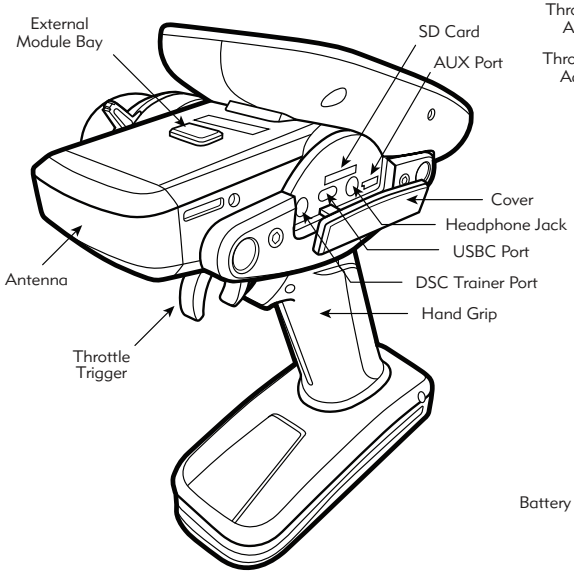
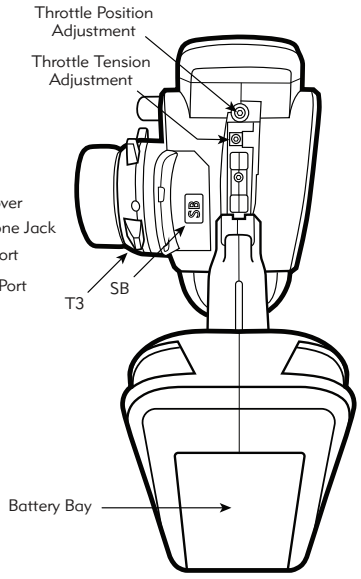
SIDE



BOTTOM



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 withwireless 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.

RADIOMASTER

WWW.RADIOMASTERRC.COM

EU SIMPLE DECLARATION OF CONFORMITY

RadioMaster declares the radio equipment MT12 is in compliance with EU directives Directive 2014/53/EU.

