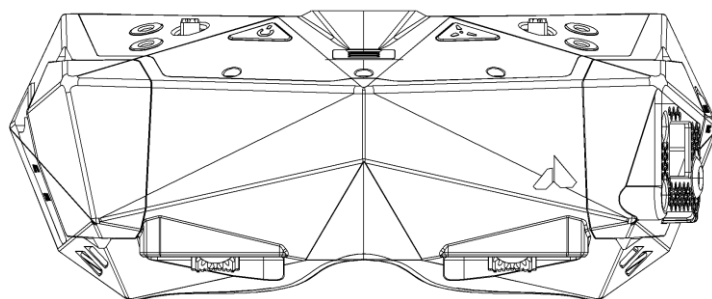




ORQA

FPV VIDEO GOGGLES

FPV.ONE_{PILOT}



User Manual

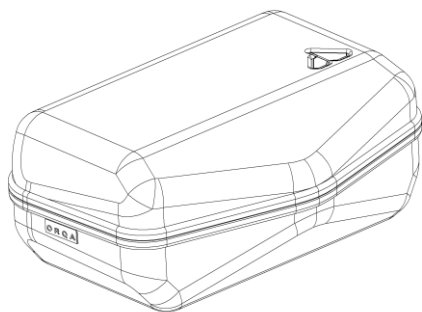
Rev. 1.2 | January 2022

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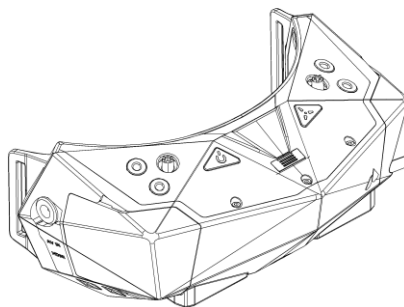
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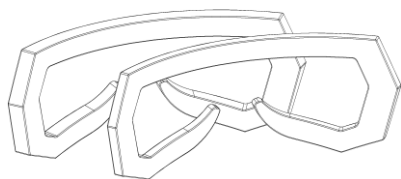
PACKAGE CONTENTS



