

Trim Guide 2002

TRIM

Like a Formula 1 racing car, or a musical instrument, tuning your equipment is critical to performance. Your sail has printed info regarding mast and boom lengths and the recommended mast.

SAIL TRIM

The recommended mast is your best choice to optimize windsurfing performance. Trim begins with the right mast and noting the recommended mast and boom lengths. Sail trim has three primary variables: downhaul, mast and outhaul.



DOWNHAUL

Downhaul tension is of critical importance to rig trim. All rigs respond favorably to increased downhaul tension for high-wind sailing.

For strong winds it pays to be radical: more downhaul tension equals easier handling and greater speed in strong winds.

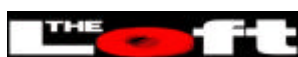
An 8:1 hook system is recommended for easy application of strong downhaul tension; critical to strong wind performance.

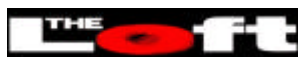
When overpowered, tension the downhaul. High tension makes the sail's leech (rear edge) open and free, releasing power from the top of the sail, making the rig easier to handle and increasing speed. Greater downhaul tension flattens the body and the sail's leading edge. Be aggressive with downhaul tension as the wind rises.

Sails from The Loft, as well as most other well-designed sails are built to accept high downhaul tension. Maxed downhaul tension will make the leech soft from the head all the way down to the boom, which is the correct trim should you find that the sail too sail large for the wind strength.

Should the wind drop, or should your sail be small for the wind strength, less downhaul tension will firm up the leech and make the sail body fuller. This reduced trim generates greater low-end power.

As soon as the winds are sufficient for easy planing you should experiment with more downhaul tension. The adjustment range between ideal low wind trim and ideal high wind trim may be as much as 4cm.





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MAST

Masts influence rig performance. It is best to use a recommended mast for the sail. If a softer mast is used, the rig becomes more flexible, the handling becomes easier in high winds, and the rig is easier to close down on the board ("closing the gap")

In strong winds a stiffer mast will have the opposite effect; the rig will become more difficult to close in the upper wind range, will go upwind more efficiently and become more light wind oriented.

OUTHHAUL

Reduced outhaul makes the sail deeper in profile, generating greater power for light winds.

Greater outhaul tension flattens the sail profile, making the sail much easier to handle and faster in medium and strong winds. Flatter trim allows the sail to pass more easily through the wind. The range between ideal strong and light wind trims may be up to 3cm.

RIG TRIM

Optimizing rig trim involves more than outhaul and downhaul sail adjustments. The boom height, the mastfoot position and the harness lines also influence performance.

BOOM HEIGHT

A low boom will make initiation of planing difficult. An overly high boom promotes early tail walking and makes maneuvers difficult; A good position to begin is chest/shoulder level.

If there is too little wind for the sail size being used, the boom is best raised to assist in the initiation of planing. A higher boom places more of the windsurfer's weight onto the rig, and less on the board. Consequently, the board has a greater capacity to lift and plane.

If the wind is strong for the sail size, lowering the boom will give the windsurfer greater control. With a lower boom position, the rider's weight becomes more board oriented, increasing board control in rough conditions.

Generally, if you feel overpowered, try more downhaul, more outhaul, a lower boom and the mastfoot further forward.

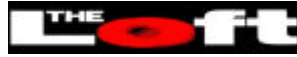
If you want to trim for more power, free the downhaul 1 or 2cm, free the boom 1 or 2cm, and raise the boom a few centimeters and move the mastfoot back.

HARNESS LINES

Harness lines are your power transfer, so their position and length will affect rig performance. The harness lines bear the driving power from the rig, allowing the windsurfer to be free! Finding the right position for the harness lines on the boom is a question of balance.

Windsurfers who are starting out with the harness tend to place the lines too far forward to reduce the likelihood of being catapulted. Lines too far forward will limit speed, keeping the sailor too far forward on the board.





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If the harness lines are too far forward, the back arm becomes fatigued. If the lines are too far back, the forward arm becomes fatigued.

Try sailing with no hands! If the lines are in the correct position, you will be able to sail for some moments with no hands!

If you reach for the boom first with your backhand, the lines should be moved back. If you reach for the boom first with the front hand, the lines should be moved forward.

Lines that are placed further apart will give the windsurfer a feeling of greater stability. Wide lines (30cm+) comfortably channel the sail's power and are generally better suited to beginning windsurfers.

Narrow harness lines (18cm and less) transfer power to the sailor more directly and more critically. As the harness lines are placed closer together on the boom, they make rig trim more critical relative to the power center. Racers tend to have narrow harness line placement.

Harness line length also influences performance. 28 to 30 cm from the harness lines center to the boom is a good average harness line length.

Short lines limit speed potential. Bodyweight is the power generator. If the bodyweight is too close to the rig then maximum power is unavailable.

Overly short lines (less than 25cm max from boom) limit the reaction time as the windsurfer encounters changing wind and sea conditions.

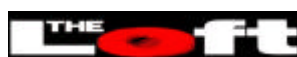
Overly long lines (more than 32 cm) may cause arm fatigue and rather wet windsurfing as the sailor makes frequent contact with the water.

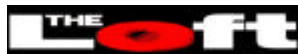
A loose fitting harness affects negatively harness function and windsurfing performance. Keep your harness tight!

BATTEN TENSION

Batten tension is simple! Tension the battens until the sail becomes visibly taught. Many windsurfers overlook batten tension. Full batten tension makes the rig more stable as well as removing wrinkles from the sail.

Cammed battens may need special care as over tensioning cammed battens may result in hard sail rotation.





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BOARD TRIM

The board has three trim variables, footstraps, fins and mastfoot position.

