

# <Full HD 1080P Wi-Fi Sports Camera>



**User Manual**

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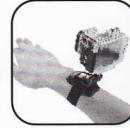
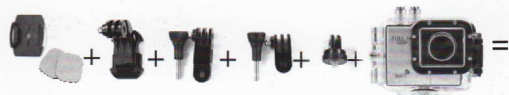




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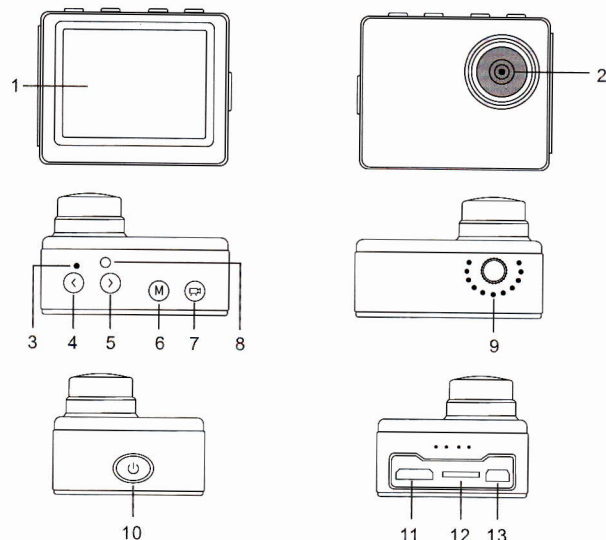
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# Precautions

1. Do not use the camera in extremely hot, cold, dusty or damp environment.
2. Install the shockproof case before using and try to avoid dropping it when possible.
3. The camera itself is not waterproof. Please put the camera into waterproof case and closed it tightly before using underwater, do not use it underwater over 50 meters or more than 4 hours.
4. The camera requires a class 10 micro SD card to work, please insert card before using.
5. The battery life varies according to the using environment. A colder environment will drain the battery quicker, average battery working time is up to 75 minutes. Please turn off the functions when you needn't, such as Wi-Fi.
6. Please remove battery or charge camera if not using for more than 30 days.
7. Do not disconnect camera from PC during uploading or downloading footage, it may damage the camera or files.
8. We will not take responsibility for the data lost problem, which can be caused by camera damage, repair or any other reasons. Please follow user manual and backup your data in time.
9. Do not take the camera apart by yourself for any reasons. This will break the tamper seal and void our warranty. If you have any question or problem, please contact the dealer first.
10. Do not use the camera in very dark or strong light. Image quality will be not good and that may even hurt camera lens.

# Overview



1. LCD
2. Lens
3. Microphone
4. Down/Zoom in
5. Up/Zoom out
6. M button  
Menu/Mode switch

7. Record button  
Record/Stop/Snapshot/OK
8. Indicator 1
9. Screw hole
10. Power button/Indicator 2
11. HDMI connector
12. Card slot
13. USB connector

## Features

- ★16/12 Mega effective pixels wide dynamic HD IMAGE SENSOR
- ★Stylish case, waterproof, dustproof, shockproof and freeze proof
- ★With waterproof case,it can work underwater up to 50 meters
- ★Support Wi-Fi,including Apps for Android and IOS
- ★G-sensor built-in
- ★Video and photo modes are selectable
- ★1080P@60fps,720P@120fps, WVGA@240fps advanced video recording
- ★Support Time-Lapse recording
- ★Microphone built-in
- ★Support Digital Zoom up to 4X
- ★High-Dynamic range, exposure value, motion detection, anti-shaking, white balance, ISO,date/time stamp,overwritten recording, operation language can be set up
- ★Support HDMI output
- ★Support recording while charging
- ★Replaceable & rechargeable Li-polymer Battery



## Specifications Camera

Image sensor	4:3 CMOS
View angle	160°
Pixel	16MP/12MP
Digital zoom	4X
screen	2 inches TFT LCD
Screen resolution	960X240
Video resolution & frame rate	1920X1080(1080P)@60fps 1920X1080(1080P)@30ps 1280X960(960P)@60fps 1280X720(720P)@120fps 1280X720(720P)@60fps 1280X720(720P)@30fps 848X480(WVGA)@240fps 848X480(WVGA)@60fps
Video codec	H.264
Video format	MP4
Photo resolution	16M 4608*3456(optional) 12M 4608*2592 8M 3200*2400 5M 2592*1936 3M 2048*1536
Photo format	JPEG
Time Lapse	5s, 10s, 15s
Zoom	4X
Microphone	Built-in
Battery capacity	3.7V/1000mAh li-po battery
Battery working time	Up to 80 minutes
Memory	Support max 32GB micro SD card
G-sensor	Built-in
HDMI	Mini HDMI Connector
USB interface	USB 2.0
Color	Silver/ Black
Dimension	59X47X39 mm
Weight	78 grams (with battery)

