

BANCROFT

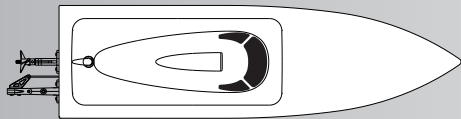
14+
THIS IS NOT
A TOY



High-Performance Brushless RC Boat

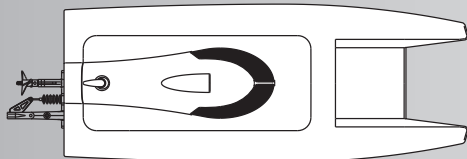
ASSEMBLY AND OPERATION MANUAL

Specifications:



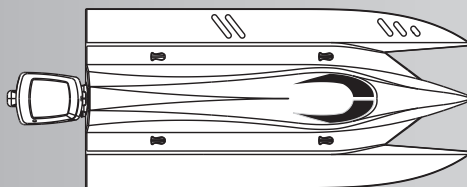
SKU #BNC1034-001 ROCKET V2 Deep Vee Boat

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



SKU #BNC1039-001 Monster Catamaran Boat

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



SKU #BNC1030-001 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 (Not Included)
Charger.....2S/3S Balance Charger with AC Power Cable (Not Included)
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 BANCROFT 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 BANCROFT 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. BANCROFT 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 BANCROFT 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)

kits bag contents:



Cable Strap

2 pcs of Allen Key
 for ROCKET, MONSTER,
 MAD FLOW
 (2.5mm, 2mm)

1 XT-60 Plugs W/
 1 Heat Shrinking Tube

1.5mm Allen Key
 for MAD FLOW



Water proof
 tape for hatch
 only for ROCKET,
 MONSTER

Spare nylon propeller



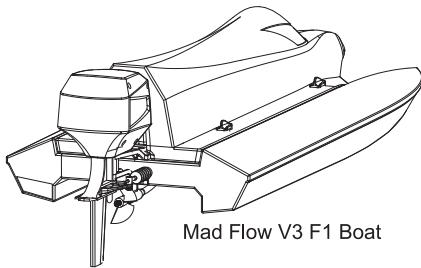
Water proof
 balloon for RX



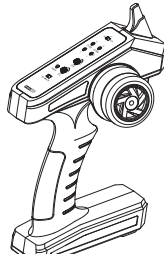
Boat Stand EVA



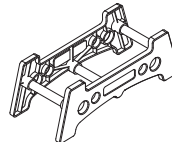
8mm Spanner
 (NOT INCLUDED)



