RADIOMASTER

ZORRO

Quick start guide

WWW.RADIOMASTERRC.COM

Introduction

Thank you for purchasing the RadioMaster ZORRO radio system. Advanced and highly-versatile, ZORRO is adaptable for pilots 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.

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

Safety Information

Radio-controlled models commonly contain sharp components like propellers, rotating at high RPMs; when operating or maintaining the model, always use common sense and proceed with caution.
Always disconnect power to the model AND remove propellers (if applicable) during the assembly or maintenance process.

Never operate the ZORRO radio system in the following conditions:
• In severe weather or strong windy conditions, such as rain, hail, snow, storms or electromagnetic environments.
• In limited visability
• In the proximity of other people, property, high-voltage power lines, public roads, vehicles or animals
• When feeling unwell, or under the influence of drugs or alcohol.
• If the ZORRO radio system/model is damaged or showing signs of interference.
• In areas with high 2.4GHz interference or where 2.4GHz radios are prohibited.
• When the TX/RX battery is low.
• In areas where local regulations prohibit the use of R/C aircraft.

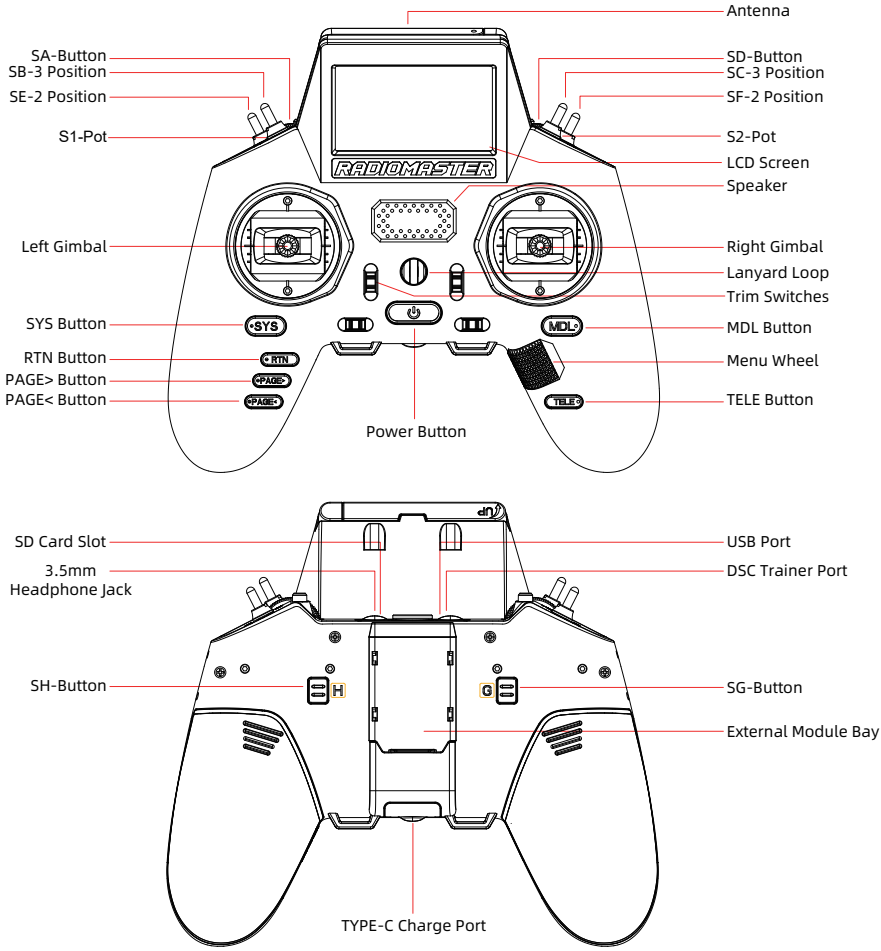
Manual and firmware download

ZORRO is pre-installed with factory approved EdgeTX firmware. To download the latest manual or stock factory firmware, please visit the RadioMaster website: https://www.radiomasterrc.com
To download the latest EdgeTX firmware for your ZORRO radio system, please visit the EdgeTX website: https://www.edgetx.org

Important!

