E-flite®
ADVANCING ELECTRIC FLIGHT

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 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. 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.

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

Thank you for purchasing the E-flite® 80-Amp Pro Switch-mode BEC Brushless ESC. This is a high-quality sensorless brushless electronic speed control with an integrated switch-mode BEC that is very lightweight and efficient. It can operate without the need for a separate receiver battery to power your servos and receivers, saving you weight and complication.

FEATURES

- Up to 80 amps continuous current with proper air flow and 100 amps burst current (15 seconds)
- 5V switch-mode BEC capable of 5A continuous current with 6A max burst on any recommended input voltage
- Drive up to 7 analog or 6 digital standard-size servos with the BEC on any recommended input voltage
- 3- to 6-cell Li-Po, 9- to 18-cell Ni-MH/Ni-Cd input voltage
- Programmable motor braking
- Safe power-arm mode prevents accidental starts
- Programmable low voltage cutoff with settings for 3-cell Li-Po (9.2V), 4-cell Li-Po (12V), 5-cell Li-Po (15V), 6-cell Li-Po (18V) or 74% of battery starting voltage
- Programmable throttle input range: 1.1–1.9ms or 1.2–1.8ms
- Programmable soft start-up rate—0.25 seconds or 1 second
- Auto motor shut down if signal is lost or there is interference
- Programmable timing—5 user-selectable ranges to for use with a large variety of brushless motors
- Pre-wired connectors—E-flite EC5™ connector on battery input and 4.0mm gold bullet connectors on motor output leads
- Two operating modes—Airplane or Heli

SPECIFICATIONS

Continuous Current	80A*
Max Burst Current	100A (15 sec)*
Length	77.0mm (3.0 in)
Width	41.0mm (1.60 in)
Height	15.5mm (0.62 in)
Weight	106 g (3.75oz)
Cells	3–6S Li-Po or 9–18 Ni-MH/Ni-Cd
Battery Input Leads	10 AWG with E-flite EC5 Connector
Motor Output Leads	12 AWG with 4.0mm Gold Bullet Connectors

* Proper cooling and airflow required

SERVO RATINGS WITH BEC ENABLED

Drives up to 7 analog or 6 digital standard-size servos with the BEC on any recommended input voltage. Some servo combinations that have been tested in various models include:

- 7 JR® MC35 (JSP20030) analog micro servos,1 JR DS368 (JRPS368BB) digital micro servo, 3 E-flite 15–25 size retracts—E-flite Habu 32

- 6 JR 537 (JRPS537) analog standard servos—Hangar 9® Ultra Stick™ 40 ARF

- 5 JR DS811 (JRPS811)/JR DS821 (JRPS821) digital standard servos—Seagull® Harrier 46 3D

- 4 JR DS811 (JRPS811)/JR DS821 (JRPS821) digital standard servos and 1 JR 791 (JRPS791) retract servo—Hangar 9 60-sized warbirds

- 5 JR DS811 (JRPS811)/JR DS821 (JRPS821) digital standard servos and 1 JR 791 (JRPS791) retract servo—Hangar 9 Spitfire 60

Digital servos and binding servos of any kind typically have higher current draw. As a general rule, micro and sub-micro servos draw less current, which may affect your servo usage as shown in the examples above. We recommend installing a Hangar 9® Servo and Receiver Current Meter (HAN172), between the throttle lead of the ESC and receiver to confirm current draw of the actual servos used. Always position the ESC for maximum airflow; cooling can significantly aid in the performance of the BEC.

BEFORE FIRST USE

Please refer to "**Servo Ratings with BEC Enabled**" notes for BEC usage guidelines. You must follow these guidelines for safe operation. If you are using more than 7 analog standard servos, more than 6 digital standard servos or servos with higher current draw than the BEC can deliver, you will need to disable the BEC. If you wish to disable the BEC, you must remove the red receiver wire lead and connector from the receiver lead housing and then insulate it properly to prevent shorting. When operating with the BEC disabled, it is recommended to use a separate, high-power, external BEC, or receiver pack and switch.

The ESC comes prewired with an EC5 connector and is compatible with most batteries. Only use 3–6S Li-Po or 9–18 Ni-MH/Ni-Cd batteries. Connect a fully charged battery to the ESC battery connector.

⚠️ **WARNING:** Always remove the propeller before checking the startup function of the ESC or making programming changes. Keep all body parts, hair and loose clothing away from a moving propeller, as these items could become entangled.

