SPEKTRUM®

AR8010T/AR9030T/AR9320T User Guide

AR8010T/AR9030T/AR9320T Bedienungsanleitung

Guide de L'utilisateur - AR8010T/AR9030T/AR9320T

AR8010T/AR9030T/AR9320T Manuale utente

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 or 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 augment product in any way without the approval of Horizon Hobby, LLC. This manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or serious injury.

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

WARNING AGAINST COUNTERFEIT PRODUCTS

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

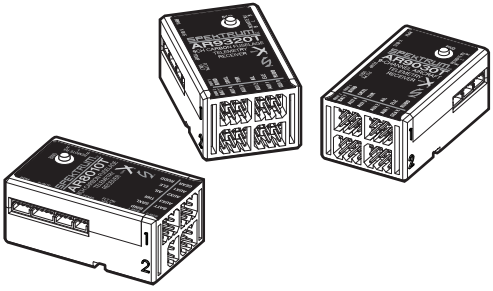
WARRANTY REGISTRATION

Visit www.spektrumrc.com/registration today to register your product.

AR8010T/AR9030T/AR9320T Telemetry Receivers

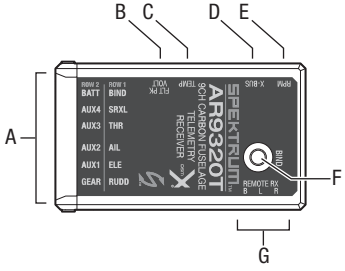
The Spektrum™ AR8010T/AR9030T/AR9320T receivers are full range telemetry receivers featuring DSM® technology and are compatible with all Spektrum™ aircraft radios that support DSM2® and DSMX® technology. These telemetry receivers features 4 integrated telemetry ports that are compatible with Spektrum telemetry capable transmitters.

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



	AR8010T	AR9030T	AR9320T
Type	DSMX with internal telemetry	DSMX with internal telemetry	DSMX Carbon Fuse with internal telemetry
Dimensions (LxWxH)	48.5 x 28.3 x 20.9mm	48.5 x 28.3 x 20.9mm	48.5 x 28.3 x 20.9mm
Antenna Length	1- 3.6in, 1- 6in	1- 3.6in, 1- 6in	Dual- 7 in
Remote Receivers	Yes(1)-Included	Yes(2)-Included	Yes(1)-Included
Channels	8	9	9
Weight	17.8g	17.8g	17.8g
Band	2.4GHz		
Voltage Range	3.5–9V		

- A- Servo Ports
- B- Flight Pack Voltage Port
- C- Temperature Sensor Port
- D- X-Bus Port
- E- RPM Sensor Port
- F- Bind Button
- G- Remote Receiver Ports



AR8010T/AR9030T Receiver Installation

For optimum RF link performance it's important that the antennas be mounted in an orientation that allows for the best possible signal reception when the aircraft is in all possible attitudes and positions. This is known as antenna polarization. The antennas should be oriented perpendicular to each other; typically vertical and horizontal and at different angles. The remote receiver antenna should be mounted in a position perpendicular and at least 2 inches away from the main receiver's antenna using double-sided foam tape.

AR9320T Carbon Fuse Receiver Installation

Airplanes with significant carbon fiber construction can create an RF shielding effect, reducing range. The AR9320T is designed to overcome these critical RF issues in carbon airplanes by outfitting the aircraft with two external antennas at specific points that will ensure secure RF coverage from all angles of the aircraft.

The AR9320T incorporates two 7-inch feeder antennas, which are designed to be easily mounted through the fuselage in carbon airplanes. Each feeder antenna includes a coaxial portion (which can be thought of as an extension) and an exposed 31mm tip antenna. The last 31mm is the active portion of the antenna.

Installing the Receiver

Install the receiver in the normal position recommended by the airplane's manufacturer. Double-sided tape or foam can be used to secure the receiver in place.

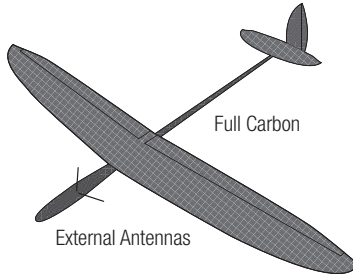
Mounting the Antennas

To install the antennas, drill two 1/16-inch holes in the desired antenna mounting positions.

Slide the feeder antennas through the holes until the 31mm tip, and about 2mm of coaxial, completely exit the fuselage. Use a drop of CA or tape to fix the antenna to the fuselage.

