de-power the kite also assist in quicker re-launching.

The Recon Allows The Rider To:

- Shut down the kite instantly by activating the Recon release handle.
- Water re-launch with ease.
- Spin the bar.

IMPORTANT
RECON RELEASE SYSTEM TIPS

- All 2004 Cabrinha kites must be used with 2004 Recon compatible control systems in order for the Recon's IMMEDIATE DEPOWER™ feature to work properly.

- Furthermore, if a 2004 Recon compatible control bar is used with a kite that does not have the integrated Recon System (eg. a 2003 kite), it is dangerous to pull the Recon release handle to de-power the kite. You may still use a 2004 control system on an older kite, but pulling the Recon release handle will actually power up the kite (not de-power it) on a kite not equipped with the integrated Recon System.

IMPORTANT
RECON RELEASE SYSTEM TIPS *(continued)*

- Using an older control bar system with the 2004 Cabrinha kites will allow you to enable the re-launch feature of the kite, but will not accommodate the IMMEDIATE DE-POWER™ feature.

- NOTE: We suggest that the Recon only be activated when considered necessary or when landing your kite.

- Before using the Recon, make sure your Recon system is set up correctly. It is important that you use the control bar recommended for the kite.

- With the 20 meter kite, you must use the 58cm control bar in order for the Recon System to work properly. The 2004 58cm bar has been set up specifically with enough leader line to accommodate the size of the 20 meter kite. The 58cm bar is the only Recon compatible control system that will properly de-power the 20 meter kite. All other kites can switch between control bar lengths.

- Before each session, check that the Recon is in working order.

- You should be familiar with the operation of the Recon in the event of a situation in which you wish to activate the system (see "Operation of the Recon").

- Once the Recon is released, your kite will not fly until you manually reset the Recon on the center line (see "Resetting the Recon System").

SECURITY PIN

Recon's Security Spinning Leash is active only when the rider is hooked into the Harness Loop. Therefore it is important that a secure connection is made between the Harness Hook and Loop. This system allows you to de-power the kite completely, spin your bar freely, and re-launch your kite easily, all while still being safely connected to your kite.

- You must be hooked into the Quick Release (QR) Harness Loop in order to activate the Recon's IMMEDIATE DEPOWER™ feature.

- Insert the Security Pin into the Harness Hook under the Loop. (fig.1)

- Make sure that your Quick Release and Recon Systems are set up properly before launching or engaging the Security Pin on your Harness Loop.

- We suggest that you engage the Security Pin only when on the water, not while on land.

1

- NOTE: Be advised that when the Security Pin is engaged, you have a semi-permanent connection to the kite. As a safety precaution, know where your Quick Release Handle is and be educated on how to activate it before engaging the Security Pin.

ENGAGING THE SECURITY PIN

1. Double check that your QR and Recon systems are set up properly.

2. Hook into your harness loop. (fig.1)

3. Once hooked into the harness loop, only engage the Security Pin once you are safely on the water.

4. Insert the Security Pin into the center of the harness hook, making sure it is below the harness loop. Your harness loop must be between the harness hook and the Security Pin in order for this feature to work properly. (fig.2)

5. Make sure that the Security Pin is secure. This will keep your harness loop from accidentally dropping out of your harness hook. Your Security Pin is now ready for use.

1

2

3

RELEASING THE SECURITY PIN

You may disengage from the Security Pin in two ways:
A. With your hands, slide the Security Pin out of the harness hook. (fig.3)
B. Release the Quick Release Handle on your harness loop. (fig.4)

4

OPERATION OF THE RECON

1. To activate the IMMEDIATE DEPOWER™ Function pull the Recon Release Handle, located at the base of the Centerline Adjustment Strap (CAS), toward your body. (fig.1)

2. This will release the Velcro closure on the CAS. (fig.2)

3. Once the Recon Release Handle is pulled and the Velcro is released, the center leader line will double in length. This will cause increased tension in the steering (back) fly lines and create slack in the de-power (front) fly lines.

4. The Recon Bullet will then disengage from the Recon Tension Fitting (RTF) on the wing tip of the kite. (fig.3)

5. When the Bullet is disengaged from the RTF, the Recon Activation Line will tighten around the trailing edge of the kite and collapse the foil, effectively turning off the power of the kite.

6. The kite will fully de-power and will drop out of the sky toward the water. (fig.4) NOTE: The kite will not fly again until you manually reset the Recon on the CAS (see "Resetting the Recon Release System").

7. If you activated the Recon while on the water, follow the steps of self rescue and swim to shore. You may also reset the Recon (see "Resetting the Recon") and resume your session, if you choose, but note that this is an intermediate-advanced technique.

8. If you activated the Recon system when landing your kite, have your partner safely secure your kite on shore, reset the Recon, and then wind your lines on the control bar.

9. NOTE: The Recon System is intended to be used for landing your kite and for emergency situations only.

1

2

3

4

IMPORTANT RECON SYSTEM CARE TIPS

- When your kite is not in use, make sure to reset the Bullet into the RTF on the wing tip of the kite. This helps prevent the bridle lines from becoming tangled with the Bullet. (fig.1)

- Before winding your lines onto your bar, make sure to reset your Recon System.

- When stowing your kite between sessions, make sure to weigh your kite down with sand in order to keep your kite from flapping in the wind. This not only prevents unnecessary wear on the kite fabric, but also helps prevent your bridle lines and Recon system from becoming tangled.

- Contain your kite leaders on the attached Velcro holders on the wing tip. (fig.2)

1

2

RESETTING YOUR RECON SYSTEM

Your Recon System can and should be reset before winding your lines on your control bar at the end of your session.

The Recon can also be reset on the water, if you choose. (NOTE: we strongly suggest that this is an intermediate-advanced technique). To reset your Recon on the water, follow the instructions below:

1. While remaining hooked into your QR Harness Loop, swim or pull yourself along the center leader line (which was extended when you released your Recon) toward the Centerline Adjustment Strap (CAS). NOTE: Make sure to stay free of your flying lines.

2. Reach forward and grab the CAS. NOTE: Do NOT wrap the leader line, flying line, etc. around your hand. Simply grab the CAS and pull it back toward you.

3. Pull the CAS back toward the RECON release at the top of the depower line.

4. Insert the Velcro tab into the D-ring at the base of the Centerline Adjustment Strap (CAS).

5. Fold the Velcro piece over onto the opposing Velcro. (fig.1)

6. Replace the final Velcro cover on top.

7. Make sure to slide the ball back up the de-power line and to put the neoprene bootie back on. NOTE: This step is very important, because if you do not replace the ball, the Recon will re-activate when you re-launch.

8. Your Recon Release System is now reset.

9. You are now ready to either re-launch your kite from the water or to wind your lines onto your control bar.

RE-LAUNCHING WITH YOUR RECON SYSTEM

The same features that de-power the kite also assist in quicker re-launching. The Recon's two key components are tightly integrated into the construction of the kite as well as the control system to reduce the added lines and tethers normally associated with conventional leashes or reverse launch systems. There is no 5th line, external wrist or harness leash, or a complex bridling system.

