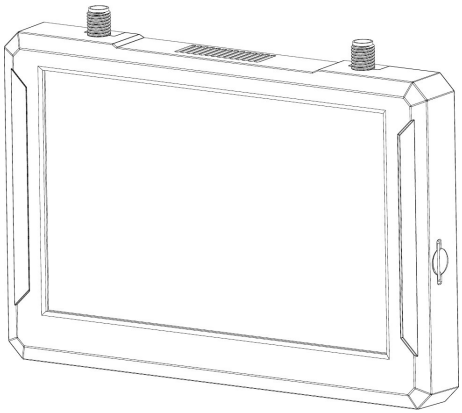
Skyzone M5 (M5F)

5" FPV monitor with SteadyView receiver and DVR
User manual



Read this entire manual carefully before first use, especially the safety instructions, and keep it for future reference.

www.rotorama.com

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1. Safety instructions

1.1 General rules

- The monitor is designed to receive and display analogue video from FPV drones and models. Use it for this purpose only.
- Protect the monitor from water, moisture, dust, drops and strong impacts. Do not use it in the rain.
- Do not expose the monitor to direct sunlight or high temperatures for long periods, e.g. behind a car windscreen.
- The monitor has a built-in cooling fan. Do not cover the ventilation openings and do not insert any objects into them.
- Do not disassemble or modify the monitor. Tampering with the device may damage it.
- Do not allow children to play with the monitor, batteries or small accessories.

1.2 Power supply and batteries

- Power the monitor only in the ways described in chapter 3.1 and within the voltage range given in the specifications.
- Connect a LiPo battery only via the supplied power cable and observe the correct polarity. Do not discharge a LiPo battery below 3.5 V per cell.
- Charge LiPo batteries only with a suitable charger and under supervision, never above 4.20 V per cell. For storage, keep them at 3.8 V per cell.
- Always insert the 18650 cell with the correct polarity. Do not use a damaged, swollen or overheated cell.
- Do not short-circuit, puncture or throw batteries into fire, and do not expose them to high temperatures.
- After use and before longer storage, disconnect the power supply and remove the 18650 cell.

1.3 Operation and regulations

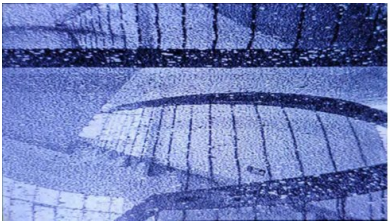
The monitor contains only a receiver and does not transmit any radio signal itself. However, the video transmitter (VTX) and the drone whose video you are watching are subject to regulations – in particular permitted frequency bands, maximum transmit power and rules for operating unmanned aircraft.

EU regulations apply in all member states, but national regulations differ (permitted frequency bands, transmit power, drone operation rules). The information in this manual describes the situation in the Czech Republic. If you use the product in another country, follow the regulations of the country in which you operate it.

2. Product description

2.1 Introduction

The SKYZONE M5 (model designation M5F) is a high-brightness 5" monitor with an integrated SteadyView receiver. The receiver merges two signals into one, avoiding image tearing and rolling and making the image more stable and clear. The wheel with the classic Skyzone UI makes the monitor easy to use. The monitor supports a single 18650 cell, which is easy to swap, and also 2–6S LiPo batteries for easy powering in the field.





Left: Diversity mode – when the signal changes rapidly, the image tears and rolls; right: SteadyView – merged signal, stable image

2.2 Specifications

Parameter	Value
Screen	High-brightness LCD, 900 Lum (manufacturer's figure)
Resolution	800 × 480
Receiver	5.8 GHz, 48 channels, SteadyView fusion receiver
Sensitivity	−98 dBm ±1 dBm
Antenna ports	2× SMA-K, 50 Ω
Menu language	Chinese / English
Power	DC 6.5–25.2 V / USB 5 V / 18650 Li-ion cell
Power consumption	6.24 W (12 V / 520 mA)
DVR	MJPEG 60 fps, SD card max. 128 GB
Endurance	approx. 1.5 h (18650 cell, 3000 mAh)

2.3 Package contents

① Monitor – 1 pc

② 5.8 GHz 2 dB antenna – 2 pcs

③ Video/audio cable – 1 pc

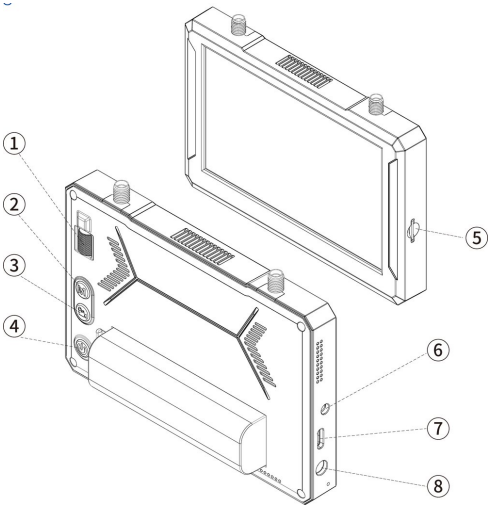
④ USB-C cable – 1 pc

⑤ XT60 – DC 5.5 × 2.1 mm power cable – 1 pc

⑥ User manual – 1 pc

The 18650 cell, LiPo battery and SD card are **not included**.

