RotorLogic

RadioMaster Boxer Radio Controller User Manual

Model: 4-in-1 Multi-protocol

1. Introduction

The RadioMaster Boxer is a compact and ergonomic radio controller designed for precision control in various remote-controlled applications. It features full-size Hall gimbals and an intuitive button layout, making it suitable for both new and experienced pilots. This manual provides essential information for setting up, operating, and maintaining your RadioMaster Boxer.



Figure 1.1: Front view of the RadioMaster Boxer Radio Controller.

2. Safety Information

WARNING: Pay attention to polarity when installing cells as they can easily be reversed. Incorrect polarity will damage your radio.

- Always ensure the radio is powered off before performing any maintenance or battery changes.
- Keep the radio controller away from water, moisture, and extreme temperatures.
- Do not attempt to disassemble or modify the radio controller beyond the instructions provided in this manual.
- Use only recommended batteries and charging methods.

3. Package Contents

Verify that all items listed below are included in your package:

- RadioMaster Boxer Radio Controller (4-in-1 Multi-protocol version)
- Carrying Case
- USB-C Cable
- Antenna
- Gimbal Protectors (pre-installed or separate)
- Hex Keys / Tools for adjustment

- User Manual (this document)
- Sticker Sheet

Note: Batteries are not included and must be purchased separately. The RadioMaster Boxer supports 7.4V 2-cell Lithium-Polymer or two 3.7V 18650 Lithium-Ion cells.



Figure 3.1: RadioMaster Boxer with its included carrying case.

4. Component Identification

Familiarize yourself with the various parts of your RadioMaster Boxer controller:

4.1 Front View

- **Hall Gimbals:** Left and right sticks for precise control inputs.
- **Power Button:** Central button for turning the unit on/off.
- **LCD Display:** 128x64 Monochrome screen for menus and telemetry.
- **Navigation Buttons:** SYS, RTN, PAGE, TELE buttons for menu navigation.
- **Scroll Wheel:** Located on the right side of the display for scrolling through options.
- **Switches (SA, SB, SC, SD, SE, SF):** Configurable switches for various functions.
- **Trims (T1, T2, T3, T4):** Buttons for fine-tuning control surfaces.

4.2 Back View



Figure 4.1: Back view showing the battery compartment and module bay.

- **Battery Compartment:** Located at the bottom for battery installation.
- **JR Module Bay:** Compatible with external JR/FrSKY/Crossfire modules.
- **Hand Strap:** For secure handling during operation.

4.3 Top and Side Views



Figure 4.2: Side view highlighting the ergonomic design.

- **Antenna Port:** Located at the top for attaching the antenna.
- **USB-C Port:** For charging and connecting to a computer for firmware updates.
- **Trainer Port:** For connecting to another radio or simulator.

5. Setup

5.1 Battery Installation

1. Locate the battery compartment cover on the back of the radio controller.
2. Slide the cover downwards to open the compartment.
3. Insert the recommended 7.4V 2-cell LiPo battery or two 3.7V 18650 Li-Ion cells, ensuring correct polarity. Incorrect polarity will damage the radio.
4. Close the battery compartment cover securely.

