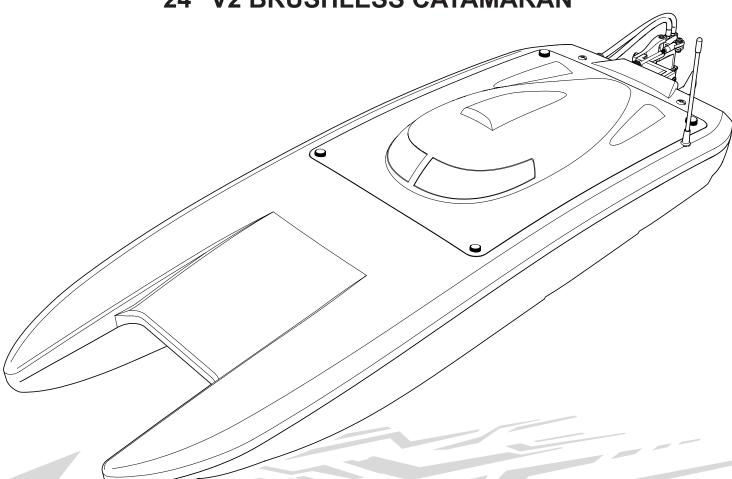


# 

24" V2 BRUSHLESS CATAMARAN



Scan the QR code and select the Manuals and Support quick links from the product page for the most up-to-date manual information.

Scannen Sie den QR-Code und wählen Sie auf der Produktseite die Quicklinks Handbücher und Unterstützung, um die aktuellsten Informationen zu Handbücher. Scannez le code QR et sélectionnez les liens rapides Manuals and Support sur la page du produit pour obtenir les informations les plus récentes sur le manuel. Scannerizzare il codice QR e selezionare i Link veloci Manuali e Supporto dalla pagina del prodotto per le informazioni manuali più aggiornate.



PRB08049

Owners Manual • Bedienungsanleitung Manuel de l'utilisateur • Manuale dell'utente

759213.1 Updated: 06/2024



#### **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 www.horizonhobby.com or www.towerhobbies.com and click on the support or resources 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: 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.

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

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.

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

### 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.

## Water-Resistant Boat with Waterproof Electronics

Your new Horizon Hobby boat has been designed and built with a combination of waterproof and water-resistant components to allow you to operate the product in calm, fresh water conditions.

While the entire boat is highly water-resistant, it is not completely waterproof and your boat should NOT be treated like a submarine. The various electronic components used in the boat, such as the ESC. servo(s) and receiver are waterproof, however, most of the mechanical components are water-resistant and require additional maintenance after use.

Metal parts, including the bearings, pins, screws and nuts, propeller,

rudder, rudder mounts, prop struts, as well as the contacts in the electrical cables, will be susceptible to corrosion if additional maintenance is not performed after running in wet conditions. To maximize the long-term performance of your boat and to keep the warranty intact, the procedures described in the WET CONDITIONS MAINTENANCE section must be performed regularly.

**CAUTION:** Failure to exercise caution while using this product and complying with the following precautions could result in product malfunction and/or void the warranty.

#### **General Precautions**

- Read the Wet Conditions Maintenance procedures and make sure that you have all the tools you will need to properly maintain your boat.
- Not all batteries can be used in wet conditions. Consult the battery manufacturer before use. Caution should be taken when using Li-Po batteries in wet conditions.
- Most transmitters are not water-resistant. Consult your transmitter's manual or the manufacturer before operation.
- · Never operate your transmitter or boat when lightning is present.
- Salt water is very conductive and highly corrosive. If you choose
  to run your boat in salt water, immediately rinse the boat in fresh
  water after each use. Operating your boat in salt water is at the sole
  discretion of the modeler.+

#### Wet Conditions Maintenance

 Drain any water that has collected in the hull by removing the drain plug or canopy and tilting the boat in the appropriate direction to drain the water.



**CAUTION:** Always keep hands, fingers, tools and any loose or hanging objects away from rotating parts.

- Remove the battery pack(s) and dry the contacts. If you have an air compressor or a can of compressed air, blow out any water that may be inside the recessed connector housings.
- Remove all moving parts. Dry and lubricate parts after every 30 minutes of operation or if the boat becomes submerged.

**NOTICE:** Never use a pressure washer to clean your boat.

- Use an air compressor or a can of compressed air to dry the boat and help remove any water that may have gotten into small crevices or corners.
- Spray the bearings, fasteners and other metal parts with a waterdisplacing light oil or lubricant.
- Let the boat air dry before you store it. Water (and oil) may continue to drip for a few hours.

