



P Class Tuning Guide 2021

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This guide aims to help you get the maximum speed and performance out of your sail in all conditions.

This tuning guide is specific to the new Orange and Black designed P Class sails by Andrew Lecthe

OUTHAUL

It is important to have an outhaul that functions properly and is easy to use in the breeze when you need it most. We suggest 4:1 purchase inside the boom. The outhaul should be calibrated so you can make small repeatable adjustments when the breeze changes.

Don't ease the foot too much. If you are getting vertical wrinkles off the boom, then you have gone too far. As a basic rule, easing the outhaul will help you point higher, but may make you a little slower sometimes. Tightening the foot will help the boat go forward easier, but over-tightening may hurt your height or power through waves.

The reason for this is when you have the outhaul loose it "rounds" up the leech (gives you height, but is more drag), and when the outhaul is tight, it "straightens" the leech, which is less drag but also less pointing ability.

Use the other boats around you as a guide as to what you should try. While training or before the start, try a few variations so you get the feel for how the outhaul really affects your performance.

MAST RAKE

Here is a simple way to get a starting point for your mast rake. It is important to find a rake that you like and are comfortable with for your sailing style and rig set up. If you need more power try the mast rake for the size up from you (further forward) or if you are over powered and need less power, try the mast rake 1 back from where you are set up. There are a lot of variables that effect balance so playing around with this a little until you have the right rake for you is very important.

All mast rakes are measured from the deck (not mast base) 9ft (2.74m) up the mast. Then measured from the back of the mast (not the sail track) to the middle of the transom at deck level to give the mast rake.

Weight kg	Rakes mm
35-45kg	3205mm
45-50kg	3215mm
50-55kg	3225mm
55+kg	3235mm

RIG TENSION

I like to set up the P-Class with firm stays; if I pulled the mast forward I could just get the forestay shackle on. I used a shackle here so I could repeat settings without the guesswork.

Some people use a loose rig because they believe it helps downwind. I didn't because I believe that downwind is mostly technique. Having a tighter rig will help upwind because the mast will not lean to leeward as much upwind and therefore won't lose as much power. Having a loose rig was brutal in the chop as the rig bounced around too much.

MASTS: CARBON

There are three masts available, all built to suit the skipper's weight.

Green – light

Blue – medium

Red/Black – heavy (Too stiff for anything useful other than a flagpole)

Still remember to bend test the masts just to make sure your mast is what they say it is!

It's important to get a mast that suits your weight and sail. Remember, you can't change anything on your mast to make it not conform to the norm. If you need to change the halyard, for example, check the class rules to make sure your change is going to be legal.

BOOMS

My basic rule of thumb here is to have a boom which is as light and stiff as possible. There are some variations on this rule: if you are very light you can have a bendy end to help the leech respond to gusts and to take some belly out of your sail.

VANG

The Vang is the main control on a P-Class, a big step up from the Opti! In the breeze this will control mast bend and depth of your sail. When you ease your main in a gust you want the boom to go straight out and not up if you are becoming overpowered. Downwind I just set the boat up by looking at the leech of the sail. I try to get a nice amount of leech twist without losing too much power from the head. Another tip here in the breeze would be to ease as much vang as you can without becoming unstable, if you feel too tippy pull a little on. Look at the leech near the sail numbers and check the leech is 'bouncy'. Make sure you have enough purchase on your vang to make it easy to use. 24:1 is a good starting point for this.

CUNNINGHAM

This control pulls the draft and also opens the head of the sail. It does this by twisting the upper leech by bending the mast. This means that you shouldn't use this control until you are overpowered or the draft is aft of 50%. Draft stripes are a useful tool to help determine the draft position of the sail. Again make sure this is easy to use; 6:1 here is a good starting point.

CENTREBOARD

Probably the most underrated control on a P-Class. The centerboard controls speed, height, and most importantly weather helm. I basically have the bottom of the centerboard under where I am sitting, so in the light its all the way forward, in the breeze its all the way back. In extreme breeze you can rake the centerboard back in the case. Downwind I always rake the centerboard back for speed similar to a wing on a jet fighter does when it wants speed.

Controls

All the above controls (Vang, outhaul, Cunningham, mainsheet and centreboard) need to have calibration marks on for a reference when your setting up your boat.

RUDDER

These boats are notorious for weather helm. It's essential to minimise helm by raking the rudder forwards as much as you possibly can. Check the rules or ring me here at work to give you a hand.

Good luck!

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