



**SPEKTRUM®**

**AR610 User Guide**

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**AR610 Bedienungsanleitung**

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**Guide de l'utilisateur - AR610**

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**AR610 Guida dell'utente**

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**NOTICE**

All instructions, warranties and other collateral documents are subject to change at the sole discretion of Horizon Hobby, Inc. For up-to-date product literature, visit [horizonhobby.com](http://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, Inc. 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, Inc. authorized dealer to ensure authentic high-quality Spektrum product. Horizon Hobby, Inc. 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](http://www.spektrumrc.com/registration) today to register your product.

## DSMX<sup>®</sup>

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Spektrum launched the 2.4GHz RC revolution with its DSM2<sup>®</sup> technology. Since then, millions of hobbyists the world over have come to embrace 2.4 as the way to fly. Spektrum leads the way yet again with DSMX—the world's first wideband frequency-agile 2.4GHz signal protocol.

### How Does DSMX Work?

It's a crowded 2.4GHz world out there and every 2.4GHz system faces the same challenges. DSMX better equips you for these challenges by combining the superior data capacity and interference resistance of a wideband signal (like that used in DSM2) with the agility of frequency shifts. Compared to the wideband signal of DSMX, the narrow band signal of other frequency hopping 2.4 transmitters is more likely to suffer data loss in the event of on-channel interference. Think of it as a river vs. a stream. It takes more interference to dam a river than it does a stream. As more and more 2.4 transmitters vie for the same number of available channels, there is more interference and more of a risk for data loss. By adding the agility of frequency shifts to the superior interference resistance of a wideband signal, DSMX is far less likely to suffer significant data loss from on-channel interference. The result is quicker connection times and superior response in even the most crowded 2.4GHz environment.

### DSMX Operational Differences

DSMX transmitters and receivers function nearly identically to Spektrum DSM2 systems. Binding, setting the failsafe, recording flight log data, as well as general use of the system is no different than using any current Spektrum system.

#### Following are the operational differences:

**Brownout Detection - Not Available on DSMX Receivers.** DSM2 receivers feature Brownout Detection that flashes the receivers LED if a power interruption occurs. While DSMX receivers have QuickConnect™ technology and recover instantly from a power interruption, the architecture of DSMX prevents Brownout Detection when operating in DSMX mode.

#### Flight Log Recording-Fades Higher than DSM2

Note that DSMX moves through the band while DSM2 finds two quiet channels and remains on those channels. Consequently because DSMX operates on quiet and noisy channels, it's common to have more Antenna Fades than when using DSM2, when used in busy 2.4GHz environments. When taking flight log data readings, the Frames and Hold Data are important and should be used as a reference while Fades are insignificant due to the nature of frequency shifting. A 10-minute flight will typically result in less than 50 Frame Losses and no Holds.

#### Just How Good is DSMX?

In multiple tests, 100 DSMX systems were operated simultaneously for extended periods of time. During these tests each of the 100 systems was monitored in flight and on the ground. In every test not a single case of RF link loss, latency increase or control degradation was experienced or recorded.

## Is DSMX Compatible with DSM2?

Yes. DSMX is fully compatible with all DSM2 hardware. In fact, many pilots may find the DSM2 equipment they have now is all they will ever need. Even if a new DSMX transmitter eventually comes along that they really want, all the DSM2 receivers they have now will work with it. It is important to note, however, that while DSMX is compatible with DSM2, the only way to experience the full benefits of DSMX in a busy 2.4 environment is by pairing a DSMX transmitter with a DSMX receiver.

## Are DSM2 Transmitters Eligible for a DSMX Add-on?

Yes. DX8 owners can simply download Spektrum AirWare™ software from [spektrumrc.com](http://spektrumrc.com) and update the firmware using their SD card. All DSM2 transmitters, except the DX5e, are eligible for the add-on by going to <https://community.spektrumrc.com/> for details. DSM2 receivers and transmitter modules are not eligible for the DSMX add-on.