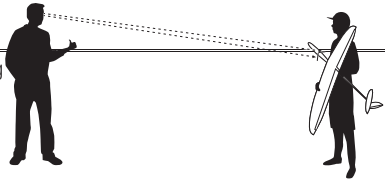
IMPORTANT: Ensure that the 31mm active portion of each antenna tip is fully exposed.

IMPORTANT: If the antenna is to be mounted internally (in the front of a 2.4GHz friendly fuse), the coaxial can be taped into position. Ensure the 31mm tip is located at least 2 inches from any significant carbon structure.



Check that at least one antenna will always be in the RF visual line of sight of the transmitter (e.g. not blocked by carbon fiber structures) in all attitudes. This can easily be visualized by having a

helper stand about 20 feet away and rotate the airplane in all attitudes, confirming that there is a direct line between you and at least one receiver antenna that isn't blocked by carbon fiber structure.



Failsafe

Failsafe position is set during binding. In the unlikely event that the radio link is lost during use, the receiver will drive all channels to its pre-programmed failsafe position.

SmartSafe + Hold Last
AR8010T/AR9030T, default

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
AR9320T, default AR8010T/AR9030T

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.

- The AR8010T and AR9030T receivers feature two types of failsafe during setup: **SmartSafe + Hold Last** and **Preset Failsafe**.
- The AR9320T Receiver has one failsafe: **Preset Failsafe**.

Binding

The AR8010T/AR9030T/AR9320T receivers must be bound to the transmitter before they 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.

1. Connect the remote receiver and any telemetry sensors to the main receiver.

Preset Failsafe	**AR9320T**
1	Lower Throttle on transmitter and move sticks and switches to the desired failsafe positions
2	Push and Hold Bind Button or insert Bind plug
3	Power on Receiver
4	Release Button once RX goes into Bind Mode (flashing LED)
5	Place transmitter in Bind Mode and finish Binding. Remove Bind plug

Bind Button AR8010T/AR9030T

	Preset Failsafe	Smart Safe + Hold Last
1	Move all sticks and switches on the transmitter to the desired failsafe positions	Lower throttle on transmitter
2	Push and hold bind button	Push and hold bind button
3	Power ON receiver	Power ON receiver
4	Put transmitter in bind mode and allow it to finish binding.	Release button once RX goes into bind mode (orange flashing LEDs)
5	Release bind button after bind process is complete	Put transmitter in bind mode and allow it to finish binding

Bind Plug AR8010T/AR9030T

	Preset Failsafe	Smart Safe + Hold Last
1	Move all sticks and switches on the transmitter to the desired failsafe positions	Lower throttle on transmitter
2	Insert bind plug in the bind port	Insert bind plug in the bind port
3	Power ON receiver	Power ON receiver
4	Remove the bind plug when the RX goes into bind mode (orange flashing LEDs)	Put transmitter in bind mode and allow it to finish binding
5	Put transmitter in bind mode and allow it to finish binding	Remove bind plug

Remove the bind plug after binding or the receiver will enter bind mode again the next time it is powered ON. Always remove the bind plug before flight.

If at any time you turn on the system and it fails to connect, verify the correct model memory is selected in the transmitter.

After Connection

When the transmitter and receiver are connected, the orange LEDs on the main receiver unit and remote receivers will remain illuminated. If for any reason a failsafe is triggered, the system will immediately regain control upon the connection being restored.

Testing Failsafe
Secure the aircraft on the ground and remove the propellers. 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.

Flight Log

Flight Log data can help you optimize the control link for your aircraft. Flight Log data is displayed on telemetry capable Spektrum transmitters.

Using the Flight Log

A - Fades on main receiver.	**B** - Fades on remote receiver B
L - Fades on remote receiver L	**R** - Fades on remote receiver R
F - Frame losses	**H** - Holds

Fades
Represents the loss of one bit of information on one receiver. Fades are used to evaluate the performance of each individual receiver. If any single receiver displays higher fade values it should be inspected and the antenna repositioned to optimize the RF link.

Frame Loss
A frame loss occurs when one complete data packet is missed. A single frame loss does not represent a loss of control, but frame losses should be monitored. In the air it's normal to experience as many as 100 frame losses per minute of flight. On the ground the number of frame losses will be higher because the signal is hampered by earth and moisture.

Hold
A Hold occurs when 45 consecutive frame losses occur. This takes about one second, and in this event the receiver moves the channel outputs to the failsafe settings. If a hold ever occurs, it's important to re-evaluate the system and check every component. If your system displays a hold taking place, diagnose the cause and resolve the issue before flying again.

