ENDEAVOR

EP RTR Sailboat

Owners Manual

The Pro Boat® Endeavor™ comes with the fiberglass hull built and painted and the RC equipment installed. All that's left is rigging the sails. The two-piece mast makes disassembly and transport quick and easy.

There is no better way to start enjoying the fun and excitement of RC sailing than with the Endeavor. The Endeavor features an electric back-up motor that ensures that you won't have any problems returning to shore in case of wind loss. The Endeavor also features a standard sail servo with no complicated pull-pull winch servo cables and comes ready-to-run with battery, charger and transmitter. Just connect the pre-numbered sail rigging and start sailing. Head to the lake and begin sailing today with the perfect choice for any RC enthusiast.

Specifications

Length (Hull):
24 in (610mm)
Height (Mast):
36.5 in (927mm)
Beam:
6.25 in (158.75mm)
Radio:
Pro Boat 2-channel 27MHz AM
Motor:
380-size

Sail area:
Overall:
264 sq in (17.03 sq dm)
Main:
170 sq in (10.97 sq dm)
Jib (Front):
94 sq in (6.06 sq dm)

PRO BOAT

Introduction

Thank you for purchasing the Pro Boat® Endeavor™ EP ready-to-run sailboat. This craft has been designed to provide many hours of scale sailing pleasure, without the long hours of assembly usually associated with a model RC sailboat. The Endeavor EP can leisurely be completed in less than an hour.

No Building!

The Endeavor EP comes almost completely assembled. Its durable molded fiberglass hull has been prepainted for your convenience. You will only need to finish rigging the sails. The detailed instructions, photos and glossary at the back of the manual will allow you to easily complete the assembly.

Table of Contents

Items Required to Complete your Endeavor

Phillips screwdriver	Small pliers
AA batteries (8)	Threadlock

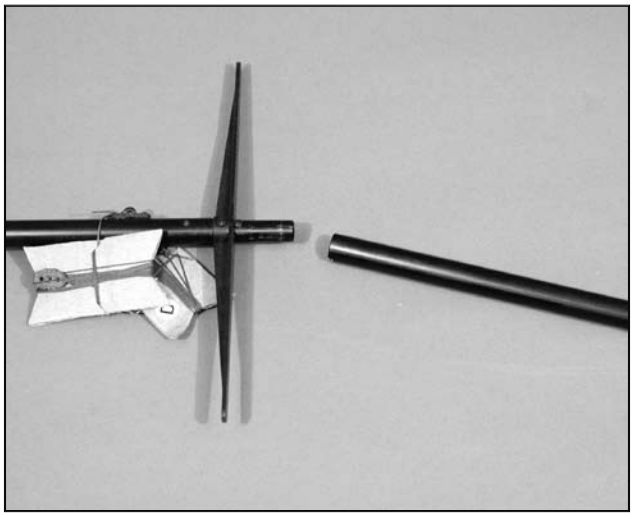
Section 1 – Inspection

Carefully remove the boat, boat stand and radio transmitter from the box. Inspect the boat and make certain that no damage is present. If any damage is found, please contact the Pro Boat retailer where the model was purchased.

Section 2 – Rigging Installation

❍ 1. Assemble the boat stand as shown and use a wood glue or CA hobby glue to bond the pieces together. Place the hull on the stand.

❍ 2. Slide the upper and lower mast halves together.

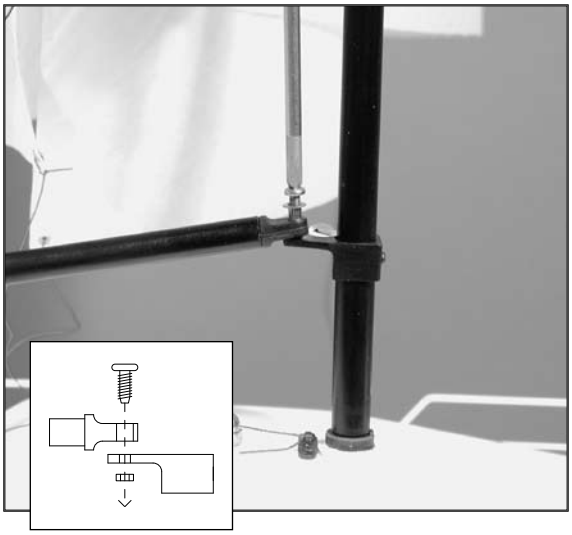


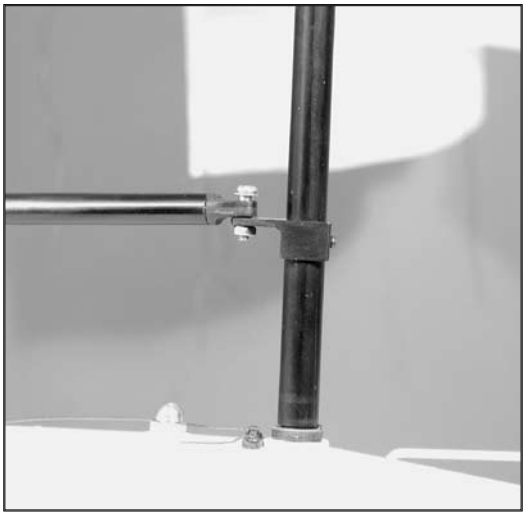
❍ 3. Slide the mast assembly into the fitting on the top of the hull.

