



One Design

For any question you may have on tuning your CFJ for speed, contact our CFJ expert listed below:

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**CFJ
Tuning Guide**

NORTH SAILS

Congratulations on your purchase of North CFJ sails. We are confident you will find superior speed over all conditions. Our new CFJ sails are designed to be fast, easy to trim as well as quite durable.

The following measurements are those we have found to be the fastest for your new North sails. We urge you to set your boat to these specifications when tuning your boat. This will help you achieve consistency in boat speed, and will serve as a basis for future tuning. If you have any questions or problems or are not able to get your boat to match up these specs, please feel free to contact our CFJ experts.

Good luck and good sailing!

Onshore Adjustments

STEP 1

Before stepping the mast, check the length of the spreaders. Measure your spreaders from the point where the shroud runs through the tip to where the spreader butts up against the side of the mast. This measurement should be 16 1/2 - 17 1/2 inches.

STEP 2

Check the butt position of the mast. This is measured from the centerboard pin to the back of the mast extrusion itself and should be 18 - 18 1/2 inches.

STEP 3

Step the mast and attach the forestay to the stem plate in the 2nds hole back.

STEP 4

Attach the shrouds in their respective chainplates so the rig is just snug.

STEP 5

Hoist a tape measure on the main halyard and measure back to the top of the transom at the back of the boat. With the rig leaning back on the forestay and the shrouds snug, this measurement should be approximately 19'4" to 19'6".

STEP 6

With the tape measure still attached to the main halyard and the shrouds taught, check the lateral straightness of the mast by measuring down to the rails on opposite sides directly across from the chainplate. If the difference is more than 5/8", readjust your shrouds accordingly.

STEP 7

Hoist your jib and tension the halyard until the measurement at the transom becomes 19'11". Basically, we are inducing 6-7 inches of "rig-tension" into the boat. The rig should be quite tight and tight enough so that when you are sailing in winds up to 12 mph the leeward shroud remain snug. Only in winds above 12 mph should the leeward shroud begin to go slack.

This rake measurement and rig tension are important for boat balance, mastbend, and jib luff sag. The rig tension helps control the mast bend correctly as well as minimize luff sag in the jib. These two functions will effectively control the shape of the sails so there will be very few adjustments needed to trim your North sails for top speed. The rake measurement

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and mast butt position have been selected for proper helm balance and jib lead position.

Sail Adjustments

MAIN CUNNINGHAM

For the main halyard/cunningham it is best to leave a hint of horizontal wrinkles from the luff of your main nearly all times. In a breeze when the boat is overpowered, you may tension the main halyard and/or the cunningham to just barely remove all wrinkles and have the luff be quite smooth.

OUTHHAUL

In light winds it is best to pull the outhaul tight enough so there is a hint of a horizontal crease in the foot of the main parallel to the boom. In medium winds (above 5 mph), pull the outhaul tighter so that the crease is apparent. In heavier winds (above 12 mph), pull the outhaul very tight so that there is a hard crease in the main just above the boom.

JIB SHEET TRIM

Unfortunately, there is no easy guide for jib trim. We are looking for a parallel slot between the exit of the jib and the entry of the main. A guide that has been used is to imagine a batten on the jib at mid leech. The "batten" is usually set parallel to the center line of the boat, making the upper batten of the jib twist outboard slightly and the lower batten twist inboard slightly. It seems that 90% of the time boatspeed problems are due to a faulty jib sheet trim. Much of the faulty trim is caused by an undertrimmed jib.

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JIB LEAD PLACEMENT

Your North CFJ jib is designed so that the lead should be placed close to the center of the track when the boat is tuned with proper rake. To fine tune this position, luff the boat slowly into the wind with the jib properly trimmed, as above, and note how the jib luff breaks. If the jib luff breaks higher first, move the jib lead forward until the break is nearly even. If the jib breaks lower first, move the jib lead aft, again until the break is even. The "break even" luff position for your jib is proper for all wind and sea conditions until it is blowing over 10-12 mph. At this point, or when the boat is overpowered, move the jib lead progressively aft until a maximum aft position of 2" aft of the "break even" position is achieved. At this point the jib will be breaking earlier, higher as the boat is luffed up into the wind.

MAINSHEET TRIM AND BOOMVANG

The mainsheet should be pulled tight enough so that the last 18" of the upper batten becomes parallel to the boom on a lateral plane. This is sighted from underneath the boom looking up the sail and lining up the batten and the boom on that plane. In light winds it is impossible to keep the upper batten from hooking slightly to windward because of the weight of the boom hanging on the leech of the sail. In choppy conditions, or after a tack, ease the mainsheet approximately 6 inches to help open the upper batten slightly past parallel to the boom.

When the boat becomes overpowered, the boomvang is used to hold the boom down and keep the upper batten parallel to the

boom. It also induces a great amount of mast bend and will help to flatten out the sail. At this point, the mainsheet can be eased so that the boom will move to leeward and depower the boat. The heavier the winds, the heavier the boomvang tension.

Downwind the vang should be trimmed enough to keep the boom down and the leech set with the upper batten parallel to the boom. There is a telltale placed on the upper batten on your North mainsail which should flow straight off the leech when the boomvang is set properly downwind.

Your North CFJ spinnaker should be set so that there is 5-8 inches of curl in the luff of the spinnaker at all times. Try to avoid over trimming the spinnaker and closing the slot between the main and the chute. The halyard should be off the mast approximately 5 inches at all times, and the pole set so that the two ends are parallel to the deck. If the spinnaker breaks high first, check that the pole is not too high, and if the spinnaker breaks low first, be sure that the pole is not too low.

We wish you good luck and fast sailing!

Sail Care

Your North Sails are constructed out of the best materials on the market today. We make sure of this by testing every roll of cloth we use. Through proper care and maintenance your sails will give you the performance you have come to expect from a North sail.

The most important factor for a long life for your sails is to watch them for signs of wear and tear in high load and chafe areas. Be sure to wash the sails off with fresh water and dry the sails thoroughly before storing. A dry, mild climate is best. Excessive heat can cause problems with the sails due to the possibility of shrinkage. It is best to roll the mainsail and jib.

MAINSAIL

When hoisting and lowering the sail try to minimize the amount of creasing or wrinkling of the sail. Every time the sail gains a crease the cloth breaks down that much faster. Always have someone contain the leech and luff during these procedures.

The battens can be left in the sail without any problems. Be sure to roll the sail down the leech so that the battens will not twist. This could cause damage to the battens.

JIB

When rolling the jib keep the battens perpendicular to the leech. Pay special attention to the battens and batten pockets for wear and tear.

SPINNAKER

The spinnaker is fairly straightforward. Be sure to repair all tears and pulled stitches. Folding the sail when storing is best.

At North Sails we are constantly striving to make our products better. If you have any comments on this tuning guide and how it could be improved for your purposes we'd love to hear from you. Please give us a call or drop us a line.

Contact North Sails

For tuning information and complete details on how to setup your CFJ sails contact the North CFJ experts listed on the cover of this guide,

NORTH SAILS ONE DESIGN QUALITY CONTROL CHECK

CFJ

MAINSAIL		JIB		SPINNAKER	
Corners		Corners		Corners	
Cunningham		Telltails		Numbers	
Numbers		Wire		North Logo	
Battens		North Logo		Bag	
Leech Telltails		Bag			
Insignia					
North Logo					
Bag					

Checked by: _____

Date: ____ / ____ / ____