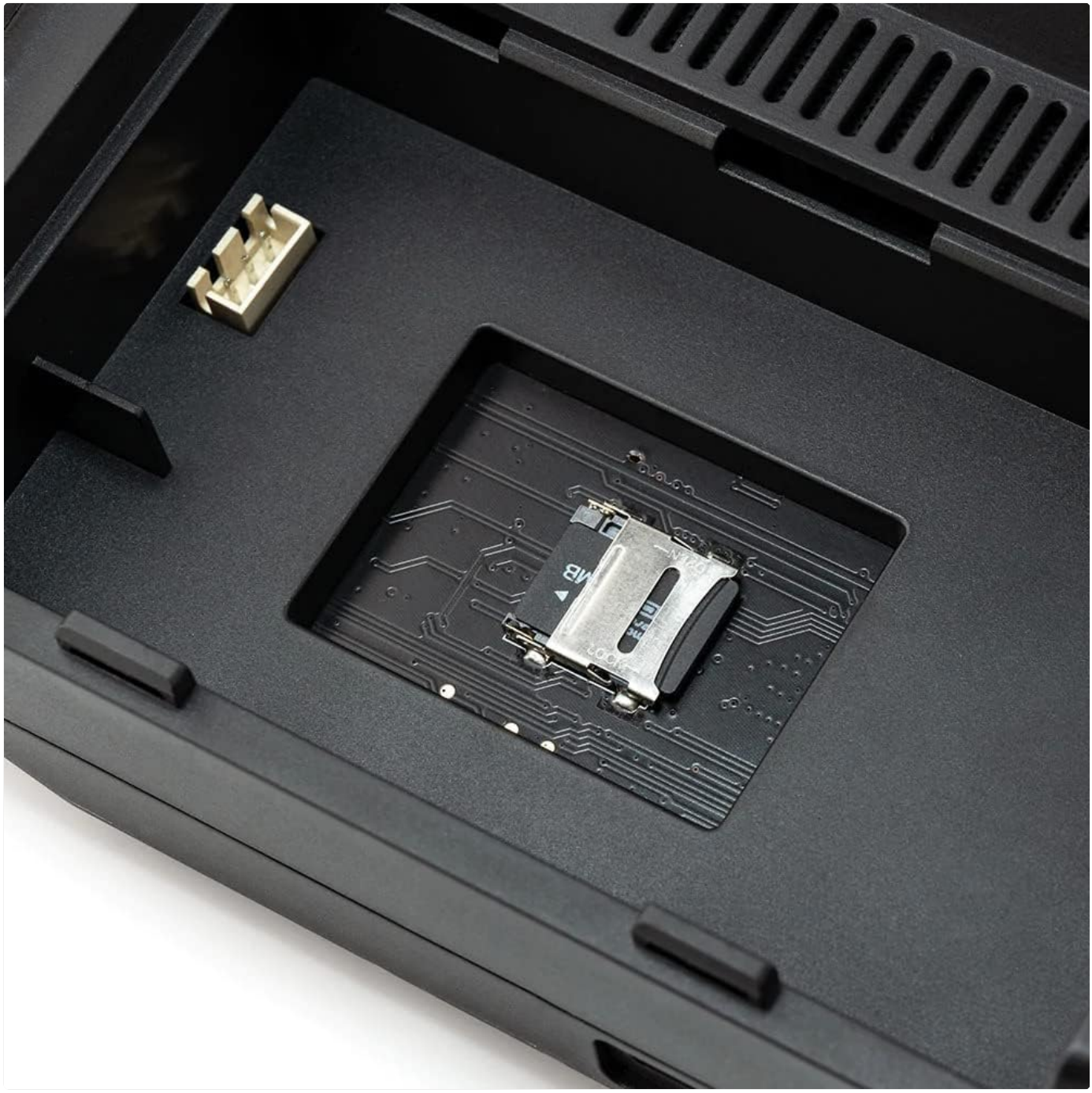


Figure 5.1: View of the battery compartment, ready for battery insertion.

5.2 Antenna Installation

1. Locate the antenna port at the top of the radio controller.
2. Carefully screw the provided antenna into the port until it is finger-tight. Do not overtighten.
3. Ensure the antenna is properly installed before powering on the radio to prevent damage to the RF module.



Figure 5.2: Attaching the antenna to the top port of the controller.

5.3 Initial Power On

1. Press and hold the central power button for approximately 5 seconds.
2. The LCD display will show a loading sequence, and then the EdgeTX firmware will boot up.
3. Listen for any audible warnings or prompts from the radio.

5.4 Firmware Overview (EdgeTX)

The RadioMaster Boxer comes pre-installed with EdgeTX firmware, an open-source operating system for RC transmitters. EdgeTX offers extensive customization, model memory, and advanced mixing capabilities. For detailed information on EdgeTX features and configuration, refer to the official EdgeTX documentation online.