## Does DSMX have ModelMatch™ and ServoSync™ Technology?



Yes. DSMX will provide you with these and other exclusive Spektrum advantages you already enjoy with DSM2. Want to know more about DSMX? Visit [spektrumrc.com](http://spektrumrc.com) for complete details on this as well as the many other reasons Spektrum is the leader in 2.4.

**NOTICE:** DSMX receivers are not compatible with DSM2 remote receivers and DSM2 receivers are not compatible with DSMX remote receivers.

- DSMX transmitters are compatible with all DSM2 and DSMX receivers and will operate in the mode noted below.
- DSM2 transmitters are compatible with all DSM2 and DSMX receivers and will operate in the mode noted below.
- DSMX technology is active only when both transmitter and receiver are DSMX enabled.

**NOTICE:** DSMX upgraded DX5e and DX6i transmitters are compatible with all DSMX receivers except the high-speed DSM2 receivers (like the AR7600, AR9000, etc.). When using a high-speed DSM2 receiver with the DX5e or DX6i, it's necessary to manually put these transmitters into DSM2 mode. See the Spektrum website for details on DX5e/DX6i DSM2 mode for details.

# Transmitter-Receiver Compatibility

Transmitter				Receiver	
DSMX 	DSM2 				
DX5e DX6i DX7 DX7s	DX5e DX6i DX7 DX7SE  DX8 DX10t Modules	AR500 AR600 AR6100 AR6110/e AR6200 AR6255 AR6300 AR6400/ALL AR7000	AR7100/R AR7600 AR8000 AR9000 AR9100 AR9200 AR9300 AR12000 AR12100	AR400 AR600 AR610 AR6115/e AR6210 AR6255 AR6310 AR6410/ALL AR7010 AR7110/R AR7200BX AR7610	AR8000 AR9010 AR9020 AR9110 AR9210 AR9310 AR10000 AR12010 AR12020 AR12110 AR12120
Set Tx to DSM2 only  <b>DSM2</b>	<b>DSM2</b>	<b>DSM2</b>	<b>DSMX</b>	<b>DSMX</b>	

## AR610 User Guide

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The AR610 features DSM2/DSMX technology and is compatible with all Spektrum™ and JR® aircraft radios that support DSM2/DSMX technology.

**NOTICE:** The AR610 receiver is not compatible with the DX6 parkflyer radio system.

### Features

- Full Range
- QuickConnect with Brownout Detection (Brownout Detection only in DSM2 mode)
- Resolution: 2048
- Flight Log and Telemetry Compatible

### Specifications

**Type:** Full Range Sport Receiver

**Channels:** 6

**Modulation:** DSM2/DSMX

**Dimension (LxWxH):** 36.6mm x 26.7mm x 12.7mm (1.44 in x 1.05 in x 0.50 in)

**Weight:** 9 g

**Input Voltage Range:** 3.5–9.6V

**Resolution:** 2048

**Compatibility:** All DSM2/DSMX Aircraft Transmitters and Module Systems

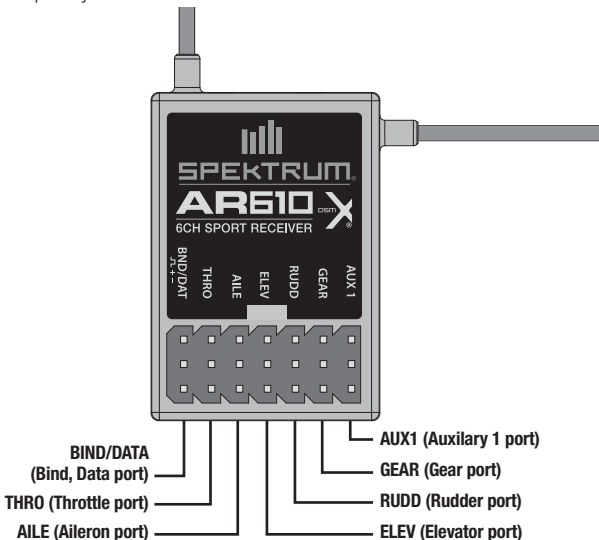
### Receiver Installation

For optimum RF link performance, mount the antennas for best possible signal reception for the aircraft in all possible attitudes and positions. Orient the antennas perpendicular to each other—one vertical and one horizontal. Mount the long antenna at least 2 inches away from and perpendicular to the short antenna using tape.