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

FCC ID: 2BBP3-MT12-ELRS 2BBP3-MT12-4IN1

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:
www.radiomasterrc.com

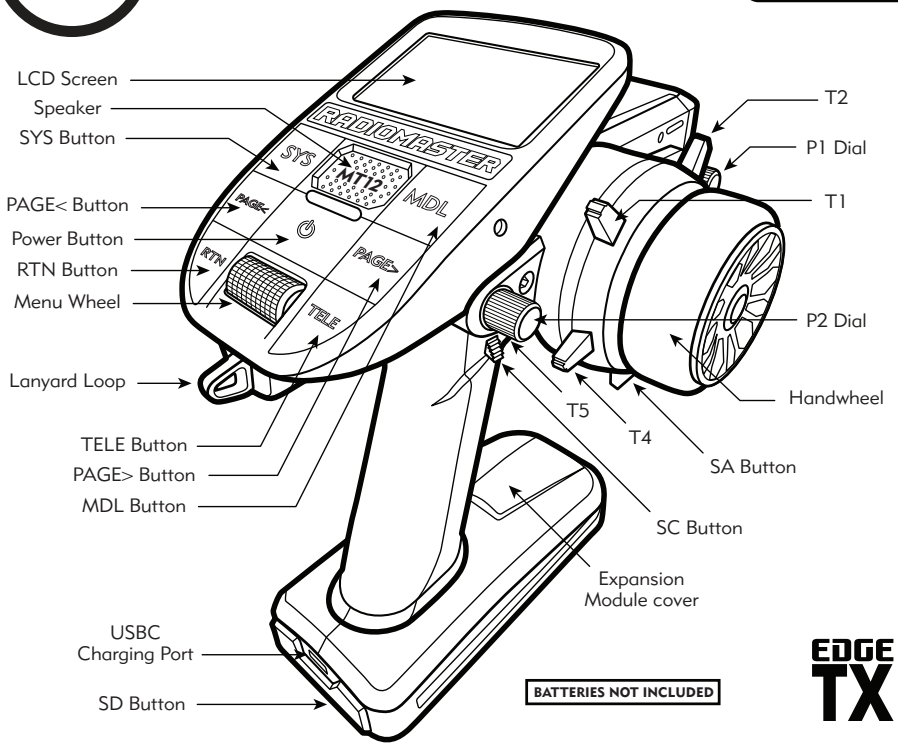
CE FC

RADIOMASTER
MT12

2.4 GHZ

Quick Start Guide

Voltage Range
6.6-8.4V DC



BATTERIES NOT INCLUDED

EDGE TX

SPECIFICATIONS

• Item:	MT12 Radio
• Size:	177.8*118.4*207.8mm
• Weight:	480g
• Frequency:	2.400GHz-2.480GHz
• Internal RF Options:	4in1, ELRS 2.4GHz
• Supported Protocols:	Module dependent
• Voltage Range:	6.6-8.4V DC
• Firmware:	EdgeTX
• Channels:	Max 16 channels (RX dependent)
• Battery Options:	2s 7.4v 5000mah battery pack or 2x 3.7V 18650 cells
• LCD Display:	128*64 Monochrome
• Charging:	Built in USB-C Charging
• Upgrade Method:	USB / SD card
• External module:	Nano compatible

RadioMaster Ranger Nano Module
RadioMaster RM 4in1 Module

INTRODUCTION

Thank you for purchasing the RadioMaster MT12 radio system. Advanced and highly-versatile, the MT12 is adaptable for drivers of any skill level. To ensure safe and reliable operations, please read this manual carefully prior to use.

As the software and hardware are constantly improved, the information contained in this manual is subject to change without prior notice. Please visit our website for up-to-date information and radio firmware.

MT12 is an open-sourced, ergonomic surface radio with powerful multi-protocol or ExpressLRS capability. Able to bind to most contemporary protocols on the market, this is one radio to rule them all! MT12 runs EdgeTX, an open-sourced operating system; for more information, please visit the EdgeTX link.

-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 MT12 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 R/C aircraft.

IMPORTANT

FIRMWARE: The MT12 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. Damage as a result of improper firmware update may not be covered under warranty.

MANUAL & FIRMWARE DOWNLOAD

MT12 is pre-installed with factory approved EdgeTX firmware. To download the latest software manual, please visit the RadioMaster website:
www.radiomasterrc.com

Further firmware information:
EdgeTX: **www.edgetx.org**
ExpressLRS: **www.expresslrs.org**
Multi Protocol Module: **www.multi-module.org**

BATTERIES & CHARGING

MT12 has a built-in USB-C charging function 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.

DO NOT use LiFE battery packs or 18650 lithium-ion batteries with a nominal voltage of 3.6v with a fully charged voltage of 4.10V. Charging the incorrect type of battery may damage the charger or cause a fire.

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

Please check the voltage and condition of the battery regularly and never charge unattended. Always charge in a safe area away from combustible materials. Refrain from charging if the remote control gets wet or damaged in any way. **DO NOT** charge with the polarity reversed.

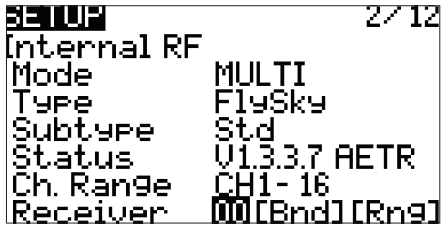
RadioMaster does not assume any responsibility for any adverse consequences caused by the use or misuse of this product.

MODEL & PROTOCOL SELECTION

Multi-protocol Module

Depending on the package purchased, MT12 has a 4-in-1 quad-chip multi-protocol module or ExpressLRS module built in. To view the latest list of all compatible protocols, please visit the multi module website.