When the kite is leading edge down on the water, it can be rolled into a side launch position by following these steps:

1. Attached to each of your back (steering) leader lines you will find Re-launch Assistance Ball Grips that will assist you in re-launching your kite.

2. Reach up on one of the back leader lines and pull the ball and leader line toward your body. Pull sharply to disengage the Recon Bullet from the Recon Tension Fitting (RTF). Maintain constant tension on this leader line. NOTE: Make sure not to wrap the leader line around your hand or to allow your body to get entangled in it. (fig.1)

3. Once the bullet is disengaged, the trailing edge of the kite will then contract, and the kite will soon roll onto its side. (fig.2,3,4)

4. Once on its side, the kite will begin to move toward the edge of the wind window. You may have to finesse the kite to the edge of the window; to do this continue to hold onto the same leader line until the kite wants to re-launch. (fig.5)

5. When the kite is ready to re-launch, release the leader line and steer the kite up into the sky. Slowly steer your kite into neutral position and level out your bar.

6. Once you begin riding again, tension on your flying lines will reset the Recon Bullet into place in the RTF on the wingtip of the kite.

BYPASS™ LEASH - (*Optional*)

All 2004 Cabrinha kites can be used with the optional ByPass™ Leash. This security leash is an optional feature and is recommended for first time users and kiteboarding schools, and for riders who kiteboard without being hooked into the harness loop.

The ByPass™ Leash System leaves your hands free for board handling and comfort.

If you choose not to ride with the ByPass™ Leash, follow the instructions on using the security pin to make sure you have a positive connection to your kite.

IMPORTANT BYPASS™ LEASH TIPS

• Make sure you set up your ByPass™ Leash properly before going on the water.

• When using your Cabrinha kite with the optional ByPass™ Leash, you may activate the shut down feature of the kite by simply letting go of the control bar, as long as you are NOT hooked into the harness loop.

• If hooked into the harness loop when using the ByPass™ Leash, you must first either unhook or activate the quick release on your harness loop in order to utilize the ByPass™ Leash System as a means of shutting the kite down. NOTE: It is intended that when riding with the ByPass™ Leash, the rider should not be hooked into the harness loop.

QUICK RELEASE SYSTEM (QRS)

We supply a variety of **Quick Release Systems (QRS)** to aid you in your ability to release completely from your kite.

Important QRS Tips

- Make sure your QRS PULL TAB is facing you.

- 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.

QUICK RELEASE OPERATION

Grab the release tab and pull until the curved pin is free. Under tension, the Velcro will release the harness loop.

RESETTING THE QUICK RELEASE (QR)

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

2 Fold the flap back over itself.

3 Guide the grommet over the QR pin retainer.

4 Slide the QR pin through the retainer.

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

6 Close the thin Velcro around the system. Your QR system is now ready for use again.

STEP 1
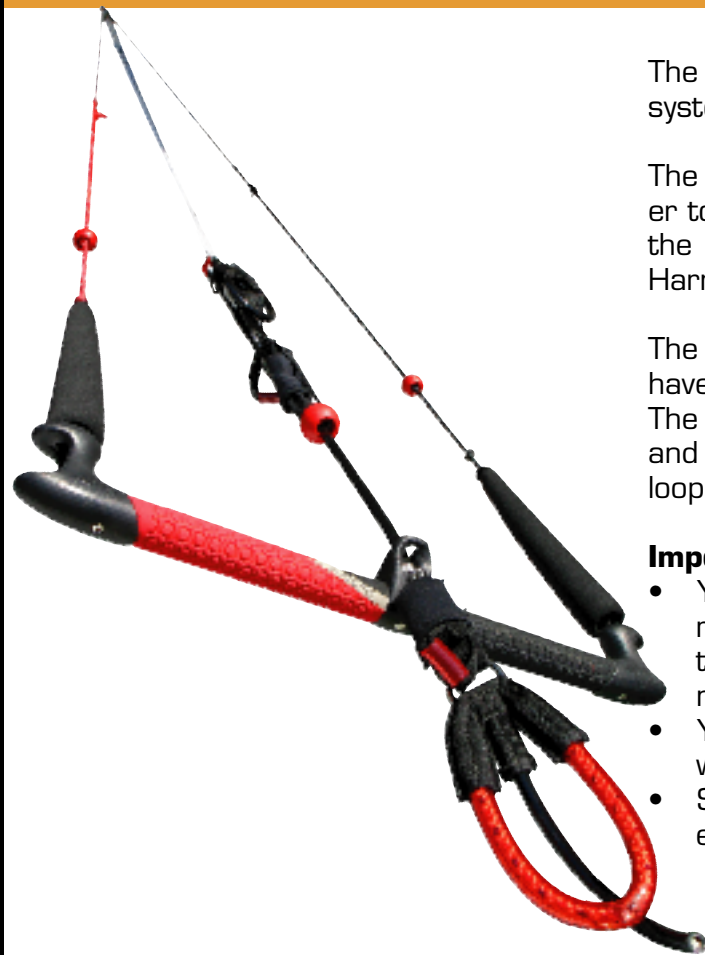## SET UP THE POWERLOCK CONTROL SYSTEM

The **Powerlock Control System** is a control system for **4-LINE** kites.

The **Powerlock Control System** allows the rider to interactively lock and unlock the power of the kite when hooked into the QRS Powerlock Harness Loop.

The Powerlock fitting eliminates the need to have two harness loops on the control bar. The rider has the benefits of both de-power and fixed 4-line control with a single harness loop.

Important Powerlock Tips
- Your kite should be tuned so that when the rider is unhooked from the harness line the kite is fully sheeted in (powered), but not over sheeted.
- You may fine tune the power of the kite with the Centerline Adjustment Strap.
- See the section on 4-Line Tuning for more explanation of 4-line kite tuning capabilities.

Powerlock Control System
*(Included Components)*

- Control Bar
  with end fittings and Powerlock Fitting

- Depower Line with QRS

- 30cm Recon Harness Loop w/ Security Pin
  (27cm, 33cm, and 36cm also available)

- Leader Lines (2) with INSTANT RELAUNCH™
  Ball Grips (red = left; black = right.)

- Centerline Adjustment Strap with Recon Release Handles

- Bar Floats

- Powerlock "Fangs"

There are 3 different Powerlock "Fangs" used to tune the Powerlock Fitting included in this package.

Operating the Powerlock Control System

To Lock: Pull the bar toward you and engage the Lock Ball into Powerlock Fitting.
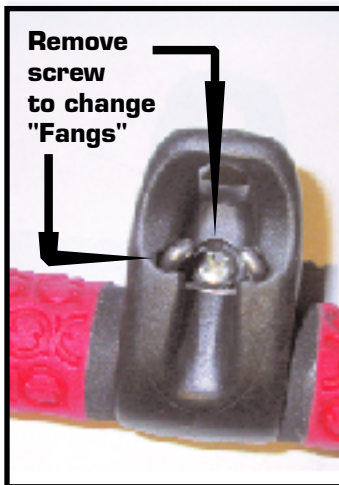
To Unlock: Pull the bar slightly toward the body and using your wrists, twist the top of the bar toward your body, disengaging the Lock Ball from the Powerlock Fitting.
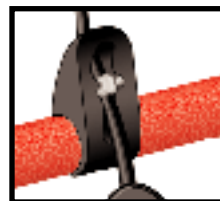
Lock Ball engaged - Kite is powered and locked

Lock Ball disengaged - Kite is de-powered

Remove screw to change "Fangs"

Powerlock Tuning Options

The Powerlock Control System's locking ability can be tuned to suit rider preference by changing the "fangs".