It is normal to see a hold logged if you power OFF your transmitter and back ON.

Range Testing

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

1. With the model resting on the ground, stand approximately 100 feet (30 meters) away from the model.
2. Face the model with the transmitter in your normal flying position and put your transmitter into range test mode.
3. You should have total control of the model in range test mode at 100 feet.
4. If control issues exist, call Horizon Product Support for further assistance.

Advanced Range Testing
The Standard Range Testing procedure is recommended for most sport aircraft. For sophisticated aircraft that contain significant amounts of conductive materials (e.g. turbine powered jets, scale aircraft with metallized finishes, aircraft with carbon fuselages, etc.), the following advanced range check will confirm that all receivers in the system are operating optimally as installed. This advanced range check allows the RF performance of each receiver to be evaluated independently. A telemetry equipped Spektrum Transmitter is required for the advanced range test.

1. Stand approximately 100 feet away from the model.
2. Face the model with the transmitter in your normal flying position and put your transmitter into range test mode.
3. Have a helper position the model in various orientations (nose up, nose down, nose toward the transmitter, nose away from the transmitter, etc.).
4. Observe the telemetry on your transmitter. Note any orientations that cause higher fades or frame loss values. Perform this step for at least one minute.
5. Re-position any remote receivers showing higher fades as necessary.
6. Re-test to verify satisfactory results.
7. Repeat as necessary.

After one minute, advanced testing should yield:

H - 0 holds

F - less than 10 frame losses

A, B,L,R- Fades will typically be less than 100. It's important to compare the relative frame losses. If a particular receiver has a significantly higher frame loss value (2 to 3X) then the test should be redone. If the same results occur, move the offending receiver to a different location.

TIP: Use the fade values for A to investigate the performance of the telemetry link.

Receiver Power System Requirements

Inadequate power systems that are unable to 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 AR8010T/AR9030T/AR9320T have 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 a questionable power system is being used (e.g. small or old battery, ESC that may not have a BEC that will support high-current draw, etc.), it is recommended that a voltmeter be used to perform the following tests.

The Hangar 9® Digital Servo & Rx Current Meter (HAN172) or the Spektrum Flight Log (SPM9540) is the perfect tool to perform the test below.

Plug the voltmeter into an open channel port in the receiver and with the system on, or simply monitor the voltage on a telemetry capable transmitter, 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.

How QuickConnect™ Technology Works

- When the receiver voltage drops below 3.5 volts the system ceases to operate.
- When power is restored the receiver immediately attempts to reconnect.
- If the transmitter was left on, the system reconnects typically in about 4/100 of a second.

NOTICE: If a brownout occurs in flight it is vital that the cause of the brownout be determined and corrected.

IMPORTANT: When using Y-harness or servo extensions with Spektrum equipment, do not use reversing harnesses. Using reversing Y-harnesses or servo extensions may cause servos to operate erratically or not function at all.

Troubleshooting Guide

Problem	Possible Cause	Solution
Aircraft will not respond to throttle but responds to other controls	Throttle not at idle and/or throttle trim too high	Reset controls with throttle stick and throttle trim at lowest setting
	Throttle servo travel is lower than 100%	Make sure throttle servo travel is 100% or greater
	Throttle channel is reversed	(With battery disconnected from aircraft) Reverse throttle channel on transmitter
	Motor disconnected from ESC	Make sure motor is connected to the ESC
Aircraft will not Bind (during binding) to transmitter	Transmitter too near aircraft during binding process	Move powered transmitter a few feet from aircraft, disconnect and reconnect flight battery to aircraft
	Aircraft or transmitter is too close to large metal object, wireless source or another transmitter	Move aircraft and transmitter to another location and attempt binding again
	The bind plug is not installed correctly in the bind port	Install bind plug in bind port and bind the aircraft to the transmitter
	Flight battery/transmitter battery charge is too low	Replace/recharge batteries
	Bind button not held long enough during bind process	Power off and repeat bind process.

