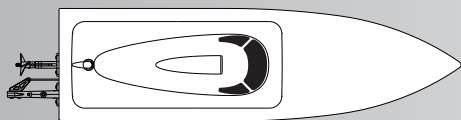




Brushless Motor Boat

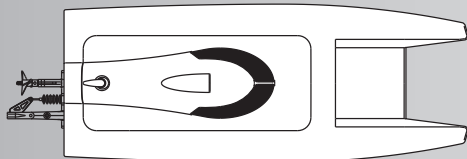
ASSEMBLY AND OPERATION MANUAL

Specifications:



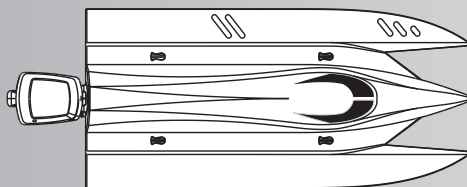
Model No: 8651V2 ROCKET V2 Deep Vee Boat

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



Model No: 8654 Monster Catamaran Boat

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



Model No: 8653 V3 Mad Flow V3 F1 Boat

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

Universal Assembly:

- Motor.....Water cooled out-runner brushless motor (Included)
- Propeller.....2pcs nylon propeller (Included)
- Speed Control.....Water cooled & Water Proof 30A Brushless ESC W/BEC (Included)
- Servo.....9g metal gear rudder servo (Included)
- Radio System.....2.4G 2CH Digital Proportional Transmitter & Receiver (Included)
- Drive System.....3mm Flex Cable Direct Drive (Included)
- Battery.....11.1V 2200mAh 35C LiPo (Optional Part)
- Charger.....2S/3S Balance Charger with AC Power Cable (Optional Part)
- Transmitter Battery.....4pcs AA Alkaline Batteries (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 XT-60 connector which is included in the kits bag, be sure to solder the connector to the battery in the proper polarity. (1 Male XT-60 connector is already soldered with the ESC, the other 1 Female XT-60 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 out-runner brushless motor (Pre-installed)
 nylon propeller (Pre-installed)
 Water cooled & water proof 30A Brushless ESC W/BEC (Pre-installed)
 9g metal gear rudder servo (Pre-installed)

Mad Flow V3 F1 Boat Transmitter Boat Stand

Monster Catamaran Boat ROCKET V2 Deep Vee Boat

kits bag contents:

- Cable Strap
- 1 XT-60 Plugs W/
1 Heat Shrinking Tube
- Water proof tape for hatch
only for #8651V2,
#8654
- Water proof balloon for RX
- Boat Stand EVA
- 8mm Spanner
(NOT INCLUDED)

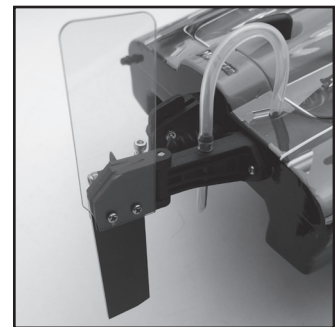
2 pcs of Allen Key for #8651V2, #8654, #8653V3 (2.5mm, 2mm)