⚠️ **CAUTION:** Always disconnect the battery when not flying to avoid over-discharging the battery. Batteries discharged to a voltage lower than the lowest approved voltage may become damaged, resulting in loss of performance and potential fire when batteries are charged.

When flying in hot weather, check on the condition of the ESC, battery and motor after each flight. Always let the electronic components cool to near ambient temperature between flights. During extreme conditions, throttle management is necessary when running near maximum levels of current draw. It is possible to cause permanent damage to the motor, battery and ESC if in full throttle the entire flight.

USING THE 80-AMP PRO SWITCH-MODE BEC BRUSHLESS ESC

This ESC is simple to use and, for safety, will not arm the motor until the throttle stick has been held in the Idle (low) position for more than 1 second. The ESC will indicate the soft cutoff voltage setting every time the battery is connected by first emitting a low, long tone to indicate startup. Depending on the selected cutoff voltage (default is 74%), you will then hear the respective number of medium-length mid-tones to indicate the cell count or a musical tone for the 74% cutoff, helping you to confirm the setting before every flight.

Proper air cooling is required during flights. The ESC should be placed in an area where air flows over the ESC.

CONNECTING THE ESC TO THE MOTOR

The three wires from the motor connect to the three gold bullet connectors on the ESC. The order of connection to the motor is not important; any motor wire can be connected to any connector. If the motor runs backwards, you can simply disconnect and switch any two of the motor wire plugs connected to the ESC.

MOUNTING THE ESC

1. Choose a location that has good airflow and offers good protection.

DO NOT cover the side with the flat heat shield with hook and loop, tape or any other material as this will greatly reduce its effectiveness.

2. Mount the ESC with a combination of hook and loop, 2-sided foam tape and/ or tie wraps.

STARTING YOUR POWER SYSTEM

1. Power ON your transmitter and ensure the position of the throttle is in the Idle (low) position.

2. Connect the battery to the ESC. You will hear 1 low, long tone to indicate startup, then the respective number of medium-length mid-tones to indicate the cell count or a musical tone for the 74% cutoff, followed by 3 rising tones to indicate the ESC is armed.

3. When you move the throttle stick upward, the motor will run. Continue to move the throttle stick upward to full throttle (high position), and the motor will run faster. When the throttle stick goes below the start-up position, the motor will stop running.

4. Check the servo motion as part of your preflight check. It is very important to make sure linkages are free-moving with no binding. Remember, when in the programming mode:
   Full Throttle = Stick Up   Idle = Stick Down

The default settings for the ESC are as follows:

- Voltage cutoff set at 74%
- Brake set to Off
- Timing set at 15 degrees
- Throttle Input Range set at 1.2ms to 1.8ms
- Start-up Rate (Acceleration Delay) set at 0.25 seconds
- PWM Frequency set at 8KHz

- Operating Mode set to normal (airplane)

ENTERING THE PROGRAMMING MODE

1. With the battery disconnected from the ESC and the transmitter powered ON, move the throttle stick to full throttle. Hold full throttle, then connect the battery to the ESC.

2. Wait 5 seconds and the ESC will give two sets of fast ringing tones to indicate you have entered Programming Mode.

3. Once you hear these tones, move the stick to center for 5 seconds. The ESC will beep 1 time, indicating you are now in Menu 1.

4. The ESC will now wait 5 seconds for you to make your selection; your programming options are either full throttle or idle.

5. When you have made a valid selection, the ESC will beep once with a lower tone. Move the stick back to center for the next menu item (2 beeps, 3 beeps and so on). If you do not make a selection within 5 seconds, the ESC will move to the next menu item.

6. If you want to make changes in the programming menus (see specific instructions below), move the throttle stick to full throttle. You will have 5 seconds to make your selection.

7. If you want to advance to the next menu, allow the programming to skip to the next menu after the 5 seconds have expired.

PROGRAMMING MENU 1 – VOLTAGE CUTOFF

The default setting is 74% cutoff*.

Use this option to set the voltage at which the ESC will shut down the motor to prevent damage to the battery when it reaches the cutoff voltage. You will know the battery has reached auto cutoff when you hear the motor "pulse" repeatedly.

