

TECHNOLOGY

SMART BATTERY CHECKER & SERVO DRIVER

SMART-AKKUPRÜFER UND SERVOTREIBER

CONTRÔLEUR POUR BATTERIE SMART ET SERVOMOTEUR

TESTER BATTERIA SMART & SERVO DRIVER

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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 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:

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 a 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. 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, 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.

WARNING AGAINST COUNTERFEIT PRODUCTS
Always purchase from a Horizon Hobby, LLC authorized dealer to ensure authentic high-quality Spektrum product. Horizon Hobby, LLC disclaims all support and warranty with regards, but not limited to, compatibility and performance of counterfeit products or products claiming compatibility with DSM or Spektrum technology.

NOTICE: This product is only intended for use with unmanned, hobby-grade, remote-controlled vehicles and aircraft. Horizon Hobby disclaims all liability outside of the intended purpose and will not provide warranty service related thereto.

WARRANTY REGISTRATION
Visit www.spektrumrc.com/registration today to register your product.

SMART Battery Checker Overview

The SPMXBC100 SMART Battery Checker is compatible with conventional LiPo batteries and Spektrum™ Smart Batteries. When connected to a Spektrum SMART Battery, the XBC100 provides essential battery information on the health and history of the battery. The XBC100 can also be used as a servo driver to test servos without having to connect a radio and receiver.

For more information on Spektrum SMART battery technology visit: http://www.spektrumrc.com

Specifications

Input Voltage	5V – 36V
Lithium	1 – 8S
NiCd/NiMH	1 – 10S
Voltage Measurement Accuracy	+/-0.005V @ 4.2V
Balancing Cells Accuracy	< 0.005V
USB Charging	QC3.0, BC1.2, max 12V/2A
Smart Battery	Read Charge/ Discharge Setting, Battery Info and Usage History

XBC100 Menu and Settings

Menu Button: Short Press to enter setting menu, Long Press to enter Smart Battery menu
Up/Down Buttons: Used to navigate the menus and control

Menu Options

Language: Select a language
Backlight: Adjust brightness
System information: Shows firmware version
Alarm Tone: Low Voltage alarm can be set to beep once or once every minute
Low Voltage Alarm: IC3 connection- user can select 5V - 30V as low voltage threshold
Balance port- user can select single cell voltage 2.5V - 3.9V as low voltage threshold
Smart Battery- automatically set
USB Charge: Connect a battery to the IC3™ connector to power USB devices
Servo Test (1520µs): Use to test servos with 1520µs center pulse
Servo Test (765µs): Use to test servos with 765µs center pulse
Cells Balance: Use this mode to balance the cells in a lithium battery

Spektrum SMART Battery Health and History Information

- Full Battery Voltage
- Individual Cell Voltage
- Individual Cell Voltage Difference
- Remaining Battery Capacity
- Battery Temperature
- Max Charge C Rating
- Number of Charge Cycles
- Number of Battery Over-Charges
- Battery Chemistry and Cell Count
- Battery Capacity
- Maximum Discharging C Rating
- Number of Battery Over-Discharges

Connecting a Battery to the Battery Checker

Spektrum Smart Battery

Use the IC3 main battery connector for batteries with SMART technology.

Press and hold the menu button when connecting a Smart Battery to the Battery Checker to enter the system settings for the battery.

Smart Battery Menu Options

Auto Storage: Defines how long the battery waits before initiating the auto storage function

Storage Voltage: Defines the storage voltage the battery will set for auto storage

Charge Voltage: Defines the maximum allowable voltage

Exception Record: Check record of over charge - over discharge - over temperature

Back: Exits the menu

Conventional LiPo

Use the balance connector when connecting a conventional LiPo to the XBC100. Connecting the main (non-SMART) battery connector to the battery checker will display the full pack voltage.

Servo Driver Operation

Select the servo test function from the menu; 1520µs is the most common, 765µs is often used for helicopter tail rotor servos.

Plug the servo into the servo port. A 2-8 cell LiPo must be connected to the IC3 connector on the Battery Checker for the Servo Driver to function.

Servo Test Options

Turning: Press the up/down buttons to manually adjust the servo output

Fixed positions: Press the middle button to select from three positions; full negative, neutral, and full positive

Auto CW/CCW: Select this option to turn on wiper mode which sweeps back and forth through the full servo travel

Warranty and Service Contact Information

1-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 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, (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 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.

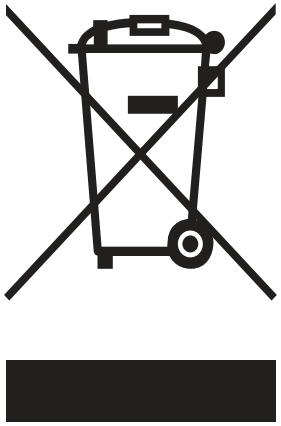
ATTENTION: Horizon service is limited to Product compliant in the country of use and ownership. If received, a non-compliant Product will not be serviced. Further, the sender will be responsible for arranging return shipment of the un-serviced Product, through a carrier of the sender's choice and at the sender's expense. Horizon will hold non-compliant Product for a period of 60 days from notification, after which it will be discarded. 10/2015

Country of Purchase	Horizon Hobby	Contact Information	Address
United States of America	Horizon Service Center (Repairs and Repair Requests)	servicecenter.horizonhobby.com/RequestForm/	2904 Research Rd Champaign, Illinois, 61822 USA
	Horizon Product Support (Product Technical Assistance)	productsupport@horizonhobby.com. 877-504-0233	
	Sales	websales@horizonhobby.com 800-338-4639	
EU	Horizon Technischer Service	service@horizonhobby.eu	Hanskampring 9 D 22885 Barsbüttel, Germany
	Sales: Horizon Hobby GmbH	+49 (0) 4121 2655 100	

Compliance Information for the European Union

EU Compliance Statement: Horizon Hobby, LLC hereby declares that this product is in compliance with the essential requirements and other relevant provisions of the EMC directive.

A copy of the EU Declaration of Conformity is available online at: http://www.horizonhobby.com/content/support-render-compliance.



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.

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