1. Disengage the Lock Ball from the fitting
2. Using a #2 Phillips head screwdriver remove the set screw from the fitting.
3. Gently slide the 'fangs' vertically from the fitting.
4. Insert the desired 'fangs'.
5. Replace the set screw and tighten.

Important: Be sure that the fitting has not rotated on the control bar. There is a fixed position for the fitting that is set by a protrusion inside the fitting. This protrusion fits into a hole in the bar. Do not tighten the fitting until you are sure that these line up.

Powerlock "Fangs"
Different Powerlock "fangs" are used to tune the Powerlock Fitting.

Aggressive Lock: These fangs are aggressively angled to lock into the Powerlock Fitting most securely. Recommended for riding predominately in the fixed power position with the option to unlock and de-power.

Non-Aggressive Lock: These fangs allow you to disengage from the Powerlock more easily. Recommended for riding predominately depowered with the option of locking in. Recommended for learning to use the Powerlock.

No-Lock: These fangs slide through the Powerlock without the Lock Ball engaging. Works like a regular de-power system without locking ability.

STEP 1.1
CONNECT YOUR FLYING LINES TO THE LEADER LINES

1. Lay your Powerlock Control System face up on the ground approximately 30 meters away from a post or tree to which you will be attaching your lines in order to check that the lengths are even (see Step 1.2).

2. Unwind and lay out the color-coded FLYING LINES between the post and the control bar. You will have two sets of lines—the front (or inside) STEERING LINES and the back (or outside) DE-POWER LINES.

3. Make sure your flying lines are not twisted or crossed. Do this by walking down your lines, separating them from each other. Once you have them separated, lay them down in this order from left to right while looking from your control bar toward the end of the lines: red steering line, red-sheathed white de-power line, black-sheathed white de-power line, black steering line.

4. You will connect the steering lines to the leader with a "larks head to larks head" connection. (fig.1) Slide the leader through the loop on the end of the control line. Then thread the end of the control line trough the loop on the leader. By pulling the control line all the way though in this manner you will end up with the proper connection. (fig.1a)

5. Pull the connection tight for a secure connection (fig.2,2a).

6. Your flying lines are now connected to your leader lines, and you are ready to make sure that all of your lines are even.
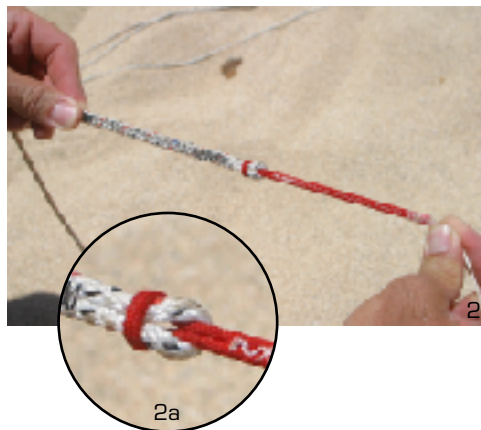
Proceed to STEP 1.2 – CHECK YOUR LINE LENGTHS BEFORE GOING ON THE WATER.

STEP 1.2

CHECK YOUR LINE LENGTHS
BEFORE GOING ON THE WATER

1. Loop a piece of line (any rope or cord) around a tree or fence post.
2. Tie the line in a knot around the tree, leaving a piece long enough to attach all four lines.
3. Assuming you have already attached your flying lines to the leader lines, roll out the lines from the post and set the control bar on the ground, facing up, with the red control lines on the left and the black control lines on the right (looking from your bar to the post). Make sure there are no obstructions in between your bar and the post.
4. Make sure your flying lines are not twisted or crossed.
5. At the ends of the flying lines nearest the post you will notice that there are eyelets on the rear steering lines and front de-power lines. The overhand knots on the front (depower) lines are there to eliminate incorrect connection to the kite.
6. Take the rope attached to the post and feed it through the eyelets on all four lines, with the red on the left and the black on the right.
7. Tie a bowline knot, with all four lines inside the loop.
8. Walk back to the control bar.
9. Make sure that the centerline adjustment strap is fully extended, so that the kite is set up at full power.
10. Standing directly in line with the post, pull back hard and steady on the control bar by pulling straight back toward yourself.
11. Your control bar should be in line with your shoulders and should be straight and not at an angle.
12. You will find that all of the lines should have even tension under pressure (ie. no slack in the de-power lines or steering lines).
13. If your control bar is even, your Powerlock Control System is ready to attach to your inflated kite.
14. You should now tie an overhand knot in the ends of the front lines **Proceed to SET UP: STEP 2 - INFLATING YOUR KITE.**
15. If your control bar is not even, follow the instructions in Step 1.3 - LINE LENGTH CORRECTIONS.
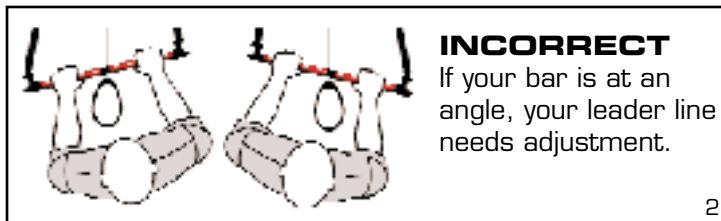
STEP 1.3   LINE LENGTH CORRECTIONS
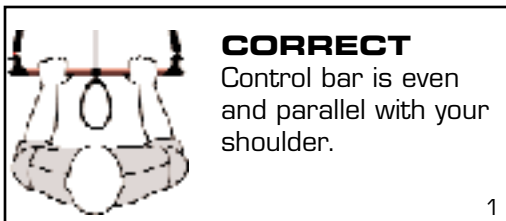
CORRECT
Control bar is even and parallel with your shoulder.

1

INCORRECT
If your bar is at an angle, your leader line needs adjustment.

2

Adjustments are made by moving one or both of the knots on the ends of the leader lines. Your goal is to have all four of your flying lines the same length.

• If one of the steering lines are too long, loosen the knot (located inside of the re-launch ball on the long side) and move it toward the kite.

• If one of the steering lines are too short, loosen the knot (located inside of the re-launch ball on the short side) and move it toward the control system.

• Re-tighten the knot and check your line length again. (fig. 1) Adjust again if necessary until the control bar is balanced.

• DO NOT put knots in your FLYING LINES. Knots in the flying lines compromise the life of the line. Put knots only in your LEADER LINES.

• It is highly unlikely that your center (de-power) lines are uneven. If they are, you may make the correction by adjusting the knots on the Recon Center Leader Assembly. If the red-sheathed de-power line is too long, move the knot on the left center leader line toward the control bar. If this same de-power line is too short, move the knot away from the control bar. If the black-sheathed de-power line is too long, move the knot on the right center leader line toward the control bar. If this same de-power line is too short, move the knot away from the control bar.