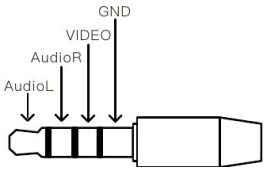
2.4 Controls and connectors



Monitor overview

① Wheel – channel / band / search	② MENU button
③ Record button (REC)	④ Power button
⑤ SD card slot	⑥ AV input / output (3.5 mm jack)
⑦ USB-C port	⑧ DC power connector 5.5 × 2.1 mm

▶ AV jack pin-out



3.5 mm jack pin-out

Contact (from tip)	Signal
Tip	Audio L
Ring 1	Audio R
Ring 2	Video
Sleeve	GND

3. Getting started

3.1 Power options

- **18650 Li-ion cell** – insert it into the holder on the back of the monitor. According to the manufacturer, endurance with a 3000 mAh cell is approx. 1.5 hours.
- **2–6S LiPo battery** – connect it via the supplied XT60 – DC 5.5 × 2.1 mm cable to connector ⑧. The input voltage range is 6.5–25.2 V.
- **USB-C 5 V** – the monitor can be powered from a USB power supply or power bank via port ⑦.

To make the monitor show the real state of a LiPo battery, set its cell count in the *System* menu (chapter 5.6).

3.2 Power on and off

① Screw on both antennas and insert the 18650 cell (or connect another power source).

② **Power on:** short press the power button ④, then hold it for 3 seconds.

③ **Power off:** short press the power button ④, then hold it for 3 seconds.

4. Video reception

4.1 Channel, band and receiver mode

① Press the wheel, then roll the wheel to change the **channel**.

② Press the wheel again to switch to **band** setting; roll the wheel to change the band.

③ Press the wheel again to select the **receiver mode** – Diversity or Mix.

④ If the wheel is not operated for 3 seconds, the setting is exited.

4.2 Auto search

Hold the wheel to open the search menu. Press the wheel to start the auto search: the receiver scans all frequencies and tunes to the strongest signal. Roll the wheel to select channels manually; hold the wheel to quit searching.

※ The auto search is not always accurate. In that case, select the channel manually.

4.3 Receiver modes

Mode	Description
MIX1	Basic fusion processing that reduces excessive intervention of the circuit in the picture.
MIX2	Improved synchronisation stability, especially with a weak signal – maximises synchronisation and locks the video.
MIX3	Further enhances the synchronisation signal compared with MIX2, maximises image stability and compatibility with other display devices. In this mode the brightness of the video signal is reduced.
DIV	Fusion processing is turned off and the receiver works in traditional diversity mode, outputting the audio and video of the branch with the highest RSSI.

4.4 Band/channel table

Band	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
A	5865	5845	5825	5805	5785	5765	5745	5725
B	5733	5752	5771	5790	5809	5828	5847	5866
E	5705	5685	5665	5645	5885	5905	5925	5945
F	5740	5760	5780	5800	5820	5840	5860	5880
R	5658	5695	5732	5769	5806	5843	5880	5917
L	5362	5399	5436	5473	5510	5547	5584	5621

Frequencies are given in MHz.

Receiver sensitivity: −98 dBm ±1 dBm. Antenna ports: 2× SMA-K, 50 Ω.

※ The monitor only receives these channels. Whether you may transmit on a given frequency is determined by the regulations for the video transmitter (VTX) in the country of operation – in the Czech Republic, the band 5725–5875 MHz with max. 25 mW e.i.r.p. is generally permitted for FPV.

4.5 Screen brightness

During normal viewing, roll the wheel to adjust the screen brightness.

5. Menu

Press the MENU button ② to open the menu. Roll the wheel to navigate and press it to select an item.

5.1 Mode

- **RF normal** – normal 48-channel receive mode.
- **RF Racing** – the receiver works on RaceBand only.
- **AVIN** – displays video from the AV input. NTSC and PAL are switched automatically. The receiver module is turned off automatically to save power.
- **Playback** – plays back DVR recordings.

5.2 Playback

- In playback mode, roll the wheel to choose a recording; short press the wheel to play or pause.
- During playback, roll the wheel to fast forward or rewind.
- Press the REC button ③ to quit playback.