# **Charging Warnings**

**WARNING:** Failure to exercise caution while using this product and comply with the following warnings could result in product malfunction, electrical issues, excessive heat, FIRE, and ultimately injury and property damage.

- NEVER LEAVE CHARGING BATTERIES UNATTENDED.
- · NEVER CHARGE BATTERIES OVERNIGHT.
- Never attempt to charge dead, damaged or wet battery packs.
- Never attempt to charge a battery pack containing different types of batteries.
- Never allow children under 14 years of age to charge battery packs.
- Never charge batteries in extremely hot or cold places or place in direct sunlight.
- Never charge a battery if the cable has been pinched or shorted.
- Never connect the charger if the power cable has been pinched or shorted
- · Never attempt to dismantle the charger or use a damaged charger.
- Always use only rechargeable batteries designed for use with this type of charger.
- · Always inspect the battery before charging.
- Always keep the battery away from any material that could be affected by heat.
- Always monitor the charging area and have a fire extinguisher available at all times.

- Always end the charging process if the battery becomes hot to the touch or starts to change form (swell) during the charge process.
- Always connect the positive leads (+) and negative leads (-) correctly.
- Always disconnect the battery after charging, and let the charger cool between charges.
- · Always charge in a well-ventilated area.
- Always terminate all processes and contact Horizon Hobby if the product malfunctions.
- Charge only rechargeable batteries. Charging non-rechargeable batteries may cause the batteries to burst, resulting in injury to persons and/or damage to property.
- The USB outlet shall be installed near the equipment and shall be easily accessible.

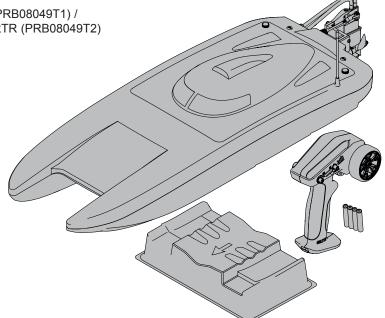
**CAUTION:** Always ensure the battery you are charging meets the specifications of this charger. Not doing so can result in excessive heat and other related product malfunctions, which can lead to user injury or property damage.

**CAUTION:** If at any time during the charging process the battery pack becomes hot or begins to puff, disconnect the battery immediately and discontinue the charge process as batteries can cause fire, collateral damage and injuries.

## **Box Contents**

• Pro Boat  $^{\circledR}$  Blackjack 24" V2 Catamaran Brushless, Heatwave: RTR (PRB08049T1) / Pro Boat  $^{\circledR}$  Blackjack 24" V2 Catamaran Brushless, Vegas Offshore: RTR (PRB08049T2)

- SLR300 3-Channel SLT Receiver Single Protocol (SPMSLR300)
- Firma 90 Amp Smart Brushless Marine ESC (SPMXME1060)
- SLT2 2-CH Transmitter
- (4) AA Alkaline Transmitter Batteries
- Firma 3660 2200Kv Marine Motor (SPMXMM1500)
- S603 3KG Waterproof Plastic Servo, 23T (SPMS603)
- · ABS Display Stand



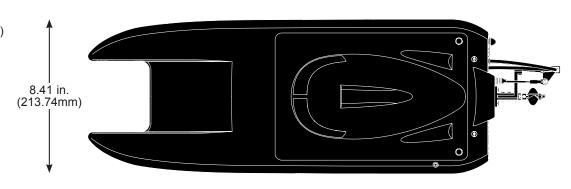
## **Specifications**

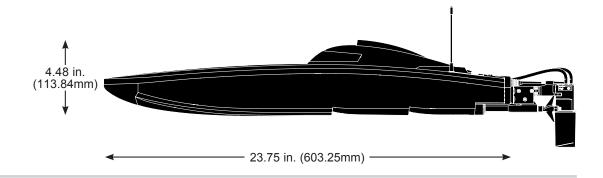
 Length
 23.75 in. (603.25mm)

 Width
 8.41 in. (213.74mm)

 Height
 4.48 in. (113.84mm)

