CONTROL SETUP

WASZP Team

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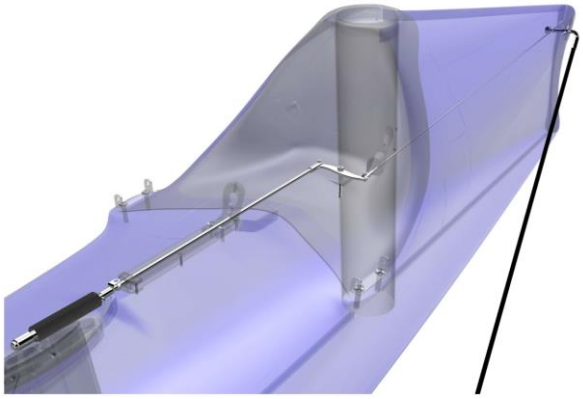
INTRO

This guide will help you tune your WASZP for optimised stability and performance. It will run through a good base setting for the systems that control your flight, as well as touching on a few aspects of sail control and tuning that may seem foreign to you.

Having a well set up boat will make for a much better sailing experience, as well as reducing the likelihood of component failure.

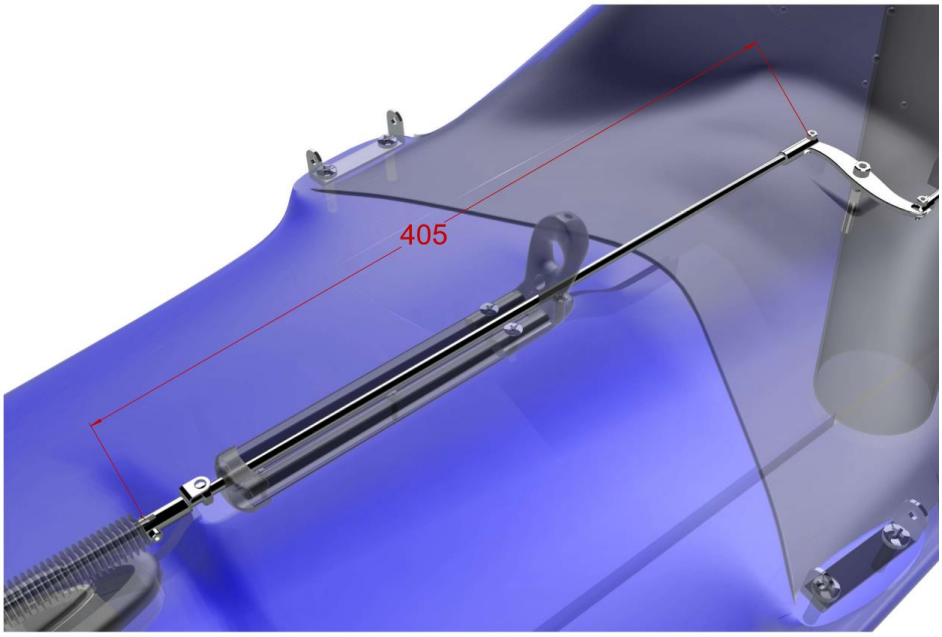
FLIGHT CONTROL SYSTEMS



DECK PUSH ROD

This rod runs from the reversing lever to the front of the ride height adjuster. Its base length is important to your initial setup, and should be locked in place with the lock-nut on the RHA end and Loctite on the lever end. You should check this length during your setup and adjust if necessary. If your boat is behaving poorly or difficult to setup, it is possible that one of the terminals has wound itself out or in, and needs to be corrected.

The optimal length is **405mm** measured from the centre of the two bolts attaching the ride height adjuster and reversing lever.



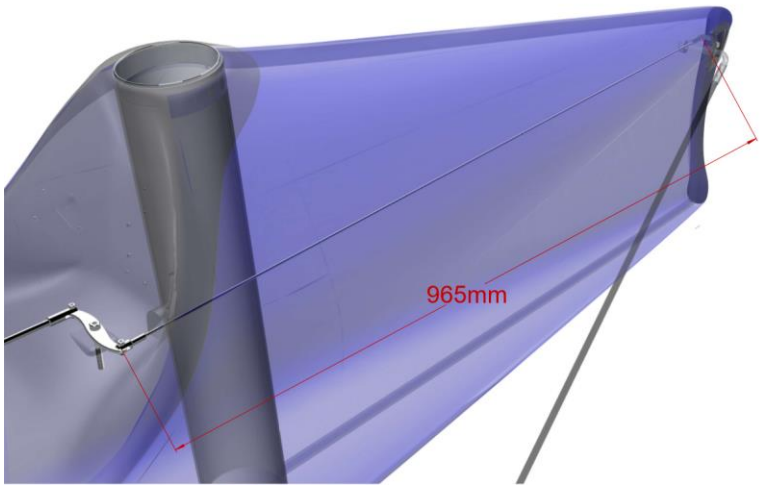
The easiest way to remove the pushrod is to first unload the wand bungee, then detach the ride height adjuster and reversing lever bolts, followed by removing the terminal ends and sliding the pushrod out of the track. **NB:** The pushrod does not need to be removed from the boat completely to change its length.