5.3 Image

Preset profiles *standard*, *bright*, *vivid*, *soft* and three custom profiles *User 1/2/3* are available. In the custom profiles you can adjust brightness, contrast, saturation, hue and sharpness to suit the environment. The image settings cannot be changed in the four preset profiles.

5.4 DVR

- The REC button ③ starts and stops recording.
- The built-in DVR uses MJPEG encoding. A Class 10 SD card is recommended; capacity up to 128 GB is supported.
- The SD card must be formatted to **FAT32**. You can format it in the system menu using *Format SD*.
- Recording is available in both RF mode and AV IN mode.
- By default, video and sound are recorded. Sound recording can be turned off in the system menu – then only video is recorded.
- **Automatic recording** – when enabled, recording starts automatically as soon as a video signal is detected. You can stop it manually with the REC button.
- **Auto&Follow** – the DVR starts recording when the signal is present and stops 30 s after the signal is lost; when the signal returns, it records again.
- **Follow** – start recording manually with the REC button; it stops 30 s after the signal is lost and restarts automatically when the signal returns. Press REC again to stop manually and save SD card space.

- **Cyclic recording** – turns overwriting of the oldest recordings on or off when the card is full.
- Recordings are automatically split into files. The file length can be set in the menu to 5, 10, 20 or 30 minutes; the default is 30 minutes.

If the power is suddenly disconnected during recording, the recording will be damaged. Always stop recording before switching off the monitor or disconnecting the power.

5.5 Display

- Setting the display time of the top OSD bar, or keeping the OSD always on (time-out disabled).
- Setting the vertical position of the RSSI indicator.
- Screen luminance in 8 steps (default 5). Do not set the brightness unnecessarily high unless the image is dim.
- Aspect ratio 4:3 or 16:9.

5.6 System

- **Power supply** – choose the battery type (2S–6S) so that the monitor shows the real battery state.
- **Voltage calibration** – corrects the displayed voltage within ±0.9 V. Measure the loaded battery voltage with a multimeter and set the same value with the wheel.
- **RSSI calibration** – remove the antennas, switch off the video transmitter (VTX) and confirm *Yes*. When calibration is complete, the monitor beeps.
- **Language** – English or Chinese.
- **Time and date** – sets the monitor's time and date; press REC to quit the setting.
- **Fan** – cooling fan speed in 16 steps.
- **Factory reset** – restores the default settings.
- **VRX Update** – updates the receiver firmware from a file copied to the SD card.
- **DVR Update** – updates the DVR firmware from a file copied to the SD card.
- **System Version** – shows the monitor and DVR firmware versions and the serial number.

6. Firmware update

The latest firmware and the latest version of the original manual are available on the manufacturer's website www.skyzonefpv.com. Use only firmware intended for this monitor.

▶ Monitor

① Connect the monitor to the computer with the USB-C cable.

② Hold the wheel and turn on the monitor (it is powered by the USB cable). Release the wheel. The computer installs the driver automatically and shows a new removable drive.

③ Copy the firmware file (A/B) to the drive. The monitor installs the update while the file is being copied.

▶ DVR

① Format an SD card to FAT32.

② Copy the DVR firmware to it, insert the card into the monitor and turn the monitor on.

③ In the system menu, choose the DVR firmware upgrade (*DVR Update*).

▶ Receiver

① Connect the monitor to the computer with the USB-C cable.

② Hold the wheel and turn on the monitor (it is powered by the USB cable). Release the wheel. The computer installs the driver automatically and shows a new removable drive.

③ Copy the receiver firmware to the drive. The receiver installs the update while the file is being copied.

Do not switch off the monitor or disconnect it from the computer during the update.

7. Maintenance and troubleshooting

7.1 Maintenance

- Clean the screen with a soft dry cloth; do not use solvents or abrasive cleaners.
- Keep the fan ventilation openings clean.
- Regularly check the antennas and SMA connectors; replace a damaged antenna.
- Store the monitor in a dry place, without the 18650 cell inserted and without a battery connected.

7.2 Troubleshooting

Problem	Possible solution
Monitor does not turn on	Check the polarity and charge of the 18650 cell, or connect another power source. Turn the monitor on with a short press and then a 3 s hold of the power button.
No image or noisy image	Check that the antennas are screwed on and that the monitor and VTX use the same band and channel. Try the auto search or set the channel manually. Make sure AVIN mode is not active.
Image tears or rolls	Try a different receiver mode (MIX1–MIX3, DIV).
Recording does not work	Check that an SD card formatted to FAT32 is inserted (max. 128 GB, Class 10 recommended).
Displayed voltage is wrong	Set the battery type and perform the voltage calibration (chapter 5.6).

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@rotorama.cz
Phone	+420 252 252 098
Website	www.rotorama.com

8.2 Product conformity

CE

- 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@rotorama.cz.
- **Product identification:** type designation (M5F); the serial number and firmware version are shown in the menu *System → System Version*.

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.