

RADIOMASTER TX16SMKII-4IN1-M2

RadioMaster TX16S MKII V4.0 Transmitter User Manual

Model: TX16SMKII-4IN1-M2 | Brand: RADIOMASTER

1. PRODUCT OVERVIEW

The RadioMaster TX16S MKII V4.0 is a versatile and powerful 2.4GHz 16-channel radio transmitter designed for remote control enthusiasts. It features Hall Gimbals for precise control, a vibrant 4.3-inch TFT full-color touch display, and supports both EdgeTX and OpenTX firmware. Available in either a 4-in-1 multi-protocol module version or an ELRS (ExpressLRS) internal module version, the TX16S MKII V4.0 offers extensive compatibility and customization options for various RC models.



Image: Angled view of the RadioMaster TX16S MKII V4.0 Transmitter, showcasing its ergonomic design and central display.

2. KEY FEATURES

- **V4.0 Hall Gimbals:** Enhanced precision and durability with adjustable travel (Min. 38°, Max. 54°) without disassembly.
- **Dual Firmware Support:** Compatible with both EdgeTX and OpenTX operating systems, offering extensive customization.
- **Module Options:** Available with an internal 4-in-1 multi-protocol module (CC2500, CYRF6936, A7105, NRF2401) or an internal ELRS (SX1280) module.
- **4.3-inch TFT Full-Color Touch Display:** High-resolution (480*272) screen for intuitive navigation and programming.
- **Improved Ergonomics:** Features improved S1/S2 knobs with clear center-detents, smoother LS/RS sliders, and optional

high/low rear grips.

- **Built-in Dual Speakers:** Provides clear audio feedback and alerts.
- **USB-C Connectivity:** Supports online upgrades and charging.