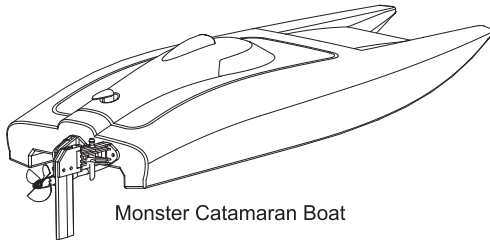
Mad Flow V3 F1 Boat



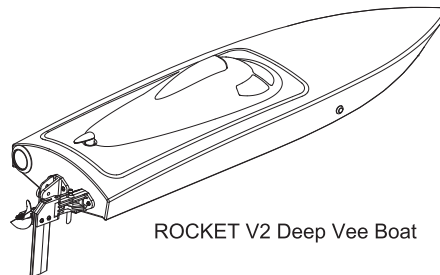
Transmitter



Boat Stand



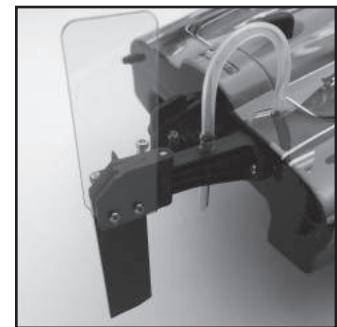
Monster Catamaran Boat



ROCKET V2 Deep Vee Boat

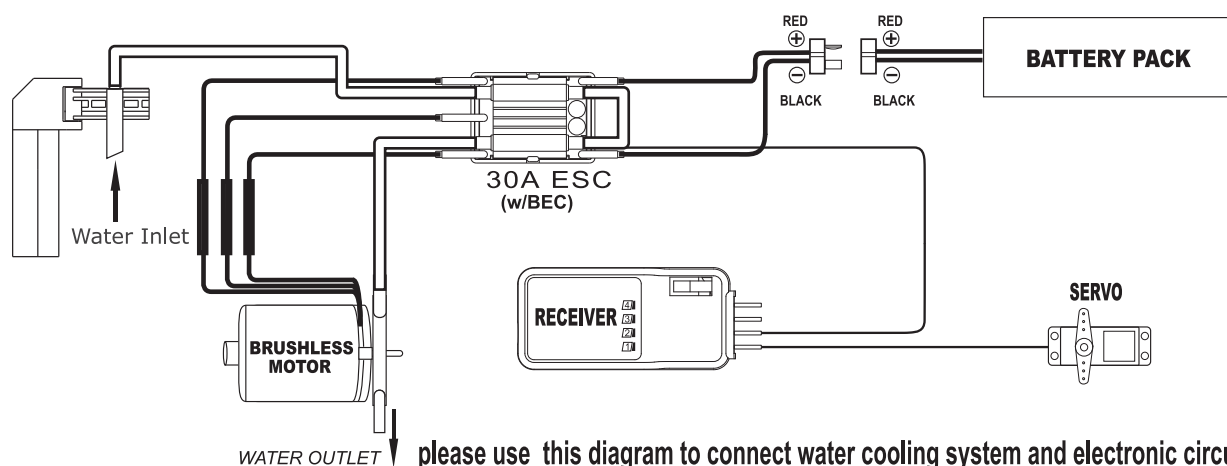
Monster Rescue Plastic Rudder

Monster includes 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, while the propeller rotates to push the boat back to shore. See the photo below to easily install the rescue rudder using only two screws.



Circuit & Cooling System Diagram

CIRCUIT AND COOLING SYSTEM DIAGRAM IN THE BOAT

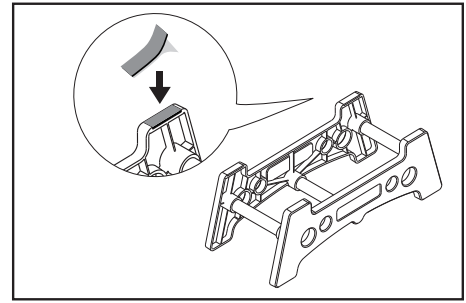


please use this diagram to connect water cooling system and electronic circuit.

