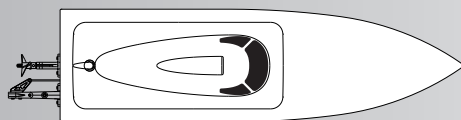




# BRUSHLESS MOTOR BOAT

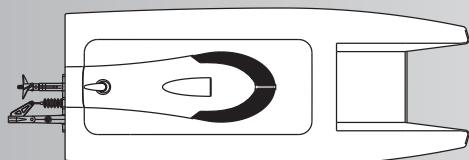
## ASSEMBLY AND OPERATION MANUAL

### Specifications:



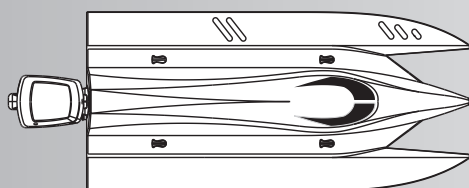
Model No: 8651 ROCKET Deep Vee Boat

Total Length ..... 620mm(24.5 in)  
Beam ..... 155mm(6 in)  
Speed ..... 55 km/hr



Model No: 8652 Blue Mania Catamaran Boat

Total Length ..... 570mm(22.5 in)  
Beam ..... 195mm(7.7 in)  
Speed ..... 55 km/hr



Model No: 8653 Mad Flow F1 Boat

Total Length ..... 590mm(23.2 in)  
Beam ..... 230mm(9.1 in)  
Speed ..... 55 km/hr

### Universal Assembly:

Motor ..... Water cooled D2842 Out-Runner brushless motor(included)  
Radio System ..... 2.4G 2CH Digital Proportional Transmitter(Included)  
Speed Control ..... Water Cooling 30A Brushless ESC w/BEC (Included)  
Drive System ..... 3mm Flex Cable Direct Drive  
Battery ..... 11.1V 2200mAh 35C LiPo Pack(Not Included)

**IMPORTANT: THESE MODELS ARE CAPABLE OF OVER 55 KPH, PERSONAL INJURY OR PROPERTY DAMAGE MAY RESULT FROM MISUSE OF THESE PRODUCTS, TAKE CARE AND ENJOY OUR MODEL RESPONSIBLY.**

## Caution for LiPo battery:

ESC with low voltage hard cut off at 3.2V per cell, when driving your boat, as soon as you notice boat stop, that means ESC low voltage cut off effective, you should immediately drive boat back to shore in slow speed, recharge battery and race again. don't keep racing boat when ESC low voltage cut off effective, otherwise, you will allow battery over discharge, battery voltage will reach very low and won't be recharged again.

## Introduction

Thank you for purchasing Joysway brushless motor boat ! This manual contains the instructions you need to safely prepare, operate, and maintain your R/C boat. Read over this manual thoroughly before operating Joysway brushless motor boat.

## Safety Precautions

- Operating care to avoid touching the propeller anytime the motor is operating. If your fingers, hands, etc. come in contact with the spinning propeller, you may be severely injured. This model is capable of inflicting property damage and severe personal injury if a collision occurs. Racing your boat responsibly, stay clear of people, full-scale boats and wildlife.
- The metal hardware on your boat can be sharp. Be careful handling the parts.
- The brushless motor may become hot. After a run allow the motor to cool before touching it.

## Specifications & Description Changes

All pictures, descriptions, and specifications founded in this instruction manual are subject to changes without notice. Joysway maintains no responsibility for inadvertent errors in this manual.

## Items Required For Completion & Battery Pack Recommendations

You will need to purchase the following items to operate your Joysway brushless motor boat. We highly recommend the use of the following products.

### Battery Recommendation

One pack of 11.1V 2200mAh 35C LiPo Pack or higher capacity LiPo.

**NOTE:** If you have existing 11.1V Lipo battery pack, you can update them for use by changing the connector to Deans connector which is included in the kits bag, be sure to solder the connector to the battery in the proper polarity. (1 Male Deans connector is already soldered with the ESC, the other 1 Female Deans connector is included in the kits bag)

