



Panther Elite

Calibrated Downhaul System

An easy and exact downhaul indicator.

Calibrated Downhaul System takes the guesswork out of finding the correct downhaul. Here's how it works: We rig your sail in the factory on the correct mast with an accurate tension meter. Then we mark your sail at the exact position that aligns with the bottom of your mast when your sail is correctly downhauled. So, all you need to do is downhaul until the bottom of your mast lines up with our mark. This mark is specific to each individual sail.

1) To set your downhaul:

a) Use the correct Ezzy mast combination and check that the length of your mast falls within the recommended tolerances (chart 1).

b) Check that the tip plug on your mast has not collapsed into the mast (figure 1). The plug should extend approx. 5.0mm above the top of the mast (figure 2). Replace the plug if needed.

c) We have set the adjustable head cap to its shortest setting. **Do not re-adjust the head webbing.**

d) Downhaul your sail until the calibration mark lines up with the bottom of the mast (figure 3). We suggest using the medium mark most of the time.

Additional Information:

- Use the medium downhaul setting for most wind conditions.

- Do not over-downhaul. Too much downhaul will make the sail unstable. This is true even for strong wind. Flatten with outhaul.

	Mast Combinations		Total Length (including tip plug)
	Bottom	Top	
3.7	340	370	355.4 - 355.8
4.0	340	370	355.4 - 355.8
4.2	370	370	370.4 - 370.8
4.5	370	400	385.4 - 385.8
4.7	370	400	385.4 - 385.8
5.0	400	400	400.4 - 400.8
5.3	400	400	400.4 - 400.8
5.7	400	430	415.4 - 415.8

Chart 1: correct masts combinations.

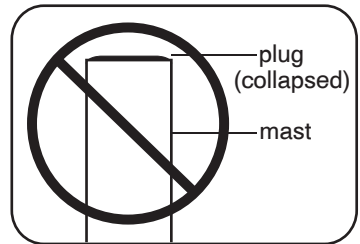


Figure 1: Tip plug has collapsed, need to replace plug.

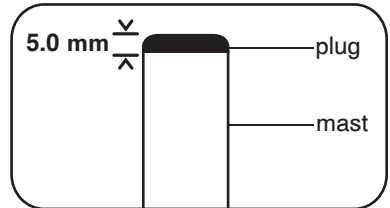


Figure 2: Tip plug correct.

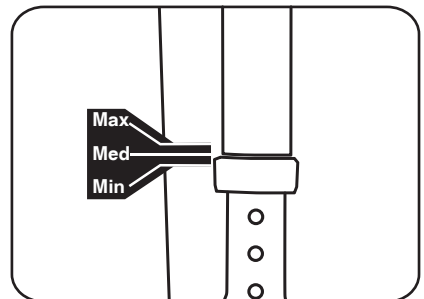


Figure 3: Downhaul until the calibration mark lines up with the bottom of the mast.

2) Setting the Outhaul:

The Panther Elite requires more positive outhaul than most sails (figure 4).

The three cords sewn at the clew indicate how much positive outhaul is needed for three wind conditions. The longest cord is for high wind, the shortest cord is for light wind and the middle cord is for medium wind.

Follow these steps:

- a) Correctly set the downhaul.
- b) Release the outhaul tension completely.
- c) Gently pull on the outhaul cord and set your boom to the end of the cord (figure 5).
- d) Outhaul your sail to the end of the boom (figure 6).

Additional Information:

- When setting your boom to the cord, don't pull the clew.
- We suggest starting with the medium length cord. If you feel over-powered (back-hand pressure), increase the outhaul about 1 to 2 cm. If you feel under-powered, reduce the outhaul by about 1 to 2 cm.

3) Tension the Tack Strap

After downhauling, thread the tack strap through the buckle and pull the strap until the foot gets tension. You will see a small wrinkle running out from the corner of the sail. Then, wrap the end of the tack strap around your mast extension and loop the end of the tack strap under itself and secure the strap with the velcro. Store your downhaul line in the mesh pocket located inside the pad (figure 7).

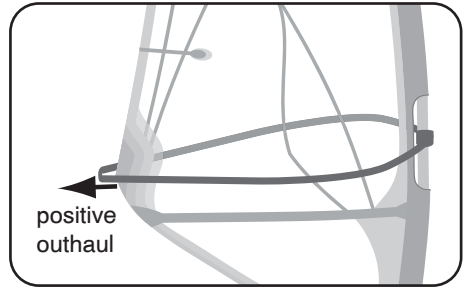


Figure 4: Positive outhaul

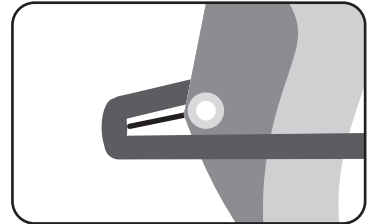


Figure 5: Set the boom length to the outhaul cord

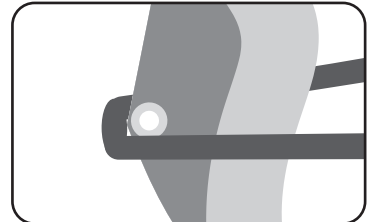


Figure 6: Outhaul sail to the end of the boom

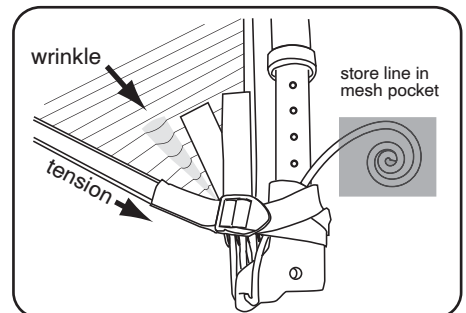


Figure 7: Tension tack strap and store downhaul line in mesh pocket.