Preparing Your Boat For Operation

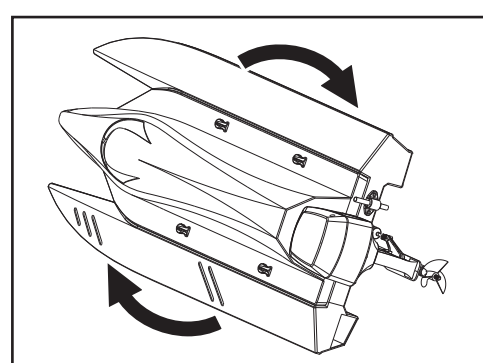
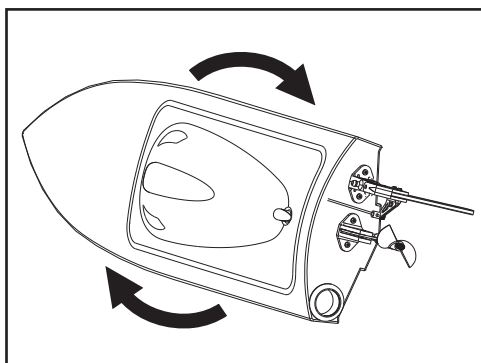
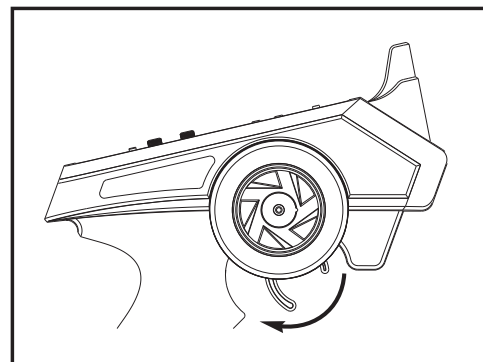
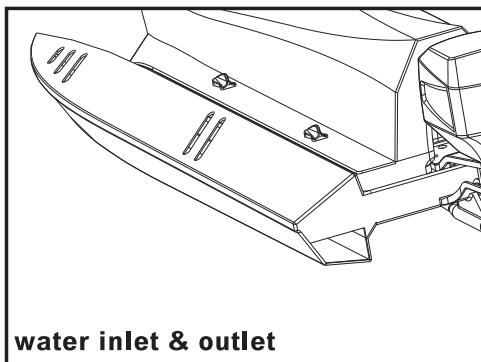
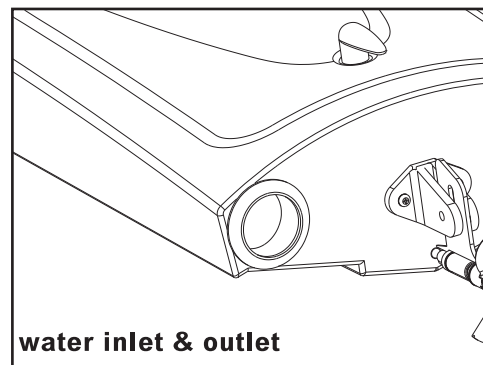
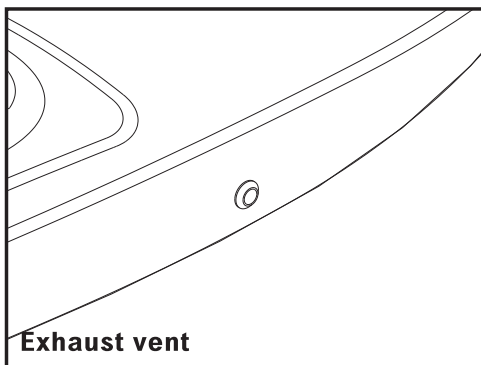
Assembling the boat stand

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

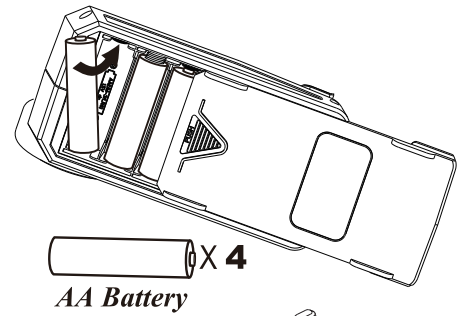
Rocket deep vee boat & Mad Flow F1 boat features with intelligent hull design for self-righting. When boat accidentally capsizes in high speed racing process in big wave, don't worry, please wait for a while, the water will come into left part of hull through the left-rear hole, air will be drain out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



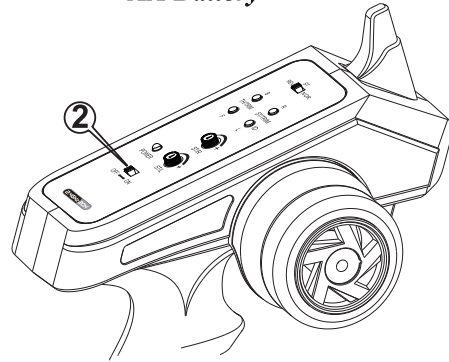
Installing transmitter batteries

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

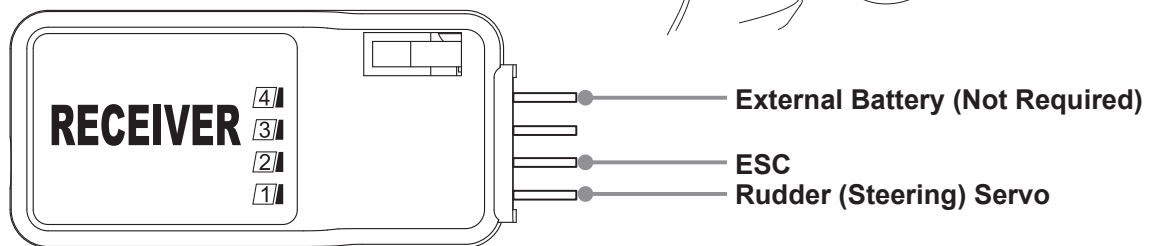
1. Install four fresh “AA” batteries. Follow the diagram located in the bottom of the battery tray for proper battery orientation.



