



BETAFPV

VR03

FPV Goggles

User Manual
V1.0

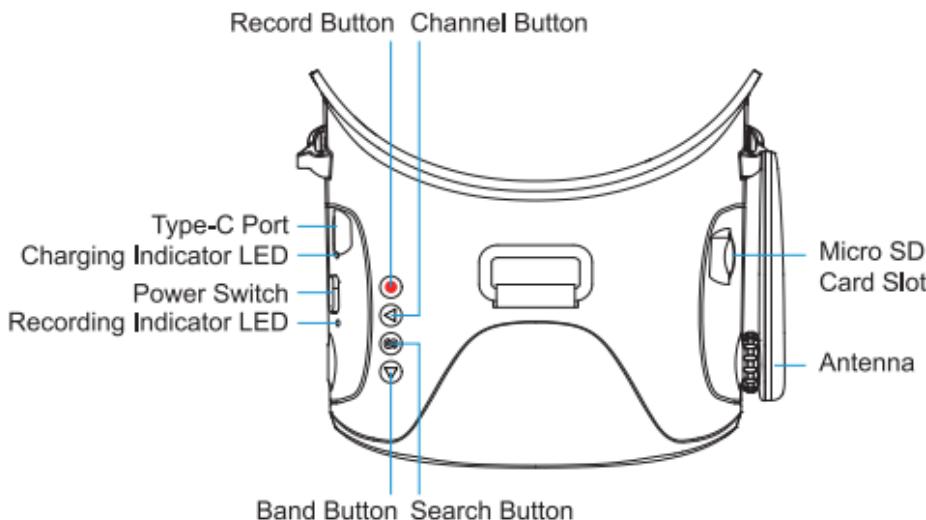
VR03 is the FPV goggles developed by BETAFPV. It has maintained the BETAFPV design philosophy for having a minimalist appearance style, simple operations, and ergonomic design. The goggles aim to deliver a pleasing user experience for all model enthusiasts with an upgrade on the DVR recording function and great performance.

1. Specification

Body Specifications	Size	130x145x90mm
	Weight	About 300g
	Camera Format	NTSC/PAL
	Support Channel	48CH
Screen	Size	4.3 inch
	Screen Resolution	800*480
Power	Battery	3.7V, 2000mAh
	Normal Mode Endurance	About 2 hours
	Record Mode Endurance	About 1 hour 10 minutes
	Maximum Charging Current	1A
Port	Antenna Port	RP-SMA (Whip Antenna included)
	Charging Port	Type-C
	Card Slot	Micro SD Card (Supports FAT system, supports maximum 64GB storage. C10 is recommended)
Record	Screen Resolution	480P
	File Format	AVI

2. Normal Function

2.1 Button Operation



- Power switch

Turn the power switch left and right to turn the goggles off or on. When facing the switch, the left position is powered off, the opposite of the position is powered on.

- Search button (S)

Quick frequency search: Press and hold the frequency search button for 2 seconds to start the frequency search. After 3 seconds, there will be a beep sound and the best available frequency will be selected.

Quick frequency search is completed.

Frequency scan: Short press the frequency search button once to enter the frequency scan interface.

Frequency Coordinate

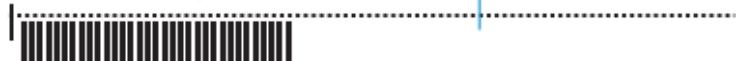
Frequency

RSSI Display Bar

RSSI

BAND: R3 5732

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A horizontal scale with numbers 1 through 8. A vertical axis is positioned to the left of the scale, with labels A, B, E, F, R, and L corresponding to the numbers 1, 2, 3, 4, 5, and 6 respectively. A black square is located at the position of number 1. A blue vertical line is drawn at the position of number 4.

3.5IV

Goggles Voltage

Frequency Scanning Results Table

Press and hold the search button for 2 seconds to activate frequency scan, result will be displayed after 3 seconds. The different colors in the screen indicate the current status of each frequency as follows:

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Green	0<RSSI<20 Frequency is available
Yellow	20<RSSI<70 Frequency has moderate interference from another transmitter
Red	70<RSSI<99 Frequency is completely in use by a transmitter
White	The strongest signal which the goggles received in this scan

- **Band and Channel button**

In the frequency scan interface, the band button can be cycled down to select different bands, and the channel button can be cycled to the right to select different channels.

Pilot can select the goggles frequency by pressing the band and channel button.

For example, select a band and channel with green status since these frequencies are not occupied and signal interference is relatively weak. Then, set the quadcopter to the corresponding frequency and adjust the goggles to match.

- **Record button**

In the FPV interface, short press the record button to start or stop recording and long press to enter or exit the DVR interface.

Note: Please ensure the battery is fully charged before use, the recommended voltage is above 3.7V (short press the S button to review). Please wear the goggles properly and adjust the headband to a comfortable length.