Hull Material ABS



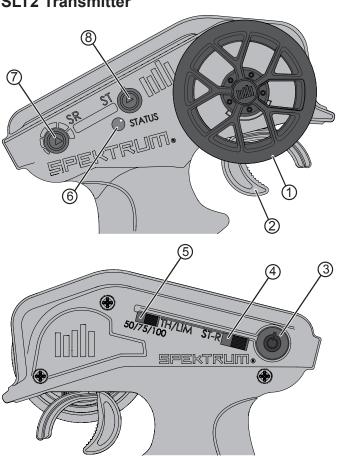


# **Table of Contents**

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#### **SLT2 Transmitter**



- 1. Steering Wheel Controls direction (left/right) of the model
- Throttle Trigger Controls speed and direction (forward/brake/reverse) of the model
- 3. Power Button Turns the power ON/OFF
- 4. Steering (ST-R) Servo Reversing Reverses the steering channel
- Throttle Limit Limits throttle output to 50/75/100%
   Select 50% or 75% for less experienced drivers or when you are driving the vehicle in a small area
- 6. Indicator Lights
  - Solid red light—Indicates radio connectivity and adequate battery power
  - Flashing red light—Indicates the battery voltage is critically low.
     Replace the batteries.
- 7. Steering Rate Adjusts the steering end points
- 8. Steering Trim Adjusts the steering center point

# **Installing The Transmitter Batteries**

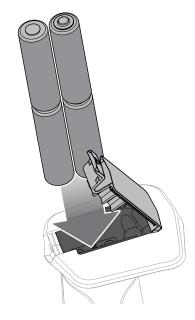
This transmitter requires 4 AA batteries.

- 1. Remove the battery cover from the transmitter.
- 2. Install the batteries as shown.
- 3. Install the battery cover.

**CAUTION:** Never remove the transmitter batteries while the model is powered ON. Loss of model control, damage, or injury may occur.

**CAUTION:** If using rechargeable batteries, charge only rechargeable batteries. Charging non-rechargeable batteries may cause the batteries to burst, resulting in injury to persons and/ or damage to property.

**CAUTION:** Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to national regulations.



#### **Binding**

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

- 1. Insert the bind plug into the bind port of the receiver.
- 2. Connect a fully charged battery to the ESC/motor.
- 3. Power on the ESC/motor.
- 4. Power ON the transmitter. The receiver's red LED will turn solid when the bind is successful.
- 5. Power OFF the ESC/motor to save the settings.
- 6. Power OFF the transmitter.

You must rebind when binding the receiver to a different transmitter.

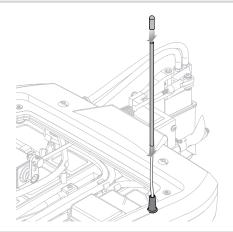
**NOTICE:** Do not attempt to bind the transmitter and receiver if there are other compatible transmitters in bind mode within 400 feet. Doing so may result in unexpected binding.

#### Antenna Tube Installation

Install the receiver antenna in the tube as shown.

Keep the end of the antenna above the boat's waterline to get the best transmitter reception. Apply clear tape (**DYNM0102**), if desired.

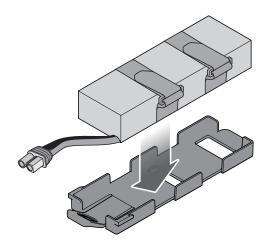
**NOTICE:** Do not cut or kink the receiver antenna or damage may

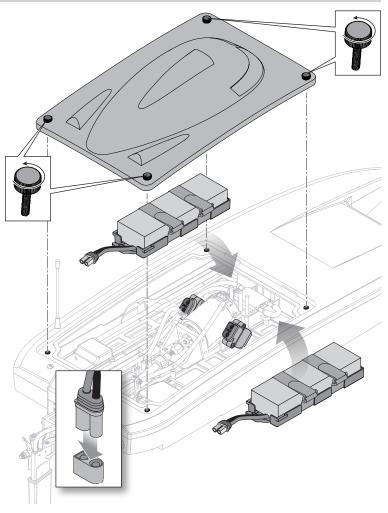


# **Installing the Batteries**

- 1. Set the boat on the included display stand.
- 2. Loosen the four thumbscrews on the battery hatch and remove the hatch from the hull.
- 3. Remove the SSL trays from the battery bases.
- 4. Install the recommended, fully charged batteries into the SSL trays, and secure them using the included hook and loop straps.
- 5. Place the SSL trays into the battery bases, and slide them forward to lock the batteries and SSL trays into place.

