



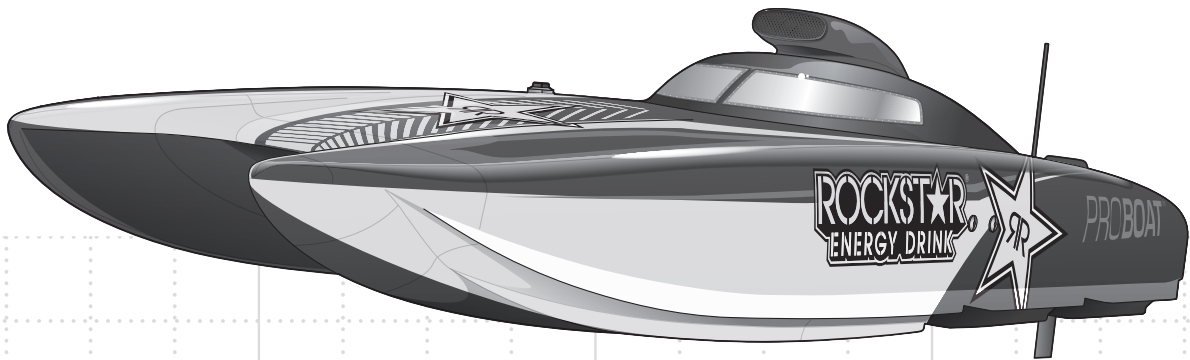
ROCKSTAR® 48



PROBOAT™
ProBoatModels.com

**Owners Manual • Bedienungsanleitung •
Manuel de l'Utilisateur • Manuale dell'Utente**

PRB09003



NOTICE

All instructions, warranties and other collateral documents are subject to change at the sole discretion of Horizon Hobby, LLC. For up-to-date product literature, visit <http://www.horizonhobby.com> and click on the support tab for this product.

Meaning of Special Language

The following terms are used throughout the product literature to indicate various levels of potential harm when operating this product:

NOTICE: Procedures, which if not properly followed, create a possibility of physical property damage AND little or no possibility of injury.

CAUTION: Procedures, which if not properly followed, create the probability of physical property damage AND a possibility of serious injury.

WARNING: Procedures, which if not properly followed, create the probability of property damage, collateral damage, and serious injury OR create a high probability of superficial injury.



WARNING: Read the ENTIRE instruction manual to become familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product, personal property and cause serious injury.

Age Recommendation: Not for children under 14 years. This is not a toy.

This is a sophisticated hobby product and NOT a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision. Do not use with incompatible components or alter this product in any way outside of the instructions provided by Horizon Hobby, LLC. This manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or serious injury.

Safety Precautions and Warnings

As the user of this product, you are solely responsible for operating in a manner that does not endanger yourself and others or result in damage to the product or the property of others.

- When handling and/or transporting your boat, always pick up the boat from the front, keeping all moving parts pointed away from you.
- Always keep a safe distance in all directions around your model to avoid collisions or injury. This model is controlled by a radio signal subject to interference from many sources outside your control. Interference can cause momentary loss of control.
- Always operate your model in open spaces away from full-size vehicles, traffic and people.
- Always carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.).
- Always keep all chemicals, small parts and anything electrical out of the reach of children.
- Always avoid water exposure to all equipment not specifically designed and protected for this purpose. Moisture causes damage to unprotected electronics.
- Never place any portion of the model in your mouth as it could cause serious injury or even death.
- Never operate your model with low transmitter batteries.

Please read this manual for operation and maintenance instructions.

Register your boat online at www.proboatmodels.com.

Recommended Tools and Materials

- Sealable Fuel Container
- Evolution® 2-Cycle Oil (EVOX1001Q) or High Performance 2-Cycle Oil (DYNE4100)
- Gasoline (+87 Octane), Ethanol-free
- 4 AA batteries for the transmitter
- 3-in-1 Tuning Screwdriver (DYN3048)
- #1 Phillips Screwdriver
- Small Crescent Wrench
- Open-end wrench: 8mm
- Open-end wrench: 10mm
- 1.5mm Hex Wrench
- 2mm Hex Wrench
- 2.5mm Hex Wrench
- 4mm Hex Wrench
- Ball link pliers (RV01005)
- Spark plug wrench
- Spark plug gap gauge
- Dynamite® Prophet™ Sport LiPo AC Balance Charger (DYNC2005)
- Threadlock
- CA or Epoxy Glue
- Pro Boat® Marine Grease and Gun (PRB0100)
- Clear tape (DYNM0102)
- Car Wax
- Clean Towels

Product Inspection

Carefully remove the boat and radio transmitter from the box. Inspect the boat for damage. If you find damage is present, please contact the retailer where you purchased your boat.

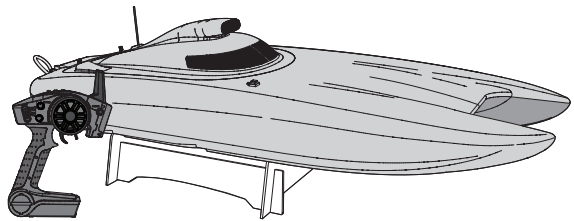
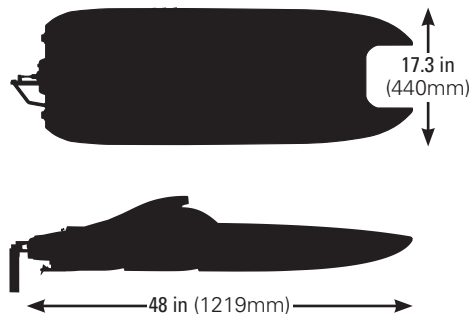


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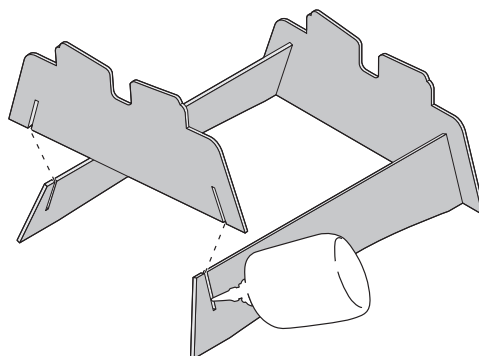
Specifications

Length	48 in (1219mm)
Beam (width)	17.3 in (440mm)
Weight	20.15 lb (9.14 kg)
Hull Material	Hand Laid Fiberglass
Engine	Dynamite 26cc Marine Engine
Propeller	2-blade aluminum
Transmitter	Spektrum™ DX2E V3 2.4GHz Pistol Grip Transmitter
Receiver	Spektrum SR410
Battery	Dynamite 7.4V 5200mAh 2S 15C Li-Po



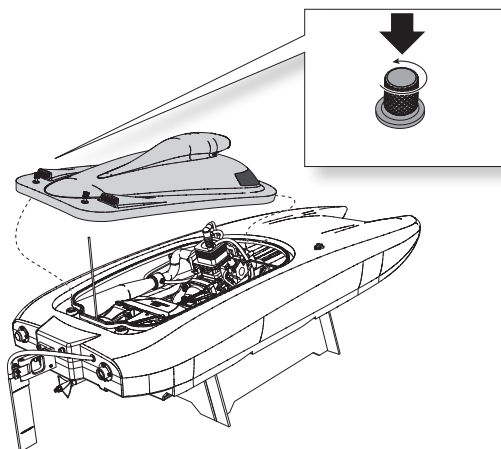
Boat Stand Assembly

1. Attach the side stand pieces to the end pieces as shown.
2. Use medium CA or epoxy adhesive to secure the side stand to the ends.
3. Allow the adhesive to dry before placing your boat on the stand.



