

RadioMaster TX16S Mark II MAX Edition

RadioMaster TX16S Mark II MKII MAX Edition User Manual

Model: **TX16S Mark II MAX Edition**

Brand: **RadioMaster**

1. INTRODUCTION

This manual provides comprehensive instructions for the setup, operation, and maintenance of your RadioMaster TX16S Mark II MKII MAX Edition 2.4GHz 16 Channel Radio Transmitter. The TX16S Mark II MAX Edition features carbon fiber-look faceplates, leather grips, and CNC finishing components and buttons, along with improved internal circuitry and optimized power supply. It is designed for advanced remote control applications, offering robust performance and extensive customization options.

Key features include a 4.3-inch IPS color display, a 3.5mm audio jack, dual speakers, and an external module bay compatible with various modules. The transmitter supports both EdgeTX and OpenTX firmware, providing flexibility for users.

2. SAFETY INFORMATION

- Always operate the transmitter in a safe environment, away from people, animals, and obstacles.
- Ensure the battery is fully charged before each use.
- Do not expose the transmitter to extreme temperatures, moisture, or direct sunlight.
- Keep the device away from strong electromagnetic fields.
- Perform regular checks of all controls and connections before operation.
- Only use approved replacement parts and accessories.
- Do not attempt to disassemble or modify the transmitter beyond the instructions provided in this manual.

3. PRODUCT OVERVIEW

3.1 Components and Controls

The RadioMaster TX16S Mark II MAX Edition is equipped with a range of controls and features designed for precise operation of RC models. Below are descriptions of the main components and their functions.



Figure 3.1: Front view of the TX16S Mark II MAX Edition. This image displays the central 4.3-inch color touch display, the two primary gimbals for control, and various switches (SA, SB, SC, SD, SE, SF, SG, SH) and rotary knobs (S1, S2) located on the top and front face. The power button is centrally located below the RadioMaster logo.

- **Gimbals:** The transmitter features high-precision gimbals, available in v4.0 Hall sensor with Aluminium fascia or AG01 CNC Hall sensor options. These control the primary movements of your RC model.
- **Switches (SA, SB, SC, SD, SE, SF, SG, SH):** Various 2-position and 3-position switches for assigning auxiliary functions.
- **Knobs (S1, S2):** Improved S1/S2 knobs with clear center-detents for fine-tuning parameters.
- **Sliders (LS, RS):** Improved LS/RS Sliders with smoother feel and better center-detents, typically used for flaps or other proportional controls.

- **4.3-inch TFT Full-Color Touch Display:** A high-resolution (480x272) display for navigating menus, configuring settings, and monitoring telemetry data.
- **Power Button:** Central button for turning the transmitter on and off.
- **SYS Button:** Accesses system settings.
- **MDL Button:** Accesses model settings.



Figure 3.2: Angled front view of the TX16S Mark II MAX Edition. This perspective showcases the ergonomic design, including the textured side grips and the placement of the various switches and gimbals, providing a better understanding of the user interface layout.



Figure 3.3: Side view of the TX16S Mark II MAX Edition. This image illustrates the depth of the transmitter and the design of the side grip, which contributes to comfortable handling during operation.



Figure 3.4: Rear view of the TX16S Mark II MAX Edition. This view highlights the redesigned battery cover for improved access, the JR compatible module bay, the rear-mounted audio jack, and the rear DIY socket for personalized modifications.

4. SETUP

4.1 Battery Installation and Charging

The TX16S Mark II MAX Edition operates on a DC voltage range of 6.6-8.4V. It features new charge circuitry with integrated reverse-polarity protection and optimized charge IC for better balancing and USB-C charge current management.

1. Open the redesigned battery cover located on the rear of the transmitter.
2. Insert the compatible battery pack, ensuring correct polarity.

3. Close the battery cover securely.
4. To charge, connect a USB-C cable to the transmitter's USB-C port. The charging status will be indicated on the display.

4.2 Firmware (EdgeTX / OpenTX)

The transmitter comes with EdgeTX installed by default (touch screen enabled). Firmware updates can be performed via USB-C online or SD card offline upgrade methods.

- **USB-C Online Upgrade:** Connect the transmitter to a computer using a USB-C cable and follow the instructions provided by the EdgeTX or OpenTX community for online updates.
- **SD Card Offline Upgrade:** Download the desired firmware to an SD card, insert it into the transmitter's SD card slot, and follow the on-screen prompts for offline updates.

4.3 Module Installation

The TX16S features a JR compatible module bay, allowing for the use of external RF modules in addition to the internal multi-protocol module.

- **Internal Module:** The transmitter includes an internal 4-in-1 multi-protocol module (CC2500 CYRF6936 A7105 NRF2401) or an internal ELRS (Sx1280) module, depending on the option purchased.
- **External Module:** To install an external module (e.g., Team Black Sheep MicroTX), slide it into the JR compatible module bay on the rear of the transmitter until it clicks into place.
- **Module Selection:** The TX16S allows switching between internal RF and external modules (like Crossfire) via software settings, eliminating the need for physical module swapping.