WARNING: When using two batteries, always make sure the batteries are of similar type (voltage and capacity). Connecting batteries of mismatched capacity may result in battery over discharge, which could result in fire causing property damage or personal injury.

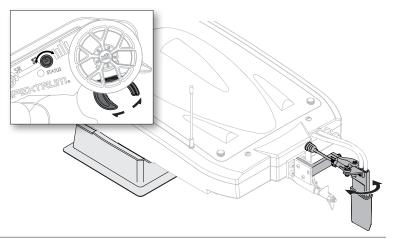




# Range Check

**IMPORTANT:** Perform a range check at the beginning of each boating session, after any repair, or after new battery installation. Ensure that the battery is fully charged.

- 1. Place the boat securely on the included stand.
- 2. With the radio system powered ON and connected, walk 90 feet (32 m) away from the boat.
- Have an assistant remain with the boat to check for proper steering control movement in response to the transmitter input.
- 4. If everything is operating correctly, prepare to operate the boat in the water.



# Low Voltage Cutoff (LVC)

The factory default setting for the LVC in the ESC included with your boat is set at 3.2V per cell. Discharging a Li-Po battery below 3V per cell may damage your battery. The included ESC protects the boat battery from over-discharge using Low Voltage Cutoff (LVC). Before the battery charge decreases too much, LVC removes power supplied to the motor.

The boat drastically slows or stops completely once LVC is activated. Releasing the throttle and reapplying it will provide a limited amount of power to safely return the boat to shore. Repeated use after LVC is activated will damage the batteries.

Once LVC has been activated, the ESC status light will flash red continuously indicating that the ESC is in LVC mode.

NOTICE: Repeated operation to LVC will damage the battery.

LVC can activate prematurely if you use (1) a low C-rated battery or (2) an old, worn, and/or weak battery.

The average run time using the recommended batteries (**SPMX52S100H5**) is approximately 5–7 minutes, depending on throttle usage. Limited run time may indicate worn or weak batteries.

**TIP:** If you've installed a freshly charged battery and LVC activates within the first minute of operation, replace your worn or weak batteries with the recommended batteries.

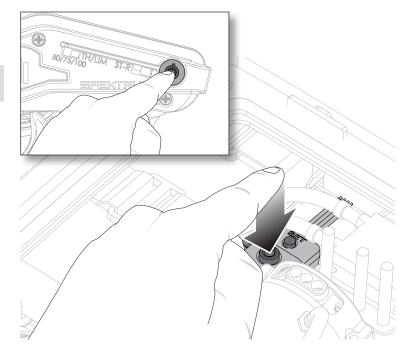
**TIP:** Monitor your boat battery's voltage before and after boating by using a Li-Po Cell Voltage Checker (**SPMXBC100**, sold separately). Disconnect and remove the Li-Po battery from the boat after use to prevent trickle discharge. Charge your Li-Po battery to half capacity before storage. During storage, make sure the battery charge does not fall below 3V per cell. LVC does not prevent the battery from over-discharge during storage.

# **Powering On the Boat**

- 1. Power ON the transmitter.
- Remove the rudder cover.

NOTICE: Remove the rudder cover before boating or damage will

- 3. Connect the battery leads to the IC5 connectors in the boat.
- 4. Power ON the receiver by pressing the ESC power button.
- 5. Reinstall the hatch.
- 6. With the boat still on the display stand, test the transmitter control of the boat and complete a range check of the controls.



# **Boating Tips**

Consult local laws and ordinances before choosing a location to pilot your boat.

**NOTICE:** Remove the rudder cover before boating or damage will occur.

During the first run, we recommend calm wind and water conditions to ensure that the boat is properly set up. Top speed is determined by the battery's ability to efficiently deliver power to the motor via the ESC.

- 1. Carefully place the boat in the water.
- Operate the boat at slow speeds near the shoreline. Avoid objects in the water at all times. When the boat is moving forward, ensure water flows out of the coolant outlet.
- 3. Once you are comfortable operating the boat at slow speeds, it is safe to operate the boat farther from the shore at higher speeds.
- 4. Bring the boat back to shore when the motor starts to pulse.

**CAUTION:** Never attempt to retrieve a downed boat by swimming. If you need to retrieve your boat from the water, use fishing equipment or another boat.

