感谢您购买 Radiomaster ER4 ExpressLRS 接收机.ER4 接收机基于革命性的 ExpressLRS 系统.高性能、高可靠性、灵活配置、快速响应速度、超远航程，为您的航模爱好带来全新体验。

⚠ 注意：

1.遥控器端推荐的ELRS LUA设置为：

- 标准舵机设置：

数据包传输速率：	100Hz Full
回传比例：	Std (1:32)（如果不确定则默认）
开关模式：	8ch

- 高性能舵机设置：

数据包传输速率：	333Hz Full
回传比例：	Std (1:128)
开关模式：	8ch

```
RM Zorro            0/100 |C
Packet Rate →100Hz Full(
Telem Ratio →Std (1:32)
Switch Mode →8ch
Model Match   Off (ID: 0)
> TX Power (250mW Dyn)
> VTX Administrator
> WiFi Connectivity
```

2.EXT-V（外部电压输入）电压回传读数的最大输入电压为 35V。不要超过 35V，否则会损坏接收机。

3.ER4的EXT-V（外部电压输入）可通过PCB上的EXT-V焊盘进行连接。一根导线必须焊接到这个焊盘上，并连接到电池或电调的正极线上。如果没有发现EXT-V电源，ER4将默认读取接收机引脚上的电压，任何情况下只能检测一个电池或电源的电压。

4.如果供电电压为7.4V或更高，请确保将接收机放置于开放和通风区域，以便更好地散热。

5.您的遥控器将需要校准回传电压。在遥控器的回传设置页面，找到RxBt传感器。编辑传感器设置并微调偏移量（Offset），直到显示的读数与模型中电池的实际电压相匹配，如果差异较大，则可能还需要调整比例（Ratio）。

*校准的电压与实际测量电池的总电压保持一致即可。

```
TELEMETRY          11/12    SENSOR 11         7.3V
 8: TRSS  -28dB      *      Type         Custom
 9: TQly  100%       *      ID           0008   1
10: TSNR  15dB       *      Source       Internal
11: RxBt  7.0V       *      Unit         V
12: Curr  0.0A       *      Precision    0.0
13: Capa  0mAh       *      Ratio        -
14: Bat%  0%         *      Offset       0.3
```

6：ExpressLRS 需要 CH5 来设置遥控器中射频模块的锁定/解锁状态。ER4接收机有4个通道，不需要任何通道输出重新映射，但是仍然建议在遥控器上设置CH5的开关，例如油门切断开关，遥控器通过5通道开启和关闭来锁定和解锁发射模块。

请访问https://www.expresslrs.org/以了解更多关于设置解锁开关的重要性。

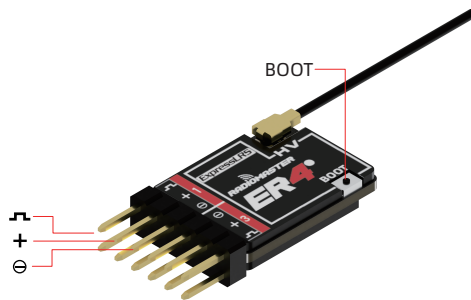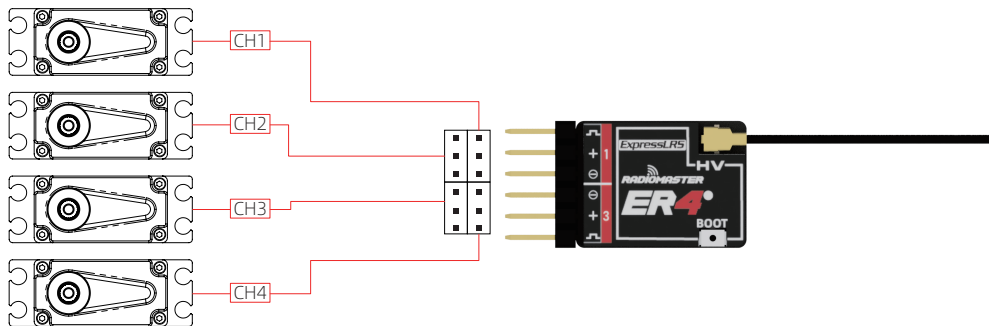| |
|---|
| CH1: CH1 |
| CH2: CH2 |
| CH3: CH3 |
| CH4: CH4 |
| CH5: CH7 |
| CH6: CH6 |

Radiomaster ER4接收机可以同时驱动4舵机。设计体积非常小巧，它适合小型固定翼模型，船舶模型，汽车模型和其他模型，虽然是一个尺寸很小的接收机，但仍然具有完整的无线电性能及距离。

产品特点：
电源：DC 4.5 - 8.4V
天线类型：15cm高灵敏度天线
无线协议：预装ExpressLRS 3.3.0
输出通道：4CH PWM
回传功率：10mw
回传电池电压检测范围：DC 4.0 - 35V
重量：3.0克
尺寸：30*15*5mm

