

PRO BOAT

FORMULA FASTech

Formula FASTech 26 Brushless EP Deep-V Speedboat
Owners Manual



NOTICE

All instructions, warranties and other collateral documents are subject to change at the sole discretion of Horizon Hobby, Inc. For up-to-date product literature, visit 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 a 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.

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 attempt disassembly, use with incompatible components or augment product in any way without the approval of Horizon Hobby, Inc. 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.

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Introduction

Thank you for purchasing the Pro Boat® Formula FASTech 26 Brushless EP Ready-To-Run boat. Please read these instructions carefully before attempting to operate your boat.

The Formula FASTech 26 Brushless EP comes Ready-To-Run with the Pro Boat 2.4GHz pistol-grip radio system and electronic speed controller already installed. All assembly and building is done at the factory, allowing you to quickly get your boat running.

Inspection

Carefully remove the boat and radio transmitter from the box. Inspect the boat to make sure no damage is present. If you notice damage is present, please contact the hobby shop where you purchased it.

General Guidelines

It is important that you read and follow this instruction manual, along with the radio system manual before you run this exciting boat. Failure to read and understand the manual could result in personal injury, property damage or permanent damage to your boat. It is also important to run your boat responsibly. With proper care and maintenance, you will be able to proudly enjoy your Formula FASTech 26 Brushless Deep-V for many years to come.

When operating the boat, stay clear of people, full-scale boats, stationary objects and wildlife. It is preferable to operate the Formula FASTech 26 Brushless Deep-V in low wake, low wind conditions and in areas free of people, wildlife and objects.

Before you operate your model, make sure that your frequency is clear. If someone is operating on the same frequency, both models could go out of control, possibly causing damage to the models or to others. Check all of the hardware and the propeller for damage and loose screws before and after each run.

If at any time while operating your model you sense any abnormal function, end your operation immediately. Do not operate your boat again until you are certain the problem has been corrected. **Always stay clear of the propeller.**

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 it in a manner that does not endanger yourself and others or result in damage to the product or the property of others.

Carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.) that you use.

This model is controlled by a radio signal that is subject to interference from many sources outside your control. This interference can cause momentary loss of control so it is necessary to always keep a safe distance in all directions around your model, as this margin will help to avoid collisions or injury.

- Always operate your model in an open area away from people.
- Avoid operating your model where injury or damage can occur.
- Never operate the model out in populated areas for any reason.
- Never operate your model with low transmitter batteries.
- Carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.) that you use.
- Keep all chemicals, small parts and anything electrical out of the reach of children.
- Moisture causes damage to electronics. Avoid prolonged water exposure to all equipment not specifically designed and protected for this purpose.

Specifications

Hull Length	26.75 in (679mm)
Beam	8.375 in (213mm)
Motor	Water-cooled High-performance A3630-1500 Brushless Motor
Radio System	Pro Boat 2.4GHz Pistol-grip
Drive System	Direct Drive with Adjustable Propeller Strut
Steering System	Off-set Rudder with Built-in Water Pickup
Speed Control	Water-cooled 45-Amp Brushless ESC

Contents



- Assembled Formula FASTech 26 Brushless EP RTR
- Pro Boat 2.4GHz pistol-grip radio transmitter
- Boat stand

Additional Required Items

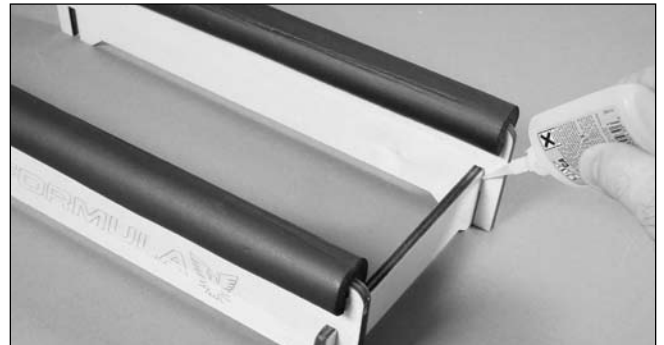
You will need to purchase the following to get your boat on the water:

- 4 AA alkaline batteries for the radio transmitter
- 7.2V Ni-MH Battery Pack with Deans Connector (PRB3316) x2
- Twin Peak Dual Battery Charger (DYN4033)
- Tamiya/Deans adapter (PRB3312)



Section 1: Assembling the Boat Stand

Attach the side stand pieces by interlocking them into the end pieces as shown. Secure the interlocking pieces with medium CA or epoxy. Make certain you allow the adhesive to fully cure before placing your boat on the stand.



