

Warranty Period

Exclusive Warranty- Horizon Hobby, Inc., (Horizon) warranties that the Products purchased (the "Product") will be free from defects in materials and workmanship for a period of 1 year from the date of purchase by the Purchaser.

Limited Warranty

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

(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 goods 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).

Safety Precautions

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. The Product 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 injury.

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 service technician.

Inspection or Repairs

If this Product needs to be inspected or repaired, please call for a Return Merchandise Authorization (RMA). 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.** A Service Repair Request is available at www.horizonhobby.com on the "Support" tab. If you do not have internet access, please include a letter with your complete name, street address, email address and phone number where you can be reached during business days, your RMA number, a list of the included items, method of payment for any non-warranty expenses and a brief summary of the problem. Your original sales receipt must also be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

USA	Canada	Belgium
Denmark	France	Finland
Germany	Italy	Netherlands
Spain	Sweden	UK

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 Hobby.

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. Please advise us of your preferred method of payment. Horizon accepts money orders and cashiers checks, as well as Visa, MasterCard, American Express, and Discover cards. If you choose to pay by credit card, please include your credit card number and expiration date. Any repair left unpaid or unclaimed after 90 days will be considered abandoned and will be disposed of accordingly. Please note: non-warranty repair is only available on electronics and model engines.

United States:

Electronics and engines requiring inspection or repair should be shipped to the following address:

Horizon Service Center
4105 Fieldstone Road
Champaign, Illinois 61822

All other products requiring warranty inspection or repair should be shipped to the following address:

Horizon Product Support
4105 Fieldstone Road
Champaign, Illinois 61822

Please call 877-504-0233 with any questions or concerns regarding this product or warranty.

European Union:

Electronics and engines requiring inspection or repair should be shipped to the following address:

Horizon Hobby UK
Units 1-4 Ployters Rd
Staple Tye
Southern Way
Harlow
Essex CM18 7NS
United Kingdom

Please call +44 (0) 1279 641 097 or sales@horizonhobby.co.uk with any questions or concerns regarding this product or warranty.

FCC Information

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

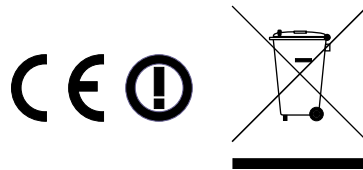
Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

The associated regulatory agencies of the following countries recognize the noted certifications for this product as authorized for sale and use:

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.



Spektrum VR6010 6.0-Volt, 10-Amp Regulator Instructions

Applications

The VR6010 is designed for high current draw applications, like giant-scale airplanes with multiple high current draw servos. Spektrum's model VR6010 6-volt 10-amp regulator allows the use of 2-cell lithium or 5- to 8-cell NiCd and NiMH receiver packs to be used to power your onboard radio system. A single VR6010 regulator provides 10-amps continuous current (16 amp peaks) making it ideal for most high current draw applications. For heavy duty applications two VR6010's can be used to provide 20-amps continuous and up to 32-amps peak power. The VR6010 is ideal for use with Spektrum's AR9100 PowerSafe receiver and comes pre-wired with EC3 connectors.

Features

- Fail-on soft switch prevents radio loss due to switch failure
- Pre-wired with EC3 connectors ready to install with AR9100 PowerSafe
- Heavy-duty 16 gauge power leads
- Cooling fan provides additional current handling capability
- Convenient mounting lugs
- Two can be used with the AR9100 PowerSafe for up to 20-amps continuous current

Note: When the battery is connected to the regulator a low current drain of less than 1mAh occurs even when the switch is turned off. If the system is going to be stored for any length of time it is important that the battery(s) be disconnected from the regulator to prevent over discharge.

Note: It is normal for the regulator to become warm during heavy operation.

SPECIFICATIONS

Type: 10-amp linear voltage regulator

Voltage Input: 6- to10-volts (5- to 8-cell NiCd/ NiMH or 2-cell LiPo)

Output Voltage: 6.0-volts

Continuous current @ 8.4V: 10-amps

Peak Current: 16-amps

Dimensions WxLxH: 40 x 30 x 30mm 1.57 x 1.18. x 1.18 in (less mounting tabs)

Weight: 50 grams/ 1.8 oz

Note: Consult your servo manufacturer's specifications for maximum allowable voltage.

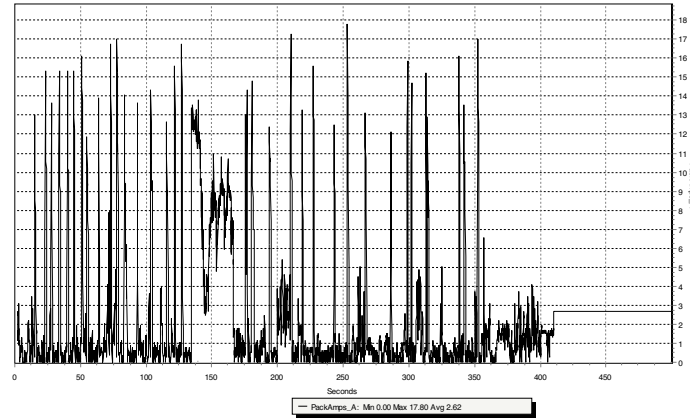
Batteries

Spektrum offers a line of 5-cell NiMH and 2-cell LiPo battery packs that are pre-wired with EC3 connectors ready to plug into your VR6010 regulator.

