

DISCOVERY

2.4GHz RTR Racing Sailboat

Model No: 9901

SPECIFICATION:

- Length: 610 mm (24 in) •
- Beam: 175 mm (7 in) •
- Mast Height: 860 mm (34 in) •
- Overall Height: 1180 mm (46 in) •
- RTR Total Weight: 1600 g (3.5 lb) •
- Sail Area (Main): 10.8 dm² (167.4 in²) •
- Sail Area (Jib): 6.4 dm² (99.2 in²) •
- Sail Area (Overall): 17.2 dm² (266.6 in²) •
- Hull Material: Hand Laid Fiberglass
(Detail Finished With Painting)
- Required: 4 "AA" Batteries for Transmitter •
4 "AA" Batteries for Receiver



Assembly and Operation Manual

INSTRUCTION MANUAL **THIS MODEL IS NOT A TOY!**

THESE INSTRUCTIONS SHOULD BE READ BY A SUPERVISING ADULT

DISCOVERY 2.4GHz RTR SAILBOAT

Model No:9901

IMPORTANT :

1. This is not a toy. Assembly and operating of this boat requires adult supervision.
2. Please take time to read the instructions carefully and completely before attempting to operate your model.
This manual contains the instructions you need to safely build, operate and maintain your R/C sailboat.

CONTENTS OF KITS



Hull with winch servo, rudder servo, battery box & receiver pre-installed



2.4GHz Transmitter



Completed Assembled Jib Sail & Main Sail



Plywood Display Stand sets



EVA Tube



Rudder
M3x5 inner hexagon screw



ABS Keel
Zinc Alloy Ballast



Allen Key

Useful tools required for assembly



Philips Screwdriver Small

ITEMS REQUIRED FOR COMPLETION

Eight "AA " Alkaline batteries. (four for the transmitter, four for the receiver battery box.)

BASIC BOAT TERMINOLOGY

BOW: The front of the boat.

STERN: The back of the boat.

PORT: This is the left side of the boat when view the boat from the stern. An easy way to remember this is that port and left both contain four letters.

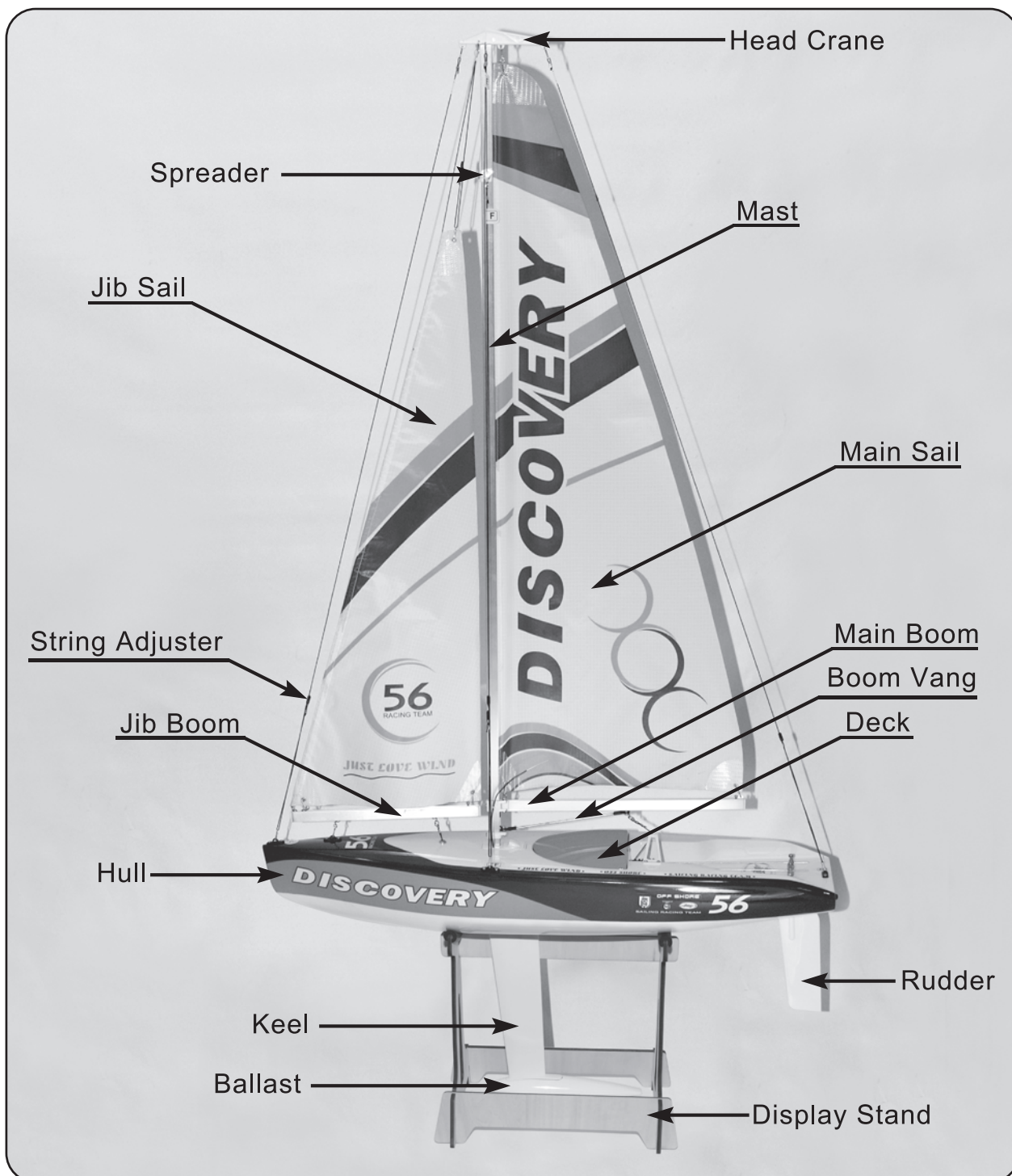
STARBOARD: This is the right side of the boat when view the boat from the stern.