FOOTSTRAP POSITION

Footstrap position determines the sailor's stance on the board, and therefore the board's attitude in the water. Generally, a wide stance is control and maneuver oriented. For rough water straps placed farther apart will result in more control over both the board and the lift of the fin.

On flat water, both footstraps may be best located further back. Rear footstrap positions allow the windsurfer to fly more on the fin with less board in the water for greater speed potential.

FINS

Deeper, bigger fins are well suited for light winds as they generate greater lift at lower speeds. As the wind rises shorter fins will make the board easier to handle.

The fin's angle to the bottom of the board will also affect performance. Vertical fins will make the board fly; better for lighter winds. Swept back fins will make the board easier to control in stronger winds.

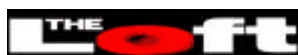
MASTFOOT POSITION

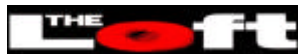
The mastfoot is where the power and the ride meet so position is critical!

Forward placement increases board control by taking the sailor's weight forward, more onto the board, controlling the fin.

Rear positions are more speed oriented as the sailor's weight allows the fin greater ability to lift. With more of the board out of the water speed potential is increased.

Experience the new sensations resulting from trim alternatives, and you will expand your windsurfing performance!.





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TROUBLESHOOTING

Windsurfing is a wonderful feeling of balance. Should you feel unbalanced, try one or more of the solutions listed. One of the solutions, or a combination of them may bring balance for you!

The board has the tendency to turn into the wind.

Try the mastfoot further forward, the harness lines further back, the footstraps further forward.

The board has the tendency to turn downwind.

Try the mastfoot farther back, a higher boom, the harness lines further forward, a bigger fin, and the footstraps farther back.

The rig tries to catapult the sailor.

Try more downhaul, the harness lines farther forward and farther apart, a smaller sail, more outhaul, and a softer mast.

Slow, stuck to the water feeling.

Try the mastfoot farther back, the boom higher, more downhaul, the harness lines farther back and closer together, a bigger fin, the footstraps farther back, a bigger sail, a stiffer mast.

Difficulty to get planning.

Try the boom higher, mastfoot farther back, bigger fin, bigger sail, harness lines back, less outhaul, footstraps farther back, a stiffer mast.

The board stands on the tail in strong winds (tailwalking).

Try more downhaul, more outhaul, mastfoot farther forward, a smaller fin, the footstraps farther forward, a softer mast.

The board spins out easily.

Try more downhaul, more outhaul, straps further forward, a bigger fin, mastfoot further back, a softer mast.

Difficulty closing the sail down onto the board.

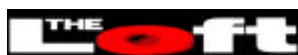
Try more downhaul, the mastfoot further forward, a smaller fin, a softer mast, the footstraps farther back, the harness lines farther back, a smaller sail.

The board bounces in chop and when starting to gybe.

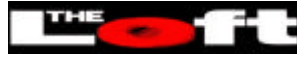
Try the mastfoot farther forward, the boom lower, more downhaul, a smaller fin, the footstraps farther forward, a smaller sail.

Optimizing trim for high performance windsurfing is a learning process which has no limits!. Improvements in one area will compliment trim improvements in other areas. Performance can always be expanded as new trim configurations are experienced. Maximizing trim is the cutting edge of windsurfing. Windsurfing is the most efficient, purest sailing form. Windsurfing is a never ending source of new sensations... we fly!.

The Loft



www.loftsails.com



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Trim... setting your sail from The Loft for maximum windsurfing performance...

Downhaul

An 8:1 downhaul/hook system is necessary to easily apply the tension that turns on the Lip and O2. The correct downhaul tension may be more than you expect!

The mast length printed on the sail, on the sail bag, and on this card identifies the lengths needed for high wind trim including tack hook (recommended).

The first time rigging for medium winds, 2 to 3 cm less downhaul from the printed measurements will be ideal.

Outhaul

The O2 and Lip are trim sensitive. They trim with more outhaul tension than you might expect.

For medium winds (relative to sail size) the printed measurements will make the Lip and O2 easy and fast. Reduce by one or two centimetres for light winds. Should your 2002 sail touch the boom when windsurfing, more outhaul tension is needed!.

The performance you can get from any sail is determined in large measure by the trim and the sailing conditions. To get **IT ALL** from The Loft 2002, follow the measurements printed on the sail and in this guide when rigging!.

Additional tips . . .

The O2 and Lip leech is well released when correctly trimmed for most sailing conditions.

High wind trim includes leech release evidence down to the boom even with full outhaul tension.

MASTS

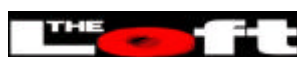
The Lip and O2 work best on constant curve masts. Please use recommended masts for best results. Non-spec masts can be used: stiffer masts will make the rig plane early and fast upwind. Softer masts will make the Lip and O2 easy and fast in strong winds.

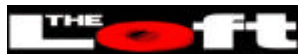
BATTENS

The battens arrive to you lightly pretensioned. Please check that all battens are under firm tension before windsurfing. Tensioning key located on the sail at the tack handle.

SENSITIP

The Sensitip batten is in place when you receive the sail. For inspection, look into the opening on the right side of the mast pocket top (no mast). Take the Sensitip batten from the envelope keeper and pull out for inspection. To insert, (no mast) place the Sensitip down into the mast pocket, then fully up into the Sensitip pocket (the entrance into the Sensitip pocket can be seen through the small window in the mast pocket top). Then place the bottom end of the Sensitip into the envelope keeper and secure Velcro closure.





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Correct outhaul and downhaul trim as recommended make the 2002 sails from The Loft feel light, easy and fast. *Enjoy.*

The Loft

Tarifa
January 2002

