

SPEKTRUM®

Alpha-6™ Stability System

Alpha-6 Stability System

Système Stabilité Spektrum Alpha-6

Sistema stabilizzante Alpha-6

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:

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, 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.

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.

Spektrum Alpha-6 Stability System

The Spektrum™ Alpha-6™ Stability System is designed to provide the benefits of AS3X technology to non-AS3X receivers regardless of brand.

Features

- Upgrade to AS3X technology without needing to purchase a new receiver or Spektrum transmitter.
- Fully programmable with the AS3X Application to suit your flying style and model needs.
- Easy installation and setup.
- Compact design allows unit to install in almost all aircraft.
- Gains can be adjusted in flight via the transmitters knob or slider.
- No dedicated battery required. Powered through the receiver.
- Includes 8, 12-inch servo extensions.

Specifications

Type: AS3X Stability System

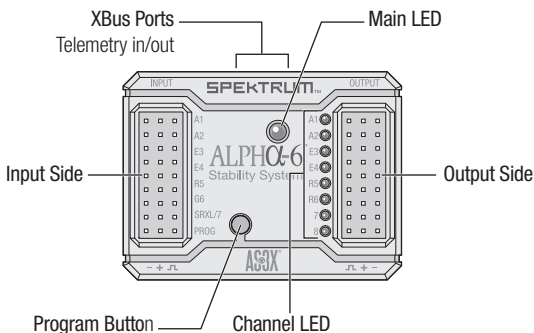
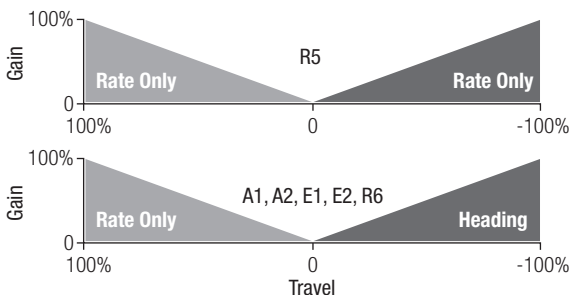
Dimension (WxLxH): 1.4 x 1.9 x 0.5 in (36.4 x 48.6 x 13.6 mm)

Weight: 0.9 oz (26.4 g)

Input Voltage Range: 3.5–9.6V

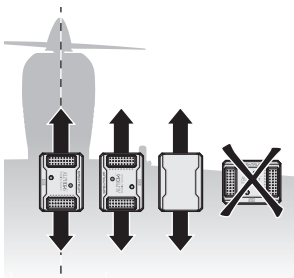
Compatibility: Any full range receiver

Frame Rate: 22ms and 11ms (Only use 11ms with digital servos)



Installing the Spektrum Alpha-6 Stability System

1. Solidly mount the Alpha-6 Stability System on a smooth flat surface in the aircraft with the included double sided foam tape. Do not mount the stability system on its side, it must be mounted flat with the pins in line with the nose/tail and as close to the centre of gravity as possible. Connect the included 12-inch servo extensions from the aircraft receiver to the input side of the Alpha-6 Stability System.
2. Connect the aircraft servos to the output side of the Alpha-6 Stability System matching the inputs.



Recommended Connection:

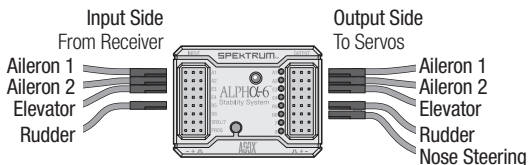
Ailerons	A1 and A2 if needed
Elevators	E3 and E4 if needed
Rudder	R5,R6
Gear	G6
Serial cable*/Aux	SRXL/FM/7
Programing cable	Prog

* SRXL must be activated in the AS3X PC software.

Rudder Output

Out of the box the rudder has two outputs sharing the same gain input. The R5 port is always in rate mode and the R6 port is in heading hold mode only when the gain for R5/R6 is between 0 – -100. See the chart on page 3.

NOTE: All channel can be configured for gain type in the AS3X PC software.



Serial Cable

For serial cable installations, run the cable from the receiver into the SRXL/7 input port. All 8 outputs are available for servo connections.

IMPORTANT: Update your Spektrum transmitter with the latest AirWare™ software to take advantage of certain Alpha-6 telemetry and gain settings directly on the transmitter.

See the transmitter manual for updating instructions.