HULL: The body of the boat.

DECK: The top of the boat.

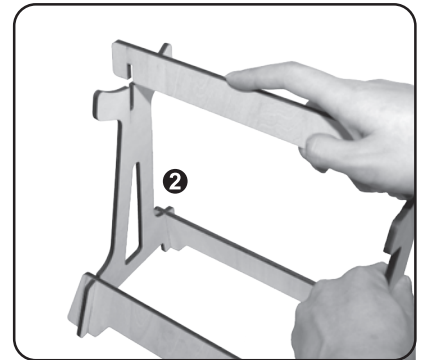
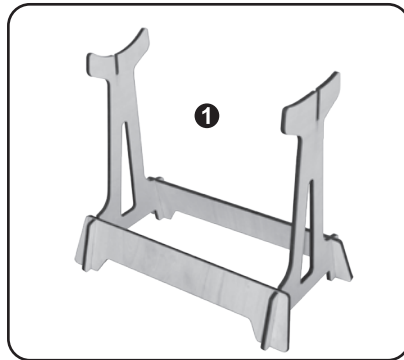
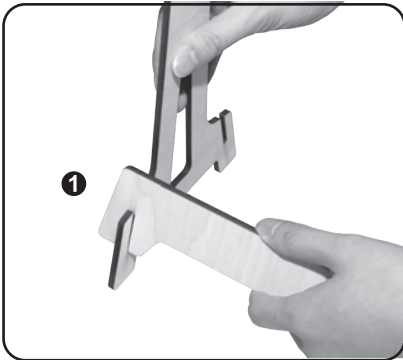
KEEL: A weighted blade that protrudes from the bottom of the hull as a means of providing lateral stability.

RUDDER: The hinged vertical plate mounted at the stern that controls steering.

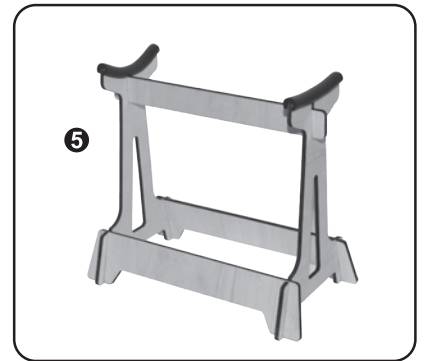
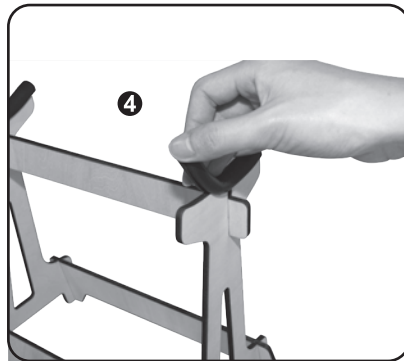
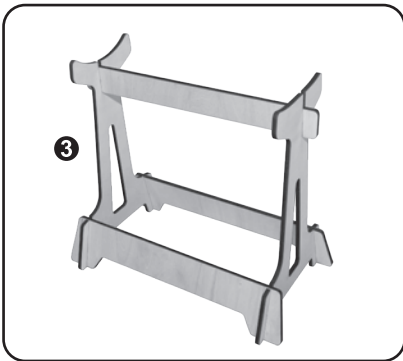