Canopy Removal

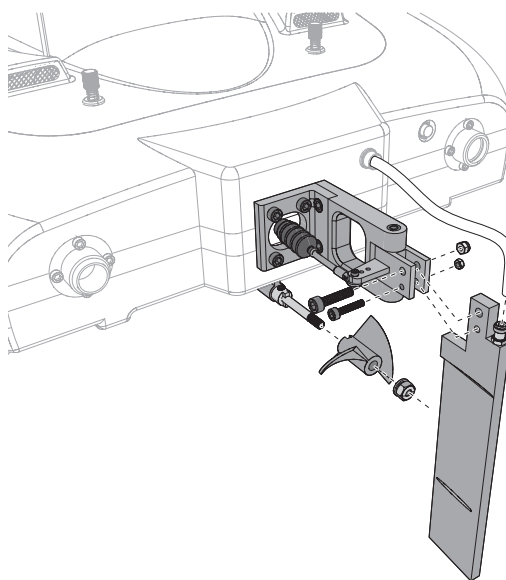
1. Push down and turn the 2 knurled pins one quarter of a turn to disengage the pins from the hull.
2. Carefully lift the rear of the canopy and pull back to disengage the front pin from the hull.



Propeller Installation

1. Correctly align the propeller with the drive dog on the prop shaft.
2. Tighten the nut on the prop shaft.
3. Disassemble in reverse order.

Tip: Propeller balancing can add several mph to top speed and reduce vibration. There are several different propeller balancing tools available. Read the instructions that accompany the propeller balancing tool, as removing material from the correct part of the propeller is crucial.



Rudder Installation

1. Install the rudder in the mount using 2 screws and 2 locknuts as shown.
2. Connect the tube from the back of the boat to the barbed fitting on the top of the rudder.

Charging the Receiver Battery

Instructions

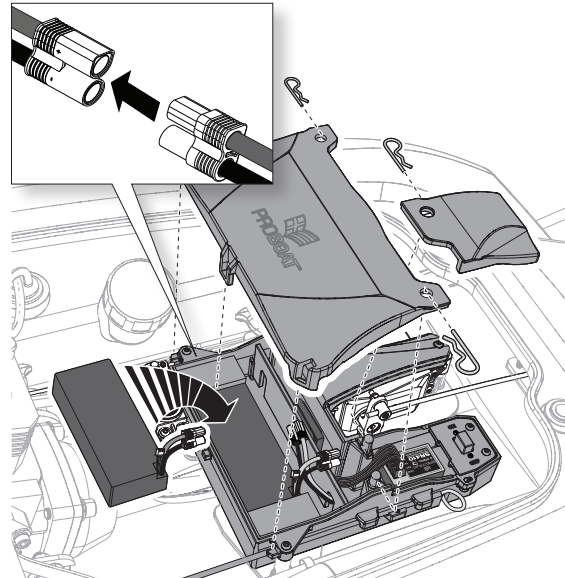
Choose a charger designed to charge the included 7.4V 5200mAh 2S 15C LiPo. We recommend the Dynamite® Prophet Sport LiPo AC Balance Charger (DYNC2005). Refer to your charger manual for charging instructions and safety information.

NOTICE: Never charge a battery in the boat or damage may result.

Receiver Battery Installation

1. Remove the 2 clips and lid from the battery compartment.
2. Install the battery in the battery compartment.
3. Connect the battery EC3™ connector to the ON/OFF switch.
4. Install the lid on the box and secure the lid using the clips.

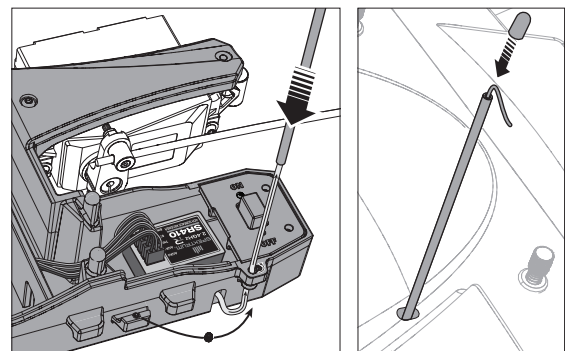
IMPORTANT: After boating, always remove the battery before transporting or storing the boat.



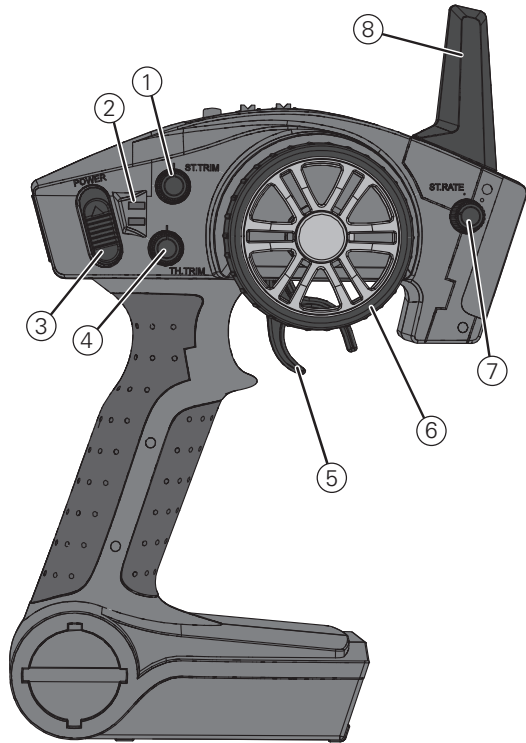
Antenna Tube Installation

1. Remove the 3 clips and 2 lids from the boxes.
2. Remove the set screw using a 1.5mm hex driver and the antenna tube from the side of the radio box.
3. Feed the antenna through the antenna mount and into the antenna tube as shown.
4. Install the tube in the antenna mount, then secure the tube with a 3mm set screw using a 1.5mm hex driver.
5. Replace the lids and clips on the boxes.
6. Guide the antenna tube through the hole in the canopy and install the cap on the antenna tube.

IMPORTANT: The antenna must be installed above the boat's waterline to get the best reception of your transmitter's signal.

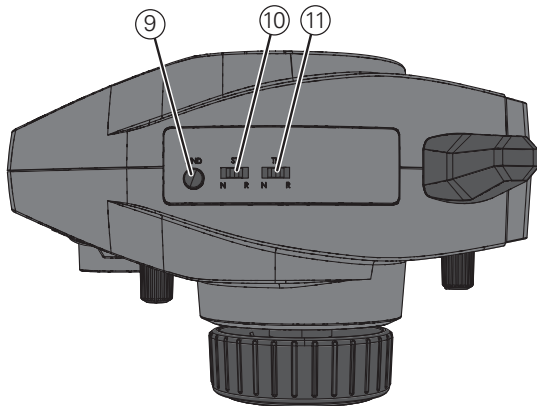


Spektrum DX2E Radio System



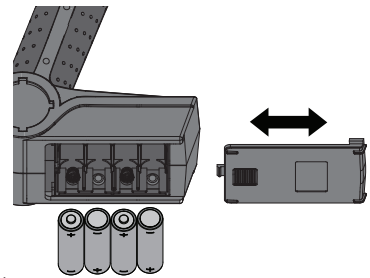
For more information on the transmitter, go to www.spektrumrc.com and click on the support tab to find the full manual for the DX2E transmitter.