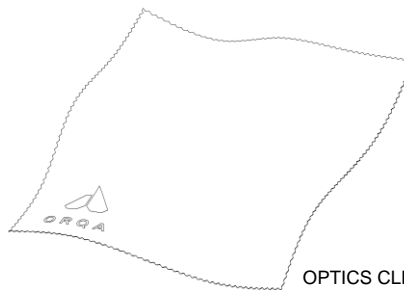
CARRYING CASE



GOGGLES

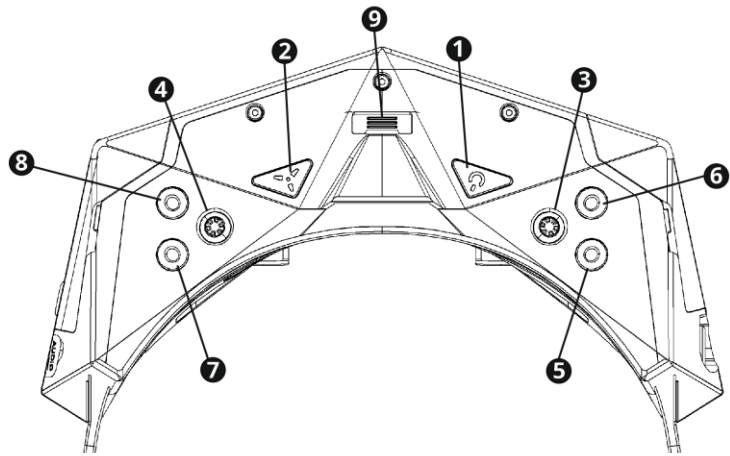


FOAM PADS

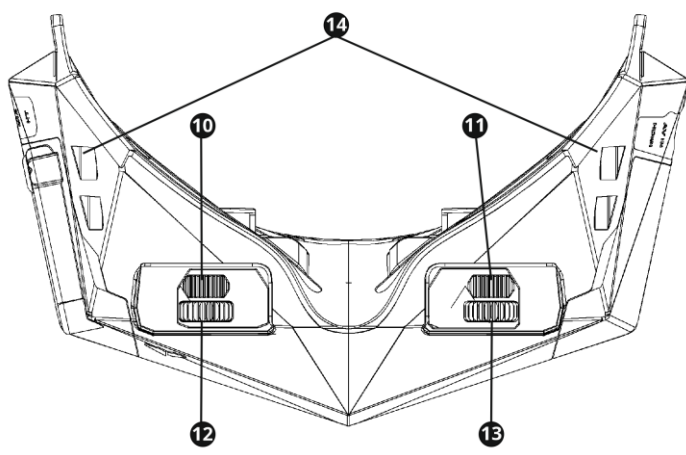


OPTICS CLEANING CLOTH

GETTING TO KNOW THE GOGGLES

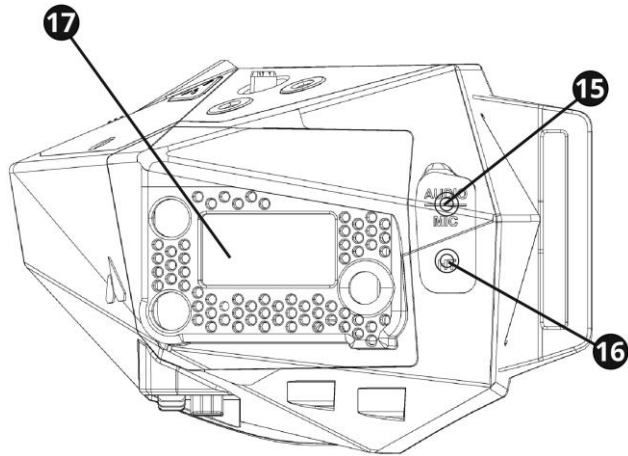


- 1. Power On/Off
- 2. Defogging Fan
- 3. Right Menu Navigation
- 4. Left Menu Navigation
- 5. Battery Check
- 6. DVR Quick Record
- 7. Channel Down
- 8. Channel Up
- 9. Multifunction connector



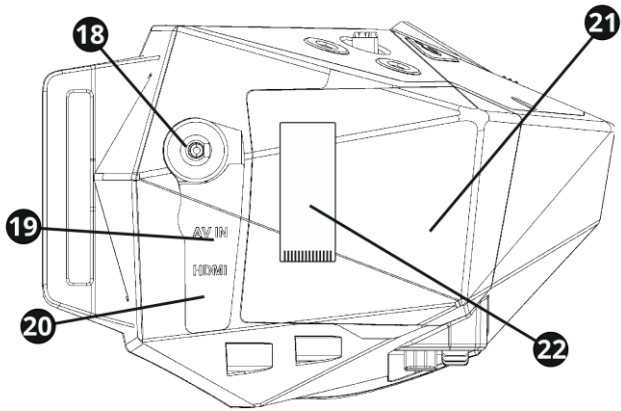
- 10. Left IPD Adjust
- 11. Right IPD Adjust
- 12. Left Focus Adjust Wheel
- 13. Right Focus Adjust Wheel
- 14. Cooling Air Intake

GETTING TO KNOW THE GOGGLES



- 15. Audio Out / Mic In
- 16. Head Tracker Output
- 17. Receiver Bay

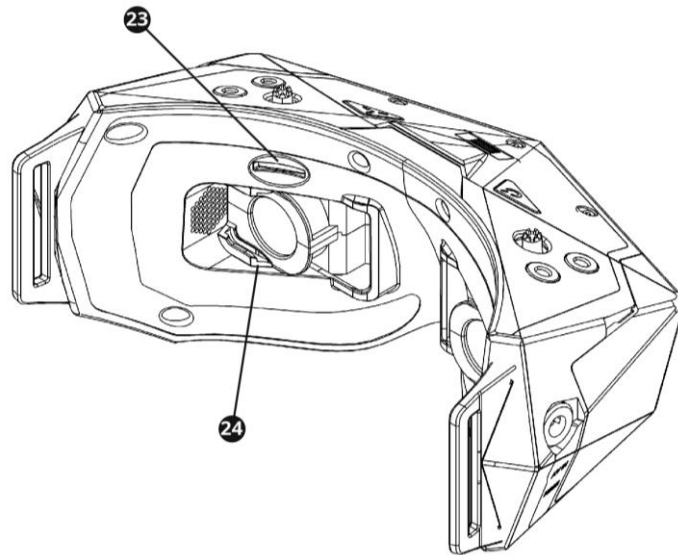
- 18. Power Connector
- 19. AV Input
- 20. MicroHDMI Input
- 21. Secondary Bay
- 22. Module Interface FFC



GETTING TO KNOW THE GOGGLES

23. Micro SD Card Slot

24. Diopter Slot



FOCUS / IPD ADJUSTMENT

Deep focus adjust (take time)

For optimal FPV experience, take a few minutes to find your perfect focus. This will help you reduce eye strain after longer flights.