DISPLAY STAND ASSEMBLY

- 1 Display stand set including: two pcs of side plywood panel, two pcs of bottom plywood panel, one pc of top plywood panel.
- 2 Interlock two pcs of side panel with one pc of bottom panel. Follow the same step, assemble the other pc of bottom panel with the two pcs of side panel.

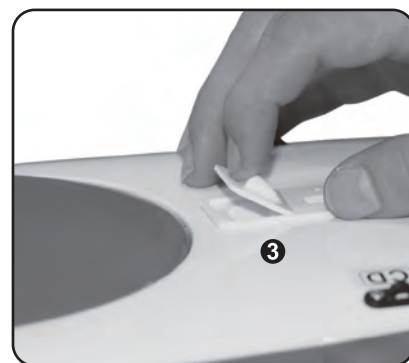
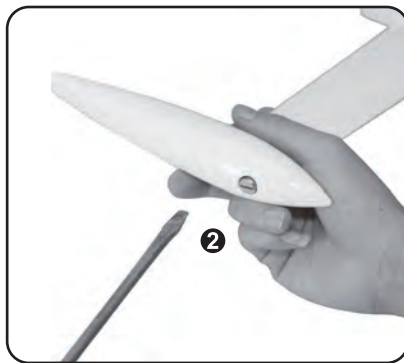
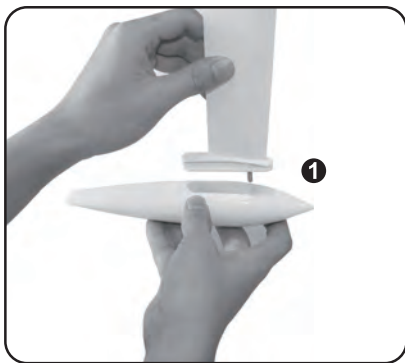


- 3 Interlock the top panel (smaller size than bottom panel) with the two pcs of side panel. It is suggested that apply CA glue on the interlocking points of the panels.
- 4 Locate the EVA tube then use scissor to cut the EVA tube so it can be installed on the hull support as shown. This will protect the hull bottom from scratches during construction and storage.

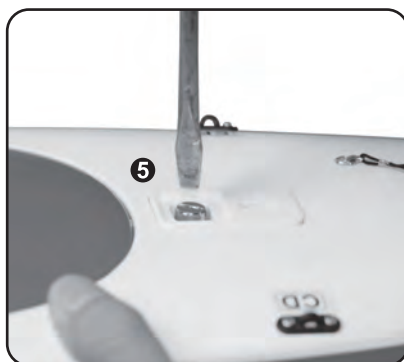


KEEL & BALLAST ASSEMBLY

- 1 Thread the keel rod into the ballast.
- 2 Using M5 locknut and M5 washer to secure keel and ballast.
- 3 Remove the cap of mast mount.

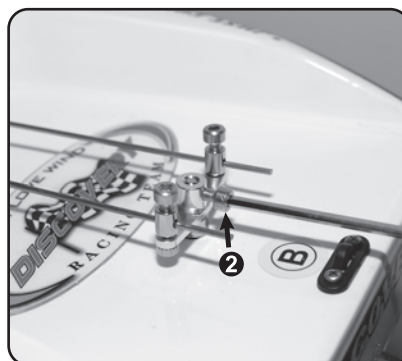
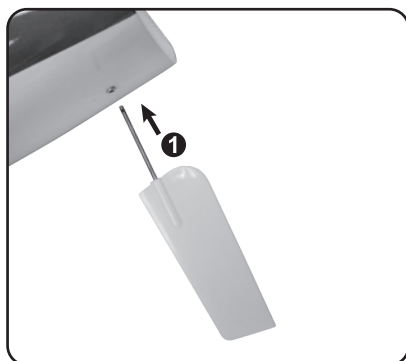


- 4 Thread the keel shaft into the bottom of hull.
- 5 Using M5 locknut and M5 washer to secure the keel shaft. Then replace the cap of mast mount.
- 6 Now finish the keel and ballast assembly, place the hull on display stand for next construction.