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

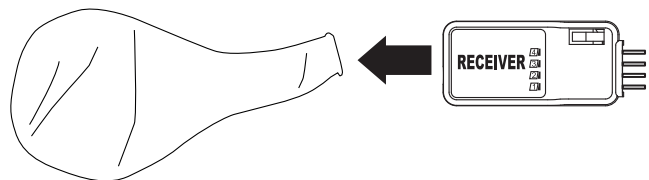


Receiver connection diagram



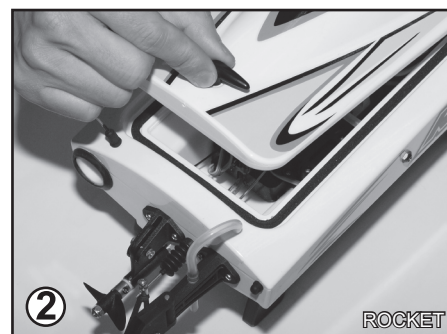
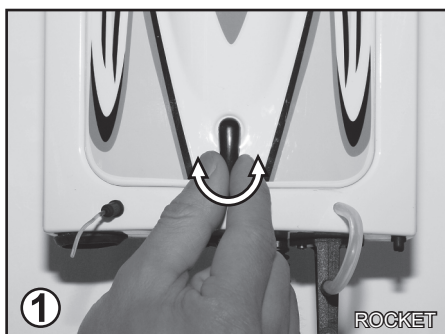
Note: If ESC with BEC function, no need to connect battery with receiver.

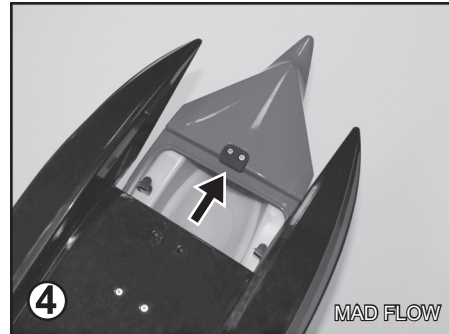
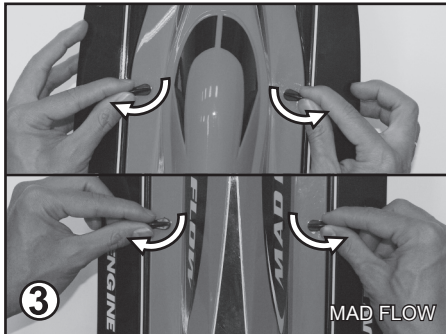
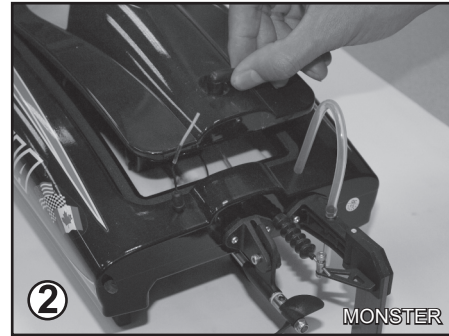
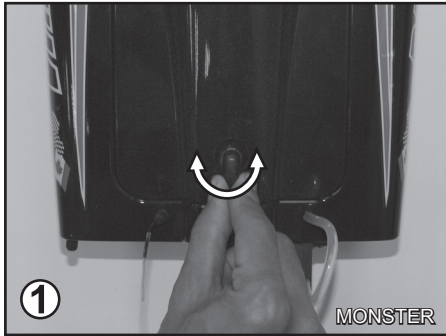
IMPORTANT:
BEFORE OPERATION, LOCATE THE BALLOON FROM THE TOOL BAG AND USE FOR WATERPROOFING THE RECEIVER.



