SPEEDY BEE EV800D

SPEEDY BEE 5.8G FPV Goggles EV800D Instruction Manual

Model: EV800D | Brand: SPEEDY BEE

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1. INTRODUCTION

The SPEEDY BEE 5.8G FPV Goggles EV800D are designed to provide an immersive First-Person View experience for various RC hobbies, including drones, RC cars, and airplanes. Featuring a 3-inch high-brightness screen and dual antennas, these goggles offer stable signal reception and clear visuals. This manual provides essential information for setting up, operating, and maintaining your FPV goggles.

2. WHAT'S IN THE BOX

Verify that all components are present upon unboxing:

- SPEEDY BEE 5.8G FPV Goggles (EV800D)
- Two (2) 5.8G Antennas
- Adjustable Head Strap
- AV Cable
- USB Charging Cable
- User Manual

Figure 2: All components included with the FPV Goggles.

3. SPECIFICATIONS

Feature	Specification
Screen Size	3.0 Inch
Resolution	480*320
Display Ratio	16:9
View Angle	6 o'clock
Brightness	350cd/m² with high brightness backlight LED
Video Delay	Less than 20ms
Lens	4X Fresnel Lens, 92% transparent rate, no distort of light
Languages	English and Chinese
Power Adapter	DC5V/1A (USB interface)
Battery	3.7V/1200mAh (approx. 2.5hr working time)
Dimensions	13.5cm * 13.2cm * 6.5cm (5.3"L x 5.2"W x 2.5"H)
Weight	180g (without headband, not included antennas)
Special Features	Auto-Searching, DVR Record, Double Antenna

Figure 3: FPV Goggles with key dimensions.

4. Setup

4.1 Charging the Goggles

Before first use, fully charge the internal 3.7V/1200mAh battery using the provided USB charging cable and a DC5V/1A power adapter. A full charge provides approximately 2.5 hours of working time.

Figure 4: The goggles feature low power consumption for extended use.

4.2 Attaching Antennas

Screw the two 5.8G antennas onto the designated SMA connectors on the top of the goggles. Ensure they are securely fastened for optimal signal reception.

Figure 5: FPV Goggles with dual antennas for enhanced signal stability.

4.3 Adjusting Head Strap

Attach the adjustable head strap to the goggles and adjust it for a comfortable and secure fit on your

head. The lightweight design (180g without headband/antennas) ensures comfort during extended use.

Figure 6: The goggles are compact and lightweight for portability.

5. OPERATING INSTRUCTIONS

5.1 Powering On/Off

Press and hold the power button located on the top of the goggles to turn them on or off. The screen will illuminate upon successful power-on.

5.2 Channel Auto-Searching

The goggles feature a 40-channel RaceBand receiver with an auto-search function. Short press the 'Search' button to automatically scan and select the strongest available FPV channel from your transmitter.
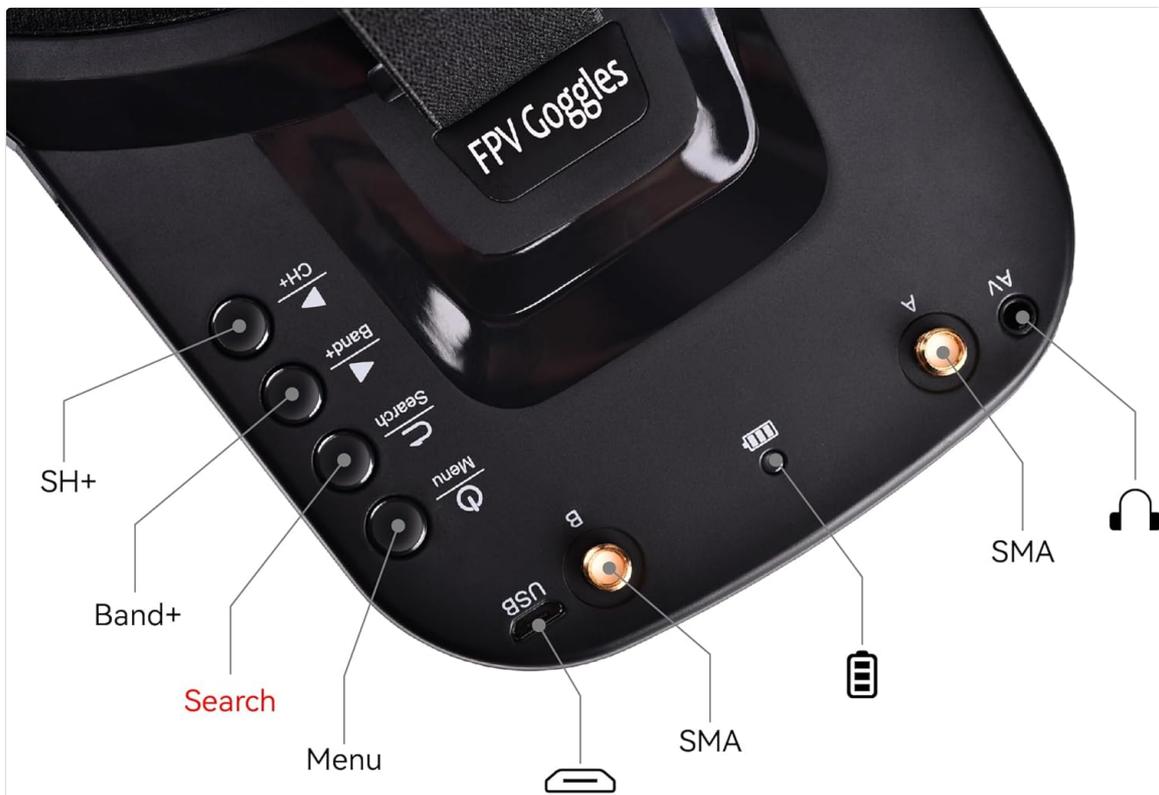
Support One-key Channel Auto-Searching

