Manuals+ — User Manuals Simplified.

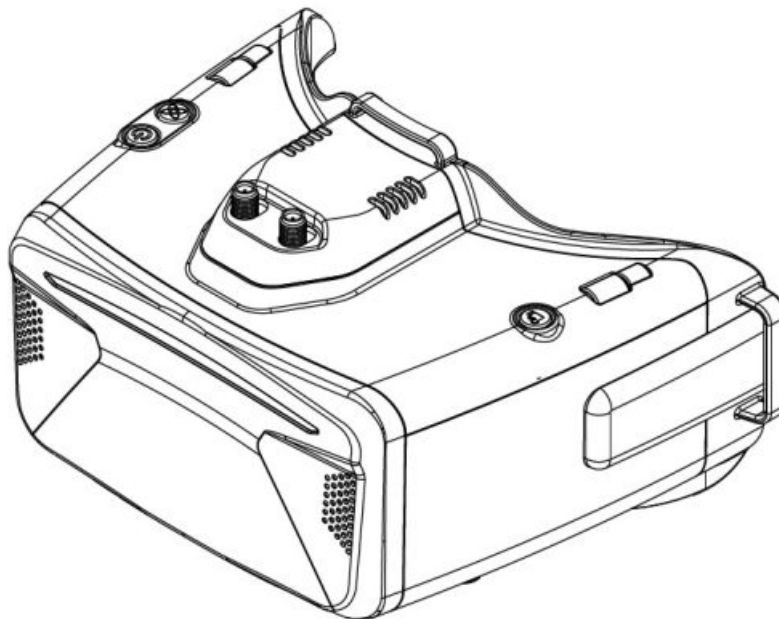# SKYZONE COBRA 5.8GHz FPV Goggles with SteadyView Receiver User Manual

SKYZONE

**COBRA 5.8GHz FPV Goggles with
SteadyView Receiver
User Manual**

Contents

Specifications

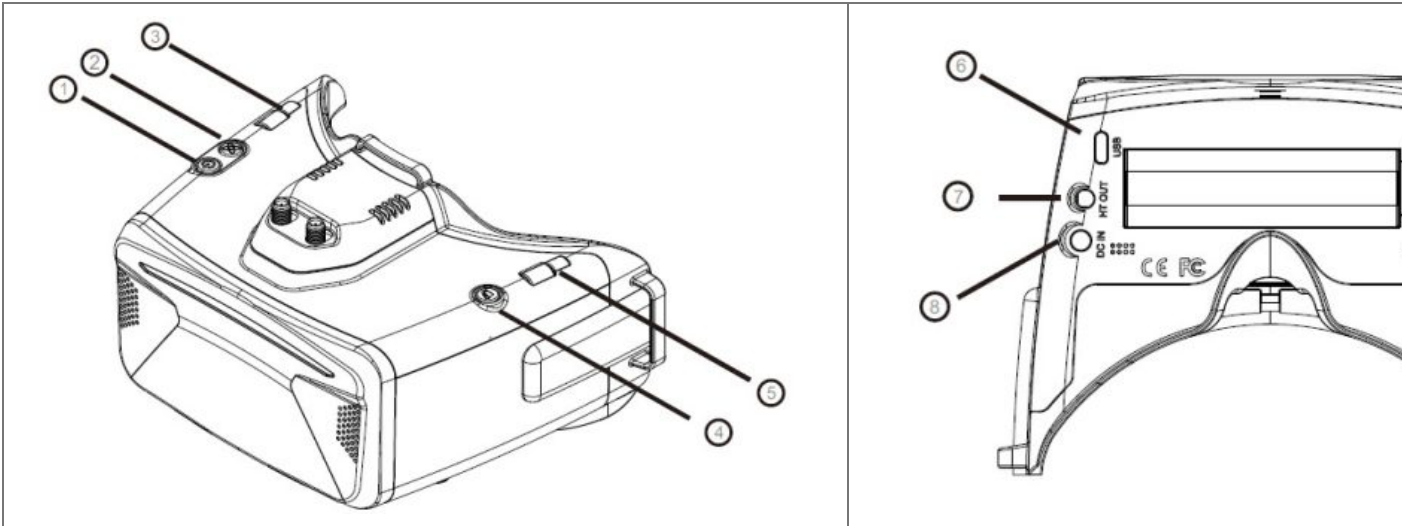| Model	Cobra X	Cobra S
Screen	LCD	LCD
r Resolution	1280X720	800X480
FOV(Dracional)	50°	50°
Aspect Ratio	4:3/16:9.	16:09
Receiver	5.8Ghz 48 CH SteadyView Receiver	5.8Ghz 48 CH SteadyView Receiver
Language	10 Language	English/Chinese
Power Supply	1Cell 18650/DC 6.5 25 2V/USB 5V	1Cell 18650/DC 6.5 2:3 2V/USB 5V
Power Consumption	1Cell 18650/DC 6.5-25.2V/USB 5V	1Cell 18650/DC 6.5-25.2V/USB 5V
DVR	H26/I, Mips MeV 6VInn,, SI) bO to 128Gb	12V 0.59A 5V 1.4A
Head Tracker	3-axis Accelerometer. 3-axis gyrosPOW	MJEPG, 30FPS
Dimensions	122.165.:00mm	122*165*100mm
Weight	332q	332g