RUDDER ASSEMBLY

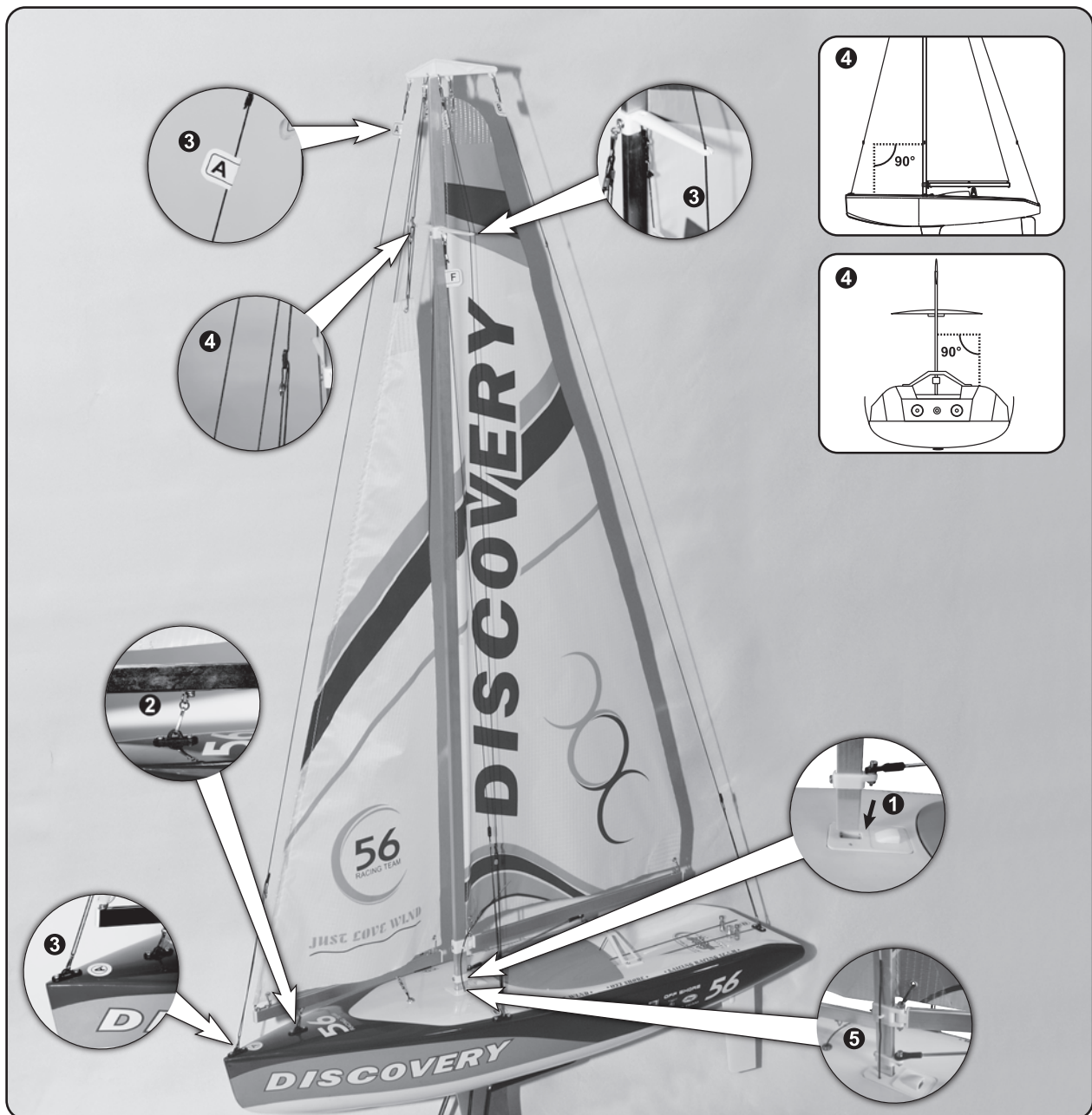
- 1 Insert the rudder shaft up through the bottom of the stern of hull. Notice the rudder's direction as shown.
- 2 Use 2.5mm Allen Key and the M3x5 inner hexagon screw to secure the rudder shaft on the rudder arm. Always keep the rudder on the center line of hull.