❍ 4. Carefully unroll the sails from the mast. The main sail will be attached to the top of the mast at the crane. The jib sail (front sail) will be attached to the front of the crane as shown.

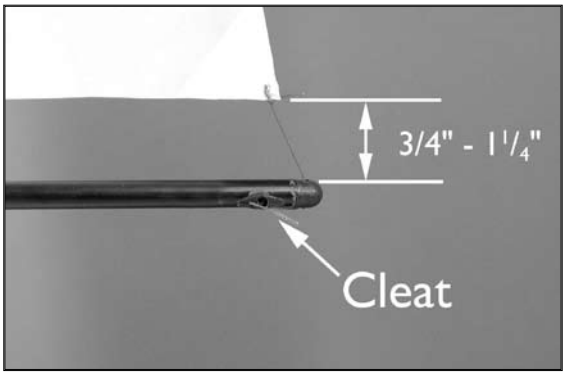
Section 2 – Rigging Installation

❍ 5. Locate the main sail boom. Slide the screw through the eyelet and use a Phillips screwdriver to secure the end of the boom. Do not over tighten as the sail boom will move as the sails are adjusted. Apply a drop of threadlock on the nut and thread it onto the screw from the bottom of the boom mount.

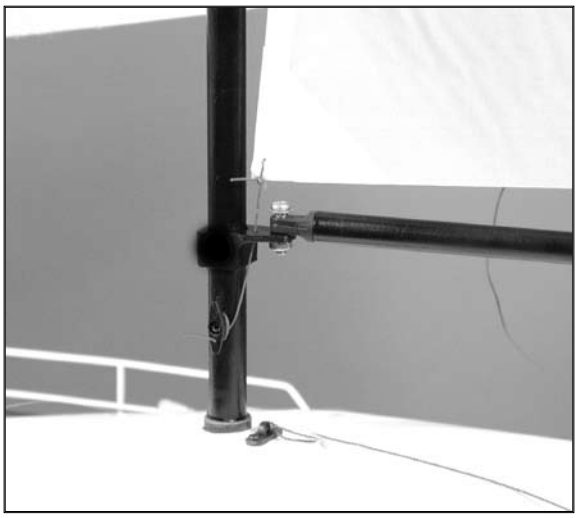




❍ 6. Locate the end of the main sail marked "G". Pass the line tied to the main sail through the hole in the rear end of the main sail boom. Pull the line until the main sail is taut, and the distance between the boom and sail is between 3/4-inch and $1^1/_4$-inch. Secure the excess line by wrapping it around the cleat and placing the end of the line in the notches of the cleat.



❍ 7. Locate the other end of the main sail. Pass the line tied to the main sail through the hole in the boom mount. Position the line so the distance between the boom and sail is equal to the other side of the sail. Secure the excess line by wrapping it around the cleat and placing the end of the line in the notches of the cleat.



Note: Do not adjust the tension of any of the lines at this time. This will be done in Section 4, "Adjusting the Rigging Cables."

Section 2 – Rigging Installation

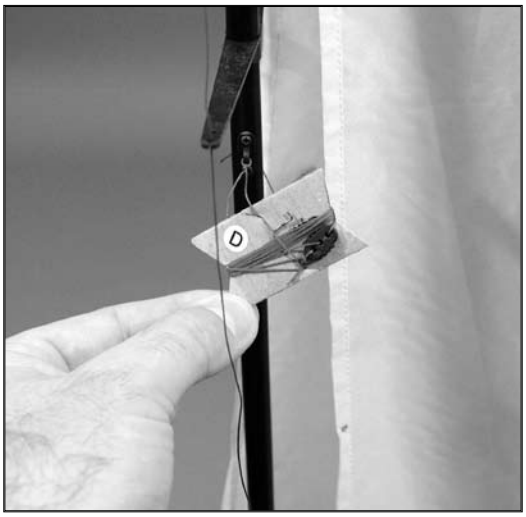
❍ 8. Carefully unwrap the top, side rigging lines.

❍ 9. Insert the side rigging line into the outer hole in the spreader as shown.

Note: The spreader has a small notch in the outer hole. The inner hole will not be used, making it easier to insert the line. Simply push the rigging line through the slot.

❍ 10. Open the rigging clip and attach it to the eye plate marked "C, D." Close the wire clip.

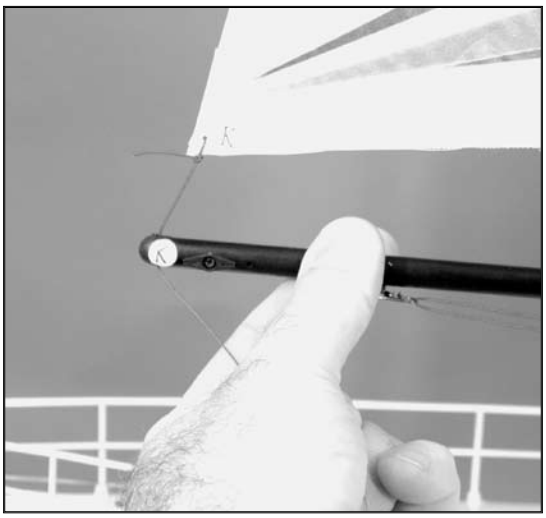
❍ 11. Carefully unwrap the mid-line rigging marked "D."