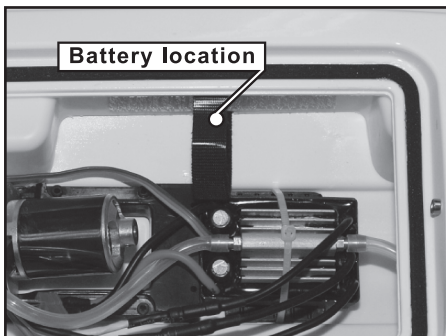
Installing the Battery

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

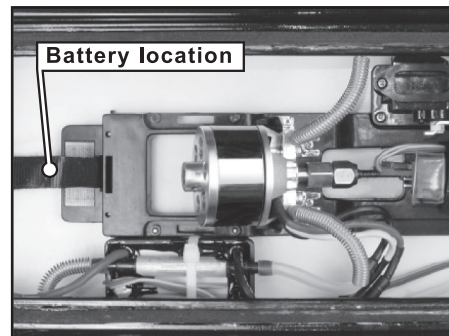




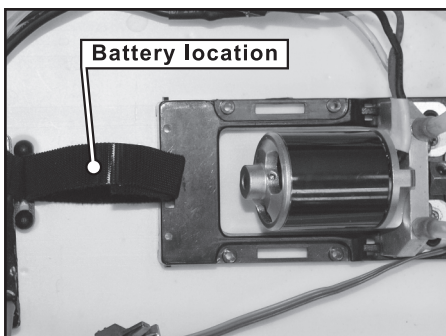
NOTE: We recommend using a 11.1V 2200mAh 35C (minimum) LiPo battery for best performance. Using the provided velcro strap which is already tied on the battery locators inside the hull to tie the battery. The battery locators help align the batteries to the best running center of gravity for maximum performance. Images below show the correct location for the battery in each model.



Rocket V2 Deep Vee Boat battery locator

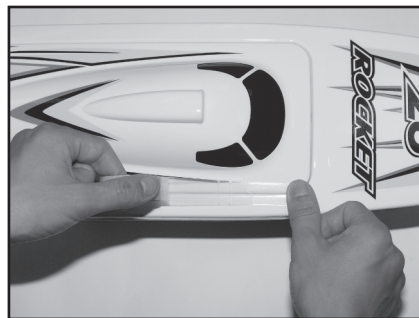


Monster Catamaran Boat battery locator



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.

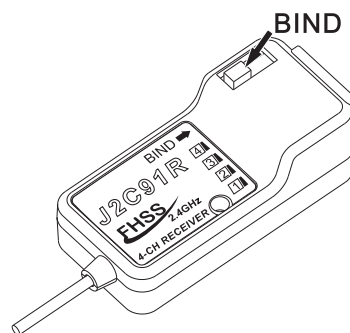


Note: Waterproofing tape only supply in ROCKET and MONSTER tool bag

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.

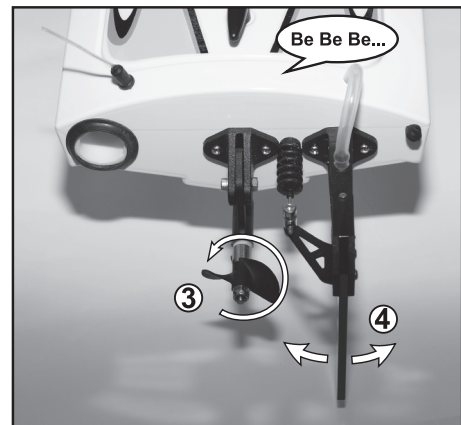
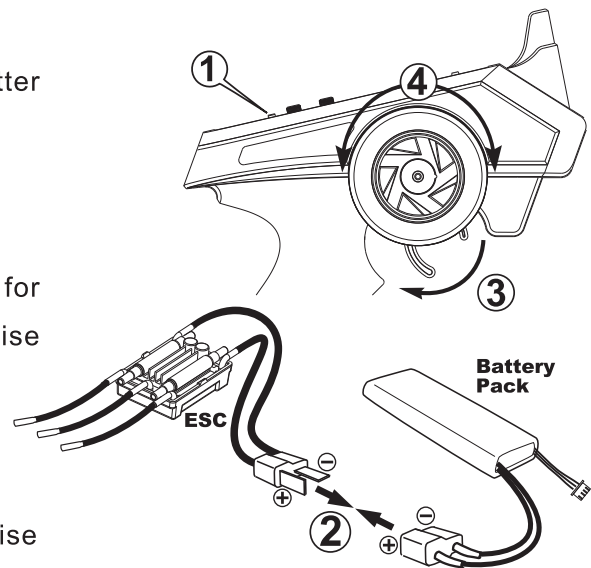


Note 1: During binding process, transmitter and receiver should be no more than one meter apart and no other similar devices should be within 10 meters.