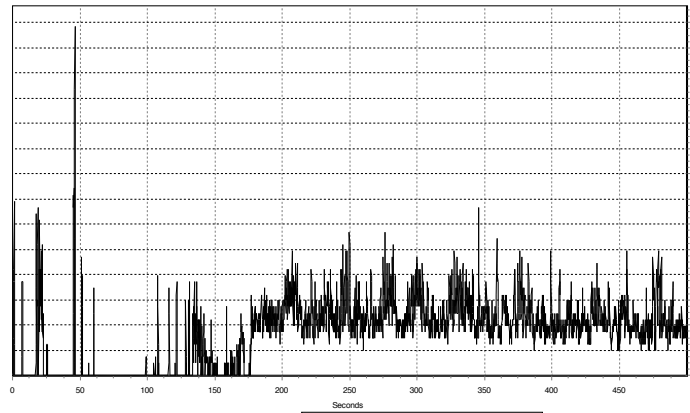
SPMB1350LP	LiPo Receiver Pack 1350mAh
SPMB2000LP	LiPo Receiver Pack 2000mAh
SPMB4000LP	LiPo Receiver Pack 4000mAh
SPMB6000LP	LiPo Receiver Pack 6000mAh
SPMB1650NM	1650mAh 6.0V NiMH Receiver Pack
SPMB2150NM	2150mAh 6.0V NiMH Receiver Pack
SPMB2700NM	2700mAh 6.0V NiMH Receiver Pack
SPMB4500NM	4500mAh 6.0V NiMH Receiver Pack

Battery Capacity

It is important to select a battery(s) that has more than adequate capacity to provide the necessary flight time. Our staff has been recording in-flight data to determine typical current consumption of aircraft in flight. Following are two graphs that illustrate the in-flight current draw of the radio system. **Note:** Current draws may vary depending on your servos, installation, and flying style.



Airplane: 40% YAK
Servos: 9-JR8711s 1-JR8317 (throttle)



Airplane: 33% Sukhoi
Servos: 7-JR8611s 1-JR8317 (throttle)

In the above examples the average current was 2.62 amps, which calculate to 435mAh per 10 minutes (typical flight length). It's recommended that only 60% of the available capacity be used to ensure plenty of reserve battery capacity. In this example using two 4000mAh batteries (8000mAh total capacity) x 60%= 4800mAh (available useable capacity) divided by the capacity used per 10 minute flight 435mAh would allow up to 11 flights of 10 minutes each.

Recommended Guidelines for Battery Capacity

- 40-45% Aerobatic aircraft w/ 9-12 high current servos- 4000-8000mAh
- 33-35% Aerobatic aircraft w/ 7-10 high current servos- 3000-6000mAh
- 25% Quarter-Scale aerobatic aircraft w/ 5-7 high current servos- 2000-4000mAh
- Jets—BVM Super BANDIT, F86, Euro Sport, etc.- 3000-6000mAh
- Giant-scale jets—BVM Ultra Bandit- 4000-8000mAh
- Scale aircraft—The variety of scale aircraft and the accessories they use vary tremendously making it difficult to give capacity recommendations for these types of aircraft. Using the above aerobatic guidelines relative to the size and number of servos used will provide a conservative capacity for your scale aircraft. As always check battery charge condition before each use.

Installation

1. Mount the regulator(s) via the mounting tabs and grommets with self-tapping screws to a flat surface in your aircraft appropriately located between the battery and the receiver.
2. Plug the soft switch into the regulator as shown in the illustration and mount the switch to the side of the fuselage. Note: If using an AR9100 remove the switch that is plugged into the receiver. The switch plugged into the regulator will be used to turn the system on and off.
3. Plug the Battery into the regulator and plug the regulator into either of the AR9100 power input ports.
Note: If using a receiver other than a Spektrum AR9100, an optional EC3-to-dual servo lead output adaptor is available (SPMYHEC36). Plug the EC3 adaptor into the regulator's output and then plug the two servo leads into the battery port and any open auxiliary port in the receiver.
4. Turn on the system. The fan should operate and the receiver should turn on.



Optional Charge On/Off Adaptor Lead

Included with the system is an optional charge, on/off adaptor lead. Some modelers may prefer to use this adaptor lead instead of the included soft switch. When plugged into the regulator's switch port this adaptor lead allows the following:

1. The battery can be charged through the adaptor lead
2. The system can be turned off by inserting the Bind plug. Removing the bind plug turns the system on.
3. Battery voltage can be monitored through the adaptor lead using a flight log or voltmeter. If the voltmeter is plugged directly into the male-male extension, the system is active and voltage under load (system operational) is displayed. If plugged into the charging lead, the at rest battery voltage is displayed.

Install the adaptor lead as shown below.

Note: A plastic housing is included that allows the lead to be mounted to the side of the fuselage.