5. OPERATING INSTRUCTIONS

5.1 Power On/Off

1. **Power On:** Press and hold the power button until the display illuminates and the system boots up.
2. **Power Off:** Press and hold the power button. A confirmation prompt will appear on the screen. Confirm to shut down the transmitter.

5.2 Display Navigation and Settings

The 4.3-inch TFT full-color touch display allows for intuitive navigation and configuration.

- **Touch Interface:** Use the touch screen to select menu items, adjust parameters, and navigate through settings.
- **SYS Button:** Press the SYS button to access global system settings, including radio setup, calibration, and firmware information.
- **MDL Button:** Press the MDL button to access model-specific settings, such as model selection, channel mapping, mixes, and flight modes.
- **S1/S2 Knobs & LS/RS Sliders:** Rotate or slide these controls to adjust assigned functions in real-time during flight or setup.

5.3 Channel Configuration and Binding

The TX16S supports up to 16 channels, depending on the receiver used.

- **Model Setup:** In the MDL menu, create a new model or select an existing one. Configure the number of channels and assign them to the desired physical controls (gimbals, switches, knobs, sliders).

- **Binding:** Follow the specific binding procedure for your receiver and the selected internal or external RF module. This typically involves putting the receiver into bind mode and initiating the bind process from the transmitter's menu.

5.4 Audio Output

The transmitter features a rear-mounted 3.5mm audio jack and built-in dual speakers.

- **Headphone Output:** Connect headphones to the 3.5mm audio jack for private audio feedback, such as voice alerts or telemetry sounds.
- **Built-in Speakers:** The dual speakers provide audible alerts and voice prompts for general use.

6. MAINTENANCE

6.1 Cleaning

- Use a soft, dry cloth to clean the exterior of the transmitter.
- For stubborn dirt, slightly dampen the cloth with water or a mild, non-abrasive cleaner. Avoid getting liquid into openings.
- Do not use harsh chemicals, solvents, or abrasive materials.

6.2 Battery Care

- Store the battery in a cool, dry place when not in use.
- Avoid overcharging or completely discharging the battery.
- If storing for extended periods, charge the battery to approximately 50% capacity.

6.3 Firmware Updates

Regularly check for firmware updates for both EdgeTX/OpenTX and your internal/external modules to ensure optimal performance and access to new features. Refer to section 4.2 for upgrade methods.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Transmitter does not power on.	Low or dead battery; incorrect battery installation.	Charge the battery; ensure battery is correctly installed with proper polarity.
No control response from model.	Not bound to receiver; incorrect model selected; range issue.	Perform binding procedure; select correct model profile; check signal strength and range.
Display is unresponsive or frozen.	Software glitch; system crash.	Perform a soft reset (power off and on); if persistent, consider firmware re-flash.
Gimbals or switches feel stiff/loose.	Wear and tear; debris.	Clean around the controls; if issues persist, contact support for potential replacement of components.

8. SPECIFICATIONS

- **Size:** 287mm × 129mm × 184mm

- **Weight:** 750g (without battery)
- **Transmission Frequency:** 2.400GHz - 2.480GHz
- **Transmitter Module Options:**
 - Internal 4-in-1 multi-protocol module (CC2500 CYRF6936 A7105 NRF2401)
 - Internal ELRS (Sx1280)
- **Transmitting Power:**
 - Internal 4-in-1: Max 100mW (protocol dependent)
 - Internal ELRS: Max 250mW (adjustable)
- **Antenna Gain:** 2db (transmit power adjustable)
- **Working Current:** 400mA
- **Working Voltage:** 6.6V - 8.4V DC
- **Remote Control Distance:** > 2km @ 22dbm
- **Radio Firmware:** EdgeTX (default), OpenTX compatible
- **Module Firmware:** Multiprotocol-Module (4IN1) OR ExpressLRS (ELRS)
- **Channels:** Up to 16 channels (depending on the receiver)
- **Display:** 4.3-inch TFT full-color touch display, 480 * 272 resolution
- **Gimbal Options:**
 - v4.0 Hall sensor with Aluminium fascia
 - AG01 CNC Hall sensor
- **Module Bay:** JR compatible
- **Upgrade Method:** Supports USB-C online / SD card offline upgrade
- **Audio:** Rear mounted 3.5mm audio jack, built-in dual speakers
- **Trainer Socket:** Standard TRS 3.5mm socket
- **DIY Socket:** Rear DIY Socket added for personalized mods
- **Material:** Carbon Fiber (look faceplates), Leather (grips)

9. WARRANTY AND SUPPORT

For specific warranty information, please refer to the documentation provided with your purchase or contact the manufacturer, RadioMaster, directly. Support resources, including firmware updates, FAQs, and community forums, are typically available on the official RadioMaster website or through the EdgeTX/OpenTX communities.

It is recommended to register your product with RadioMaster, if applicable, to receive important updates and support notifications.

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question