



POCKET ELRS

RadioMaster · 2.4 GHz radio transmitter with
ExpressLRS module
User manual



Read the entire manual carefully before first use and keep it for future reference. Do not turn on the radio without the antenna installed.

Applies to Pocket ELRS and Pocket Crush ELRS · Batteries not included

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1. Introduction

Thank you for purchasing the RadioMaster POCKET radio system. Advanced and highly versatile, POCKET is adaptable for pilots of any skill level. To ensure safe and reliable operation, 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 the manufacturer's website for up-to-date information and radio firmware.

POCKET is an open-sourced, ergonomic radio. It runs **EdgeTX**, an open-sourced operating system. This version is equipped with an internal **ExpressLRS 2.4 GHz** RF module; the Nano-compatible module bay allows an external module with a different protocol to be fitted.

This manual applies to the **RadioMaster Pocket ELRS** and **Pocket Crush ELRS** radios (a colour version of the same radio).

This product is intended for persons aged 14 and over. It is not a toy.

2. Safety information

Radio-controlled models commonly contain sharp components like propellers, rotating at high RPM; 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 POCKET 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 POCKET radio system/model is damaged or showing signs of interference,
- in areas with high 2.4 GHz interference or where 2.4 GHz radios are prohibited,
- when the TX/RX battery is low,
- in areas where local regulations prohibit the use of R/C aircraft.

2.1 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. The manufacturer specifies this distance to meet RF exposure safety requirements.

2.2 Modifications

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 2.400–2.4835 GHz frequency range. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

3. Important

3.1 Antenna

Install the provided antenna in the top of the radio **BEFORE installing batteries and turning on the radio.**

DO NOT operate the radio without the antenna installed and the internal RF module powered on. Doing so will damage the internal RF module and will not be covered under warranty.

3.2 Firmware

POCKET is pre-installed with the most stable EdgeTX 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.

3.3 Manual and firmware download

The latest firmware and the manufacturer's original manual can be downloaded from the RadioMaster website: www.radiomasterrc.com

Further firmware information on the project websites:

- EdgeTX: www.edgetx.org
- ExpressLRS: www.expresslrs.org

The official EdgeTX and ExpressLRS documentation can be opened by scanning the QR code or clicking the link:



EdgeTX user manual (EN)

Official EdgeTX documentation – radio operation, model setup, mixes, switches and firmware updates.

manual.edgetx.org



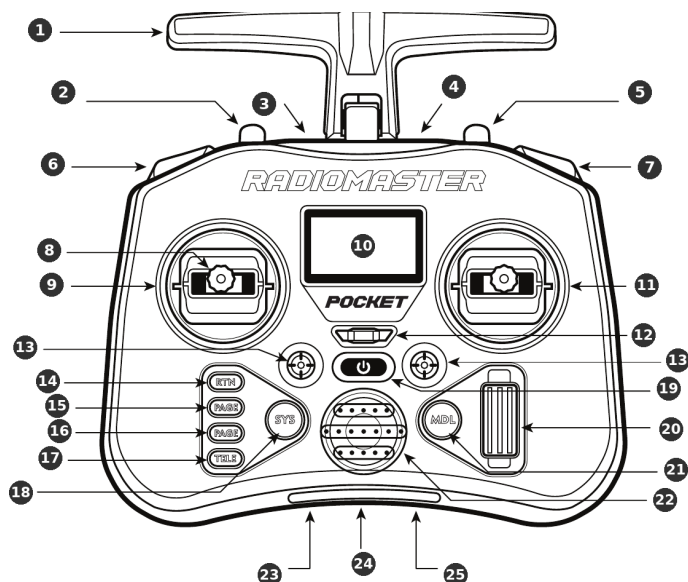
ExpressLRS documentation (EN)

Official ExpressLRS documentation – firmware options, Lua script, binding and firmware updates.

