

# TinyRadio ELRS Remote Controller

## User Manual



# Product Introduction

TinyRadio ELRS Remote Controller is a new generation remote control system developed based on the ExpressLRS open source project. ExpressLRS sets new standards for long-range connection, low latency and Maximum refresh rate of 500Hz.

TinyRadio adopts a simplified design to minimize the difficulty of use. Ergonomic design, more comfortable to hold. Built-in ELRS module, available in 915/868MHz and 2.4GHz versions, adjustable power of up to 500mW with replaceable antenna design, the remote control distance can reach more than 2KM under ideal conditions. Support upgrade remote control firmware through USB interface, and can upgrade ELRS module firmware through WIFI, supports wireless connection to computer drone simulator via bluetooth. It supports two 18650 batteries for ultra-long battery life. 8 low latency channels can meet most of the needs of beginners and professionals.

**(Notes: An antenna must be installed before Power On!)**

## Specifications

Size: 147\*135\*71mm(Not including antenna)

Weight: 223g

Adapted Drone Type: Multirotor, Airplane

Frequency band: 915MHz FCC /868MHz EU /2.4GHz ISM

Input voltage: 6.6-8.4V

Antenna interface: SMA

Power: 100/250/500mW

Channel: 8 channel

Charging interface: USB-C

Firmware upgrade: support

Bluetooth joystick: support

# Function Guide

AUX1 Unlock Switch: Switch to control FPV Disarm and Arm.

AUX2 Switch: The AUX channel can be set by the user.

AUX3 Switch: The AUX channel can be set by the user.

AUX4 Switch: The AUX channel can be set by the user.

USB-C: Charge and upgrade firmware.