HULL PULL ROD

The hull pull rod lies between the reversing lever and the wand axle. As it is inside the bow of the boat, it is very difficult to measure its length. I would suggest coming back to this rod if you are having setup problems and removing it from the boat and double checking its overall length. Again, we measure from the centre of the holes in the two terminal ends.

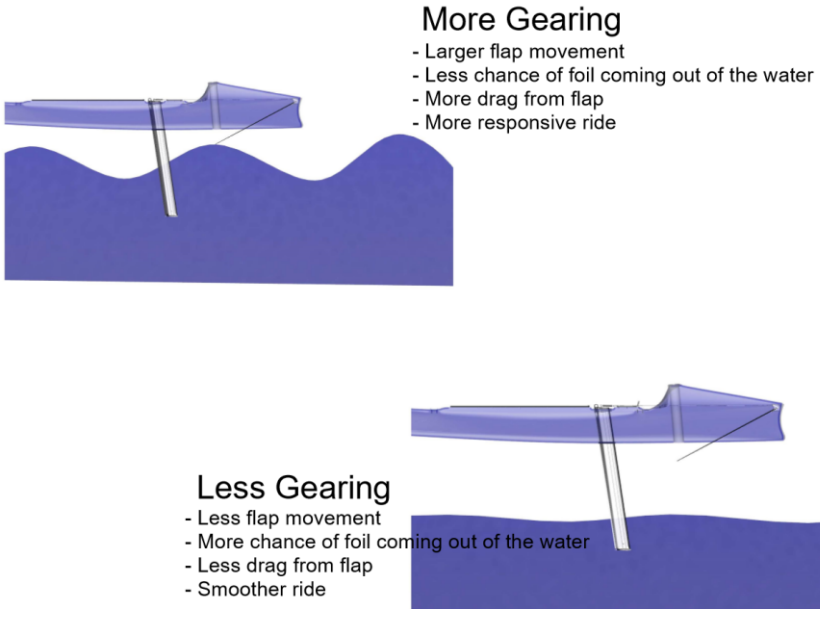
Our recommended length is 965mm.

Putting all of this back together you MUST Loctite all terminal ends and screws.



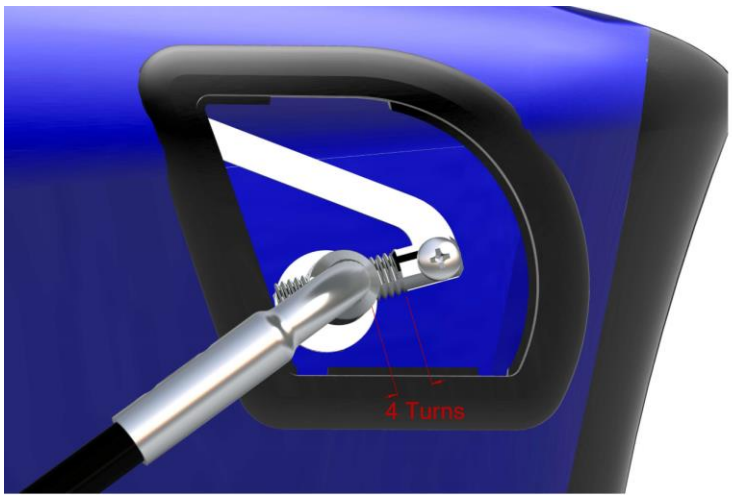
GEARING

The gearing screw is located inside the bonnet on the bow of your WASZP. The length of this screw changes the ratio of the amount of foil flap movement to the wand movement. If the screw is longer, the flap will move more, and vice versa. When you are sailing in larger waves, you will require more flap movement to allow the boat to remain at constant height above the waves. In flat water, you can have less flap movement to stay at constant height above the water. The less flap movement you can use to stay as high as possible above the water the faster you will go.



We have found that in capable hands the boats tend to work quite well with little to no gearing at all (ie. gearing screw screwed in almost all the way). For flat water our recommendation is to wind the screw all the way in and then 3 full turns out. In medium to large waves, we recommend winding all the way in, and then 6-8 turns out.