4) Downhaul Without the Correct Ezzy Mast:

Method 1:

Use the ruler on the tack strap to measure the correct luff length measurement from the bottom of your mast to the bottom of the center pulley of the sail (figure 8).

Method 2:

a) Before downhauling, observe the diagonal wrinkles in the Tri-Lite cloth between the upper two battens. These wrinkles are located in front of the upper leech stabilizer (figure 9).

b) Downhaul until the diagonal wrinkles just disappear and not more.

Additional Information:

- Do not over-downhaul. The difference between the low wind and high wind downhaul settings is only 1.0 cm.
- If you feel over-powered, add more outhaul.
- When the sail is properly outhauled, there will be very little looseness on the leech, except for the head.
- We can not guarantee the performance on non-Ezzy mast brands.

5) Tensioning the battens:

Use the tensioner key that is stored in the pad of the sail and tension the battens until you eliminate any vertical wrinkles that extend out from either side of the batten pocket (figure 10).

Note: Your battens have already been tuned by us in the factory and most likely will not need further tuning. Be careful not to over-tension your battens.

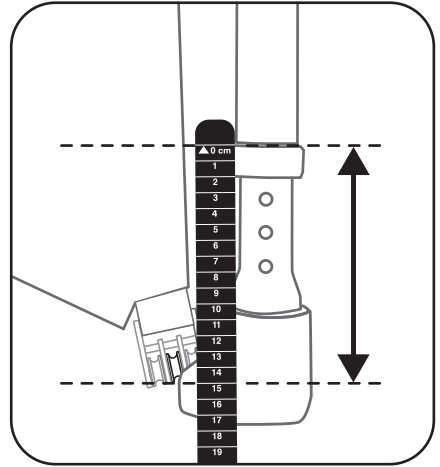


Figure 8: Use the ruler to measure from the bottom of the mast to the bottom of the center sail pulley.

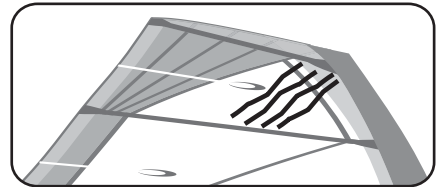


Figure 9: Downhaul just until the diagonal wrinkles disappear.

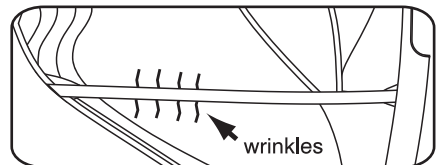


Figure 10: Tension the battens until there are no vertical wrinkles on either side of the batten pocket.

6) Sail Care:

- Creasing damages the sail cloth. Avoid creasing your sail when rigging and de-rigging.
- Sunlight kills all sail cloth. Keep your sail out of the sun when not sailing.
- Don't rig on sharp objects.
- After rolling the sail, tuck the pad so it rests along the sail, wrap the tack strap around the pad and the sail, then attach the velcro (figure 11).
- Insert your sail sleeve-end first into the sail bag (figure 12).
- Never store your sail upright resting on the clew.
- Don't roll your sail when it is wet with fresh water. This will cause the window vinyl to turn hazy blue. Allow your sail dry thoroughly for the vinyl to clear up.

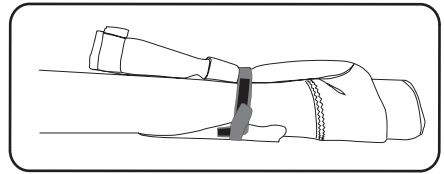


Figure 11: After rolling, tuck the pad, then wrap with the tack strap and secure the velcro.



Figure 12: Sleeve end first into bag.

7) Troubleshooting:

> Your sail has too much back-hand pressure.

Solutions:

- a) Apply more outhaul,
- b) Check that your harness lines are not too far forward.

> Your sail feels unstable.

Solution:

Apply more downhaul and outhaul.

> Your sail lacks power.

Solution:

Reduce downhaul and outhaul.

> Your sail has too much pressure on your front hand.

Solutions:

- a) Reduce outhaul.
- b) Check that your harness lines are not too far back.

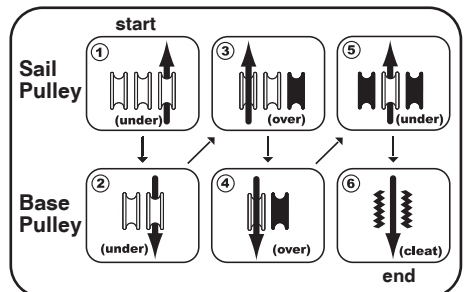


Figure 13: Threading the tack pulley for a Chinook-style extension.

rigging videos: www.ezzy.com
email: info@ezzy.com