

**SPEKTRUM®**

**Spektrum AR637T AS3X and SAFE 6 CH  
Receiver**

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**Spektrum AR637T AS3X und SAFE Empfänger  
mit 6 Kanälen**

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**Récepteur 6 canaux SAFE et Spektrum AR637T  
AS3X**

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**Ricevitore Spektrum AR637T AS3X e SAFE 6 CH**

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**NOTICE**

All instructions, warranties and other collateral documents are subject to change at the sole discretion of Horizon Hobby, LLC. For up-to-date product literature, visit [horizonhobby.com](http://horizonhobby.com) or [towerhobbies.com](http://towerhobbies.com) and click on the support or resources 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 alter product in any way without the approval of Horizon Hobby, LLC. This manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or serious injury.

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

**WARNING AGAINST COUNTERFEIT PRODUCTS**

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

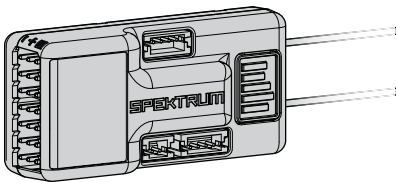
**NOTICE:** This product is only intended for use with unmanned, hobby-grade, remote-controlled vehicles and aircraft. Horizon Hobby disclaims all liability outside of the intended purpose and will not provide warranty service related thereto.

**WARRANTY REGISTRATION**

Visit [www.spektrumrc.com/registration](http://www.spektrumrc.com/registration) today to register your product.

## AR637T AS3X and SAFE Telemetry Receiver

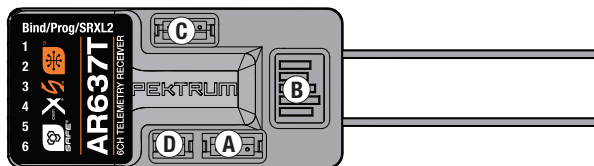
The Spektrum™ AR637T AS3X® Receiver brings the benefits of SAFE and AS3X technology and adds telemetry. Easily perform the setup for the AR637T receiver through your compatible Spektrum Transmitter with Forward Programming or the Spektrum PC Programmer. The AR637T receiver is full range featuring DSM® technology and is compatible with all Spektrum™ and JR® aircraft radios that support DSM2® and DSMX® technology.



This receiver features two integrated telemetry ports that are compatible with Spektrum telemetry capable transmitters.

For information on Spektrum Telemetry Sensors visit: <http://www.spektrumrc.com>

AR637T	
Type	DSM2/DSMX 6 CH AS3X Telemetry Receiver
Application	Air
Channels	6
Receivers	1
Remote Receiver (not included)	SRXL2™ Remote Receiver Optional [SPM9747]
Modulation	DSM2/DSMX
Data Flight Log Compatible	No
Telemetry	Integrated
Bind Method	Bind Button
Failsafe	Yes
Band	2.4GHz
Dimensions (LxWxH)	49.80 x 23.34 x 15.02mm
Weight	12g
Input Voltage	3.5–9V
Resolution	2048
Antenna Length	155mm and 186mm



- A: XBUS Port
- B: Bind Button
- C: SRXL2 Remote Rx Port
- D: Voltage Sensor Port

**SMART Throttle\*:**

The AR637T receiver throttle port includes SMART Throttle. When equipped with SMART Throttle the normal servo connector delivers the throttle signal to the ESC, plus the ESC can send telemetry data like voltage and current back to the receiver. The AR637T receiver throttle port will automatically detect when a SMART Throttle compatible ESC is plugged in and the throttle port will begin to operate in SMART Throttle mode.

ESCs with SMART Throttle and IC series connectors can also pass along battery data from compatible Spektrum SMART batteries.

If a standard ESC or servo is plugged into the throttle port on the AR637T receiver, the throttle port will operate normally (PWM signal) like any conventional RC system. The AR637T receiver is compatible with the Spektrum Avian line of ESCs for SMART Throttle.

For SMART Throttle to function you must have a SMART Throttle ESC paired with a SMART Throttle telemetry receiver, and a Spektrum DSMX transmitter with telemetry. An update for your transmitter may be required for SMART features. See [www.spektrumrc.com](http://www.spektrumrc.com) to register and update your transmitter.

## Installing the AR637T Receiver

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### Installation

1. Mount the receiver parallel to the length of the fuselage using double-sided servo tape. Align the receiver along with the length of the aircraft. The receiver may be mounted upright, upside down or on its side, but the pins must face forward or backward and be mounted true and level. The receiver cannot be mounted at an odd angle.
2. Attach the appropriate control surfaces to their respective ports on the receiver using the chart below.



**CAUTION:** Incorrect installation of the receiver could cause a crash.

### Default Channel Assignments

#### **AR637T Port Assignments**

**Bind/Prog/SRXL2= Bind, Aux Device Support, Program**

**1 = Throttle/ SRXL2**

**2 = Aileron**

**3 = Elevator**

**4 = Rudder**

**5 = Gear**

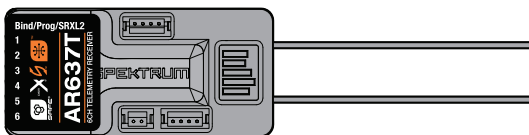
**6 = Aux 1**

**IMPORTANT:** Update your Spektrum transmitter with the latest Spektrum AirWare™ software to take advantage of Forward Programming.