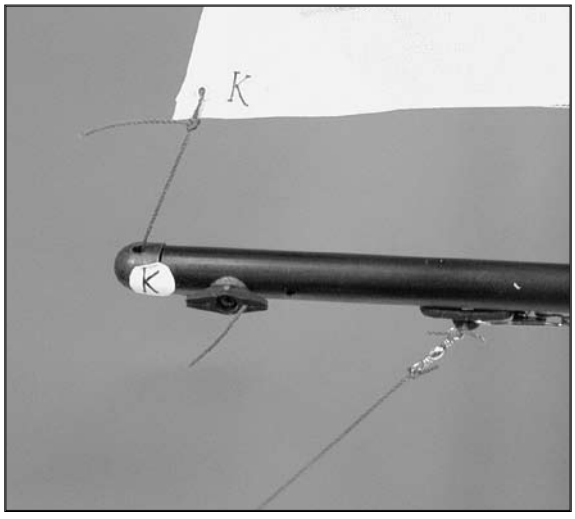
❍ 12. Open the rigging clip and attach it to the eye plate marked "D." Close the wire clip.

Section 2 – Rigging Installation

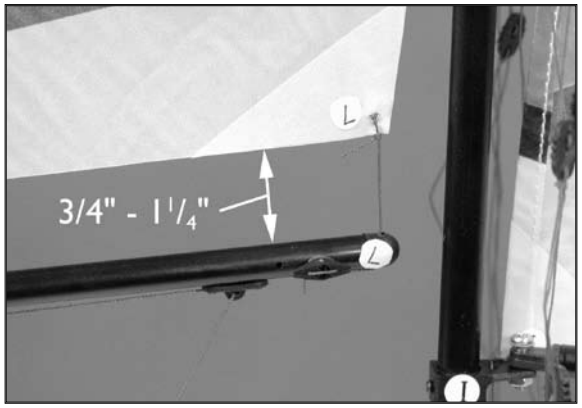
❍ 13. Locate the jib sail boom. The end of the jib boom with the cleat should be on the top and nearest the front of the boat. Pass the rigging line from the front of the jib sail into the hole on the end of the boom.



❍ 14. Position the line so the distance between the boom and sail is between 3/4-inch and $1^{1}/_{4}$-inch. Secure the excess line by wrapping it around the cleat and placing the end of the line in the notches of the cleat.



❍ 15. Repeat Step 17 for the other end of the jib sail.



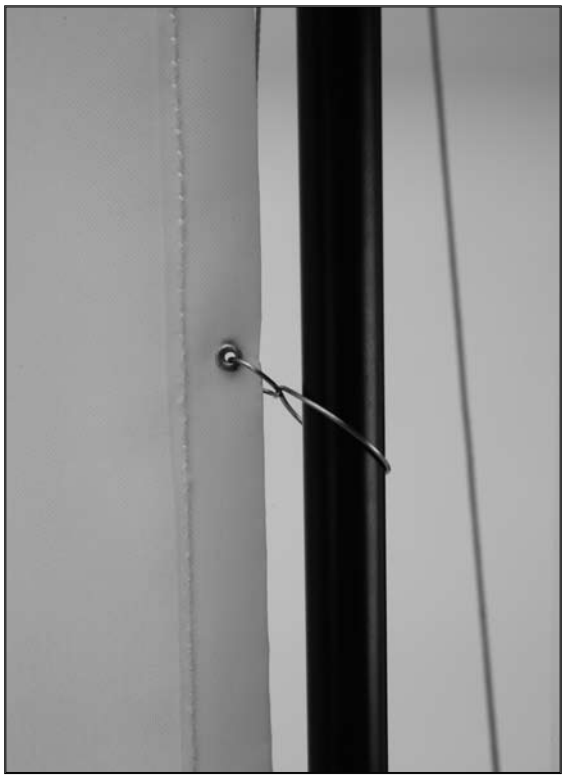
Hint: The jib boom will be parallel to the bottom of the jib sail once Steps 17 and 18 are complete.

❍ 16. Carefully unwrap the bow rigging cable marked "A." Attach the rigging cable to the fitting at the bow of the boat marked "A."

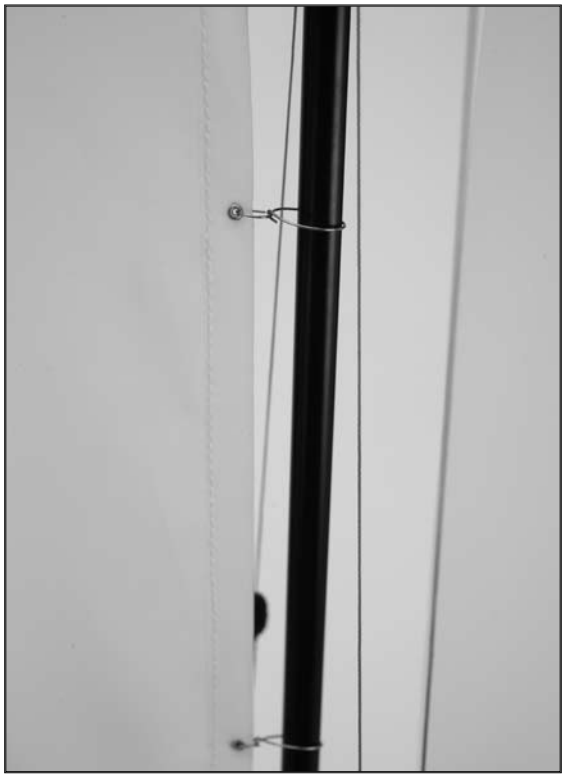
❍ 17. Carefully unwrap the stern rigging cable marked "B." Attach the rigging cable to the fitting at the stern of the boat marked "B."