MAIN SAIL AND JIB SAIL RIGGING

NOTE: *Main sail and jib sail are pre-assembled in factory. Following the below process to simply finish the rigging of main sail and jib sail on boat.*

- 1 Attach the main mast assembly to the main mast mount as shown.
- 2 Connect the jib boom with the bow of hull by securing the snap link to the eyelet located on the bow of hull.
- 3 There are six pcs of black string which are already marked with A, B, C, D, E, F, as well as there are four eyelets on the hull which are already marked with A, B, CD, EF. Simply unloose the black strings which are connected with head crane, and then secure the snap link on the black string A with the eyelet A, the other strings following the same process as string A. For string C and E, attach the black string inside the eyelet of spreader as shown.
- 4 After securing all the strings with the eyelets, adjust the string adjuster one by one on each string. It is important to make sure that the mast is as straight as possible as shown. Then adjust the string adjuster on the tip of jib sail, make sure the string lifting the jib sail tensely so that the jib sail won't contact with mast while moving freely in sailing.
- 5 Receiver antenna is already threaded through the main mast mount in the factory. Using this antenna thread through the eyelet located on the main boom joiner as shown, then secure the antenna with a clear tape.

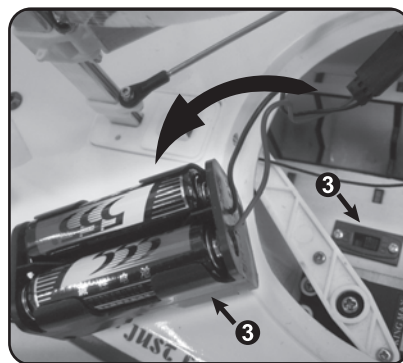


MAIN BOOM & JIB BOOM RIGGING POSITION

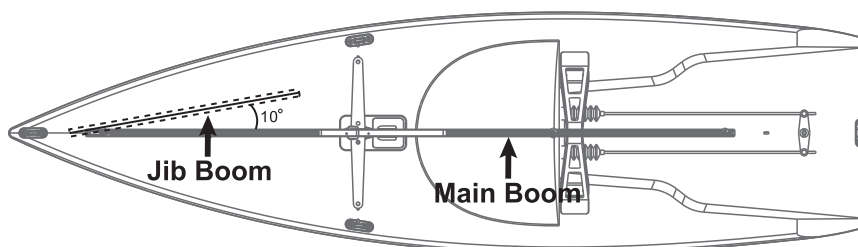
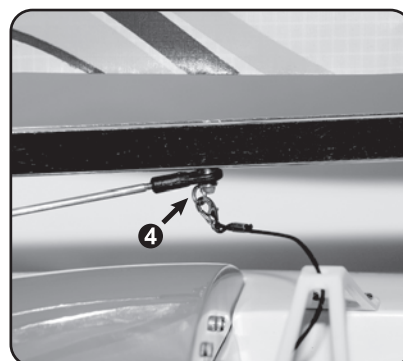
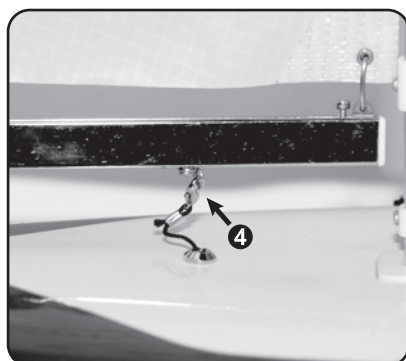
- 1 Slide off the battery door on the back of the transmitter. Install 4 fresh "AA" alkaline batteries into the transmitter in the configuration molded into the battery compartment. Re-install the battery door onto the back of the transmitter.
- 2 Push down the sail control stick (Left stick) till the end as shown. Then turn the transmitter on using the switch on the front.



- 3 Remove the deck from hull, take the battery box for receiver out from the plywood inside the hull, install 4 fresh "AA" alkaline batteries into the battery box. Replace the battery box on the plywood mount. Switching the power button on. Replace the deck on hull.



- 4 Attach the snap link underneath the jib boom with the string ring on the jib boom as shown, jib boom could travel about 10° from the centerline of hull. Attach the snap link with the string ring underneath the main boom as shown, keep the main boom parallel with the centerline of hull.