1. **ST. Trim** adjusts the “hands off” direction of the model.
2. **Indicator Lights**
 - Solid green light indicates adequate battery power.
 - Flashing green light indicates the battery voltage is critically low. Replace batteries.
3. **ON/OFF Switch** turns the power ON/OFF for the transmitter.
4. **TH. Trim** adjusts the motor speed to idle at neutral.
5. **Throttle Trigger** controls speed.
6. **Steering Wheel** controls direction (left/right) of the model.
7. **Steering Dual Rate** adjusts the amount the rudder moves when the steering wheel is turned left and right.
8. **Antenna** transmits the signal to the model.
9. **BIND Button** puts the transmitter into Bind Mode.
10. **ST. REV** reverses the function of the steering when the wheel is turned left or right.
11. **TH. REV** reverses the function of the speed control when pulled back or pushed forward.



Installing the Transmitter Batteries

1. Push in the battery cover a small amount to release the retaining tab, then remove the cover.
2. Install 4 AA batteries, taking care to align battery polarity to the diagram in the transmitter's battery case.
3. Carefully reinstall the battery cover by aligning the tabs with the slots on the transmitter.



CAUTION: NEVER remove the transmitter batteries while the vehicle is powered on, as loss of control, property damage or injury may result.

Binding

Binding is the process of programming the receiver to recognize the GUID (Globally Unique Identifier) code of a single specific transmitter. The included transmitter and receiver are bound at the factory. If you need to rebind, follow the instructions below.

1. Ensure the transmitter and vehicle are both powered OFF.
2. Remove the radio box cover and install the bind plug in the BIND/battery port of the receiver. Power the receiver through any other port.
3. Power ON the vehicle. The receiver LED will blink green.
4. Stand approximately 8–12 feet (2.4–3.7m) from the vehicle. With the steering wheel and throttle trigger in the failsafe positions (neutral), press and hold the bind button and power ON the transmitter. The transmitter's green LED will blink after 3 seconds, indicating it is in bind mode.
5. Release the bind button when the green LED flashes. Continue holding failsafe positions until the binding process is complete.
6. The receiver LED will glow solid when the transmitter and receiver are bound.
7. Power OFF the vehicle, then the transmitter.
8. Remove the bind plug and store it in a convenient place.
9. Reinstall the radio box cover.

The receiver will keep the binding to the transmitter until another binding is done.

If you encounter problems, obey binding instructions and refer to the troubleshooting guide for other instructions. If needed, contact the appropriate Horizon Product Support office.

NOTICE: Do not attempt to bind the transmitter and receiver if there are other compatible transmitters in bind mode within 400 feet. Doing so may result in unexpected binding.

Failsafe

In the unlikely event that the radio connection is lost during use, the receiver will drive the servos to their pre programmed failsafe positions (normally no throttle and straight steering).

If the receiver is powered on before powering on the transmitter, the receiver will enter this failsafe mode. When the transmitter is powered on, normal control is resumed.

IMPORTANT: Failsafe activates only in the event that signal is lost from the transmitter. Failsafe will NOT activate in the event that receiver battery power decreases below the recommended minimums or power to the receiver is lost.

Range Check

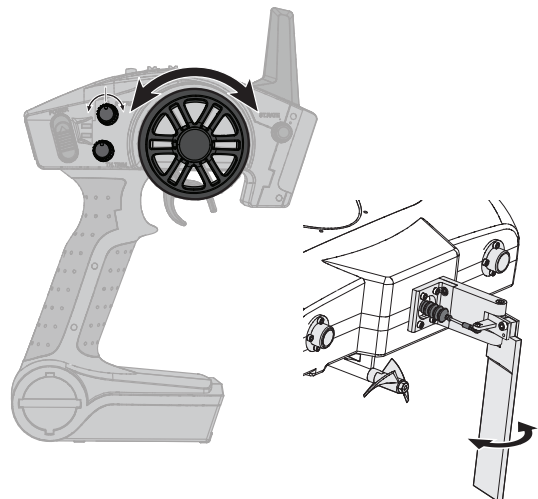
IMPORTANT: Perform a range check at the beginning of each boating session, after repair or after installation of new batteries.

Ensure the receiver antenna is extended properly and all batteries are fully charged.

1. With the radio system powered on and connected, while the engine is off, walk away from your boat 90 feet (32m).
2. Have an assistant remain with the boat to check for proper control movement of the rudder and throttle servos in response to your transmitter input.
3. If everything appears to be operating correctly, place the boat in the water, start the engine, and increase throttle to 1/3 throttle near the shore.

NOTICE: Do not operate the engine without water cooling circulation or damage may result.

4. Check steering and throttle on the transmitter. While the boat is moving forward, ensure water flows out of the coolant outlets.
5. If the boat does not operate correctly, retrieve the boat and perform repairs.

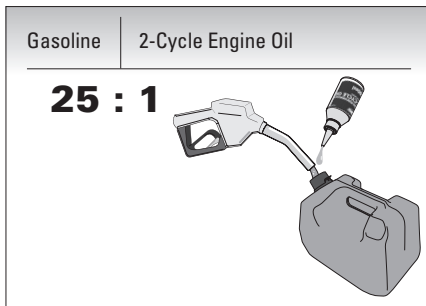


Fuel Safety and Use Instructions

- Always observe all warnings, precautionary statements and instructions supplied by the fuel manufacturer/provider.
- Fuel is a fire accelerant. Never operate your vehicle near open flames. Never smoke while operating your vehicle or while handling fuel.
- Always only use a mixture of gasoline and two-cycle oil for fuel. Do not use glow (nitro) fuel.
- Always use caution when handling gasoline.
- Always run your model engine in a well-ventilated area. Model engines produce harmful carbon monoxide fumes.
- Always drain your engine after you have finished running your vehicle. Do not store the vehicle with fuel in the gas tank.
- Never handle model engines and mufflers until they have had time to cool. They become extremely hot when in use.
- Always store your fuel in a safe place well away from sparks, heat or anything that can ignite.
- Always ensure that gasoline and fuel are stored in a clearly marked container well away from the reach of children.
- Always mix and store your fuel safely in a sealed, water-resistant container specifically made for gasoline.
- Always store fuel in a cool, dry location. Do not allow fuel containers to come in direct contact with concrete, as the fuel may absorb moisture.
- Always responsibly discard fuel if there is condensation and/or water inside the fuel container.
- Never allow fuel to come into contact with eyes or mouth. Gasoline and other fuels used in model engines are poisonous.
- Never return unused fuel from the fuel tank back into the fuel container.
- Contact your local waste disposal authorities for more information about discarding fuel waste responsibly.