• Once you've made the proper adjustment, check the bar again. All four lines should be the same length and the bar should be balanced. (fig. 1)
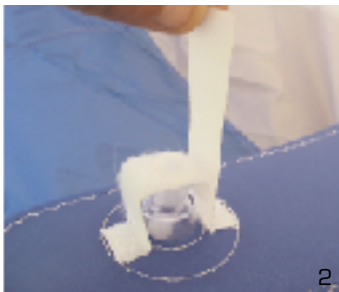
STEP 2.1
INFLATING THE STRUTS

Hold the pump at a perpendicular angle to the valve. Use one hand to hold the valve steady and the other hand to operate the pump.



Secure Velcro covering over each strut valve.

See the section on Kite Care before inflating the struts of your kite.

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. Secure the wingtips with sand to keep the kite from flapping in the wind.

3. Partially inflate the center strut, then the two middle struts, followed by the end struts.

4. 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. (fig.1) This will help maintain the life of the internal bladder.

5. When all struts are partially inflated, go back to each strut, making sure the internal bladders are lined up correctly.

6. Confirm that the corners of each strut 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.

7. Now fully inflate each strut.

8. The stopper ball in the valve should engage when the strut is fully inflated. If it doesn't, turn the strut upside-down and allow gravity to set the ball in place.

9. Quickly secure the valve plug and attach the Velcro covering across each valve.. (fig.2)

10. Do not over-inflate the struts. You may damage the internal bladder by over-inflating it. If the strut is fairly solid to the touch, it is fully inflated.

11. Do not under-inflate the struts. This will cause poor performance and re-launching problems.

STEP 2.2
INFLATING THE LEADING EDGE
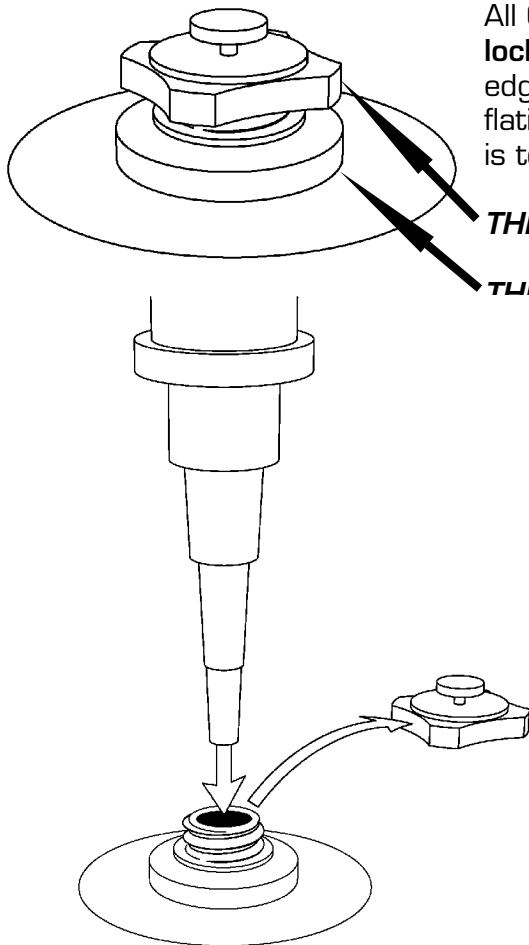
All Cabrinha kites feature the 2-part, high-volume **Airlock Valve** as well as a standard valve on the leading edge bladder. The Airlock Valve is for inflating and deflating your kite. The standard valve's primary purpose is to keep the Airlock Valve from twisting.

THE UPPER SECTION IS THE INFLATION CAP.

THE LOWER SECTION IS THE RELEASE VALVE.

Make sure that the release valve is seated firmly by turning clockwise. Do not over tighten the release valve when the kite is not inflated. Doing so may twist and damage the bladder.

Check that the standard valve plug and Velcro covering are secure before inflating the bladder.

Open the inflation cap by turning it counter clockwise. Insert pump (use the adapter tubing if using a hand pump) and inflate the leading edge.

When the leading edge is fully inflated, remove pump valve and screw the inflation cap back on. Lightly turn/tighten until inflation cap is firmly secure. Check that the release valve is also still secure.

STEP 2.2
INFLATING THE LEADING EDGE *(continued)*

Under - Inflated Kite

Properly - Inflated Kite

5.   Do not under-inflate or over-inflate the 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 bend the wing tips in, the leading edge is under-inflated. Kite should be firm enough that while on its back, the wing tips should extend into the air and kite should retain its bowed shape. If the leading edge is under-inflated, it may cause poor performance and re-launching problems.

6.   Once the leading edge is properly inflated, turn kite over and secure the kite with sand.

TIPS ON SECURING YOUR KITE

STEP 2.3
TIPS FOR SECURING YOUR KITE

- Never leave an inflated kite unattended on the beach for a long period of time. Winds may shift or change and the kite may become unsecured and fly off.

- Always secure your kite with sand, using more weight than you think you need. An unmanned kite is dangerous.

- Never secure your kite with rocks or sharp objects (including your board); they will compromise the life of the kite. If you do not have a sandy beach launch, consider sand bags.

- 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 or tangle the Recon System. If you must leave the kite exposed to the wind on the beach, place sufficient amounts of sand between each strut and near the trailing edge to minimize or stop the fluttering. Also, if possible, leave the kite in a shaded area.

- Make sure your Recon "Bullet" is reset in the Recon Tension Fitting (RTF) when the kite is not in use.

- Keep in mind other beach users and make sure your kite and lines will not be a danger to others.

- Wind your lines onto the bar when you are not kiting. This will keep the beach free of lines and will prevent other beach users from becoming tangled in your equipment.

STEP 2.4
DEFLATING THE LEADING EDGE
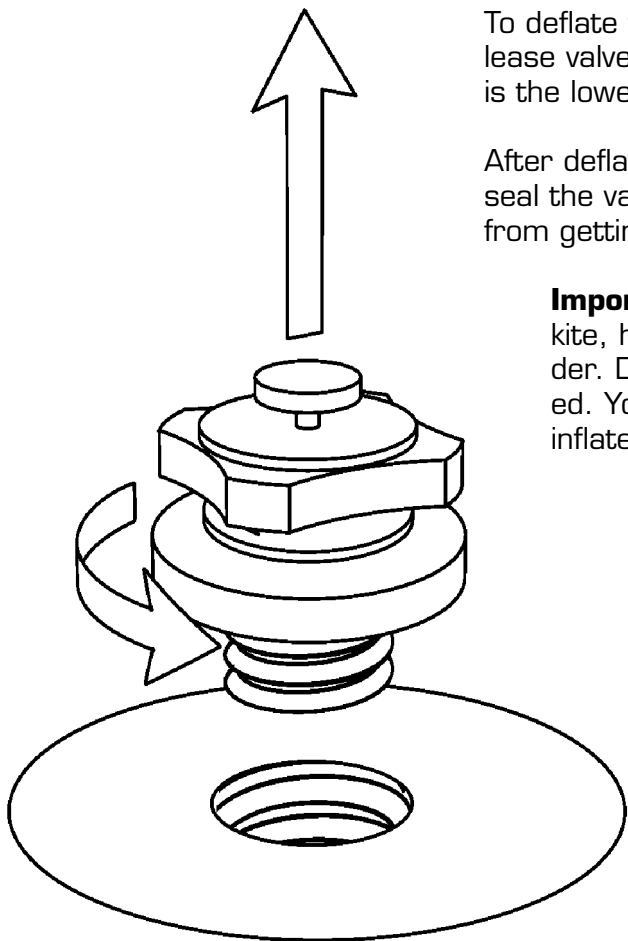
To deflate the Leading Edge, you must unscrew the release valve and not the inflation cap. The release valve is the lower portion of the **AIRLOCK.**

