



1/22 Scale 1M Racing Cup Yacht

VOYAGER

INSTRUCTION MANUAL

WARRANTY

Model Racing Products guarantees this model kit to be free from defects in both material and workmanship. The total monetary value under warranty will in no case exceed the cost of the original kit purchased. This warranty does not cover any components damaged by use or modification. Part or parts missing from this kit must be reported within 60 days of purchase. No part or parts will be sent under warranty without proof of purchase. To receive part or parts under warranty, the service center must receive a proof of purchase and/or the defective part or parts. Should you find a defective or missing part, contact the authorized MRP Service / Distributor nearest you.

For customers in North America, contact Ace Hobby Distributors, Inc. at (660) 584-6704. Under no circumstances can a dealer or distributor accept return of a kit if assembly has started.

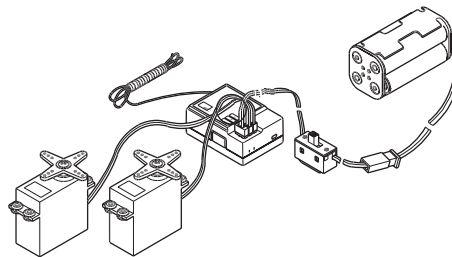
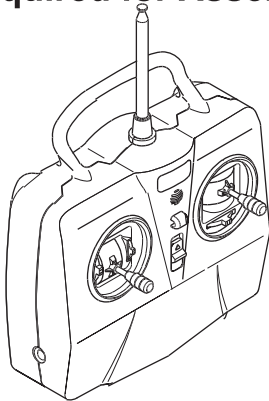
WARNING

The 1/22 Voyager Racing Yacht, its parts and its construction tools can be deadly weapons. Always exercise extreme caution when using this product. Improper operations may cause personal and/or property damage. Model Racing Products and its distributor have no control over damages resulting from shipping, improper construction, or improper usage. MRP assumes and accepts no responsibility for personal and /or property damages resulting from the use of improper building materials, equipment, and operations. By the act of assembling this product. The user accepts all resulting liability. If the buyer is not prepared to accept this liability, then he/she should return this kit in new, unassembled, and unused condition to the place of purchase.

No.5559

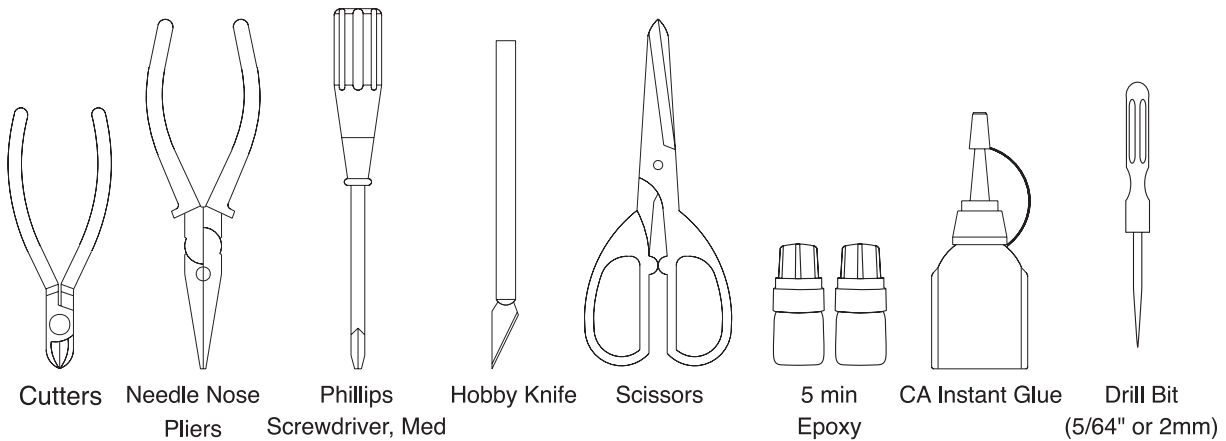


Items Required for Assembly:



2-Channel Surface Radio System w/ 2 servos

Tools Required for Assembly

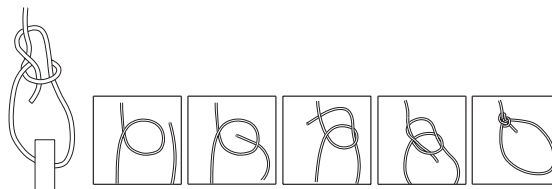


Cutters Needle Nose Pliers Phillips Screwdriver, Med Hobby Knife Scissors 5 min Epoxy CA Instant Glue Drill Bit (5/64" or 2mm)

Before Assembly

- * Read all directions thoroughly before assembly.
- * Check the parts against the parts diagram on the next two pages.
- * When mixing epoxy, mix the two parts equally.
- * When tighten screws, be sure not to overtighten, as the metal thread will strip out plastic.

Some Basic Knots



Bowline Knot

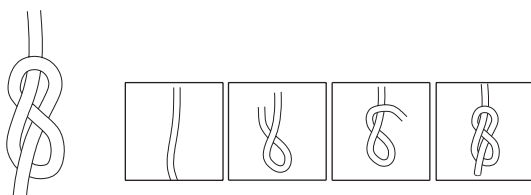
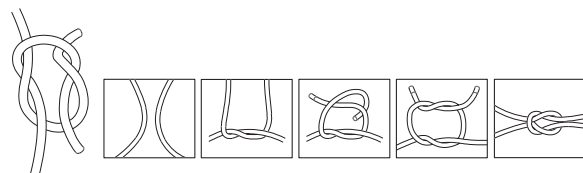


