

## SOLING

### BASIC SETUP GUIDE BASED ON WINDS FROM 5 – 15 MPH

Using the following basic setup, the boat should have controllable weather helm. If controllable weather helm can not be achieved, seek help with your setup. Check and make your adjustments before you get to the pond, then make your fine adjustments after you have sailed in the wind conditions at the pond.

**RUDDER POSITION** – The rudder **must** be on the center line of the boat with the radio control fine tune adjustment in the center position.

#### **SOLING ONLY**

**MAST POSITION** – Have mast jack screw set in middle mounting hole on the deck.

**SIDE STAY TENSION** – Using the mast jack screw, turn until side stays are just snug. With boat lying on side, the lower stay should be slightly slack.

**MAST ON CENTER** – With boat lying on its side on a smooth flat surface, measure perpendicular from the flat surface to the tip of the mast. Turn the boat over and repeat the measurement. If the two measurements are the same, the mast is on the center line of the boat. If the measurements are not the same, adjust the side stays so the two measurements are within ¼ inch.

**FORE STAY LENGTH** – With the back stay and the fore stay snug, measure from the bow to the jib stay screw in the upper mast. See below for Soling and Fairwind dimensions. Adjust the back stay and fore stay to achieve the correct measurement. When making this adjustment, have the jib up haul loose.

***SOLING FORE STAY LENGTH – 48 3/4”***

**JIB UP HAUL** – Adjust the jib up haul so when you pull up on the jib, you have a slight movement of the jib towards the top of the mast. DO NOT have the jib up haul tight. Make this adjustment after you adjust the fore stay.

**BACK STAY TENSION** – Adjust the back stay so when you are sailing to weather you should have a small amount of knuckling in the top of the jib. Use as little back stay tension as possible. If you have too much back stay tension, you will close the slot between the jib and main sails.

**BOOM VANG** – Do not have the vang tight. Adjust so you can lift the main sail boom about ¼”. If the vang is too tight, you will have little or no twist in the main sail. With the boat sailing away from you, check to see how much twist you have in the main sail. To increase main sail twist, let the boom vang out. Note: it is much easier to adjust and maintain good boom vang tension if a line / bowsie system is used in place of the hard wire arrangement that is supplied with the boat kit.

**JIB OUT HAUL** – Adjust jib out haul so you can place three fingers between the jib boom and the jib sail. Approximately 2”

**MAIN OUT HAUL** – Adjust the main out haul so you can place two fingers between the main boom and the main sail, approximately 1½”.

**MAIN BOOM POSITION** – Having the fine adjustment in the mid position on your radio control, bring the boom all the way in. Adjust the main sheet so the end of the main boom is pointing at the transom corner. When checking the position, apply a little finger pressure against the main boom to simulate wind pressure against the main sail. *Always adjust the main first.*

**JIB BOOM POSITION** – Having the fine adjustment in the mid position on your control, bring the boom all the way in. Adjust the jib sheet so the end of the jib boom is pointing just inside the side stay. When checking the position, apply a little finger pressure against the jib boom to simulate wind pressure against the jib sail. From the stern of the boat, check the slot and try to have the jib leach curve match the main leach curve.

**LIGHT AIR SETUP – LESS THEN 5 MPH**

Loosen jib and main outhauls and adjust jib sheet out to move jib boom closer to the side stay. Lighter back stay tension.

**HEAVY AIR SETUP – MORE THEN 15 MPH**

Tighten jib and main outhauls and adjust jib sheet in to move the jib boom closer to the mast. Slightly more the back stay tension.

**TROUBLE SHOOTING**

**PROBLEM** – Boat rounds up to windward on both tacks. This called weather helm.

**SOLUTION** – There are several solutions to this problem:

1. Change the relative position of the main and jib. For weather helm, either adjust the jib sheet in so the jib boom will be closer to the mast, or adjust the main sheet out.
2. Rake the mast forward by lengthening the back stay and shorten the fore stay. Only make this adjustment as a last option.

**PROBLEM** – Boat falls off to leeward on both tacks. This is called lee helm.

**SOLUTION** – Do the opposite of weather helm in above points one and two.

Note: Some tendency for lee helm is natural in very light air. Don't make adjustments for it.

**PROBLEM** – Boat rounds up on one tack and falls off on the other tack.

**SOLUTION** – There are several solutions to this problem.

1. Check to see if the rudder is on center. Check this with the control fine adjustment set in the mid position.
2. Check the mast to make sure it is on the center line of the boat. See above item "MAST ON CENTER" to make corrections.

**PROBLEM** – Boat loses a lot of races.

**SOLUTION** – Get a new skipper.