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

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

In rough water and windy conditions, consider mounting the batteries further forward for added stability

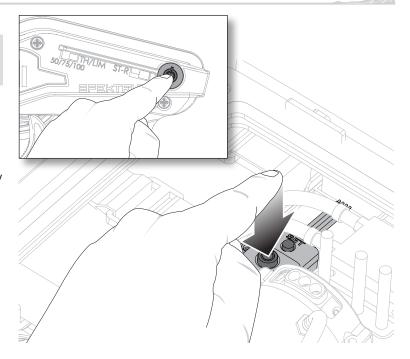
#### Avoid boating near:

- watercraft
- · people (swimming areas, fishing areas)
- stationary objects
- · waves and wakes
- · rapidly moving water
- · wildlife
- floating debris
- · overhanging trees
- vegetation

#### When You Are Finished

**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.

- 1. Power OFF the receiver by pressing the ESC power button.
- 2. Power OFF the transmitter.
- 3. Disconnect and remove the battery from the boat.
- 4. Drain any water from the inside of the hull by removing the hatch and rotating the boat upside down.
- 5. Remove the drain plug to remove any water left over. Remove any remaining water with a dry towel.
- Fully dry the inside and outside of the boat. Carefully dry all battery, motor and receiver connectors by removing one at a time and reinstalling.
- Remove the hatch before storing your boat.
   TIP: Removing the hatch before storage will prevent mold and mildew from growing in the boat.
- 8. Repair any damage or wear to the boat.
- 9. Remove the flex shaft and use a paper towel dry it.
- Lubricate the flex shaft using Dynamite Marine Grease (DYNE4200).
- 11. Replace the rudder cover on the rudder to protect the sharp edge.



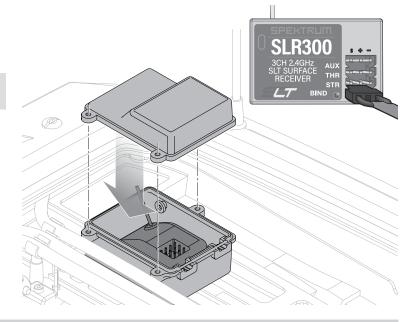
# Binding

Binding is the process of electronically linking the transmitter to the receiver. The included transmitter and receiver are bound at the factory. If rebinding is necessary, follow these steps:

**NOTICE:** Always keep all body parts, loose clothing and other items away from the propellers.

**IMPORTANT:** If using an external receiver, follow the binding instructions included with that receiver.

- 1. Ensure the boat is secure on the included display stand.
- 2. Insert the bind plug into the bind port on the receiver.
- 3. Power ON the receiver by pressing the ESC power button.
- 4. Power on the SLT2 transmitter to bind it to the boat.
- 5. Remove the bind plug before operation.



#### Maintenance

#### **Motor Care**

- Prolong motor life by preventing overheating conditions. Undue motor wear results from frequent turns, stops and starts, pushing objects, boating in rough water or vegetation and boating continuously at high speed.
- Over-temperature protection is installed on the ESC to prevent circuit damage, but cannot protect the motor from pushing against heavy resistance.
- Lubrication is important to prevent motor damage. If your motor gets wet, lubricate the busings supporting the motor shaft with light duty machine oil. Failure to do so can cause the motor shaft to seize against the motor bushings.

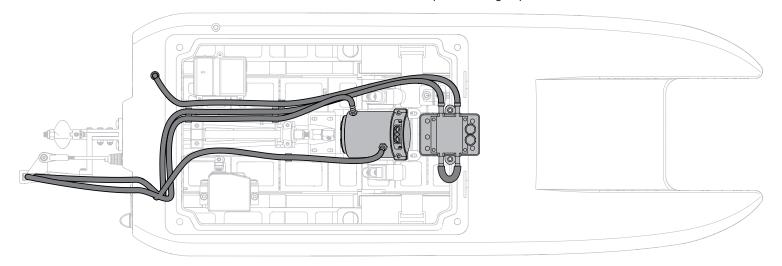


**CAUTION:** Do not touch the motor until it has had time to cool. It can become extremely hot when in use.

#### **Water Cooling System**

If water does not stream out of the water outlets while the boat is moving forward, immediately stop the boat and clean the obstruction from the water cooling system.

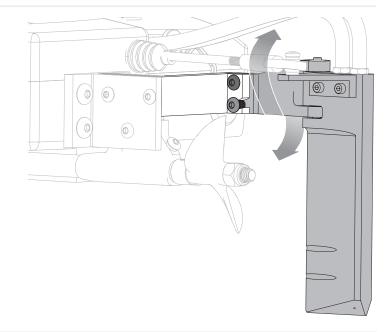
- Disassemble and clean the water cooling system to remove blockage and prevent overheating.
- 2. Replace damaged parts.