1.5mm Allen Key for #8653V3

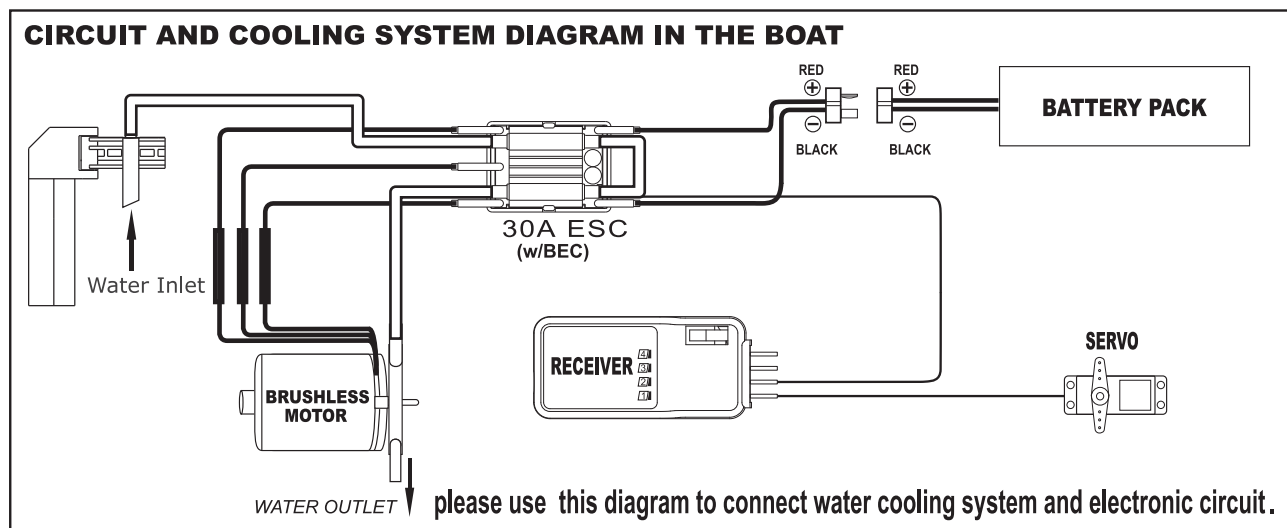
Spare nylon propeller

8654 Monster Rescue Plastic Rudder

Monster include one pc of rescue PVC rudder plate in the tool bag, This is installed by end user himself. If end user want to race this boat aggressively in rough wave, there is more chance boat will capsize. This rudder plate will perform as steering rudder in water, propeller roate to push boat back to shore. See belowing photo to install the rescue PVC rudder plate easily by tighten two screws only.



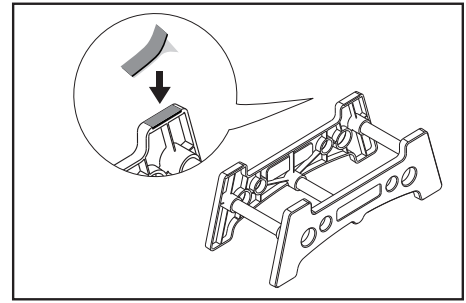
Circuit & Cooling System Diagram



Preparing Your Boat For Operation

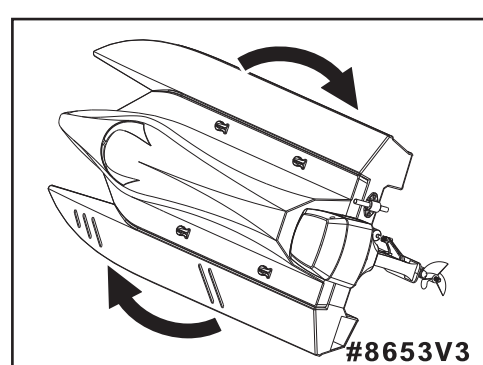
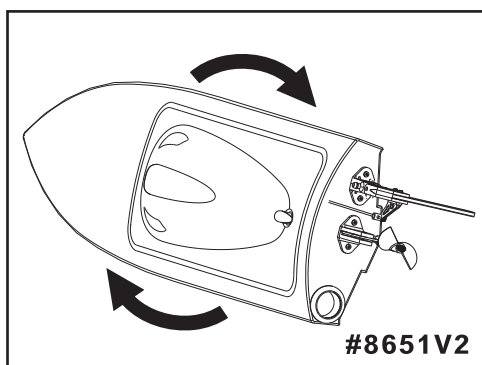
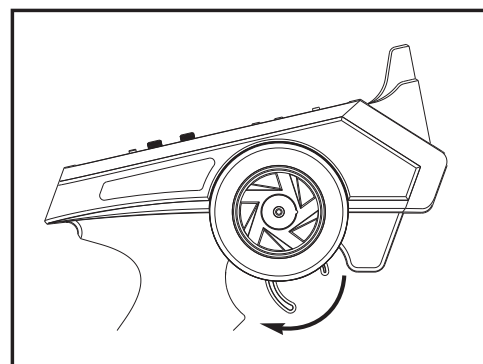
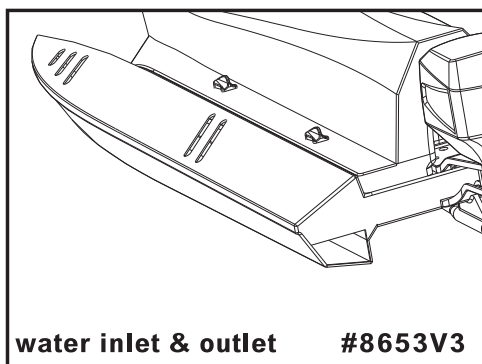
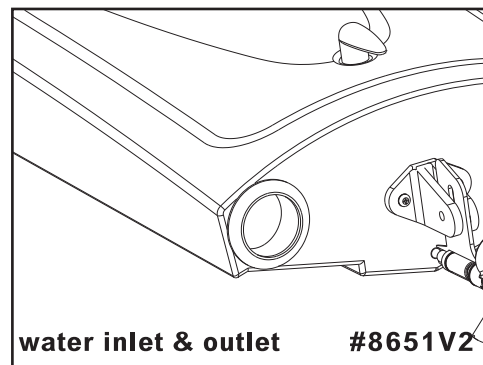
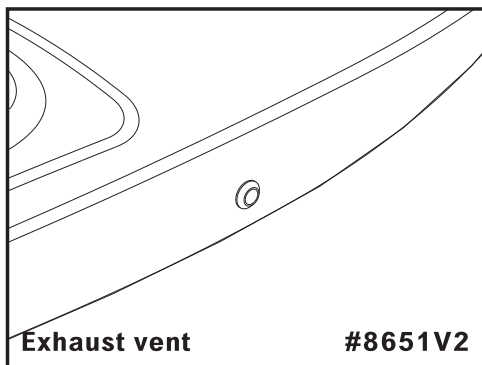
Assembling the boat stand