Figure Eight Knot



Reef Knot

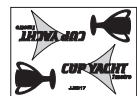
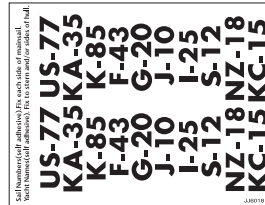
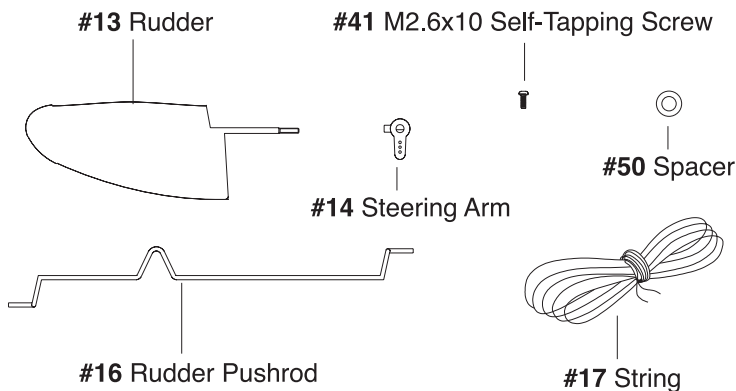
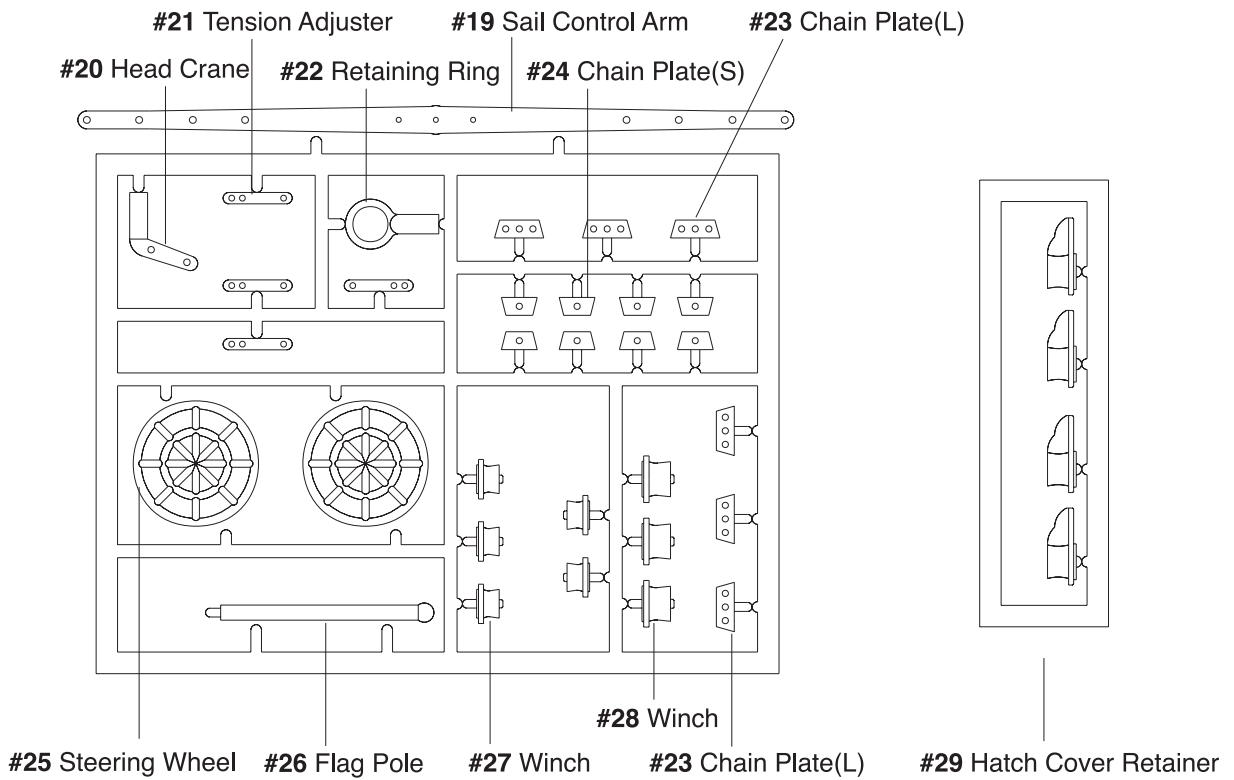
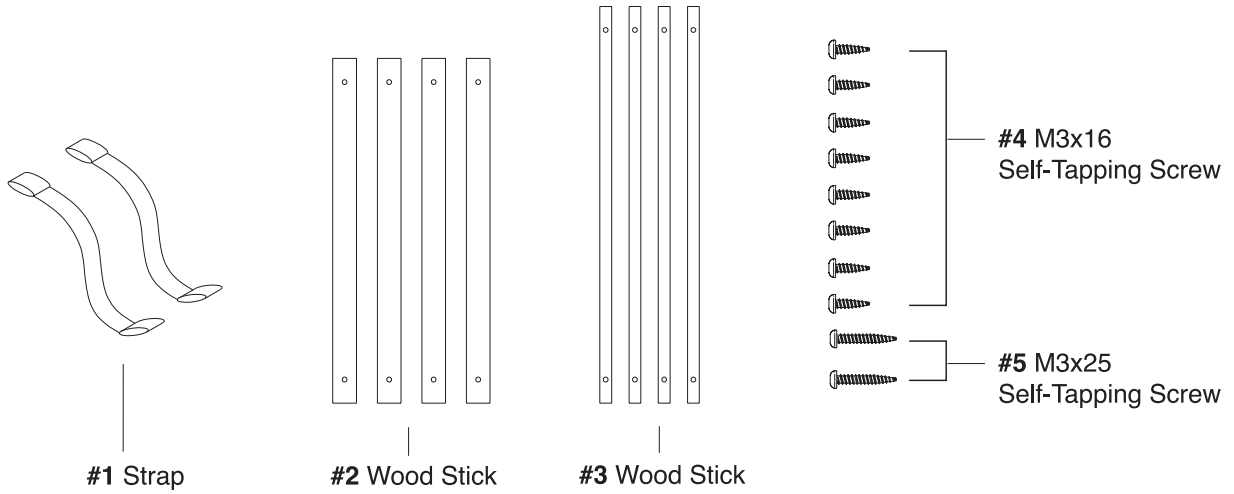
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1/22 Scale 1M Racing Cup Yacht



KIT CONTENTS

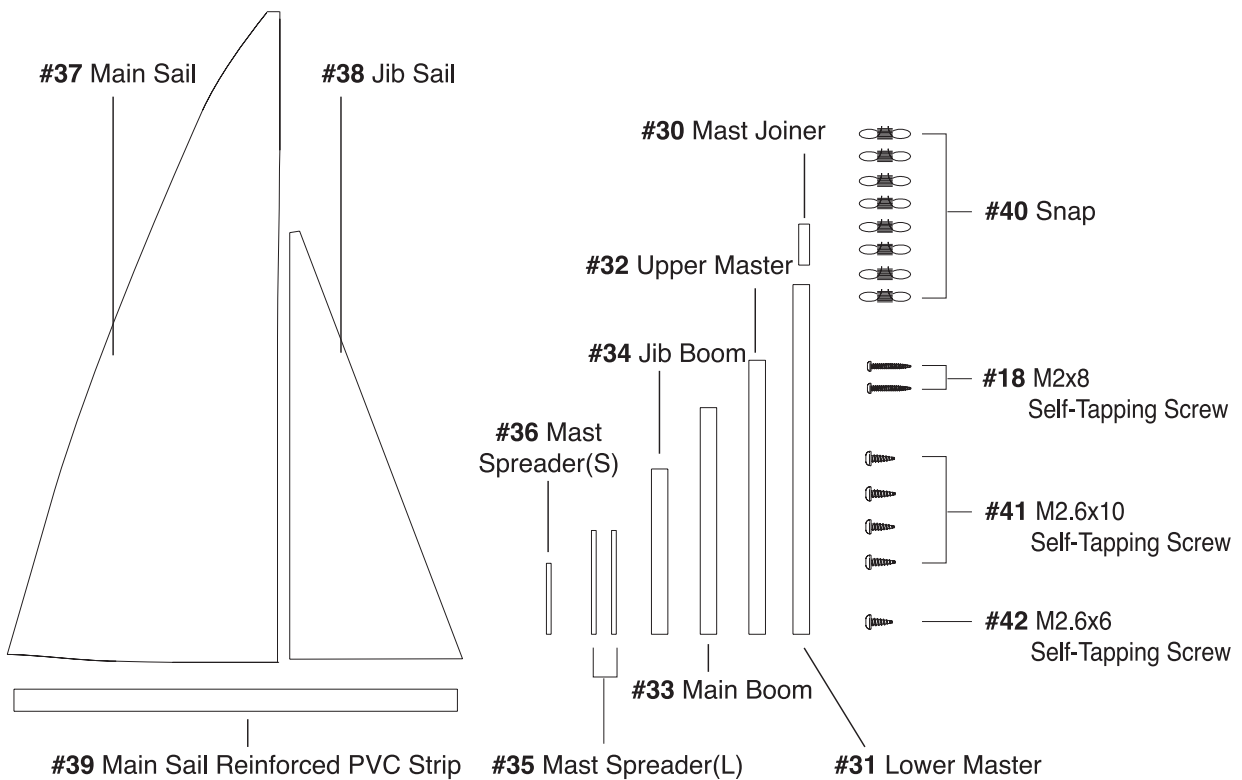
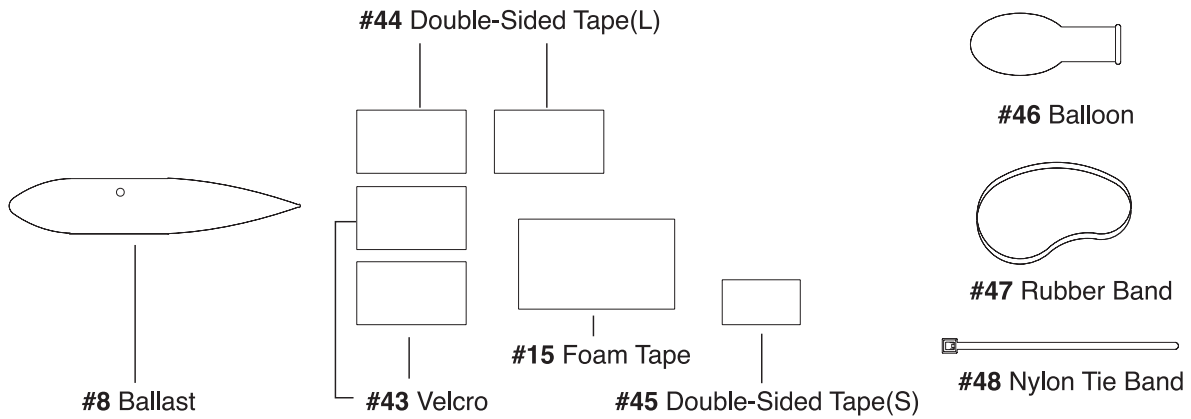
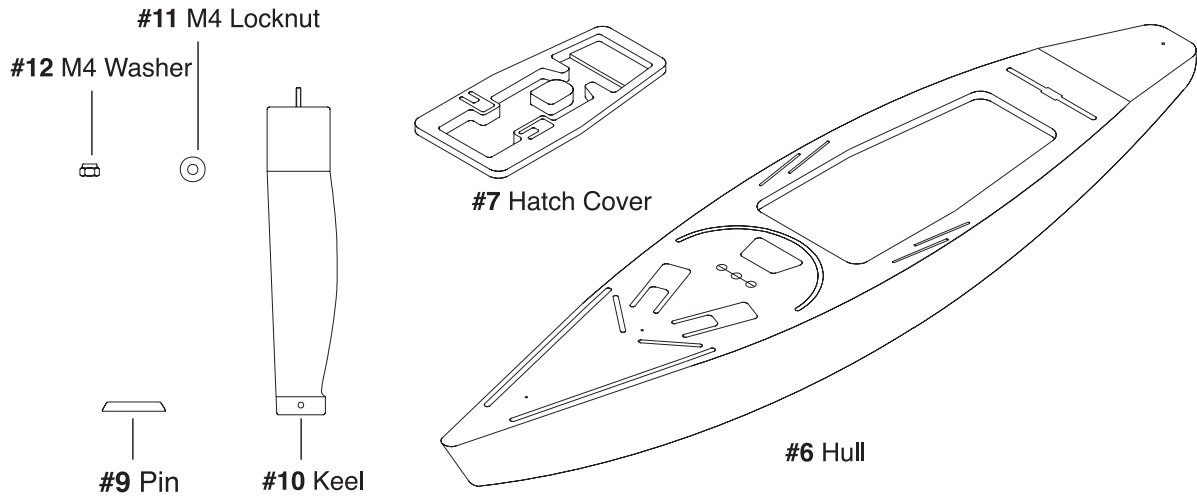
:PART REF NO.