After deflating, clear valve of any sand or debris, then seal the valve before stowing kite to prevent debris from getting inside internal bladder

Important 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.
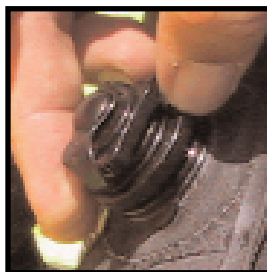
**Proceed to SET UP | STEP 3
ATTACHING YOUR KITE**

STEP 3
ATTACHING CONTROL LINES
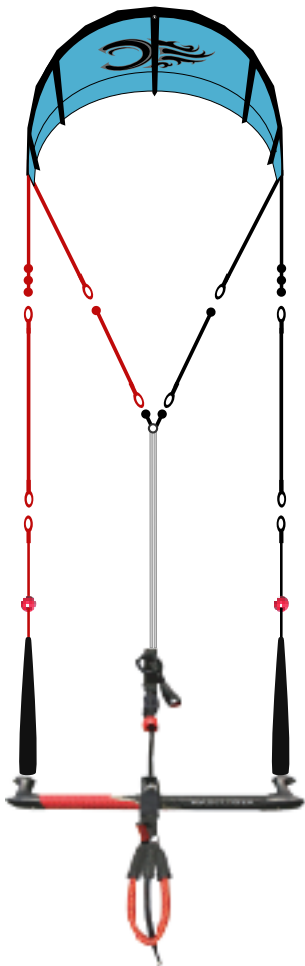
Once you have completed SET UP: STEPS 1 and 2, you are ready to connect your control system to your inflated kite.

1. With your lines laid out, carry the kite to the end of the flying lines farthest from your control bar. Make sure the leading edge is facing into the wind.

2. Secure the kite with sand or sand bags. Do not secure kite with anything sharp or abrasive.

3. You will notice four connection bridles on your kite (two on each wingtip). There are three knots on the rear bridle and one larks head knot on the front bridle. Utilize the middle knot on the rear bridle; the other knots are there for tuning purposes.

4. Attach your red de-power (center) line to the red bridle on the left wing tip of the kite.

5. Using a larks head knot, attach your red steering (outside) line to the red bridle on the left wing tip of the kite.

6. Attach your black de-power (center) line to the black bridle on the right wing tip of the kite.

7. Using a larks head knot, attach your black steering (outside) line to the black bridle on the right wing tip of the kite.
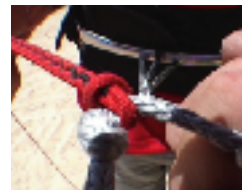
NOTE: See "KITE OVERVIEW" as reference.

Proceed to SET UP|STEP 3
DOWNWND or UPWIND LAUNCH SET UP

*diagram not to scale

STEP 3
DOWNWIND LAUNCH SETUP

1. Lay the bar 30 meters downwind of the kite so that the wing tips are facing the control bar (the leading edge of the kite should be facing into the wind). 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 lines will be on the right, while the black-sheathed lines will be on the left.

2. Walk out the outside steering lines and attach them to the (trailing edge) back bridles (remember, red-to-red; black-to-black).

3. Walk out the white, center, de-power lines and attach them to the (leading edge) front bridles (remember, red-to-red; black-to-black). Make sure that the de-power lines do not cross the steering lines.

4. The lines should not cross each other or be twisted.

Your kite is now ready to fly. Please see the sections of this manual that relates to safety and make sure you are familiar with the conditions before getting on the water. Kite tuning tips are located in this manual under Tuning.
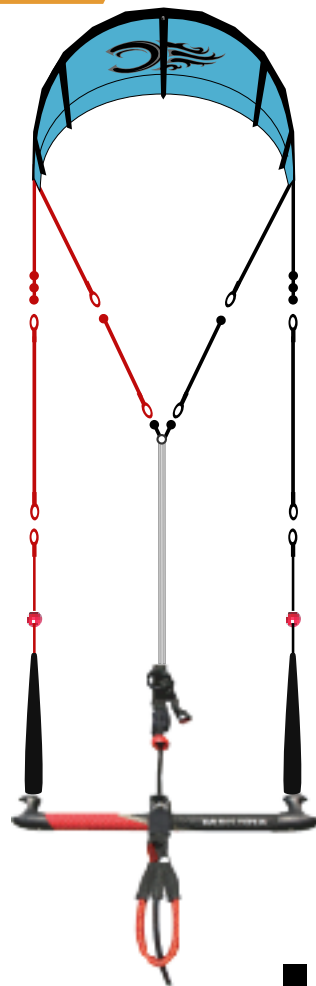
*diagram not to scale

STEP 3
UPWIND LAUNCH SETUP

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

1. Lay the bar 30 meters upwind of the kite. The leading edge will be pointed toward the bar and into the wind. The wing tips of the kite will be facing away from the bar. The control bar should be right side up.

2. Walk out the steering (outside) lines and place them parallel to each other on the ground about 4 feet apart, near the kite (remember, red sheathed lines on the left and black sheathed lines on the right).

3. Place the steering lines far apart, so the kite will lie between them.

4. Walk out the de-power (center) lines and place them in between the steering lines, parallel to each other so that all four lines are lined up as follows (left to right): red sheathed red line, red sheathed white line, black sheathed white line, black sheathed black line. The lines should not cross each other or be twisted.

5. Place kite on top of the de-power lines so the wing tips of the kite are pointing downwind and are near the ends of your steering lines.

6. Make sure the kite is still secured with sand or sand bags.

7. From outside of the kite, attach the steering lines to the corresponding back bridles on the wing tips (remember, red-to-red, black-to-black). Attach the steering lines to the middle knots on the bridles.

8. From inside the kite, attach the de-power lines to the corresponding front bridles on the wing tips (remember, red-to-red, black-to-black).