固件选择：
设备类别：Radiomaster 2.4Ghz
设备：RadioMaster ER4 2400 PWM RX

对频方法（传统方式）：

1.当您第一次打开接收机时，接收机LED灯会连续双闪。这表明接收机处于对频模式中。如果不是这样，请按住接收机按钮10秒钟来重置接收机。
2.打开遥控器上的ExpressLRS LUA，选择[BIND]，然后确认。
3.对频成功 指示灯常亮，表示对频成功。

```
RM Zorro            0/100 |C
> VTX Administrator
> WiFi Connectivity
> Backpack
  [BLE Joystick]
  [Bind]
3.2.0 ISM2G4      8d3388
> Other Devices
```

⚠ **注意：** 要第二次对频接收机或对频到另一个无线电，请重新启动对频机3次（重复上电三次）。在第三次上电后，接收机LED灯将双闪表示对频模式。如果使用3次上电方法无法成功进入对频模式，可以按住接收机按钮10秒将接收机重置为对频模式，或者使用下面的短语对频方法。
警告：使用重置按钮时，接收机中所有先前的设置都将被删除，需要重新设置。

对频方法（对频短语方式Binding phrase）

1. 打开ExpressLRS LUA脚本并导航到WIFI连接页面。选择启用WIFI选项，并通过手机、平板电脑或个人电脑连接到您的ExpressLRS发射机WIFI（参见下面的TX WIFI说明）。打开WebUI网页（ExpressLRS的默认网页地址为：http://10.0.0.1/），并输入一个独特的属于您自己的对频短语，保存并重新启动。

2. 打开接收机，等待60秒，LED迅速闪烁以指示WIFI模式。将您的手机、平板电脑或个人电脑连接到接收机WIFI（参见下面的TX WIFI说明）。打开WebUI网页（ExpressLRS的默认网页地址为：http://10.0.0.1/），并输入与发射机中一致的对频短语，保存并重新启动。一旦发射机和接收机有相同的对频短语时，它们将自动连接而无需对频。

发射机WIFI：	接收机WIFI：
WIFI默认网络名称：ExprersLRS TX	WIFI默认网络名称：ExprersLRS RX
WIFI默认密码：expresslrs	WIFI默认密码：expresslrs
默认URL：http://10.0.0.1/（在浏览器中打开）	默认URL：http://10.0.0.1/（在浏览器中打开）

Thank you for purchasing the Radiomaster ER4 ExpressLRS receiver. The ER4 receiver is based on the revolutionary ExpressLRS system. It offers high performance, high reliability, flexible configuration, fast response speed and ultra-long range bringing you brand new experience with your hobby.

⚠️ **Important:**

1.The recommended ELRS LUA settings on the remote-control end are:

- Standard servos:

Packet Rate :	100Hz Full
Telem Ratio :	Std (1:32) (default if unsure)
Switch Mode :	8ch

- Performance servos:

Packet Rate :	333Hz Full
Telem Ratio :	Std (1:128)
Switch Mode :	8ch

```
RM Zorro          0/100 |C
Packet Rate →100Hz Full←
Telem Ratio →Std (1:32)
Switch Mode →8ch
Model Match  Off (ID: 0)
> TX Power (250mW Dyn)
> VTX Administrator
> WiFi Connectivity
```

2: The maximum input voltage for the EXT-V (external voltage input) telemetry reading is 35V. Do not exceed 35V or the receiver will be damaged.

3: The EXT-V (external voltage input) of the ER4 is accessed via the EXT-V solder pad on the PCB. A single wire must be soldered to this pad and connected to the positive wire of the battery or ESC. If no EXT-V power source is found, the ER4 will default to reading the voltage on the receiver pins, only one voltage input can be used at the any given time.

4: If the power supplied is 7.4V or higher, please ensure that the receiver is in an open and ventilated area of the model for better heat dissipation.

5: Calibration of the telemetry voltage will be required on your radio. Navigate to the telemetry page on your radio and locate the RxBt sensor. Edit the sensor settings and adjust the offset until the displayed reading matches the actual voltage of the battery in the model. If there is a large difference, adjustment of the ratio may also be required.

*For best results, calibrate the voltage of your radio using a fully charged battery of the correct cell count intended for use in the model.

```
TELEMETRY          11/12
 8: TRSS  -28dB        *
 9: TQly  100%         *
10:TSNR   15dB         *
11:RxBt   7.0V         *
12:Curr   0.0A         *
13:Capa   0mAh         *
14:Bat%   0%           *
```

```
SENSOR 11          7.3V
Type           Custom
ID             0008   1
Source         Internal
Unit           V
Precision      0.0
Ratio          -
Offset         03
```

6: ExpressLRS Arming requirements and the use of Channel 5. The ER4 receiver has 4 channels and does not require any channel outputs to be re-mapped however it is still recommended to assign CH5 on your radio to a switch such as your throttle cut switch so the RF module in your radio can be armed and disarmed which will provide benefits such as dynamic power.

