RADIOMASTER

# TX12MKII

Quick start guide

WWW.RADIOMASTERRC.COM

# Introduction

Thank you for purchasing the RadioMaster TX12MKII 2.4g remote control system. The system is versatile and can be used by beginners and professionals. In order to ensure the correct and safe use of this product, please read this manual carefully before use. Due to constant improvements in software and hardware this manual may change over time. The information contained in this manual is subject to change without notice. Visit our website for the most up to date information.

TX12MKII remote control is suitable for all types of fixed-wing aircraft, gliders, helicopters, cars, boats, robotics, multi-rotor aircraft and anything else you might create, if you can build it RadioMaster can control it. The TX12MKII uses a powerful operating system called EdgeTX, for more information visit the links below.

-The RadioMaster team.

# Safety Information

Many remote-control models are equipped with powerful motors and sharp propellers. When using or maintaining models, proceed with caution. When performing assembly or maintenance, make sure to disconnect the power to the model and remove the propellers.

Do not operate the TX12MKII 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 interference or where 2.4GHz radio is prohibited.
• When the radios battery voltage is too low to be used.
• In areas where local regulations prohibit the use of aviation models.

# Manual and firmware download

TX12MKII is pre-installed with factory approved EdgeTX firmware. To download the latest software manual, please visit the RadioMaster website: https://www.radiomasterrc.com

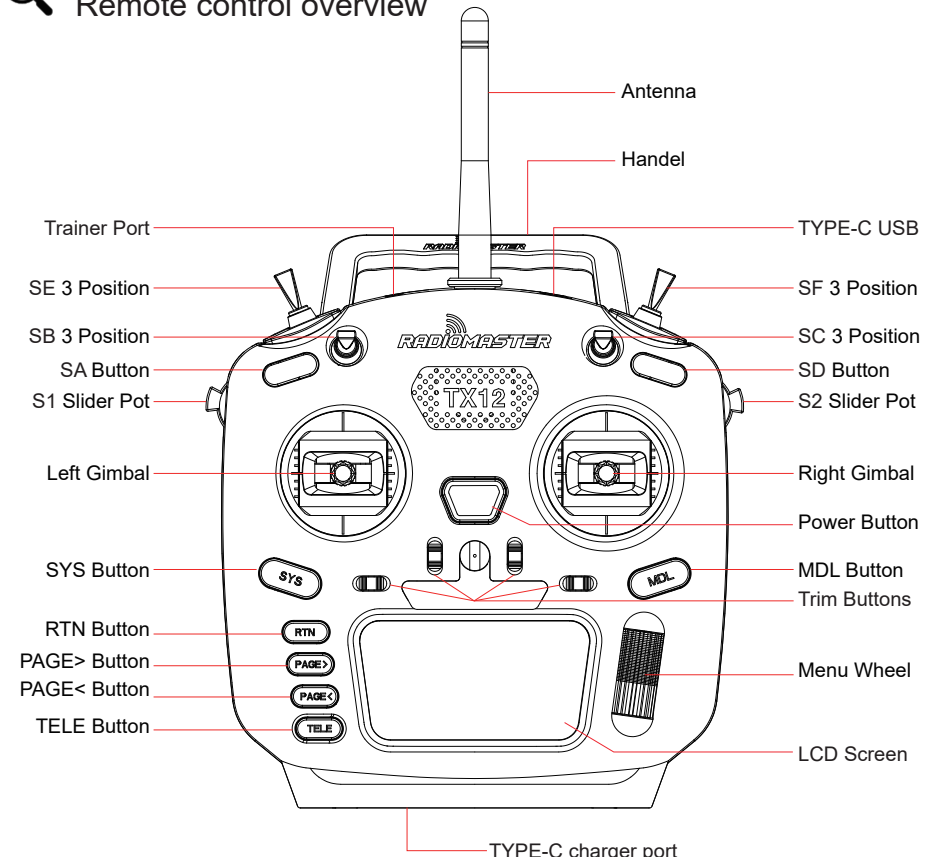
To download the latest firmware for your TX12MKII remote control, please visit the EdgeTX website: https://www.Edge-tx.org

# Important!

ANTENNA: Install the provided antenna in the top of the radio BEFORE installing batteries and turning on the radio. DO NOT operate the radio without the antenna installed and the internal RF module powered on. Doing so will damage the internal RF module and will not be covered under warranty.

FIRMWARE: The TX12MKII 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.