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.



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

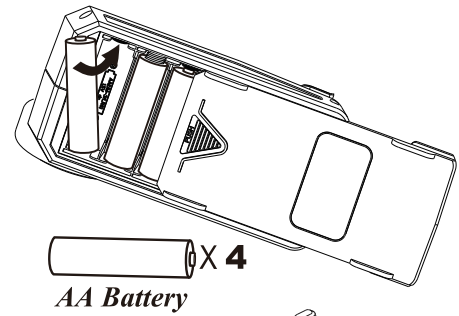
Rocket deep vee boat & Mad Flow F1 boat features with intelligent hull design for self-righting, When boat accidentally capsizes in high speed racing process in big wave, don't worry, please wait for a while, the water will come into left part of hull through the left-rear hole, air will be drain out 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.



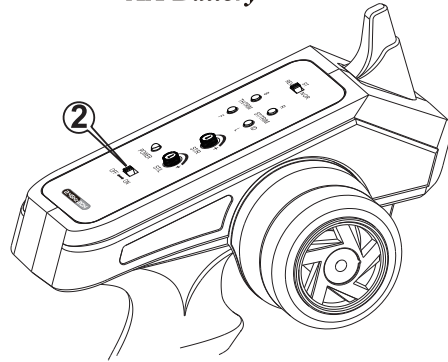
Installing transmitter batteries

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

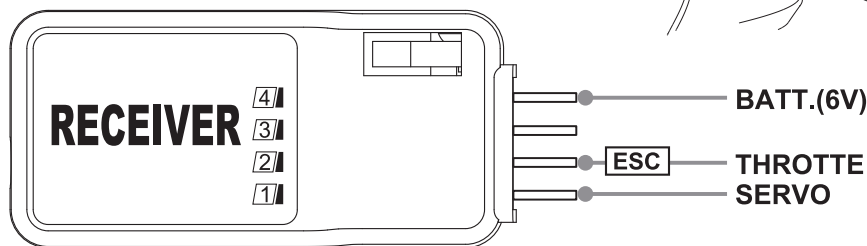
1. Install four fresh "AA" batteries. Follow the diagram located in the bottom of the battery tray for proper battery orientation.



