



# RADIOMASTER CC2500 Zorro Radio Controller User Guide

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## 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 OpenTX, an open-sourced operating system; for more information, please visit the OpenTX 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 visibility
- 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 OpenTX or EdgeTX firmware. To download the latest manual or stock factory firmware, please visit the RadioMaster website: <https://www.radiomasterrc.com>

To download the latest OpenTX firmware for your ZORRO radio system, please visit the OpenTX website: <https://www.open-tx.org>

To download the latest EdgeTX firmware for your ZORRO radio system, please visit the EdgeTX website: <https://www.edgetx.org>

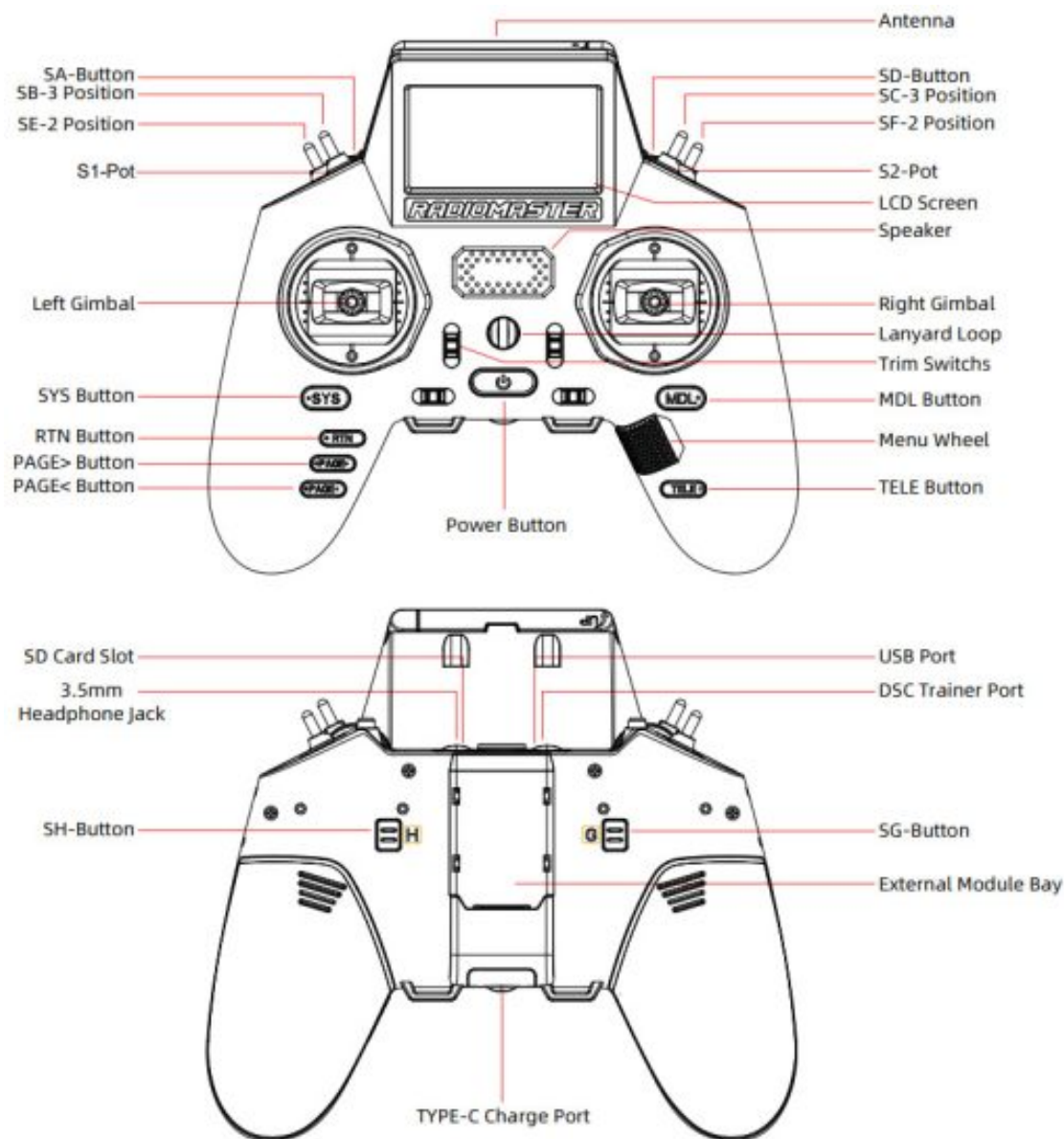


## Important

Zorro is pre-installed with the most stable firmware at the factory at the 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 the improper firmware updates may not be covered under warranty.



## Remote control overview



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 combustible 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.
- Need to add something here about bind ELRS.



### Notes

OpenTX 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.open-tx.org> or <https://www.radiomasterrc.com>



### 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  
 RF power CC2500 and 4-in-1: 20dBm max. / ELRS: 24dBm max.  
 Antenna gain Folding 2db  
 operational current: 160mA for cc2500 and 4 in 1. 400mA for ELRS 250mw .  
 Operational voltage 6.6-8.4v DC  
 Control distance > 2km @ 20dBm  
 Operating system OpenTX / EdgeTX Compatible  
 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 / IRC Ghost)



### 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](http://www.radiomasterrc.com)

### Manufacturer by

411, Building 11, Shenzhen Bay Science and Technology Ecological Park, No.16, Keji South Road, community, high tech Zone, Yuehai street, , Nanshan District, Shenzhen



**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](http://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.

## FCC Warning

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.

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

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following

measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

Specific Absorption Rate (SAR) information:


This ZORRO ELRS meets the government's requirements for exposure to radio waves. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health.

#### FCC RF Exposure Information and Statement

- This radio is designed for and classified as "General population/uncontrolled Use", the guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health. The exposure standard for wireless radio employs a unit of measurement known as the Specific Absorption Rate, or SAR, the SAR limit set 1.6W/kg.
- Body-worn operation; this device was tested for typical body-worn operations with the back of the handset kept 0mm for body worn. To maintain compliance with RF exposure requirements, use accessories that maintain a 0mm for body worn. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with RF exposure requirements, and should be avoided.
- The highest reported SAR value for worn on the body is 1.184 W/kg.





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#### Documents / Resources

	<a href="#">RADIOMASTER CC2500 Zorro Radio Controller</a> [pdf] User Guide ZORRO, 2A337ZORRO, CC2500 Zorro Radio Controller, Zorro Radio Controller
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#### References

- [diomasterrc.com/contact](http://diomasterrc.com/contact)
- [Home - MULTI-Module Documentation](#)
- [RadioMaster RC - A team of radio control model enthusiast](#)

-  [Join our community! | EdgeTX](#)
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Manuals+.