#49 Decals

VOYAGER

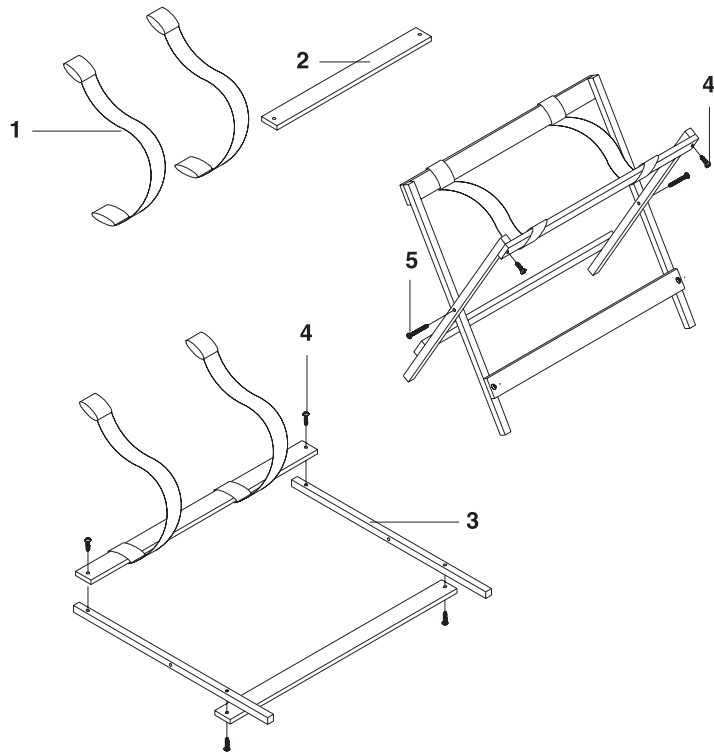
1/22 Scale 1M Racing Cup Yacht



1

BOAT STAND ASSEMBLY

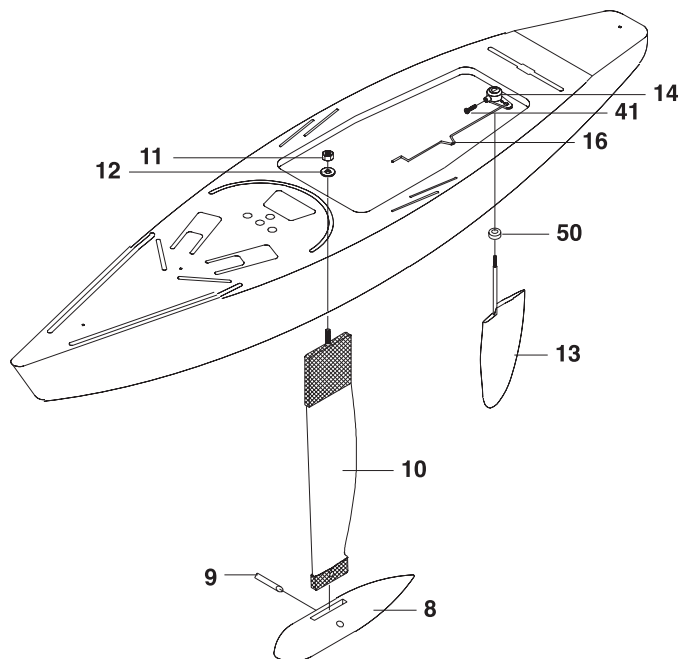
1. Locate Hull Straps(#1) and thread them onto one of the #2 Wood Sticks. Secure with Self-Tapping Screw(#4) onto the TOP side of two #3 Wood Sticks.
2. Bolt the second #2 Wood Stick onto BOTTOM side of #3 Wood Sticks.
3. Repeat procedure for other section of the stand, leaving the upper #2 Wood Stick as the last step. Join two sections with long Self-Tapping Screw(#5).



2

RUDDER AND KEEL ASSEMBLY

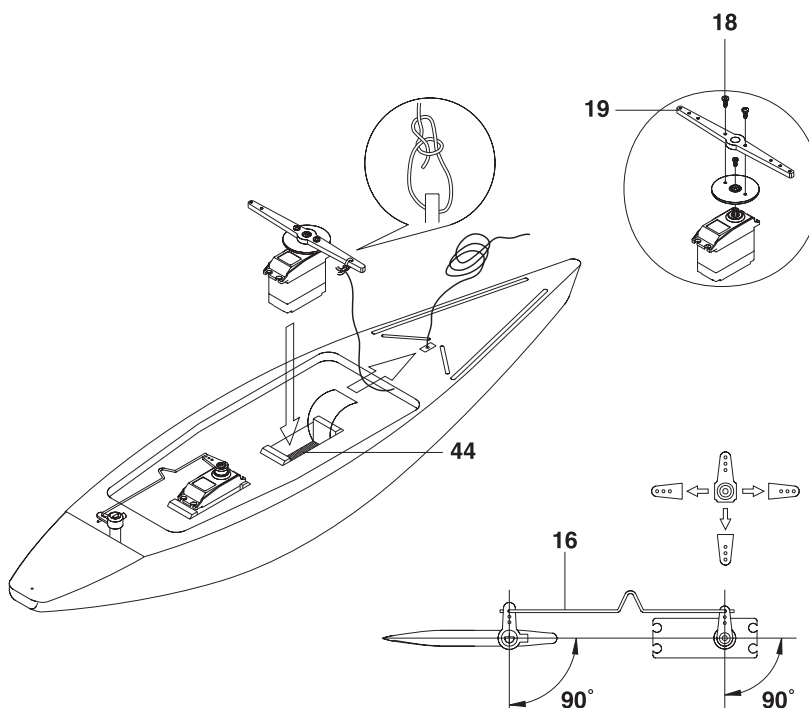
1. Trail fit the Keel(#10) to the Hull(#6) and Ballast(#8). It might be necessary to round the corners or remove any excess flashing from the Keel.
2. Apply 5 Min Epoxy onto upper part of the Keel shaded in gray. Insert the Keel into Hull and secure the keel with M4 Locknut(#11) and Washer (#12).
3. Apply 5 Min Epoxy onto lower part of Keel shaded in gray. Insert ballast in place and retain with the pin (#9). When cured, you may want to paint the ballast white.
4. Now you can place the hull in the stand. Insert the Rudder(#13) and Spacer(#50) in place then secure it with the Rudder Control Arm(#14) and Self-Tapping Screw(#41). Suggestion: connect the wire rudder pushrod to the outer hole on the control arm first. You can use it to hold the control arm as you place it over the rudder shaft.