Section 2: Installing the Transmitter Batteries

Install 4 AA alkaline batteries into the transmitter, following the instructions provided for your radio system.



Section 3: Installing the 7.2V Ni-MH Battery Packs

Carefully remove the hatch from the hull.



The Pro Boat water-cooled ESC comes pre-wired with a Deans-style connector. Use a 2- to 6-cell battery pack listed below for optimum performance.

NOTICE: The use of low quality/unmatched cell batteries may cause the esc to cut off early due to the high resistance of these batteries.

- PRB3316 7.2V 3600mAh with Deans Connector

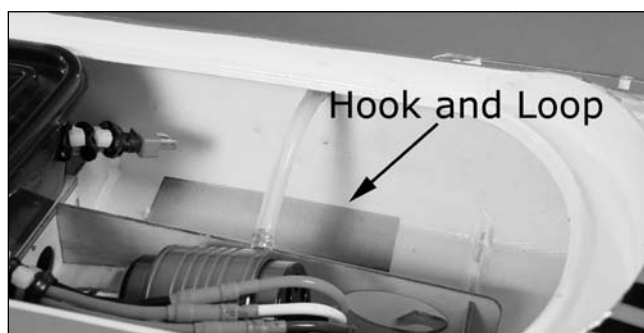
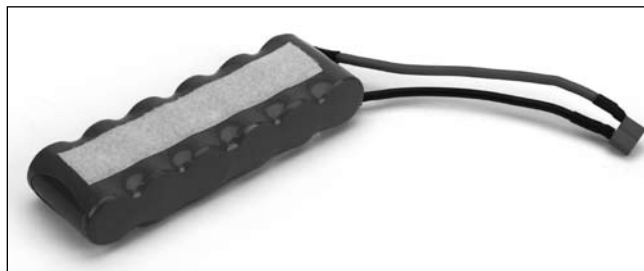
or

- DYN5360D 7.4V 5300mAh 25C LiPo with Deans connector

Pro Boat offers a charge adapter (PRB3312) to allow you to charge the compatible battery with Deans connectors with conventional chargers that use Tamiya-style connectors.

Follow the instructions included with your fast charger to ensure a safe charge.

Attach the hook and loop material to the batteries and the battery boxes.



Confirm that the switch inside the boat is in the "OFF" position. Install two fully charged 7.2V Ni-MH battery packs into the hull.



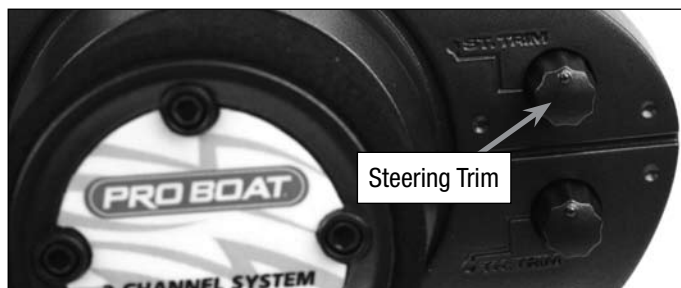
Section 4: Adjusting the Transmitter

Note: Refer to the radio instructions for specific information on transmitter setup.

Adjust both the Throttle and Steering trims to the center position. Turn on the transmitter, then the ESC power switch. It may be necessary to adjust the throttle trim knob to stop the propeller from turning while the throttle trigger is in the neutral position.



Adjust the rudder trim knob so that the rudder is centered prior to operation. You may adjust this control to make the boat run straight during operation.

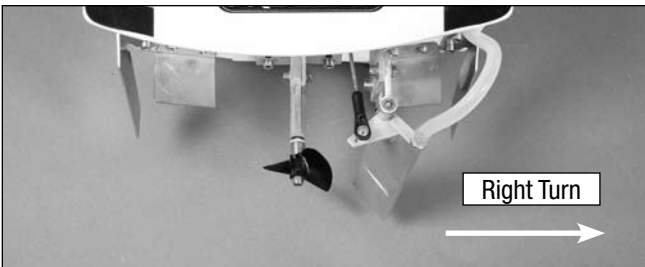


Section 5: Checking the Radio System

Ensure the antenna tube is properly placed through the antenna tube. It may be necessary to slightly pull the antenna wire out to make certain the radio range is sufficient. The shorter receiver antenna may remain inside the radio box.