2.2 Frequency Selection

The FPV goggles can receive the 5.8GHz spectrum, distributed across 6 bands (A, B, E, F, R, and L) of 8 channels (CH-1,, CH-8), as shown below:

	CH 1 (MHZ)	CH 2 (MHZ)	CH 3 (MHZ)	CH 4 (MHZ)	CH 5 (MHZ)	CH 6 (MHZ)	CH 7 (MHZ)	CH 8 (MHZ)
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

Press and hold the Search button for 2 seconds to automatically search for the frequency point with the strongest signal strength in the space to obtain the FPV picture of the quadcopter.

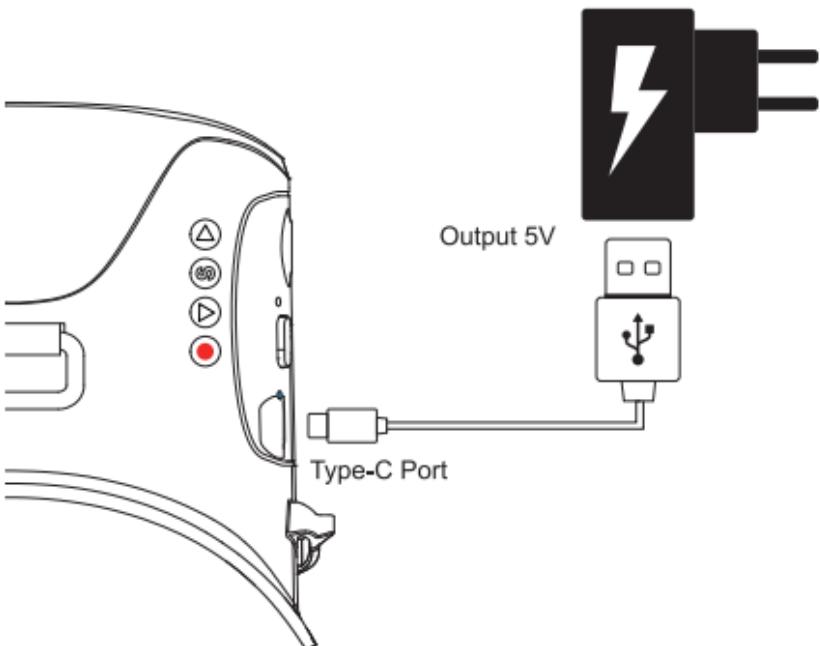
User can also shortly press the Band button to switch to the designated band and use the Channel button to switch to the designated channel so that the FPV goggles can work on the designated frequency point.

2.3 Charging the FPV Goggles

The FPV goggles have a built-in 2000mAh battery and no external battery is required. When voltage is below 3.4V, there will be a beep sound ringing every 10s and this indicate that the goggles needs to be recharged. User can also press the S button to check the voltage.

The steps to charge the goggles battery:

- Turn off the FPV goggles;
- Connect FPV goggles and adapter with the Type-C cable (5V output adapter is allowed, such as mobile phone charger) ;
- The Charging Indicator LED will be solid blue when charging and it turns off when fully charged.



Note: This device doesn't support fast charging protocols, hence the device cannot be fast charged.

3. Recording Function

3.1 Start / Stop Recording

FPV goggles support video recording function, short press the record button to start or stop video recording.

- Insert the micro SD card into the micro SD card slot (Support FAT32 system only and maximum 64G storage);
- After short pressing the record button, a red dot will appear on the upper left corner of the screen, and there will be a "beep-beep" sound from FPV goggles;
- Wait for 8 seconds, the red dot and the recording indicator LED start flashing. At the same time, a line of red numbers appears and the timer starts running, indicating the start of recording;
- Short press the record button. After 2-3 seconds the red dot on the upper left corner stop flashing together with the timer being vanished, and the red recording indicator LED also turns off. This indicates the goggles has stopped recording.

Recording	Recorded Time	Frequency Position	Frequency	RSSI
		Coordinate		
●	00:02:10		R3 : 5732	: 99