### Charger Recommendation

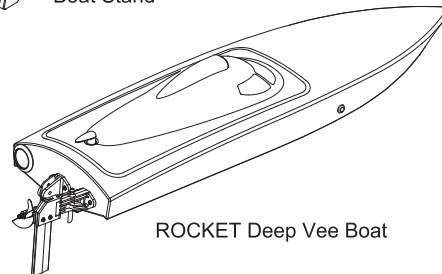
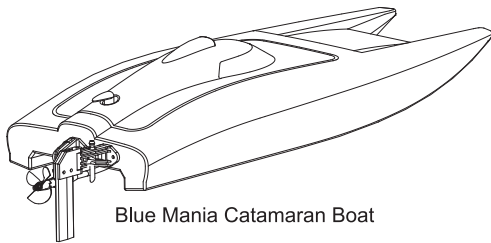
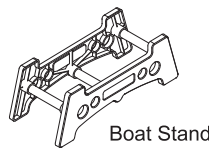
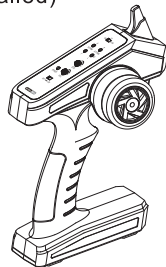
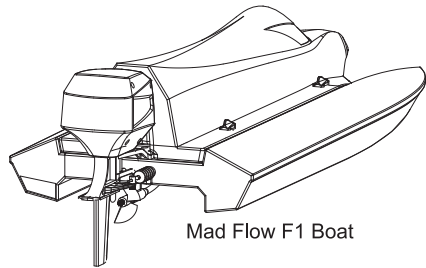
2S/3S Balance Charger and adapter, or multi-functional intelligent charger.

**NOTE:** You will also need 4 "AA" alkaline batteries for the transmitter.

## Contents Of Set

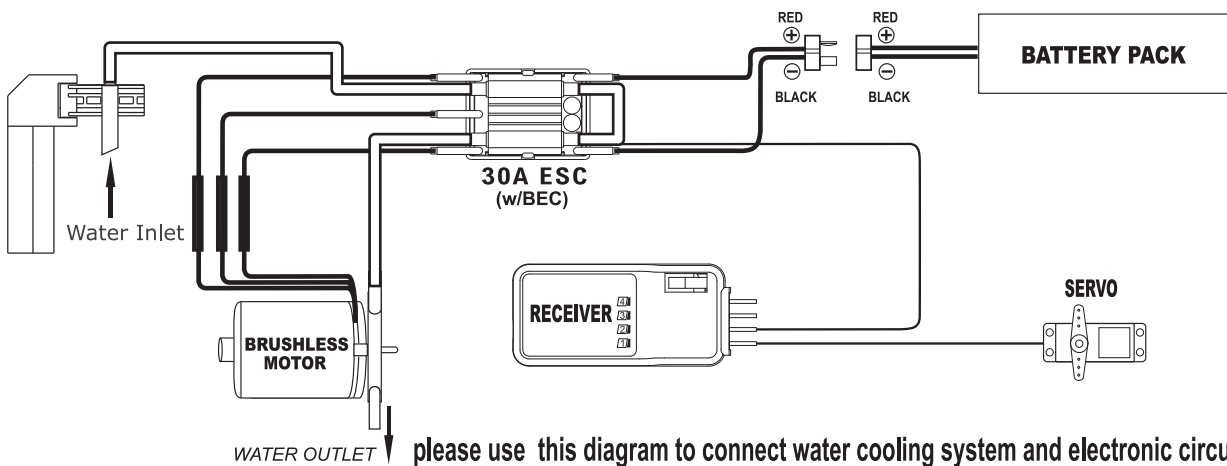
- Water cooled D2842 Out-Runner brushless motor (Pre-installed)
- 30A Water cooling Brushless ESC w/BEC (Pre-installed)
- Powerful Steering 9g metal gear servo (Pre-installed)
- 2.4GHz 2CH Pistol Transmitter
- Display Boat Stand