See the transmitter manual for updating instructions.

# Transmitter and receiver binding

Using an AS3X SAFE receiver requires an approved Spektrum™ DSM2®/DSMX® compatible transmitter.



## Binding

The AR637T receiver must be bound to the transmitter before it will operate. Binding is the process of teaching the receiver the specific code of the transmitter so it will only connect to that specific transmitter. When new out of the package, the AR637T will automatically go into bind mode the first time it is powered on.

1. Connect the optional SRXL2 remote receiver (9747) if desired and any telemetry sensors to the main receiver.
2. Push and hold the bind button on the receiver while turning the receiver on. Release the bind button once the orange LED starts to flash continuously, indicating that the receiver is in bind mode.

**Tip:** It is still possible to use a bind plug in the BIND port if desired. This can come in handy if the receiver needs to be mounted in a location that is difficult to access, in which case a servo extension may be used for binding.

3. Put your transmitter in bind mode.
4. The bind process is complete when the orange LED on the receiver is solid.

**NOTICE:** If using a bind plug, remove after binding to prevent the system from entering bind mode the next time the power is turned on.

5. After you set up your model, always rebind the transmitter and receiver to set the desired failsafe positions. See FAILSAFE on the next page.

## Failsafe

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Failsafe position is set through forward programming or the PC Programmer. In the unlikely event that the radio link is lost during use, the receiver will drive all channels to its pre-programmed failsafe position.

Smart Safe + Hold Last is the default setting. If Preset Failsafe is desired, enter the forward programming menu in your forward programming capable Spektrum™ transmitter or Spektrum PC programmer and USB cable and select Preset Failsafe.

### SmartSafe + Hold Last

If loss of signal occurs, SmartSafe™ technology moves the throttle channel to its preset failsafe position (low throttle) that was set during binding. All other channels hold their last position. When the receiver detects signal from the transmitter, normal aircraft operation resumes.

### Preset Failsafe

Preset failsafe is ideal for sailplanes, allowing the aircraft to automatically dethermalize if the signal is lost. With preset failsafe, all channels go to their preset failsafe positions if the signal is lost, preventing a flyaway. When the receiver detects signal from the transmitter, normal aircraft operation resumes.

### Testing Failsafe

Secure the aircraft on the ground and remove the propeller. Test Failsafe by turning the transmitter off and noting how the receiver drives the control surfaces.

### Receiver Power Only

- With SmartSafe or Preset Failsafe, when the receiver only is turned on (no transmitter signal is present), the throttle channel has no output to avoid operating or arming the electronic speed control.
- All other channels have no output until the receiver has linked to the transmitter.

## Telemetry

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The AR637T features full range telemetry and will provide receiver battery voltage, flight log data, and vario and altitude data without any additional sensors. Additional telemetry devices such as voltage sensors can be connected to the volt port, and XBus telemetry sensors can be connected through the XBus connector.

See [www.spektrumrc.com](http://www.spektrumrc.com) for more information about telemetry accessories

## 1-YEAR LIMITED WARRANTY

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**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](http://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](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](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/	2904 Research Rd. Champaign, Illinois, 61822 USA
	Horizon Product Support (Product Technical Assistance)	productsupport@horizonhobby.com.	
		877-504-0233	
Sales	websales@horizonhobby.com 800-338-4639		
EU	Horizon Technischer Service	service@horizonhobby.eu	Hanskampring 9 D 22885 Barsbüttel, Germany
	Sales: Horizon Hobby GmbH	+49 (0) 4121 2655 100	

### FCC Information—

#### FCC ID: BRWTIARLGTNG1

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 to an outlet on a circuit different from that to which the receiver is connected.

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.

**NOTICE:** Modifications to this product will void the user's authority to operate this 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.

When operating your Spektrum receiver, please be sure to maintain a separation distance of at least 20 cm between your body (excluding fingers, hands, wrists, ankles and feet) and the antenna to meet RF exposure safety requirements as determined by FCC regulations.

### Supplier's Declaration of Conformity

Spektrum AR637T AS3X and SAFE 6 CH Receiver

SPMAR637T

 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.

**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.

Horizon Hobby, LLC

2904 Research Rd.,

Champaign, IL 61822

Email: [compliance@horizonhobby.com](mailto:compliance@horizonhobby.com)

Web: [HorizonHobby.com](http://HorizonHobby.com)

## IC Information


IC ID: 6157A-TIARLTNG1

CAN ICES-3 (B)/NMB-3(B)

This device complies with Industry Canada license-exempt RSS standard(s). 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.

## Compliance Information for the European Union

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 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>.

Frequency Band: 2402 - 2478 MHz

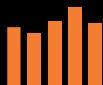
Max EIRP: 20dBm

### 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.





**SPEKTRUM®**

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