RadioMaster AG02

RadioMaster AG02 CNC Hall Gimbals Set Instruction Manual

Model: AG02

Brand: RadioMaster

INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your RadioMaster AG02 CNC Hall Gimbals Set. Designed for precision and durability, these gimbals are compatible with RadioMaster TX16, TX15, and Boxer radio controllers, offering an enhanced control experience for your aircraft. Please read this manual thoroughly before use to ensure proper function and longevity of your product.

PRODUCT OVERVIEW

The RadioMaster AG02 CNC Hall Gimbals Set features advanced design and engineering for superior performance:

- **Full Aluminum Construction:** Optimized structural areas reduce rotational inertia by over 20% while maintaining rigidity, providing smoother and more responsive control.
- **Next-Generation Low-Noise Hall Sensors:** Deliver ultra-fast response without compromising accuracy or stability.
- **Adjustable Travel:** Vertical and horizontal travel adjustment allows for personalized feel for any pilot.
- **Quad Precision Bearings:** Ensure unparalleled stick feel and smooth operation.
- **100% Mounting Compatibility:** Directly installable as an upgrade for existing full-size RadioMaster gimbals without modifications.
- **Designed For:** RadioMaster TX16, TX15, and Boxer Radio Controllers.

SAFETY INFORMATION

The product is not intended for use by children. Always handle with care and ensure proper installation to prevent damage to the gimbals or your radio controller.

PACKAGE CONTENTS

Verify that all items listed below are present in your package:

- 1 Pair of AG02 CNC Hall Sensor Gimbals
- 2 * High Tension Springs
- 1 * GH1.25-SH1.25 adapter board (for Boxer/TX16sMKII)

- 4 * PB2.3*10 Mounting Screws
- 1 * Hex Wrench
- 1 * User Manual (this document)

SETUP AND INSTALLATION

Follow these steps to install your AG02 CNC Hall Gimbals into your compatible RadioMaster radio controller.

1. **Preparation:** Ensure your radio controller is powered off and disconnect any power sources.
2. **Access Gimbal Bay:** Carefully open your radio controller to access the existing gimbals. Refer to your radio controller's specific manual for instructions on how to safely open the casing.
3. **Remove Old Gimbals:** Disconnect the wiring and unscrew the mounting screws holding the old gimbals in place.
4. **Install AG02 Gimbals:** Position the new AG02 gimbals in the gimbal bays. Use the provided PB2.3*10 mounting screws to secure them.
5. **Connect Wiring:** Connect the gimbal wiring to the appropriate ports on your radio controller's main board. If installing into a Boxer or TX16sMKII, use the provided GH1.25-SH1.25 adapter board if necessary. Ensure connections are secure and correctly oriented.
6. **Close Radio Controller:** Carefully reassemble your radio controller, ensuring no wires are pinched.
7. **Calibration:** After installation, power on your radio controller and perform a gimbal calibration as per your radio controller's firmware instructions. This ensures accurate response and full travel range.

Image: The AG02 CNC Hall Gimbals. The left gimbal shows the stick in a neutral position, while the right gimbal shows the stick tilted, illustrating the range of motion. Both units feature red anodized aluminum frames and precision internal components.

OPERATING INSTRUCTIONS

Once installed and calibrated, the AG02 gimbals operate seamlessly with your RadioMaster radio controller. The following adjustments can be made:

- **Adjustable Travel:** The gimbals feature vertical and horizontal travel adjustment. Use the included hex wrench to fine-tune the travel limits to your preference. Refer to the markings on the gimbal frame for precise adjustments.
- **Throttle Mode Switch (Mode 1/2):** The throttle mode can be switched without disassembling the gimbal. Consult your radio controller's manual for specific instructions on how to change the throttle mode and adjust the tension.
- **Spring Tension Adjustment:** Spring tension can be adjusted without disassembling the gimbal. Use the hex wrench to modify the spring tension to achieve your desired stick feel.

MAINTENANCE

To ensure the longevity and optimal performance of your AG02 gimbals, follow these maintenance guidelines:

- **Cleaning:** Keep the gimbals free from dust and debris. Use a soft, dry cloth to gently wipe the surfaces. Avoid using

liquid cleaners or solvents.

- **Inspection:** Periodically inspect the gimbals for any signs of wear, loose screws, or damage. Address any issues promptly.
- **Storage:** When not in use, store your radio controller in a clean, dry environment away from extreme temperatures and direct sunlight.