Your kite is now ready to fly. Please see the sections of this manual that relates to safety and make sure you are familiar with the conditions before getting on the water. Kite tuning tips are located in this manual under Tuning.
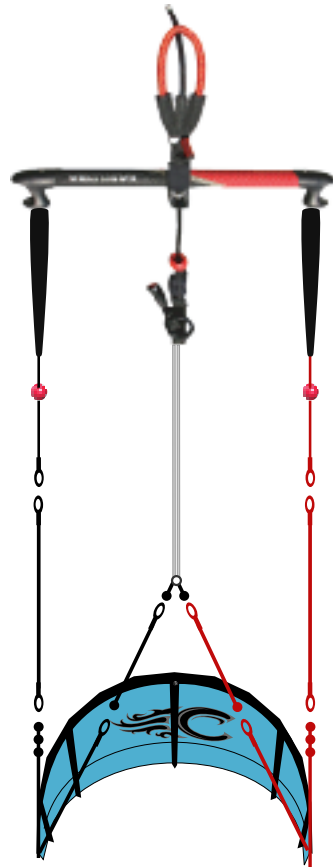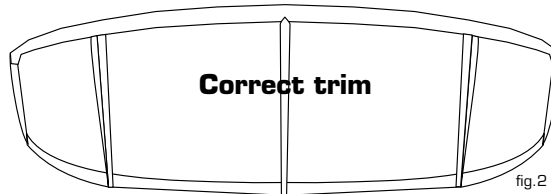
*diagram not to scale

KITE TUNING TIPS

Proper tuning of your **NITRO, CO2** and **ACCESS** kite is essential for best performance. A properly tuned kite increases its efficiency, speed, and allows the kite to de-power correctly. The following guidelines will help you to properly tune the kite to suit your style of riding.

View of kite from riders perspective. Kite in the neutral position directly above the rider.

Oversheeted wingtip (too much back line tension)

fig.1

Correct trim

fig.2

1. All models have a desired sweet spot that is achieved by the correct tension of the steering (back) and de-power (front) lines. Fine-tuning of the kite may be done by making small adjustments to the Centerline Adjustment Strap (CAS.).

2. 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. This is called '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.

3. With the kite directly overhead, hook into the harness loop and fully sheet in (power up) the kite. Observe the angle of the wingtips in relation to the other inflated battens. A common tun-ing position is achieved when the wing tips are parallel to the inflated battens and the steering (back) lines are taught. (fig.1) If the wing tips are flared outward at the leading edge the kite will be over sheeted. (fig.2)

4. De-power the kite by pulling on the CAS until the desired effect is achieved. The more you pull on the CAS the less power the kite will have. Keep in mind that you will still be able to de-power the kite through the Powerlock Loop, so do not de-power too much with the CAS. To increase power, pull down on the plastic loop on the CAS.

KITEBOARDING BASICS

AREA OF OPERATION

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

WIND DIRECTION

100 METERS

100 METERS

100 METERS

100 METERS
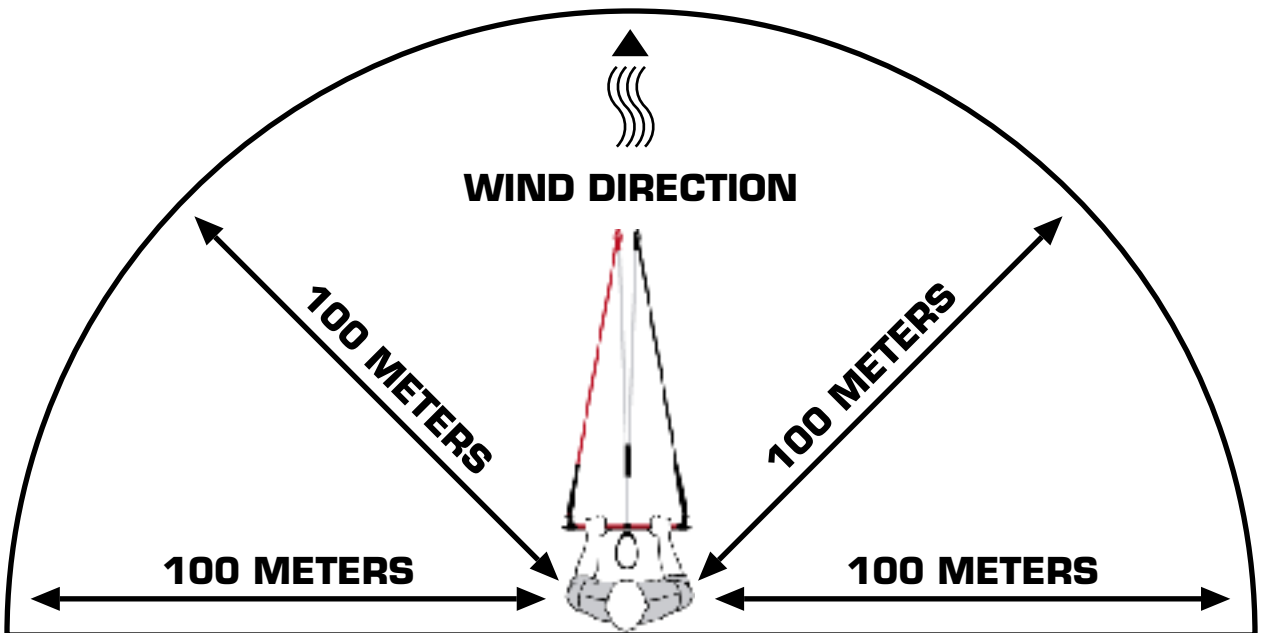
KITEBOARDING BASICS

KITE POSITIONS, ZONES, and POWER

NEUTRAL POSITION
This is the position just above the rider's head in the sky. If the rider 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 rider, 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 rider. 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 planing.

POWER ZONES

NEUTRAL ZONE

MODERATE POWER

MOST POWER

WIND DIRECTION

STEERING

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 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 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.

PLANNING YOUR LAUNCH

- 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°, then you will want to set your kite at about a 100° 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 STRAIGHT DOWNWIND!
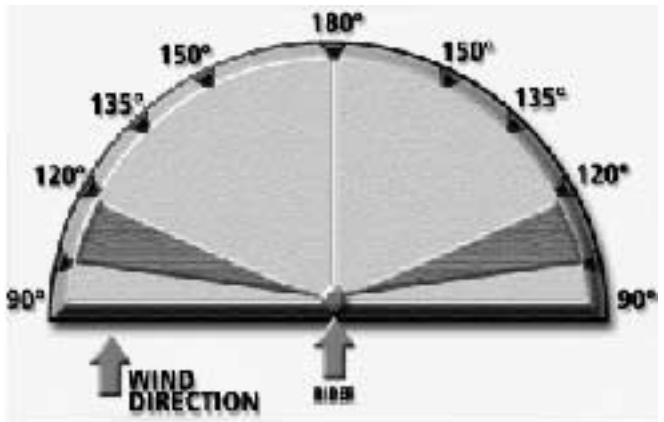
STEERING, LAUNCHING AND LANDING

LAUNCHING WITH A PARTNER

1. Before launching, re-familiarize yourself with your Recon and QR Systems in the event that you must engage them. Make sure you have them properly set up.

2. Next, thoroughly check your lines, your gear, and your launching and landing sites; if all is okay, you are ready to launch your kite.

3. Before you launch, organize a clearly defined release signal that you and your partner both understand.

4. Next, if you are using the Direct Connect Leash System, attach it. (See D.C. Leash attachment) If not, proceed directly to Step 5.

