SPEKTRUM SPMVT1000, SPMVT1000EU 5.8GHZ PROGRAMMABLE VIDEO TRANSMITTER
SPEKTRUM SPMVT1000, SPMVT1000EU 5,8 GHZ PROGRAMMIERBARER VIDEOSENDER
EMETTEUR VIDEO PROGRAMMABLE SPEKTRUM SPMVT1000, SPMVT1000EU 5.8GHZ
TRASMETTITORE VIDEO PROGRAMMABILE SPEKTRUM SPMVT1000, SPMVT1000EU DA 5,8GHZ
Visit www.spektrumrc.com/registration today to register your product.

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. 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.

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SPECIFICATIONS

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</tr>
<tr>
<td>Output Power</td>
</tr>
<tr>
<td>Input Voltage</td>
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<td>Camera Output Voltage</td>
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<td>Operating Temperature</td>
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<tr>
<td>Power Consumption</td>
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<td>Weight</td>
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<tr>
<td>Antenna Connector</td>
</tr>
<tr>
<td>Recommended Camera</td>
</tr>
<tr>
<td>Recommended Antenna</td>
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</table>

*SPMVT1000 only

Box Contents

- SPMVT1000 video transmitter
- Wire harness
- Antenna adaptor
Basic Operation

Mount the video transmitter in a secure location where it will be protected in the event of a crash, with adequate air flow for cooling. See the frequency table below to find the desired video channel and band. The video transmitter channel, band and power level are changed using the button on the video transmitter or the Spektrum™ VTX control system.

Channel and Band Selection:
1. A short press of the B button will change channels. Quickly press and release the button once for each channel until the desired channel is reached.
2. A long press of the B button will change the band. Press and hold the B button for several seconds and release for each band change.

Power Level Selection*:
1. Press and hold the A button to change the power output. All green LEDs off means RF is off, one flashing green LED is Pit Mode, one solid green LED is 25mW, two solid green LEDs is 200mW, three solid green LEDs is 600mW.

Spektrum VTX Control:
1. Connect the Spektrum serial signal connector to the RC system.
2. Select the band, channel, and power output from the VTX menu on compatible Spektrum Transmitters with Spektrum AirWare™ firmware.

*200mW and 600mW power settings are only available for SPMVT1000. The European version (SPMV1000EU) is limited to 25mW.

Connecting An Antenna

The VT1000 video transmitter includes an SMA Antenna Adaptor which connects to the main PCB with an MMXC connector.
1. Insert the MMCX connector into the video transmitter and ensure it is fully seated.
2. Mount the SMA connector through a hole in a mounting plate on the vehicle and secure it with the lock washer and nut.
3. Install a compatible 5.8GHz antenna onto the SMA connector.

**Important:** Do not kink or cut the antenna adaptor or antenna wires. Antenna wires are coaxial wires, therefore kinks or cuts will degrade performance.

**Notice:** Powering on the video transmitter without an antenna connected will cause damage to the video transmitter. Damage from powering on the video transmitter without a compatible antenna attached is not covered under warranty.

Tip: The four mounting holes in the corners of the PCB work well with nylon standoff set SPMVX180. For foam aircraft the threads can be inserted into the foam and glued for secure mounting with excellent airflow.

North American Frequency Chart

<table>
<thead>
<tr>
<th>BAND</th>
<th>CH1</th>
<th>CH2</th>
<th>CH3</th>
<th>CH4</th>
<th>CH5</th>
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<tbody>
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<td>B</td>
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EU Frequency Chart†

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†Frequency sets have been limited to prevent transmitting outside of designated CE Frequencies.

EU Frequency Chart†

<table>
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<th>BAND</th>
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<td>5806</td>
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</tbody>
</table>
Spektrum Programmable Features

The Spektrum SPMVT1000 lets pilots control video transmitter features from a menu in Spektrum Airware™ transmitters without accessing the video transmitter on the model.

From the transmitter pilots can manage:
- Video transmitter power output
- Operating frequency

Connecting the Video Transmitter to Spektrum Receivers

The VT1000 video transmitter is controlled by a Spektrum serial signal. Connect the video transmitter to receivers using one or more remote receivers or in parallel with a serial receiver. The video transmitter does not share power with the receiver, it only picks up the signal.

Use the included Y-Harness or solder the white signal wire from the video transmitter in parallel with the signal wire from the receiver.

Compatibility
The VT1000 can be used with conventional Spektrum DSMX receivers that use a remote receiver, as well as the 4648 and 4649T serial receivers.

Adding A Ground Wire For Two Battery Systems

The wire harness is configured for use with aircraft that use a single battery for video and control systems, so there is a common ground. If separate batteries power the video and control systems, a ground wire will need to be connected along with the signal wire for the frequency control system to work.

Spektrum Programmable Features

This function requires a Spektrum serial signal. This feature is compatible with Spektrum Airware radio control systems using a full range DSMX® receiver with a remote receiver or a DSMX serial receiver connected to a flight controller.

Registering the transmitter and updating the firmware may be required for access to this feature.

