

GB Operating instructions

RC Logger FPV Goggles

No. 89141RC

CE 2200

INTENDED USE



Please download the latest version of the operating instructions from our website at www.rclogger.com. Navigate to the product page and open the "Downloads" tab. Click on "Operating instructions" to start the download.



Make this product available to third parties only together with its operating instructions.

Use the FPV Goggles in combination with the Navigator 250 FPV camera. It allows you to enjoy a first person view (FPV) of your flight.

Do not directly look into the sun in order not to damage the goggles.

For safety and approval purposes (CE), you must not rebuild and/or modify this product. If you use the product for purposes other than those described above, the product may be damaged. In addition, improper use can cause hazards such as short circuiting, fire, electric shock etc. Read the instructions carefully and keep them. Make this product available to third parties only together with its instructions.

This product complies with the statutory national and European requirements. All company names and product names are trademarks of their respective owners. All rights reserved.

This product is in compliance with the essential requirements and other relevant provisions of the Directive 1999/5/EC.

PRODUCT FUNCTIONS

The product features the following main functions:

- > Live video transmission from a FPV camera
- > Live video export
- > Playback of external video

DELIVERY CONTENT

- > FPV Goggles
- > Battery Charger
- > LiPo Battery Pack
- > 2x 5.8 GHz Antenna
- > 2x AV-out cables
- > 4x Charging Cable (Europe/ US/ UK/ Australia type)
- > 12 V/DC cable with BEC plug
- > Cable for Futaba transmitter
- > Cable for JR transmitter
- > Cleaning cloth
- > Case
- > Safety hint sheet

PARTS



- | | |
|----------------------------|------------------------------|
| 1 Antenna | 9 IPD adjuster |
| 2 Antenna port | 10 DC IN Power supply socket |
| 3 - button | 11 PPM IN socket |
| 4 + button | 12 Cooling fan |
| 5 Front camera | 13 HDMI IN socket |
| 6 MODE button (Menu: Next) | 14 AV IN socket |
| 7 MENU button (Menu: Esc) | 15 AV OUT socket |
| 8 OK button | 16 Earphone jack |

LIPO BATTERY PACK



- | | |
|--------------------------------------|--------------------------------|
| 17 Arm strap | 24 Strap holder |
| 18 On/Off button | 25 Contacts |
| 19 Charging port | 26 Charging base |
| 20 Battery | 27 D-tap port |
| 21 Nose | 28 Battery unlocking mechanism |
| 22 Power adapter with charging cable | 29 Indicator lights |
| 23 Power supply cable | |

SAFETY INSTRUCTIONS



Read the operating instructions carefully and especially observe the safety information. If you do not follow the safety instructions and information on proper handling in these instructions, we assume no liability for any resulting personal injury or damage to property. Such cases will invalidate the warranty/guarantee.

General

- > The product is not a toy. Keep it out of the reach of children and pets.
- > Do not leave packaging material lying around carelessly. These may become dangerous playing material for children.
- > Protect the product from extreme temperatures, direct sunlight, strong jolts, high humidity, moisture, flammable gases, vapours and solvents.
- > Do not use the product in rain.
- > Do not place the product under any mechanical stress.
- > If it is no longer possible to operate the product safely, take it out of operation and protect it from any accidental use. Safe operation can no longer be guaranteed if the product:
 - » is visibly damaged,
 - » is no longer working properly,
 - » has been stored for extended periods in poor ambient conditions or
 - » has been subjected to any serious transport-related stresses.
- > Please handle the product carefully. Jolts, impacts or a fall even from a low height can damage the product.
- > Do not expose the lenses to direct sunlight. The lens will focus the sun's energy and irreparably damage the LCDs.
- > The product must not be exposed to water or moisture.
- > Only use supplied accessories in combination with this product.
- > Do not disassemble the product. There are no serviceable parts inside.
- > Avoid magnetic fields. They can affect the performance of the product.
- > Keep the product away from open fire.
- > The product is not water or dust proof. Keep it away from dust and water.
- > Make sure no water or other liquid enters the product.
- > The eye cups may cause skin irritation. In case of skin irritation take the goggles off immediately and consult a doctor if irritation persists.

PREPARING THE GOGGLES

- > Screw the two antennas (1) onto the antenna ports (2).
- > Adjust the head strap to the desired length.
- > After putting the goggles on, adjust the interpupillary distance (IPD) with the two IPD adjusters (9).

POWER SUPPLY

The goggles do not have a built-in power supply. You are required to supply the goggles with power from an external power source. Make use of the following options:

- > LiPo battery pack (supplied)
- > A suitable external LiPo battery (refer to technical data)

LiPo pack

Charging it:

1. Insert the battery (20) into the charging base (26). Hook the noses (21) into the slots in the base and make sure the battery contacts slide into the contacts (25) in the base.
 2. Lower the battery and press slightly to lock it. Ensure it is locked before you charge it.
 3. Connect the cable of the power adapter (22) to the charging port (19) and the power adapter to a suitable socket outlet. Use the socket type suitable for your country.
 4. The red and blue indicator lights (29) light up. The blue indicator lights flash. When all indicator lights are off, the battery is fully charged.
 - » A full charging cycle takes about 3.5 hours.
- > In order to release the battery, push the battery unlocking mechanism (28) up to unlock the battery. You can now remove it from the tray.