3

SERVO INSTALLATION

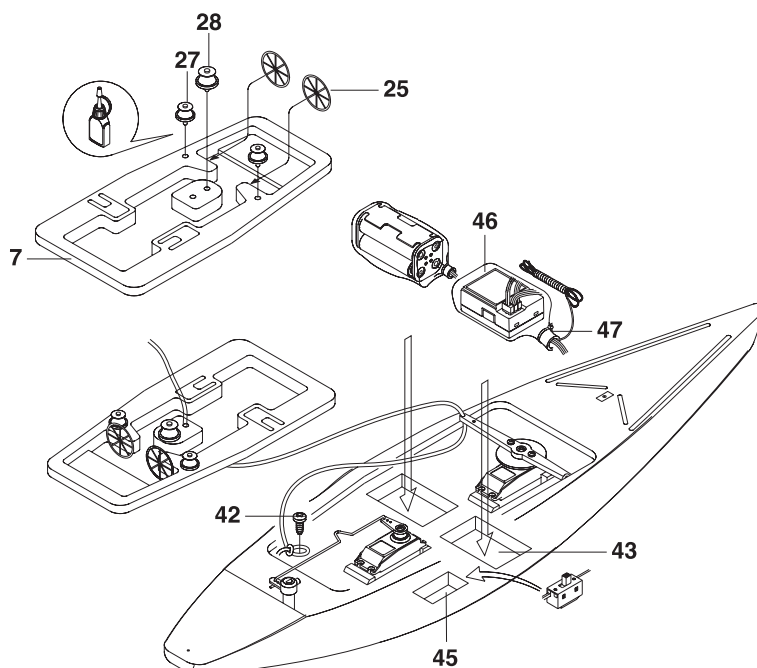
1. Before servo installation, Plug servos and switch harness into receiver by following your radio's instruction manual and turn the radio on to neutralize servo position.
2. Secure Specialized Horn(#19) to the front (sail) servo wheel with two Self-Tapping Screws(#18).
3. Using a stock servo horn, trim away excess to make a horn as shown for the rear (rudder) servo.
4. Install two servos on the servo tray with double-sided tape(#44).
5. Connect the Rudder Push Rod(#16) to the horn of rear servo and make sure they are perpendicular as shown.
6. Cut a length of line(#17) 100cm (40") long to make the Jib Sheet Control Line. Pull the line through the hole in the bow then tie a Bowline Knot on the Starboard Sail Control Arm. Tie a loose knot at the other end of the line to prevent it from pulling back through the hole.



4

RECEIVER AND BATTERY INSTALLATION

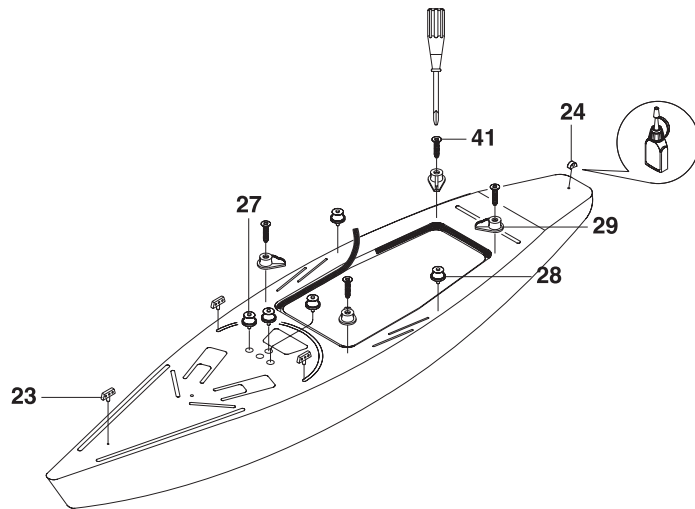
1. Put the receiver and battery pack in the provided balloons(#46) and tie with Rubber Band(#47). Secure the receiver and battery pack with the Velcro(#43) provided.
2. Secure the switch as shown with double-sided tape(#45). You may want to route the wires and tie the wires neatly with provided Nylon Tie Band(#48).
3. Route the antenna around the deck opening (below deck).
4. Secure Hatch Cover Fittings(#25, #27, #28) with CA glue as shown.
5. Cut a 90cm(35") line as a Main Sheet Control line. Tie a Bowline Knot and secure it with a Self-Tapping Screw(#42) on servo tray.
6. Thread the other end through the outer hole on the Port Sail Control Arm(#19) and then through the Hatch Cover. Tie a loose knot at the end of the line to prevent it from pulling back through the hole.



5

Hull Assembly

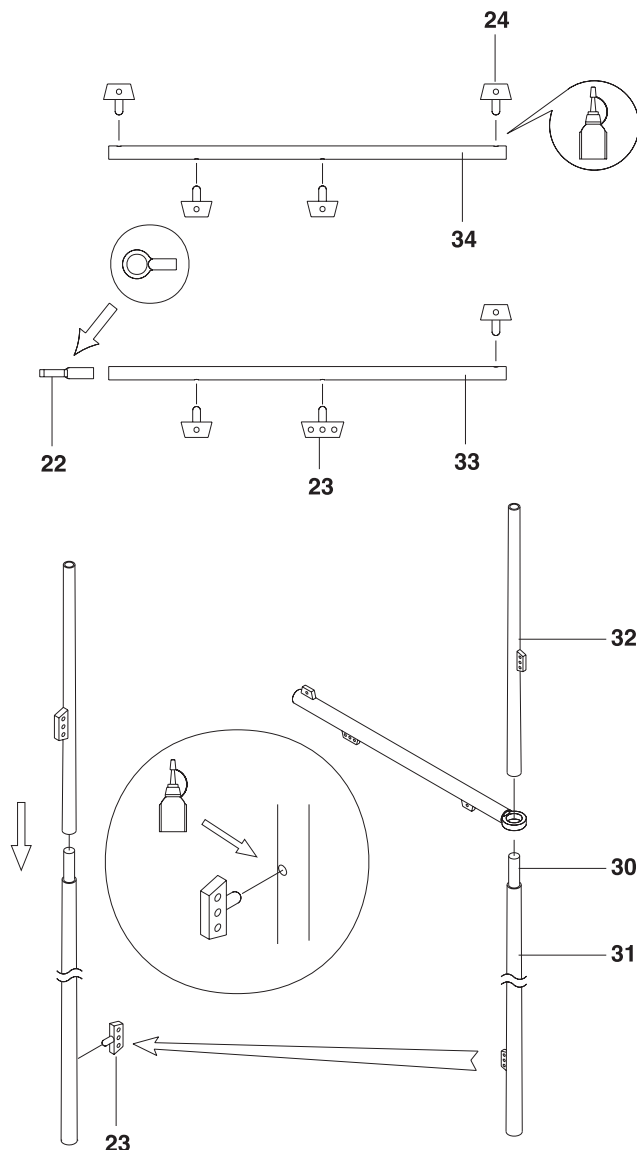
1. Locate the Hull Fittings(#23, #24, #27, #28), and secure the fittings with CA glue.
2. Locate the foam tape(#15), and cut it into 3mm (1/8") wide strips. Peel and stick these strips around the opening for a water tight seal.
3. Secure Hatch Covering Retainer(#29) with Self-Tapping Screw(#41).



6

Boom and Mast Assembly

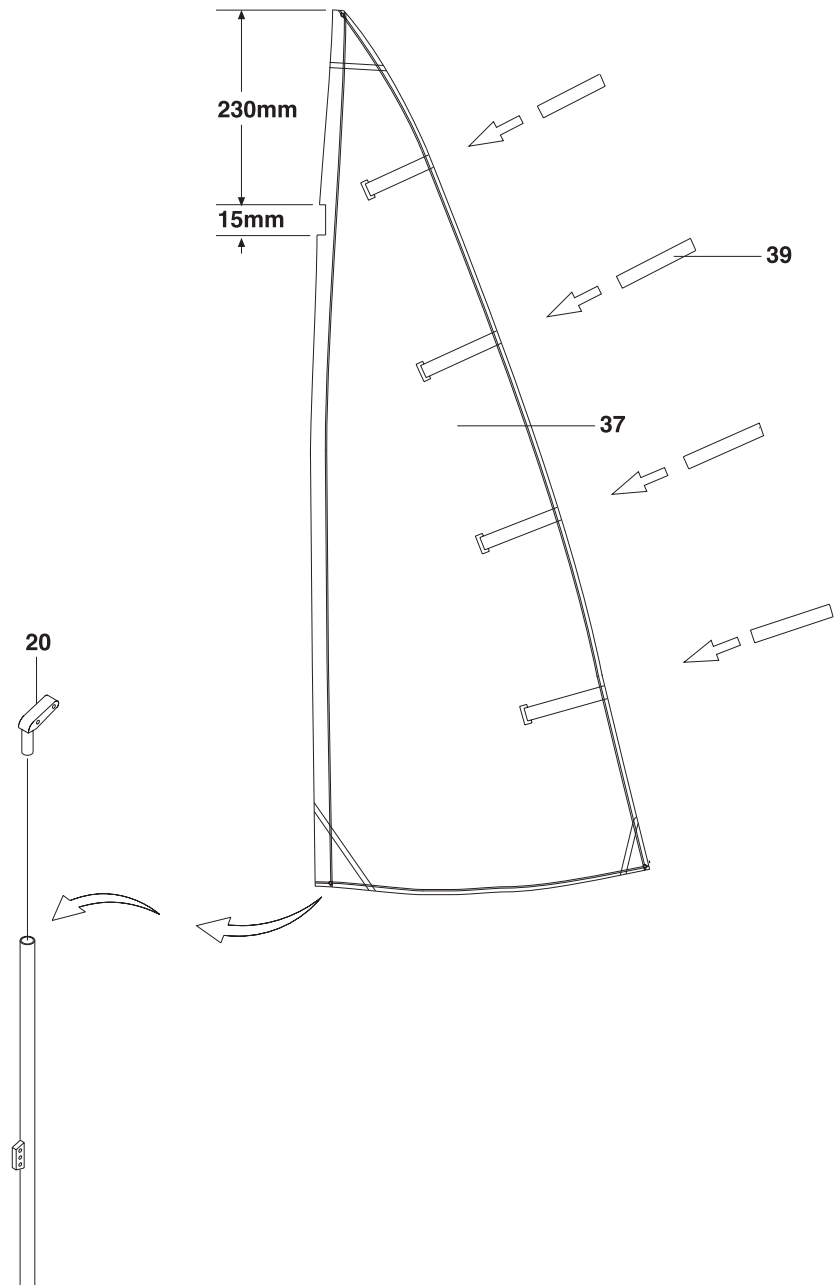
1. Locate the Jib Sail Boom(#34) and Main Sail Boom(#33). Secure the Chain Plates(#23, #24) with CA as indicated.
2. Insert the Retaining Ring(#22) into the end of Main Sail Boom.
3. Locate the Mast Joiner(#30), it should be glued in top end of the Lower Mast(#31). Insert the Lower Mast through the Main Sail Boom Retaining Ring then join the Upper Mast(#32). Note: Do not glue the Upper Mast at the joint for easy dismantling after sailing.