www.expresslrs.org

4. Radio overview

4.1 Front

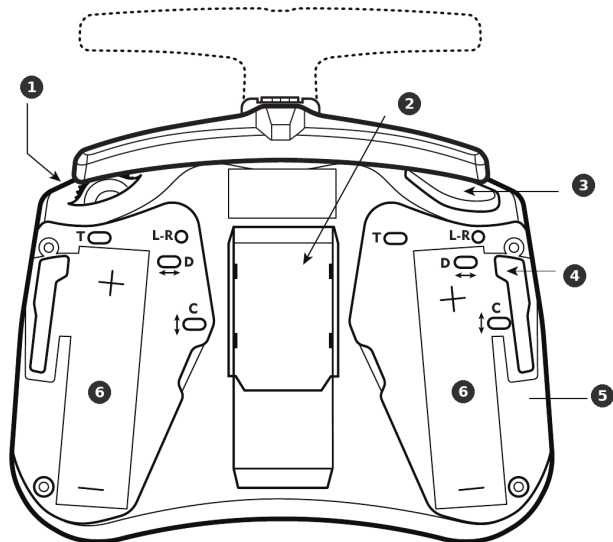


Front of the POCKET radio

1	Antenna	14	RTN button
2	SB - position switch	15	PAGE> button
3	DSC trainer port	16	PAGE< button
4	USB port	17	TELE button
5	SC - position switch	18	SYS button
6	SA - self-locking switch	19	On / Off
7	SD - self-locking switch	20	Menu wheel
8	Removable stick ends	21	MDL button
9	Left gimbal	22	Speaker
10	Monochrome LCD screen (128 × 64)	23	3.5 mm audio jack
11	Right gimbal	24	USB-C charging port
12	Lanyard loop	25	SD card slot
13	Trim		

※ A self-locking switch stays in the selected position; the SE switch (back) is momentary.

4.2 Back



Back of the POCKET radio

1	S1 pot	4	Stick storage compartment on grip
2	External module bay	5	Under grip
3	SE - momentary switch	6	18650 battery compartment

4.3 Gimbal adjustment

The adjustment screws of both gimbals are marked **L-R**, **T**, **C** and **D** on the back. CW = clockwise, CCW = counter-clockwise.

Screw	Function	Adjustment
L-R	To switch M1 / M2	CW to disable self-centering, CCW to enable.
T	Throttle tension	CW to increase tension, CCW to decrease.
C	Up / Down	CW to increase vertical tension, CCW to decrease.
D	Left / Right	CW to increase horizontal tension, CCW to decrease.

5. Specifications

Parameter	Value
Item	POCKET radio
Size (folded)	156 × 65 × 125 mm
Size (unfolded)	156 × 73 × 154 mm
Weight	288 g
Frequency	2.400–2.480 GHz
Internal RF module	ExpressLRS 2.4 GHz
Supported protocols	module dependent
Firmware	EdgeTX
Channels	max. 16 (RX dependent)
Display	128 × 64 monochrome LCD
Voltage range	6.6–8.4 V DC
Battery	2× 18650 Li-Ion (not included)
Charging	built-in USB-C charging
Upgrade method	via USB or SD card
Gimbals	X5 Hall gimbals
Module bay	Nano compatible

5.1 Radio parameters

The radio transmits in the 2.4 GHz band. Frequency bands and maximum transmitted power according to the EU-type examination certificate (notified body MiCOM Labs, No. 2280):

Radio	Frequency band	Max. power
ExpressLRS (control link)	2402.4–2479.4 MHz	18.15 dBm e.i.r.p.
Wi-Fi	2412–2472 MHz	16.66 dBm e.i.r.p.
Bluetooth	2402–2480 MHz	4.89 dBm e.i.r.p.

5.2 Operation in the Czech Republic and other countries

In the Czech Republic, the 2400–2483.5 MHz band may be used without an individual licence under the Czech Telecommunication Office (ČTÚ) general authorisation No. **VO-R/12/11.2021-11**, which sets a maximum radiated power of **100 mW e.i.r.p.** for this band.

- The output power of the ExpressLRS module can be set in the radio menu. The user is responsible for ensuring that the set power does not exceed the limit applicable at the place of operation.
- Use only the supplied antenna or an antenna specified by the manufacturer, without additional amplifiers.
- The information in this chapter describes the situation in the Czech Republic. **The law of the country in which you operate the radio always prevails** – permitted frequency bands and maximum transmit power may differ from country to country.

5.3 EU simple declaration of conformity

Hereby, ShenZhen RadioMaster Co., Ltd declares that the radio equipment type **POCKET** is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:

radiomasterrc.com/pages/certificatiion

Manufacturer	ShenZhen RadioMaster Co., Ltd 3F Yang Tian Building, Area 72 Xing Dong community, Xin An Street, Bao An district, Shen Zhen City, Guangdong Province, China
Web	www.radiomasterrc.com

6. Batteries and charging

POCKET is powered by **(2x) 3.7 V 18650 Lithium Ion cells** (2S, 7.4 V nominal in total) and is charged using the built-in USB-C port. The charging circuitry is designed for charging (2x) 3.7 V Lithium Ion batteries **only**. The nominal voltage is 3.7 V and the maximum charging voltage is 4.2 V per cell (8.4 V in total).