When to charge it:

Each blue indicator light represents 25 % of the battery capacity. During use, the blue indicator lights are lit and go off one after the other (the indicator light of the quarter in use flashes). When the red indicator light flashes, charge the battery. If, for example, three indicator lights are off, you have max. 25 % battery capacity left.

- > Turn the battery pack off before charging.
- > Remove the battery from the charging base if you do not use it for a prolonged period of time. Recharge the battery from time to time.

Wearing it:

Guide the arm strap (17) through the strap holder (24) at the bottom of the charger. You can then wear it on your left or right arm during use.

Supplying the goggles with power:

1. Disconnect the power adapter from the battery pack.
2. Connect the D-tap jack of the power supply cable (23) to the D-tap port (27) on the charger.
3. Connect the other end of the power supply cable to the **DC IN** power supply socket on the goggles.
4. Turn the power supply on and off as needed. Study the following table.

Turn battery pack ON	Turn battery pack OFF
A short press followed by a long press of the On/Off button (18).	A short press followed by a long press of the On/Off button (18).

5. You can now use the goggles.
 - > Before you disconnect the goggles, turn the battery pack off.
 - > With a fully charged battery and depending on its condition you can operate the goggles for approx. 90 minutes.

External LiPo battery

1. Connect the supplied 12 V/DC cable with BEC connector to the **DC IN** power supply socket (10) on the goggles.
2. Connect an external battery (not supplied) delivering between 7 and 28 V/DC to the BEC connector.

SELECTING MODES

Press the **MODE** (6) button to switch between modes.

DIV mode

- > The goggles constantly compare the RSSI (Received Signal Strength Indicator) of antenna 1 (ANT1) and antenna 2 (ANT2), and then switch to the strongest signal.
- > The **AV OUT** port outputs diversity signal for your video recorder or external display.
- > The **AV OUT** port only works in DIV mode.

AV IN mode

- > Connect an external video source and play back video on your goggles.
- > Antennas are deactivated automatically in this mode.

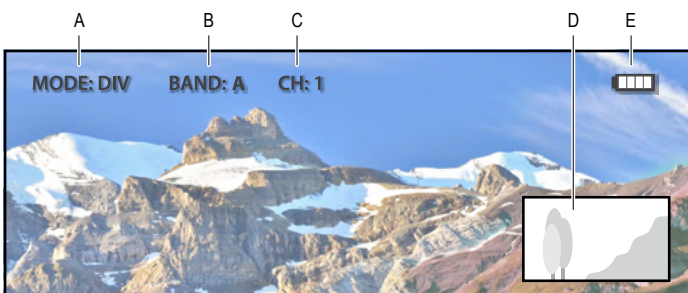
HDMI IN mode

- > Play HDMI video on the goggles from an external video source.
- > The goggles display a maximum resolution of 1920 x 1080 / 60 Hz.
- > Antennas are deactivated automatically in this mode.
- > After activating the HDMI mode you may experience a delay of up to 11 seconds before HDMI video is played back.

FRONT FACING CAMERA

- > While in any mode, tap the **OK** button (8) to enable the front facing camera function. This switches the goggles to a full screen view of the front facing camera feed. Tap the **OK** button to return to the previous mode.
- > Note that PIP (Picture in picture) is automatically disabled when you switch to the front camera.

FPV VIEW



- A Selected mode
- B Selected band
- C Selected channel
- D PIP (Picture in Picture)
- E Battery charge condition

SETTINGS AND MENU NAVIGATION

Press the **MENU** button (7) to enter the menu.

Menu tree

You may refer to the below menu tree when changing settings.

General settings	System settings
RF Band (A, B, F)	Power (DC, 2S-6S)
Volume (+/-)	Language
Image (Brightness, Contrast, ...)	Display (Aspect ratio: 16:9 or 4:3)
PIP (On/Off, Size, ...)	Menu show
	Menu (Timer, transparency)
	OSD (Timer out, transparency)
	PPM channel (Select PPM channel)

Navigation

Button	Function
+	(4) Increase volume
	Increase value
-	(3) Decrease volume
	Decrease value
OK	(8) Select menu item
MENU	(7) Enter menu
	Go up
	Exit to save
MODE	(6) Switch between modes
	Flip through menu items/settings

Important general settings

PIP function (Picture in Picture):

- > To enable PIP, select Menu > General settings > PIP and switch it to ON.
- > The secondary image can be made smaller or larger by selecting size. Cycle through the three sizes of 420 x 240, 266 x 160 and 133 x 80 using the – and + buttons.
- > The second image can be moved by selecting position. Toggle between the eight positions by using the – and + buttons.
- > Long hold the OK button to activate and deactivate PIP on screen.

Volume:

- > Earphones can be connected to the earphone jack (16).
- > Use the + and – buttons to increase and decrease the volume.
- > When the goggles are powered off, the volume is automatically reset to 0.