Adjust IPD and focus for both eyes while you loop through image and darkness. When your eyes no longer need to accommodate to look at the image after dark screens, you've found your perfect focus. Your eyes are now relaxed.

Quick focus

Adjust focus and IPD until the image feels comfortable.

WARNING

Take care of your lenses! Clean with dry lens cloth. Use of any cleaning liquids may damage the anti-reflection layer.

CONTROLLING THE GOGGLES



Press the Power Button to power the goggles On or Off **1**.

There are different power-on modes. Check page 13 for more information.



To prevent the lenses from fogging due to high humidity or sweat, use the defogging fan. Press the Fan Button to turn the fan on or off **2**.



Use the Right-hand joystick to access the DVR menu **3**.



Use the Left-hand Joystick to access the main menu **4**.



Press the Battery Check Button to show the battery status **5**.



Press the DVR Quick Record Button to start/stop recording with DVR **6**.



Press the Channel Down Button to change the receiver channel down **7**.

Additionally, long press this button to change the receiver band.

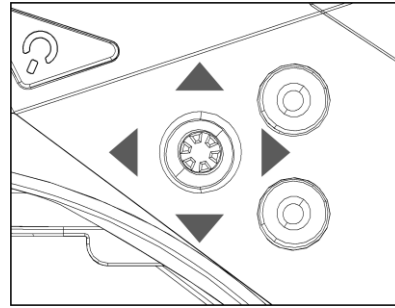
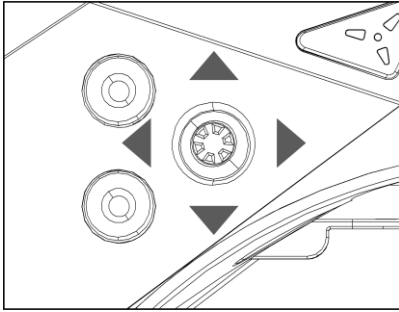


Press the Channel Up Button to change the receiver channel up **8**.

Additionally, long press this button to change the receiver band.

NAVIGATING THE MENUS

There are two main menus that are accessible via the two corresponding joysticks on the top side of the goggles.



The Left-hand joystick **4** controls the main menu. The main menu incorporates all the main controls and goggles settings.

The Right-hand joystick **3** controls the additional menu which is used mainly to adjust the Digital Video Recorder and Video Playback settings.

To enter the main or additional menu simply press the corresponding joystick.

Once inside the menu move the corresponding joystick up, down, left or right in order to select the required setting.

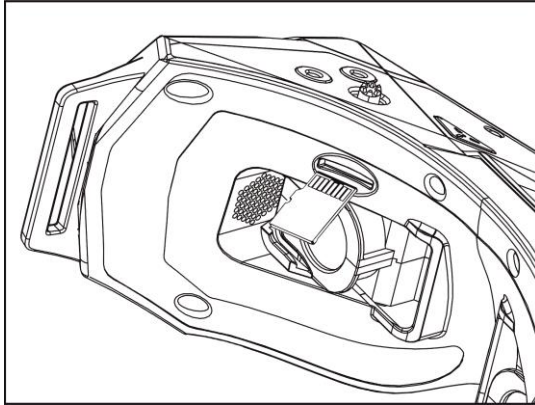
Confirm/save the set value by pressing the corresponding joystick.

To exit the menu, move the joystick to the left or wait for 10 seconds to automatically exit the menu.

Changes will be saved only if the menu is closed before turning the goggles off.

DVR

Integrated Digital Video Recorder (DVR) enables high definition recording of the video and audio from any of the inputs.



