



## General Sail Maintenance

Please take extra care to keep your sail out of the sun when at rest or in storage. When the sun penetrates the film at ninety degrees to the surface, it's the most damaging, especially with long hours of exposure. The use of a rig cover will prevent degradation.

- If you want to clean your sail, use fresh water and mild soap. Do not use harsh solvents or abrasive cleaners.
- Never sail with small holes or tears in the film portion, since this can easily enlarge the damage.
- Store your sail in the bag, clean and dry, rolled tightly. Try not to crush or crease it.
- For long-term storage, remove the tension on the battens.

## Important Details



### Batten Tension System

Correct batten tension is applied by using the stainless steel Allen key supplied in the mesh pouch in the tack fairing. The screw should be tightened clockwise to remove wrinkles in the pockets. Use sufficient batten

tension to have the smoothest sail under load. Tighten as necessary every time you sail. For travel or long-term storage it's recommended that tension be eased.

### Removal and replacement of battens

1. Release tension with counter-clockwise turns of the tool.
2. Slip string off the tensioner.
3. Remove batten and tensioner.

### To reinstall battens

1. Insert batten with tensioner on and the screw in flush with the inside of the string groove. Push the batten in as far as possible with the string groove on the bottom next to the sail.
2. Slip the string up into the tensioner groove and tighten the screw to restore normal batten tension.

### Uphaul Access hole

There is a small opening on the front of the sleeve near the tack of the sail to insert your uphaul attachment. The tensioner key is stored in a mesh pouch inside the fairing. This is also good for containing the tail of your downhaul rope.



### Adjustable head system.

This is provided to allow the use of longer than recommended masts. When using the mast of the correct length pull the tip plug as low into the sail as possible. To adjust the sail for a longer mast, set the webbing very long and work the correct length down until you have the correct downhaul and the pulley is block to block at the bottom of the extension. You may need to go back up to the head and make small adjustments to get it right.

### ! Recommended mast

MauiSails' testing and development has been done using the MauiSails SRS Carbon masts. To get the most out of your new sail, you should use one of these masts. Other masts with similar diameters and bends will give acceptable but not necessarily optimum performance.

## 6:1 Tack Pulley Fitting

Rig your pulley according to the instructions. If you take care and get this right you will have the minimum of friction and resistance. If you fail to observe the turning order, you will create crossed leads and added friction.

- 1 You need to have a base cleat with at least 2 pulley's and a cleat. Take your downhaul line from the dead end on your base to the same side of the forward pulley wheel, feeding up. Then feed the rope into the pulley next to the cleat from down to up.

- 2 Feed the rope up to the pulley wheel farthest from the mast (towards the clew of the sail), inserting from the same side, ie up to down. Then feed the rope back down the pulley on the base which is farthest away from the cleat, from up to down. This makes a correct lead with no twist.

- 3 Then go up and over the middle wheel and back into the cleat. You are now ready to apply downhaul tension. With some practice you will get this every time and never have crossed lines.



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## How to read specification box

When rigging your MauiSails you must consider the mast, extension, and boom length you should use. The answer for those questions is printed in the lower part of the sail. Those are recommended settings we found the best to get the correct amount of downhaul and outhaul for the general range of use. Let's go through the parameters of the specification box.