Important system settings

Power:

- > Select the cell count corresponding to the number of cells of your external battery.
- > The battery charge condition is displayed on screen. When the 'battery depleted' symbol shows, connect a fully charged battery.

Language:

- > Change menu language.

Display ratio:

- > Select the aspect ratio: 16:9 or 4:3

Menu show:

- > Choose to have the menu and OSD information appear on screen permanently or disappear after a set time, or configure the transparency of the overlay.
- > Settings for menu and OSD information are independently configurable.

Reset menu:

- > Return goggles to factory default settings.

When using the PIP function or HDMI input the unit operates as a higher temperature and the built-in cooling fan will turn on.
Do not cover the exhaust and keep it clean at all times.

PAIRING

The pairing of goggles and video transmitter happens in two steps:

1. Select the RF band in the general settings corresponding to the RF band of the video transmitter.
2. Select the PPM channel in the system settings corresponding to the PPM channel of the video transmitter (You can assign switch positions for activating/deactivating PIP or the front facing camera).

Notes:

- > Select a channel with little interference. When the transmitter is turned off, check each channel for interference and look for a consistent background. In case of interference, horizontal lines appear.
- > Through the radio controller, you can open the Picture-in-picture function or close it. Also, you can change the Picture-in-picture image size by connecting the transmitter to the PPM IN socket.

BEFORE FLYING

- > Perform a range test. Other electronic devices and the surroundings can affect the range.
- > The video signal is affected by obstacles (e.g. human bodies, concrete walls, houses etc.). Maximum range can only be achieved in a clear line of sight.
- > It takes some time to adapt to FPV flying. Practice in a familiar setting until you feel comfortable.

CLEANING AND CARE

- > The goggles do not require any maintenance, do not disassemble them. Maintenance or repairs may be carried out by a professional only.
- > Do not let liquid enter the goggles.
- > Clean the exterior of the goggles using a clean, soft, dry cloth only.
- > Do not use any aggressive cleaning agents or chemical solutions as these may damage the housing causing discoloration and/or malfunction.
- > Keep the goggles in the protective case when not in use.

PRODUCT SUPPORT

Visit <http://www.rclogger.com/support> or call +852 2559 2662 for product support. Additionally visit our Online Ticket System at <http://support.rclogger.com> for any RC Logger inquiry.

DISPOSAL



In order to preserve, protect and improve the quality of environment, protect human health and utilise natural resources prudently and rationally, the user should return unserviceable product to relevant facilities in accordance with statutory regulations. The crossed-out wheeled bin indicates the product needs to be disposed separately and not as municipal waste.

Consequently you comply with your legal obligations and contribute to environmental protection!

FCC COMPLIANCE STATEMENT

Grantee Code: 2ACIM

Product Code: -SPX01

FCC IDENTIFIER: 2ACIM-SPX01

Statement according to FCC part 15.19

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- > This device may not cause harmful interference, and
- > This device must accept any interference received, including interference that may cause undesired operation.

Statement according to FCC part 15.21

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

TECHNICAL DATA

Battery pack:

Base	Input: 12 – 16 V/DC Output: 9.6 – 12.6 V/DC
Battery	Type: LiPo, 3 cells Input: 10 – 28 V/DC, 2 A Output: 11.1 V, 1000 mAh

Power adapter:

Input.....	110 – 240 V/AC, 50/60 Hz, max. 0.7 A
Output.....	12 V/DC, 2 A

Goggles:

Power supply.....	7 – 28 V/DC, 1 A
Power consumption.....	6.8 W / 12 V/DC
Display.....	FOV: 30° (diagonal) Resolution: 854 x 480 (WVGA)
Interpupillary distance.....	59.5 – 69.5 mm (adjustable)
Luminance.....	350 cd/m ²
Wireless receiver.....	Antenna port: 2x SMA, 50 Ohm TV System: NTSC/PAL Video output level: 1.0Vp-p Typ, 75 Ohm Audio output level: 1.0Vp-p Typ, 10 kOhm
AV interface.....	ø3.5 mm jack, video input, stereo audio input
HDMI interface.....	C-Type connector HDMI 1.3 Digital input, HDMI Audio in Resolutions: 1920 x 1080p50, 1920 x 1080p60, 1920 x 1080i50, 1920 x 1080i60, 1280 x 720p50, 1280 x 720p60, 720 x 576p50, 720 x 480p60, 720 x 576i50, 720 x 480i60
DIV AV interface.....	Diversity receiving, video/audio output
Ear out interface.....	ø3.5 mm jack, Stereo 16 Ω / 150 mW
PPM IN interface.....	ø3.5 mm jack, supports 8 channel PPM IN
Front camera.....	FOV: 100° (diagonal) Resolution: 640 x 480 (VGA)
Operating temperature.....	+10 to +65 °C (+50 to +149 °F)
Dimensions.....	169 x 70 x 42 mm
Weight.....	approx. 182 g

Frequencies:

Band	Frequency in MHz						
	CH1	CH2	CH3	CH4	CH5	CH6	CH7
A	5865	5845	5825	5805	5785	5765	5745
B	5733	5752	5771	5790	5809	5828	5847
F	5740	5760	5780	5800	5820	5840	5860

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