The rudder control arm should move toward the front of the boat when right input is given. Conversely, when left input is given, the control arm should move toward the back of the boat.



The ESC will beep until you give full throttle input. The auto sensing circuitry will select full throttle position when you hold full throttle during initial setup. Release the throttle trigger. With the propeller free from any objects, give some throttle input to ensure that the motor is working. If everything appears to be functioning correctly, you are ready to run your boat.

Note: The ESC has an over-rev limiter that will not allow you to hold full throttle when the propeller is not loaded (in the water). To reset, return the throttle trigger to neutral. The auto sensing voltage cutoff will also cut off power to the motor when the ESC senses that the batteries are nearing full discharge.

Note: If you are transporting your boat, make sure you disconnect the battery from the speed controller and then turn your radio off until you are ready to run the boat. Once ready, simply turn the radio on and plug the battery into the speed controller, again making sure that the boat is in neutral.

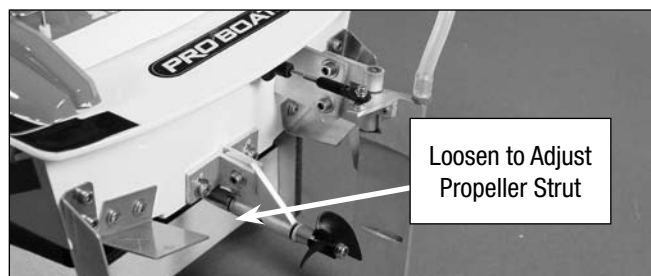
Section 6: Testing Your Boat in the Water

Make sure the radio is "ON" and the batteries are plugged into the speed controller. Test the radio system for proper operation and then carefully place the boat in the water. Pilot the boat at slow speeds, staying close to the shoreline to ensure you have good control and that the boat is functioning correctly. Be certain to avoid all objects in the water at all times.

Once you feel comfortable with the control of your boat, it is safe to go further away from the shoreline and at faster speeds. When you notice the boat beginning to lose speed, bring the boat back to shore. It will be necessary to allow the electronic components to cool down and to replace or recharge the battery before heading out again.

Section 7: Handling Adjustment

Operate your Formula FASTech 26 Brushless EP in low to medium wake conditions to avoid having problems with the boat overturning. If the conditions are questionable, adjust the prop strut down a bit to reduce the likelihood of having the boat overturn. The motor mount is slotted to allow you to move the motor slightly when adjusting the propeller strut. Loosen the motor mounting screws when adjusting the propeller strut angle and retighten after adjustment is complete.



You may also turn the dual rate dial down to reduce rudder travel in rough water conditions.



Section 8: Maintenance

Before and at the end of each run, make sure all screws are tight and the propeller is free from any entanglement.

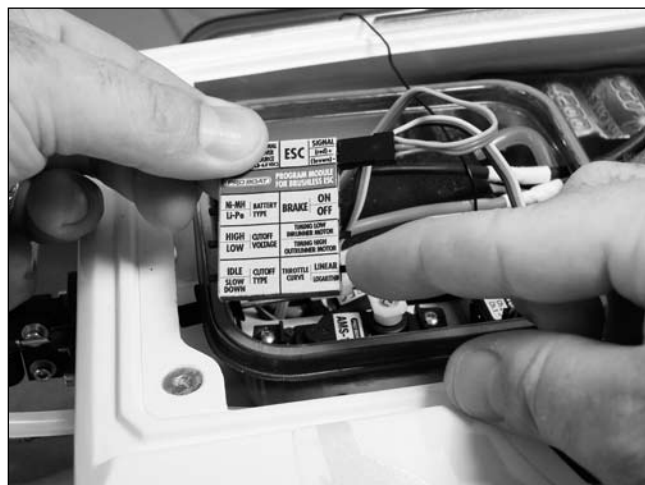
Section 9: Speed Control Programming

The ESC in your Formula FASTech 26 Brushless EP is preprogrammed from the factory. The programming is set for Ni-MH batteries as shipped with your Formula FASTech 26.