Do not use amplified Y-harnesses or servo extensions with Spektrum equipment. Use only standard, non-amplified Y-harnesses or servo extensions. When converting an existing model to Spektrum, replace all amplified Y-harnesses and/or servo extensions with conventional non-amplified versions.

## Connecting the Leads

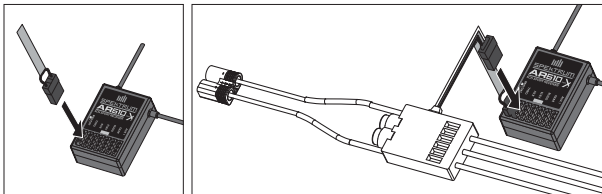
Connect the servo leads into the appropriate servo ports in the receiver, noting the polarity of the servo connector.



## Binding

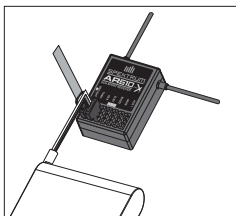
Binding is the process of programming the receiver to recognize the GUID (Globally Unique Identifier) code of a single specific transmitter. You must bind the AR610 receiver to your transmitter before it will operate.

1. To bind an AR610 to a DSM2/DSMX transmitter, insert the bind plug in the BATT/BIND port on the receiver.



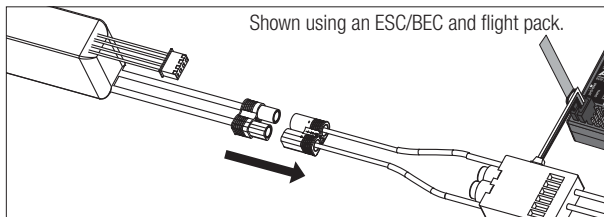
To bind an aircraft with an electronic speed controller that powers the receiver through the throttle channel (ESC/BEC), insert the bind plug into the BATT/BIND port in the receiver and the throttle lead into the THRO port.

2. Power on the receiver. The LED on the receiver will flash, indicating the receiver is ready to be bound to the transmitter.



Shown using a separate receiver pack.  
The battery can be connected to any open port except the Bind port.

Once the bind process is complete, you can remove the bind plug and connect the battery to the Bind port.



Shown using an ESC/BEC and flight pack.

3. Move the throttle stick to the desired failsafe position, normally low throttle.



4. Follow the procedures of your specific transmitter to enter Bind Mode. The system will connect within a few seconds. Once connected, the LED on the receiver will turn solid, indicating the system is connected.
5. Remove the bind plug to prevent the system from entering bind mode the next time the power is turned on.
6. After you've set up your model, rebind the system to reset the failsafe.

## AR610 Failsafe

- Prevents unintentional electric motor response on start-up.
- Establishes low-throttle failsafe if the RF signal is lost.
- Removes servo output pulses to all channels except the throttle channel during failsafe.
- Failsafe position is stored via the throttle stick position on the transmitter during binding.

## HOW AR610 FAILSAFE WORKS

### Receiver Power Only

- When the receiver only is turned on (no transmitter signal is present), the throttle channel has no output. This prevents arming of the electronic speed control.



- All other channels will have no signal output.

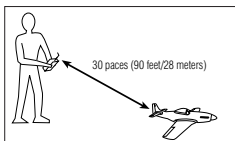
Some analog servos may coast slightly, even though no signal is present. This is normal.

### After Connection

- When the transmitter is turned on, and after the receiver connects to the transmitter, normal control of all channels return.
- If a signal loss occurs, the AR610 failsafe drives the throttle servo to its preset failsafe position (low throttle) that was set during binding.
- All other channels receive no output pulses/commands, and are not active during failsafe.