1. Move the throttle stick to full throttle to make changes to the voltage cutoff programming.

   a. To select 3-cell low voltage cutoff—You will hear 3 short beeps. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the next selection.

   b. To select 4-cell low voltage cutoff—You will hear 4 short beeps. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the next selection.

   c. To select 74% cutoff—You will hear 7 short beeps. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the first selection again.

*IMPORTANT NOTE ABOUT 74% CUTOFF: This option will activate the soft cutoff at 74% of the startup voltage or 9.2V, whichever is higher.

For example, if the battery measures 16.8 volts at startup, then the soft cutoff will occur at 12.4 volts.

The 74% cutoff option will check the startup voltage every time you connect the battery to the ESC. Avoid using partially charged batteries, as the system cannot protect the Li-Po batteries if you are using the 74% cutoff and connect a partially charged battery.

You will know the battery has reached soft auto cutoff when you hear the motor "pulse" repeatedly. Land your model as soon as you hear the motor pulse (indicating the battery voltage has dropped to the cutoff voltage level) to prevent over-discharge of the Li-Po battery and to prevent sudden power loss.

PROGRAMMING MENU 2 – BRAKE TYPE

The default setting is Brake Off.

This option gives you the choice to have the ESC stop the propeller during flight (Brake On) or allow it to windmill (Brake Off). Use the Brake On options for folding propellers.

1. Move the stick to center for 5 seconds and the ESC will beep 2 times, indicating you are now in Menu 2.

2. Move the throttle stick to full throttle to make changes to the Brake Type programming.

a. To select No Brake/Brake Off—You will hear 1 short beep. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the next selection.

b. To select Soft Brake—You will hear 2 short beeps. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the next selection.

c. To select Medium Brake—You will hear 3 short beeps. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the next selection.

d. To select Hard Brake—You will hear 4 short beeps. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the first selection again.

PROGRAMMING MENU 3 – TIMING
The default setting is 15 degrees.

As a general rule, lower pole count motors use lower timing and higher pole count motors use higher timing. Please refer to your motor instructions and specifications for an indication of the number of poles.

LOW TIMING ADVANCE

Timing Degrees	5 & 10
Motor Poles	2 to 4
Expected Performance	Good balance of power and efficiency
Motor Poles	6 or more
Expected Performance	Best efficiency and run time (lowest power)

STANDARD TIMING ADVANCE

Timing Degrees	15 & 20
Motor Poles	6 to 12
Expected Performance	Good balance of power and efficiency
Motor Poles	14 or more
Expected Performance	Best efficiency and run time (lowest power)

HIGH TIMING ADVANCE

Timing Degrees	25
Motor Poles	12
Expected Performance	Highest power, less efficiency
Motor Poles	14 or more
Expected Performance	Good balance of power and efficiency

1. Move the stick to center for 5 seconds and the ESC will beep 3 times, indicating you are now in Menu 3.

2. Move the throttle stick to full throttle position to make changes to the Timing programming.

   a. To select 5 Degrees—You will hear 1 short beep. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the next selection.

   b. To select 10 Degrees—You will hear 2 short beeps. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the next selection.

   c. To select 15 Degrees—You will hear 3 short beeps. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the next selection.

   d. To select 20 Degrees—You will hear 4 short beeps. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the next selection.

e. To select 25 Degrees—You will hear 5 short beeps. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the first selection again.

PROGRAMMING MENU 4 – THROTTLE INPUT RANGE (PWM)
The default setting is 1.2ms to 1.8ms (works with most radio systems).

This option allows for proper throttle input with many different radio systems. However, some radios have a wider output range, and may give a more linear response with the 1.1ms to 1.9ms range. If you feel there is too much "dead" area in the stick movement near full throttle, try adjusting the end points in your radio, or change to the wider input range. Be aware that if these settings are not correct, it may be impossible to arm the ESC.

1. Move the stick to center for 5 seconds and the ESC will beep 4 times, indicating you are now in Menu 4.

2. Move the throttle stick to full throttle to make changes to the Throttle Input Range programming.

   a. To select 1.2ms to 1.8ms—You will hear 1 short beep. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the next selection.

   b. To select 1.1ms to 1.9ms—You will hear 2 short beeps. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the first selection again.

PROGRAMMING MENU 5 – START-UP RATE
The default setting is 0.25 seconds.

The start-up rate is the time it takes to reach maximum motor speed. Changing the setting to 1 second can be useful with power-fragile gear boxes.