### *kits bag contents:*



## Circuit & Cooling System Diagram

### CIRCUIT AND COOLING SYSTEM DIAGRAM IN THE BOAT

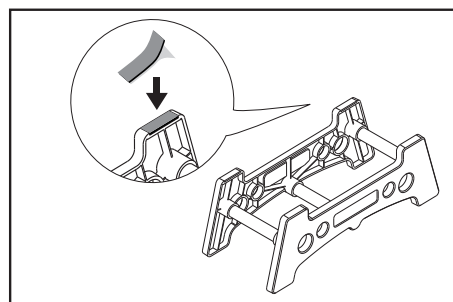


## Preparing Your Boat For Operation

### Assembling the boat stand

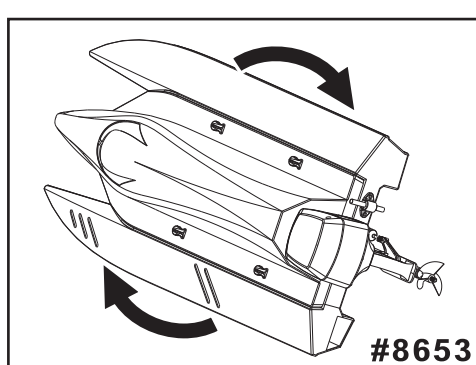
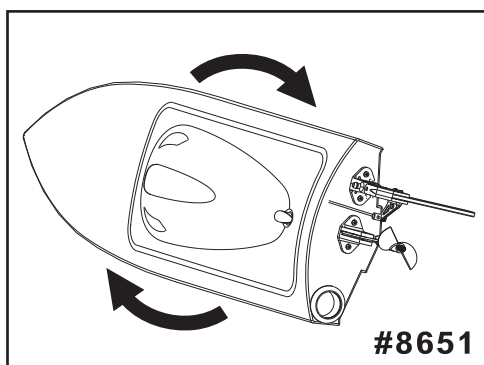
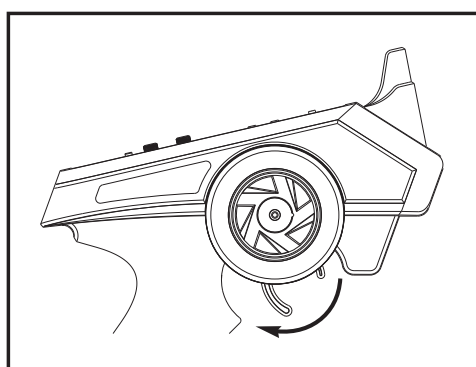
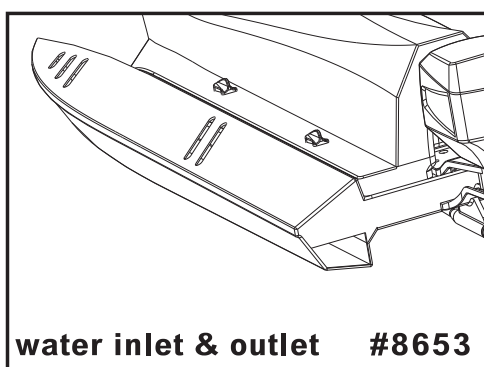
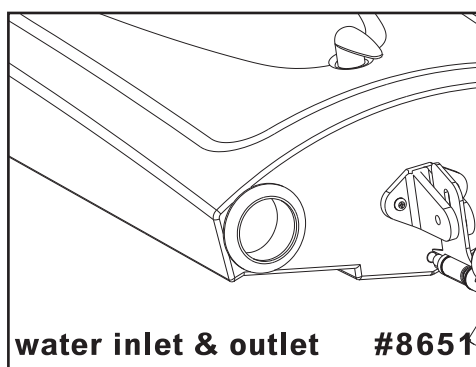
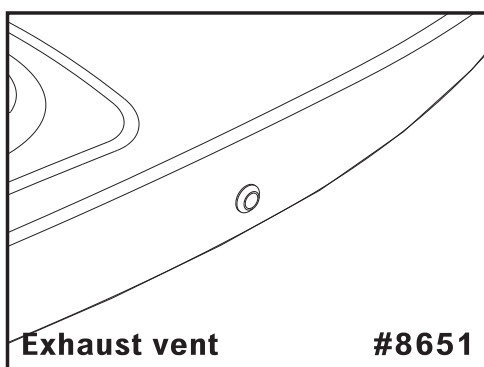
Insert three ABS pipes into the holes of two boat stands shown as photos, compress boat stands and ABS pipes tightly, then stick EVA to the four angles, this will protect the hull bottom from scratches during construction and storage.

**NOTE:** Rocket deep vee boat and Blue mania catamaran boat use the same boat stand.



### Self-righting feature for Rocket deep vee boat & Mad Flow F1 boat

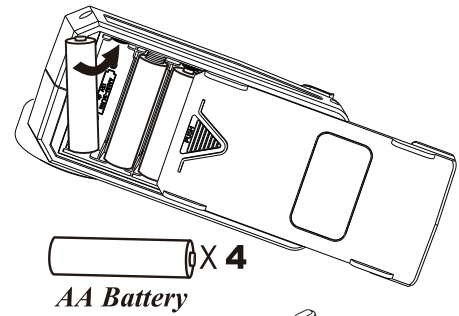
Rocket deep vee boat & Mad Flow F1 boat features with intelligent hull design for self-righting. When boat accidentally capsizes in high speed racing process in big wave, don't worry, please wait for a while, the water will come into left part of hull through the left-rear hole, air will be drain out through exhaust vent, when the left part is filled up water, pull throttle trigger at maximum in short time, boat hull will automatically self-righting and go on racing, water will be drained out from the hole of left-rear hull.