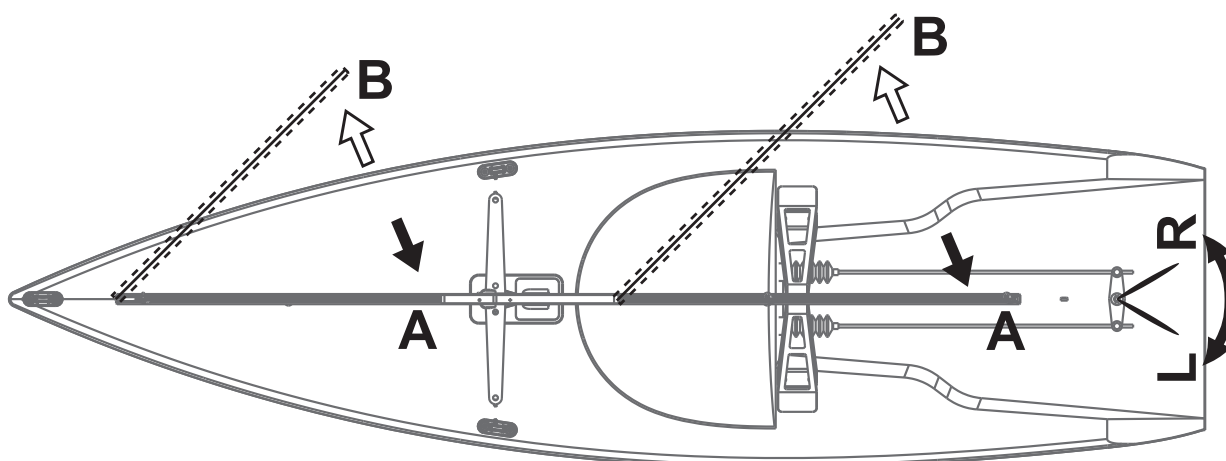
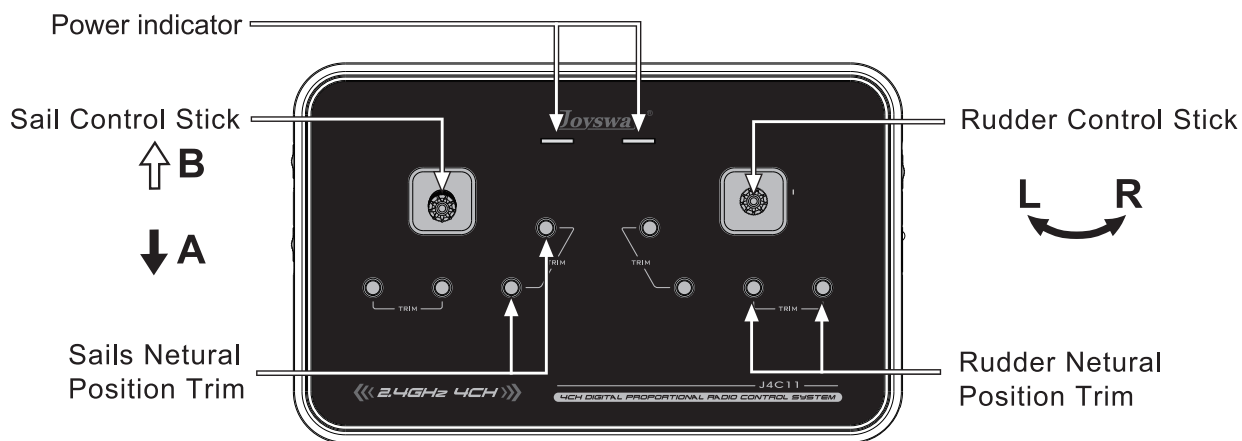
PREPARATIONS FOR SAILING

Before sailing your Discovery for the first time, take note of the following:

1. Always turn the transmitter on before the receiver, likewise, turn the receiver off before the transmitter.
2. Check that each sail, rigging rings and fitting is properly installed and adjusted

Following the procedures to check the radio and sailboat's function:

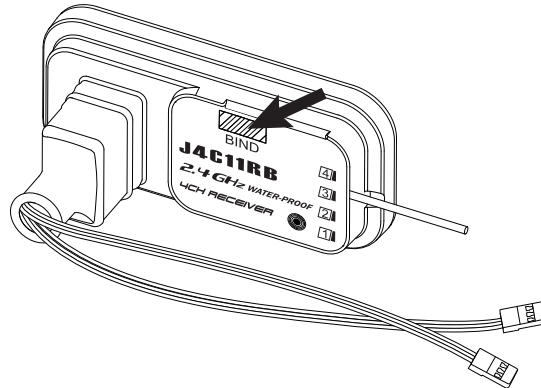
- ① Discovery is supplied with 2.4GHz 4CH radio system. For sailing the Discovery, you will only need 2CH. Please see following function of the transmitter.
- ② For sail control stick, when stick is in the position of A, correspondingly, the main boom and jib boom are in the position of A as shown. When stick is in the position of B, correspondingly, the main boom and jib boom are in the position of B as shown. If this is not the case, simply move the sail servo reverse switch to the other position. You may also adjust the sail servo neutral by pressing the sail neutral position trim button up or down.
- ③ For rudder control stick, rudder turn left when rudder control stick is pushed to the left. Rudder turn right when rudder control stick is pushed to the right. If this is not the case, simply move the rudder servo reverse switch to the other position. You may also adjust the rudder servo neutral by pressing the rudder neutral position trim button left or right



TRANSMITTER/RECEIVER BINDING

The binding process effectively ties the J4C11 transmitter and J4C11R receiver together. Under normal circumstances, both items are supplied like this from the factory. If, however, you find that your transmitter and receiver are not bound (receiver's red LED will be lighting), you should do the following:

1. Switch "ON" the transmitter.
2. Switch "ON" the receiver by switching "ON" the battery box power button.
3. Press down the "BIND" button on the receiver as shown, until the receiver's red LED flash then let go, the receiver's green LED will be lighting to indicate that binding has been successful and the receiver will now accept commands from the transmitter.



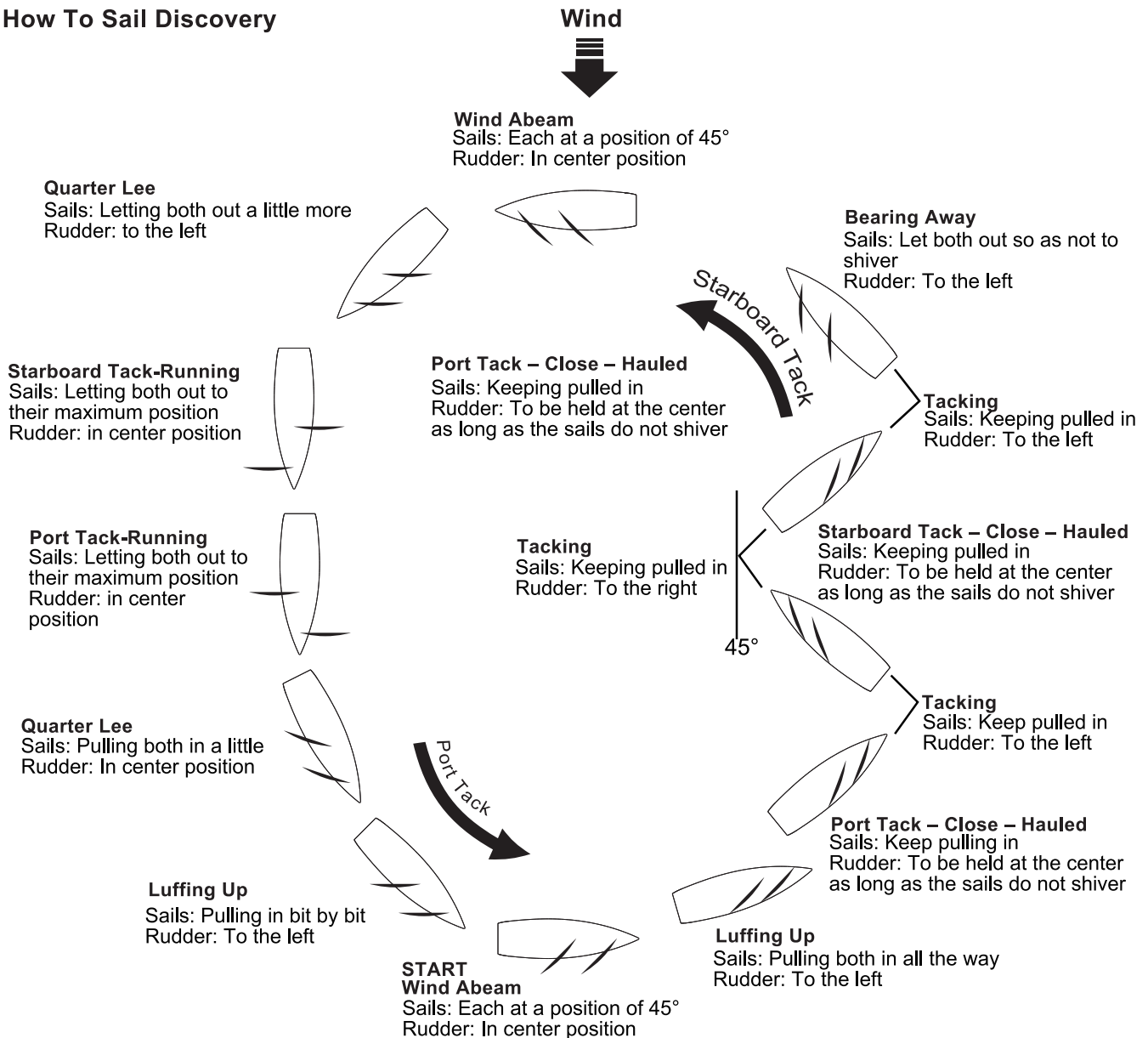
Note 1: You would also need to carry out the binding process if you were to replace the included receiver with another J4C11R receiver.