Fuel Mixing Precautions and Guidelines

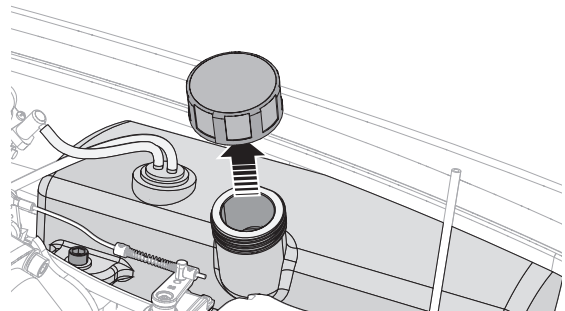
- Only use gasoline mixed with two-cycle engine oil.
- Only use pre-mix two-cycle engine oil. Do not use any other kind of oil.
- Always use 92–98 Octane RON (Europe) and 87–93 Octane AKI (US) gasoline.
- Always blend gasoline with two-cycle engine oil at a 25:1 ratio.
- Never use a 40:1 or 32:1 gas-oil ratio.
- Never use glow (nitro) fuel.



Gasoline	:	2-Cycle Engine Oil
1 gallon	:	5.1 fl oz
1/2 gallon	:	2.6 fl oz
1/4 gallon	:	1.3 fl oz
4 liters	:	160 ml
2 liters	:	80 ml
1 liter	:	40 ml

Fueling the Boat

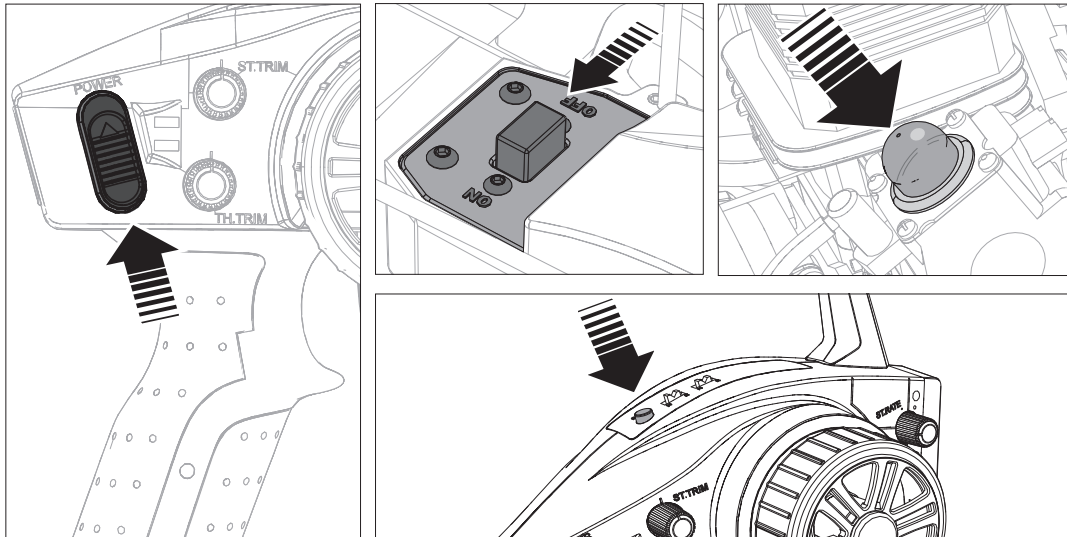
Remove the fuel tank cap and fill the fuel tank. Tighten the fuel tank cap securely back in place.



Vehicle Starting and Running

1. Remove the canopy.
2. Power on your transmitter, then power on the receiver.
3. Press the priming bulb several times until it becomes filled with fuel. This is not necessary if the engine has been run recently.
4. With the boat on a stand and the propeller unobstructed, pull the starter cord in a quick continuous motion to start the engine. The engine should start within 6 pulls.
5. Replace the canopy before placing the boat in the water.

CAUTION: Make sure you understand all engine instructions before attempting to start the engine. Failure to follow all instructions can lead to damage to your vehicle, property damage and bodily injury.



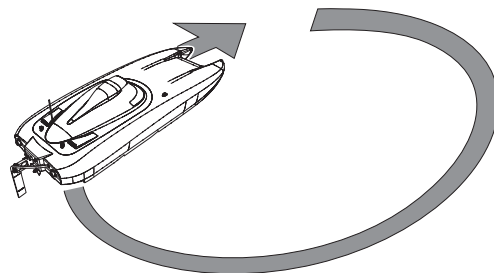
CAUTION: Always keep all body parts, hair and dangling or loose items away from a spinning propeller, as these could become entangled.

Breaking in the Engine

Break in the engine by running slowly for the first half tank of fuel (about 25 minutes).

NOTICE: Do not adjust carburetor settings during break-in. Doing so will cause engine damage.

When the boat is moving forward, ensure water flows out of the coolant outlets. If water is not flowing out of the coolant outlets, remove any blockage from the rudder inlet and coolant system or the engine and tuned muffler may overheat.



Boating Tips

Avoid boating near other watercraft, stationary objects, waves, wakes and other rapidly moving water, wildlife, floating debris or overhanging trees. You should also be careful to avoid boating in areas where there are many people, such as swimming areas, park waterways or fishing areas. Consult local laws and ordinances before choosing a location to pilot your boat.

Maximum speeds are only achieved when the water conditions are smooth and there is little wind. A sharp turn, wind or waves can turn over a boat when it is moving quickly. Always pilot your boat for the wind and water conditions so that the boat does not turn over.

When running your boat for the first time, we recommend calm wind and water conditions so that you can learn how the boat responds to your control.

When making turns, decrease the throttle to reduce the probability of flipping the boat over.

Never operate your boat in less than 12 inches (30.5cm) of water.

If you need to retrieve your boat from the water, use fishing equipment or another boat.

NOTICE: When running at full speed in choppy waters, the prop may exit and re-enter the water repeatedly and very quickly, subjecting the propeller and flex shaft to some stress. Frequent stress may damage the propeller and flex shaft.

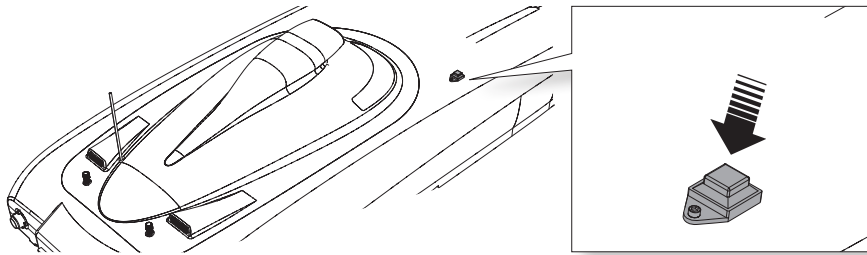
CAUTION: Never operate your boat in extreme temperatures or turbulent water.

CAUTION: Never attempt to retrieve a downed boat by swimming.

Stopping the Engine

Any time you want to stop the engine, especially if there is a problem with the engine, stop the engine by pressing the **KILL** switch.

CAUTION: Do not touch the engine and muffler. They become extremely hot during operation and can cause injury or fire.

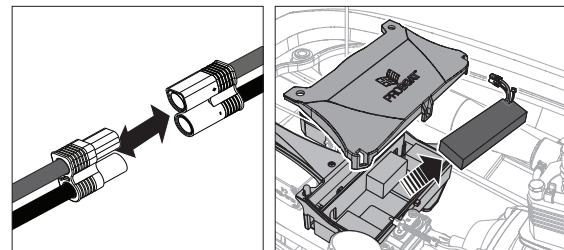
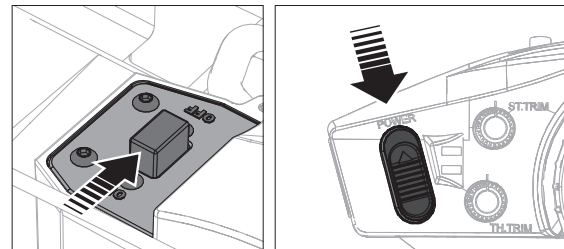


When You Are Finished

1. Power off the receiver.
2. Power off the transmitter.
3. Disconnect and remove the battery from the boat.

CAUTION: Never power off the transmitter or receiver before stopping the engine. You will lose control of your vehicle.

