

Team Spektrum™ FPV Edition
Micro Swift 2 FPV Camera
with OSD SPMVC623

IMPORTANT: Consult local laws and ordinances before operating FPV (first person view) equipment. In some areas, FPV operation may be limited or prohibited. You are responsible for operating this product in a legal and responsible manner.

Instruction Manual
Bedienungsanleitung
Manuel d'utilisation
Manuale di istruzioni

EN

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.

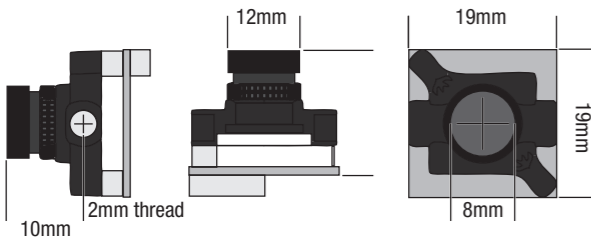
Age Recommendation: Not for children under 14 years. This is not a toy.

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.

MODEL	SPMVC623
Image Sensor	1/3" Sony Super HAD II CCD
Horizontal Resolution	600TVL
Lens	2.3mm
Signal	NTSC
Input Voltage	DC 5V–36V
Integrated features	OSD
OSD Features	Voltage, Timer, Callsign
Minimum Illumination	0.01 Lux @1.2F
Day/Night	Color/Auto/B&W
Electronic Shutter Speed	1/60 –100,000
Dimensions	19mm x 19mm x 19mm
Power Consumption	60mA @ 5V, 140mAh @ 12V
Weight	5.6 grams
Recommended Video Transmitter	SPMVT1000, SPMVTM150

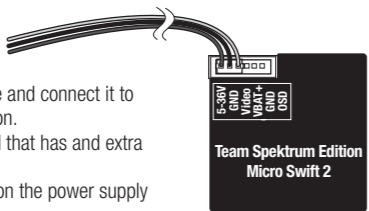
- BOX CONTENTS**
- Team Spektrum FPV Edition Micro Swift 2 Camera
 - Video Cables (2)
 - OSD Switch Board and Extension Cable
 - Camera Mount
 - Small Hardware (2x4mm machine screws, 2mm self taping screws)



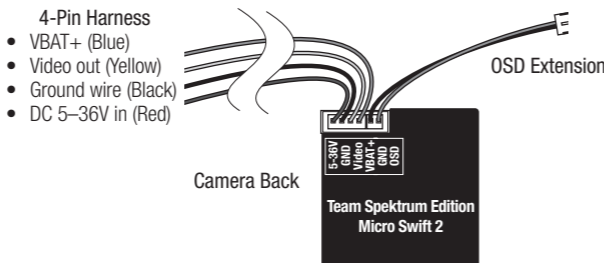
CAMERA TO VIDEO TRANSMITTER CONNECTION

There are two harness options included with the camera.

1. A basic 3-pin video cable is included for simple connections. Plug the cable into the far side of the connector closest to the case and connect it to the SPMVTM150 for a solder free connection.
2. An advanced 4-pin harness is also included that has and extra wire for voltage detection.
3. Connect the VBAT wire to the positive wire on the power supply for the OSD voltage reading.
4. Connect the OSD extension cable for easy access to the camera settings.

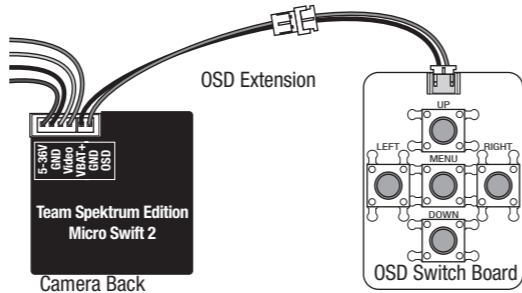


ADVANCED CAMERA TO VIDEO TRANSMITTER CONNECTION



CAMERA-OSD SWITCH CONNECTION

The camera's built-in OSD and camera functions can be controlled by the OSD switch board. An extension is provided to make remote access to the OSD switch board easier.



CAMERA MOUNTING

1. Use the 2x4mm self tapping screws to secure the camera mount to the airframe.
2. Apply a small amount of thread lock to the 2x4mm machine screws and secure the camera to the camera mount at the preferred angle.

OSD MENU

Quick Settings:

Long Press UP Button: Press for three seconds to access the settings for the OSD screen.

Long Press LEFT Button: Press for three seconds to calibrate the voltage. When the voltage text flashes, press UP or DOWN buttons to make adjustments to the displayed value.

Long Press DOWN Button: Press for five seconds to reset the OSD settings to default.

Long Press RIGHT Button: Press for three seconds to switch between camera presets.

1. Press the middle button to change the selection ON or OFF, then move to POS to enter the position adjustment.
2. Press up/down, left or right to navigate the menu. Press up/down to change the display location when the cursor is on a POS selection.

CLR	SPEKTRUM	
ALARM	:14.8V	
SCENE	:PERSONAL	
SYSTEM	:ON	POS↔
PILOT	:ON	POS↔
TIMER	:ON	POS↔
VOLTAGE	:ON	POS↔
HORIZON	:OFF	POS↔
EXIT		

CLR: Clear the ID field.

Alarm: Low voltage alarm trigger point. Set this value to the voltage the OSD should trigger the low voltage warning.

SCENE: This selection offers the following settings; Personal, Lightrax Outdoor, Indoor, Cloudy, Twilight. Hold the right button down at any time when not in the menu to cycle through the Scene options without having to enter the menu.

SYSTEM: Displays whether the camera is operating in NTSC or PAL mode.

PILOT: Activate or disable the pilot ID. When active the pilot ID is displayed on-screen during operation.

TIMER: Activate or disable the timer. When active the timer begins the counting at power up on-screen. When disabled the Timer is not displayed on-screen.

VOLTAGE: Activate or disable the timer. When active the battery voltage is displayed on-screen.

HORIZON: Activate or disable a horizontal reference line, which some pilots prefer to use to help align the flight path.

EXIT: Select this option to exit the menu.

CAMERA MENU

1. Press the middle button on the OSD Switch Board to access the main camera menu, then move to POS to enter the position adjustment.
2. Press up/down, left or right to navigate the menu. Press up/down to change values when the cursor is on a POS selection.
3. Select Return to back out of a sub-menu to the main menu.

SETUP	
EXPOSURE	↔
BACKLIGHT	OFF
WHITE BALANCE	ATW1
DAY&NIGHT	COLOR
IMAGE ADJ.	↔
DPC	↔
LANGUAGE	ENGLISH
RESET	↔
EXIT	

RESET, EXIT

- Select Reset to change all camera settings back to factory default.
- Exit Saves settings and returns to normal camera operation

SETUP	
EXPOSURE	↔
BACKLIGHT	OFF
WHITE BALANCE	ATW1
DAY&NIGHT	COLOR
IMAGE ADJ.	↔
DPC	↔
LANGUAGE	ENGLISH
RESET	↔
EXIT	

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 horizonhobby.com, submit an inquiry to productsupport@horizonhobby.com 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	
EU	Horizon Technischer Service Sales: Horizon Hobby GmbH	service@horizonhobby.eu +49 (0) 4121 2655 100	Hanskampring 9 D 22885 Barsbüttel, Germany

Compliance Information for the European Union

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 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.