7

Main Sail Securing I

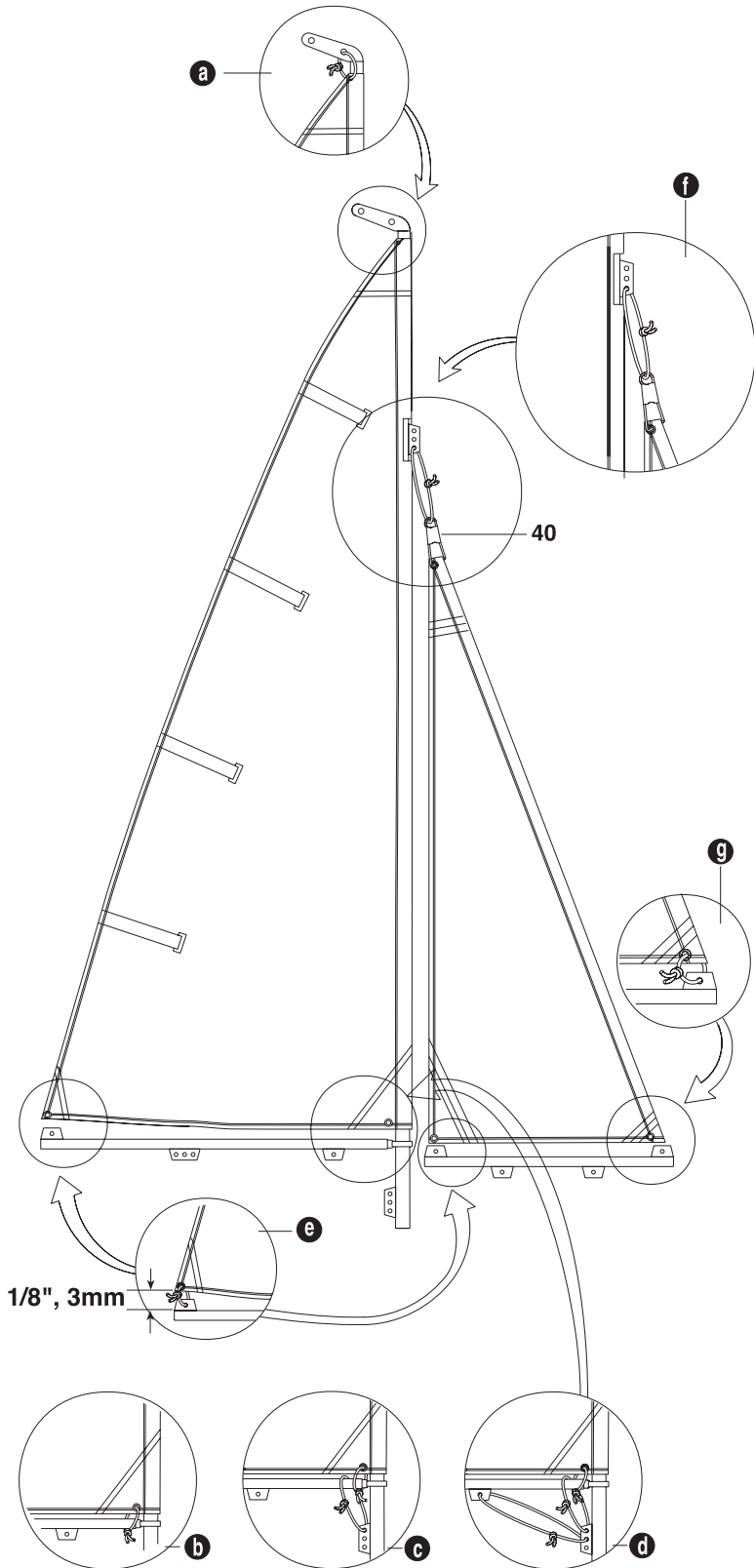
1. Cut an opening in the front of the Main Sail(#37) as indicated about 1.5cm(5/8") long. This is for the Chain Plate to pass through.
2. Thread the Mast through Main Sail and let Chain Plate come out at the opening.
3. Insert the Mast Head Crane(#20) in place but do not glue it for easy dismantling after sailing.
4. Locate Plastic Strip(#39) cut it to four pieces. Secure these small plastic strips onto the main sail with double-sided tape.



8

Main Sail Securing II

1. Cut a piece of line 10cm(4") long and tie it to the Main Sail with a Reef Knot as Diagram A. Note: Keep the Sail smooth at the opening for the Chain Plate. Cut away the excess line.
2. Cut another 10cm(4") line and tie the Main Sail and the Main Sail Boom at the root with Reef Knot as Diagram B.
3. Cut a 20cm(8") line and tie the Main Sail Boom and Chain Plate tightly with Reef Knot as Diagram C.
4. Cut a 25cm(10") line and tie the Chain Plates of Main Sail Boom and Mast with Reef Knot as Diagram D. Note: Keep this line tightly.
5. Cut another 10cm(4") line and tie the Main Sail and Main Sail Boom with Reef Knot as Diagram E.
6. Keep the distance between Chain Plate and Sail at about 3mm(1/8").