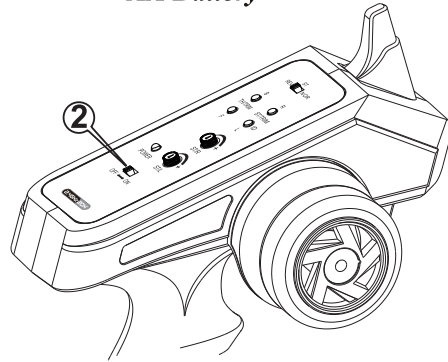
## Installing transmitter batteries

**NOTE:** The transmitter is not water resistant and should never come in contact with water.

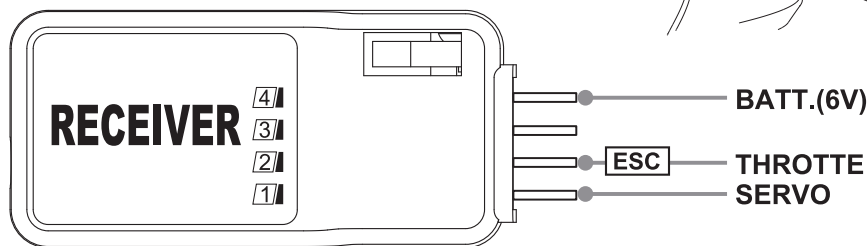
1. Install four fresh "AA" batteries. Follow the diagram located in the bottom of the battery tray for proper battery orientation.



2. Turn the transmitter "ON". The battery light should glow bright RED.

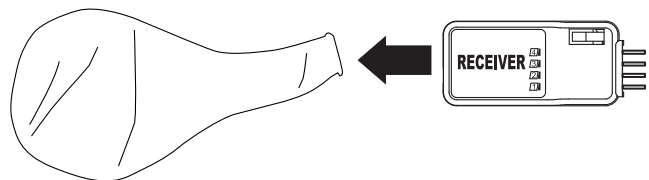


## Receiver connection diagram



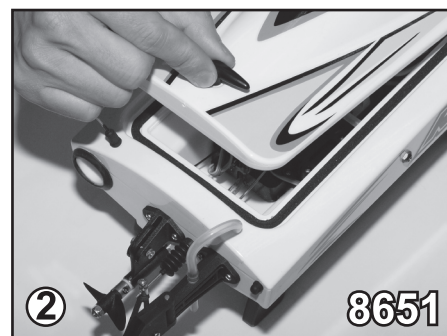
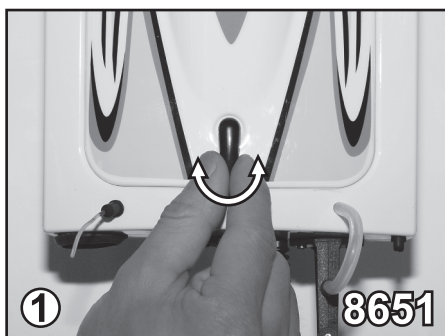
Note: If ESC with BEC function, no need to connect battery with receiver.

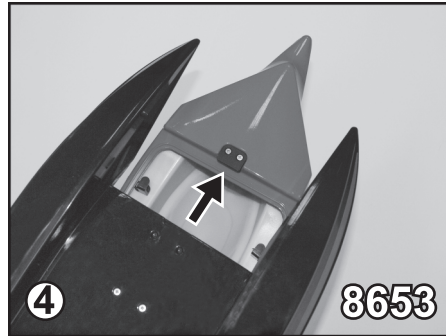
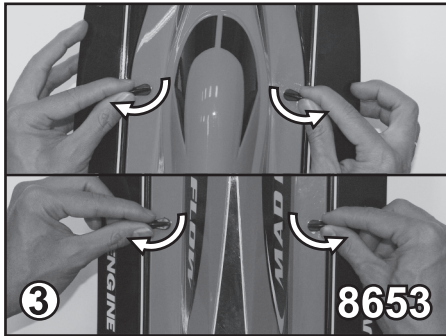
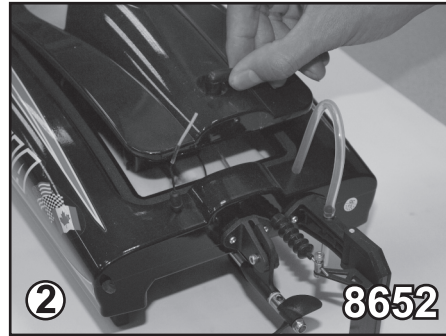
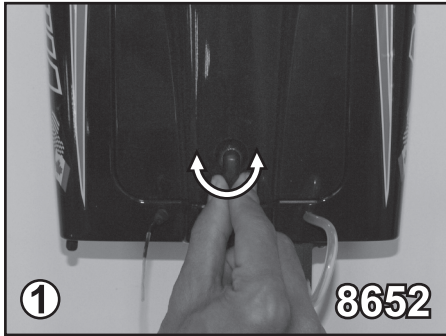
**Caution: Before racing boat, Please use balloon supplied in tool bag to wrap receiver for water proof**