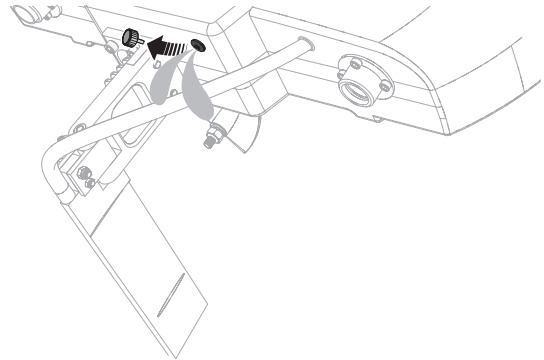
Tip: Always remove the canopy before storage or moisture may allow mold and mildew to grow in the boat.



After Boating

- Drain water from inside the hull using the drain plug
- Wipe exhaust residue from the boat
- Rinse the deck, hull, and metal hardware with fresh water, then dry them with a clean towel. After cleaning, coat metal hardware with a silicone spray lubricant to help prevent corrosion
- Fully dry the inside and outside of the boat, including the water cooling system. Remove the hatch before storing your boat
- Apply a wax coating for automotive finishes to your boat to prevent oxidation and to protect against damage caused by fuel or other harmful chemicals
- Repair any damage or wear to the boat
- Lubricate the flex shaft
- Make note of lessons learned from the trimming of your boat, including water and wind conditions

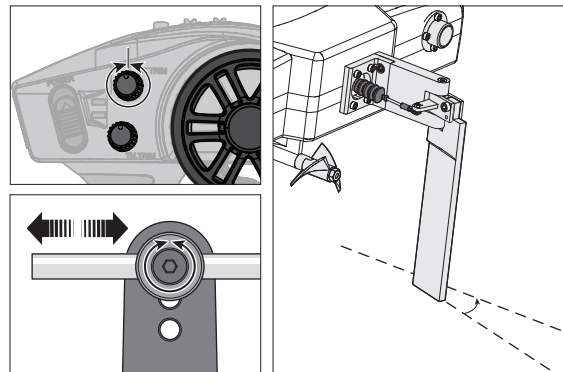
NOTICE: When you are finished boating, never leave the boat in direct sunlight or in a hot, enclosed area such as a car. Doing so can damage the boat.



Steering Trim

Use the **ST. Trim** knob on the transmitter to adjust the steering trim to center the rudder. If the servo arm is not close to its desired neutral position after the binding process and the rudder cannot be centered using trim, please take the following steps:

1. Make sure the **ST. Trim** knob is set to "0" or neutral.
2. Adjust the linkage to the servo so the rudder is centered when the steering is at neutral.

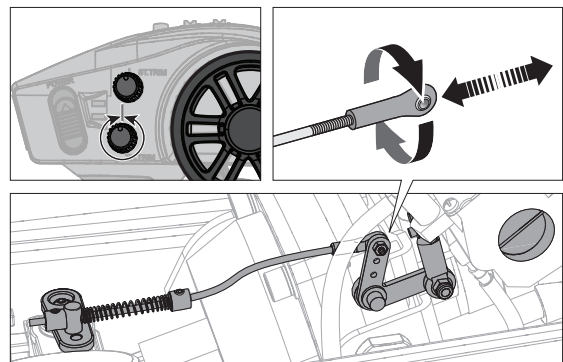


Throttle Trim

Adjust the **TH. Trim** so the carburetor is completely closed when the throttle trigger is at neutral. If throttle can not be closed using **TH. Trim**, please take the following steps:

1. Make sure **TH. Trim** knob is set to "0" or neutral.
2. Use needle-nose pliers or ball link pliers (RVO1005) to remove or install a link on a control horn.
3. Turn the linkage clockwise or counterclockwise until the throttle is closed.
4. Attach the linkage to the control horn after adjustment.

NOTICE: Throttle trim change may affect engine operation. Carburetor settings must be set correctly or damage may result.



Engine Tuning

Before making adjustments:

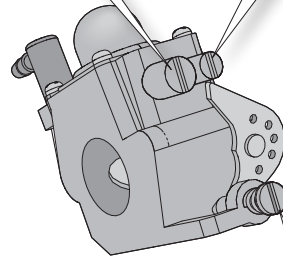
- Ensure there are no leaks or obstructions in the fuel tank, fuel tubing or the carburetor. Any faults can affect engine operation and tuning.
- The carburetor needle is very sensitive. Adjusting the needle even 1/16 of a turn is a significant change. Be careful when making adjustments.

Carburetor Factory Settings

The engine can be tuned from the factory settings to optimize performance under various conditions. If you lose track of the engine settings, return to these factory carburetor settings.

High-Speed Needle (on the left side). Close the high-speed needle by turning it clockwise until it stops, then turn it counterclockwise 1 1/2 turns out (open).

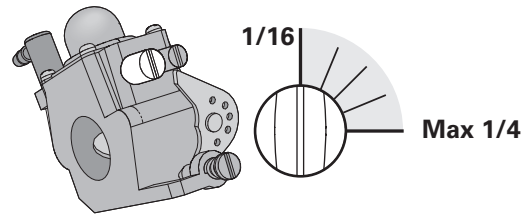
Low-Speed Needle (on the right side). Close the low-speed needle by turning it clockwise until it stops, then turn it counterclockwise 1 1/4 turns out (open).



Idle Screw (below the needles). Center the screw so the slot is straight up and down.

Adjusting the High Speed Needle

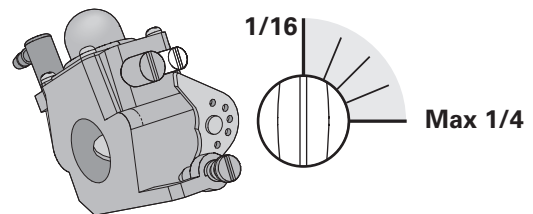
If the top speed is slow, turn in the high-speed needle 1/16 turn and test. Do not exceed 1/4 turn in from factory setting (minimum 1 1/4 turn out from closed) or the engine will be damaged.



Adjusting the Low Speed Needle

If the vehicle accelerates slowly, turn in the low-speed needle 1/16 turn and test.

Do not exceed 1/4 turn in from the factory setting (minimum 1 turn out from closed) or the engine will be damaged.

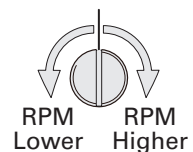
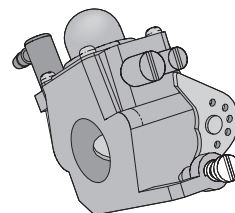


Idle Adjustment

RPM Lower (Arrow to left)

RPM Higher (Arrow to right)

If the idle is set too high (propeller turns) or too low (engine does not stay running), adjust the idle speed on the carburetor.



Spark Plug Test



CAUTION: Before testing the spark plug, clean up spilled fuel and close fuel containers. Failure to do so can result in injury, fire or damage.