# Remote control overview




TX12MKII has a built-in USB-C charging function for 3.7v to 4.2v lithium battery. The charging circuit is only suitable for 2x 3.7v Li-ion 18650 or 2x 3.7v Lipoly batteries (2s 7.4v Lipo battery pack), the nominal battery voltage is 3.7v, and the maximum charging voltage is 4.2v.

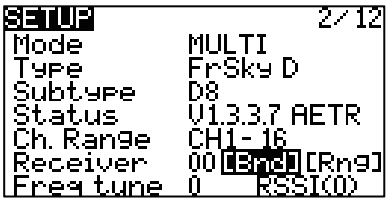
Do not use LiFE battery packs or 18650 lithium-ion batteries with a nominal voltage of 3.6v to 4.10v. Charging the incorrect type of battery may damage the charger or cause a fire.

Please check the voltage and condition of the battery regularly and never charge it unattended. Always charge in a safe area away from combustible 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.

# Model selection and protocol selection (CC2500 version)

The TX12MKII comes with a CC2500 single-chip multi-protocol internal RF module, which is compatible with several different protocols. To view the latest list of all compatible protocols, please visit https://www.-multi-module.org/ Please note that new protocols will be constantly updated and added to the latest firmware. Some new protocols may require firmware upgrades.

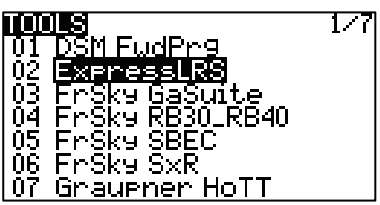



• Long press the MDL button to enter the model settings, select MULTI in the SETUP page, and select the protocol to be used in the sub-options. The system will automatically turn on the corresponding RF module according to the RF protocol you selected.
• Bind [BND] is used to start the binding process.
• Range [RNG] button can reduce the power to 1/30 to facilitate testing of remote-control distance.

# Model selection and protocol selection (ELRS version)

TX12MkII ELRS units are equipped with an internal ELRS module, capable of providing 10mW-250mW RF output. In non-extreme circumstances, 100mW output at 250Hz update rate is recommended, as higher RF output and update rates may significantly reduce battery life and generate excessive heat.

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 the ExpressLRS LUA under the TOOLS menu. Scroll down to [Bind] and press enter.
4：The LED on the receiver should now be solid, indicating successful bind.





# Notes

EdgeTX software is very powerful, and has a large number of programming and mixing functions. Please download the comprehensive software installation guide from the link below for more detailed instructions: https://www.Edge-tx.org or https://www.radiomasterrc.com

# Specifications

Size： 170*159*108mm
Weight： 363g
Frequency： 2.400GHZ-2.480GHZ
RF Chip： Single-chip Multi-protocol （CC2500）/SX1280 (ELRS)
Supported Protocols：Corona 、Hitec、Futaba S-FHSS、Frsky D16/D8、RadioLink、Graupner HoTT* (CC2500)
ExpressLRS (ELRS version)
Voltage Range：6.6-8.4v DC
Radio Firmware： EdgeTX （Transmitter）/ Multi-Module （RF module) / ELRS
Channels： Up to 16 (depending on receiver)
Display：128*64 Monochrome LCD display
Gimbal： High precision Hall gimbals
External module： JR/FrSKY/Crossfire compatible
Upgrade Method： USB/SD card & EdgeTX Companion PC software
* For the most up to date list on supported protocols please visit https://www.multi-module.org/

# Warranty and 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 TX12MKII. You may also visit our warranty support page https://www.radio-masterrc.com/contact

# Firmware update and EdgeTX

For the latest information and firmware updates from the EdgeTX open source firmware development team, please visit the EdgeTX website at https://https://www.Edge-tx.org.

**EU Simple Declaration of Conformity**

RadioMaster declares the radio equipment TX12 is in compliance with EU directives Directive 2014/53/EU. Full text of the declaration of conformity is available at the following website www.radio-masterrc.com

**Manufacturer by**

ShenZhen RadioMaster Co., Ltd
4th Floor, Yangtian Building, No. 18 Yangtian Road, Xin'an Street, Baoan District, Shenzhen, Guangdong.

**FCC ID: 2AV3G-TX12**

**FCC Information**

This equipment has been tested and found to comply with the limits for Part 15 of the FCC rules. This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Full text of the declaration of conformity is available at the following website www.radiomasterrc.com

**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 2.400GHz to 2.4835GHz 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.