Problem	Possible Cause	Solution
Aircraft will not connect (after binding) to transmitter	Transmitter too near aircraft during connecting process	Move powered transmitter a few feet from aircraft, disconnect and reconnect flight battery to aircraft
	Aircraft or transmitter is too close to large metal object, wireless source or another transmitter	Move aircraft and transmitter to another location and attempt connecting again
	Bind plug left installed in bind port	Rebind transmitter to the aircraft and remove the bind plug before cycling power
	Aircraft bound to different model memory (ModelMatch™ radios only)	Select correct model memory on transmitter
	Flight battery/Transmitter battery charge is too low	Replace/recharge batteries
	Transmitter may have been bound to a different aircraft using different DSM protocol	Bind aircraft to transmitter
Control surface does not move	Control surface, control horn, linkage or servo damage	Replace or repair damaged parts and adjust controls
	Wire damaged or connections loose	Do a check of wires and connections, connect or replace as needed
	Transmitter is not bound correctly or the incorrect airplanes was selected	Re-bind or select correct airplanes in transmitter
	Flight battery charge is low	Fully recharge flight battery
	BEC (Battery Elimination Circuit) of the ESC is damaged	Replace ESC

Optional Accessories

Optional Accessories	
SPMA3065	USB Programming Cable
Telemetry Sensors and Accessories	
SPMA9571	Spektrum DSMX/DSMR Telemetry Temperature Sensor
SPMA9574	Aircraft Telemetry Airspeed Indicator
SPMA9589*	Aircraft Telemetry Altitude and Variometer Sensor*
SPMA9569	Aircraft Telemetry RPM Sensor and Bracket
SPMA9558	Brushless RPM Sensor
SPMA9587	Aircraft Telemetry GPS Sensor
SPMA9556	Air Telemetry Flight Pack Voltage Sensor: EC3/IC3
SPMA9604	Aircraft Telemetry Receiver Battery Energy Sensor
SPMA9605**	Aircraft Telemetry Flight Pack Batt Energy Sensor**
SPMA9551	12" Aircraft Telemetry Extension
SPMA9552	24" Aircraft Telemetry Extension

*Only applicable for AR8010T and AR9030T receivers. The SPMA9589 functions are already integrated in the SPMAR9320T.

**For use with electric power system batteries that are separate from the receiver battery(s).

1-Year Limited Warranty

What this Warranty Covers - Horizon Hobby, LLC, (Horizon) warrants to the original purchaser that the product purchased (the "Product") will be free from defects in materials and workmanship for a period of 1 year from the date of purchase.

What is Not Covered

This warranty is not transferable and does not cover (i) cosmetic damage, (ii) damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or due to improper use, installation, operation or maintenance, (iii) modification of or to any part of the Product, (iv) attempted service by anyone other than a Horizon Hobby authorized service center, (v) Product not purchased from an authorized Horizon dealer, (vi) Product not compliant with applicable technical regulations, or (vii) use that violates any applicable laws, rules, or regulations.

OTHER THAN THE EXPRESS WARRANTY ABOVE, HORIZON MAKES NO OTHER WARRANTY OR REPRESENTATION, AND HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

Purchaser's Remedy

Horizon's sole obligation and purchaser's sole and exclusive remedy shall be that Horizon will, at its option, either (i) service, or (ii) replace, any Product determined by Horizon to be defective. Horizon reserves the right to inspect any and all Product(s) involved in a warranty claim. Service or replacement decisions are at the sole discretion of Horizon. Proof of purchase is required for all warranty claims. SERVICE OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY.

Limitation of Liability

HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY, REGARDLESS OF WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY, EVEN IF HORIZON HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Further, in no event shall the liability of Horizon exceed the individual price of the Product on which liability is asserted. As Horizon has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability. If you as the purchaser or user are not prepared to accept the liability associated with the use of the Product, purchaser is advised to return the Product immediately in new and unused condition to the place of purchase.

Law

These terms are governed by Illinois law (without regard to conflict of law principals). This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Horizon reserves the right to change or modify this warranty at any time without notice.

WARRANTY SERVICES

Questions, Assistance, and Services

Your local hobby store and/or place of purchase cannot provide warranty support or service. Once assembly, setup or use of the Product has been started, you must contact your local distributor or Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may

need any assistance. For questions or assistance, please visit our website at www.horizonhobby.com, submit a Product Support Inquiry, 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.

5-14-2015

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

SPMAR8010T FCC ID: BRWAR8010T
SPMAR9030T FCC ID: BRWAR8010T
SPMAR9320T FCC ID: BRWAR9320T

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.

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 AR8010T 8 CH Receiver SPMAR8010T
Spektrum AR9030T 9 CH Receiver SPMAR9030T
Spektrum AR9320T 9 CH Receiver SPMAR9320T

FC 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

Web: HorizonHobby.com

IC Information

SPMAR8010T IC 6157A-AR8010T
SPMAR9030T IC 6157A-AR8010T
SPMAR9320T IC 6157A-AR9320T

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

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.

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