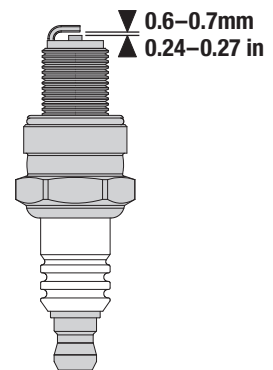
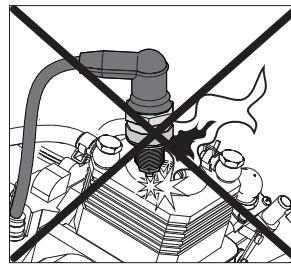
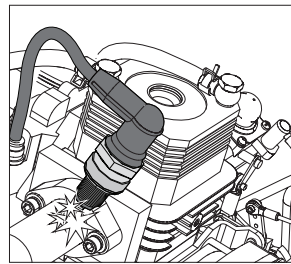
Remove the spark plug from the engine and attach the plug wire and boot to the spark plug. Place the threaded end of the spark plug against the muffler. Pull the starter cord in a quick continuous motion to turn over the engine and ensure there is a spark.

If there is no spark:

- Adjust the spark plug gap to 0.6–0.7mm (0.24–0.27 in)
- Install a new spark plug (LOSR5017)



CAUTION: Do not test the spark plug near the spark plug hole or residual fuel may ignite.

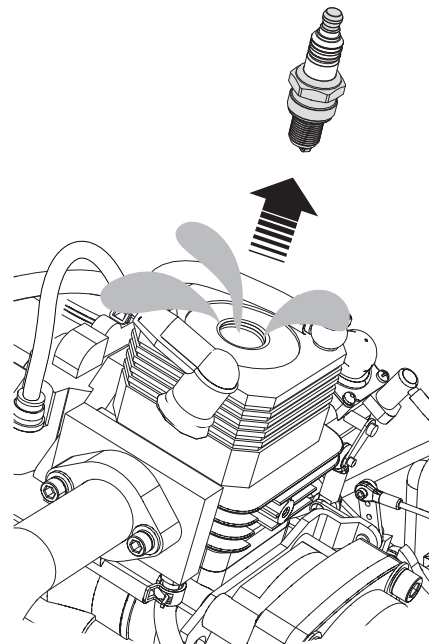


Flooded Engine

The engine will not start if too much fuel is in the cylinder. Excess fuel can be expelled by following the steps below.

1. Disconnect and remove the spark plug.
2. Pull the starter cord in a quick continuous motion.
3. Replace the spark plug and make sure the boot is tightly secured.

NOTICE: Always clean up spilled fuel. Failure to do so may result in injury or damage.

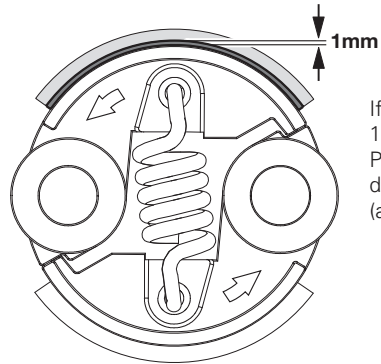


Maintenance

1. Inspect the engine and engine mounts for damage or wear. Replace, clean or repair as needed.
2. Inspect the condition of the spark plug and wire. Replace as needed.
3. Inspect the tuned muffler for damage and leaks. Tighten the screws.
4. Clean and check the carburetor for leakage and smooth operation.

Clutch

The centrifugal clutch automatically engages when the engine rpm is increased. Be sure that the idle speed adjustment is set low enough so that the propeller does not rotate at idle. Periodically disassemble the clutch and clean debris from the clutch shoes and the inner clutch bell.

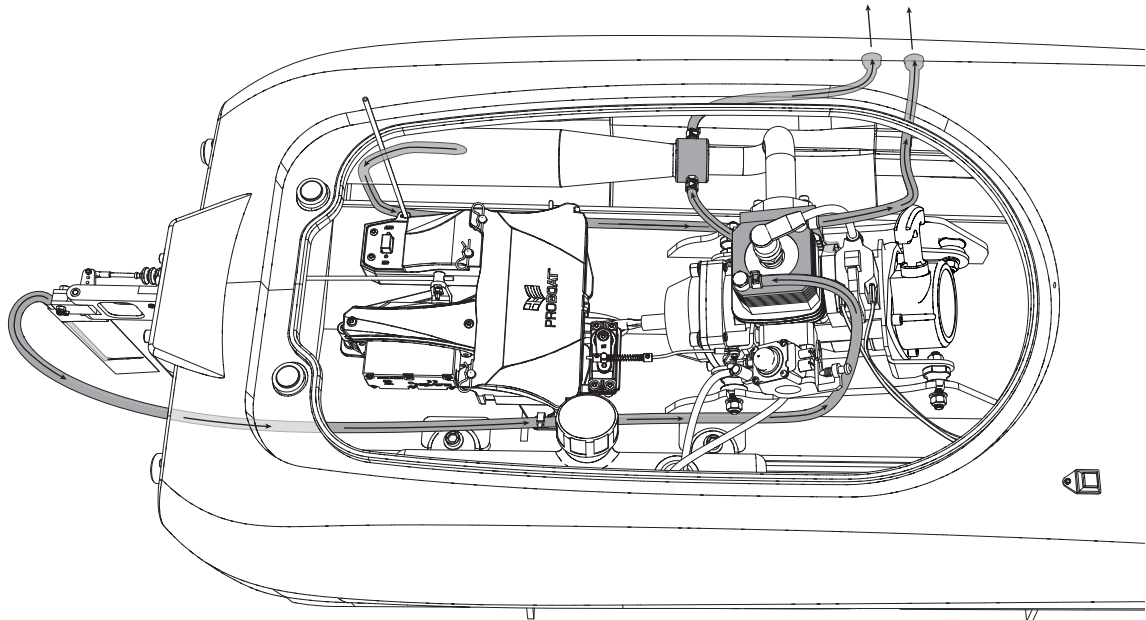
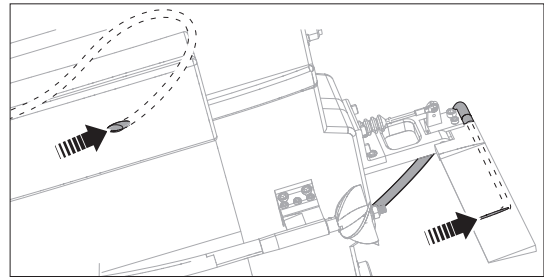


If worn to within 1mm, replace with PRB292003. Note the direction of operation (arrows).

Water Cooling System

If water does not stream out of the water outlets while the boat is moving forward, immediately stop the engine and clean the obstruction from the water cooling system. The engine and muffler have separate circulation systems.

1. Disassemble and clean the water cooling system to remove blockage and prevent overheating.
2. Replace damaged parts.

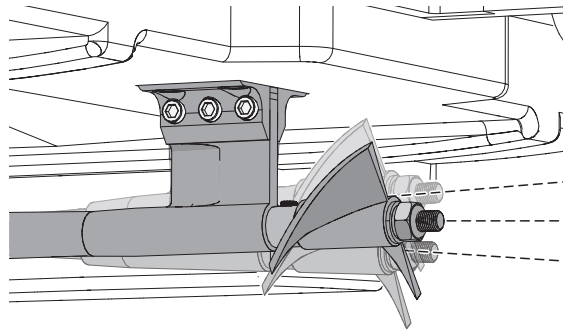


Prop Angle Adjustment

Raising the prop strut increases speed, but also decreases steering response and increases cavitation.