For more information on Spektrum Telemetry visit: http://www.spektrumrc.com

Connecting the Video Transmitter to Spektrum Receivers

Connecting 4649T serial receiver

Connecting 4648 serial receiver

Connecting DSMX receivers with a remote receiver
Spectrum Transmitter Setup

In the VTX control menu, define the band, frequency and power level, then press send to apply the changes. The model must be bound (connected) and the receiver and video transmitter must be powered on for the function to operate.

Pit mode puts the video transmitter in a very low power mode for testing in the pits. The video transmitter must be properly connected and powered on for the change to take place.

<table>
<thead>
<tr>
<th>VTX</th>
<th>LIST</th>
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<tbody>
<tr>
<td>Channel: 4</td>
<td>57699Hz</td>
</tr>
<tr>
<td>Band: 2</td>
<td>Race</td>
</tr>
<tr>
<td>Power: 100-200 mW</td>
<td>Mode: Race</td>
</tr>
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</table>

SEND

Troubleshooting Guide

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frequency control system not working</strong></td>
<td>Serial signal not connected properly</td>
<td>Confirm the serial signal is properly connected.</td>
</tr>
<tr>
<td></td>
<td>Separate power supply for the video transmitter and no common ground connected</td>
<td>Connect ground between video transmitter and control receiver</td>
</tr>
<tr>
<td></td>
<td>Model not powered on or not bound (connected)</td>
<td>Confirm model is powered on and bound to the transmitter</td>
</tr>
<tr>
<td><strong>Very short video range</strong></td>
<td>PIT mode selected</td>
<td>Select 25mW, 200mW or 600mW for use</td>
</tr>
<tr>
<td></td>
<td>Antenna adaptor or antenna damaged</td>
<td>Replace antenna adaptor or antenna</td>
</tr>
<tr>
<td></td>
<td>Power supply is insufficient to deliver required power</td>
<td>Connect power supply for video transmitter directly to battery or use a separate battery</td>
</tr>
<tr>
<td></td>
<td>RP-SMA antenna used so the antenna is effectively not connected</td>
<td>Using an RP-SMA antenna on and SMA connector will burn out the video transmitter. Replace the RP-SMA antenna with a standard SMA antenna</td>
</tr>
</tbody>
</table>

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; (vii) the 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.

**Declaration of Conformity**

Horizon hereby declares that this Product is in compliance with the essential requirements and other relevant provisions of the directive(s) you have chosen to sell this Product and the EM and RoHS regulations. For a copy of our Declaration of Conformity, please visit our website at www.horizonhobby.com/content/_service-center_render-service-center.

**FCC Note**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**Canadian Regulations**

This device complies with Canadian Industry Canada ICES-003 standard. This Class B digital apparatus complies with Canadian ICES-003 standard. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

**Europe (CE Marking)**

This product complies with the requirements of the following EC Directives and carries the CE marking accordingly:

2. The Low Voltage Directive 2014/35/EU.

**Importers of Record**

North America: Horizon Hobby, LLC, 1500 W. 150th St., Ste. 400, Chicago, IL 60628 - U.S.A.

Europe: Horizon Hobby GmbH, Linzer Strasse 30, 63051 Offenbach/Main, Germany

Latin America: Horizon Hobby, S.A. de C.V., Paseo de la Reforma 2640-201, Col. Lomas de Chapultepec, C.P. 11000, Mexico D.F., Mexico

Asia-Pacific: Horizon Hobby, Sdn Bhd, 5th Floor, Menara Menorah, Jalan Tun Razak, 50251 Kuala Lumpur, Malaysia

China: Horizon Hobby (China) Co., Ltd., 2010 Tower, No. 999 Huanyu Road, Pudong New Area, Shanghai, China, 201203

**User’s Manual**

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**Customer Support**

For questions or assistance, please visit our website at www.horizonhobby.com. Horizons Customer Support Team is located in the Chicago area and can provide expertise in the areas of flight control, power systems, and radio management. Contact us at 1-800-992-5766 or support@horizonhobby.com.
## Warranty and Service Contact Information

<table>
<thead>
<tr>
<th>Country of Purchase</th>
<th>Horizon Hobby</th>
<th>Contact Information</th>
<th>Address</th>
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<tr>
<td>United States of America</td>
<td>Horizon Service Center (Repairs and Repair Requests)</td>
<td>servicecenter.horizonhobby.com/RequestForm/</td>
<td>4105 Fieldstone Rd, Champaign, Illinois, 61822 USA</td>
</tr>
<tr>
<td></td>
<td>Horizon Product Support (Product Technical Assistance)</td>
<td><a href="mailto:productsupport@horizonhobby.com">productsupport@horizonhobby.com</a>, 877-504-0233</td>
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</tr>
<tr>
<td></td>
<td>Sales</td>
<td><a href="mailto:websales@horizonhobby.com">websales@horizonhobby.com</a>, 800-338-4639</td>
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</tr>
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<td>EU</td>
<td>Horizon Technischer Service</td>
<td><a href="mailto:service@horizonhobby.eu">service@horizonhobby.eu</a></td>
<td>Hanskampring 9, D 22885 Barsbüttel, Germany</td>
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<tr>
<td></td>
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<td>+49 (0) 4121 2655 100</td>
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## 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 RED 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.