RC832HD

5.8 GHz video receiver with HDMI and AV output
User manual



Read the entire manual before first use. Power the receiver only with 6-24 V DC.

www.rotorama.com

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1. Safety instructions

1.1 Before you start

Read this entire manual carefully before first use and keep it for future reference. If you pass the receiver on to another person, hand over this manual as well.

- The receiver is intended for model makers – for receiving analogue video from FPV models. Do not use it for any other purpose.
- This product is not a toy. Keep it and its small accessories out of the reach of children.
- Do not disassemble or modify the receiver. There are no user-serviceable parts inside.
- Do not continue to use a damaged receiver or a damaged power cable.

1.2 Power supply

- Power the receiver only with a DC voltage in the range of **6–24 V DC**. A higher voltage will permanently damage the receiver.
- When powering from a Li-Po battery, use only **2S to 5S** batteries. A fully charged 6S battery (25.2 V) exceeds the permitted supply voltage – **never connect a 6S battery**.
- Observe the correct polarity when connecting the power supply. Reverse polarity can destroy the receiver.
- Do not leave a Li-Po battery unattended during operation, protect it against short circuit and mechanical damage and do not discharge it below 3.5 V per cell (2S: 7.0 V, 3S: 10.5 V, 4S: 14.0 V, 5S: 17.5 V).

1.3 Operating environment

- The receiver gets noticeably warm during operation. Do not operate it covered, in a closed case or on a soft surface that prevents heat dissipation.
- Protect the receiver against moisture, rain, dust, direct sunlight and vibration.
- When flying by the FPV image, reliable reception is essential for the pilot. The receiver has a single antenna (no diversity) and therefore usually has a shorter range than FPV goggles with diversity reception. Do not fly further than the video reliably reaches.

2. Product description

2.1 Intended use

RC832HD (marked RC-HD on the device) is a standalone analogue 5.8 GHz video receiver. It receives the video from the analogue video transmitter (VTX) of an FPV drone or aircraft and passes it on to a monitor, TV, projector or recording device.

In addition to the standard analogue output (AV), the receiver has an **HDMI** output, so you can display the video on an ordinary TV or monitor without an analogue input. Both outputs can be used at the same time. The receiver offers 48 channels in 6 bands including the L band; the current band and channel are shown on a two-digit display and are set with two buttons.

2.2 Package contents

Qty	Item
1×	RC832HD receiver
1×	5.8 GHz linear antenna (RP-SMA)
1×	Analogue video cable (jack → RCA)
1×	Power cable

Not included: power supply or battery, HDMI cable or mini HDMI to standard HDMI adapter, monitor or TV, and video transmitter (VTX).

2.3 Specifications

Parameter	Value
Operating band	5.8 GHz
Number of channels	48 (6 bands × 8 channels: A, B, E, F, R, L)
Sensitivity	≤ −93 dBm
Supply voltage	6–24 V DC
Current consumption	max. 200 mA
Antenna connector	RP-SMA
Antenna input impedance	50 Ω (typ.)
Gain of supplied antenna	2 dBi
HDMI output	mini HDMI, 1080p or 720p (selectable by switch)
AV output	3.5 mm jack (video + audio)
Video output level	1.0 Vp-p (typ.), 75 Ω
Audio output level	1.0 Vp-p (typ.), 10 kΩ

Parameter	Value
Audio carrier	6.5 MHz
Video standard	PAL / NTSC
Dimensions (L × W × H)	80 × 65 × 15 mm
Weight	120 g

2.4 Parts of the receiver



Parts of the receiver

① 5.8 GHz antenna

② RP-SMA antenna connector

③ Two-digit display – first digit band (FR), second digit channel (CH)

④ **CH** button – channel selection

⑤ **FR** button – band selection

On the bottom of the device (not visible in the picture) there are the AV output, the mini HDMI output, the power input (DC IN) and a slide switch for the resolution marked **1080P**.

3. Legal conditions of operation

3.1 The law of the country of operation applies

European Union regulations apply in all member states, but national implementing regulations differ from state to state – in particular the permitted frequency bands and maximum transmitting power. The information in this chapter describes the situation in the Czech Republic. If you operate the product in another country, you must comply with the regulations of the state in which you operate it.

3.2 Frequencies and the video transmitter

The RC832HD receiver itself **does not transmit** – it only receives the signal. The frequency and transmitting power are determined by the video transmitter (VTX) in your model, and the operator is responsible for its settings.