Lowering the prop strut increases steering response, but also increases steering sensitivity and decreases speed.

1. Remove 3 bolts and 3 nuts on the prop strut on the bottom of the boat.
2. Slide the strut up or down to change the angle of the propeller in relation to the hull.
3. Adjust as desired and tighten the nuts and bolts.



Drivetrain Lubrication

Always replace the drivetrain parts when they are damaged or show visible wear or injury and damage may result.

Lubricating the flex shaft 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 tube.

Lubricate the flex shaft and all moving parts after every 30 minutes of operation. Lubricate the prop shaft after every 90 minutes of operation.

1. Remove 3 nuts and 3 screws from the prop strut on the bottom of the boat.
2. Slide the strut down out of the mount.

Tip: Use paper or cloth to touch the flex shaft and other lubricated parts.

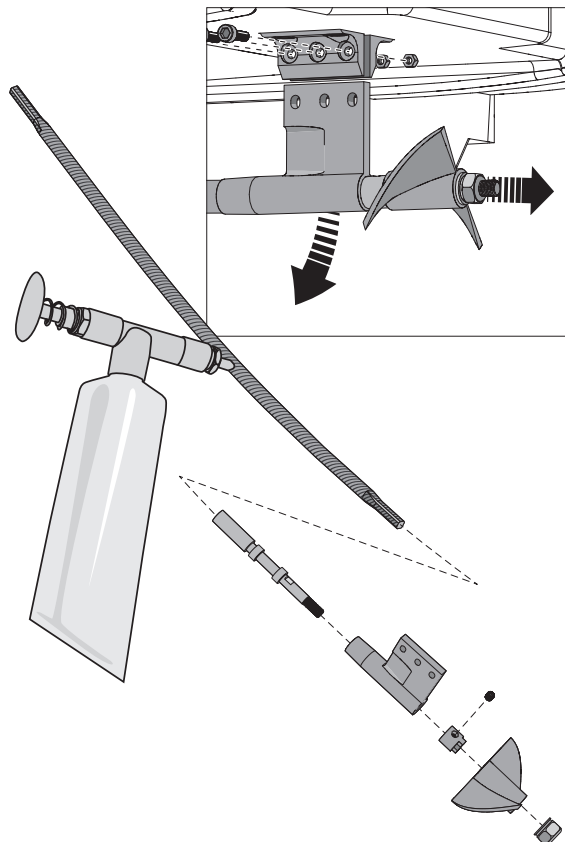
3. Remove the flex shaft by sliding it out of the clutch, the stuffing tube and the prop shaft. Mark or otherwise note the flex shaft end in the clutch.
4. Loosen the set screw of the drive dog using a 2mm hex driver.
5. Remove the nut, propeller and drive dog from the prop shaft.
6. Remove the prop shaft and 2 bushings from the prop strut.
7. Wipe lubricant and material from the shafts. Lubricate the flex shaft, prop strut and prop shaft using marine grease (PRB0101 or PRB0100).

NOTICE: Ensure the correct flex shaft end is inserted in the clutch. Failure to do so may result in damage.

8. Assemble in reverse order. Tighten the drive dog set screw on the flat spot on the prop shaft, applying threadlock as needed.

NOTICE: Running the boat in saltwater could cause some parts to corrode. If you run the boat in saltwater, rinse it thoroughly in freshwater after each use and lubricate the drive system.

NOTICE: Because of its corrosive effects, running RC boats in saltwater is at the discretion of the modeler.



Troubleshooting Guide

Problem	Possible Cause	Solution
Boat will not respond to throttle but responds to other controls	Throttle channel is reversed	Reverse throttle channel on transmitter
Extra noise or extra vibration	Damaged propeller, shaft or engine	Replace damaged parts
	Propeller is out of balance	Balance or replace propeller
Reduced run time or boat underpowered	Receiver battery charge is low	Completely recharge battery
	Receiver battery is damaged	Replace battery and follow battery instructions
	Blocking or friction on shaft or propeller	Disassemble, lubricate and correctly align parts
	Boat conditions may be too cold	Make sure battery is warm before use
	Battery capacity may be too low for conditions	Replace battery or use a larger capacity battery
	Drive dog is too close to the prop strut	Loosen drive dog and move out away from the prop strut a small amount
	Too little lubrication on flex shaft	Fully lubricate flex shaft
Boat will not Bind (during binding) to transmitter	Vegetation or other obstacles block the rudder or propeller	Remove vegetation or obstacles from rudder or propeller
	Transmitter is too near boat during binding process	Move powered transmitter a few feet from boat, disconnect and reconnect battery to boat
	Boat or transmitter is too close to large metal object, wireless source or another transmitter	Move boat and transmitter to another location and attempt binding again
	Receiver battery/Transmitter battery charge is too low	Replace/recharge batteries
Boat will not connect (after binding) to transmitter	Receiver switch is off	Power on Receiver switch
	Transmitter is too near boat during connecting process	Move powered transmitter a few feet from boat, disconnect and reconnect battery to boat
	Boat or transmitter is too close to large metal object, wireless source or another transmitter	Move boat and transmitter to another location and attempt connecting again
	Receiver battery/transmitter battery charge is too low	Replace/recharge batteries
Boat tends to dive in the water or takes on water	Receiver switch is off	Power on Receiver switch
	The boat hull is not completely closed	Dry out the boat and ensure the hatch is fully closed on the hull before returning the boat to the water
Boat tends to turn one direction	Prop angle is incorrect	Adjust prop angle
	Rudder or rudder trim is not centered	Repair rudder or adjust rudder and rudder trim for straight running when control is at neutral
Rudder does not move	Rudder, linkage or servo damage	Replace or repair damaged parts and adjust controls
	Servo wire is damaged or connections are loose	Do a check of wires and connections, connect or replace as needed
	Transmitter is not bound correctly	Re-bind receiver to the transmitter
	Receiver switch is off	Power on receiver switch
Controls reversed	Transmitter settings are reversed	Do the Control Direction Test and adjust controls on transmitter appropriately
Engine overheats	Blocked water cooling system	Clean or replace parts in the water cooling system
Erratic control	Transmitter is too near boat during binding process	Move powered transmitter a few feet from boat, disconnect and reconnect battery to boat

Engine Troubleshooting Guide

Problem	Possible Cause	Solution
Engine does not start	Out of fuel	Refill the tank and follow starting instructions
	Engine flooded	Remove the spark plug. Pull the starter cord in a quick continuous motion. Replace and test
	Fuel mixture is old or bad	Mix fresh fuel per instructions
	Spark plug is not working	Repair or replace the spark plug
	Throttle servo failed/Setup is wrong	Check servo operation. Set it to neutral and reset the linkage according to your radio and model manufacturer's specifications
	Carburetor is incorrectly adjusted	Return the carburetor to the factory settings and retune if necessary
	Engine stop switch is malfunctioning	Check and replace the stop switch if necessary
	Piston and cylinder is worn	Check the piston and cylinder for wear or damage and replace if necessary
	Wiring is disconnected or damaged	Connect wiring, repair or replace damaged parts
Receiver switch is off	Power on receiver switch	
Engine starts then stalls	Out of fuel	Refill the tank and follow starting instructions
	Engine may be overheated	Let the engine cool. Reset the carburetor to factory settings and restart
	Engine idle is too low	Follow the instructions to increase idle speed
	Carburetor is incorrectly adjusted	Return the carburetor to the factory settings and retune if necessary
	Clutch is slipping or locked-up	Repair or replace the clutch
	Fuel mixture is old or bad	Mix fresh fuel per instructions
	Throttle servo is improperly set up	Set the servo to neutral and reset the linkage according to radio and model manufacturer's specifications
Clutch or flex shaft cannot turn	Repair or replace damaged parts	
Engine is running, but vehicle does not move	Clutch is slipping or locked-up	Replace damaged parts
	Clutch or flex shaft is damaged	Replace damaged parts

LIMITED WARRANTY

What This Warranty Covers

Horizon Hobby, LLC, (Horizon) warrants to the original purchaser that the product purchased (the "Product") will be free from defects in materials and workmanship at the date of purchase.

