

The Soling One Meter RC Sailboat has numerous adjustments to the rig and sails all of which interact with each other. Most of the articles and information available give general information about tuning adjustments but lack specific instructions and precise measurements. In addition wind conditions from day to day can result in different handling and performance. Many new Soling owners are not able to sail well because their boat is not tuned well.

The Soling Tuning Chart described in this article lists all of the critical adjustments, how each is measured, recommended initial settings and spaces to record adjustment changes for different wind conditions. If your Soling has minor dimensional variations, the initial recommended adjustments may need to be revised in order to realize the best performance.

Prior to tuning a Soling, the mast must be straight and in the vertical center line plane of the boat. To measure, with the shrouds snug but not too tight, lay the boat on a level flat surface and measure from the surface to the mast head crane. Then with the boat on its other side, measure from the same surface position to the mast head crane. Both measurements should be the same, plus or minus 1/8 inch.

Also make sure that the rudder is in a vertical plane aligned with the keel as viewed from the rear of the boat. The Rudder should be mechanically adjusted so that the rudder servo arm is 90 degrees to boat center line. The rudder must be perfectly centered when the transmitter is on with the aileron trim tab in the center of its travel.

Tuning Chart Instructions:

Mast Position: Mast should be in the middle step hole, (18 inches from the bow tip).

Jib Position: Jib swivel, (2 inches from boom tip), in the center hook eye, (4 1/8 inches from bow).

Mast Rake: Measure from of the mast Jib eye hook center to the tip of the bow, (back stay snug).

Mainsail Draft: Use ruler with very light force to measure sail draft to center of the boom.

Jib Draft: Use ruler with very light force to measure sail draft to center of the boom.

Main Boom Close Hauled: Measure the end of the boom from the center line of the deck.

Jib Boom Close Hauled: Measure the end of the boom from the center line of the deck.

Mainsail Twist: With no main sheet tension, move the main boom to the center line of the deck and lift it. Then adjust Boom Vang to obtain 3 ½ inches of mainsail leech twist, as measured from the back stay center line.

Jib Twist: Back stay tension controls Jib leech twist. With the side of your finger tip, push on the back stay towards the front of the boat until you feel quite a bit of resistance, (6 ounces).

Measure how much the back stay moved from its normal position. A deflection of 3 ½ inches is

Loose; 2 ½ inches is **Medium**; and 2 ½ inches is **Tight**. This setting is very critical and is most effective when boat performance is observed on the water, (See Note 3 on the chart).

Jib Halyard Sag: Adjust the Jib halyard so when the head of the jib is lifted the halyard sags ¼ inch.

Mainsail Down haul: This setting is not precisely measurable and is not on the Tuning Chart, but pull lightly down on the down haul, so the main sheet is smooth at the mast from head to foot.

Print out a copy of the **Soling Tuning Chart**: When the tuning is done, your Soling should sail by itself on both tacks, (“**Hands Off the Transmitter**”)! If not equally stable on both tacks, the rudder

may need some minor adjustment to center it. Try adjusting the aileron trim tab for minor rudder adjustments until the boat sails equally well on both tacks.