A programming module (PRB3311) is available to change the programming of your speed control. Settings include Ni-MH or LiPo batteries, cut-off voltage settings, cutoff type, brake on or off, motor timing and throttle curve.

NOTICE: It is imperative that you do not attempt to use LiPo batteries in the Formula FASTech 26 Brushless unless it has been properly programmed or serious damage to the batteries and electronics may occur.

Note: Do not turn off the transmitter first or the receiver may pick up stray signals and run out of control.



Section 10: Lubricating the Drive Shaft

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

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

1. Use either two crescent wrenches, two 10mm wrenches, or a combination of either to loosen the collet nut.



2. Remove the 3mm propeller strut screw and remove the drive system by sliding the flex shaft out of the stuffing box.



3. Lubricate the drive shaft with PRB0100 Waterproof Marine Grease (see your local hobby shop). Reinstall the drive shaft in reverse order. Be sure to reinstall the nylon washer between the universal and the stuffing box.



Note: Running the Formula FASTech 26 Brushless EP RTR in salt water could cause some parts to corrode. If you run the boat in salt water, rinse it thoroughly in fresh water after each use and lubricate the drive system. Because of its corrosive effects, running RC boats in saltwater is at the discretion of the modeler.

Replacement Parts

In the event that you need to purchase replacement parts for your engine or the Formula FASTech 26 Brushless EP, please see your local hobby store. You can also purchase them from Horizon Hobby by calling 1-800-338-4639 or shop online at www.horizonhobby.com

PRB0100 Grease Gun with Marine Grease, 5 oz.	PRB3757 Rudder Strut
PRB0101 Marine Grease, 5 oz.	PRB3758 Radio Box
PRB0151 1.6" x 2.5" Composite Propeller	PRB3759 Radio Box Cover
PRB2064 Turn Fin (2)	PRB3760 Decals
PRB2068 Water Outlet	PRB3761 Boat Stand
PRB2073 Rubber Boot	PRB3763 Trim Tab (2)
PRB2218 Prop Nut	PRB3762 Servo Tray
PRB2219 Nylon Washer	PRB3764 Flexshaft with U-Joint
PRB2223 Push Rod Connector	PRB3307 Motor Mount
PRB2224 Silicone Tubing	PRB3308 Cable Collet
PRB2226 Antenna Tube	PRB3309 45-AMP Brushless ESC
PRB2808 Rudder Pushrod	PRB3310 A3630-1500 Brushless Motor
PRB2810 Stuffing Box	PRB3311 Brushless ESC Programming Module
PRB2811 Stuffing Box Liner	PRB3312 Tamiya/Deans Charge Adapter
PRB2813 Propeller Shaft	PRB3316 7.2V 3600mAh Battery with Deans
PRB3751 Hull only	PRB3765 Drive Dog
PRB3752 Hatch	PRB4019 Stainless Steel Propeller
PRB3753 Windshield	PRB8060 Pistol-Grip 2.4GHz Transmitter Only
PRB3754 Railing Set	PRB8061 MS113DS Digital Servo
PRB3755 Propeller Strut Set	SPMMR200 MR200 Marine 2.4GHz 2Ch Sport Receiver
PRB3756 Rudder	

Warranty and Repair Information

Warranty Period: Exclusive Warranty- Horizon Hobby, Inc., (Horizon) warrants that the Products purchased (the "Product") will be free from defects in materials and workmanship at the date of purchase by the Purchaser.

Horizon reserves the right to change or modify this warranty without notice and disclaims all other warranties, express or implied.

(a) This warranty is limited to the original Purchaser ("Purchaser") and is not transferable. REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. This warranty covers only those Products purchased from an authorized Horizon dealer. Third party transactions are not covered by this warranty. Proof of purchase is required for all warranty claims.