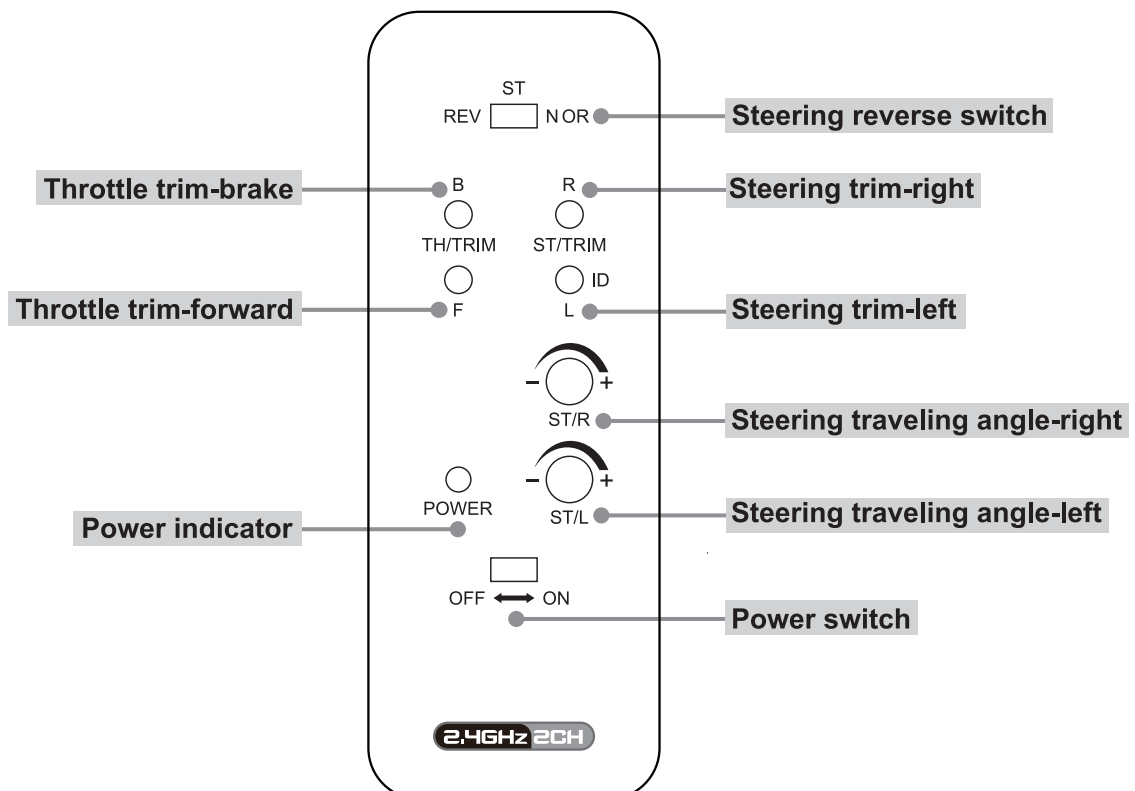
Note 2: if the green light flashing, showing the binding failure, please do again as above indication.

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%

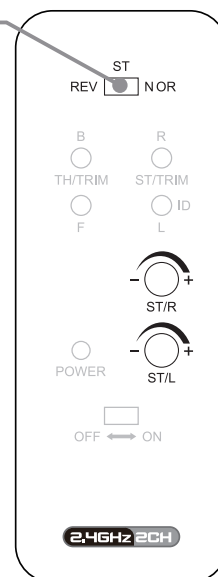
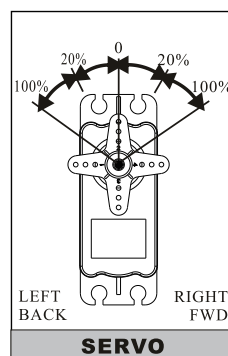
Setting

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.