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

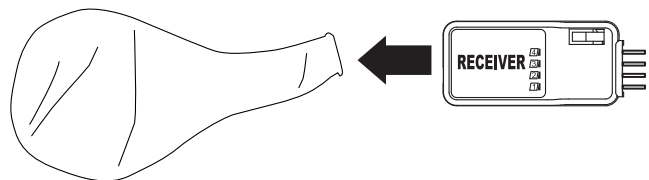


Receiver connection diagram



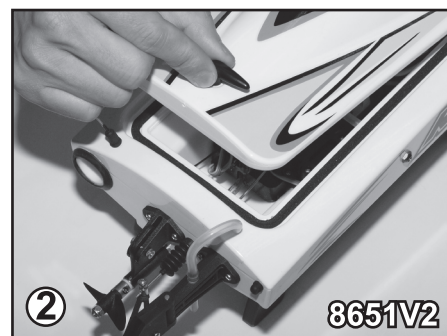
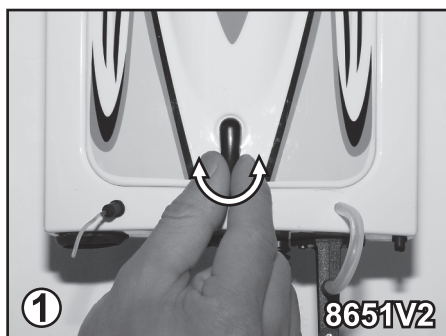
Note: If ESC with BEC function, no need to connect battery with receiver.

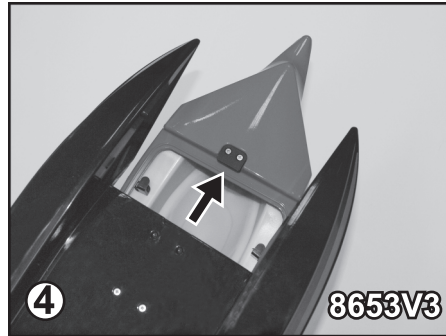
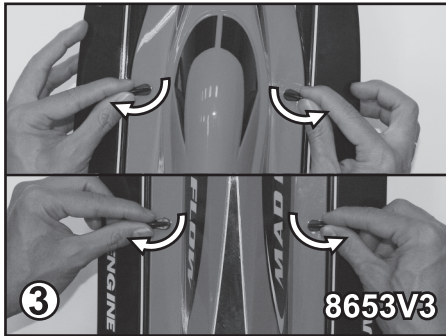
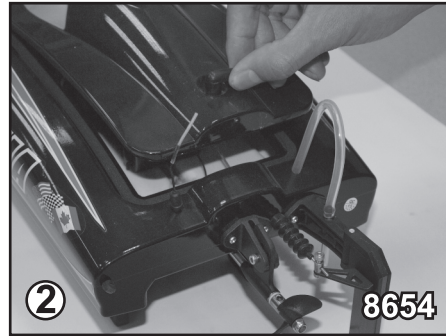
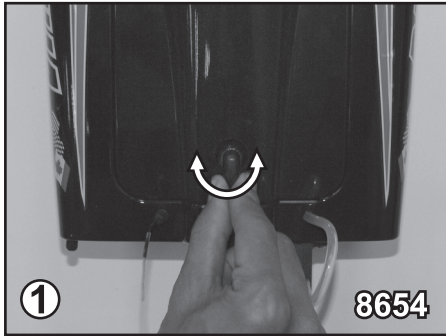
Caution: Before racing boat, Please use balloon supplied in tool bag to wrap receiver for water proof



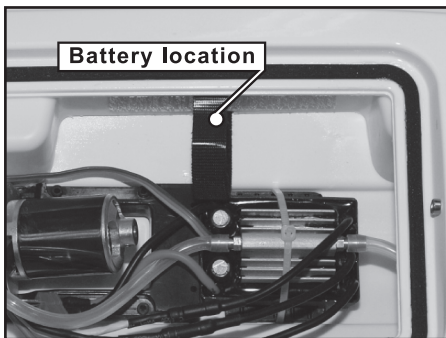
Installing the Battery

1. (#8651V2 Rocket, #8654 Monster) Rotate the plastic lock on hatch 90 degree either to left or right.
2. (#8651V2 Rocket, #8654 Monster) Lift up and remove the hatch.
3. (#8653V3 Mad Flow) Rotate the four plastic lock on hatch as photo shown.
4. (#8653V3 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.