To use the DVR, the micro SD card must be inserted in the dedicated slot in the faceplate.

Insert the micro SD card with the contacts facing up. Inserting the micro SD Card incorrectly might result in getting the card stuck in the goggles.

To start recording, press the “DVR Quick Record” button **6** on the top side of the goggles. The button is marked with the red dot. DVR starts recording instantly from the input that is shown on the screen. During the DVR recording, the red **REC** symbol is blinking in the top right corner of the screen.

Note that DVR will not record any of the goggle’s OSD features which might be shown on screen during recording. OSD features generated by a receiver (e.g., RapidFire RSS bars) will be recorded.

When recording, the DVR saves data onto the inserted micro SD card. Eventually, all the available memory space will be used and there will be no free space for the DVR to store the data. When there is no more available space on the micro SD card, the DVR will stop recording.

In order to prevent the DVR from stopping the recording because of insufficient storage space, the “Auto Delete” option can be used. This option allows the DVR to delete the oldest recorded file on the inserted micro SD Card to free some space for the current recording.

When the “Auto Delete” option is turned OFF, the DVR will record until all the available space on the micro SD card is used.

DVR

Please note that the DVR saves data in 5-minute-long video files. That means that any recording that is longer than 5 minutes will be saved in multiple files. This is to prevent the loss of a complete recording in case of any problems with data storage or power loss during recording.

The DVR also records audio from any of the inputs.

Additionally, DVR can record audio from an external microphone when Receiver or AV-In inputs are used. To record microphone audio, plug in the microphone into the 3.5 mm jack on the left side of the goggles. Make sure you have the correct pinout of the 3.5 mm jack. Check the diagram on page 18.

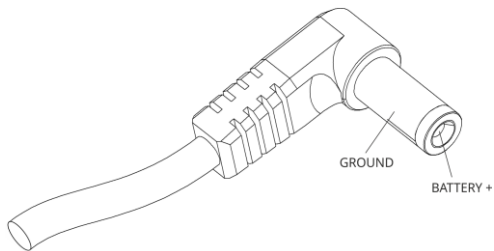
The microphone recording level should be adjusted through the “Microphone Volume” menu. The default level is set to 50%. To adjust this setting, press **3** on the “Microphone Volume” menu item and then move the right-hand joystick **3** right-left to increase-decrease the value. Once set, press the left-hand joystick **3** to confirm and save.

To adjust the audio recording level of the receiver installed in the receiver bay, press **3** on the “Receiver Volume” menu item and then move the right-hand joystick **3** right-left to increase-decrease the value. Once set, press the right-hand joystick **3** to confirm and save. Note that this setting also adjusts the recorded audio volume of the AV-in input.

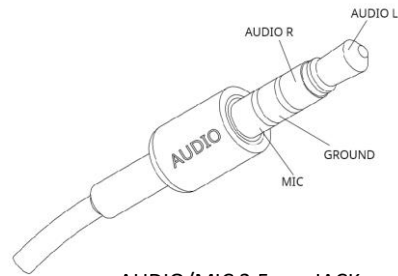
If you try to start the DVR recording or formatting the SD card without the SD card inserted, the “NO SD CARD” message will be displayed.

Format SD Card is used to fast format the inserted micro SD card to the corresponding FAT system. The system can manage SD Cards up to 2TB.