### Range Testing

Before each flying session, and especially with a new model, it is important to perform a range check. All Spektrum aircraft transmitters incorporate a range testing system which, when activated, reduces the output power.



1. With the model restrained on the ground\*, stand 30 paces (approx. 90 feet/28 meters) away from the model.
2. Face the model with the transmitter in your normal flying position and place your transmitter into range check mode.
3. You should have total control of the model at 30 paces (90 feet/28 meters).
4. If control issues exist, call a Horizon Product Support office nearest you. Contact information is listed in the Warranty section.

\*In some aircraft, when the model is placed on the ground, the antenna(s) can be within inches of the ground. Close proximity of the antenna(s) to the ground can reduce the effectiveness of the range check. This is called pulling. If you experience issues during the range check, restrain the model on a non-conductive stand or table up to 2ft (60cm) above the ground, then range check the system again.

### Receiver Power System Requirements

Inadequate power systems that do not provide the necessary minimum voltage to the receiver during flight have become the number one cause of in-flight failures. Some of the power system components that affect the ability to properly deliver adequate power include:

- Receiver battery pack (number of cells, capacity, cell type, state of charge)
- The ESC's capability to deliver current to the receiver in electric aircraft
- The switch harness, battery leads, servo leads, regulators, etc.

The AR610 has a minimum operational voltage of 3.5 volts; it is highly recommended the power system be tested per the guidelines below.

## Recommended Power System Test Guidelines

If you are using a questionable power system, (e.g. a small or old battery, an ESC that may not have a BEC that will support high-current draw, etc.), perform the following test with a voltmeter.

The Hangar 9® Digital Servo & Rx Current Meter (HAN172) or the Spektrum Flight Log (SPM9540) work well for this test.

Connect the voltmeter to an open channel port in the receiver and, with the system on, load the control surfaces (apply pressure with your hand) while monitoring the voltage at the receiver. The voltage should remain above 4.8 volts, even when all servos are heavily loaded.



**CAUTION:** When charging Ni-MH batteries, make sure the battery fully charges. Ni-MH batteries charged with peak detection fast chargers have a tendency to false peak (i.e. not fully charge), which could lead to a crash.

## QuickConnect™ Technology with Brownout Detection (DSM2 Only)

Your AR610 features QuickConnect technology with Brownout Detection.

- Should an interruption of power occur (brownout), the system will reconnect immediately when power is restored (QuickConnect).
- The LED on the receiver will flash slowly, indicating a power interruption (brownout) has occurred.
- Brownouts can be caused by an inadequate power supply (weak battery or regulator), a loose connector, bad switch, inadequate BEC when using an electronic speed controller, etc.
- Brownouts occur when the receiver voltage drops below 3.5 volts. This interrupts control, as the servos and receiver require a minimum of 3.5 volts to operate.

## How QuickConnect With Brownout Detection Works

- When the receiver voltage drops below 3.5 volts, the system drops out (ceases to operate).
- When power is restored, the receiver immediately attempts to reconnect to the last two frequencies it was connected to.
- If the two frequencies are present (the transmitter was left on), the system reconnects typically in about 4/100 of a second.

QuickConnect with Brownout Detection is designed to allow you to fly safely through most short duration power interruptions. However, you must correct the cause of these interruptions before your next flight to prevent a crash.



**CAUTION:** If a brownout occurs in flight, determine the cause of the brownout and correct it before attempting to fly again.

## Flight Log (SPM9540 Optional)

The Flight Log is compatible with the AR610. The Flight Log displays overall RF link performance as well as the individual internal and external receiver link data. Additionally, it also displays receiver voltage.

## Using the Flight Log

After a flight and before turning off the receiver or transmitter, connect the Flight Log to the Data port on the AR610. The screen will automatically display voltage e.g. 6v2= 6.2 volts.

When the voltage reaches 4.8 volts or less, the screen will flash, indicating low voltage.

