

CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the 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 specified frequency range.

ANTENNA SEPARATION DISTANCE

When operating your RadioMaster transmitter, 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.



WWW.RADIOMASTERRC.COM

1.4

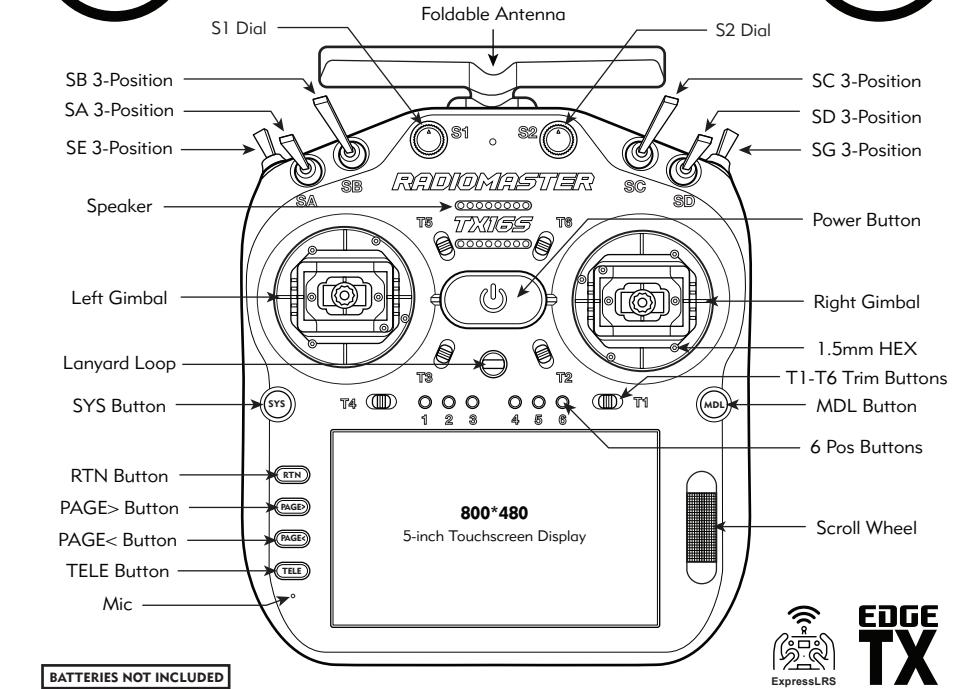
RADIOMASTER TX16S MK3

2.4
GHZ

Quick Start Guide

Gemini-Xross Dual-Band

SUB-G



SPECIFICATIONS

- Item: TX16S MK3 Radio
- Size: 200*178*88mm
- Weight: 813g (without battery)
- Frequency: 2.400GHz & Sub-G
- Internal RF Options: ELRS 2.4GHz/Sub-G
- Firmware: EdgeTX
- Internal storage: Integrated 4GB flash
- Voltage Range: 6.6-8.4V DC
- Channels: Max 16 channels
- MicroSD card slot: Yes (card not included)
- TFT Display: 5-inch Full-color Touchscreen
- Gimbal: V6 or AG02 CNC Hall
- Gimbal Sticks: M4
- External module: JR compatible
- Upgrade Method: USB

INTRODUCTION

Thank you for choosing the RadioMaster TX16S MK3, a versatile remote control system featuring dual-band capabilities with 2.4GHz, and Sub-G Gemini-Xrossband technology. Whether you're a beginner or a seasoned professional, the TX16S MK3 is designed to meet your needs, offering precision, flexibility, and reliability.

Please read this guide carefully before operating your new remote to ensure safe and optimal use. We may release updated versions of this manual as we continually enhance our software and hardware. For the latest information and resources, please visit our website.

The TX16S MK3 is compatible with a wide range of applications. If you can build it, the TX16S MK3 can control it. Powered by the robust EdgeTX platform, the TX16S MK3 is ready for seamless integration with your projects.

Follow the links for more detailed guides, firmware updates, and additional resources.

-The RadioMaster team

SAFETY INFORMATION

Many radio control models are equipped with powerful motors and sharp spinning propellers. Please exercise caution when working on models. Ensure power is disconnected from your models and remove propellers when performing maintenance.

Do not operate the TX16S MK3 remote control system under the following conditions:

- In severe weather or strong windy conditions, such as rain, hail, snow, storms or electromagnetic environments.
- In any situation where visibility is limited.
- In areas where people, property, high-voltage power lines, public roads, vehicles or animals may be present.
- If you feel tired or unwell, or under the influence of drugs or alcohol.
- If the remote control or model seems to be damaged or not working properly.
- In areas with high 2.4GHz and Sub-G interference or where these radio frequencies are prohibited.
- When the radio's battery voltage is too low to be used.
- In areas where local regulations prohibit the use of aviation models.