Zorro 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.

Remote control overview



Power Requirements.

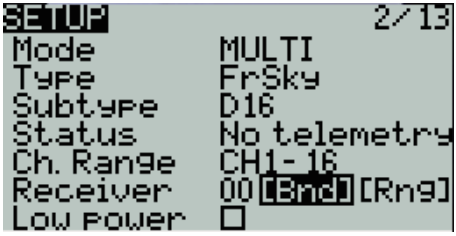
ZORRO is powered by 2x 3.7V 18350 Lithium Ion cells and is charged using the built-in USB-C port. The charging circuitry is designed for charging 2x 3.7V Lithium Ion batteries only. The nominal voltage is 3.7V and the maximum charging voltage is 4.2V.

Never charge 3.6V LiFe and 3.6V 18350 Lithium Ion packs with the onboard charger. Charging or using the wrong battery chemistry/polarity may cause permanent damage to the PCB and in certain situations cause fires.

Check the voltage and condition of the battery regularly and never charge the device unattended. Only charge in safe areas away from combustable materials. Refrain from charging the radio unit if it was exposed to water or was damaged in any way. RadioMaster does not assume any responsibility for any adverse consequences caused by the use or misuse of this product.

Model selection and protocol selection

Depending on the package purchased, Zorro has a 4-in-1 quad-chip or a CC2500 single-chip multi-protocol module built in. 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 desired protocol 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)

Boxer ELRS units are equipped with an internal ELRS module, capable of providing 10mW-250mW RF output. 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 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 highly versatile, 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.edgetx.org

Specifications

Physical dimensions：170*159*108mm
Weight：350 grams
Operating frequency：2.400GHz-2.480GHz
Internal RF Options：CC2500 multi-protocol / 4-in-1 multi-protocol / ELRS 2.4GHz
Supported protocols ： Module dependent
operational current: 160mA for cc2500 and 4 in 1. 400mA for ELRS 250mw .
Operational voltage：6.6-8.4v DC
Operating system：EdgeTX
Control channels：Maximum 16 (Rx dependent)
Display ： 128*64 Monochrome LCD
Battery ： 2 x 18350 (Not included)
Charging ： Built in USB-C Charging
Firmware Upgrade method：Via USB or SD card (SD Not included)
Gimbal：Hall-effect
Module bay ： Nano size (Compatible with TBS Nano Crossfire / Nano Tracer / RadioMaster Nano-size modules)

Warranty and repair

Should any issues arise with your radio system's hardware, please keep the proof of purchase and contact the retailer where you made the ZORRO purchase. . You may also visit our warranty support page https://www.radiomasterrc.com/contact
The limited warranty covers defects in workmanship for one year from the date of purchase

Manual

To view the full manual for the ZORRO radio system, please visit the Radiomaster website：
https://www.radiomasterrc.com

EU Simple Declaration of Conformity

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

Manufacturer by

4F Yang Tian Building, Area 72 Xing Dong community, Xin An Street, Bao An district, Shen Zhen city, Guangdong Province, China

FCC ID: 2A337ZORRO-
FCC ID: 2A337ZORRO

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.

简介

感谢您购买RadioMaster ZORRO遥控系统。 该系统用途广泛，可供初学者和专业人士使用。 为了确保正确、安全地使用本产品，请在使用前仔细阅读本使用说明书。 由于版本升级，已经进行了更改。 本手册中包含的信息如有更改，恕不另行通知。
ZORRO遥控器适用于所有类型的固定翼、滑翔机、直升机和多旋翼飞机。 可以根据使用的航空器选择型号类型，并可以使用各种混合功能。

-RadioMaster 团队敬上.