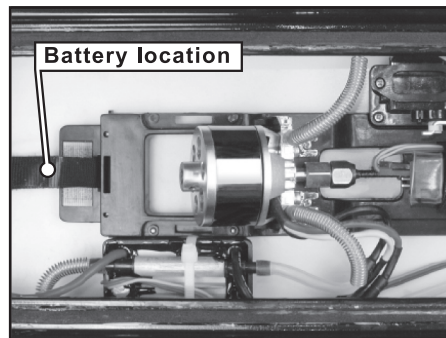




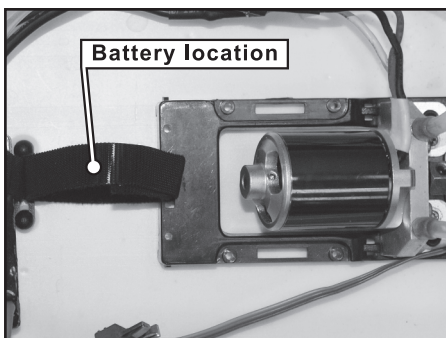
NOTE: We recommend you 1 pack of 11.1V 2200mAh 35C Lipo battery for maximum performance. Using the Provided velcro strap which is already tied on the battery locators inside the hull to tie the battery. The battery locators help align the batteries to the best running center of gravity for maximum performance.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



Rocket V2 Deep Vee Boat battery locator

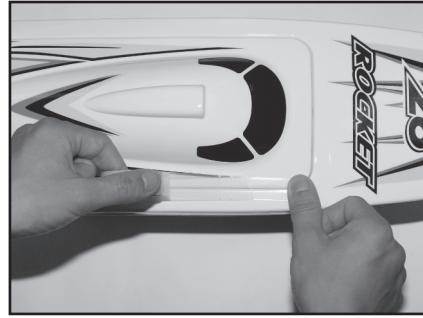


Monster Catamaran Boat battery locator



Mad Flow V3 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.

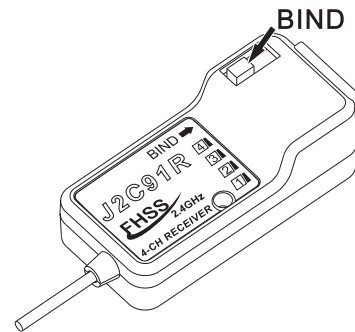


Note: Waterproofing tape only supply in #8651V2 and #8654 tool bag

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.

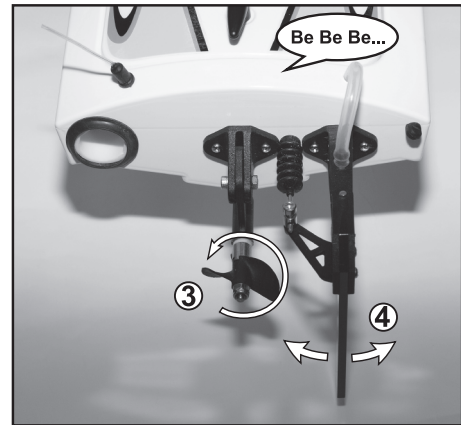
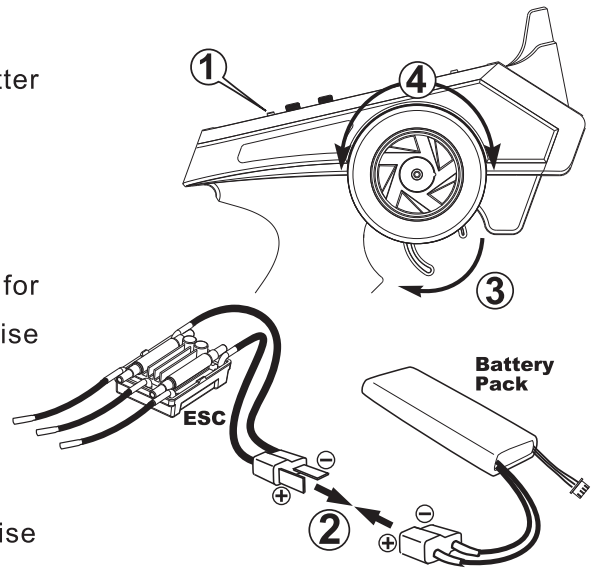
Checking the radio system