Section 3 – Main Sail Luft Ring Installation

❍ 1. Locate one main sail luft ring. Open the ring and insert the small loop of the ring through the eyelet in the main sail.



❍ 2. Snap the luft ring around the main mast.



❍ 3. Repeat Steps 1 and 2 for the remaining luft rings.

The rigging for the main and jib booms are shown in the photos below.

Section 4 – Adjusting the Rigging Cables

❍ 1. Locate the jib stay on rigging lines "C" and "D" on either side of the boat. Pull up carefully on the jib stay to adjust the tension so there is no slack in the line. Work slowly and adjust both lines so the main mast is completely vertical.

❍ 2. Adjust the jib stay on the rigging line at the bow "A" and stern "B" of the boat. Tension the rigging lines so the mast is perpendicular (square) to the hull of the boat.

Section 5 – Transmitter and Receiver Battery Installation

Install 8 AA alkaline batteries into the radio transmitter, following the instructions for your radio system. Carefully place the sailboat hull into the included boat stand, if it is not already there. Next, remove the radio box lid (scale cockpit) of the boat carefully, as it is secured by magnets at the rear of the cockpit. Locate and charge the power battery pack for 2-3 hours, closely monitoring the temperature of the pack. If it becomes warm to the touch, immediately end charging.

Confirm that the receiver switch is in the "off" position and that the sail servo arm is not touching the power switch. Connect the power battery. Secure the battery to the battery box with hook and loop material.

Warning: Do not charge the battery overnight or on or near flammable materials.

Note: The radio box lid has been removed for photography.

Section 6 – Checking the Radio System

Turn on the radio system and test it to make certain it is functioning correctly. First, turn on the transmitter. Next, turn on the switch that controls the receiver.

- Moving the right stick of your transmitter will control the rudder. To turn to the right, simply move the stick to the right, and the rudder should also move to the right. Do the opposite to turn left.
- Moving the left stick of the transmitter will control the sails. By moving the left stick upward, you will let the sails out. By pulling the left stick down, you will tighten the sails.
- Once the sails are pulled in, with the sail control in the fully lower position, move the sail trim adjustment toward the bottom of the transmitter to operate the motor.

- Always extend the transmitter antenna prior to sailing.
- When the radio system is working correctly and the sails and fittings are properly adjusted, you are ready to sail.
- After sailing, turn the receiver off before turning the transmitter off.

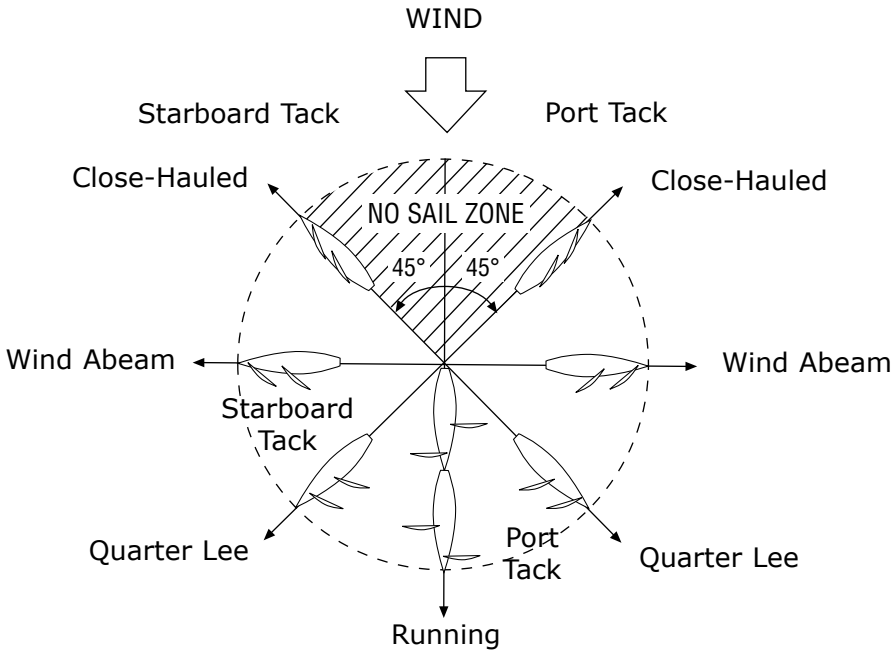
Never sail with the sail trim adjusted to a position that will allow the motor to turn on.

Note: The motor is for intermittent use only. If you notice the power slowing, stop motor use immediately and recharge the battery. Continued use will cause the radio system to lose control.