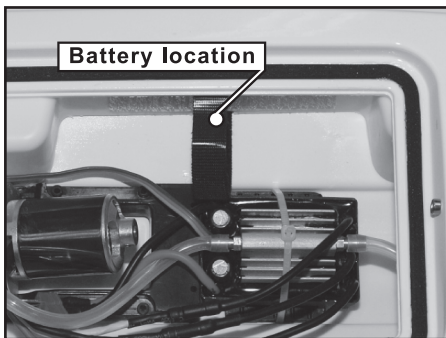
## Installing the Battery

1. (#8651 Rocket, #8652 Blue Mania) Rotate the plastic lock on hatch 90 degree either to left or right.
2. (#8651 Rocket, #8652 Blue Mania) Lift up and remove the hatch.
3. (#8653 Mad Flow) Rotate the four plastic lock on hatch as photo shown.
4. (#8653 Mad Flow) Move the hatch forward and lift up to remove the hatch.
5. Attach battery connector to the matching connector of ESC. Do not force them together, they only attach in one way.

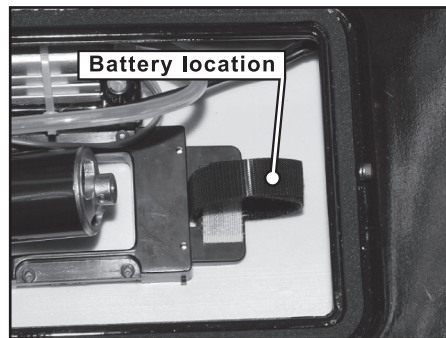




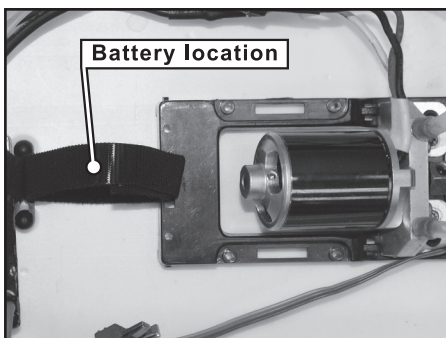
**NOTE:** We recommend you 1 pack of 11.1V 2200mAh 35C Lipo battery for maximum performance. Using the Provided velco strap which is already tied on the battery locators inside the hull to tie the battery. The battery locators help align the batteries to the best running center of gravity for maximum performance. Below are the batteries location inside the hull.



Rocket Deep Vee Boat battery locator

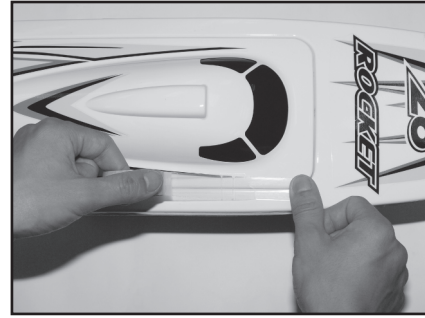


Blue Mania Catamaran Boat battery locator



Mad Flow F1 Boat battery locator

- NOTE:** 1. There is a water proof rubber ring glued along the slot of hull, always make sure it's securely positioned before re-position the upper deck.
2. Use the waterproofing tape provided in the tool bag to seal the hull as shown after you have connected the battery pack, before placing your boat on the water.

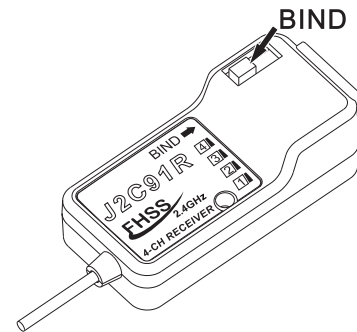


**Note: Waterproofing tape only supply in #8651 and #8652 tool bag**

### **TRANSMITTER/RECEIVER BINDING**

The binding process effectively ties the transmitter and 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 is on), you should do the following:

- 1) Switch "ON" the transmitter.
- 2) Switch "ON" the receiver by connecting battery to ESC, and ESC cord is plug into Receiver properly(Note:ESC has BEC function).
- 3) Press down the "BIND" button on the receiver, the receiver's green LED will be on to indicate that binding has been successful and the receiver will now accept commands from the transmitter.