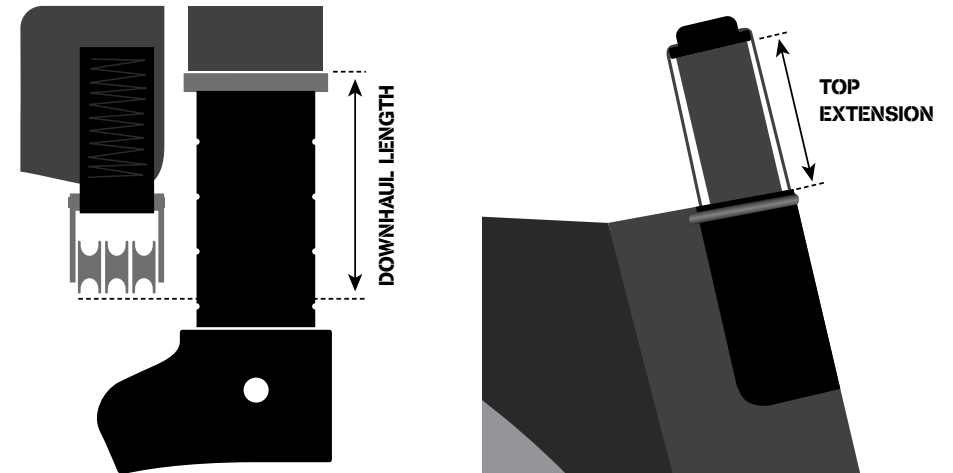
### Mast and IMCS

These are the two main variables that characterize the mast. It tells you how long a mast you should use and IMCS describes its stiffness.

### Luff, Top extension and Downhaul (dh)

These three parameters are dependent on each other and all together indicate how much extension you should use. **Downhaul (dh)** should be measured from the base of the mast to the front lower corner of the tack pulley on the sail using a ruler or tape measure. This is the absolute accuracy of your settings and will help you to achieve fine tuning (see illustration below). The base setting is to make sure you have enough distance to properly tune the sail. **Top extension** parameter is used only in sails with adjustable head (vario top) and equals the distance measured from the top of mast sleeve to tip of mast. The last variable is **luff length**, and this is how it's measured.

$$\text{Luff length} = \text{Mast length} + \text{Downhaul} - \text{Top extension}$$



### Boom

Boom length is the distance from the front of the mast to the edge of the sail at the clew with the boom centered in the cutout. If you set your boom at the highest point, the dimension increases. Likewise if you are at the bottom of the cutout it might be a bit shorter.

In the case where you would use an adjustable outhaul and might want to have extra boom length to flatten the sail, by all means add another few centimeters to cover.

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## Rigging of no cam sails

Observing and practicing correct rigging procedure will help you get on the water with the minimum of hassle and the least amount of wear and tear on your whole rig.



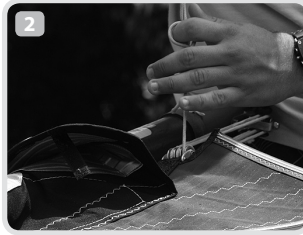
Get all your gear together and make sure all parts are in good shape with no visible damage.

Find a clean soft area, preferably grass, and **unroll the sail** with the head downwind to prevent flogging.

**Fix the mast base** at the recommended settings based on the specifications listed on the sail bag or in the lower tack section of the sail.



Using the allen key tool supplied with the sail, **tension all the battens** as necessary to remove all wrinkles.



Make sure your 2-piece mast is fully connected at the joint.

**Insert the mast** from the bottom of the sail and continue working the mast into the sleeve. Check that the mast is fully inserted to the top of the sail.

**Attach the downhaul** to the sail and apply medium tension (until the pulley is 8-10cm from the bottom of the extension).



Stand the rig up and make sure you have the boom at the correct height and it's rigged correctly.



**Fit the boom** onto desired position on the mast.

**Downhaul the sail** to maximum tension, always looking up at the leech for the correct looseness.

**Attach the outhaul and the pull it** for the desired shape and power needed in the sail. This may be adjusted again after taking a few runs on the water and testing the wind conditions.



If you notice on the water that you are overpowered or underpowered get back to shore and modify downhaul and outhaul settings.

## No cam sail tuning tips

- Sails that are under-tensioned will feel sluggish and heavy. The balance will be poor, and the power will feel high up in the rig. If you have too much tension, you will have very little power, and it will be hard to get upwind.
- A properly tuned sail on the correct mast will be loose along the entire leech, becoming progressively looser as you move up the sail.
- If you have trouble controlling the board, and can't maintain your desired course or are spinning out, try more downhaul. If there is still too much pressure on your back hand, try more outhaul.
- If you can't get any drive upwind and the board won't track or lift, try less downhaul, or more outhaul.