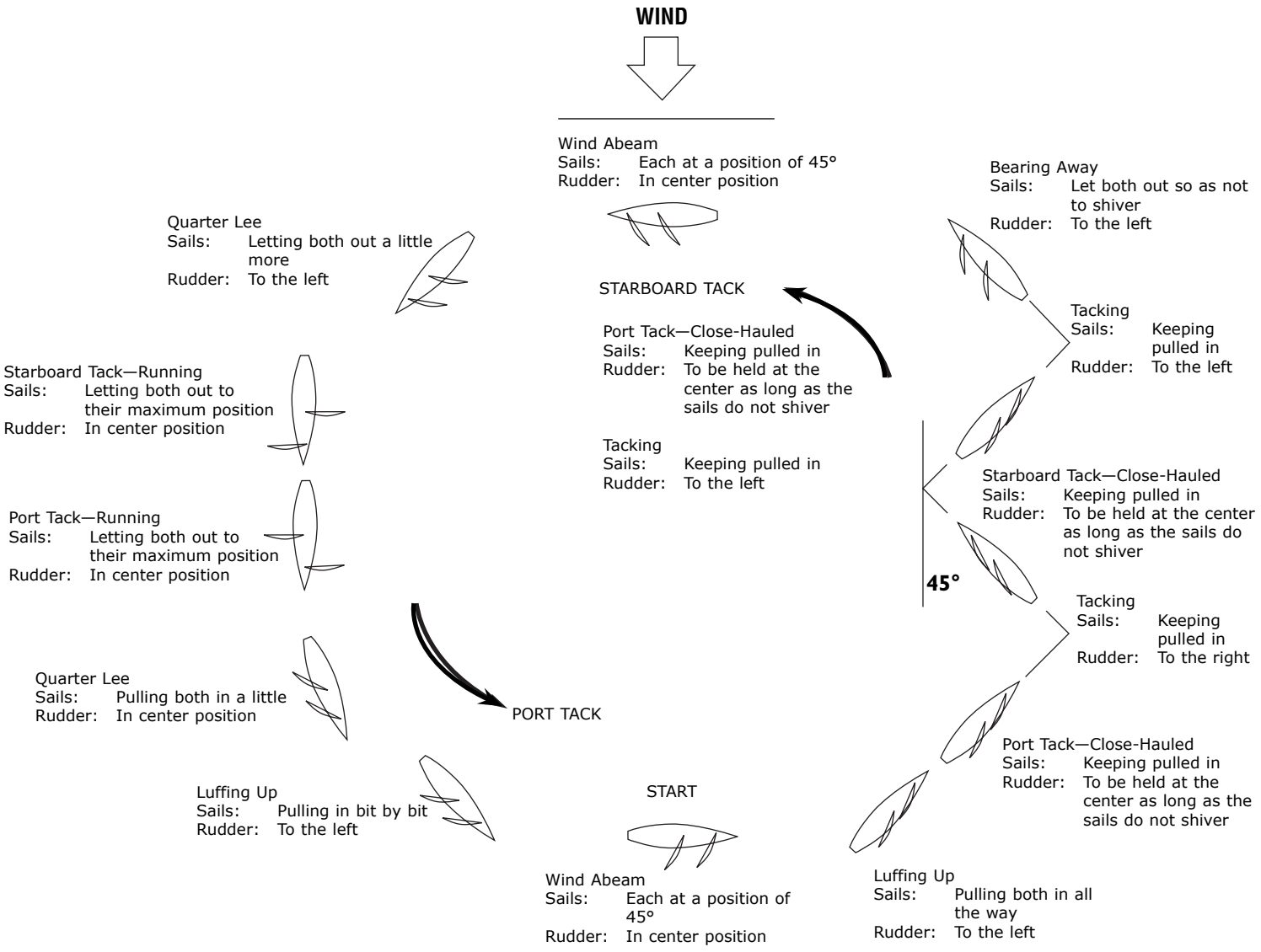
Section 7 – Sailing Tips

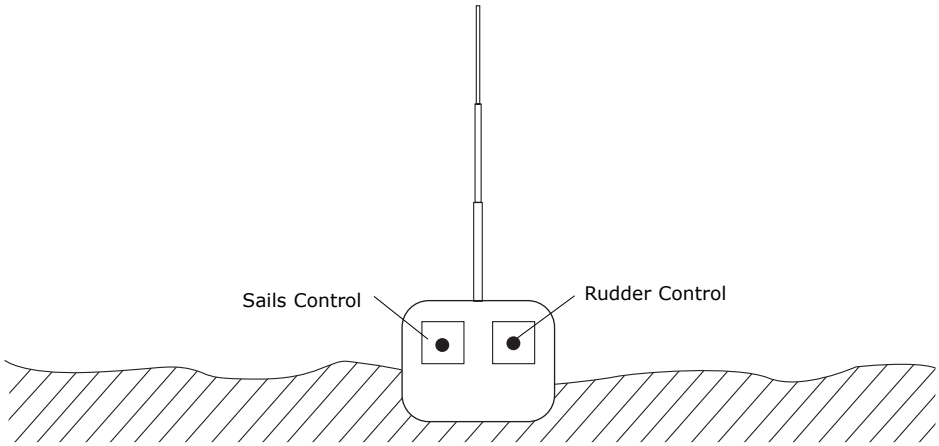
The following will help you get started in sailing. Follow the instructions and understand it takes some practice to become an accomplished yachtsman.

Do not sail if the winds are too strong. Best results will occur with winds between 5 and 12 mph.



Section 7 – Sailing Tips





Section 8 – Performance Tips

After you have finished rigging the sails, it will be helpful to trim the sails in order to optimize the performance of your boat. It is often necessary to briefly sail the Endeavor in order to see how the sails need to be trimmed. This section covers hints and tips for trimming your Endeavor for the best performance. Remember to take your time to optimize your sailing pleasure.