BATTERIES & CHARGING

TX16S MK3 has a built-in USB-C smart balance charging function designed specifically for 3.7V lithium batteries. The charging circuit is only designed to charge 2x 3.7V Li-ion 18650 or 2x 3.7V Li-Poly batteries (2s 7.4v Lipo battery pack), the nominal battery voltage is 3.7V, the charged voltage is 4.2V/Cell.

★ APPROVED FOR USE

2x 3.7v Li-ION 18650 (7.4v using supplied tray)
2x 3.7v Li-ION 21700 (Assembled as 7.4v 2s Battery pack)
2x 3.7v Lithium-polymere (Assembled as 7.4v 2s Battery pack)

● DO NOT USE

2s 6.6v LiFE battery pack, 18650 lithium-ion cells with a nominal voltage of 3.6v or LiFEP04 18650 Round cells. Using the built in USB charger with incorrect battery types and voltage may cause damage to the remote control or fire.

If using Li-ion, ensure the cells are not protected and are button-top cells.

Check the health and condition of the batteries regularly. **DO NOT** use damaged cells. Never charge your device unattended. Always charge in a safe area away from flammable materials. If the remote control gets wet or damaged in any way, **DO NOT** charge it.

RadioMaster does not assume any responsibility for any adverse consequences caused by the use or misuse of this product.

WARRANTY & REPAIR

If there is any problem with your remote control hardware, please keep the proof of purchase and contact the retailer where you purchased the TX16S MK3.

You may also visit our warranty support page: www.radiomasterrc.com/pages/contact

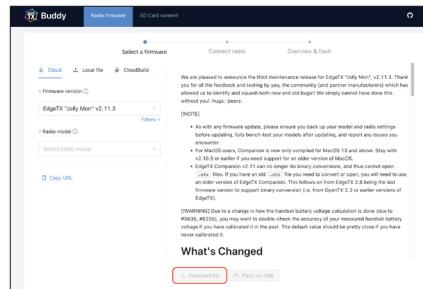
IMPORTANT

FIRMWARE: The TX16S MK3 is pre-installed with the most stable firmware at the factory at time of release. Please only attempt to update the firmware if you are confident in the process. Incorrect firmware updates may cause the remote control to become inoperable.

FIRMWARE UPDATE

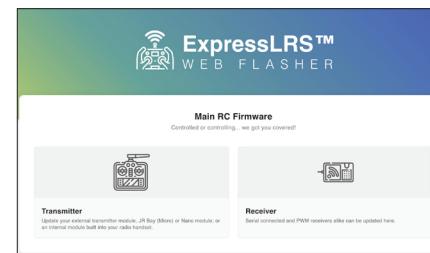
Update EdgeTX (UF2) Firmware

⚠ *Install batteries first – USB power alone is insufficient for firmware flashing.*



1. **GO TO** buddy.edgetx.org and download the TX16MK3 UF2 firmware.
2. **ENTER** Bootloader Mode: Hold T1 and T4 trims inward, then press the Power button.
3. **CONNECT** USB: Two drives appear. (one named UF2)
4. **COPY** the downloaded .uf2 file to the UF2 drive. The screen shows progress.
5. When complete, **EJECT** the drive, **DISCONNECT** the USB cable, and then **REBOOT**.

✓ Your EdgeTX firmware is now updated.



Update Built-in ELRS Module

1. **GO TO** expresslrs.github.io/web-flasher
2. **SELECT** Hardware: RadioMaster TX16S MK3.
3. **SET** Flash Method: EdgeTX Passthrough.
4. **CONNECT** the USB to the top port, and choose USB VCP mode.
5. **INSTALL** the STM32 VCP driver if connecting for the first time.
6. **CHECK** Full Chip Erase, then **CLICK** Flash Firmware.

✓ The ELRS module is now updated.

MODEL & PROTOCOL SELECTION

ExpressLRS Version

TX16S MK3 ELRS units are equipped with an internal ELRS module. Transmitting power Default 100mW.

In non-extreme circumstances, 100mW output at 500Hz update rate is recommended, as higher RF output and update rates may significantly reduce battery life and generate excessive heat.



RM TX16 MK3	0/501
Packet Rate	500 2.4G
Telem Ratio	1:16 (1171bps)
Switch Mode	Wide
Antenna Mode	Gemini
Link Mode	Normal
Model Match	Off (ID: 0)
> TX Power (100mW)	
> VTX Administrator	
> WiFi Connectivity	
> Backpack	
[BLE Joystick]	
[Bind]	
3.6.2	0b0cce
.....EXIT.....	

BIND INSTRUCTIONS

1. **TURN OFF** the transmitter.
2. Cycle power to the receiver 3 times, the receiver LED will flash twice - indicating bind mode.
3. **TURN ON** the transmitter, long press the **SYS** button and choose **ExpressLRS LUA** under the **TOOLS** menu. Scroll to **[Bind]** and press enter.
4. The LED on the receiver should now be solid, indicating a successful bind.