deVention

Goggle2

FPV goggle with head tracking

User Manual

www.walkera.com

1.0 Specifications

(1) Image resolution: actine array 3x640x480pixels

(2) Pixel Size: 14.1umx14.1um/color dots pitch

(3) Display size: 9.0mmx6.8mm (0.44inches of diagonal line)

(4) Virtual image size: 72 inches(2 meters distant)

(5) Field of View: 32°

(6) Caliber of Exit pupil: 25mm

(7) Distance of exit pupil: 30mm

(8) Power voltage : DC 7~12V

(9) Size: 170 x 77 x 44mm (length x width x height)

(10) weight: 165g

(11) working environment: 0℃-45℃

(12) Storage Conditions : -20℃-70℃

2.0 Main Features

(1) 5.8G section channel receiver built in.

(2) Support standard 0.7Vp-p Video signal (compatible with NTSC and PAL) input and output.

(3) Support VGA signal input, output.

(4) Support stereo audio signal input and output.

(5) Built-in head tracking.

(6) Image brightness contrast can be adjusted.

(7) High-tech precision optical components, prevent visual fatigue design.

(8) Human body engineering design, light and easy to carry, wear comfortable.

3.0 Safely tips

In order to reduce the risk of fire, electric shock or product damage, please don't let the unit drops drench, be affected with damp, or splashing Water, also do not put such as vase filled with liquid items in the machine.

Please avoid fall or collision this product, don't let the product is violently shaking, otherwise may lead damage to the product or abnormal display.

Please don't use the player in a special cold, hot, dusty and humid environment. In the following places, please take extra attentions, in order not to cause the video glasses to malfunction.

a. A place with lots of sand or dust.

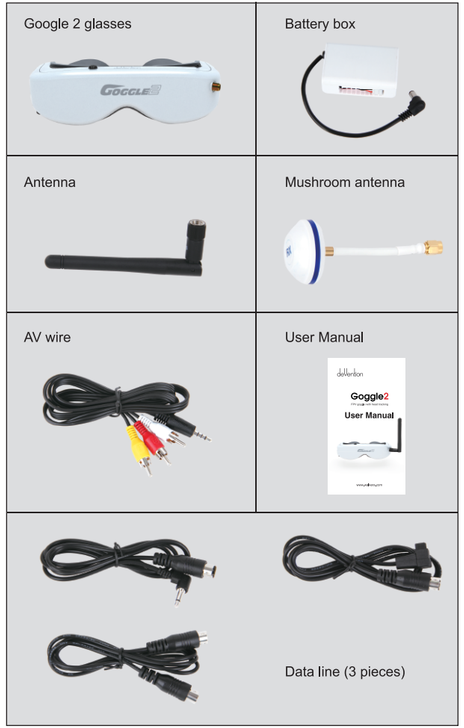
b. A place that near the water, such as in the rainy day or in the beach.

Please wipe with dedicated lens paper when you find dust or dirt on the lens.

In order to avoid any damage of grating and any injury, please do not put the glasses into trouser pocket when u sit down and please do not put them into an overstuffed package.

We suggest taking off the glasses and having a rest every 50 minutes if you need to watch the videos for a long time. Please stop using this product if you have pain in your eyes or if you are not felling well. For users who have eye or body discomfort, please consult relevant medical institutions to get use advice.

4.0 Spare parts



5.0 Illustration

Brightness/contrast button: turn forth or back to decrease/increase the brightness, turn left / right to decrease/increase the contrast.

RX power switch: it is used for controlling the power of receiver module. Please turn off the receiver module to avoid video conflicts when video source goes through the AV cable.

5.8G RX channel selection: turn forth or back to decrease/increase the channels. The change of channel is always with a beep sound, and there will be a long beep sound when the bottom or top channel be selected.

Head tracking reset: active it by pressing the channel switch vertically.

Low voltage alarm: it will alarm when the input voltage is lower than 7.0V.

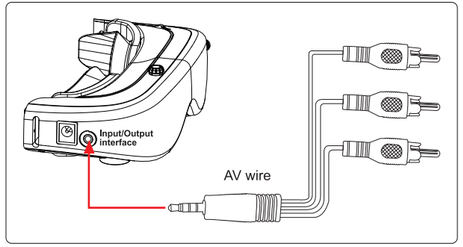
6.0 5.8G receiver channel frequency table

Channel switch status		Corresponding frequency			
1	2				
ON	OFF	1	2	3	4
		5866MHz	5847MHz	5828MHz	5809MHz
		5	6	7	8
		5790MHz	5771MHz	5752MHz	5733MHz
OFF	OFF	9	10	11	12
		5725MHz	5745MHz	5765MHz	5785MHz
		13	14	15	16
		5805MHz	5825MHz	5845MHz	5865MHz
ON	ON	17	18	19	20
		5945MHz	5925MHz	5905MHz	5885MHz
		21	22	23	24
		5645MHz	5665MHz	5685MHz	5705MHz
OFF	ON	25	26	27	28
		5945MHz	5925MHz	5905MHz	5885MHz
		29	30	31	32
		5645MHz	5665MHz	5685MHz	5705MHz