Telemetry

The 2 Xbus ports on the side of the Alpha-6 can be used for telemetry data from the stability system connected to the Spektrum TM1000 telemetry module (SPM9548). the stability system can also be daisy chained to other telemetry sensors via the second XBus port.

The Alpha-6 Stability System reports:

- Flight Mode
- Attitude
- Voltage(in)
- Gains
- Roll/Pitch/Yaw rates
- G Force

Transmitter Setup

The Alpha-6 Stability System works out of the box with your current transmitter setup. Only the Gain Direction and Transmitter stick calibration is necessary. See **Setup Mode** below.

Setup Mode

To enter Setup Mode

1. Hold down the program button while powering on the Alpha-6 Stability System.
2. Continue holding the button, the Main LED will flash and the channel LED's will cycle on and off. Once the main LED turns a solid Red, release the program button.
3. the Alpha-6 is now in Gain Reverse mode.

Gain Reverse Mode

4. Ensure the main LED is glowing solid Red. Repeat the above steps until the LED Glows Red.
5. The selected channel's LED will glow solid Green. (Blinking Green LED indicates this channel is reversed)
6. Push the program button once to move up through the channels to the channel that needs reversed gain.
7. Push and hold the program button for 3 seconds and the Green LED will start blinking. This channels gain is now reversed.
8. Push the program button once to move up through the remaining channels.
9. Perform the AS3X Control Direction test until all controls move the correct direction.
10. Once all controls are correct, cycle up through the channels and the Alpha-6 will exit Reversing Mode and enter Calibration Mode. The main LED will blink Blue.

Calibration Mode

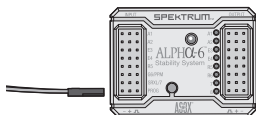
IMPORTANT: Perform calibration with the transmitter set to high rates and any mixes for flaperon, crow or flap set to off.

11. Ensure the main LED is blinking Blue. Repeat the above steps until the LED blinks Blue.
12. Move the transmitter sticks through the full range of travel and then return to center.
13. Cycle the gain inputs and return to center.
14. If calibration is incomplete, The main LED will blink Blue. Repeat steps 12–14 until calibration is complete.
15. If calibration is complete, the main LED will glow Blue solid.
16. Hold the program button to exit calibration, the main LED will glow Green.

The Alpha-6 Stability System will now be active as soon as the system is powered up. No further calibration or setup is required.

Installing the AS3X Application


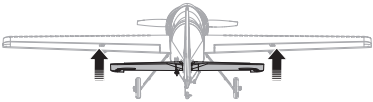







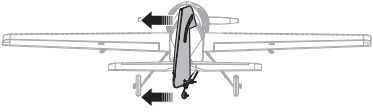

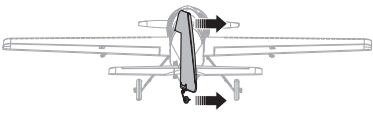
1. Download the AS3X PC software from SpektrumRC.com
2. Connect the interface cable (SPMA3065 sold separately) to the Alpha-6 Stability System and computer via USB.
3. Power on the transmitter and Spektrum Alpha-6 Stability System.
4. Open the AS3X PC software on your PC or laptop.



5. Use the AS3X PC software to program the Alpha-6 Stability System.
6. Press “Update” in the application to save the Alpha-6 programming.

AS3X Control Direction Test

With the Alpha-6 Stability System installed, power up the aircraft. Perform the AS3X Control Direction by lifting or tipping the aircraft as shown. Ensure the AS3X technology moves the control surfaces in their proper direction. If the control surfaces do not respond as shown, go to the Setup Mode section on the previous pages for gain reversing instructions.

	Aircraft movement	AS3X Reaction
Elevator		
		
Aileron		
		
Rudder		
		

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 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. 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.

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.

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)	productsupport@horizonhobby.com. 877-504-0233	
	Sales	websales@horizonhobby.com 800-338-4639	
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	service@horizonhobby.de	Christian-Junge- Straße 1 25337 Elmshorn, Germany
	Sales: Horizon Hobby GmbH	+49 (0) 4121 2655 100	
France	Service/Parts/ Sales: Horizon Hobby SAS	infofrance@horizonhobby.com +33 (0) 1 60 18 34 90	11 Rue Georges Charpak 77127 Lieusaint, France

EU Compliance Statement:

CE **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.

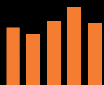
A copy of the EU Declaration of Conformity is available online at:
<http://www.horizonhobby.com/content/support-render-compliance>.



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 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.





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