- If you get pulled over the front, try more downhaul.
- Always remember that your fin is an important component of board trim and that it should be related correctly in size to the sail you use. A fin that is the wrong size will hurt the performance of your sail.
- Harness lines should be set so there is equal pressure on both hands and you can let go of your rig and the sail will stay upright for a few seconds.
- Use shorter harness lines for lighter wind and flatter water. Longer lines work well for being overpowered and in choppy conditions.
- Most of all, pay attention to your fellow sailors, respect the locals and the environment, and have fun.

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## Rigging the Titan sail

Observing and practicing correct rigging procedure will help you get on the water with the minimum of hassle and the least amount of wear and tear on your rig.

First, get all your gear together and make sure all parts are in good shape with no visible damage. Check the pins and fastenings on your mast base and universal. Check the mast for obvious dings or cracks. As an additional preparation, it is also a good idea to coat the top section of the mast with a good dry lubricant, avoiding the area of the boom attachment. This will eventually get on the inside of the sleeve and will make it much easier to rig your sail.



**Find a clean soft area**, preferably grass, and unroll the sail with the head downwind to prevent flogging.

**Fix the mast base** to the recommended setting. Use the information on the spec box to determine this.

**Insert the mast** into the luff sock and guide it in front of the cambers, so the mast fits between the leading edge of the sail and the cambers. It is necessary to **have the cams on the mast when rigging** the Titan.

Help the luff slide over the mast by pulling down on the luff. Then pull the extra extension against a tree or some obstacle near the base.



Next, connect the boom to the mast. Clamp the boom on and place the sail down gently. Attach the outhaul, and tension as necessary.

**!** The Titan has a 10cm drop foot for better end plate efficiency. You will need to wrap the tack strap around your uni base and tighten moderately. You may use this adjustment to develop extra fullness in the lower sections and slightly increase leech tension.



Continue to feed the sail down the mast. Watch the mast tip as it slides up the sail.

**Do not force the mast up the sail when the tip is pushing against the leading edge of the sail.** The luff curvature is causing the mast to ride hard against the leading edge of the sail. Carefully work the sail down the mast.

As it gets closer to the top, help that part of the sail by pulling it down the mast until the tip of the mast is in the head of the sleeve.

**TIP:** You can help yourself slide the sail towards the base by bracing the inserted extension against a tree or some obstacle such as a post.



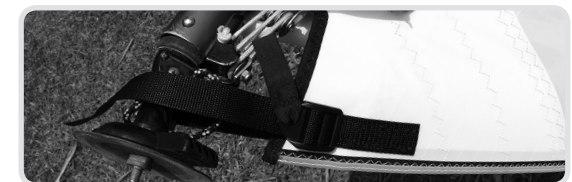
**Tension all the battens.** Pic. 5 - Visible wrinkles. Pic. 6 - Smooth area after tension applied. Using the small tool supplied with the sail, tension all the battens as necessary to remove all wrinkles, by turning the screw adjuster in a clockwise direction.



Once the tip of the mast is fit into the top of the sail, return to the foot, always holding onto the mast. Do not drop the sail on the ground as the battens are turned downward and this can cause serious abrasion to the batten pockets and damage from chafe. Pull the remainder of the sail material down the mast.

Thread the downhaul line following the instructions and downhaul by hand until you feel resistance. It is preferable that you downhaul fully using a crank or lever. This is recommended to prevent damage to your spine.

Place the excess downhaul line inside the pocket in the fairing.