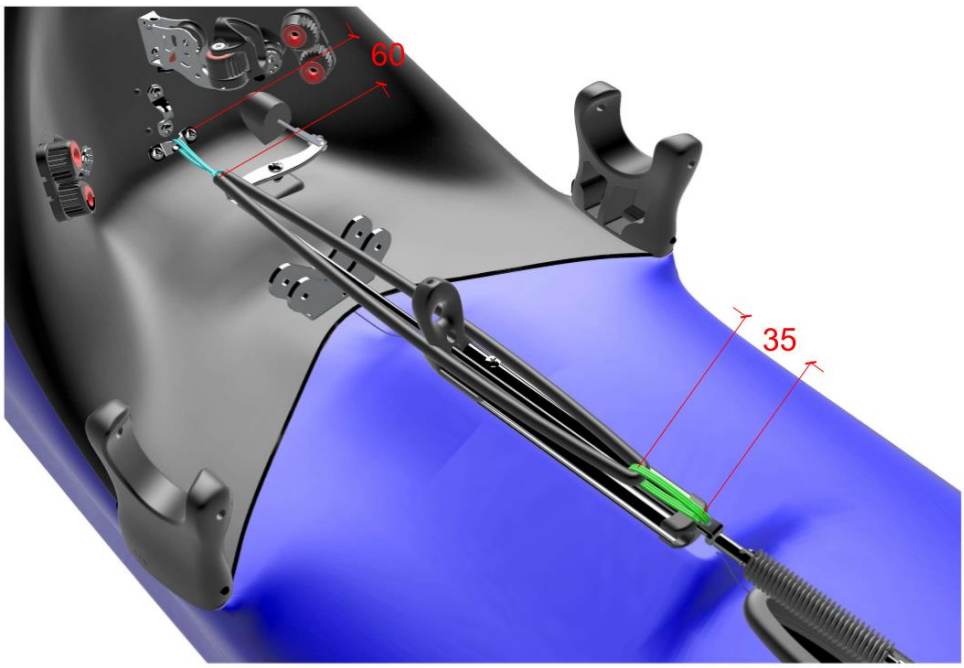
The amount of gearing you use will vary slightly from sailor to sailor, and we advise that once you learn the basics of foiling to experiment and tune your WASZP to suit your own sailing style.



WAND BUNGEE

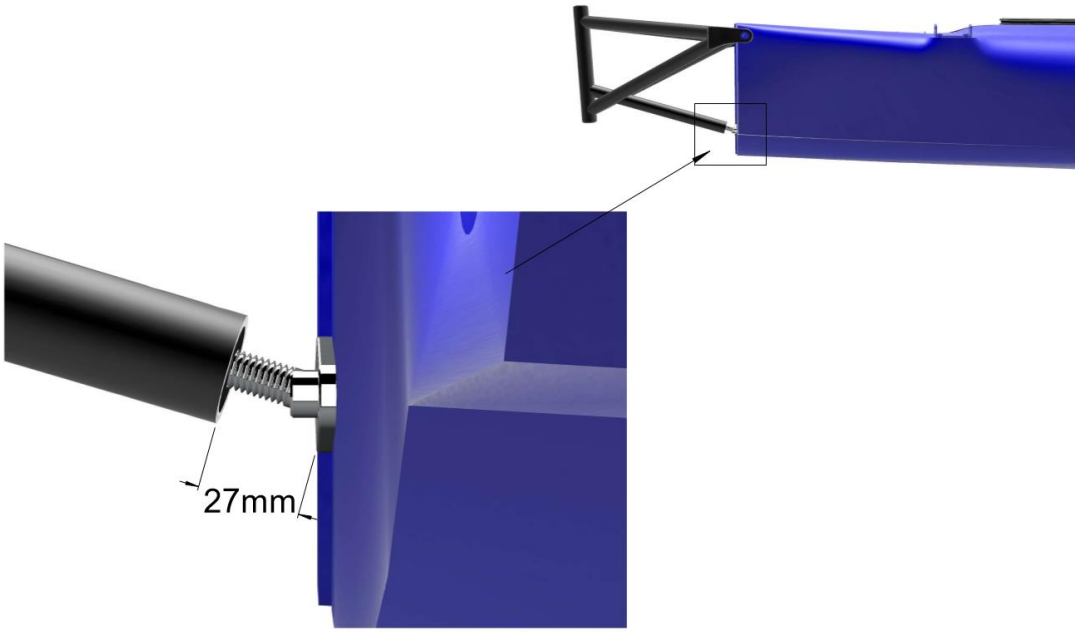
The aim of the wand bungee is to keep the wand sensing the water without creating too much drag and turbulence. Adjusting the wand bungee will change the feel of the boat. A tighter wand bungee will make the boat a little more “stuck” to the water, whilst a looser bungee will make the boat feel free and faster. We find that the optimal setting is somewhere in the midrange.