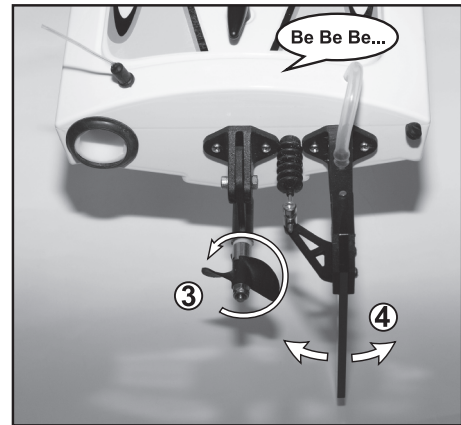
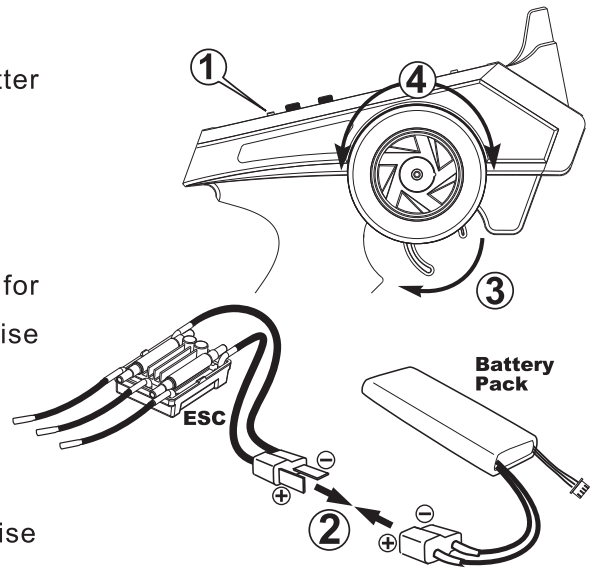


Note 1: During binding process, transmitter and receiver should be no more than one meter apart and no other similar devices should be within 10 meters.

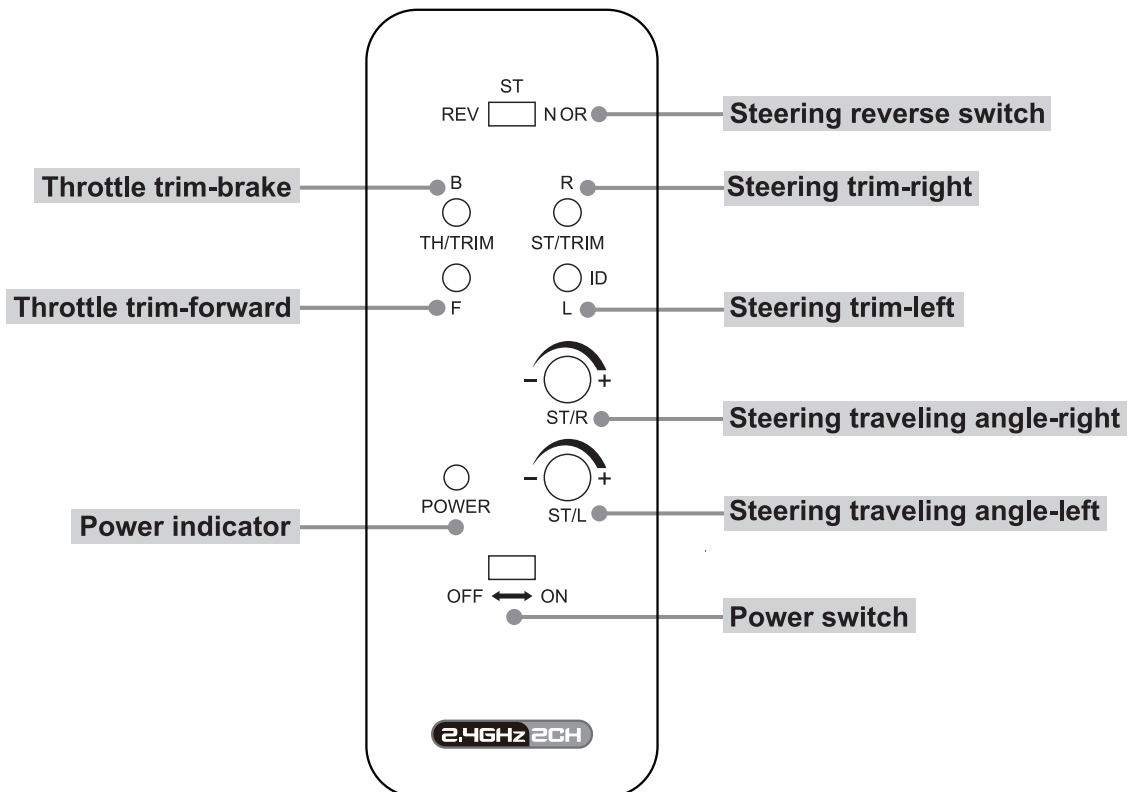
Note 2: if the green light flashing, showing the binding failure, please do again as above indication.