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## Titan sail tuning tips

- Sails that are under-tensioned or under-downhauled will feel sluggish and heavy. The balance will be poor, and the power will feel high up in the rig. If you have too much tension, you will have very little power, and it will be hard to get upwind.
- A properly tuned Titan on the correct mast will be loose along most of the leech, becoming progressively looser as you move up the sail.
- If you have trouble controlling the board, and can't maintain your desired course or are spinning out, try more downhaul. If there is still too much pressure on your back hand, try more outhaul.
- If you can't get any drive upwind and the board won't track or lift, try less downhaul, or more outhaul.
- If you go well downwind but have no power upwind, try a bit less downhaul.
- Always remember that your fin is an important component of board trim and that it should be related correctly in size to the sail you use. A fin that is the wrong size will hurt the performance of your sail.
- If you come back from a session and your arms ache, try moving your harness lines back a bit until the balance is better for handling the sail with less force required.
- Use shorter harness lines for lighter wind and flatter water. Longer lines work well for being overpowered and in choppy conditions.
- An adjustable outhaul is recommended. You will need to adjust the tension for the various course angles, and you can use the outhaul to help you get through gusty periods or when very overpowered. Off the wind, you will need to ease your outhaul to keep power on in low apparent wind, and upwind you will want to trim the sail much flatter to get good angles and speed.
- Think about the ideal feeling of the rig. Draft should be forward, the power low and balanced with a soft feel.
- Most of all, pay attention to your fellow sailors, respect the locals and the environment, and have fun.

## Experiment with Your Tuning



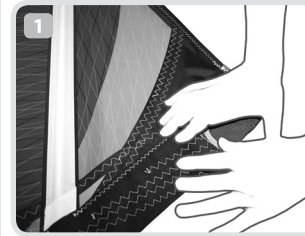
Experiment to find the correct trim setting that works for you and your equipment. Most high performance sails these days trim primarily with downhaul tension which can be tuned together with the outhaul to get the desired power based on your skill level, conditions and body weight.

Looseness of the leech should be at least down to the 3rd batten on an RAF sail.

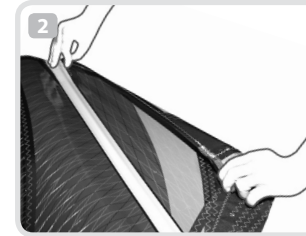
Under-downhauled sails will appear to have many wrinkles in the lower half of the sail and feel heavy and difficult to control.

## Sail rolling tips

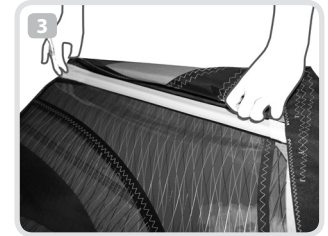
In order to minimize wrinkling in the top sections of your sail we have developed a method of rolling the sail that will help to prevent this.



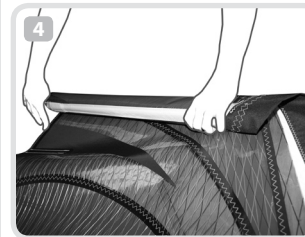
First, **smash the head very flat**. You will feel the webbing inside crush flat. The reason you do this is to make it easier to do the next fold, and to make the head of the sail more compact.



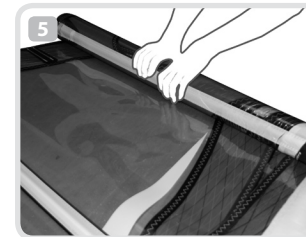
Next you **fold the head piece hard over** until the whole edge of the upper leech is smooth and tight. Use some force and after it gets bent a few times it will be easier. Hold the leech end of the batten to tension the edge against. While the edge is straight like this, start to roll it in.



Now holding the head tight in your left hand, **roll the edge** in and continue to roll the sail around the top batten.



When you have a couple more turns and the roll is completely inside and supported by the batten pocket you can ease off with your left grip and **roll the rest of the sail around itself**.



Now **roll parallel** to the batten pockets down the sail.



Now find the **Tie Me Up** and the button. Hook the Tie Me Up elastic loop over the black button on the tack fairing. Now it's easy to put the sail into the bag. **Start thinking about more wind tomorrow.**

## Ask Barry Spanier...

Don't hesitate to contact the MauiSails team over the forum at [www.mauisails.com/forum](http://www.mauisails.com/forum). What's more, on our website you will find in our "**Frequently Asked Questions**" section, we present answers for questions that our customers have asked us over the years. Check it out. Maybe you will find the solution to your problem too!

## Contact Maui Sails

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