



Manuals.plus /

› Spektrum /

› Spektrum AR8020T DSMX 8-Channel Telemetry Receiver User Manual

Spektrum SPMAR8020T

Spektrum AR8020T DSMX 8-Channel Telemetry Receiver User Manual

MODEL: SPMAR8020T | BRAND: SPEKTRUM

Important Safety Information

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.

Product Overview

The Spektrum AR8020T DSMX 8-Channel Telemetry Receiver is designed for radio-controlled aircraft, offering reliable 8-channel control and integrated telemetry capabilities. This compact receiver provides essential data feedback to your compatible Spektrum transmitter, enhancing your flight experience.

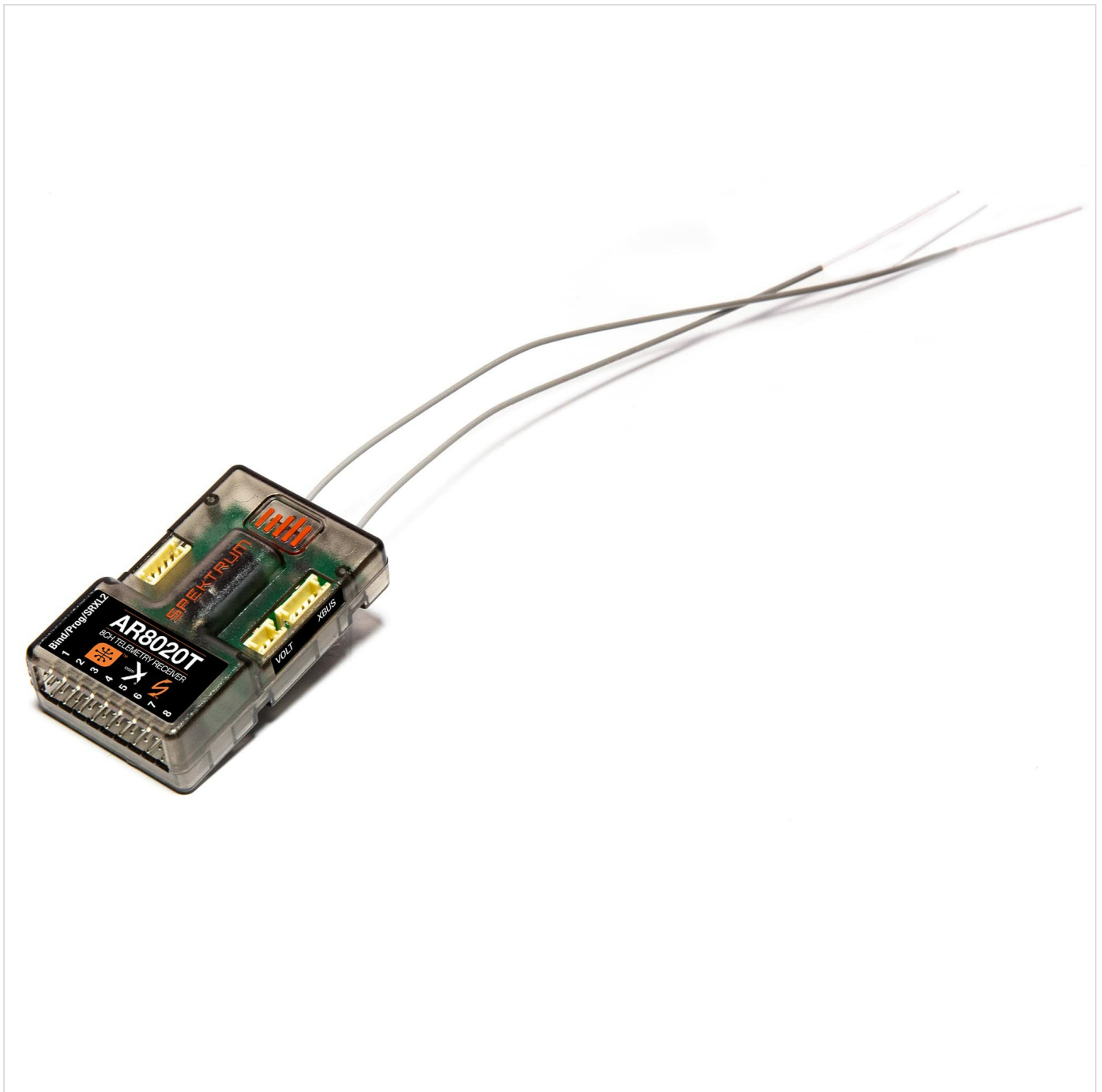


Image of the Spektrum AR8020T DSMX 8-Channel Telemetry Receiver in its packaging, showcasing its compact design and dual antennas.

Key Features:

- 8-Channel DSMX compatibility for precise control.
- Integrated full-range telemetry for real-time data feedback.
- Compact design for easy installation in various aircraft.
- Multiple ports for versatile connectivity options.