安全须知

许多遥控模型都配备了强大的电机和锋利的螺旋桨。 使用模型时，请谨慎行事。 进行组装或维护时，请确保已断开模型的电源并卸下螺旋桨。

在以下情况下，请勿操作ZORRO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航空模型的区域。

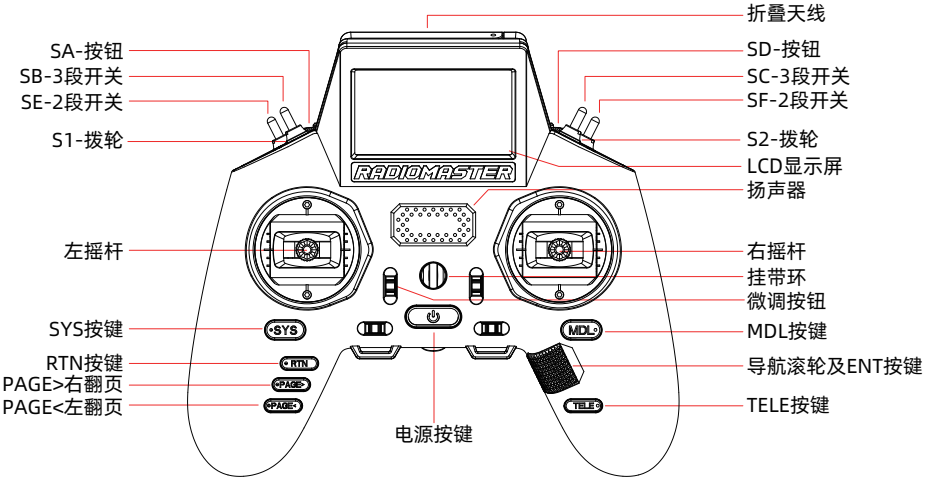
说明书和固件下载

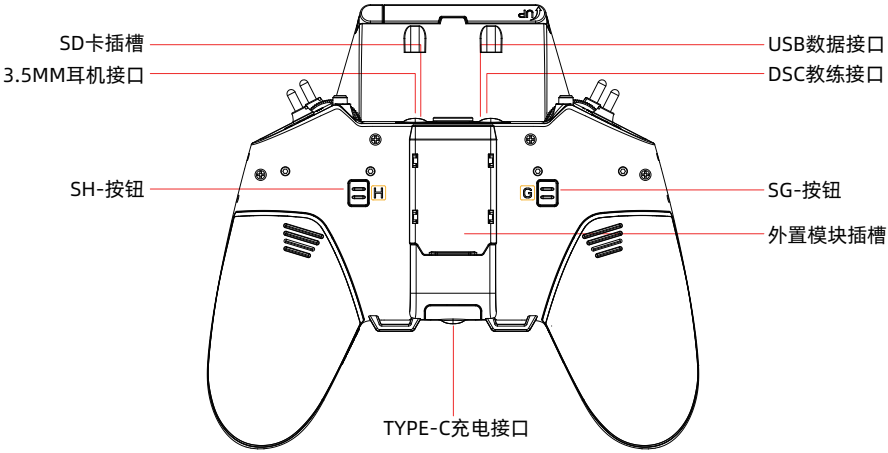
ZORRO支持强大的开源固件EdgeTX。 要下载最新的软件手册，请访问RadioMaster官方网站：
https://www.radiomasterrc.com
要为您的ZORRO遥控器下载最新的EdgeTX固件，请访问EdgeTX网站： https://www.edgetx.org