WIFI	
Apps	For iOS & Android
Resolution on mobile/Laptop	848X480
Wifi Range	8 meters



## Waterproof Case

IP Level	IP68
Waterproof Level	50 meters underwater
Underwater Working Time	Less than 4 hours
Materials	70% ABS+30% PC, with explosion-proof glass lens
Dimension	89X69X52 mm
Weight	92 grams



## Remote Control (optional)

Frequency	2.4GHz
Transmission Range	7-10 meters
Dimension	41X48X14mm
Weight	20.5 grams
Battery	3.7V/200mAh Li-polymer battery, rechargeable

\* Note: Design and specifications may be changed without notice

## Quick Guide

### For the first time using

1. Open card slot cover.

2. Insert a Micro SD card (up to 32GB) into slot, format the memory card before using.

3. Put battery into battery slot then tighten the battery cover.

4. This camera saves videos by MP4 format, can be played by Media player & QuickTime player directly. This camera records full HD videos, big bitrates. If playback not smooth, please try other players or High configuration computers.

**Attention:** make sure the camera is OFF before insert or remove the card!





## Turn on/off your camera

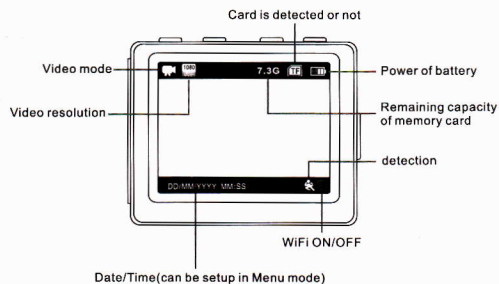
Turn on	Press power button shortly(about 1-2s), - Indicator 1 turns on(Green) - Buzzer - LCD turns on Now the camera is working in standby.
Turn off	Press and hold the power button 2-3 seconds then release. The indicators and LCD will be off, now the camera is powered off.

## Record

1. Turn on the camera into Standby.
2. Press Record button shortly, Green indicator flashes, and Recording icon shows on LCD at the same time.
3. Press Record button again, Green indicator stops flashing. And camera will be saved file, stopped recording, then turn to standby mode.

## Video Setup

Under video mode, press M Button shortly to enter recording specifications setup.



Resolution	1920X1080(1080P)@60fps 1920X1080(1080P)@30fps 1280X960(960P)@60fps 1280X720 (720P)@120fps 1280X720 (720P)@60fps 1280X720 (720P)@30fps 848X480(WVGA)@240fps 848X480(WVGA)@60fps	Video resolution option
Image quality	S.Fine /Fine /Normal	Image quality setup
Time Lapse	OFF/1 Sec/2 Sec/5 Sec 10 Sec/30 Sec/60 Sec	Setting time lapse function
Dual streams	ON OFF	Setting dual streams, when turn on this function. There will be two video files, additional lower resolution one for mobile phone use or preview.
Time stamps	OFF /Date/Time/Dt_Tm	time stamps setup
Detection	OFF Low Medium High	it will record automatically when appear moving objects front of camera, after 30s, it will stop recording(note:after turn on this function, press record button in recording mode, then there is a flickering) icon showing it is detected.
Rec Duration	2 Min/3 Min/5 Min/10 Min 15 Min/20 Min/25 Min	Video segmentation setting
Loop record	OFF ON	Loop record setup. When this function is on, camera will delete old recording file if memory card is full. Please be careful about this operation.
Volume	100%/90%/80%/70% 60%/50%	Turn up or down recording volume
Video Rotate	Normal 180°	Rotate screen

## System setup

Under video mode, press M Button three times shortly to enter system specifications setup.