5. Have your partner stand with the kite at 100° off of the wind.

6. Your partner should hold the kite in the middle of the leading edge, with the leading edge vertical and pointing into the wind.

7. Your partner should stand behind the kite and not to the side or in front of the kite.

8. Also, your partner SHOULD NOT touch the bridle or flying lines.

9. With the control bar in your hands and at chest height, take a few steps back to take the slack out of the flying lines.

10. If you are using the Direct Connect Leash, DO NOT hook into the harness loop when launching. If you are NOT using the Direct Connect Leash, then hook into your harness loop, but be ready to pull the Recon System or engage the QRS on your harness loop if necessary.

11. 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.

12. 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. When thrown, the kite may either launch too abruptly and powerfully or it may not launch at all. It is a very dangerous way to launch.

13. Once your partner lets go of the kite, have him/her move upwind of you and out of your way.

14. 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.

15. With the kite in neutral position and the wind at your back, walk slowly to the water's edge, keeping in constant check with the kite. You should know what it is doing at all times.

16. If anything goes wrong with the launch, you should be ready to first utilize the Recon System, and second to utilize the QRS. WARNING: the more wind there is during your launch, the faster everything will happen. That is why it is important that you launch the kite slowly and safely.

STEERING, LAUNCHING AND LANDING

SELF LAUNCHING

1. First set your kite face down, with the leading edge into the wind, at 100° to 110° off of the wind.

2. Secure the kite with sand or sand bags. Do not secure kite with anything sharp or abrasive.

3. Next, wind your lines out from the kite to the place from where you will launch the kite.

4. Before launching, re-familiarize yourself with your Recon and QR Systems in the event that you must engage them. Make sure you have them properly set up.

5. Next, thoroughly check your lines, your gear, and your launching and landing sites; if all is okay, you are ready to launch your kite.

6. Check to make sure your lines are connected properly and are not twisted or crossed.

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. (fig.1)

8. Fold the bottom wing tip (the one closest to the ground) over onto the kite. Make the fold at the first strut. (fig.2)

9. Weigh this wing tip down heavily with sand or sand bags. (fig.3)

10. Make sure that the flying lines and bridles are free and will not catch on the struts when you self-launch.

11. Quickly walk back to your bar, walking upwind and staying free of the kite lines.

12. If you are using the ByPass™ Leash, attach it at this time. If you are not using the ByPass™ Leash, proceed directly to Step 13.

13. If you are using the ByPass™ Leash DO NOT hook into your harness loop. If you are not using the ByPass™ Leash, hook into your de-power loop, but be ready to pull the Recon Release System or engage the QRS on your harness loop if necessary,

1

2

3

SELF LAUNCHING *(continued)*

14. 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.

15. This will release the sand or sand bags from the wing tip of the kite. (fig. 1)

16. As you take a few steps backward and steer the kite up into the sky, the kite will fill with wind and begin to rise. (fig. 2)

17. 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 more in control you will be. (fig. 3)

18. Continue to steer the kite into the neutral position–SLOWLY.

19. With the kite in neutral position and the wind at your back, walk slowly to the water's edge, keeping in constant check with the kite. You should know what it is doing at all times.

20. If anything goes wrong with the launch, you should be ready to first utilize the Recon Release System, and second to utilize the QRS.

WARNING: the more wind there is during your launch, the faster everything will happen. That is why it is important that you launch the kite slowly and safely.

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.

TIP: Take special care to avoid packing the Recon Tension Fitting with sand or debris that may affect its normal operation.

LANDING A KITE TO YOUR PARTNER

1. Prior to launching, make sure your partner has been instructed on how to land your kite properly.

2. Also, you should always determine adequate landing spots before you launch your kite.

3. Having done that, make sure that when you are heading toward shore, that your landing location is still safe, un-crowded and un-obstructed.

4. 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.

5. As you approach shore, keep your kite low near the water, at the edge of the power window.

6. Drop down (or step) off your board and body drag the final distance to shore. Do not approach the shoreline with speed.

7. Slowly steer your kite into the wind and to your partner.

8. Your partner should be on the windward side of your kite as he/she approaches it.

9. Once the kite is nearly touching the ground, your partner should grab the kite at the middle of the leading edge strut. He/she should grab the kite in the same location on the kite as when it was launched.

10. Your partner SHOULD NOT grab the kite bridles or flying lines.

11. Your partner should AVOID grabbing the kite by either wing tip or the trailing edge of the kite. Grabbing the kite by the wing tip or the trailing edge will often cause it to flip or spin; the kite will also be hard to manage.

12. Once your partner has the kite's leading edge, he/she should walk the kite away from the water's edge.

13. Your partner may either continue to hold the kite or he/she may secure the kite by turning it over, with the struts down and the leading edge pointed into the wind, and securing it with sand or sand bags.

14. Once on land, with your kite secured, you may wind up your lines.

STEERING, LAUNCHING AND LANDING

RE-LAUNCHING

Important Note

Proper inflation of the struts, especially the leading edge, is imperative for water re-launchability of your kite. Make sure your kite struts are properly inflated before entering the water.

1. When your kite goes down on the water, know that the kite may re-launch on its own, often when you do not expect it to, so be prepared.

2. If your kite goes down on its face, with the leading edge and struts facing the water, you must steer the kite onto its side.

3. Attached to each of your back (steering) leader lines you will find Re-launch Assistance Ball Grips that will assist you in re-launching your kite.

4. Reach up on one of the back leader lines and pull the ball and leader line toward your body. Pull sharply to disengage the Recon Bullet from the Recon Tension Fitting (RTF). Maintain constant tension on this leader line. NOTE: Make sure not to wrap the leader line around your hand or to allow your body to get entangled in it.

5. Once the bullet is disengaged, the trailing edge of the kite will then contract, and the kite will soon roll onto its side.

6. Once on its side, the kite will begin to move toward the edge of the wind window. You may have to finesse the kite to the edge of the window; to do this continue to hold onto the same leader line until the kite wants to re-launch.

7. Sometimes, especially in light wind, you must be patient as the kite works its way to the edge of the wind window. Do not get impatient and start pulling on both sides of the bar. This only confuses the kite. Continue to work the kite to the original side you chose.

8. When the kite is ready to re-launch, release the leader line and steer the kite up into the sky. Slowly steer your kite into neutral position and level out your bar.

9. Once you begin riding again, tension on your flying lines will reset the Recon Bullet into place in the RTF on the wingtip of the kite.

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.

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.

REPARING 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 internal bladder. (fig.1)

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.2)

7. Inflate the bladder and plug the valve so that it maintains air. Do not over inflate the bladder.

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.3)

11. Dry and clean the rest of the bladder with a soft towel.

12. Again, deflate the bladder.

REPARING 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 back into the sleeve.

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, followed by the rest of the bladder, into the sleeve.

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.4)

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.

4

REPARING LEADING EDGE BLADDERS

1. First, lay the kite out with the struts facing up.

2. You will find zipper closures at both ends of the Leading Edge (LE) and also in the center of the LE. Unzip all three. This will open up the sleeve of the strut and will allow you access to the bladder. (fig.1,2)

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.3,4,5)

4. Next, on the standard valve, 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.

5. 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.6)

6. Next, gently push the valve down into the strut sleeve.

7. Now, access the leading edge bladder through the zippered access pocket near the leading edge valve. (fig.7)

8. 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.