1. Always turn the power "ON" to the transmitter before connecting the batteries with the ESC.

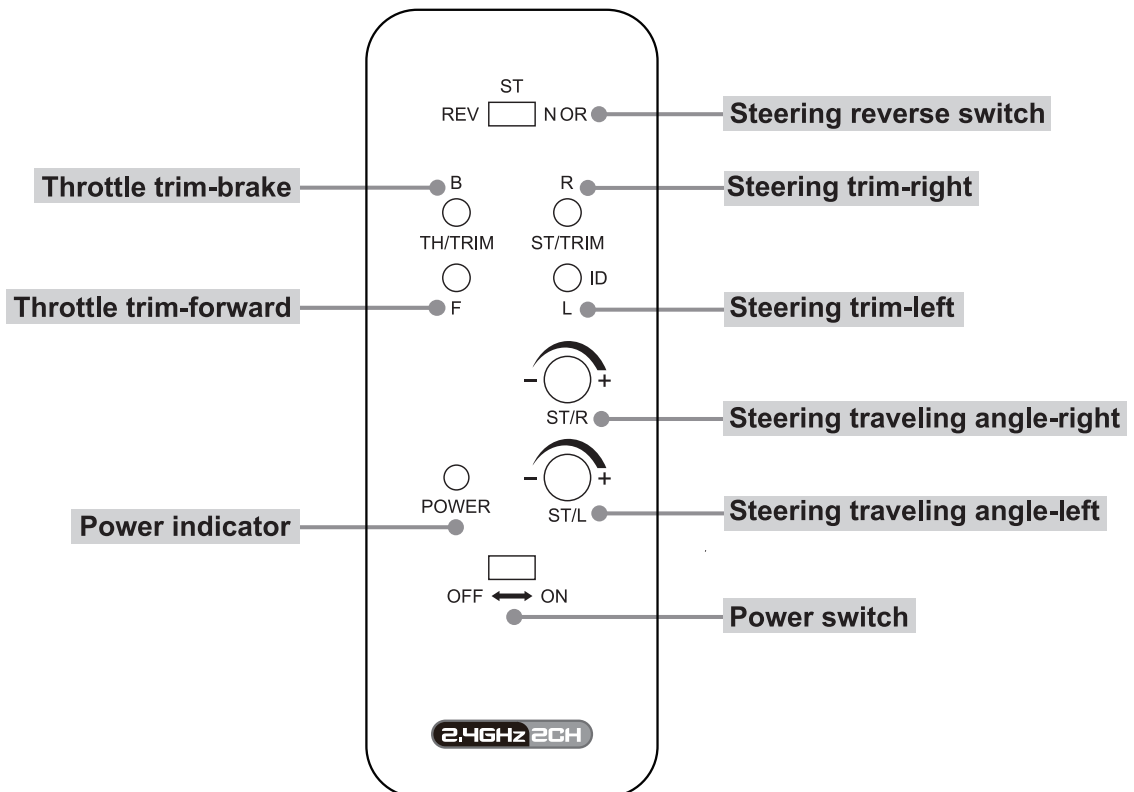
2. Plug the battery into the ESC plugs and listen for three continuous >Be<>Be<>Be< . (Signal noise of auto detected ESC)

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%

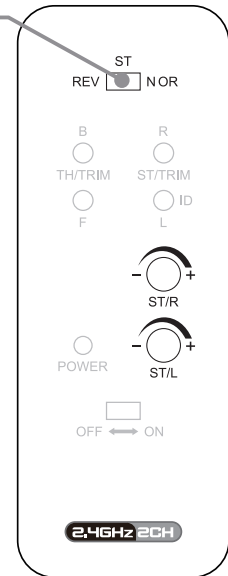
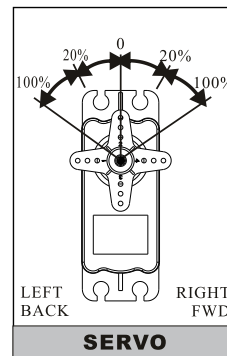
Setting

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.