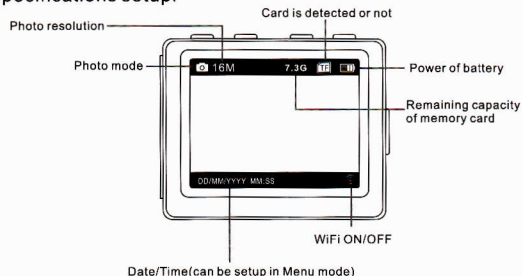
Video Standard	NTSC/PAL	TV system option
Anti-flicker	Auto 60Hz 50Hz	Avoid screen flickering because of light source problem.
WB	Auto/Incandescent D4000/D5000 Daylight/Cloudy	White balance
ISO	Auto/100/200/400 800/1600/3200	ISO setup
EV	-2.0/-1.7/-1.3/-1.0 -0.7/-0.3/0.0/0.3/0.7 1.0/1.3/1.7/2.0	EV setup. Adjust manually brightness of picture and video.
File Name	Serial Reset	File name setup, serial: file name will continue to rank them as before after you change Micro SD card. Reset: file name will be re-ranked.
Time setup		Time and date setup
Format Card		Delete all the files in card
Default Setting		Restore the factory default setting
Language	English/Chinese Russian, etc	Language setting
Wifi	OFF ON	Turn on/off wifi
LCD Auto-OFF	OFF/30 Sec/1 Min 3 Min/5 Min	shut down the LCD automatically in order to save battery
Auto Shutdown	OFF/3 Min/5 Min 10 Min	Camera will shut down automatically when no record or other operation
Buzzer	Buzzer: OFF Buzzer: ON Vibrate: ON	Buzzer and vibrate
G-sensor	OFF ON	G-sensor setting, when you turn on it, it will adjust screen direction according to camera's 180 degree only
System Version		Software version number
System update		Update system version

## Snapshot

- Under video standby mode, press and hold M button for 2 seconds, and then the camera enters Photo mode.
- Press the Record Button shortly, buzzer once. It means you already took a photo and saved in memory card automatically.

### Photograph Setting

Under Photograph mode, press M Button shortly to enter snapshot specifications setup.



Resolution	16M/12M/8M	Photo resolution setting
Quality	S.Fine/Fine Normal	image quality setting
Self timer	OFF/3 sec 5 sec/10 sec 30 sec/60 sec	Setting countdown to take pictures, only once.
Time Stamp	OFF/Date Time/Dt_Tm	Time stamp setting
Auto shot	OFF/3 sec 5 sec/10 sec 30 sec/60 sec	Auto shot setting setting to take one picture every several seconds until it stop manually.
Burst Rate	OFF/3P 5P/10P	Setting photography how many pictures per second

## Playback

### On Camera

1. Under photo mode, press and hold M button for 2 seconds to enter playback. The Green indicator turns on and the LCD shows Play icon.
2. Select video/photo you recorded.
3. Press Record button shortly to play videos.

### ▲ Menu

- When review recording files, press M button shortly to enter Menu.
- Here are three options: Delete, Protect, Slide Show.
- Press M Button again to exist.

### On TV

#### HDMI Out

1. Open the connector cover, connect the camera and TV with the HDMI cable (optional) provided.
2. Select "HDMI" mode on TV, turn on camera then press and hold M button for playback mode, indicator turns green.
3. Select video/photo you recorded.
4. Press Record button shortly to play videos.

### On PC

Connect camera to computer via USB cable we provided in package, then the device turns on directly. Three options will be shown on LCD, Mass Storage DV Mode and Charge Mode

1. Select Mass Storage then press Record (ICON) button shortly, it shows "found new hardware" on the computer (Note: this will take up to 30 seconds if this is your first time to connect PC).
2. Select DV mode, it turn to recording mode, Please make sure battery is full charge or the camera will go wrong because of insufficient output current by USB.
3. Select Charge Mode, camera will be shutdown and charge automatically.

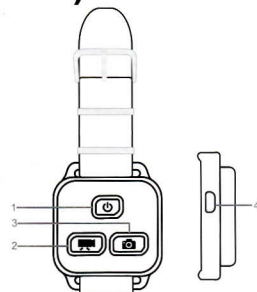
## Charge

1. Use 5V/2A charger to connect with camera via USB cable.
2. When red light is always on, it shows camera is charging.
3. The indicator will be off after about 2 hours, it is full charged. Then remove camera.