9. Inflate the bladder and plug both valves so that it maintains air. Do not over inflate the bladder.

10. 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.

11. Once you have located the leak, dry the area and mark the hole with a circle. A permanent marker works best for this. (fig.8)

REPARING LEADING EDGE BLADDERS *(continued)*

12. Dry and clean the rest of the bladder with a soft towel.

13. Again, deflate the bladder.

14. Decide whether to use the glue or a patch supplied in your bladder repair kit.

15. If the hole is on a seam, you will need to glue the area.

16. 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.

17. Set the bladder aside for approximately 20 minutes to dry.

18. Again, inflate the bladder and check to make sure it is now holding air.

19. Deflate once again.

20. Tie each flying line to the corresponding ends of the bladder.

21. Lay the bladder flat near the center access pocket and fold it, accordion style, so that you may feed each end back into the sleeve.

22. Starting with one end, feed the bladder into the access pocket.

23. 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.

24. 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.

25. Since the zipper access pockets are not at the very ends of the LE strut, you will have to tuck the ends of the bladder into the corresponding tips. (fig.1)

26. Once the bladder is replaced, pull the valve back into the hole of the sleeve. (fig.2)

27. Next, place the standard valve back into position and replace the valve plug in the Velcro. (fig.3)

28. Making sure not to catch the internal bladder in the zippers, close all three zipper pockets.

29. Re-attach the Airlock Valve Assembly.

30. Inflate the Leading Edge partially to make sure the bladder fits into all four corners of the sleeve.

31. Inflate the Leading Edge entirely or deflate it if you are going to store the kite.

IMPORTANT INFORMATION

BEACH ETIQUETTE

Here are some basic things to consider when sharing beaches and water accesses with other users:

SAFETY

- Follow the safety instructions outlined in this manual.
- Follow the safety instructions and rules and regulations posted at the beaches you use.
- Check with local kiteboarding associations or shops prior to launching in a new area. There may be local rules and regulations to follow which are not posted.
- 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.
- Always secure your kite with sand or sand bags. An unmanned kite is dangerous.
- Never leave an inflated kite unattended. Winds may shift and cause the kite to become unsecured and fly off.

SETTING UP

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

IMPORTANT INFORMATION

KITE CARE

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

PREPARING FOR YOUR SESSION

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

- Do not rig on asphalt, cement, gravel, or other abrasive surfaces; doing so may damage your equipment. It is best to rig on sand or grass. Damage done to your equipment by rigging on abrasive surfaces will not be covered under warranty.

- Do not rig among sharp objects that could tear the canopy or puncture the struts and leading edge bladder.

- Take care not to expose your Recon System or flying lines to sharp objects that may wear through them.

- While setting up, secure your kite with sand or sand bags. Do not secure your kite with rocks or other sharp or abrasive objects that may damage your kite.

BETWEEN SESSIONS

- Never leave an inflated kite unattended on the beach for a long period of time. Winds may shift or change and the kite may become unsecured and fly off.

- 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 or tangle the Recon System. If you must leave the kite exposed to the wind on the beach, place sufficient amounts of sand between each strut and near the trailing edge to minimize or stop the fluttering.

- Make sure the Recon "Bullet" is reset in the Recon Tension Fitting when the kite is not in use.

- Do not leave your kite exposed to sunlight for long periods of time. Between sessions, choose a shaded area to secure your kite. When not in use, stow away.

IMPORTANT INFORMATION

KITE CARE *(continued)*

PROPER STORAGE

- It is recommended to wash your kite with fresh water and dry thoroughly before rolling and storing.

- Do not roll up kite when wet.

- Clear the kite of sand or other foreign objects before stowing.

- Once it is clean and dry, stow your kite in the supplied bag in a clean, dry, cool place.

- Do not place heavy objects on the bag containing the kite because the carbon rods may be damaged.

- Do not leave your kite inflated in your car or car rack box; exposing the kite to extreme temperatures while inflated may damage the internal bladders.

- 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.

- Once it is clean and dry, stow your control bar in the supplied bag in a clean, dry, cool place.

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.

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.

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).

RECON SECURITY LEASH & RE-LAUNCH SYSTEM – Cabrinha's patented system that is fully integrated into the 2004 kites. Both a unique security leash and a re-launch system, the Recon allows the rider to im-mediately turn off the power of the kite by activating the Recon quick release. It also assists in quicker re-launching

QRS-QUICK RELEASE SAFETY – connection points on the control systems that the pilot may 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.

FANGS – Metal teeth that engage and disengage the de-power loop on the Powerlock Control System.

BRIDLES – the lines that hang from the wing tips of the kite. The flying lines will be attached from the control bar to these bridle lines in order to connect control bar to kite.

LEADER LINES – The lines that attach directly to the control bar. You will attach these lines to the flying lines in order to connect them to your bar.

KITEBOARDING TERMINOLOGY *(continued)*

RE-LAUNCH ASSISTANCE BALL GRIPS – The plastic ball found on each of the two steering leader lines. The ball assists you in getting a better grip on your leader line when re-launching your kite.

FLYING LINES – a term used to describe all four of the lines included with your kite package. These lines connect the bridle lines on the kite to the leader lines on the control bar and are typically 20-30 meters in length.

STEERING LINES – the two outside flying lines that attach to the trailing edge bridles on the kite—one to the left wing tip and the other to the right wing tip.

DE-POWER LINES – the two center flying lines that attach to the leading edge bridles on the kite—one to the left wing tip, the other to the right wing tip. These lines assist in de-powering 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 used to describe the sport of power kiting on water.

NEUTRAL POSITION – This is the position just above the rider's head in the sky. If the rider 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 rider, 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.

KITEBOARDING TERMINOLOGY *(continued)*

NEUTRAL ZONE – This is the area that includes the neutral position and the area to the left and right of the rider. 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.

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 while in the water, but without the board. The pilot will launch, then walk to the water, and basically drag in the water while practicing flying, re-launching and self-rescue techniques.

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.

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

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

KITEBOARDING TERMINOLOGY *(continued)*

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

SIDESHORE – wind is blowing from the left or from the right, parallel to the shore. Ideal wind direction for kiteboarding.

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

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

GUSTY WIND – wind is inconsistent and varies considerably from one wind 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).

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:

• Costs of return shipments to Cabrinha.

• 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.

• 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;

• Damage caused by anything other than defects in materials or workmanship.

• This Product when being used in commercial, rental, teaching or instructional programs or activities, or in competition of any kind.

• This Product when being classified as second-hand.

• Consequential and incidental damages or expenses, including damages to property or for personal injury; and

• Damage caused by any use of this Product as a toy.

• Normal wear and tear, including scratches and fading.

• Damage caused by the use of this Product in waves or shore break.

• Damage caused by the over-inflation of the bladders.

• Normal wear and tear, including scratches, punctures, rigging with components other than Cabrinha components.

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. (for a complete list of distributors, visit www.CabrinhaKites.com)

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.