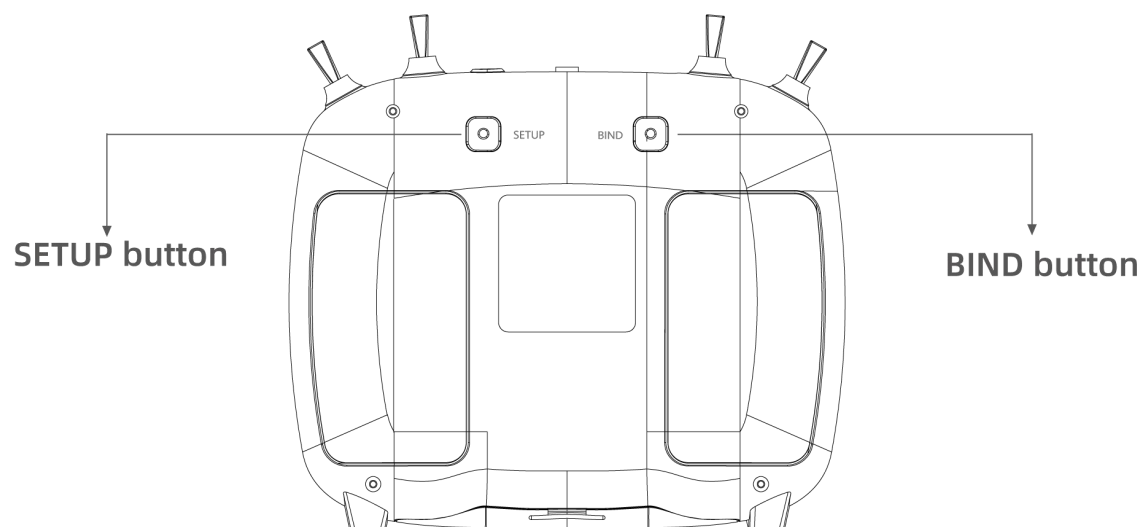
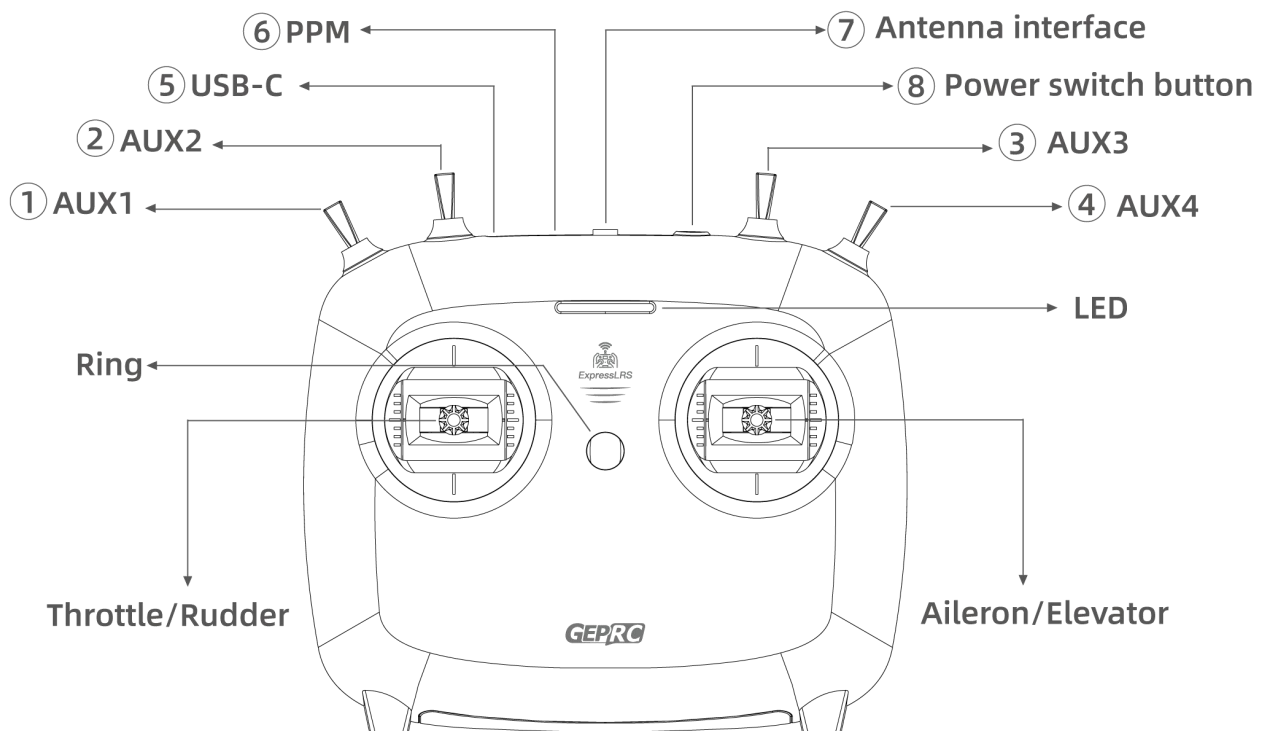
Antenna interface: SMA.

Power switch button: Turn the remote on/off.

SETUP button: Hold down to calibrate the Joystick

BIND button: Long press to start binding.

# TinyRadio diagram



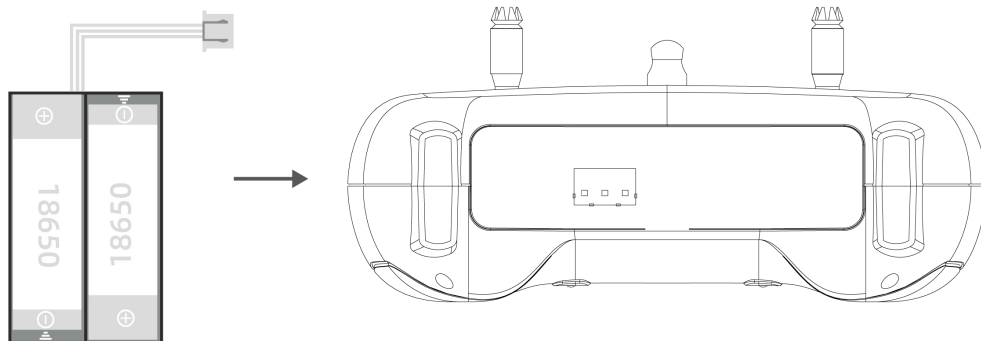


# Battery installation

Open the bottom battery cover and insert two 18650 batteries or a 2S battery.(not included)