What is Not Covered

This warranty is not transferable and does not cover (i) cosmetic damage, (ii) damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or due to improper use, installation, operation or maintenance, (iii) modification of or to any part of the Product, (iv) attempted service by anyone other than a Horizon Hobby authorized service center, (v) Product not purchased from an authorized Horizon dealer, or (vi) Product not compliant with applicable technical regulations.

OTHER THAN THE EXPRESS WARRANTY ABOVE, HORIZON MAKES NO OTHER WARRANTY OR REPRESENTATION, AND HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

Purchaser's Remedy

Horizon's sole obligation and purchaser's sole and exclusive remedy shall be that Horizon will, at its option, either (i) service, or (ii) replace, any Product determined by Horizon to be defective. Horizon reserves the right to inspect any and all Product(s) involved in a warranty claim. Service or replacement decisions are at the sole discretion of Horizon. Proof of purchase is required for all warranty claims. SERVICE OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY.

Limitation of Liability

HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY, REGARDLESS OF WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY, EVEN IF HORIZON HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Further, in no event shall the liability of Horizon exceed the individual price of the Product on which liability is asserted. As Horizon has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability. If you as the purchaser or user are not prepared to accept the liability associated with the use of the Product, purchaser is advised to return the Product immediately in new and unused condition to the place of purchase.

Law

These terms are governed by Illinois law (without regard to conflict of law principals). This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Horizon reserves the right to change or modify this warranty at any time without notice.

WARRANTY SERVICES

Questions, Assistance, and Services

Your local hobby store and/or place of purchase cannot provide warranty support or service. Once assembly, setup or use of the Product has been started, you must contact your local distributor or Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please visit our website at www.horizonhobby.com, submit a Product Support Inquiry, or call the toll free telephone number referenced in the Warranty and Service Contact Information section to speak with a Product Support representative.

Inspection or Services

If this Product needs to be inspected or serviced and is compliant in the country you live and use the Product in, please use the Horizon Online Service Request submission process found on our website or call Horizon to obtain a Return Merchandise Authorization (RMA) number. Pack the Product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as Horizon is not responsible for merchandise until it arrives and is accepted at our facility. An Online Service Request is available at http://www.horizonhobby.com/content/_service-center_render-service-center. If you do not have internet access, please contact Horizon Product Support to obtain a RMA number along with instructions for submitting your product for service. When calling Horizon, you will be asked to provide your complete name, street address, email address and phone number where you can be reached during business hours. When sending product into Horizon, please include your RMA number, a list of the included items, and a brief summary of the problem. A copy of your original sales receipt must be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

NOTICE: Do not ship LiPo batteries to Horizon. If you have any issue with a LiPo battery, please contact the appropriate Horizon Product Support office.

Warranty Requirements

For Warranty consideration, you must include your original sales receipt verifying the proof-of-purchase date. Provided warranty conditions have been met, your Product will be serviced or replaced free of charge. Service or replacement decisions are at the sole discretion of Horizon.

Non-Warranty Service

Should your service not be covered by warranty, service will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost By submitting the item for service you are agreeing to payment of the service without notification. Service estimates are available upon request. You must include this request with your item submitted for service. Non-warranty service estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Horizon accepts money orders and cashier's checks, as well as Visa, MasterCard, American Express, and Discover cards. By submitting any item to Horizon for service, you are agreeing to Horizon's Terms and Conditions found on our website http://www.horizonhobby.com/content/_service-center_render-service-center.

ATTENTION: Horizon service is limited to Product compliant in the country of use and ownership. If received, a non-compliant Product will not be serviced. Further, the sender will be responsible for arranging return shipment of the un-serviced Product, through a carrier of the sender's choice and at the sender's expense. Horizon will hold non-compliant Product for a period of 60 days from notification, after which it will be discarded.

Warranty and Service Contact Information

Country of Purchase	Horizon Hobby	Contact Information	Address
United States of America	Horizon Service Center (Repairs and Repair Requests)	servicecenter.horizonhobby.com/RequestForm/	4105 Fieldstone Rd Champaign, Illinois, 61822 USA
	Horizon Product Support (Product Technical Assistance)	www.quickbase.com/db/bghj7ey8c?a=GenNewRecord	
		888-959-2306	
Sales	sales@horizonhobby.com 888-959-2306		
United Kingdom	Service/Parts/Sales: Horizon Hobby Limited	sales@horizonhobby.co.uk +44 (0) 1279 641 097	Units 1-4 , Ployters Rd, Staple Tye Harlow, Essex, CM18 7NS, United Kingdom
Germany	Horizon Technischer Service	service@horizonhobby.de	Christian-Junge-Straße 1 25337 Elmshorn, Germany
	Sales: Horizon Hobby GmbH	+49 (0) 4121 2655 100	
France	Service/Parts/Sales: Horizon Hobby SAS	infofrance@horizonhobby.com +33 (0) 1 60 18 34 90	11 Rue Georges Charpak 77127 Lieusaint, France
China	Service/Parts/Sales: Horizon Hobby – China	info@horizonhobby.com.cn +86 (021) 5180 9868	Room 506, No. 97 Changshou Rd. Shanghai, China 200060

FCC Information

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

This product contains a radio transmitter with wireless technology which has been tested and found to be compliant with the applicable regulations governing a radio transmitter in the 2.400GHz to 2.4835GHz frequency range.

IC Information

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Compliance Information for the European Union

Declaration of Conformity

(in accordance with ISO/IEC 17050-1)

No. HH2014112001

Product(s): Rockstar 48 Catamaran Gas RTR
 Item Number(s): PRB09003
 Equipment class: 1

The object of declaration described above is in conformity with the requirements of the specifications listed below, following the provisions of the European R&TTE Directive 1999/5/EC, EMC Directive 2004/108/EC and LVD Directive 2006/95/EC:

EN 300-328 V1.7.1: 2006

EN301 489-1 V1.9.2: 2012

EN301 489-17 V2.1.1: 2009

EN60950-1:2006+A11:2009+A1:2010+A12: 2011

EN55022:2010 + AC:2011

EN55024:2010



Signed for and on behalf of:
 Horizon Hobby, LLC
 Champaign, IL USA
 November 20, 2014

Mike Dunne
 Executive Vice President Product Divisions
 Horizon Hobby, LLC



Instructions for Disposal of WEEE by Users in the European Union

This product must not be disposed of with other waste. Instead, it is the user's responsibility to dispose of their waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or where you purchased the product.