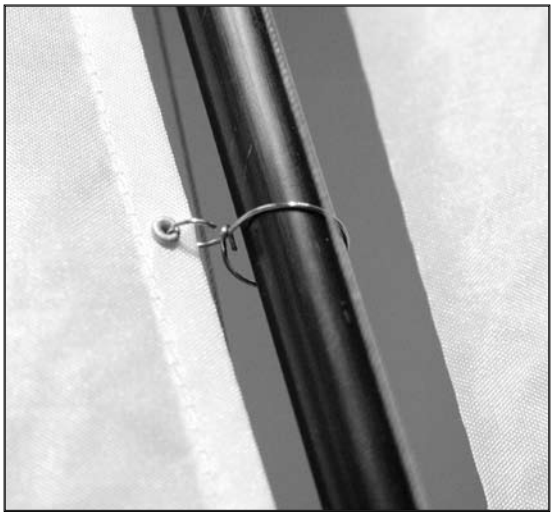
- 1. Check to make sure the main boom and jib boom are in line with each other. Adjust the jib stay at the top of the jib sail to position the jib boom.

- 2. With the radio system on, move the left stick on your transmitter "up" and manually push the main sail and jib sail open. You should be able to open the sails to at least a 60-degree angle. If you cannot do this, it will be necessary to adjust the length of the line (allowing more slack) by adjusting the jib stays located underneath the main sail and jib sail booms. See Section 3 Step 3 for rigging adjustment locations

Section 8 – Performance Tips

❍ 3. With the radio system on, move the left stick of your transmitter "down" to close the sails. The sails should close, with the jib sail being tighter than the main sail. There should be some slack left in the sail rigging when the sail gimbal moves the sails in. There should also be enough movement to turn on the motor switch when the trim adjustment is moved to the lower fully trimmed position.

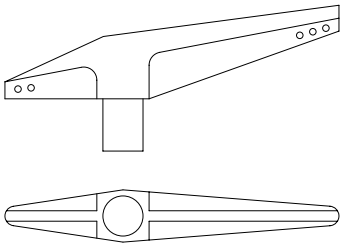
❍ 4. Bend the opening of each of the luft rings after you have secured the main sail to the mast, so they will not be pulled out of the sail or from the mast.



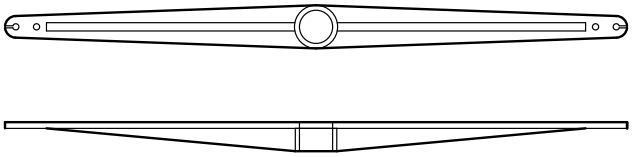
Replacement Parts

PRB2451. . . . . Hull only: Endeavor
PRB2452. . . . . Hatch: Endeavor
PRB2453. . . . . Mast Set: Endeavor
PRB2454. . . . . Boom Set: Endeavor
PRB3010. . . . . Motor: Endeavor
PRB2456. . . . . Drive Shaft Set: Endeavor
PRB2457. . . . . Plastic Parts Set: Endeavor
PRB2458. . . . . Rudder: Endeavor
PRB2459. . . . . Pushrod Set: Endeavor
PRB2460. . . . . Sails: Endeavor
PRB2461. . . . . Power Switch: Endeavor
PRB2462. . . . . Wiring Harness: Endeavor
PRB2463. . . . . Boat Stand: Endeavor
PRB2181. . . . . Screw Lock Pushrod Connector
PRB2183. . . . . Rigging Line Clips
PRB2186. . . . . Sail Luft Rings
PRB2187. . . . . Pushrod Nylon Clevis
PRB2188. . . . . Sail Boom Screw and Eyelet
PRB2407. . . . . Plastic Parts Tree
PRB2409. . . . . Rigging Line

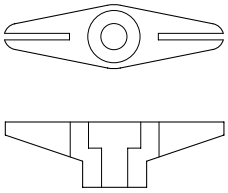
Plastic Parts



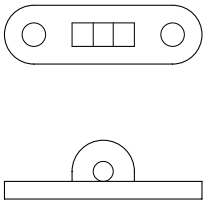
Masthead Crane



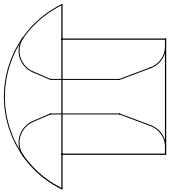
Spreader



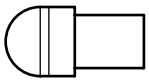
Cleat



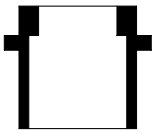
Eye Plate



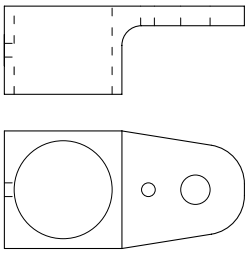
Rigging Line Grommet



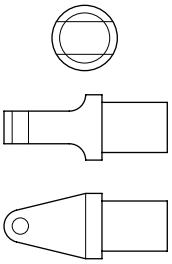
Boom Plug



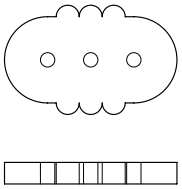
Mast Holder



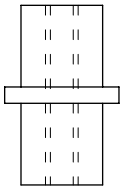
Gooseneck



Boom Pivot



Jib Stay



Mast Joiner

Basic Glossary

Beam Reach
Sailing at approximately 90 degrees to the wind source with the wind coming from abeam.

Beating
Sailing toward the wind source or against the wind with the sails pulled in all the way, tacking as you go, to reach a destination upwind.

Boom
The horizontal spar to which the foot of a sail is attached.

Bow
The forward end of a boat.