Short press the search button to automatically search and select the strongest channel

Figure 7: Control buttons for easy channel searching and menu navigation.

5.3 Manual Channel Selection

If auto-search does not yield the desired channel, use the 'Band+' and 'CH+' buttons to manually cycle through the available bands and channels. Refer to the frequency table below for common 5.8G FPV frequencies.

Build in 5.8G 40CH Diversity Receiver

Super sensitiveness receiver for real-time video return

Double antenna reception to make the signal more stable

Frequency Table(MHz)

	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
Band A	5865	5845	5825	5805	5785	5765	5745	5725
Band B	5733	5752	5771	5790	5809	5828	5847	5866
Band E	5705	5685	5665	5645	5885	5905	5925	5945
Band F	5740	5760	5780	5800	5820	5840	5860	5880
Band R	5658	5695	5732	5769	5806	5843	5880	5917

Figure 8: 5.8G FPV Frequency Table for manual channel selection.

5.4 Video Input/Output

The goggles support external video input via the AV port and AV signal output, allowing for connection to other display devices or recording equipment.

Figure 9: The 3-inch high-brightness LCD screen provides crisp visuals.

5.5 FPV System Integration

These goggles are compatible with analog FPV cameras and transmitters. Ensure your FPV system is properly configured and powered on to receive a video feed.

Used for Different Occasions

Can be used for different occasions.
For FPV vehicle like FPV Drone,FPV RC Car,FPV Airplane, etc.

Figure 10: FPV Goggles can be used for various RC applications.

5.6 How to Use (Video Guide)

Video 1: A guide on how to use the FPV goggles with an RC car setup, including connecting the camera, VTX, and gimbal, and activating head tracking.

5.7 Goggles Applied to RC Cars (Video Guide)

Video 2: Demonstrates the application of FPV goggles with an RC car, showing the installation of the FPV system components.

6. MAINTENANCE

6.1 Cleaning

Use a soft, dry cloth to clean the exterior of the goggles. For the screen, use a microfiber cloth specifically designed for optics to avoid scratches. Do not use liquid cleaners directly on the screen.

6.2 Storage

Store the goggles in a cool, dry place away from direct sunlight and extreme temperatures. Detach

antennas when storing for extended periods to prevent damage.

6.3 Battery Care

To prolong battery life, avoid fully discharging the battery frequently. If storing for a long time, charge the battery to approximately 50% capacity.

7. TROUBLESHOOTING

7.1 No Video Signal

- Ensure your FPV transmitter is powered on and transmitting on the correct 5.8G frequency.
- Use the auto-search function on the goggles to find the strongest signal.
- Verify antennas are securely attached to both the goggles and the transmitter.
- Check for obstructions between the transmitter and receiver.

7.2 Poor Video Quality/Static

- Ensure you are on the clearest channel; try manual tuning.
- Minimize interference from other 5.8G devices or Wi-Fi networks.
- Check the condition of your antennas; replace if damaged.
- Ensure the goggles battery is sufficiently charged.

7.3 Goggles Not Powering On

- Confirm the battery is fully charged.
- Ensure the power button is pressed and held for the required duration.

7.4 Drone Calibration (Video Guide)

Video 3: Instructions for compass calibration of an FPV drone. This is crucial for stable flight and accurate FPV experience.

7.5 Drone Frequency Pairing (Video Guide)

Video 4: Guide on how to pair the frequency between an FPV drone and its remote control, essential for establishing a connection.

8. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the contact details provided in your product packaging or visit the official SPEEDY BEE website. Keep your purchase receipt as proof of purchase for any warranty claims.