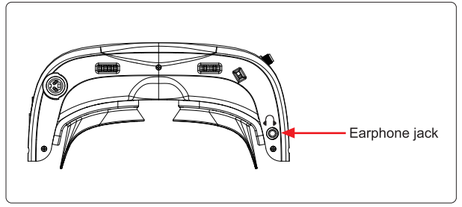
7.0 AV input/output function

(1) AV input: External devices' (such as DVD, MP4) composite video signal and the analog audio signal will input to the Input/Output socket by AV cable. Image will be displayed on the screen and sound can be heard by the earphone.

(2) AV output: The AV signal from the goggles can be output by the AV cable and the AV Input/Output socket. The AV cable can be connected to a DVR to record videos or connected to a monitor to display the image and sound in real-time.



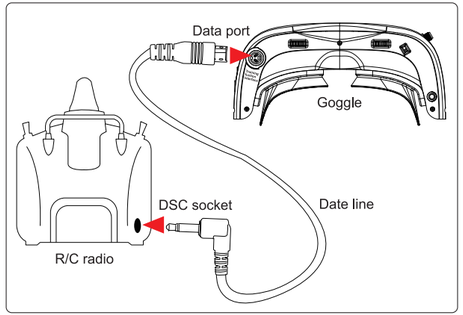
(3) Earphone: Please use a standard 3.5mm earphone and insert it into the earphone jack of the goggles. The sound from the goggles can then also be heard.



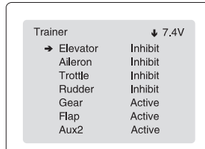
8.0 Head tracking function

(1) The default channel of the **Goggle2** is 5, 6, 7 channel, connecting wires of the gimbal should be inserted to according to receiver channel. 5, 6, 7

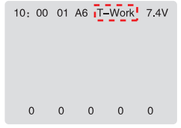
(2) Connecting between the goggle and radio: first turn off the transmitter power, insert the data cable to the goggle data port and another side to the transmitter DSC socket. Like below picture.



(3) Turn on the radio, then bind aircraft and videos can be received and displayed on Radio monitor. Then change the training function channel 5,6,7 status to active. The last step is turn the training switch (HOLD TRN) to on position(e.g DEVO F7) .



The trainer function settings



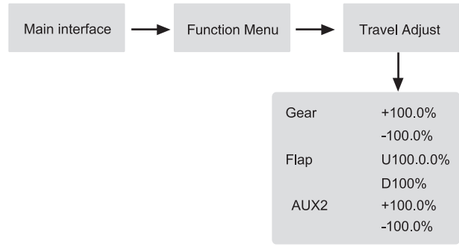
Training function status

(4) Press channel toggle switch vertically, Move the goggles up and down, left and right to check whether these movements act as expected on gimbal and make sure the movements of goggles and camera are synchronized.

If the head tracking function not work, please follow below steps to set the travel and the adjustable parameter software:

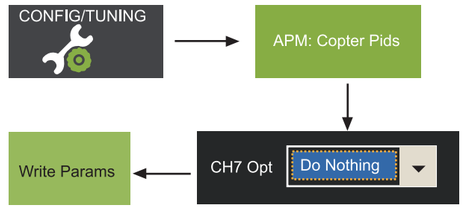
(1) Travel Adjust

You just need to set the Channel 5: Gear, Channel 6: Flap, Channel 7: AUX2 and travel gain as ±100%.



(2) Adjusting steps of the adjustable parameter software

Connect the Main controller and computer by the USB cable, double click the file "Mission Planner. exe " to run the Mission planner adjustable parameter software.



9.0 Troubleshooting

9.1 No image on goggle display

(1) Make sure the goggles power supply voltage is within 7V – 12V and the goggles are powered on.

(2) Make sure the goggles receiving channel is the same as transmitter.

(3) Make sure transmitter power plug is inserted fully.

(4) Make sure the camera plug is fully inserted into the transmitter socket.

(5) Make sure the antennas of the goggles and transmitter are installed correctly.

9.2 Head tracking system stops working

(1) Make sure the gimbal wires are fully inserted into the corresponding R/C receiver channels.

(2) Make sure the goggle and R/C transmitter has been connected.

(3) Please check whether the training function be activated or not and make sure the HOLD TRN at ON position.

9.3 Goggle image quality is poor or wireless transmitting range is short

(1) Check if there are other transmitting devices working at the same frequency near you; please select other frequency to avoid interference or use your FPV system in another place.

(2) Make sure the antennas of the goggles and transmitter are installed correctly.

(3) Check if there are buildings, trees, hills/mountains or other obstacles between the goggles and transmitter; please only use the FPV system in wide open spaces.