Please visit https://www.expresslrs.org/ to learn more on the importance of setting up arming.

| |
|---|
| CH1: CH1 |
| CH2: CH2 |
| CH3: CH3 |
| CH4: CH4 |
| CH5: CH7 |
| CH6: CH6 |

The Radiomaster ER4 receiver can drive 4 servos simultaneously. Designed with a very small volume, it is suitable for small aircraft models, ship models, car models and other models that require a small or lightweight receiver while still providing full range.

Product Features:
Power supply: DC 4.5 - 8.4V
Antenna type: 15cm high sensitivity antenna
Wireless protocol: ExpressLRS 3.3.0 pre-installed
Output channel: 4CH PWM
Telemetry power: 10mw
Battery voltage detection range: DC 4.0 - 35V
Weight: 3.0 grams
Dimensions: 30*15*5mm

Firmware:
Device Category: Radiomaster 2.4Ghz
Device: RadioMaster ER4 2400 PWM RX

CH1
CH2
CH3
CH4
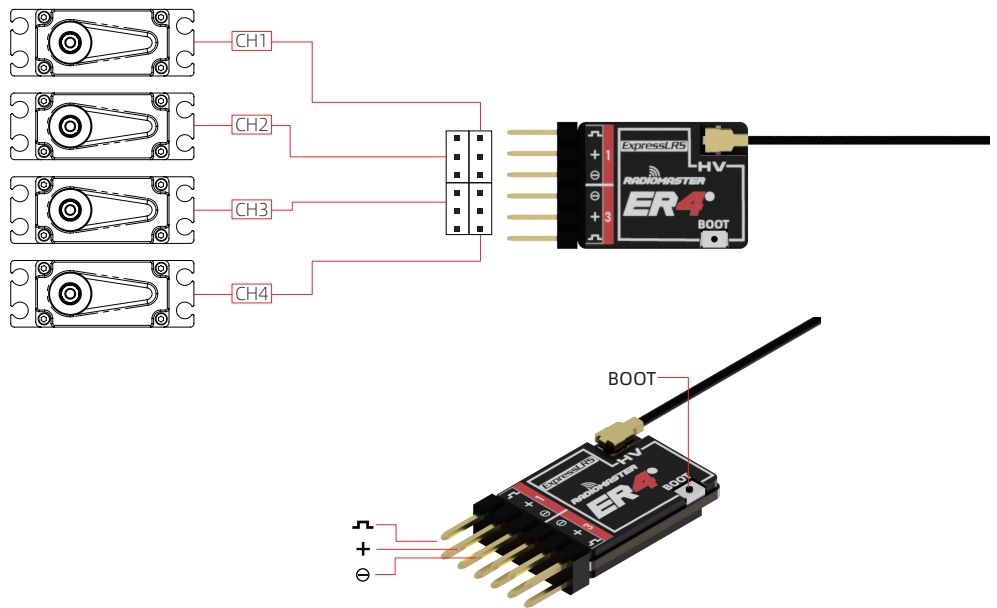
BOOT

Binding method (Traditional):

1. The first time you power on your receiver, the LED will double blink. This indicates that the receiver is in bind mode. If this is not the case, hold down the boot button for 10 seconds to reset the receiver.
2. Open the ExpressLRS LUA on your remote controller and select [BIND], then confirm.
3. A successful bind is indicated by the light being a steady on, indicating that frequency binding was successful.

```
RM Zorro          0/100 |C
> VTX Administrator
> HiFi Connectivity
  Backpack
  [BLE Joystick]
  [Bind]
3.2.0 ISM2G4    8d3388
> Other Devices
```

Binding method (Passphrase).

1. Open the ExpressLRS LUA and navigate to the Wifi Connectivity page. Select the Enable Wifi option and connect to your radios wifi with a mobile phone, tablet or PC (See TX Wifi notes below). Open the WebUI (Express LRS web page on http://10.0.0.1/) and choose a unique bind phrase. Note Bind phrases are not secret and can be read. Save and Reboot.

2. Power up the receiver and wait 60 seconds for the LED to blink rapidly to indicate Wifi mode. Connect your phone, tablet or PC to the receivers Wifi (See TX Wifi notes below). Open the WebUI (Express LRS web page on http://10.0.0.1/) and enter the matching bind phrase previously entered on your radio. Note Bind phrases are not secret and can be read. Save and Reboot. Once a radio and a receiver have the same bind phrase set they will automatically bind.

⚠️ **Note:** To bind the receiver a second time or to another radio, power cycle the receiver 3 times. On the third power cycle, the LED will double blink indicating bind mode. If you cannot successfully enter bind mode with the 3 power cycle method, you can hold down the boot button for 10 seconds to reset the receiver to bind mode or use the passphrase method below.
WARNING: All previous settings in the receiver will be erased and need to be set again when using the reset button.

TX Wifi notes :
WiFi default network name: ExpressLRS TX
WiFi default password: expresslrs
Default URL: http://10.0.0.1/ (Open in browser)

RX Wifi notes:
WiFi default network name: ExpressLRS RX
WiFi default password: expresslrs
Default URL: http://10.0.0.1/ (Open in browser)