警告！

ZORRO出厂时预装最稳定的固件。 如果您有经验并且有信心更新系统固件，请仅更新固件。 不正确的更新可能会导致遥控器无法操作。

遥控器概述



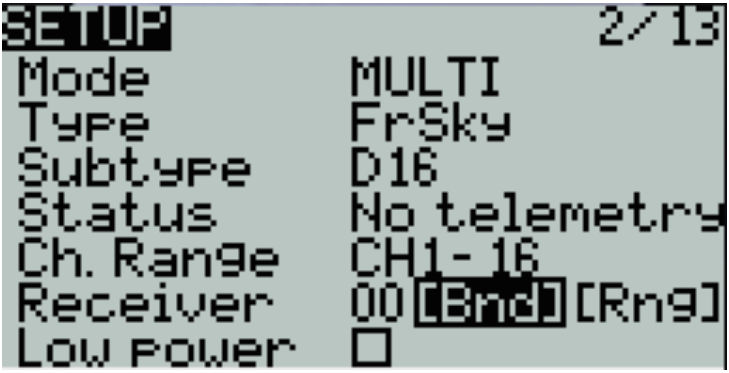


电源和充电注意事项

ZORRO内置了用于3.7v锂电池的USB-C充电功能。 充电电路仅适用于2x 3.7v锂离子18350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。
请勿使用标称电压3.6v的LiFE电池组或18350锂离子电池充电。 错误地电池组或电池，使用此充电方式可能会导致遥控器损坏或火灾。
请定期检查电池的电压和状况，决不要在无人看守的情况下为其充电。 请务必始终在远离可燃材料的安全区域中充电。 如果遥控器弄湿或以任何方式损坏，请勿充电。
对于不按照安全规范使用或滥用本产品造成的一切不良后果，RadioMaster不承担任何责任。

模型选择及协议选择

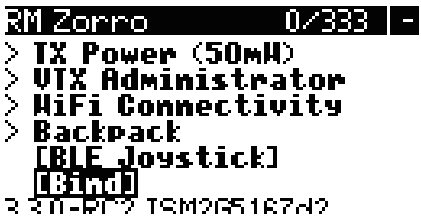
ZORRO附带4in1多协议高频模块，或CC2500单芯片多协议高频模块，拥有并兼容许多不同协议， 要查看所有兼容协议的最新列表，请访问多协议官方网站：https://www.multi-module.org
请注意，由于ZORRO遥控器不同版本内置高频模块不同，系统中只会列出当前内置高频模块所支持的协议列表，新协议会不断更新并被添加到最新固件中， 新的某些协议可能需要升级固件。



· 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。
· [Bnd]选项用于启动对频过程。
· [Rng]选项可将功率降低至1/30，以方便测试遥控距离。

模型选择及协议选择（内置ELRS高频模块）

Boxer 内置ELRS具有10mW-250mW可调范围，最大功率为250mW，在非极限条件使用时，推荐将功率限制为100mW，并使用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。



注意

EdgeTX软件非常强大，并且具有大量的编程和混控功能。
要获取EdgeTX最新详细的开源资料，请访问EdgeTX官方网站：https://www.edgetx.org

技术指标

产品尺寸: 170*159*108mm
重量: 350 g
工作频率: 2.400GHz-2.480GHz
内部射频选项: CC2500 多协议 / 4-in-1 多协议/ ELRS 2.4GHz
支持的协议: 取决于内部射频模块
天线: 折叠天线
工作电流: CC2500 /4-in-1: 160毫安, ELRS：400毫安
工作电压: 6.6-8.4v DC
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: 2 x 18350 (标配不含电池)
充电 ：支持USB-C直充
摇杆: 霍尔摇杆
模块: Nano尺寸（兼容TBS Nano Crossfire /Nano Tracer / Radiomaster Nano尺寸模块）
固件升级方式: 通过USB或SD卡（不包括SD）

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ZORRO的零售商联系。

用户手册

有关ZORRO EdgeTX系统固件的详细用户手册，请访问Radiomaster官方网站：
https://www.radiomasterrc.com

欧盟认证合格声明

RadioMaster无线电设备ZORRO符合欧盟指令2014/53/EU。符合性认证声明的全文可在以下网站上找到：www.radiomasterrc.com

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: 2A337ZORRO-
FCC ID: 2A337ZORRO

FCC 认证信息

T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

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。

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