Cleat
A fitting to which the rigging line may be secured.

Downwind
Sailing away from the wind with the sails let out all the way.

Jib Sail
The smaller sail attached at the bow of the boat.

Jib Stay
Device used to adjust the tension of the rigging lines.

Knot
One nautical mile per hour (one knot equals 1.2 mph).

Main Sail
The largest working sail that is attached to the mast.

Mast
Vertical spar to which the rigging and sails are attached.

Port
The left side of the boat (when facing forward).

Rudder
Vertical plate attached at the stern, controlling the movements of the boat.

Starboard
The right side of the boat (when facing forward).

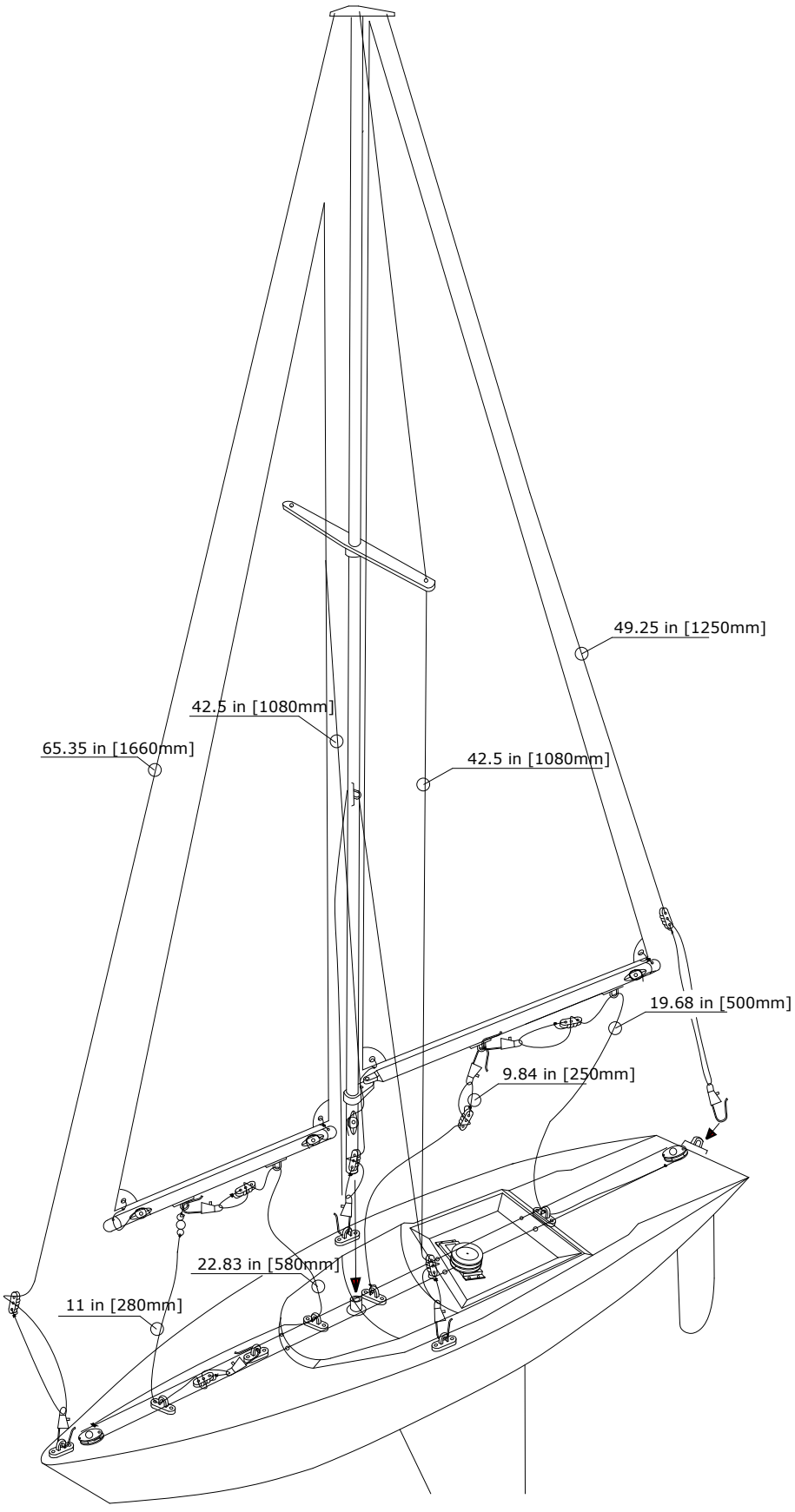
Starboard Tack and Port Tack
The right side of the boat is called the starboard side and the left side is called port. When the boat sails with the wind coming across the starboard side and the main sail is on the port side, the boat is sailing on a starboard tack. When the boat sails with the wind coming across the port side of the boat and the main sail on the starboard side, the boat is sailing on a port tack.

Stern
The back end of a boat.

Tack
To turn the bow of a sailboat through the wind so the sails fill to the opposite side.

Weather Helm
The natural tendency of a boat to turn toward the wind.

Diagram of Sailboat Rigging



Warranty Information

Age Recommendation

Age Recommendation: 14 years or over. This is not a toy. This product is not intended for use by children without direct adult supervision.

Warranty Period

Exclusive Warranty- Horizon Hobby, Inc., (Horizon) warranties that the Products purchased (the "Product") will be free from defects in materials and workmanship at the date of purchase by the Purchaser.