Note 2: Typically, for the binding process to be effective, transmitter and receiver should be no more than one meter apart and no other similar devices should be within 10 meters of both during setup.

SAILING THE DISCOVERY SAILBOAT

Unlike propeller driven boats that you basically point and accelerate, sailboats present an interesting challenge. Sailing requires constant reaction to water movements, any wind gusts, and any wind direction changes. These reactions then require adjustment of the rudder and sails in order to find the best possible course. There is no substitute for actual “on-the-water” experience and after your first couple of outings you may want to read through this manual again in order to help you to gain a better understanding of the “art” of sailing. While learning to sail, it is a good idea to pick up on as much sailing terminology as possible. This will make it easier to grasp some aspects.

How To Sail Discovery



IMPORTANT NOTICE:

1. Sail your Discovery 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.
2. Do not sail Discovery in very heavy winds.
3. Never attempt to swim after a stalled or stuck boat! Wait patiently for the wind currents to return the boat to shore.
4. After running, remove the deck and allow the interior of the boat to dry out completely. If you neglect to do this, it may result in corrosion of the electronic components.

SPARE PART LIST

To order Discovery spare parts, use the part numbers in the spare parts list that follows.

| PART NO. | DESCRIPTION |
|-----------------|-------------------------------------|
| 99001A | main sail and jib sail(red color) |
| 99001B | main sail and jib sail(blue color) |
| 99001C | main sail and jib sail(green color) |
| 99002 | mast, main boom and jib boom |
| 99003 | boom vang |
| 99004 | keel and ballast |
| 99005 | rudder set |
| 99007 | string adjusters(PK6) |
| 99008 | black string with snap link set |
| 99011A | deck(red colour) |
| 99011B | deck(blue colour) |
| 99011C | deck(green colour) |
| 99012A | red hull with plywood mount set |
| 99012B | blue hull with plywood mount set |
| 99012C | green hull with plywood mount set |
| 99013 | sail winch servo-discovery |
| 99014 | rudder servo-discovery |
| 99015 | 2.4GHz J4C11R receiver |
| 99016 | 2.4GHZ J4C11 transmitter |
| 99010A | plywood display stand |

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RoHS FC

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

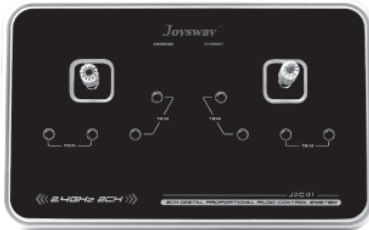
Other Items Available

RTR 1/46 Scale Micro Sailing Yacht

Caribbean

SPECIFICATION:

- Length: 260 mm (10.24 in)
- Beam: 90 mm (3.54 in)
- Mast Height: 320 mm (12.6 in)
 - Overall Height: 435 mm (17.13 in)
- RTR Total Weight: 175 g (6.17 oz)
- Sail Area (Main): 1.67 dm² (25.89 in²)
 - Sail Area (Jib): 0.8 dm² (12.4 in²)
- Sail Area (Overall): 2.47 dm² (38.29 in²)



Digital Proportional
Radio System



Color window box package



Complete assembled sailing yacht
Three color available