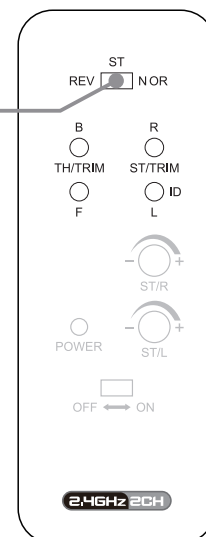
CAUTION:

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 BANCROFT 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

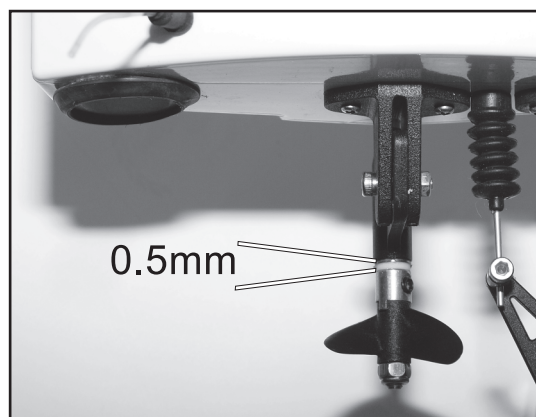
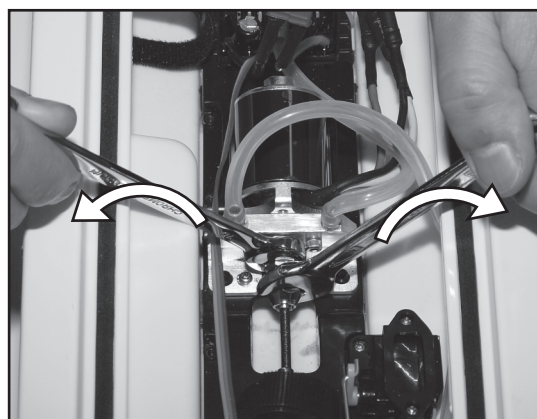
ESC with low voltage hard cut off at 3.2V per cell, when driving your boat, as soon as you notice boat stop, that means ESC low voltage cut off effective, you should immediately drive boat back to shore in slow speed, recharge battery and race again. don't keep racing boat when ESC low voltage cut off 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 Purchase Spare Parts or for Technical Assistance, Visit www.motionrc.com or www.motionrc.eu

PART NO.	DESCRIPTION
BNC6000-006	Bancroft D2842 Out-Runner Brushless Motor
BNC5015-002	Bancroft Water Cooled Motor Mount
BNC1034-100	Bancroft Pushrod
BNC1034-101	Bancroft Flex Shaft Set
BNC1034-102	Bancroft Rudder And Support Set
BNC1034-103	Bancroft Plastic Boat Stand
BNC1034-104	Bancroft Rear Shaft Strut Set (W/O Bearings)
BNC1034-105	Bancroft Water Proof Gasket (Pk2)
BNC7008-004	Bancroft Bearing Set
BNC5077-005	Bancroft P1.4Xd35mm Two BLade Nylon Propeller (Pk2)
BNC1034-107	Bancroft Hook and Loop Strap Set
BNC1034-108	Bancroft Silicone Antenna Cap(Pk2)
BNC1034-109	Bancroft One Meter Silicone Water Cooling Tube
BNC1034-110	Bancroft Water Outlet
BNC1034-111	Bancroft Motor Coupler Set
BNC7009-001	Bancroft Water-Proof Rudder Pushing Rod Tube(2Pk)
BNC6005-005	Bancroft 9G Metal Gear Rudder Servo
BNC6003-001	Bancroft 30A Water Cooled Brushless ESC With XT-60 Plug
BNC6024-005	Bancroft 11.1V 2200Mah 35C Lipo With XT-60
BNC6008-004	Bancroft J2C93 2.4GHz 2Ch Transmitter
BNC6010-302	Bancroft J2C91R 2.4GHz 4Ch Receiver
BNC7009-004	Bancroft Rubber Bung (Pk4)
BNC1039-100	Bancroft Rescue Rudder Pvc Plate With Screws(Pk2)
BNC1039-102	Bancroft Flex Shaft Set
BNC1039-104	Bancroft Rudder And Support Set
BNC6026-003	Bancroft 2S/3S Balance Charger & EU Plug AC Power Cable
BNC6026-002	Bancroft 2S/3S Balance Charger & US Plug AC Power Cable

BANCROFT



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.