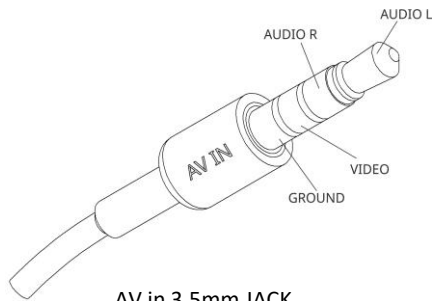
CONNECTIONS PINOUT



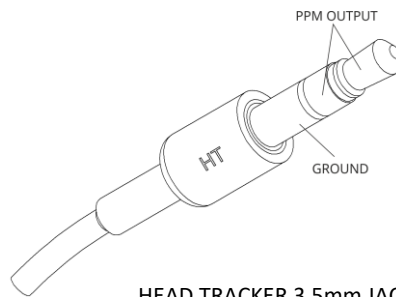
BATTERY CONNECTOR



AUDIO/MIC 3.5mm JACK



AV in 3.5mm JACK



HEAD TRACKER 3.5mm JACK

TECHNICAL SPECIFICATIONS

- Viewing angle 37° or 33° (race mode)
- Screen resolution 1280 x 960 pixels
- Aspect ratio 4:3 native or 16:9 (720p)
- Power supply 6-25VDC (2-6S Li-ion Battery)
- Power consumption 2.8W, typical
- Integrated Head Tracker output 3.5mm jack
- HDMI video input micro HDMI
- Battery connector 2.1 x 5.5mm barrel connector
- IPD range 56-74 mm
- Focus adjust -4D - +4D
- Integrated DVR 1280x960, 50/60fps, H.264, mp4
- Standard receiver bay 5V, High power
- Secondary bay for additional modules 5V, SDIO, UART
- Weight (without battery) 256g
- Dimensions 177 x 107 x 72 mm

WARRANTY

Warranty Period

Exclusive Warranty - ORQA d.o.o., (Orqa) warranties that the Product purchased (the "FPV.One Pilot") will be free from defects in materials and workmanship for a period of 1 year from the date of purchase by the Purchaser.

1 year Limited Warranty

Orqa reserves the right to change or modify this warranty without notice and disclaims all other warranties, express or implied.

- (a) This warranty is not limited to the original Purchaser ("Purchaser") and is transferable exclusively with Proof of purchase for all warranty claims.
- (b) Limitations - ORQA MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCT. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.
- (c) Purchaser Remedy - Orqa's sole obligation hereunder shall be that Orqa will, at its option, (i) repair or (ii) replace, any Product determined by Orqa to be defective. In the event of a defect, these are the Purchaser's exclusive remedies. Orqa reserves the right to inspect any and all equipment involved in a warranty claim. Repair or replacement decisions are at the discretion of Orqa, or in agreement with the Purchaser, when possible. This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of or to any part of the Product. This warranty does not cover damage due to improper installation, operation, maintenance, or attempted repair by anyone other than Orqa. Likewise, inserting a battery pack of a configuration higher than 6S in the goggles will cause an overvoltage, subsequently damaging them, which is not covered by warranty. Return of any Product by Purchaser must be approved in writing by Orqa before shipment.

Damage Limits

ORQA SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCT, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT LIABILITY. Further, in no event shall the liability of Orqa exceed the individual price of the Product on which liability is asserted. As Orqa has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability. If you as the Purchaser or user are not prepared to accept the

liability associated with the use of this Product, you are advised to return this Product immediately in new and unused condition to the place of purchase. Law: These Terms are governed by Croatian law (without regard to conflict of law principals).

Warranty Services

Questions, Assistance, and Repairs

Your local hobby store and/or place of purchase cannot provide warranty support or repair. Once assembly, setup or use of the Product has been started, you must contact Orqa directly. This will enable Orqa to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please direct your email to support@orgafpv.com. You may also find information on our website at <https://orgafpv.com/>.

Inspection or Repairs

If this Product needs to be inspected or repaired, please contact Orqa support at support@orgafpv.com first in order to determine the best course of action. Shipping will be arranged in agreement with Orqa support agent via DHL by default (unless arranged otherwise in agreement with Orqa support agent and/or Orqa logistical team) which provides tracking and insurance for lost or damaged parcels, as Orqa is not responsible for merchandise until it arrives and is accepted at our facility. When arranging shipment with Orqa support agent, you will be asked to provide your complete name, street address, email address and phone number where you can be reached during business hours. All additional information and instructions required will be provided by the Orqa support agent.

Notice: Do not ship batteries to Orqa. If you have any issue with the battery, please contact the Orqa customer service.

Warranty Inspection and Repairs

To receive warranty service, you must provide your original sales receipt verifying the proof-of-purchase date. Provided warranty conditions have been met, your Product will be repaired or replaced free of charge. Repair or replacement decisions are at the discretion of Orqa, or in agreement with the Purchaser, when possible.

Non-Warranty Repairs

Should your repair not be covered by warranty, the repair will be completed after the Product has been assessed by Orqa and subsequent payment has been completed by the Purchaser, if required. Repair and payment cost estimates will be provided after the Product assessment by Orqa. In addition, you will be billed for return freight.