**Attention:** Please charge the camera in shutdown mode in order to efficiently and quickly charge.

## RF Wireless Remote Control (Optional)

1. ON/OFF button/Indicator
2. Record/Stop button
3. Snapshot button
4. Micro USB interface for charging



### Specification

Working voltage	3.7V
Working current	10mA
Transmitted Power	≥10mW
Frequency	2.4GHz
Transmission Range	7-10M
Color	Black
Dimension	41x52x14mm
Weight	22 grams
battery	3.7V/120mAh li-po battery

### Quick guide for Remote control

#### Wireless remote control code matching:

In power off mode, press recording button for about 1s to turn on or off wireless remote control. When turn on remote control, the blue indicator light will be on. If remote control is on, long press recording/multifunction button until the blue indicator on remote control is flashing. It means the devices are processing code matching. At the same time, please press recording button, photograph button or any button for three times. Code matching will be OK, after camera receives 3-times signal and indicator light stop flashing but will always be on. Then, remote control can operate camera completely.



## Turn on/off

1. Press on/off button for about 2-3s until indicator on camera is always green.
2. Press on/off button for about 2-3s until green indicator on camera is off.

## Record/Pause

1. In standby mode, press REC on Remote control then start to record.
2. Press Rec button again, camera will stop recording and save video automatically.

## Photography

In standby or photograph mode, press the photograph button to take pictures.




Wi-Fi built in, camera can connect with android and iOS system of mobile or tablet via application we Provide.



1. Setup
2. Preview
3. Date
4. Record/photograph
5. Time
6. Record
7. Photograph
8. Resolution/Frame
9. Wifi signal

## Turn ON/OFF Wi-Fi:

Find the WIFI ON/OFF setting in System setting menu, then you can choose to turn on or turn off wifi function. When the bottom right icon  becomes green, it means Wi-Fi is ON. (Note: This operation will take around 15s, green indicator will flash rapidly, and there is a progress bar on the screen showing "WIFI start...", then indicator is always light and the progress bar disappeared which means Wi-Fi is working. Please do not operate camera before Wi-Fi is ON).

## APP:

Please download the software named "LinkinEyes" from Apple store or Google play then install the APP.

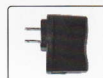
## Connecting

Try to open the SETTING - WLAN and find the link named "amba-boss" on your mobile phone or tablet after you turn on Wi-Fi function. Then enter password: **1234567890** make Wi-Fi connected. Please run APP(linkineyes), it can control camera now.

## Standard accessories



Waterproof Case



Charger



Handlebar Mount



Base mount1



Back Cover for Sound



Base mount2



Suction cup



USB Cable



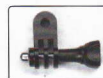
Fixed base



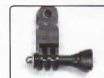
3M sticker



Switch connection 1



Switch connection 2



Switch connection 3



Adapter



Wiper



User manual



Ribbon&wirerope



Bandage



Helmet base

## Optional accessories



HDMI Cable



Helmet Band+Mount



Micro SD Card



Surfboard Mount Sticker



Chest Band



Battery



Car charger



RF remote controller

# Trouble Shooting

Q1 : It does not record, what can I do?

A1 : Make sure your camera has power.

Check there is a micro SD card in slot, format it on camera.

Change another card for trying, suggest brand ones, such as Kingston class 10

Reset the camera(Open the front cover and remove the battery)

Q2: The remote control is not working, what can I do?

A2: Please do code matching again (refer to A8 in page 16)

Check the RC has enough power.

Q3: The camera can not be charged, what shall I do?

A3 : Try another USB cable or another charger.

Try to reset camera.

Change another battery.

Q4 : How do I know the power is low?

A4 : The indicator 2 turns red and flashes quickly, the camera may turns off soon with buzzer&vibrator warning.

Q5: How do I know the card is full?

A5: The camera will turn off with buzzer&vibrator warning.

Q6: The camera is hot while using or charging, is that normal?

A6: Yes, that is normal, not quality issue, please do not worry.

Q7 : Why are the video and audio out of sync on PC?

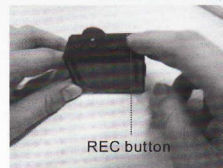
A7 : Copy the video files to your computer then try again.

Make sure that the player is latest version and supports H.264 Mp4 format video playing.

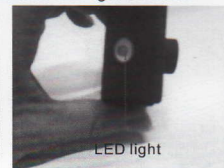
Q8 : How to make code match?

A8: Please refer to the picture below:

Step1: In off mode of camera, press REC button for 1s, the blue LED light will be on.



REC button



LED light

Step2: Press the REC button for 3s again until the LED light is flickering. It shows camera starts code matching.



REC button



LED light is flickering

Step3: Short press the Photograph button on controller for 3 times, then the flickering LED light on camera will be normally ON(stop flickering)



Photograph

Step4: Right now, Long press the POWER button on controller, code matching is done. Camera can be operated by this RC.



POWER