Press the button to display the following information:

<b>A</b> Antenna fades on the internal antenna	<b>R</b> Not used
<b>B</b> Not used	<b>F</b> Frame loss
<b>L</b> Antenna fades on the external antenna	<b>H</b> Holds

**Antenna fades**—represents the loss of a bit of information on that specific antenna. Typically, it's normal to have as many as 50 to 100 antenna fades during a flight. If any single antenna experiences over 500 fades in a single flight, the antenna should be repositioned in the aircraft to optimize the RF link.

**Frame loss**—represents simultaneous antenna fades on all attached receivers. If the RF link is performing optimally, frame losses per flight should be less than 20. A hold occurs when 45 consecutive frame losses occur. This takes about one second. If a hold occurs during a flight, it's important to evaluate the system, move the antennas to different locations and/or check to ensure the transmitter and receivers are all working correctly.

A servo extension can be used to allow the Flight Log to be connected more conveniently. On some models, the Flight Log can be connected, attached and left on the model using double-sided tape. Mounting the Flight Log conveniently to the side frame is common with helicopters.

## ModelMatch™

Some Spektrum and JR transmitters have ModelMatch™ technology, which prevents the possibility of operating a model using the wrong model memory, potentially preventing a crash. With ModelMatch, each model memory has its own unique code (GUID) and, during the binding process, the code is programmed into the receiver. Later, when the system is turned on, the receiver will only connect to the transmitter if the corresponding model memory is programmed onscreen.

If at any time you turn on the system and it fails to connect, check to be sure the correct model memory is selected in the transmitter. Please note that the Spektrum Aircraft Modules do not have ModelMatch technology.

## Frequently Asked Questions on Spektrum 2.4GHz

### 1. Q: After I've bound the receiver to my transmitter, which do I turn on first when I want to fly?

A: Either one. Every DSM® 2.4GHz transmitter has a GUID (Globally Unique Identifier) code imbedded in its signal. When you bind a DSM receiver to your transmitter, this GUID code is stored in the receiver. If you turn the receiver on before the transmitter, you don't have to worry about it responding to another transmitter. The receiver will go into failsafe mode while it waits for a signal from the transmitter with the same GUID code

it has stored. See the Receiver Power Only section for more information. If a DSM transmitter is turned on first you can expect it to connect within 6 seconds of powering on the receiver.

**2. Q: Sometimes the system takes longer to connect or doesn't connect at all. Why?**

A: In order for a DSM system to connect, the receiver must receive a large number of uninterrupted signal packets from the transmitter. This process takes just a few seconds, but if the transmitter is too close to the receiver (within 4 feet) or near reflective material (metal objects, carbon fiber material, etc.) it may detect its own reflected 2.4GHz energy as "noise". This can delay or prevent connection. If this happens, make sure you are a sufficient distance from metal objects and the receiver itself before you power up and try again.

**3. Q: Is it true that DSM systems are less tolerant of low voltage?**

A: All DSM receivers require at least 3.5V to operate normally. Most servos cease to operate below 3.8V. Using multiple high-voltage servos with an inadequate power supply can allow voltage to momentarily drop below 3.5V. This will cause the receiver to "brown out" and reconnect. See the QuickConnect with Brownout Detection section for more information.

**4. Q: Sometimes when I power on my DSM system I notice the receiver won't connect and it needs to be rebound to the transmitter. Can this happen in flight?**

A: No. A DSM receiver cannot be unbound from its transmitter without specific action by the user.

**5. Q: How important is it that I test my system using a Spektrum Flight Log?**

A: All 2.4GHz signals, not just DSM, are affected by proximity to conductive materials such as carbon fiber or metal. Few RTF and ARF sport airplanes or helicopters use enough of these kinds of materials for it to be an issue. If, however, you're flying a sophisticated model that uses a lot of conductive materials in its construction, a Flight Log can be helpful. The information it collects when you fly will help you determine the optimum location for your receiver(s) so you can minimize the effects of these materials on your signal performance. For more details on the Flight Log and how it works, visit [SpektrumRC.com](http://SpektrumRC.com).