What's in the Box

- Spektrum AR8020T DSMX 8-Channel Telemetry Receiver (SPMAR8020T)

Setup

1. Pre-Installation Check

Before installation, carefully inspect the receiver for any visible damage. Ensure all connectors are clean and free from debris.

2. Installation and Antenna Placement

1. Mount the AR8020T receiver securely within your aircraft using double-sided foam tape or hook-and-loop fasteners. Ensure it is protected from vibration and moisture.
2. Position the two receiver antennas at a 90-degree angle to each other. This orthogonal placement helps ensure optimal signal reception in all orientations. Avoid placing antennas near large metallic objects or carbon fiber structures that can shield the signal.
3. Ensure the antenna tips are free from obstructions and extend away from the aircraft's main structure.

3. Binding the Receiver

To establish communication between your AR8020T receiver and a compatible Spektrum DSMX transmitter, follow these binding steps:

1. Ensure your transmitter is powered off and the receiver is not connected to power.
2. Insert a bind plug into the BIND/DATA port on the AR8020T receiver.
3. Connect power to the receiver (e.g., via an ESC or a separate receiver battery). The receiver's LED will flash rapidly, indicating it is in bind mode.
4. With the bind plug still inserted, power on your Spektrum DSMX transmitter while holding the bind button (if applicable, refer to your transmitter's manual).
5. The receiver's LED will turn solid when binding is successful.
6. Disconnect power from the receiver, remove the bind plug, and then reconnect power. The receiver should now be bound to your transmitter.

4. Servo and Component Connection

Connect your servos, Electronic Speed Controller (ESC), and any other compatible components to the appropriate channels on the AR8020T receiver. Refer to your aircraft's manual and component instructions for specific connection details.

Operating Instructions

1. Powering On the System

Always power on your transmitter first, then connect power to your aircraft's receiver. This sequence helps prevent unintended control inputs. When powering off, disconnect power from the aircraft first, then power off the transmitter.

2. Telemetry Functionality

The AR8020T receiver provides integrated telemetry. Once bound to a compatible Spektrum telemetry-enabled transmitter, you can monitor various flight parameters such as receiver voltage, flight pack voltage (with optional sensors), temperature, and more. Consult your transmitter's manual for instructions on accessing and displaying telemetry data.

3. Failsafe Setup

It is crucial to set up failsafe positions for all control surfaces and the throttle channel. Failsafe settings dictate the receiver's response in the event of signal loss, typically returning the throttle to idle and holding control surfaces in a

neutral or pre-programmed position. Refer to your transmitter's manual for detailed failsafe programming instructions.

Maintenance

1. Cleaning

Keep the receiver clean and free from dust, dirt, and moisture. Use a soft, dry brush or compressed air to remove debris. Avoid using liquid cleaners.

2. Storage

Store the receiver in a dry, cool environment, away from direct sunlight and extreme temperatures. Protect it from physical impact.

3. Regular Inspection

Periodically inspect the receiver, antennas, and all connected wires for signs of wear, fraying, or damage. Replace any damaged components immediately.

Troubleshooting

- **No Power to Receiver:** Check battery connections, ESC connection, and ensure the power source is charged and functioning correctly.
- **Receiver Not Binding:** Ensure the bind plug is correctly inserted, the transmitter is in bind mode, and both are compatible (DSMX). Try rebinding.
- **Loss of Signal/Intermittent Control:** Check antenna placement and orientation. Ensure no metallic objects are shielding the antennas. Verify transmitter battery level.
- **Telemetry Data Not Displaying:** Confirm your transmitter is telemetry-enabled and compatible. Ensure all telemetry sensors (if external) are correctly connected.
- **Incorrect Servo Response:** Verify servo connections to the correct channels. Check transmitter settings for servo reversing and sub-trim.

Specifications

Specification	Detail
Product Dimensions	8.1 x 4.1 x 0.73 inches
Item Weight	2.82 ounces
ASIN	B08QRXDFT6
Item Model Number	SPMAR8020T
Manufacturer Recommended Age	14 years and up
Batteries	1 Nonstandard Battery (required)
Release Date	December 16, 2020
Manufacturer	Spektrum

Video Resources

This video provides a product overview of the Spektrum AR8020T DSMX 8-Channel Telemetry Receiver, demonstrating its compact size, multiple ports, and antenna setup. It highlights key features and components of the receiver.

Warranty and Support

For warranty information, technical support, or service inquiries regarding your Spektrum AR8020T DSMX 8-Channel Telemetry Receiver, please refer to the official Spektrum website or contact Horizon Hobby, LLC customer support. Keep your proof of purchase for warranty claims.

Online Resources: Visit the official Spektrum website for the latest product updates, FAQs, and additional support documentation.