Limited Warranty

(a) This warranty is limited to the original Purchaser ("Purchaser") and is not transferable. REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. This warranty covers only those Products purchased from an authorized Horizon dealer. Third party transactions are not covered by this warranty. Proof of purchase is required for warranty claims. Further, Horizon reserves the right to change or modify this warranty without notice and disclaims all other warranties, express or implied.
(b) Limitations- HORIZON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCT. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.
(c) Purchaser Remedy- Horizon's sole obligation hereunder shall be that Horizon will, at its option, (i) repair or (ii) replace, any Product determined by Horizon to be defective. In the event of a defect, these are the Purchaser's exclusive remedies. Horizon reserves the right to inspect any and all equipment involved in a warranty claim. Repair or replacement decisions are at the sole discretion of Horizon. This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of or to any part of the Product. This warranty does not cover damage due to improper installation, operation, maintenance, or attempted repair by anyone other than Horizon. Return of any goods by Purchaser must be approved in writing by Horizon before shipment.

Damage Limits

HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCT, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT LIABILITY. Further, in no event shall the liability of Horizon exceed the individual price of the Product on which liability is asserted. As Horizon has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability.
If you as the Purchaser or user are not prepared to accept the liability associated with the use of this Product, you are advised to return this Product immediately in new and unused condition to the place of purchase.
Law: These Terms are governed by Illinois law (without regard to conflict of law principals).

Safety Precautions

This is a sophisticated hobby Product and not a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the Product or other property. This Product is not intended for use by children without direct adult supervision. The Product manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or injury.

Questions, Assistance, and Repairs

Your local hobby store and/or place of purchase cannot provide warranty support or repair. Once assembly, setup or use of the Product has been started, you must contact Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please direct your email to feedback@teamlosi.com, or call 888.899.LOSI (5674) toll free to speak to a service technician.

Warranty Information

Inspection or Repairs

If this Product needs to be inspected or repaired, please call for a Return Merchandise Authorization (RMA). Pack the Product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as **Horizon is not responsible for merchandise until it arrives and is accepted at our facility**. A Service Repair Request is available at www.horizonhobby.com on the "Support" tab. If you do not have internet access, please include a letter with your complete name, street address, email address and phone number where you can be reached during business days, your RMA number, a list of the included items, method of payment for any non-warranty expenses and a brief summary of the problem. Your original sales receipt must also be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

Warranty Inspection and Repairs

To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Provided warranty conditions have been met, your Product will be repaired or replaced free of charge. Repair or replacement decisions are at the sole discretion of Horizon Hobby.

Non-Warranty Repairs

Should your repair not be covered by warranty the repair will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost. By submitting the item for repair you are agreeing to payment of the repair without notification. Repair estimates are available upon request. You must include this request with your repair. Non-warranty repair estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Please advise us of your preferred method of payment. Horizon accepts money orders and cashiers checks, as well as Visa, MasterCard, American Express, and Discover cards. If you choose to pay by credit card, please include your credit card number and expiration date. Any repair left unpaid or unclaimed after 90 days will be considered abandoned and will be disposed of accordingly. **Please note: non-warranty repair is only available on electronics and model engines.**

United States:

Electronics and engines requiring inspection or repair should be shipped to the following address:

Horizon Service Center
4105 Fieldstone Road
Champaign, Illinois 61822

All other Products requiring warranty inspection or repair should be shipped to the following address:

Horizon Product Support
4105 Fieldstone Road
Champaign, Illinois 61822

Please call 877-504-0233 or e-mail us at productsupport@horizonhobby.com with any questions or concerns regarding this product or warranty.

United Kingdom:

Electronics and engines requiring inspection or repair should be shipped to the following address:

Horizon Hobby UK
Units 1-4 Ployters Rd
Staple Tye
Harlow, Essex
CM18 7NS
United Kingdom

Please call +44 (0) 1279 641 097 or e-mail us at sales@horizonhobby.co.uk with any questions or concerns regarding this product or warranty.

Germany:

Electronics and engines requiring inspection or repair should be shipped to the following address:

Horizon Technischer Service
Hamburger Strasse 10
25335 Elmshorn
Germany

Please call +49 4121 46199 66 or e-mail us at service@horizonhobby.de with any questions or concerns regarding this product or warranty.

Warranty Information

FCC Information

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CE Compliance Information for the European Union

Instructions for Disposal of WEEE by Users in the European Union

This product must not be disposed of with other waste. Instead, it is the user's responsibility to dispose of their waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or where you purchased the product.

Declaration of Conformity

(in accordance with ISO/IEC 17050-1)

No. HH20090323

Product(s):	Endeavor Sailboat EP RTR
Item Number(s):	PRB2450

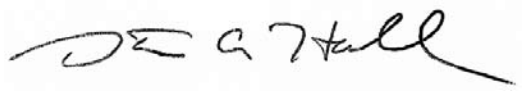
Equipment class: 1

The object of declaration described above is in conformity with the requirements of the specifications listed below, following the provisions of the European R&TTE directive 1999/5/EC:

EN 300-220	Technical requirements for Radio equipment.
EN 301 489-1, 301 489-3	General EMC requirements for Radio equipment
EN 60950	Safety

Signed for and on behalf of:
Horizon Hobby, Inc.
Champaign, IL USA
March 23, 2009

Steven A. Hall



Vice President
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Printed 03/2009 15242