TROUBLESHOOTING

If you encounter issues with your AG02 gimbals, consider the following:

- **Inaccurate Response/Drifting:** Recalibrate the gimbals through your radio controller's firmware settings. Ensure all wiring connections are secure.
- **Stiff or Loose Stick Feel:** Adjust the spring tension as described in the Operating Instructions section.
- **Limited Travel:** Check the physical travel adjustment screws and ensure they are not overly restrictive. Perform a calibration after any adjustments.
- **No Response:** Verify that the gimbals are correctly wired and securely connected to the radio controller's main board. Check for any visible damage to the wiring or connectors.

If problems persist, contact RadioMaster customer support or your authorized dealer for further assistance.
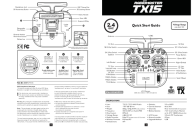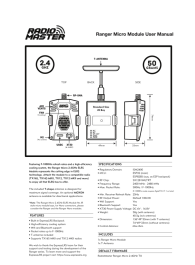
SPECIFICATIONS

| Feature	Detail
Item	AG02 CNC Hall Gimbals Set
Sensor Type	Hall Analog
Operating Voltage	DC 3.3V
X-Axis Travel Adjustment Range	30° – 56°
Y-Axis Travel Adjustment Range	38° – 54°
Throttle Mode Switch (Mode 1/2)	Supported (Without Disassembly)
Spring Tension Adjustment	Supported (Without Disassembly)
Quad Ball Bearings	Yes
Operating Temperature Range	-20°C to +85°C
Dimensions (Excluding Stick Ends)	53 × 53 × 33.3 mm
Weight	73 g ± 1 g (per unit)
Gimbal Sticks	M4

WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the official RadioMaster website or contact your authorized dealer. Keep your proof of purchase for warranty claims.

Related Documents - AG02
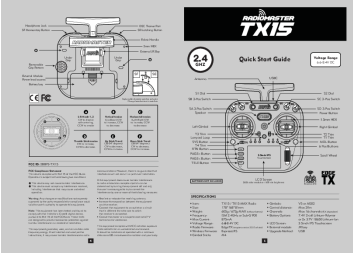
	RadioMaster TX16S MKII Quick Start Guide Concise guide to setting up and using the RadioMaster TX16S MKII multi-protocol radio system, covering safety, features, specifications, and compliance.
	RadioMaster TX16S MKII Quick Start Guide A concise guide to the RadioMaster TX16S MKII multi-protocol radio system, covering setup, safety, specifications, and features. Includes information on firmware, battery requirements, and protocol selection.
	RadioMaster Boxer Quick Start Guide: Setup, Features, and Specifications Comprehensive quick start guide for the RadioMaster Boxer 2.4GHz remote control system. Learn about setup, safety, firmware updates, specifications, and FCC compliance.
	RadioMaster TX15 Quick Start Guide: Features, Specifications, and Operation This guide provides essential information for operating the RadioMaster TX15 remote control system, covering setup, safety, specifications, binding procedures, and warranty details.
	RadioMaster Boxer 2.4GHz Remote Control System Quick Start Guide Quick start guide for the RadioMaster Boxer 2.4GHz remote control system, covering setup, safety, specifications, and firmware updates. Features EdgeTX firmware and multiple RF module options.
	RadioMaster Ranger Micro 2.4GHz ELRS Module User Manual User manual for the RadioMaster Ranger Micro 2.4GHz ELRS Module, detailing its features, specifications, and compatibility with various radio transmitters for advanced ELRS connectivity.
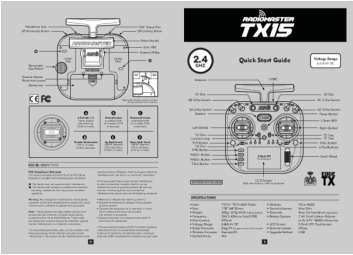
[RadioMaster TX15 Quick Start Guide: Features, Specifications, and Operation](#)
This guide provides essential information for operating the RadioMaster TX15 remote control system, covering setup, safety, specifications, binding procedures, and warranty details.
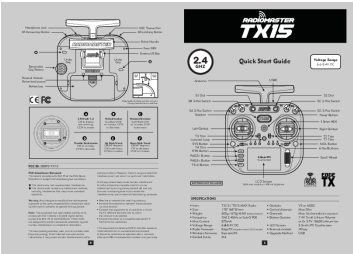lang:en score:35 filesize: 678.09 K page_count: 2 document date: 2025-07-08

[RadioMaster TX15 Quick Start Guide: Features, Setup, and Specifications](#)
Comprehensive quick start guide for the RadioMaster TX15 remote control system. Learn about its features, safety precautions, binding instructions, technical specifications, and compliance information.
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[RadioMaster TX15 Quick Start Guide](#)
A quick start guide for the RadioMaster TX15 remote control system, detailing its features, setup, safety information, and specifications. Covers dual-band 2.4GHz ExpressLRS technology for various RC applications.
lang:en score:33 filesize: 876.58 K page_count: 4 document date: 2025-07-08