1. Move the stick to center for 5 seconds and the ESC will beep 5 times, indicating you are now in Menu 3.

2. Move the throttle stick to full throttle position to make changes to the Start-up Rate programming.

   a. To select .25 second—You will hear 1 short beep. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the next selection.

   b. To select 1 second—You will hear 2 short beeps. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the first selection again.

PROGRAMMING MENU 6 – PWM SWITCHING FREQUENCY
The default setting is 8KHz (acceptable for most motors).

If you have a low or very low inductance motor and know you need to use a higher PWM Frequency (refer to the manual included with the motor), then you can change the setting. Otherwise, we recommend leaving the default setting.

1. Move the stick to center for 5 seconds and the ESC will beep 6 times, indicating you are now in Menu 6.

2. Move the throttle stick to full throttle to make changes to the PWM Switching Frequency programming.

   a. To select 8KHz PWM Frequency—You will hear 1 short beep. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the next selection.

   b. To select 16KHz PWM Frequency—You will hear 2 short beeps. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the next selection.

   c. To select 32KHz PWM Frequency—You will hear 3 short beeps. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the first selection again.

PROGRAMMING MENU 7 – OPERATING MODE

The default setting is set to Normal (airplane) Mode (which is limited to a start-up rate of 0.25 or 1 second).

Alternatively, the Heli Mode can be selected which, reduces the start-up rate to 5 seconds for the first start-up and any start-up after the motor/ESC has been stopped for more than 5 seconds. This helps to prevent damaging the motor, gears or any other components from an abrupt start-up when none of the parts are moving. Any time the motor/ESC has been stopped for less than 5 seconds in Heli Mode, the start-up will be immediate. This allows power to be applied immediately, such as when aborting an auto-rotation attempt or to help prevent a crash. Remember, you must wait more than 5 seconds after stopping the motor/ESC in order for the 5-second start-up to occur again.

1. Move the stick to center for 5 seconds and the ESC will beep 7 times, indicating you are now in Menu 7.

2. Move the throttle stick to full throttle to make changes to the Operating Mode programming.

   a. To select Normal Mode—You will hear 1 short beep. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the next selection.

   b. To select Heli Mode—You will hear 2 short beeps. Move the throttle stick to center. The ESC will beep 2 times, indicating you have set the program selection. Leave in full throttle for 5 seconds to advance to the first selection again.

TROUBLESHOOTING

The ESC will beep more quietly than normal if the input voltage is below the cutoff voltage when the battery is connected. Check the voltage of the battery to see if it is correct (charged), or the programmed cutoff setting of the input voltage is set incorrectly for the voltage of the pack being used.

If you have trouble arming the ESC (and the throttle trim has been set to minimum), enter the programming mode and try changing the setting to 1.1ms–1.9ms in Programming Menu 4 to see if it helps correct the problem. If it is a computer radio, you may alternatively increase high and low throttle ATV (endpoint) percentages.

Increasing the high ATV will not have a consequence on arming issues, only low ATV.

Some transmitters, including all Futaba transmitters, will require the throttle channel to be "reversed" for proper operation.

1-YEAR LIMITED WARRANTY

What this Warranty Covers - Horizon Hobby, Inc., (Horizon) warrants to the original purchaser that the product purchased (the "Product") will be free from defects in materials and workmanship for a period of 1 year 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.

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 - our 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 at https://horizonhobby.quickbase.com/db/bghj7ey8c?a=GenNewRecord, 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 888-959-2305	
	Sales	sales@horizonhobby.com 888-959-2305	
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 Sales: Horizon Hobby GmbH	service@horizonhobby.de +49 (0) 4121 2655 100	Christian-Junge-Straße 1 25337 Elmshorn, Germany
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

COMPLIANCE INFORMATION FOR THE EUROPEAN UNION

CE **Declaration of Conformity** (in accordance with ISO/IEC 17050-1)

No. HH2013081603

Product(s):   80-Amp Pro SB Brushless ESC, EC
Item Number(s):   EFLA1080B

The object of declaration described above is in conformity with the requirements of the specifications listed below, following the provisions of the EMC Directive 2004/108/EC:

EN55022:2010 + AC:2011
EN55024:2010

Signed for and on behalf of:

Horizon Hobby, Inc.
Champaign, IL USA
August 16, 2013

Robert Peak
CFO, 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 collections 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.