We suggest that you tie the following ropes to a length of 35mm and 60mm when you are initially setting up. Although this one is set for you in the factory, it is worth checking. You can also check that the unstretched bungee length is 500mm.



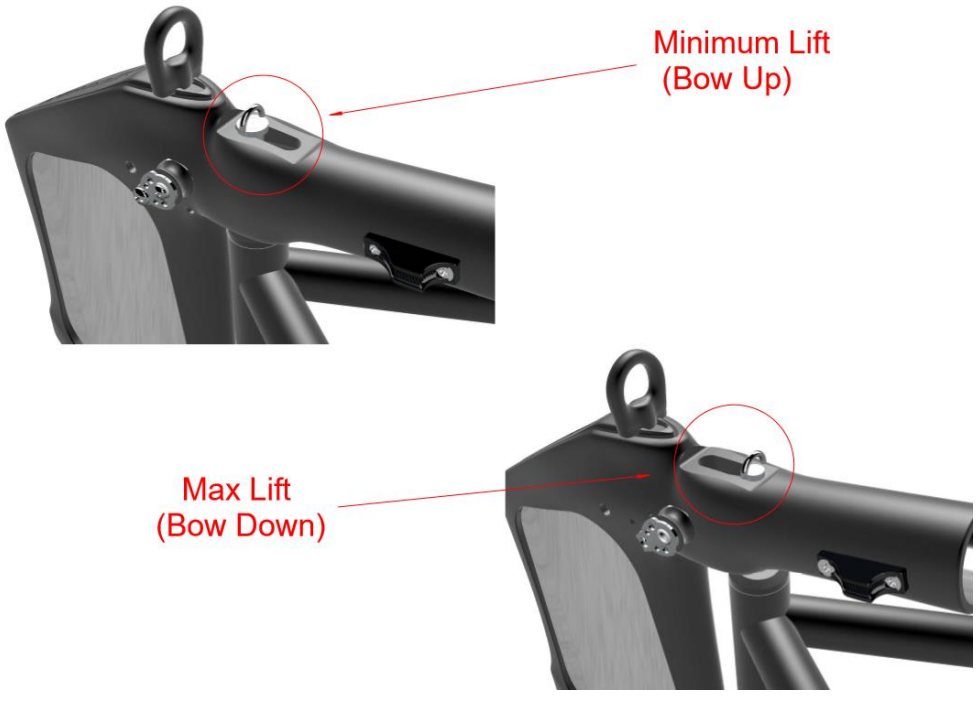
GANTRY ANGLE

The base gantry angle setting will determine the amount of lift available to you from your rudder whilst you are out sailing. This setting is important, as not enough lift will result in the bow of the boat flying too high when sailing in light wind or upwind. Too much lift will result in nosediving when bearing away and sailing downwind, especially when it is windy.



On a side note, your rudder trim should be at maximum lift (rudder pin the front of the rudder box slot) during take-off and in upwind mode and minimum lift (rudder pin at the back of the rudder box slot) when sailing downwind in big wind and big waves.

If you find you are not sailing with these parameters then you may need to adjust your gantry angle.



SAIL SETUP /TUNING

There are two main tuning parameters when considering your sail setup; the number of camber spacers and the tension you apply to the batten via the batten end cap.

CAMBER SPACING

The number of camber spacers you use will change the entry angle of your luff pocket considerably. More spacers will push the pocket out harder, making the luff pocket have more shape. Too many spacers will stop the cams from rotating in the tacks and gybes, making boat handling much more difficult.

As a starting point, rig your sail with the cams in place and apply moderate tension to the downhaul and outhaul. With the battens and cams popped on either tack, have a look at the luff pocket on the leeward side of the sail. If there is a crease in the luff pocket, it is a large indication that you need more cam spacers. If you have put too many in, you will find the cams do not rotate.

Allow a few sailing sessions to allow a new sail to stretch in a little before re-assessing your cam spacing.

As a starting point, we advise the following number of spacers with the following cams.

Batten	Cam Type	Cam Spacers
1	KA 68	2
2	KA 68	3
3	KA 68	0
4	KA 52	1
5	KA 47, KA Mini Cam	0,3

BATTEN TENSION

More tension in the batten means more shape in the sail. As a start, wind the batten end in to a soft/medium tension. You should see any crinkles in the batten pocket disappear. From here you should adjust your batten tension for the weather conditions. Generally looser when there is more wind and tighter when conditions are light.