9

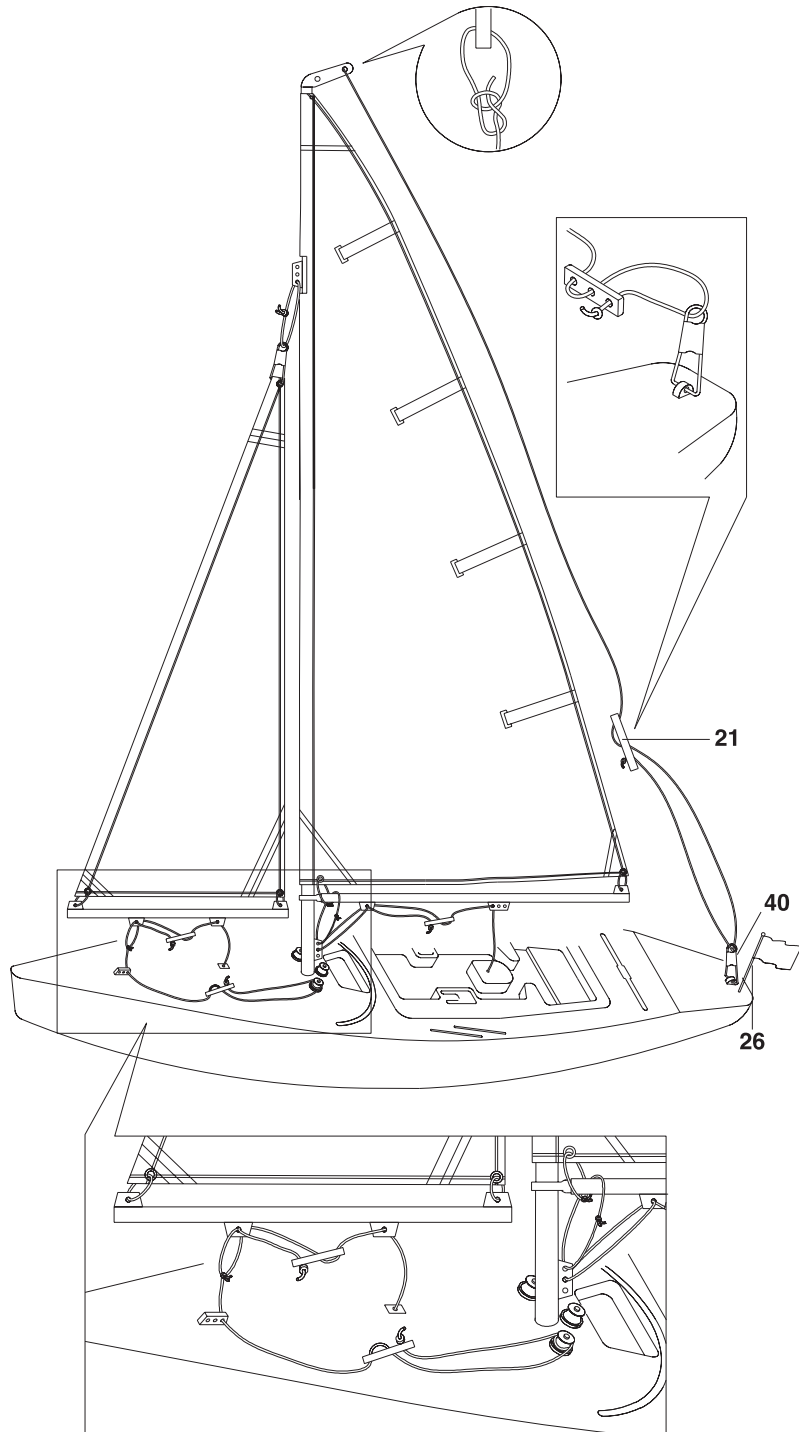
Jib Sail Securing

1. Cut two 10cm(4") lines and tie the Jib Sail bottom and Jib Sail Boom with Reef Knot as Diagram E & G.
2. Cut a 32cm(12.5") line and tie the Chain Plate and one end of Snap(#40) with Reef Knot. Keep the lines 14.5cm(5 3/4") in length and connect the Jib Sail with the Snap.
3. Glue all knots with CA after tying.

10

Boom Securing

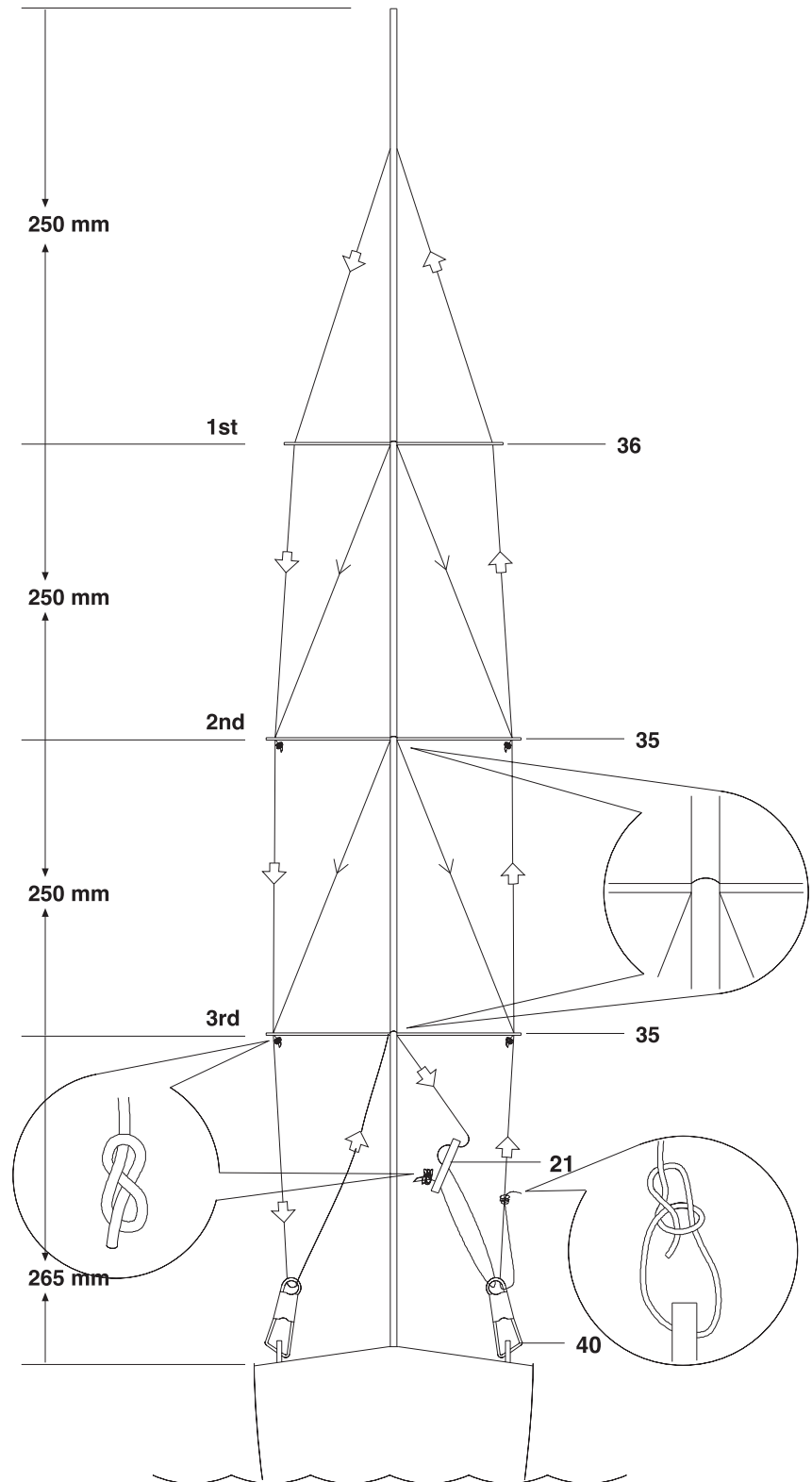
1. Insert the Mast into the Hull and cut a line measuring 200cm(79"). Tie one end at the head crane with Bowline Knot. Thread the other end through the Tension Adjuster(#21) then a Snap. Then tie a Figure Eight Knot back at the Tension Adjuster. Connect the Snap onto the Stern Chain Plate.
2. Adjust the line tightly by moving up the Tension Adjuster.
3. Move the Main Sheet Control Servo Horn to the "Close Position" as illustrated on page 11.
4. Close the Hatch Cover and thread the Main Sheet Control Line through the Main Boom Chain Plates and Tension Adjuster. Position the Tension Adjuster at the middle position between two Chain Plates then tie a Figure Eight Knot.
5. Repeat the same procedure on the Jib Sail Control Line.
6. Cut a 60cm(24") line and tie one end at the Chain Plate of Jib Sail Boom. Thread the other end through the Bow Chain Plate, Tension Adjuster, and one Winch on the hull as shown. Make a Figure Eight knot at the Tension Adjuster then adjust it tightly.
7. Locate Flag Pole(#26) and stick on the Flag you want. Insert the Flag Pole at the stern. (Do not glue the pole, the hole is also a drain hole for hull).
8. Referring to the color box, apply the decals(#49).



11

Rigging the Mast

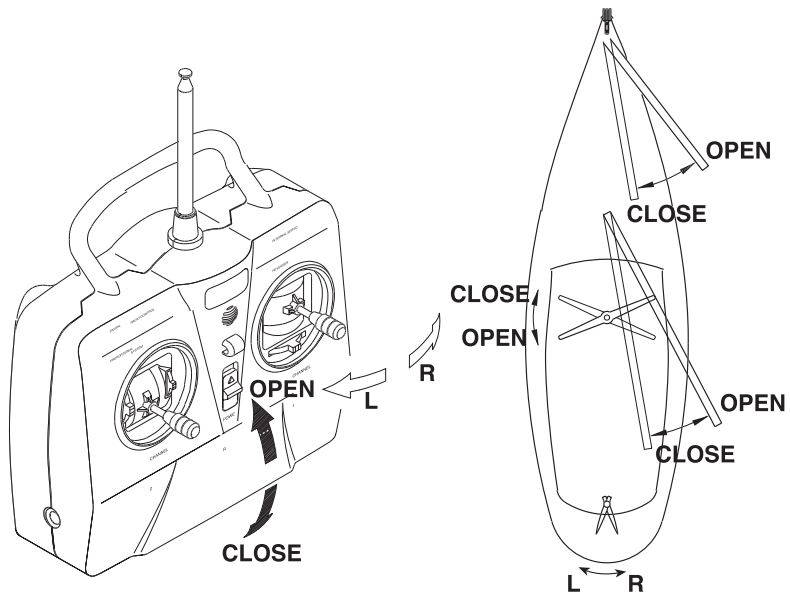
1. Locate the holes on Mast and use an Awl or 2mm(5/64") bit, drill the Sail.
2. Insert three Mast Spreaders(#35,#36) in place.
3. Connect two Snaps to the Chain Plates on the Hull.
4. Cut a line measuring 300cm(120") and tie a Bowline Knot at the Starboard Snap.
5. Thread the other end through the three Mast Spreaders, the lowest hole of Chain Plate, then go down through the three Mast Spreaders, Port Snap, and up to the 3rd Mast Spreader; then go around the Mast as illustrated.
6. Finally, go through a Tension Adjuster and the Starboard Snap and tie a Figure Eight Knot at the Tension Adjuster. Adjust the line tightly.
7. Cut two lines 100cm(40") long. Tie one end at the 3rd Mast Spreader with a Figure Eight Knot and thread the other end around the Joint of 2nd Mast Spreader then tie the other end at 3rd Mast Spreader. It might be difficult to adjust the line tightly. It might be wise to bend the spreader slightly and make the knot as close as possible to the spreader. Note: Be careful not to overbend the spreader as it might hurt the spreader itself.
8. Repeat the same procedure to the other line on 2nd and 1st Mast Spreaders.
9. Fine tune mast for side bend and back bend control to suit your sailing and wind conditions.