#### **Rudder Service**

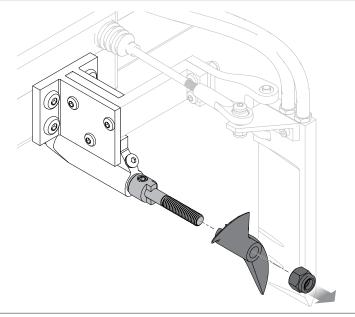
The Blackjack 24 features a break away rudder designed to swing out if it strikes a solid object.

- 1. Push the rudder back into place.
- 2. Use a 2mm hex driver and 5.5mm wrench (Dynamite Pro Boat Tool Set, **DYNT0502**) to tighten the screws.



#### **Propeller Service**

- 1. Use an 8mm nut driver (**DYN2805**) to loosen the nut from the driveshaft.
- 2. Remove the nut and propeller from the driveshaft.
- 3. Assemble in reverse order. Correctly align the propeller with the drive dog on the driveshaft.

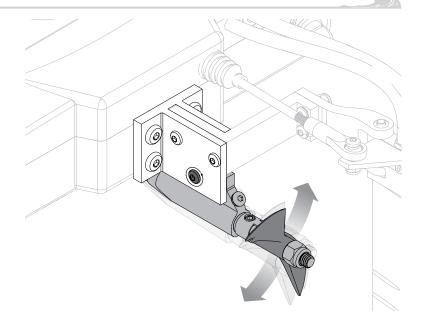


#### **Propeller Angle Adjustment**

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

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

- Loosen the nut and bolt from the drive strut on the rear 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 nut and bolt.



#### **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.

- 1. Remove the plug screw from the rear of the prop strut.
- Use a Dynamite grease gun (DYNE4200) to inject a few pumps of marine grease through the prop strut and stuffing tube into the bushing.
- 3. Replace the plug screw.

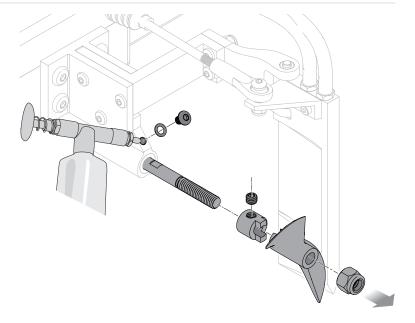
#### **Full Flex Shaft Lubrication**

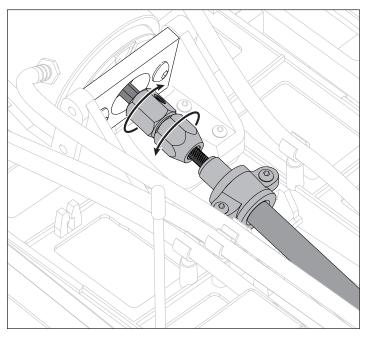
Remove, clean, and lubricate the flex shaft after every boating session. It is good practice to completely remove the flex shaft after a day of running to clean the old grease out and dry any water from the stuffing tube.

- 1. Loosen the flex shaft collet using two 10mm wrenches.
- 2. Remove the flex shaft by sliding it toward the back of the boat.
- 3. Use a paper towel to remove old grease and water from the flex shaft and the bushing.
- 4. Dry any water in the stuffing tube.
- Use a Dynamite grease gun (DYNE4200) to generously lubricate the bushing and the flex shaft.
- 6. Reassemble the flex shaft in reverse order.

**TIP:** Do not add grease to the last 2 inches of the flex shaft. This allows for a better grip inside the collet and prevents the flex shaft from loosening while boating.

**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. Running RC boats in saltwater is at the discretion of the modeler.