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.

ATTENTION

4in1/CC2500 Users: The receiver you are using may require frequency tuning, follow this link to tune before flight.

www.multi-module.org/using-the-module/frequency-tuning

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 MT12.

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

ExpressLRS Version

MT12 ExpressLRS units equipped with an internal ExpressLRS module are capable of providing 10mW-250mW RF output (limited to 100mw for EU LBT versions). 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.

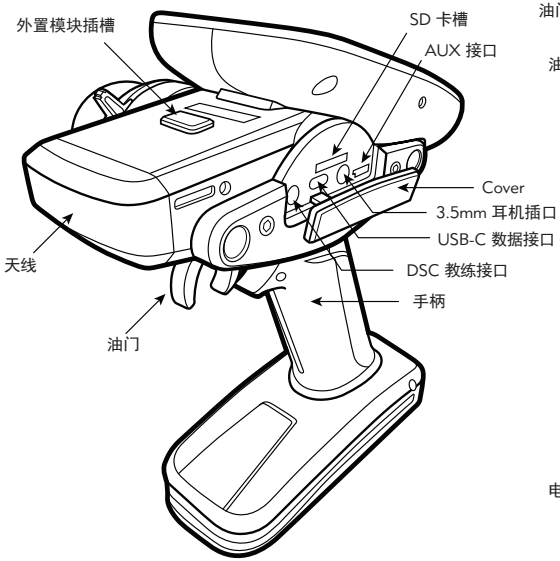




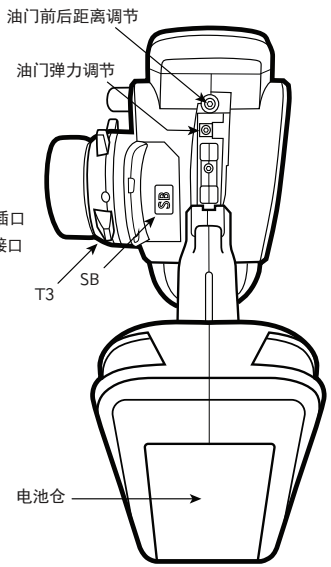
BIND INSTRUCTIONS

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.

SIDE



BOTTOM



警告

未经负责合规方明确批准的更改或修改可能会使用户丧失操作设备的权限。
本产品包含具有天线技术的无线电发射器，该无线电发射器已经过测试，符合适用于2.400GHz至2.4835GHz频率范围内的无线电发射器的适用法规。

安全的天线距离

操作RadioMaster发射器时，请确保您的身体（不包括手指，手，腕，脚踝和脚）与天线之间保持至少20cm的距离，以符合FCC法规确定的RF暴露安全要求。

欧盟认证合格声明

RadioMaster无线电设备MT12符合欧盟指令2014/53/EU的要求。

制造商
深圳RadioMaster有限公司
广东省深圳市宝安区新安街道72区杨田路扬田大厦4楼

FCC ID: 2BBP3-MT12-ELRS 2BBP3-MT12-4IN1

FCC 警示

该设备已经过测试，符合FCC规则第15章的规定。操作必须符合以下两个条件：
（1）此设备不会造成有害干扰
（2）此设备必须接受收到的任何干扰，包括可能导致意外操作的干扰。
符合性声明的全文可在以下网站上找到：
www.radiomasterrc.com