BAND/CHANNEL table

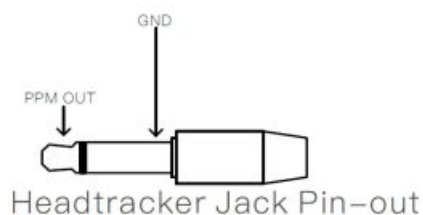| BAND/CH table								
BAND/CH	CH 1	CH2	CF-13	CH4	CH5	CH6	CI-17	CH8
A	5865M	5845M	5825M	5805M	5785M	5765M	5745M	5725M
B	5733M	5752M	5771M	5790M	5809M	5828M	5847M	5866M
E	5705M	5685M	5665M	5645M	5885M	5905M	5925M	5945M
F	5740M	5760M	5780M	5800M	5820M	5840M	5860M	5880M
R	5658M	5695M	5732M	5769M	5806M	5843M	5880M	5917M
L	5362M	5399M	5436M	5473M	5510M	5547M	5584M	5621M
Sensitivity	-98dBm±1dBm							
Antenna port	_ 2 X SMA-K,50ohm							

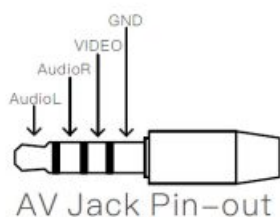## Package Included

1. Goggles*1	6. 5.8GHz 2dD antennas*2
2. Receiver Module*1	7. Video/Audio Cable*1
3. Head Strap *1	8. USB-C Cable*1
4. Power Cable*1	9. User Manual*1
5. Headtracker cable*1	

Diagram

1. Power/Fan	2. System Menu/Headtracker reset
3.CH/BAND/Search	4.Record/Delete
5. Mode	6. USB C port
7.3.5mm Head tracker port	8. DC PORT(5.5*2.1mm)
9. SD card slot	10. AV IN/OUTPUT
11. HDMI input	

AV Jack Pin-out — Headtracker Jack Pin-out

Introduction

The SKYZONE Cobra X * is an FPV goggle with a 1280*720 high-resolution LCD screen, the screen has vivid color and high Luminance, the pilot can see more details in the racing. With SteadyView receiver, the receiver merges two signal to one, avoid image tearing and rolling when the signal is weak, make the image more stable and clear in challenging condition. The goggle support pilot wears glass while flinging. The new OS with 10 languages* to set select, pilot has no trouble with the menu system, with shuttle wheel and new user interface, the pilot can set all the setting just by rolling the wheel without taking off the goggle. the goggles can power by 1 cell 18650 battery or 2~6s lipo battery, the USB charging and DC charging make the goggle simple to use in the field.

Diversity — SteadyView

* SKYZONE Cobra S has 800*480 resolution, and UI only have 2 languages

Quick Start Guide

1. Install the receiver and antenna.
2. Plug the battery into the battery bay or use power cables to connect the battery to the goggle, goggle can power by 2~6cells lipo battery, hold the power button to turn on.

Band and Chanel setting

1. Press the right wheel, then roll the right wheel to change the channel, press the wheel again switch to band

setting mode, then roll the wheel to change the band.

2. No wheel operation for 3 seconds, goggle will quit RF setting mode.

3. Hold the right wheel to pop up the search menu, press the right wheel to start the auto search, after searching all the frequencies, the receiver will work on the strongest signal. roll the right wheel to manually select the channels, short press the right wheel to quit the search.