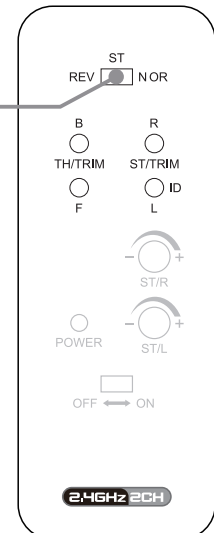
CAUTION:

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

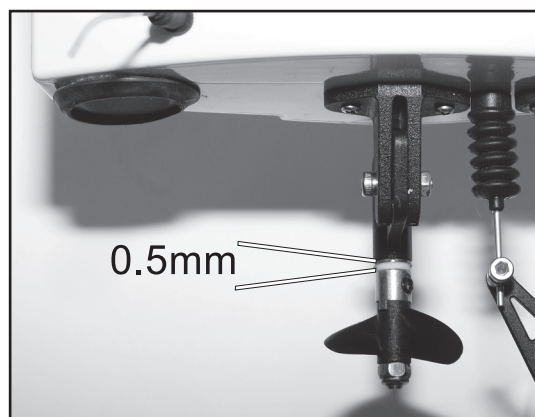
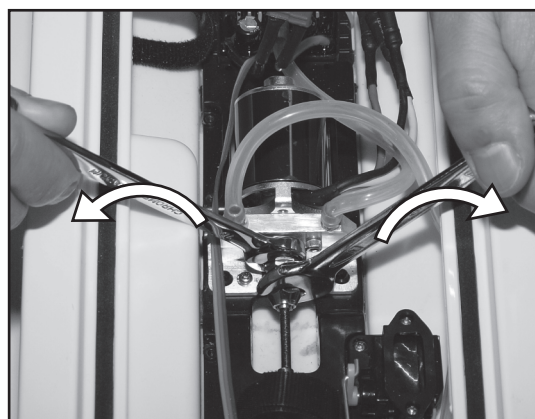
ESC with low voltage hard cut off at 3.2V per cell, when driving your boat, as soon as you notice boat stop, that means ESC low voltage cut off effective, you should immediately drive boat back to shore in slow speed, recharge battery and race again. don't keep racing boat when ESC low voltage cut off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

<i>PART NO.</i>	<i>DESCRIPTION</i>
865103	D2842 Out-runner brushless motor
865205	Water cooled motor mount
865107	Pushrod
860103	Flex shaft set
860104	Rudder and Support Set
860108	Plastic boat stand
860205	Rear shaft strut set (W/O bearings)
860207	Water proof gasket (PK2)
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
865109	30A Water cooled brushless ESC with XT-60 plug
865110	11.1V 2200mAh 35C LiPo with XT-60 plug
930518	J2C93 2.4GHz 2CH Transmitter
930519	J2C91R 2.4GHz 4CH Receiver
880536	Rubber bung (PK4)
610212	2S/3S balance charger & EU plug AC power cable
820514	2S/3S balance charger & UK plug AC power cable
820515	2S/3S balance charger & US plug AC power cable
820516	2S/3S balance charger & AU plug AC power cable
865206	Rescue Rudder PVC plate with screws(PK2)-Monster
860203	Flex shaft set-Monster
860206	Rudder and Support Set-Monster
860304	Lock knob sets -Mad Flow
860305	Water proof gasket (PK2) -Mad Flow
860309	Bearing (pk2) + flange bearing (pk2) -Mad Flow
860310	Electronic components plastic mounting sets -Mad Flow
860311	Water inlet tube set -Mad Flow
860312	Pushrod with boot and clevis set-Mad Flow
860313	Plastic boat stand set
865302	Flex shaft set-Mad Flow V3
865303	Scale Outboard engine and rudder,rear shaft set-Mad Flow V3



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.