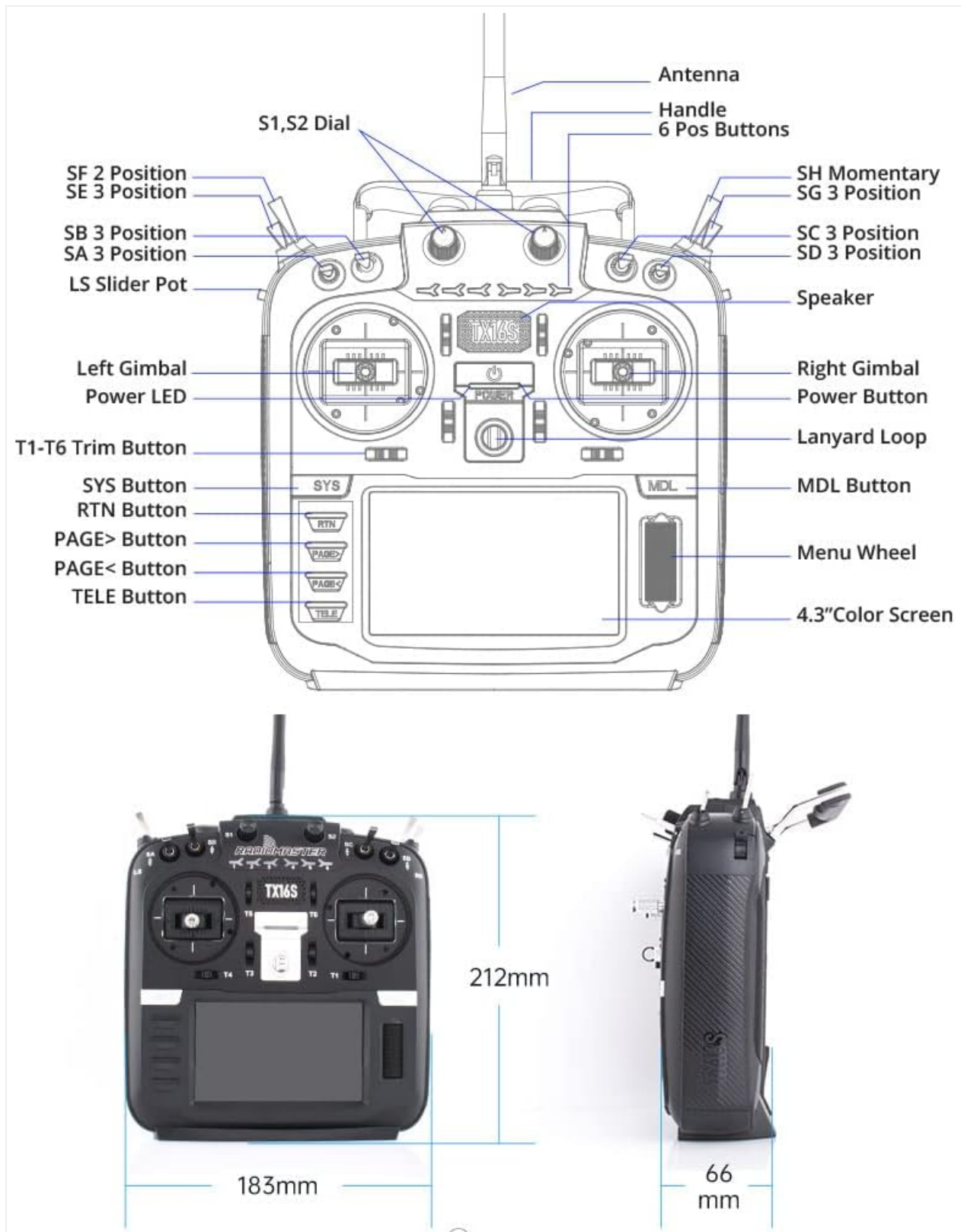


Image: Visual representation highlighting the transmitter's support for EdgeTX and OpenTX firmware, along with the availability of 4-in-1 and ELRS module versions.

3. SETUP

3.1 Initial Inspection

Upon unboxing, carefully inspect the transmitter for any signs of damage. Verify that all components listed in the packaging are present. These typically include the TX16S MKII transmitter, antenna, and USB-C cable.

3.2 Battery Installation

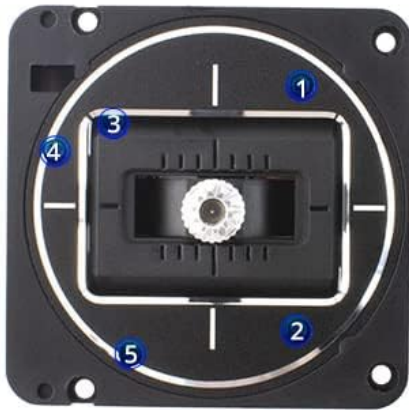
The TX16S MKII does not typically include a battery. It is designed to operate with a 2S (7.4V) LiPo battery. To install the battery:

1. Locate the battery compartment on the rear of the transmitter.
2. Open the redesigned battery cover.
3. Connect your compatible 2S LiPo battery to the internal connector, ensuring correct polarity.
4. Carefully place the battery into the compartment, ensuring it fits securely and does not obstruct the cover.
5. Close the battery cover until it snaps into place.

3.3 Charging

The TX16S MKII features an optimized charge IC with better balancing and USB-C charge current management. To charge the internal battery:

1. Connect the supplied USB-C cable to the USB-C charging port on the transmitter.
2. Connect the other end of the USB-C cable to a suitable USB power source (e.g., computer USB port, USB wall adapter).
3. The charging indicator on the transmitter will show the charging status. Refer to the on-screen display for detailed battery information.



1/2 STICK TRAVEL LIMITER

Turn clockwise to increase travel, Turn counterclockwise to decrease travel

3 HORIZONTAL AXIS TENSIONER (LEFT-RIGHT)

Turn clockwise to increase stick tension, Turn counterclockwise to decrease stick tension

4 GIMBAL MODE SETTING

Turn clockwise to disable self-centering (Throttle), Turn counterclockwise to enable self-centering (Elevator)

5 VERTICAL AXIS TENSIONER

(Up-Down) Turn clockwise to increase stick tension, Turn counterclockwise to decrease stick tension

Image: Detailed view of the bottom and side ports of the TX16S MKII, including the USB Data port, Trainer port, Charging Port, SD Card Slot, and UART Port.

4. OPERATING THE TRANSMITTER

4.1 Controls Layout

Familiarize yourself with the various controls and their functions on the TX16S MKII. The transmitter features a comprehensive layout designed for intuitive operation.



Image: Labeled diagram illustrating the various controls of the TX16S MKII, including gimbals, switches (S1, S2, SA, SB, SC, SD, SF, SG, SH), trim buttons (T1-T6), LS/RS sliders, and navigation buttons (SYS, RTN, PAGE+, PAGE-, TELE, MDL, Menu Wheel).

4.2 Power On/Off

To power on the transmitter, press and hold the power button located centrally below the gimbals until the screen illuminates. To power off, press and hold the power button again until the shutdown prompt appears, then confirm.

4.3 Navigation and Display

The 4.3-inch TFT full-color touch display provides access to all settings and telemetry data. Navigate through menus using the touch screen or the combination of the menu wheel and navigation buttons (SYS, RTN, PAGE+, PAGE-, TELE, MDL).



Image: Close-up view highlighting the 4.3-inch IPS color display, the improved S1/S2 knobs with center detents, and the location of the built-in dual speakers.