Notes:

1. Ensure the polarity symbols on the batteries match the symbols inside the battery compartment.
2. Do not mix new and old batteries.
3. Do not mix different types of batteries.



# LED Status indication

LED Status	Meaning
Red light solid on	Working
Red light ashing quickly	Binding
Red light number: 1-2-3	Power: 100-250-500mW
Red light flash slowly	Battery low

Red running Led quick flashing	WIFI mode
Red running Led slow flashing	Bluetooth joystick
Blue light solid on	On charging
Blue light flash slowly	Faulty battery,reinsert battery
Blue light went out	Charge complete

## Power On/Off

Long press the power button of the remote control for 2 seconds in the off state, and release the power button after the remote control vibrates, while the red LED lights up, the remote control is successfully powered on.

Long press the power button of the remote control for 2 seconds in the power on state, when the LED light goes out, the remote control is turn off successfully.

## Binding

In the off state, long press the BIND button on the back of the remote control to turn it on . When the indicator light turns flashing, the remote control enters the binding status.

The binding status will last for 5 seconds, there will be no feedback when the binding is successful, and it will automatically exit the binding status after 5 seconds. Check whether the remote control is in binded with the receiver. If not, please repeat the binding operation.

# Joystick Calibration

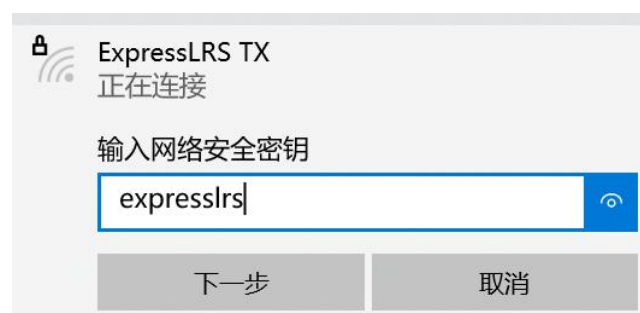
With the joystick back in the center and the throttle lever in the lowest position, long press the SETUP button on the back of the remote control for 4 seconds, and when the remote control vibrates and the buzzer beeps sound, the calibration is complete.

## Power switching

First long press the BIND button, then short press the SETUP button for 1 second, the 100/250/500mW power can be switched cyclically, and the current high performance Radio control link power can be observed through the indicator light.

## WIFI mode

In the off state, long press the SETUP button to turn it on, and when the indicator light turns into quickly flashing running led, it will enter the WIFI update mode. find the WIFI name named "ExpressLRS TX", input the password "**expresslrs**", connect to the website: 10.0.0.1, then you can perform ELRS high-frequency firmware update.



# Bluetooth joystick

In the off state, long press the BIND and SETUP buttons at the same time to turn on the device. When the indicator light turns into a slowly flashing running led, it will enter the Bluetooth simulator mode, Search for a Bluetooth device called "ExpressLRS Joystick" and connect it to practice on a computer simulator.



## charging

Plug in the USB-C cable in the off state, it will be in the charging state when the remote control indicator turns blue, and the indicator light will automatically turn off after charging is completed. According to the system, if the blue light blinks during charging, the battery is faulty, which means you plug it in or replace it.

# About ELRS

ExpressLRS project is being constantly updated - the contents of this manual cannot be kept up-to-date in time. For more information, please visit the ELRS Project official.

github page:

<https://github.com/ExpressLRS/ExpressLRS>

## Product list

1 x TinyRadio

1 x Instruction manual

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