# **Replacement Parts**

Replacement Parts			
Part #	Description		
PRB-1153	Cooling Line 4mm ID, 3ft		
PRB-1273	Rudder Assembly: Blackjack 24		
PRB-1274	Rudder Pushrod Set: Blackjack 24		
PRB-1275	Prop Strut Set: Blackjack 24		
PRB-1276	Stuffing Tube Set: Blackjack 24		
PRB-1277	Flex Shaft Set: Blackjack 24		
PRB-1278	RX Box Set: Blackjack 24		
PRB-1279	Antenna Tube Set: Blackjack 24		
PRB-1280	Canopy Thumbscrew Set: Blackjack 24		
PRB-1281	Tethered Drain Plug, Large (3): Pro Boat		
PRB-1282	Cooling Line Accessories: Blackjack 24		
PRB-1283	Strut Bushing: Blackjack 24		
PRB-1284	Hull Mount Set: Blackjack 24		
PRB-1285	Motor Coupler, 4mm Flex, 5mm Shaft: Pro Boat		
PRB-1286	SSL Battery Tray Set: Blackjack 24		
PRB-1287	Hull and Canopy, Heatwave: Blackjack 24		
PRB-1288	Hull and Canopy, Vegas Offshore: Blackjack 24		
PRB-1901	M3 Lock Nuts, Stainless (10)		
PRB-1903	M5 Lock Nuts, Stainless (10)		
PRB-1904	M6 Lock Nuts, Stainless (10)		
PRB-2153	Boat Stand: Blackjack 24		
PRB282089	Propeller: Blackjack 42		
SPMS605	S605 Standard Analog Waterproof 9KG 23T Surface Servo		
SPMSLR300	3-Channel 2.4Ghz SLT Receiver		
SPMXME1060	Firma 90 Amp Smart Brushless Marine ESC		
SPMXMM1500	Firma 3660 2200Kv Marine Motor		

# **Recommended Parts**

Part #	Description
SPMX50002S100H5	7.4V 5000mAh 2S 100C Smart Hardcase LiPo Battery: IC5
SPMX52S100H5	7.4V 5000mAh 2S 100C Smart G2 Hardcase LiPo Battery: IC5
SPMXC2000	S2100 G2 2x100W AC Smart Charger
SPMXC2060	S250 AC 2x50W Smart Charger
SPMXG2PS4	Smart G2 Powerstage 4S Surface Bundle: 2S 5000mAh LiPo Battery (2) / S2200 G2 Charger

# **Optional Parts**

Part #	Description		
DYNE4200	Grease Gun with Marine Grease, 5 oz		
DYNE4201	Marine Grease 5oz		
DYNE0100	Precision Oiler: Medium		
DYNF1055	Infrared Temp Gun/Thermometer with Laser Sight		
DYNT0502	Start Up Tool Set: Pro Boat		
DYNT3010	Nut Driver Set, Metric (4)		
DYN2950	8-in-1 Hex Wrench Kit		
DYNM0102	Clear Flexible Marine Tape (18M)		
DYN4403	Passport GPS Speed Meter 2.0		
SPMXBC100	XBC100 Smart LiPo Battery Checker & Servo Driver		
SPMXCA300	Smart LiPo Bag, 16 x 7.5 x 6.5 cm		
SPMS612HV	S612HV Digital HV 12KG Waterproof Metal Gear Servo		
SPMSS6240	S6240 Standard Digital High Speed Waterproof Metal Gear Surface Servo		
SPM2340	DX3 Smart 3-Channel Transmitter with SR315 Receiver		
SPM5025	DX5 Pro 5-Channel DSMR Transmitter with SR2100 Receiver		
SPMSR315	SR315 Dual Protocol 3-Channel Receiver		