6. Operating the Controller

6.1 Basic Controls

- **Gimbals:** Control the primary movements of your model (e.g., throttle, aileron, elevator, rudder).
- **Switches:** Used to activate various functions such as flight modes, gear retraction, or special actions.
- **Trims:** Fine-tune the neutral position of your control surfaces.

6.2 Menu Navigation

- Use the **SYS** button to access the system settings menu.
- Use the **PAGE** buttons to cycle through different pages within a menu.
- The **RTN** button allows you to go back to the previous screen or exit a menu.
- The **TELE** button accesses telemetry data screens.
- Rotate the **Scroll Wheel** to navigate through options and press it to select.

6.3 Binding to a Receiver

The binding process connects your RadioMaster Boxer to a compatible receiver. The exact steps may vary depending on the receiver's protocol (e.g., CC2500, 4-in-1 Multi-protocol, ELRS). Generally, the process involves:

1. Power on the receiver in binding mode (refer to your receiver's manual).
2. On the RadioMaster Boxer, navigate to the Model Setup menu.
3. Select the appropriate internal RF module (e.g., 4-in-1 Multi-protocol) and protocol.
4. Initiate the binding process from the radio's menu.
5. Confirm successful binding, usually indicated by a solid LED on the receiver.

7. Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the radio. Avoid using harsh chemicals or abrasive materials.
- **Storage:** Store the radio in its carrying case in a cool, dry place away from direct sunlight and extreme temperatures.
- **Battery Care:** If storing for extended periods, ensure batteries are charged to a storage voltage (typically 3.8V per cell for LiPo/Li-Ion) to prolong their lifespan.
- **Firmware Updates:** Periodically check the official EdgeTX website for firmware updates to ensure optimal performance and access to new features.

8. Troubleshooting

Problem	Possible Cause	Solution
Radio does not power on.	Low or dead battery; incorrect battery polarity.	Charge the battery; check battery polarity and re-install correctly.
No control response from model.	Not bound to receiver; incorrect model setup; antenna not installed.	Perform binding procedure; verify model settings in EdgeTX; ensure antenna is securely attached.
LCD display is blank or distorted.	Firmware issue; hardware malfunction.	Attempt a firmware re-flash; contact support if issue persists.
Gimbals or switches not responding correctly.	Calibration needed; physical obstruction or damage.	Calibrate gimbals and switches via EdgeTX menu; inspect for debris or damage.

9. Specifications

Feature	Detail

Feature	Detail
Item	BOXER
Radio Size	235 x 178 x 77 mm
Weight	532.5g (1.17 pounds)
Frequency	2.400GHz-2.480GHz
Internal RF Options	4-in-1 multi-protocol (as per this model)
Supported Protocols	Module dependent (e.g., DSMX, FrSky, Futaba, etc. for 4-in-1)
Transmitting Power (4-in-1)	Max 20dBm
Cooling Fan	Built-in (for ELRS version, not applicable to this 4-in-1 model)
Voltage Range	6.6-8.4V DC
Radio Firmware	EdgeTX (Transmitter) / Multi-Module (RF module)
Channels	Max 16 channels (Receiver dependent)
Battery	7.4V 2-cell Lithium-Polymer / Two 3.7V 18650 Lithium-Ion cells (batteries not included)
Display	128x64 Monochrome LCD display
Gimbal	High precision 4.0 Hall gimbals as standard (AG01 Optional)
External Module	JR/FrSKY/Crossfire compatible
Upgrade Method	USB/SD card & EdgeTX Companion PC software
Product Dimensions	9.3 x 7 x 3 inches
Item Model Number	HP157-BOXER-M2
Date First Available	February 1, 2023

10. Warranty and Support

For warranty information, technical support, or service inquiries, please contact RotorLogic customer service through the retailer where the product was purchased or visit the official RadioMaster website for support resources and contact details.
Regularly check the official RadioMaster and EdgeTX websites for the latest firmware updates, FAQs, and community forums for additional assistance.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

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