4.4 Gimbal Adjustment

The V4.0 Hall Gimbals offer precise control and can be adjusted for stick travel and tension without disassembling the transmitter. Refer to the diagram below for adjustment points:



Image: Diagram detailing the adjustment points for the V4.0 Hall Gimbals, including stick travel limiter, horizontal axis tensioner, gimbal mode setting (self-centering), and vertical axis tensioner.

- **Stick Travel Limiter:** Turn clockwise to increase travel, counter-clockwise to decrease travel.
- **Horizontal Axis Tensioner:** Turn clockwise to increase stick tension, counter-clockwise to decrease stick tension.
- **Gimbal Mode Setting:** Turn clockwise to disable self-centering (Throttle), turn counter-clockwise to enable self-centering (Elevator).
- **Vertical Axis Tensioner:** Turn clockwise to increase stick tension, counter-clockwise to decrease stick tension.

4.5 Firmware

The TX16S MKII supports EdgeTX and OpenTX firmware. Firmware updates can be performed via USB-C connection to a computer or by using an SD card. Always refer to the official EdgeTX or OpenTX documentation for the latest firmware update

procedures and best practices.

5. MAINTENANCE

5.1 Cleaning

To maintain the appearance and functionality of your transmitter, regularly clean its exterior. Use a soft, dry cloth to wipe down the casing and screen. For stubborn marks, a slightly damp cloth with mild soap can be used, ensuring no liquid enters the internal components or ports. Avoid abrasive cleaners or solvents.

5.2 Storage

When not in use, store the transmitter in a cool, dry place away from direct sunlight and extreme temperatures. It is recommended to store it in its original foam case or a protective carrying case to prevent physical damage. If storing for extended periods, ensure the battery is charged to a storage voltage (typically around 3.8V per cell for LiPo batteries) to prolong battery life.

6. TROUBLESHOOTING

This section addresses common issues you might encounter with your RadioMaster TX16S MKII V4.0 transmitter.

- **Transmitter Does Not Power On:**
 - Ensure the battery is correctly installed and fully charged.
 - Check the battery connector for secure contact.
- **Screen Remains Blank or Flickers:**
 - Restart the transmitter.
 - Ensure the internal ribbon cables are securely seated (if comfortable opening the case, otherwise seek professional assistance).
 - Verify the integrity of the SD card. A corrupted or faulty SD card can cause display issues. Try formatting or replacing the SD card.
- **Controls Unresponsive or Erratic:**
 - Check model settings in the firmware (EdgeTX/OpenTX) for correct channel assignments and mixes.
 - Calibrate the gimbals and switches through the transmitter's system menu.
 - Ensure the receiver is properly bound to the transmitter and receiving a strong signal.
- **Difficulty with Firmware Updates:**
 - Ensure the correct firmware version for your specific module (4-in-1 or ELRS) is being used.
 - Use a reliable USB-C cable and a stable computer connection.
 - Verify the SD card is not corrupted and has sufficient free space.

If you encounter persistent issues not covered here, consult the official EdgeTX or OpenTX documentation, online community forums, or contact RadioMaster customer support for further assistance.

7. SPECIFICATIONS

Feature	Specification
Size	287 x 129 x 184 mm

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Weight	750g (without battery)
Transmission Frequency	2.400GHz-2.480GHz
Transmitter Module (Option 1)	Internal 4-in-1 multi-protocol (CC2500 CYRF6936 A7105 NRF2401)
Transmitter Module (Option 2)	Internal ELRS (SX1280)
Transmitting Power (4-in-1)	Max 100mw (protocol dependent)
Transmitting Power (ELRS)	Max. 250mw (adjustable)
Antenna Gain	2db (transmit power adjustable)
Working Current	400mA
Working Voltage	6.6-8.4V DC
Remote Control Distance	> 2km @ 22dbm
Radio Firmware	EdgeTX
Module Firmware	Multiprotocol-Module (4IN1) OR ExpressLRS (ELRS)
Channels	Up to 16 channels (depending on receiver)
Display	4.3-inch TFT full-color touch display (480*272 resolution)
Gimbal (Option 1)	V4.0 Hall sensor with Aluminium fascia
Gimbal (Option 2)	AG01 CNC Hall sensor
Module Bay	JR compatible module bay
Upgrade Method	Supports USB-C online / SD card offline upgrade
Product Dimensions	11.3 x 5.08 x 7.24 inches
Item Weight	2.55 pounds
Manufacturer	Lowpricebro
Date First Available	December 16, 2021

8. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official RadioMaster website or contact their authorized distributors. Keep your proof of purchase for any warranty claims. Online resources, including firmware updates, user forums, and additional documentation, are often available on the manufacturer's support pages.

ASK A QUESTION ABOUT THIS MANUAL

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