# **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 motor	Replace damaged parts	
Extra noise of extra vibration	Propeller is out of balance	Balance or replace propeller	
	Boat battery charge is low	Completely recharge battery	
	Boat battery is damaged	Replace boat battery and follow battery instructions	
	Blocking or friction on flex shaft or propeller	Disassemble, lubricate and correctly align parts	
	Boat conditions may be too cold	Make sure the battery is warm (above 10° C [50° F]) before use	
Reduced runtime or boat underpowered	Battery capacity may be too low for conditions	Replace battery or use a larger capacity battery	
·	Drive dog is too near the prop strut	Loosen motor coupling on flex shaft and move flex shaft a small amount	
	Too little lubrication on flex shaft	Fully lubricate flex shaft	
	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 will not Bind (during	Boat or transmitter is too close to large metal object, wireless source or another transmitter	Move the boat and transmitter to another location and attempt binding again	
binding) to transmitter	Another compatible transmitter is powered on within range of the receiver	Power off all compatible transmitters except the one yo are trying to bind	
	Boat battery/Transmitter battery charge is too low	Replace/recharge batteries	
	ESC switch is off	Power on ESC switch	
	Transmitter is too near boat during connecting process	Move powered transmitter a few feet from boat, disconnect and reconnect battery to boat	
Boat will not connect (after binding) to transmitter	Boat or transmitter is too close to large metal object, wireless source or another transmitter	Move boat or transmitter to another location and attempt to connect again	
<b>3</b> ,	Boat battery/transmitter battery charge is too low	Replace/recharge batteries	
	ESC switch is off	Power on ESC switch	
Boat tends to dive in the water or takes on water	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	
	Center of gravity is too far forward	Move batteries back in the hull	
Boat tends to turn one direction	Rudder or rudder trim is not centered	Repair rudder or adjust rudder and rudder trim for straight running when control is at neutral	
	Rudder break away is activated	Push the rudder back into place and tighten the rudder bracket screws	
	Rudder, linkage or servo damage	Replace or repair damaged parts and adjust controls	
	Steering servo wire is damaged or connections are loose	Do a check of steering servo wires and connections, connect or replace as needed	
Rudder does not move	Transmitter is not bound correctly	Re-bind	
	BEC (Battery Elimination Circuit) of the ESC is damaged	Replace ESC	
	ESC switch is off	Power on ESC switch	
Controls reversed	Transmitter settings are reversed	Do the Control Direction Test and adjust controls on transmitter appropriately	
Motor overheats	Blocked water cooler tubes	Clean or replace water tubes	
Motor power pulses then	ESC uses default soft Low Voltage Cutoff (LVC)	Recharge boat battery or replace battery that is no longer performing	
motor loses power	Weather conditions might be too cold	Postpone until weather is warmer	
	Battery is old, worn out or damaged	Replace battery	

## 2-Year 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 for two years from 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 or (vii) use that violates any applicable laws, rules, or 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 Reguest 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.

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# **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/	
	Horizon Product Support	productsupport@horizonhobby.com	2904 Research Rd.
	(Product Technical Assistance)	800-338-4639	Champaign, Illinois, 61822 USA
	Sales	websales@horizonhobby.com	
	Sales	800-338-4639	
EU	Horizon Technischer Service	service@horizonhobby.de	Hanskampring 9 D 22885 Barsbüttel,
	Sales: Horizon Hobby GmbH	+49 (0) 4121 2655 100	Germany

#### **FCC Information**

FCC ID: BRWSPMSLT300

This equipment complies with FCC and IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and/or antenna and your body (excluding fingers, hands, wrists, ankles and feet). This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

#### Supplier's Declaration of Conformity

Pro Boat Blackjack 24" V2 Brushless Catamaran, RTR (PRB08049): 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.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- · Reorient or relocate the receiving antenna.
- · Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Horizon Hobby, LLC 2904 Research Rd., Champaign, IL 61822 Email: compliance@horizonhobby.com

Web: HorizonHobby.com

#### **IC** Information

CAN ICES-3 (B)/NMB-3(B) IC: 6157A-SPMSLT300

This device contains license-exempt transmitter(s)/receivers(s) that comply with Innovation, Science, and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following 2 conditions:

- 1. This device may not cause interference.
- This device must accept any interference, including interference that may cause undesired operation of the device.

# Compliance Information for the European Union



EU Compliance Statement:

Pro Boat Blackjack 24" V2 Brushless Catamaran, RTR(PRB08049):

Hereby, Horizon Hobby, LLC declares that the device is in compliance with the following: Radio Equipment Directive (RED) 2014/53/EU, RoHS 2 Directive 2011/65/EU, RoHS 3 Directive - Amending 2011/65/EU Annex II 2015/863.

The full text of the EU declaration of conformity is available at the following internet address: https://www.horizonhobby.com/content/support-render-compliance.

**NOTE:** This product contains batteries that are covered under the 2006/66/EC European Directive, which cannot be disposed of with normal household waste. Please follow local regulations.

Wireless Frequency Range and Wireless Output Power:

Transmitter:

2403 - 2480MHz 16.3 dBm

#### **EU Manufacturer of Record:**

Horizon Hobby, LLC 2904 Research Road Champaign, IL 61822 USA

#### **EU Importer of Record:**

Horizon Hobby, GmbH Hanskampring 9 22885 Barsbüttel Germany

#### WEEE NOTICE:



This appliance is labeled in accordance with European Directive 2012/19/EU concerning waste of electrical and electronic equipment (WEEE). This label indicates that this product should not be disposed of with household waste. It should be deposited at an appropriate facility to enable

recovery and recycling.





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Other patents pending.

Updated: 06/2024 PRB08049