12

RADIO ADJUSTING

Adjust the radio and Tension Adjuster as shown if needed. The sails are free when in "Open" position and taut when in "Close" position.



13

MAST ADJUSTING

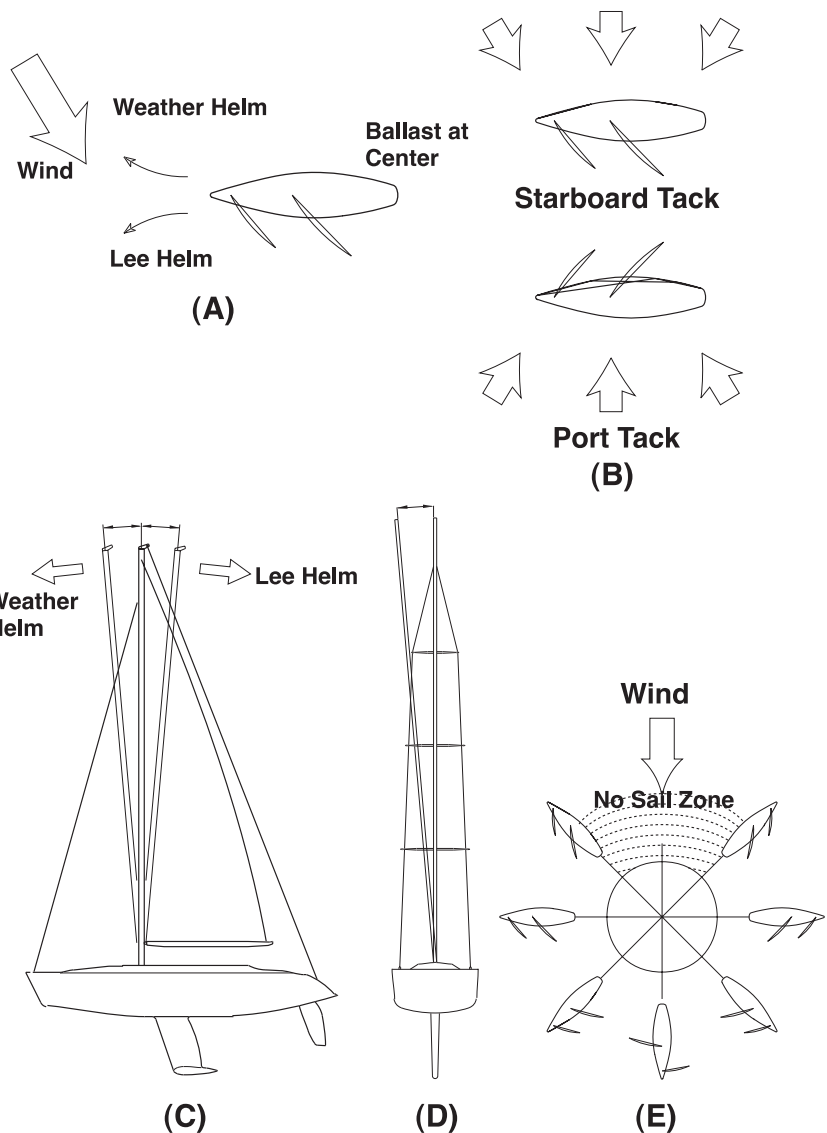
(A) Weather Helm and Lee Helm
 With the Rudder in line with the Keel, if the boat tends to turn windward, it is said that the boat carries weather helm. If it tends to turn leeward, it is said that it carries lee helm. The situation in which the boat shows neither tendency is called balanced helm. In general, a boat carrying a slight weather helm is better in performance than one carrying lee helm or having balanced helm. Therefore, after adjusting the boat to balanced helm re-adjust it so that it carries slight weather helm.

(B) Starboard Tack and Port Tack
 The right side of the boat is called starboard and the left side of boat is called port. When the yacht sails with the wind cross the starboard and the mainsail is on the port side, it is said that the boat is on a starboard tack. When it sails with the wind cross the port and with the mainsail on the starboard, it is said that boat is on a port tack. You can sail on a starboard or port tack when sailing close-hauled (i.e. windward), wind abeam (i.e. leeward).

(C) If your yacht carries weather helm, incline the mast a bit forward. If your yacht carries lee helm, incline the mast a bit backward.

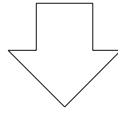
(D) Always keep the Mast straight.

(E) No sail zone



PRINCIPLE OF SAILING

Wind



Wind abeam

Sails: each at a position of 45°
Rudder: in center position

Quarter lee

Sails: letting both out a little more
Rudder: to the left



Starboard tack-running

Sails: letting both out to their maximum position
Rudder: in center position



Port tack-running

Sails: letting both out to their maximum position
Rudder: in center position



Quarter lee

Sails: pulling both in a little
Rudder: in center position



Luffing up

Sails: pulling in bit by bit
Rudder: to the left



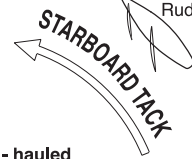
START

Wind abeam

Sails: each at a position of 45°
Rudder: in center position



Bearing away
Sails: let both out so as not to shiver
Rudder: to the left



Tacking

Sails: keeping pulled in
Rudder: to the left



Port tack - close - hauled

Sails: keeping pulled in
Rudder: to be held at the center as long as the sails do not shiver



Tacking

Sails: keeping pulled in
Rudder: to the right

45

Starboard tack - close - hauled

Sails: keeping pulled in
Rudder: to be held at the center as long as the sails do not shiver



Tacking*

Sails: keep pulled in
Rudder: to the left



Port tack - close - hauled

Sails: keep pulling in
Rudder: to be held at the center as long as the sails do not shiver

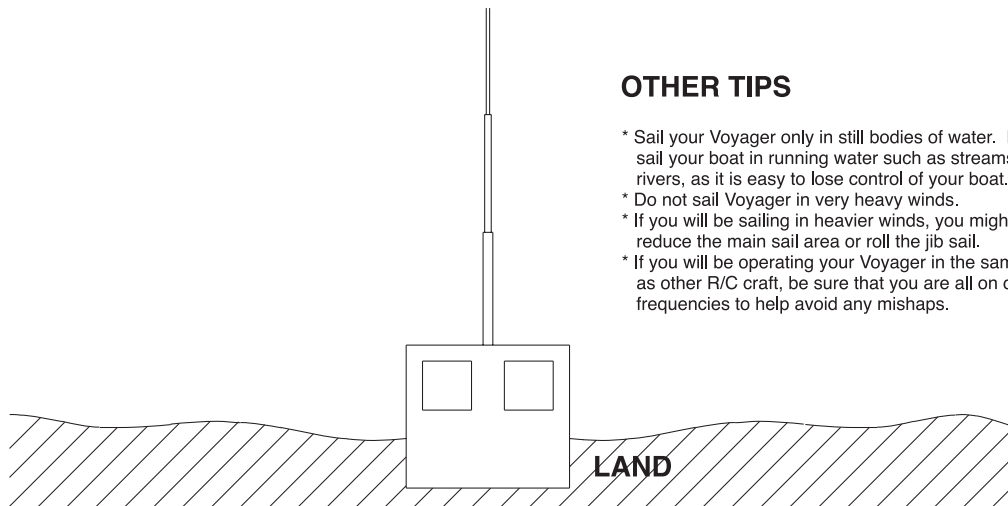


Luffing up

Sails: pulling both in all the way
Rudder: to the left

OTHER TIPS

- * Sail your Voyager only in still bodies of water. Never sail your boat in running water such as streams or rivers, as it is easy to lose control of your boat.
- * Do not sail Voyager in very heavy winds.
- * If you will be sailing in heavier winds, you might either reduce the main sail area or roll the jib sail.
- * If you will be operating your Voyager in the same area as other R/C craft, be sure that you are all on different frequencies to help avoid any mishaps.