## Checking the radio system

1. Always turn the power "ON" to the transmitter before connecting the batteries with the ESC.
2. Plug the battery into the ESC plugs and listen for three continuous >Be<>Be<>Be< . (Signal noise of auto detected ESC)
3. Pull the throttle & motor rotate in anticlockwise direction, your motor is now armed and ready for operation.
4. Check the direction of the rudder, the trailing edge of the rudder should turn right when right input is given. Conversely, when left input is given, the trailing edge of the rudder should turn left.



## Transmitter introduction





## EPA Adjustment

### Function

Use this when performing left and right steering angle adjustments. End Point Adjustment (EPA) adjusting value range: 0%-100%

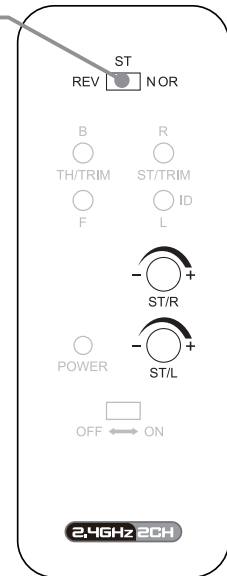
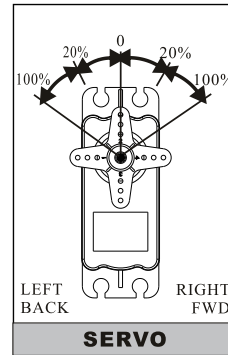
### Setting

1. Steering (right side) angle adjustment Rotate "ST/R" knob to the left end point means minimum value 0%, right end point means maximum value 100%.
2. Steering (left side) angle adjustment Rotate "ST/L" knob to the left end point means minimum value 0%, right end point means maximum value 100%.

### CAUTION:

When adjusting this function, make sure the direction is in agreement with the boat direction, you can adjust by the STEERING "REV-NOR" button.

### Steering reverse switch



## Trim Adjustment

### Steering trim

Adjust "ST/TRIM" "R/L" so that rudder is centered prior to operation, you may adjust this control to make the boat run straight during operation.

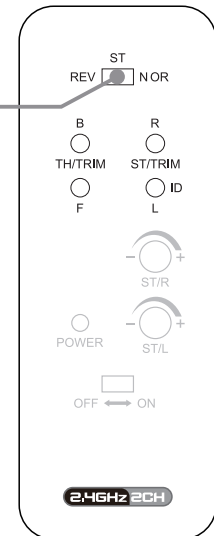
### CAUTION:

When adjusting steering trim, make sure the direction is in agreement with the boat direction, you can adjust by the STEERING "REV-NOR" button.

### Throttle trim

Adjust "TH/TRIM" "B/F" to stop propeller from turning while the throttle trigger is in the neutral position.

### Steering reverse switch



## Speed Control Specification

The Joysway brushless motor boat is assembled with 30A water cooled brushless ESC, please see belowing the specification:

protections: Thermo protection activated at 110 °C. LVP(low voltage protection) engaged when Lipo battery (per cell) drop down to 3.2 Voltage.

Operating Cells: 2S-3SLipo

Current Rating: 30A

Peak Current: 40A within 10 seconds

BEC Output: 2A/5V

- Calibration: 1.Set the trigger to maximum throttle then turn on the transmitter.
- 2.Connect motor and receiver to the ESC.
  - 3.Plug battery to power on ESC.
  - 4.After 4 high pitched tones, set the trigger to minimum throttle.
  - 5.After 3 repeat monotones, cut off the power of ESC.