Batteries are not included. Always install the antenna before inserting the cells (chapter 3.1).

Insert the cells into the 18650 battery compartments on the back (fig. 4.2, item 6), observing the correct polarity according to the + and – marks in the compartment.

DO NOT charge 3.6 V LiFe and 3.6 V 18650 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.

- Please check the voltage and condition of the battery regularly.
- 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.
- Do not dispose of used 18650 cells with mixed household waste or in fire – take them to a battery collection point (chapter 8.3).

7. ExpressLRS module and binding

7.1 Internal ExpressLRS module

POCKET ELRS units are equipped with an internal ELRS module. For optimal performance, we recommend enabling **Dynamic Power** and using a **500 Hz or lower packet rate** to extend battery life and minimize heat generation by the internal module.



TOOLS menu with the ExpressLRS script



ExpressLRS LUA script with the [Bind] item

7.2 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.

8. Information for the EU and Czech Market

8.1 Importer and responsible person in the EU

The product is placed on the European Union market by the importer stated below, who is at the same time the responsible person within the meaning of Article 16 of Regulation (EU) 2023/988 of the European Parliament and of the Council on general product safety (GPSR).

Importer / responsible person in the EU	Rotorama, s.r.o.
Company ID (IČO)	051 57 692
VAT ID (DIČ)	CZ05157692
Registered office	Okrajová 1351, 674 01 Třebíč, Czech Republic
E-mail	info@rotorاما.cz
Phone	+420 252 252 098
Website	www.rotorاما.cz

8.2 Product conformity



- The product bears the **CE** marking and complies with the requirements of the applicable European Union harmonisation legislation.
- A copy of the **EU Declaration of Conformity** is available from the importer at the address stated above or at the e-mail address info@rotorاما.cz.
- **Product identification:** the type designation (POCKET ELRS) and the serial number are given on the product's rating label; the firmware version number can be found in *SYS* → *VERSION page* (pages are switched with the *PAGE>* button).

8.3 Disposal of electrical equipment



- The crossed-out wheeled bin symbol on the product, its packaging or in the documentation means that at the end of its service life the product **must not be disposed of together with mixed municipal waste.**
- Hand it over at a take-back point for electrical equipment – at a collection yard, at a take-back point of a collective system, or at the retailer when purchasing a new equivalent product. Take-back is free of charge for the end user.
- The obligations under Act No. 542/2020 Coll., on end-of-life products, are fulfilled by the importer through a collective take-back system.
- Proper disposal helps prevent negative impacts on the environment and human health and contributes to the reuse of secondary raw materials.

Through its contractual partner **ASEKOL a.s.**, the company ensures the take-back of waste electrical equipment from households and the separate collection of waste electrical equipment, batteries and accumulators in accordance with the applicable legislation. The customer is entitled to hand over old electrical equipment or a battery or accumulator at any collection point of the above contractual partner. The addresses of these take-back points are listed at www.asekol.cz, www.ecobat.cz and also <https://visoh2.mzp.cz/RegistrMistZO/RegistrMistZOPublic/MapaMistZpetOdberu>.

9. Warranty and rights arising from defective performance

The rights and obligations of the contracting parties are governed by Czech law, in particular by Act No. 89/2012 Coll., the Civil Code, and Act No. 634/1992 Coll., on consumer protection.

- The seller is liable to the buyer for the product being free of defects on receipt. If the buyer is a consumer, a defect may be notified **within two years of receipt** of the product (Section 2165 of the Civil Code).
- If a defect appears within **one year** of receipt, the product is deemed to have been defective already at the time of receipt (Section 2161(5) of the Civil Code).
- When purchasing online, a consumer has the right to **withdraw from the contract within 14 days** of receiving the goods without giving a reason (Section 1829 of the Civil Code).
- Claims should be made with the retailer from whom you purchased the product. The importer's contact details are given in Chapter 8.1.
- The competent body for out-of-court settlement of consumer disputes is the **Czech Trade Inspection Authority**, Štěpánská 796/44, 110 00 Prague 1, www.coi.cz.