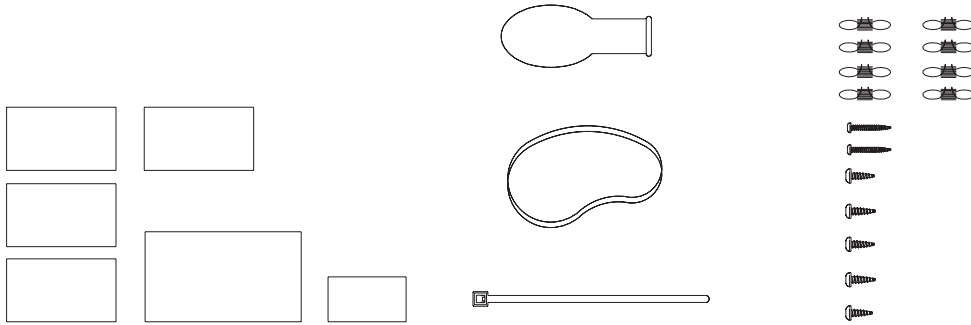


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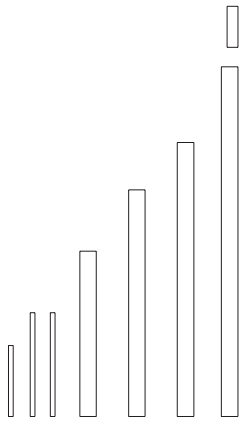
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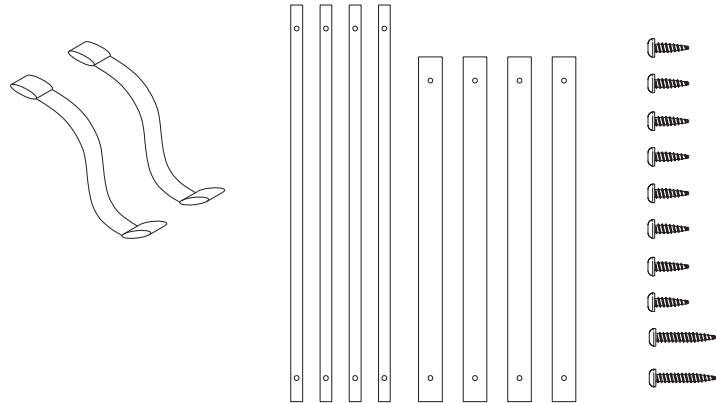
PJ6009 Hardware



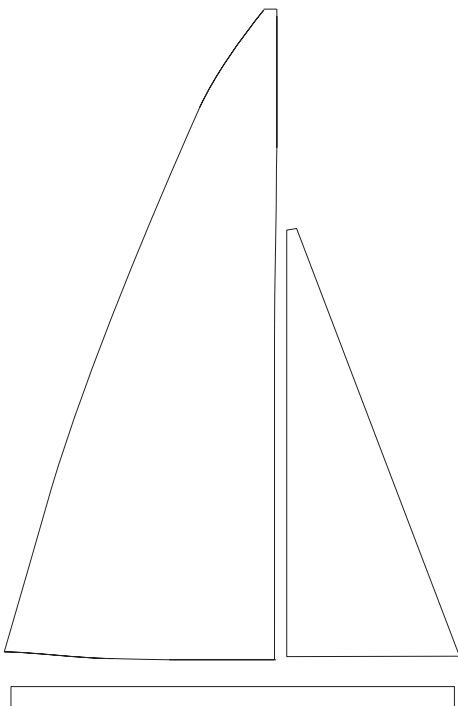
PJ6004 Mast/Boom



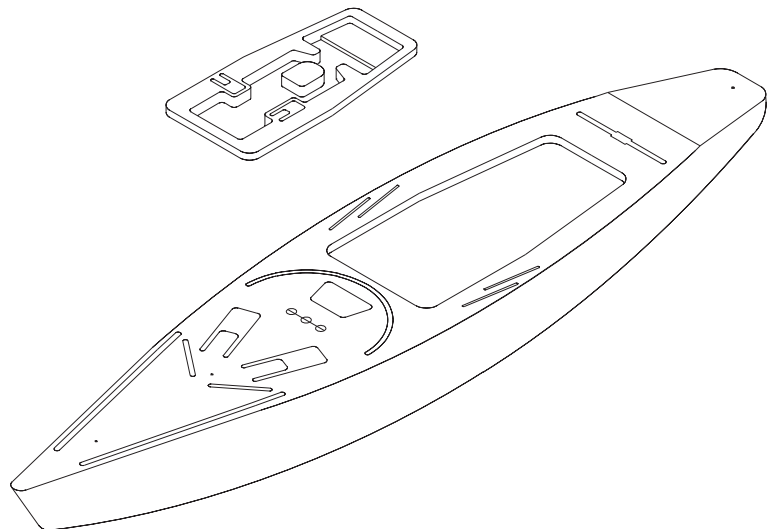
PJ6002 Wood Stand



PJ6003 Sail Set



PJ6011 Hull

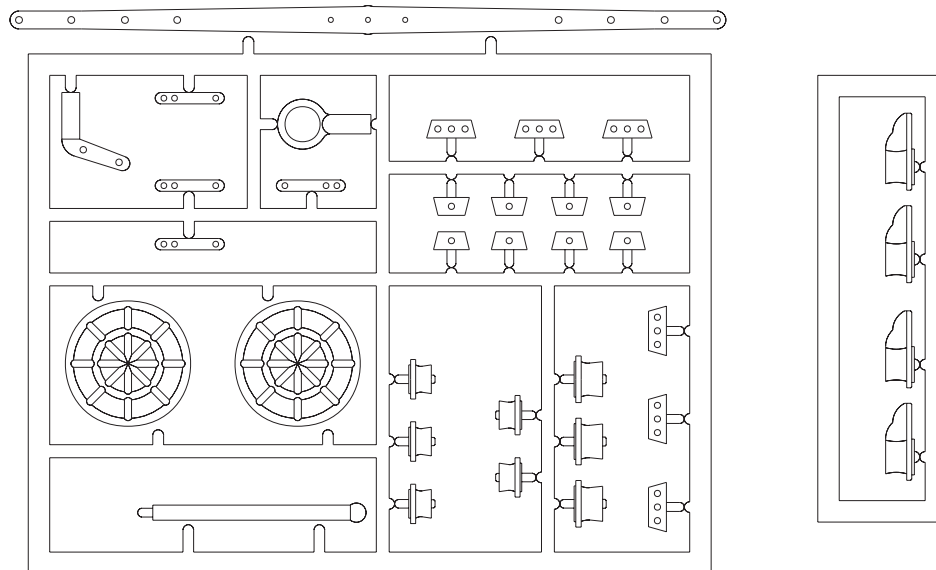


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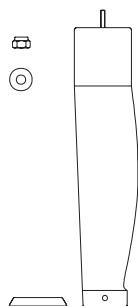
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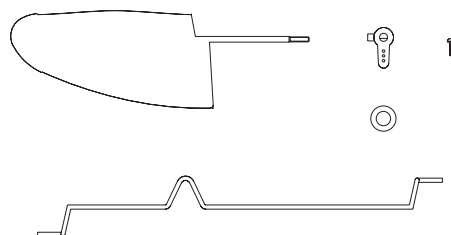
PJ6001 Plastic Decoration



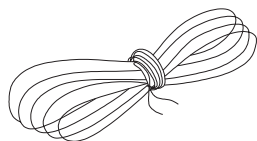
PJ6005 Keel



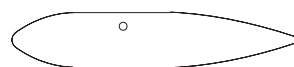
PJ6007 Rudder Set



PJ6008 String



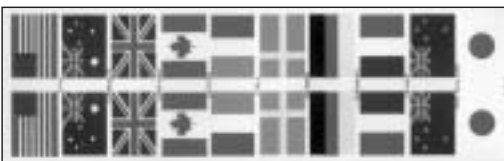
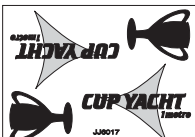
PJ6006 Ballast



PJ6010 Decals

Sail Numbers (self adhesive). Fix each side of mainsail.
Yacht Names (self adhesive). Fix to stern and/or sides of hull.

US-77 US-77
KA-35 KA-35
K-85 K-85
F-43 F-43
G-20 G-20
J-10 J-10
I-25 I-25
S-12 S-12
NZ-18 NZ-18
KC-15 KC-15





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