Some cameras on market didn't follow the standard NTSC/PAL signal, causing the receiver to be confused in Mix mode, It will cause the image to get dark, color distortion, rolling image, user can switch to diversity mode to solve this issue.

Sometimes the auto search channel is not accurate, the user may need to manually select the channel.

MODE MENU

- Short press the left wheel to pop up the mode menu.
- **RF normal:** this mode is normal 48 CH receive mode.
- **RF Racing:** this mode will make the receiver only work on RaceBand.
- **RF Third-Party:** in this mode, the goggles button cant control the external receiver, also the OSD of the goggles cant read the band/channel of the receiver.
- **AVIN:** when enabling the AV IN mode. The NTSC and PAL system format can be supported to be automatically switched. The receiver module will be automatically turned off to save power.
- **HDMI IN:** the receiver module and the video record module will be automatically turned off to save power.
- It is recognized that the screen and the corresponding resolution information will be automatically displayed in the supported resolution format.
- Playback: in this mode, customers can review the DVR files.

Drone Finder
Install a patch antenna on RX, long-press the left wheel to enable drone finder function(long press again to disable), the buzzer frequency will synchronize with RSSI, the stronger the RSSI is, the more rapid of sound the buzzer. * only cobra x has this feature.

PLAYBACK

- In playback mode, roll the right wheel to choose the DVR, short press the right wheel to play and pause.
- Left wheel to adjust the volume.
- When playing the DVR, roll the right wheel to Fast Forward or Fast backward.
- Press the Right button to quit DVR.
- Press the Left button to delete DVR.

Settings

- Short press the right button to pop up or quit setting the menu.
- Roll the right wheel to navigate, press the right wheel to select.

Head Tracking

- The head tracking button is on the right side of the goggles.
- The gyro is required for an initialization time. When it is powered on, goggles must be kept horizontal and stable as long as possible. When hearing the sound of a "beep", the initialization is done.
- Hold the HT button to reset the PPM signal to the center, goggles will beep when pressing the button.

! Disable the Headtracker can save the gyro initialization time to speed up the goggle's boot time.

Image

- In the image setting menu, customers have standard, bright, vivid, soft and 3 customized I files to adjust.
- Customers can adjust Brightness, Contrast, Saturation, Hue, and Sharpness to suit the different environments in 3 users 1/2/3, the image set can not change in 4 pre-set files.

! Roll the wheel can adjust the brightness.
DISPLAY

- In the Display setting menu, customers can change the aspect ratio(4:3 or 16:9), the default is 16:9*.
- In the Display menu, the customer can set the RSSI icon: icon + percentage, Icon, Percentage, disable, also adjust the vertical position of the RSSI.
- The Luminance of the screen and be adjusted in the menu (3 stages, default is 2). Normally do not set the brightness too high unless the image is dim.
  COBRA S only has 16:9 Mode.

DVR

- Left button is the recording button and the stop button.
- Build-in DVR H264 encoding, SD card recommend Class10, SD card can support up to 128GB.
- SD card must be formatted into FAT32, user can get into the system menu to select the Format SD.
- The video recording function can be used in both the RF Mode and the AV IN Mode.
- By default, when recording the video (including recording the sound), the "sound recording" function can be turned off in the system menu, and the video signal can be recorded only.
- Automatic recording: enable this function, if the video signal has been detected, the recording function will be activated automatically. The recording function can also manually be stopped by pressing the REC button. <Auto&Follow> on, the DVR will auto start recording when the video signal is on, and stop recording after 30s when the signal is cut, if the signal is on again, DVR will start recording again. <Follow> Press the rec button to manually start recording DVR will stop recording after the 30s when the signal is cut, but it will auto-start recording when the signal is on. press the rec button again can manually stop rec to save SD card space.
- Cyclic recording: Overwriting of older recordings on or off (in case of storage space is wasted).
- The video recording File will be automatically divided into multiple Files. In the menu system, the video length can be set as: 5 minutes, 10 minutes, 20 minutes, and 30 minutes. The default video length can be set as 30 minutes / each file.
- If the power has been suddenly disconnected during the video recording process, the DVR will be damaged.

The goggles have a repairing function. After entering into the playback mode, the last DVR will be automatically checked. If it is damaged, the DVR will be automatically repaired.