Band (Czech Republic)	Limit	Source
5725–5875 MHz	25 mW e.i.r.p.	ČTÚ, VO-R/10, Art. 3(k)

- The receiver can also tune to channels that are not permitted for video transmitter operation in the Czech Republic (in particular the L band). Operate the video transmitter only on a channel permitted in the country of operation.
- When flying an FPV drone, observe the rules for operating unmanned aircraft – in the EU Regulation (EU) 2019/947 and in the Czech Republic the regulations of the Civil Aviation Authority (ÚCL), including operator registration.
- In the open category, flying by the camera image (FPV) is permitted only with an **unmanned aircraft observer** standing next to the pilot and maintaining direct visual contact with the drone.

4. Connection

4.1 What else you need

- a DC power source of 6–24 V DC (e.g. a 12 V mains adapter or a 2S to 5S Li-Po battery) with a connector matching the supplied power cable, or a cable with your own connector,
- for the HDMI output a **mini HDMI → HDMI** cable, or a mini HDMI to standard HDMI adapter and an ordinary HDMI cable,
- for the analogue output a monitor, TV or recording device with an AV (RCA) input,
- an analogue 5.8 GHz video transmitter (VTX) in the model.

4.2 Antenna

Screw the supplied antenna onto the antenna connector ② by hand, without tools and without excessive force. Point the antenna vertically. The connector is of the **RP-SMA** type – when using a different antenna, make sure it has the same connector type.

※ The supplied antenna is linear. If your model transmits with a circularly polarised antenna, reception will be weaker than with an antenna of the same polarisation. For better range use an antenna with the same polarisation as the transmitter antenna.

4.3 Connecting a display device

① **HDMI:** connect the mini HDMI output of the receiver to the HDMI input of a monitor, TV or projector. You can also feed the receiver's video into a computer via an HDMI → USB capture device (grabber).

② **AV:** plug the supplied cable into the AV output and its RCA connectors into the AV input of a monitor or recording device.

③ Both outputs can be used at the same time, e.g. for two monitors.

4.4 Selecting the HDMI resolution

The slide switch marked **1080P** on the bottom of the device selects the HDMI output resolution **1080p** or **720p**. Change the switch position with the power disconnected. If the display device does not show an image, try the other switch position.

4.5 Connecting the power supply

Connect the power supply last, after the antenna and the display device. Plug the power cable into the DC IN input and then connect it to a 6–24 V DC source. Observe the polarity. The receiver switches on as soon as power is connected – it has no power switch.

5. Operation

5.1 Display and channel setting

After switching on, the two-digit display ③ shows the selected band and channel. The **first digit** is the band (FR 1–6), the **second digit** is the channel (CH 1–8).

① Press the **FR** button ⑤ to change the band. The band digit changes cyclically 1 → 6 → 1.

② Press the **CH** button ④ to change the channel. The channel digit changes cyclically 1 → 8 → 1.

③ Set the same band and channel on which the video transmitter (VTX) in your model transmits.

FR digit	Band	CH channels
1	A	1–8
2	B	1–8
3	E	1–8
4	F	1–8
5	R (Race)	1–8
6	L	1–8

Example: “58” on the display = band R, channel 8.

5.2 Settings memory

After the power is disconnected, the receiver remembers the last selected band and channel and restores them the next time it is switched on.

5.3 Tips for good reception

- Place the receiver with its antenna as high as possible and with no obstacles between the antenna and the model.
- Do not place the receiver next to other transmitters (radio transmitter, Wi-Fi router, other VTX).
- Obstacles, walls and vegetation significantly degrade reception. If the image deteriorates, bring the model closer.

6. Maintenance and storage

- Disconnect the power after use. When powering from a battery, always disconnect the battery – even a small current draw gradually discharges it.
- Clean the receiver with a dry soft cloth. Do not use solvents or water.
- Keep the connectors clean; unscrew the antenna for transport so that the antenna connector is not damaged.
- Store in a dry place at room temperature, away from direct sunlight.
- Store Li-Po batteries separately and charged to the storage voltage of 3.8 V per cell.

7. Troubleshooting

Problem	Cause and solution
Display is off	Check the power source, the voltage (6–24 V DC), the polarity and the power cable.
Display is on but there is no image	The band and channel of the receiver do not match the video transmitter – set the same band and channel as on the VTX (Chapter 5.1). Check that the model is switched on and the VTX is transmitting.
No image on HDMI, image on AV	Try the other position of the 1080P switch (Chapter 4.4). Check the mini HDMI cable and adapter and the selected input on the display device.
Image is noisy or drops out	Check that the antenna is tightened and undamaged. Reduce the distance to the model, remove obstacles, use an antenna with the same polarisation as on the transmitter.
Image is black and white or rolls	The display device does not support the camera's video standard – set PAL or NTSC on the camera or monitor.
Receiver is very warm	Heating up is normal during operation. Ensure free air circulation and do not cover the receiver.

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:** the commercial type designation is **RC832HD**; the front of the device is marked RC-HD.

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.