CE FC A1.4

RADIOMASTER

WWW.RADIOMASTERRC.COM

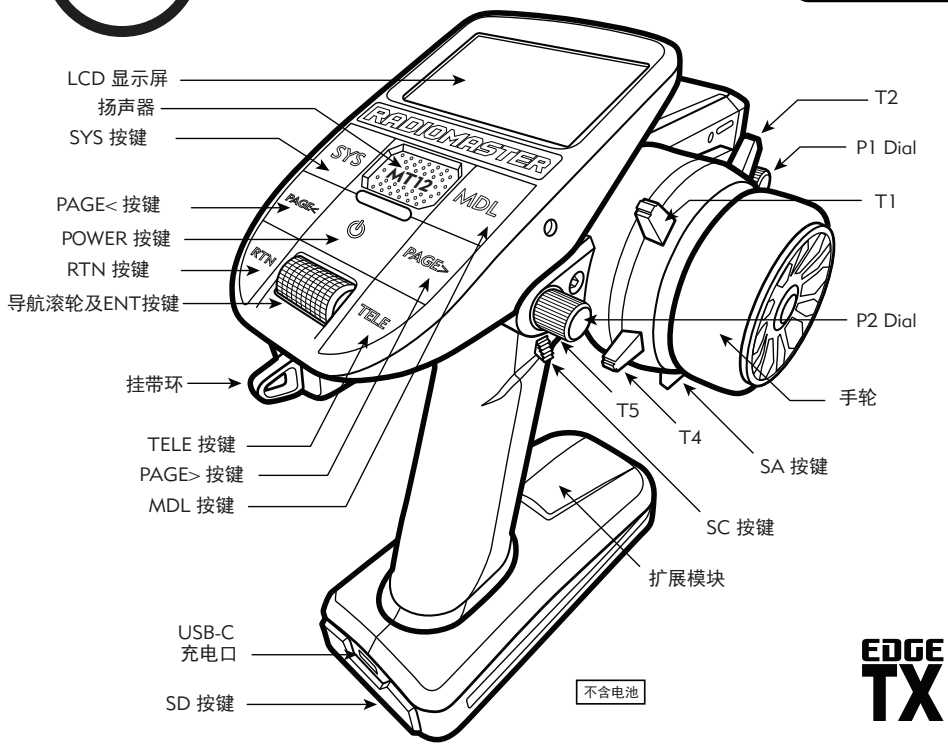
RADIOMASTER

MT12

2.4 GHZ

Quick Start Guide

Voltage Range
6.6-8.4V DC



EDGE TX

SPECIFICATIONS

- •产品型号：MT12 遥控器
- •尺寸：177.8*118.4*207.8mm
- •重量：480 g
- •工作频率：2.400GHz-2.480GHz
- •内部射频选项：4-in-1 多协议/ ELRS 2.4GHz
- •支持的协议：取决于内部射频模块
- •工作电流：4-in-1: 160mA/8V，ELRS：320mA/8V
- •工作电压：6.6-8.4V DC
- •控制距离：最大1km
- •操作系统：EdgeTX
- •控制通道：最多支持16通道（取决于接收机）
- •显示屏：128*64 LCD显示屏
- •电池：2x18650或21700 5000mAh 7.4V电池组（电池不包含）
- •充电 ：支持USB-C直充
- •固件升级方式：通过USB或SD卡
- •油门和方向：霍尔传感器
- •模块：Nano兼容扩展仓

简介

感谢您购买RadioMaster MT12枪控遥控器。该遥控器功能强大且稳定，适用于任何阶段的用户，包括初学者和专业人士。为确保安全可靠的操作，请在使用前仔细阅读本说明书。

随着软件和硬件的不断升级，本手册中的信息也可能发生改变。请访问我们的网站获取最新信息和遥控器固件，恕不另行通知。

MT12是首款EdgeTX开源枪控遥控器，符合人体工程学设计，提供4合1多协议和ExpressLRS两种配置，可匹配市场上绝大多数协议！MT12枪控遥控器采用EdgeTX开源操作系统；更多信息，请访问下方的EdgeTX链接。