DISPLAY

- In the Display setting menu, the customer can set the topbar OSD time, turn off the time off, the OSD is always on.
- In the Display menu, the customer can set the RSSI icon: icon + percentage, Icon, Percentage, disable, also adjust the vertical position of the RSSI.
- The Luminance of the screen and be adjusted in the menu (3 stages, default is 2). Normally do not set the brightness too high unless the image is dim.
- In the Display setting menu, customers can change the aspect ratio(4:3 or 16:9), the default is 16:9.

SYSTEM MENU

- In the Power supply menu, the user can choose battery type(2S~6S) to make sure goggles show the real capacity of the battery.
- Voltage calibration gives the user a ±0.9V range to adjust the voltage, when calibrating the voltage, use a multimeter to measure the loaded voltage of the battery, then use a shuttle wheel to adjust the voltage on OSD to match the real voltage.
- RSSI Calibration: Turn off VTX then turn on the goggles, make sure the goggles have snow on the screen.
  In the system menu, select RSSI calibration, choose low, confirm, the goggles will beep twice.
  Then turn on VTX, make sure VTX and goggles are in the same frequency and make sure VTX is at 2m way from goggles, then select High in RSSI calibration, then confirm, goggles will beep four times.
- System Language can select into English, French, erman, Russian, Italian, F G R I Portuguese, Spanish, Chinese, Japanese, Korean.
  RF MODE in this mode, the user can choose the Diversity mode or MIX mode, there are some cameras' video signal voltage didn't follow standard NTSC or PAL, which caused the picture to roll in MIX mode, Select Diversity mode, it will solve the rolling issue.
- The built-in fan can not only be mainly used for defogging but also can be used to dissipate the heat within the product. The speed of the fan can be set in the system menu.
- Press the POWER button to start up/stop the fan from defogging.
- Users can manually set the fan speed to adjust the fan noise.

The function of the wheel and buttons can be swapped from the left side to the right side, making it adapt to left-handed users. when the rotary switch is enabled, all the function in the manual is changed from left to right.

- Factory Reset: The user can reset all the functions and settings them in this menu.
- DVR FW upgrade: Users can upgrade DVR Firmware from the SD card in this menu.
- Firmware version: Goggles Firmware, DVR Firmware version and Serial Number will show in this menu.

Firmware Update

Goggles

1. Connect goggles to the computer.
2. Hold the left wheel when turning on the goggles, the USB cable will power the goggles, release the left button, the computer will automatically install the driver, the computer will show new removable storage .
3. copy the Firmware File to the folder(Not the SD card). goggles will be installing the update at the same time.
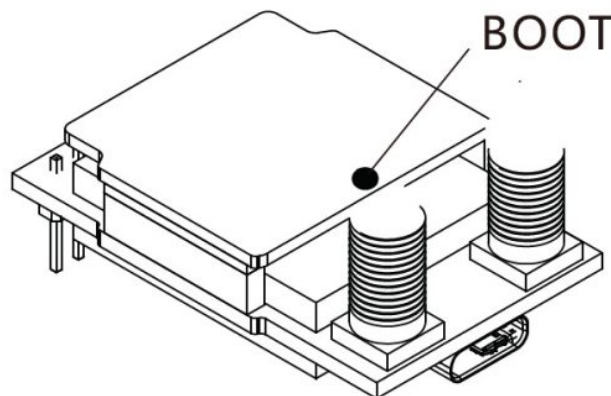
⚠ **Even enabled the rotary switch function, the boot button is still left button. when the copying is done, the firmware upgrade is done.**

DVR

1. Take an SD card and format the card to FAT32.
2. Copy the DVR Firmware to the SD card, insert it in the goggles and turn it on.
3. Go to the system menu and choose DVR FM upgrade.

Receiver Firmware

1. Take the receiver out, hold the boot button when connecting the receiver to the computer.
2. Computer will automatically install the driver, the computer will show new removable storage.
3. Copy the Firmware File to the folder(Not the SD card). goggles will install the update at the same time. when copying is done, the firmware upgrade is done.

Charging

- The goggles intel rated with a charging Th g module the user can choose a USB charge or use a barrel connector charge.
- when goggles are powered via a barrel connector the external power is also charging the internal 18650 battery.
- DC and Type C can both charge the internal 18650 battery.
- For safety do not charge the battery unattended.
- The 18650 battery bay has a protection circuit, if remove the battery is without turning off the goggle, the battery will be in protection status, to quit protection, the goggle needs to use a DC cable or USB cable to charge the battery to quit this mode.

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