(b) Limitations- HORIZON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCT. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

(c) Purchaser Remedy- Horizon's sole obligation hereunder shall be that Horizon will, at its option, (i) repair or (ii) replace, any Product determined by Horizon to be defective. In the event of a defect, these are the Purchaser's exclusive remedies. Horizon reserves the right to

inspect any and all equipment involved in a warranty claim. Repair or replacement decisions are at the sole discretion of Horizon. This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of or to any part of the Product. This warranty does not cover damage due to improper installation, operation, maintenance, or attempted repair by anyone other than Horizon. Return of any Product by Purchaser must be approved in writing by Horizon before shipment.

Damage Limits: HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCT, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT LIABILITY. 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 this Product, you are advised to return this 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).

WARRANTY SERVICES

Questions, Assistance, and Repairs: Your local hobby store and/or place of purchase cannot provide warranty support or repair. Once assembly, setup or use of the Product has been started, you must contact 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 direct your email to productsupport@horizonhobby.com, or call 877.504.0233 toll free to speak to a Product Support representative. You may also find information on our website at www.horizonhobby.com.

Inspection or Repairs: If this Product needs to be inspected or repaired, please use the Horizon Online Repair 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 Repair Request is available at www.horizonhobby.com <http://www.horizonhobby.com> under the Repairs tab. 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 repair. 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 batteries to Horizon. If you have any issue with a battery, please contact the appropriate Horizon Product Support office.

Warranty Inspection and Repairs: To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Provided warranty conditions have been met, your Product will be repaired or replaced free of charge. Repair or replacement decisions are at the sole discretion of Horizon.

Non-Warranty Repairs: Should your repair not be covered by warranty the repair 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 repair you are agreeing to payment of the repair without notification. Repair estimates are available upon request. You must include this request with your repair. Non-warranty repair 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 cashiers checks, as well as Visa, MasterCard, American Express, and Discover cards. By submitting any item to Horizon for inspection or repair, you are agreeing to Horizon's Terms and Conditions found on our website under the Repairs tab.

Country of Purchase	Horizon Hobby	Address	Phone Number/ Email
United States	Horizon Service Center (Electronics and engines) Horizon Product Support (All other products)	4105 Fieldstone Rd Champaign, Illinois 61822 USA	877-504-0233 productsupport@horizonhobby.com
United Kingdom	Horizon Hobby Limited	Units 1-4 Ployters Rd Staple Tye Harlow, Essex CM18 7NS, United Kingdom	+44 (0) 1279 641 097 sales@horizonhobby.co.uk
Germany	Horizon Technischer Service	Hamburger Str. 10 25335 Elmshorn Germany	+49 (0) 4121 46199 66 service@horizonhobby.de
France	Horizon Hobby SAS	14 Rue Gustave Eiffel Zone d'Activité du Réveil Matin 91230 Montgeron France	+33 (0) 1 60 47 44 70

FCC Statement

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.



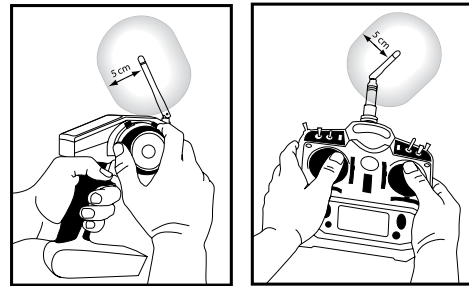
Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

Antenna Separation Distance

When operating your Spektrum transmitter, please be sure to maintain a separation distance of at least 5 cm between your body (excluding fingers, hands, wrists, ankles and feet) and the antenna to meet RF exposure safety requirements as determined by FCC regulations.

The illustrations below show the approximate 5 cm RF exposure area and typical hand placement when operating your Spektrum transmitter.



Compliance Information for the European Union



AT	BG	CZ	CY	DE
DK	ES	FI	FR	GR
HU	IE	IT	LT	LU
LV	MT	NL	PL	PT
RO	SE	SI	SK	UK

CE Declaration of Conformity (in accordance with ISO/IEC 17050-1)
No. HH2010101301

Product(s): Formula FASTech BL Deep-V RTR
Item Number(s): PRB3750S

Equipment Class: 2

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::

EN 300-328 T echnical requirements for Radio equipment
EN 301 489-1, 301 489-17 General EMC requirements
EN 60950 Safety

Signed for and on behalf of:
Horizon Hobby, Inc.
Champaign, IL USA
October 13,, 2010

Steven A. Hall
Vice President
International Operations and Risk Management
Horizon Hobby, Inc.



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.

