

## Basic Controls

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### Warnings/Cautions

- When first learning to sail your Paper Tiger Catamaran, it is best to do so in the company of other sailors and a rescue craft. It is highly recommend that you join a local sailing club, especially one with Paper Tigers or other small catamarans. Nothing will help you more than having others who also sail these boats available to assist and answer your questions.
- The ideal wind strength in which to begin sailing your Paper Tiger is around 8-12 knots.

### Definitions

Luff	The front edge of the sail.
Leech	The rear edge of the sail.
Foot	The bottom edge of the sail.
Head	The top corner of the sail.
Tack	The front lower corner of the sail (where the mast and boom join).
Clew	The rear lower corner of the sail (at the outer end of the boom).
Mast Spanner	Pivoting arm joined to the bottom of the mast, to which the vang is attached. Also known as a "Vang Spanner".
Mainsheet Traveller	The rope used to control the position of the sail/boom. The adjustable 'car' that runs along the rear beam, to which the mainsheet is attached. Also known as the "Mainsheet Traveller".
Downhaul	The control system that runs between the Tack and the bottom of the mast to tension the Luff.
Vang	The control system that runs between the bottom of the mast and the boom (attaches about one quarter of the way along the boom from the mast). Also known as the "Boom Vang".
Lower Forestays	The stays/wires that are connected to the lower hound and run to the front of each hull. On modern Paper Tigers, these are adjustable while sailing.
Hound	Fitting located on the mast where the stay wires attach. Paper Tigers have two of these, one for the upper stays and one for the lower stays.
Telltails	Ribbons/streamers located on the sail to assist in gauging the flow over the sail.
Windward	The side that is towards the direction of the wind.
Leeward	The side that is away from the direction of the wind.

### The basic controls and how to use them

**Mainsheet:** This needs a reasonable amount of tension in moderate and strong winds, but be careful in lighter winds, as it will 'choke' the sail if it is too tight. It should be adjusted to suit the telltales, aiming to keep the windward and the leeward telltales flowing. The mainsheet should also be used as a fine tune as the hull lifts (ease the mainsheet) and drops (tighten the mainsheet) to try to keep the windward hull just above the water.

**Traveller:** This should be set to about 10cm to 15cm off the centre when going upwind. Once you start reaching, the traveller is an important tool. You should be positioning it so that it is right under

where you want the boom. The boom and sail will need to be progressively further out from the centreline the further you are away from the wind. While the traveller is very important, constant adjustment of the mainsheet is far more important upwind. On a tighter reach, where the boom is over the beam, traveller adjustment is more critical, but still in conjunction with mainsheet adjustment.

**Downhaul:** This tensions/tightens the luff (front) of the sail. This is usually used in stronger winds to de-power the sail. It flattens the sail and allows the leech (rear) to twist off, spilling wind. It is also pulling the point of maximum draft (depth of the sail) forward, as this is forced backwards in stronger winds. You should start to tension the downhaul in 12-15 knots or stronger, especially when the boat keeps rearing up on one hull too high. It is sometimes used in very light winds as well to allow the sail to retain flow more easily.

**Vang:** When sailing upwind and on tight reaches, the vang is used purely as a means of controlling the rotation of the mast. Aim to have the mast at about 45 degrees from the centreline of the boat. Once you are on a reach that is broad enough that the boom is out past the end of the traveller or rear beam, use the vang to keep the boom down flat, otherwise it will lift at the back and the sail will twist off, de-powering it. When the boom is over the traveller (tight reaches and upwind) the mainsheet is keeping the boom down and stopping the sail twisting.

**Centreboards:** These should both be down when sailing upwind. On very tight reaches, one can be lifted. On beam reaches (right angles to the wind), broad reaches and runs, both can be lifted.

**Rudders:** Have both down at all times while sailing, at least until you have spent a lot of time racing in the boat (some people lift the windward one while racing). Ensure that your rudders are in a fully down position while sailing (front edge should be vertical).

**Lower Forestays:** In most breezes, keep them taught upwind (just enough to take the slop out) and this will be OK off the wind, but let it off on light to moderate reaches and runs. On reaches, this allows the mast to straighten and deepen the sail. On runs, it allows the mast to be reversed (popped to windward in the middle). But don't try this in strong winds, as you'll end up with a two-piece mast!! Wait until you are used to the boat and, even then, do it with extreme caution. In strong winds, tighten it to firm upwind and leave it there for the race.

For assistance with your Paper Tiger Catamaran, or suggestions for this or other Guides, please contact the  
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