## ESC Low Voltage Cut Off

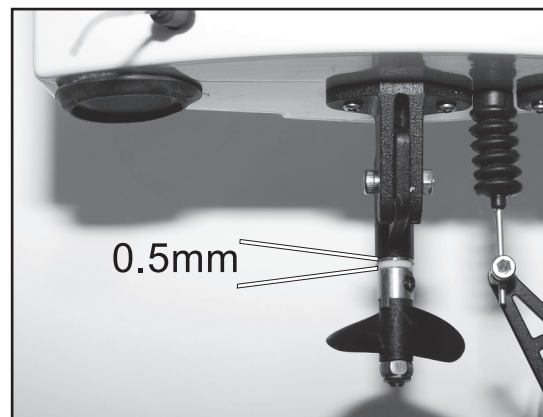
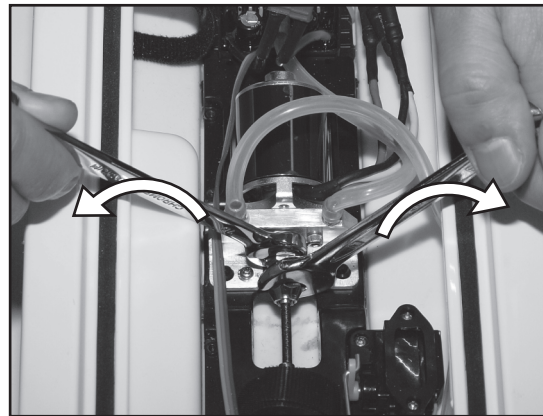
ESC with low voltage hard cut off at 3.2V per cell, when driving your boat, as soon as you notice boat stop, that means ESC low voltage cut off effective, you should immediately drive boat back to shore in slow speed, recharge battery and race again. don't keep racing boat when ESC low voltage cut off effective, otherwise, you will allow battery over discharge, battery voltage will reach very low and won't be recharged again.

## Lubricating The Drive Shaft

Lubricating the flexshaft is vital to the life of the drivetrain. The lubricant also acts as a water seal, keeping water from entering the hull through the stuffing box.

Lubricate the flexshaft, propeller shaft and all moving parts after every 2–3 hours of operation.

1. Before you disassemble flex shaft set, make sure ESC is out of connection with battery.
2. Use two 8mm spanner to loose motor coupler connected with flex shaft as shown.
3. Pull flex shaft w/prop shaft out from the rear shaft strut, dry the water on flex shaft and then lubricate the flexshaft with the water proof marine grease.
4. Before reinstall the flex shaft w/ prop shaft, make sure air dry the water inside the teflon tube, then reinstall the flexshaft w/ prop shaft in reverse order.
5. Before tighten the flex shaft with motor coupler by the two 8mm spanners, make sure nylon washer is 0.5mm gap with rear shaft strut. This is important.



**NOTE:** Running the model boat in salt water could cause some parts to corrode. If you run the boat in salt water, rinse it thoroughly in fresh water after each use and lubricate the drive system.

## Spare part list

To order Joysway brushless motor boat spare parts, use the part numbers in the spare parts list that follows.

<b>PART NO.</b>	<b>DESCRIPTION</b>
865101	Hatch with painting (no decal)
865102	Hull only with painting (no decal)
865103	D2842 Out-runner brushless motor
865104	water cooled motor mount
865105	30A Water cooled brushless ESC w/ BEC
865201	Hatch with painting (no decal)
865202	Hull only with painting (no decal)
860103	Flex shaft set
860104	Rudder and Support Set
860105	Decal stickers for hatch and hull
860108	plastic boat stand
860203	Flex shaft set
860205	Rear shaft strut set (W/O bearings)
860206	Rudder and Support Set
860207	Water proof gasket (PK2)
860210	2S/3S balance charger with DC adapter
860211	2S/3S balance charger with AC wall adapter
860212	Decal stickers for hatch and hull
930507	Bearing set
930511	P1.4XD35mm two blade nylon propeller (PK2)
930512	Velco strap set
930513	Silicone antenna cap(PK2)
930514	one meter silicone water cooling tube
930515	Water outlet
930516	Motor coupler set
93017	water-proof rudder pushing rod tube(PK2)
880514	9g metal gear rudder servo
830101	11.1V 2200mAh 35C LiPo
865301	Hatch with lock knob, yellow painting, no decals-Mad Flow brushless
860301	Hull with painting, no decals-Mad Flow brushed/brushless
860303	Decal stickers -Mad Flow brushed/brushless
860304	Lock knob sets -Mad Flow brushed/brushless
860305	Water proof gasket (PK2) -Mad Flow brushed/brushless
860306	Flex shaft and propeller shaft set -Mad Flow brushed/brushless
860307	Steering shaft coupling-Mad Flow brushed/brushless
860308	Scale Outboard engine and rudder, rear shaft set -Mad Flow brushed/brushless
860309	bearing (pk2) + flange bearing (pk2) -Mad Flow brushed/brushless
860310	Electronic components plastic mounting sets -Mad Flow brushed/brushless
860311	water inlet tube set -Mad Flow brushed/brushless
860312	Pushrod with boot and clevis set -Mad Flow brushed/brushless
860313	Plastic boat stand set -Mad Flow brushed/brushless
880536	Rubber bung (PK4)



### FCC REQUIREMENT



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 to this product not expressly approved by the party responsible for compliance may void the user's authority to operate the equipment.