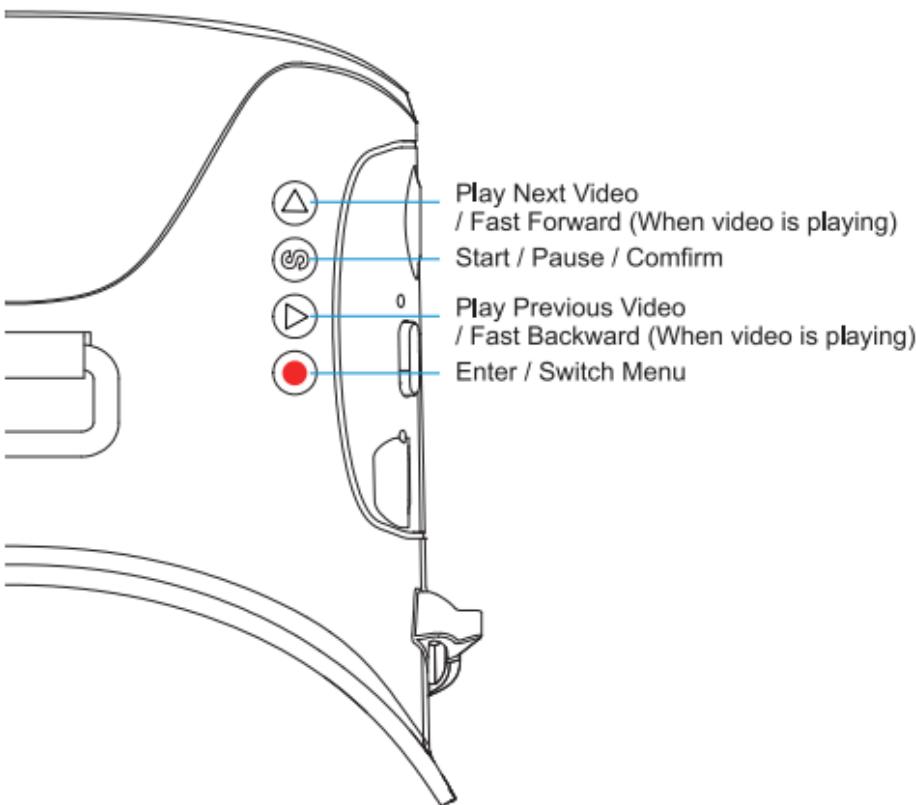
Note: After pressing the record button, the DVR recording function will take about 8-10 seconds to be activated, please wait in patience.

Note: The maximum duration of each recording is 10 minutes. When a recording exceeds 10 minutes, a new recording file will be created automatically.

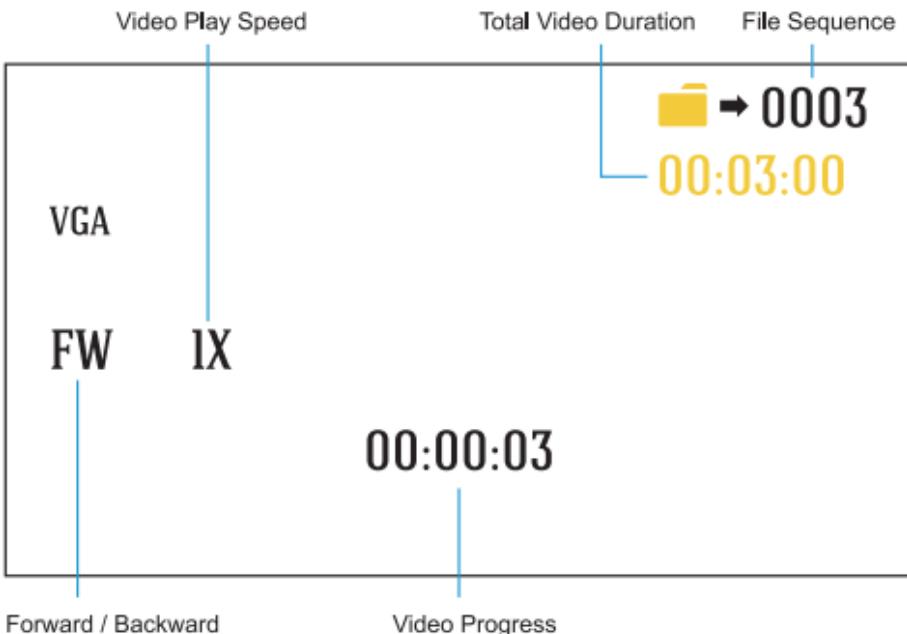
3.2 DVR Function

FPV goggles supports DVR replay function, operating steps are listed as follows:

- Ensure Micro SD card has been inserted into the slot, with recording files in the card;
- Long press the record button for 2-3 seconds and there user will hear three beeping sounds. "LOADING DVR..." will appear on the screen;
- Wait about 8-10 seconds depending on the file size to finish loading and enter the DVR interface;
- After entering the DVR interface, button functions are redefined and explained by image shown below;
- Long press the record button for 2-3 seconds in the DVR interface again to exit.



Use the above buttons on the goggles to perform switching videos, Play or Pause, Fast Forward or Fast Backward, etc.



Note: After pressing the record button, the DVR recording function will take about 8-10 seconds to be activated, please wait in patience.

4. Attention

Please turn off the power after use. If the device has been left unused for a long time, please recharge it every three months. Otherwise, the battery will be damaged.

After (hearing) the low battery alarm, please stop using the goggles and recharge ASAP. Otherwise, there may be a risk of direct power shutdown, and possibly damaging the battery.



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