–RadioMaster团队敬上

安全须知

无线遥控设备通常都包含齿轮和轮胎等部件，以达到高转速旋转。在操作或维护模型时，请始终保持谨慎。在组装或维护过程中，务必断开模型的电源。

在以下情况下，请勿操作MT12遥控系统：

- 在恶劣天气或强风条件下，例如雨，冰雹，下雪，暴风雨或电磁环境中。
- 在能见度有限的任何情况下。
- 在可能存在人员、财产、电力高压线、公共道路、有车辆或动物的区域。
- 如果您感到疲倦或不适，或在药物或酒精的影响下。
- 如果遥控器或模型似乎已损坏或无法正常工作。
- 在2.4GHz干扰较大的区域或禁止使用2.4GHz无线电的地方。
- 当电池电压太低而无法使用时。
- 在当地法规禁止使用遥控模型的区域。

警告

固件更新：MT12在出厂时预装了最稳定的固件，请仅在您对更新过程有信心的情况下尝试更新固件。不正确的固件更新可能导致远程控制无法操作。

手册和固件下载

MT12 预装标准的EdgeTX固件。要下载最新的软件手册，请访问RadioMaster网站：

www.radiomasterrc.com

更多固件信息请访问：
EdgeTX: **www.edgetx.org**
ExpressLRS: **www.expresslrs.org**
Multi Protocol Module: **www.multi-module.org**

电源和充电注意事项

MT12内置USB-C充电功能，可用于3.7v至4.2v的锂电池。该充电电路仅适用于2x 3.7v锂离子18650电池或2x 3.7v Lipoly电池(2s 7.4v Lipo电池组)，标称电池电压为3.7v，最大充电电压为4.2v。

不要使用标称电压为3.6v至4.10v的寿命电池组或18650锂离子电池。给不正确的电池充电可能会损坏充电 器或引起火灾。请确保电池正负极未接反。

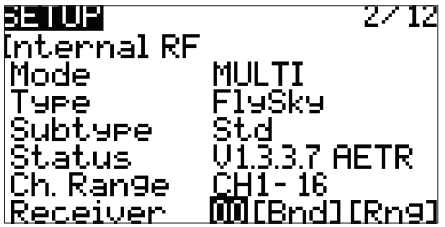
请定期检查电池的电压和状态，切勿在无人看管的情况下充电，在远离易燃材料的安全区域充电。如果遥控器被水打湿或损坏了，请勿给它充电。

RadioMaster不承担因使用或误用本产品而造成的任何不良后果。

模型选择及协议选择

内置4IN1多协议高频模块

MT12附带4IN1多协议高频模块，拥有并兼容许多不同协议， 要查看所有兼容协议的最新列表，请访问多协议官方网站：
https://www.multi-module.org
请注意，由于MT12遥控器不同版本内置高频模块不同，系统中只会列出当前内置高频模块所支持的协议列表，新协议会不断更新并被添加到最新固件中， 新的某些协议可能需要升级固件。



・请长按MDL按钮进入模型设置，在SETUP页面中选择MULTI，并在子选项中选择需要使用的协议。系统根据您选择的射频协议，会自动开启对应的射频模块，同时关闭其它三个射频模块。系统在同一时间只会开启一个射频模块，以确保没有多余的无线电信号相互干扰。
・Bind按钮用于启动对频过程。
・Range按钮可将功率降低至1/30，以方便测试遥控距离。

注意

四合一和CC2500版本用户，您使用的接收机可能需要频率调节，请参照此链接进行调节

www.multi-module.org/using-the-module/frequency-tuning

保修及维修

如果您的遥控器硬件出现任何问题，请保留购买证明并与您购买MT12的零售商联系。

也可以登录网站联系官方售后
www.radiomasterrc.com/contact

内置ExpressLRS高频模块

MT12 推荐使用500Hz速率，更高的速率会降低控制距离，更高的功率会带来较大的发热和耗电，请您根据自身需求，合理调整功率及速率，以便达到性能和耗电的平衡。





对码方式

1. 关闭发射机。
2. 给接收器循环通电3次，接收器LED闪烁2次，表示绑定模式。
3. 打开遥控器，长按SYS按钮，在TOOLS菜单下选择ExpressLRS LUA。滚动到[绑定]并按enter键。
4. 接收器上的LED现在应该是固态的，表明绑定成功。