## 1-Year Limited Warranty

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### What this Warranty Covers

Horizon Hobby, Inc., (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 years 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, or (vi) Product not compliant with applicable technical 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](http://www.horizonhobby.com), submit a Product Support Inquiry, or call 877.504.0233 toll free to speak to 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](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](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	Address	Phone Number/Email Address
United States of America	Horizon Service Center (Electronics and engines)	4105 Fieldstone Rd Champaign, Illinois 61822 USA	877-504-0233 Online Repair Request: visit <a href="http://www.horizonhobby.com/service">www.horizonhobby.com/service</a>
	Horizon Product Support (All other products)	4105 Fieldstone Rd Champaign, Illinois 61822 USA	877-504-0233
United Kingdom	Horizon Hobby Limited	Units 1-4 Ployters Rd Staple Tye, Harlow, Essex CM18 7NS United Kingdom	+44 (0) 1279 641 097 <a href="mailto:sales@horizonhobby.co.uk">sales@horizonhobby.co.uk</a>
Germany	Horizon Technischer Service	Christian-Junge-Straße 1 25337 Elmshorn Germany	+49 (0) 4121 2655 100 <a href="mailto:service@horizonhobby.de">service@horizonhobby.de</a>
France	Horizon Hobby SAS	11 Rue Georges Charpak 77127 Lieusaint, France	+33 (0) 1 60 18 34 90 <a href="mailto:infofrance@horizonhobby.com">infofrance@horizonhobby.com</a>
China	Horizon Hobby – China	Room 506, No. 97 Changshou Rd. Shanghai, China 200060	+86 (021) 5180 9868 <a href="mailto:info@horizonhobby.com.cn">info@horizonhobby.com.cn</a>

## Customer Service Information

Country of Purchase	Horizon Hobby	Address	Phone Number/Email Address
United States of America	Sales	4105 Fieldstone Rd Champaign, Illinois 61822 USA	(800) 338-4639 <a href="mailto:sales@horizonhobby.com">sales@horizonhobby.com</a>
United Kingdom	Horizon Hobby Limited	Units 1-4 Ployters Rd Staple Tye, Harlow, Essex CM18 7NS United Kingdom	+44 (0) 1279 641 097 <a href="mailto:sales@horizonhobby.co.uk">sales@horizonhobby.co.uk</a>
Germany	Horizon Hobby GmbH	Christian-Junge-Straße 1 25337 Elmshorn Germany	+49 (0) 4121 2655 100 <a href="mailto:service@horizonhobby.de">service@horizonhobby.de</a>
France	Horizon Hobby SAS	11 Rue Georges Charpak 77127 Lieusaint, France	+33 (0) 1 60 18 34 90 <a href="mailto:infofrance@horizonhobby.com">infofrance@horizonhobby.com</a>
China	Horizon Hobby – China	Room 506, No. 97 Changshou Rd. Shanghai, China 200060	+86 (021) 5180 9868 <a href="mailto:info@horizonhobby.com.cn">info@horizonhobby.com.cn</a>

## 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.

## Compliance Information for the European Union



### Declaration of Conformity

(in accordance with ISO/IEC 17050-1)

No. HH2012110405

Product(s): SPM AR610 6-Channel Sport Aircraft Receiver  
 Item Number(s): SPMAR610  
 Equipment class: 1

The object of declaration described above is in conformity with the requirements of the specifications listed below, following the provisions of the European R&TTE directive 1999/5/EC:

**EN301 489-1 V1.7.1: 2006**

**EN301 489-17 V1.3.2: 2008**

Signed for and on behalf of:

Horizon Hobby, Inc.  
 Champaign, IL USA  
 Nov 04, 2012

Steven A. Hall  
 Executive Vice President and Chief Operating Officer  
 International Operations and Risk Management  
 Horizon Hobby, Inc.



### 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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Created 3/13

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