Zetronix™
State of the Art

Lark
zShades-2K

USER MANUAL

WARNING:

Note: please note the left side of the frame will become hot during long video recordings. This is a normal occurance.

User Guide	EN

Contents

High MEGA PIXELS — Sony Sensor
135degree Super Wide Angle camera

2K ULTRA HD — 2K(2560x1440)@30fps, 1920*1080P@60fps, 1280*720P@60fps

WiFi

Burst Mode 3 Pics/Sec

2.0mm Quality lenses, Z87.1 Standard

Upward 12ºdownward 10ºAdjustable
Fashion Flat tiny 135degree camera

Features:

1. Patent Unique Design

•Patent Unique Design, makes the product lightweight and comfortable to wear, suitable for long time wearing

•Slim & elegant design to fit human body characteristics.

•Higher curve and flexible design suits different faces - smaller and bigger.

•With unique cooling system design for perfect protection.

•The most lightweight and mini volume WIFI Ultra 2K HD video camera sunglasses in the world.

•Skidproof and fashionable soft sleeves and nose pad designs sit snugly on the head

2.Grilamid® TR90™ Frames - Only the best materials are used in the frames

•Extremely lightweight, comfortable, durable and Hight-Wrap.

•Non Allergenic   •Impact resistant

•Temperature resistant   •Matte black armor finish

3.POV (point of view) Function -Patent

• Patented tiltable adjustable camera design, makes it suitable for various scenarios. The camera can be adjusted upward and downward, easy for different purposes using, easy to capture what you see.

4. Type-C USB on The Frame Peripheral Design
• The product structure design is reasonable: Type-C is placed at the end of
   the spectacle legs, which can be connected for charging and does not
   affect the comfort of wearing;
• The Type-C USB on frame peripheral design is so easy and convenient for
  charging

5. Adjustable Nose Pads
•The nose pads can be adjusted from smaller to larger to be suitable for your own
face shape. Smaller and bigger, suitable for long time wearing.

6. 2.0mm Quality Lens, ANSI Z87.1 standard:
•UV400, interchangeable lenses
•The quality lens of 2.0mm exceeds optical requirements of ANSI Z80.3,
  AS/NZS 1067, EN 1836 standards, ANSI Z87.1 standard
•Blocks out 100% of all UVA, UVB, UVC and harmful blue light up to 400nm
  protection. Lightweight, shatter-proof and impact-resistant tough material. Fully
  certified for eye protection.
•All our lenses meet AS/NZS 1067, EN 1836, ANSI Z80.3 standards for optical
  and mechanical performance. Light transmission ranges from 10%~95% of
  available light. All transmission profiles are based on data obtained according to
  AS/NZS - 1067, EN 1836 and ANSI Z80.3 test protocols. Perfect for outdoor
  activities, maximal exercises.

7.Sweat Resistant Frame
•Designed to withstand extreme weather conditions – moisture from perspiration
  or wet weather.

Key Electronic Function Features:
1. Quick start recording / One button Standby Mode switching
• Easily start recording and put in Standby Mode with a touch of a button. In
   addition to a recording and standby indicator light, the glasses vibrate to alert
   when the glasses are turned on and turned off.
2. Ultra HD 2K(2560x1440) @30fps, 1080P@60fps, 720P@60fps VIDEO
Recorder-HANDS-FREE. H.265 Video Format
• With Sony high mega pixels quality CMOS camera for amazingly super clear HD
   videos. You can set your desired video resolutions and frames rates.
• Real hardware decoding, H.265 video, easier to playback
3. Can record during wall charging .
4. H.265 Video Format, Type-C USB Interface
5. 135ºSuper Wide Angle Lens
   Wide scope capture all of your views with a 135º super wide angle lens. Great
   for action sports and outdoor activities.
6. WDR Function and Video Lapse Function
7. Change Video Settings in APP
   Includes the ability to change video settings like video resolution, quality, audio,
   exposure, saturation, sharpness and more!
8. Toggling 2K, 1080P and 720P recordings
9. WiFi ON/OFF Switch
   Switch the WiFi On to see live view mode on the Camera App

10. With vibrating alerts function to prompt you when "recording" "off" "out of memory" "low battery"... at any time.
11. Easily external micro-SD card memory removable or interchangeable, support 2GB~128GB
12. Quality Low temperature battery up to -10 degrees perfect for cold environments, you will never worry about cold days.

❖ 1x Ultra HD video recording glasses
❖ 1x Carrying hard case
❖ 1x Carrying bag
❖ 1x Retaining lanyard
❖ 1x Cleaning cloth
❖ 1x Micro USB Type-C HS cable
❖ 1x USB 2.0 HS card reader
❖ 1x Warranty card
❖ 1x User Manual

Rotating Camera
Red/Yellow/Blue/Green LED
Adjustable Nose Pad
Microphone
On/Off/Record/Photo/Standby
Reset Button
Micro-SD Card Port
Wi-Fi Button and
(2K/1080P/720P toggle button)
USB Port Type-C
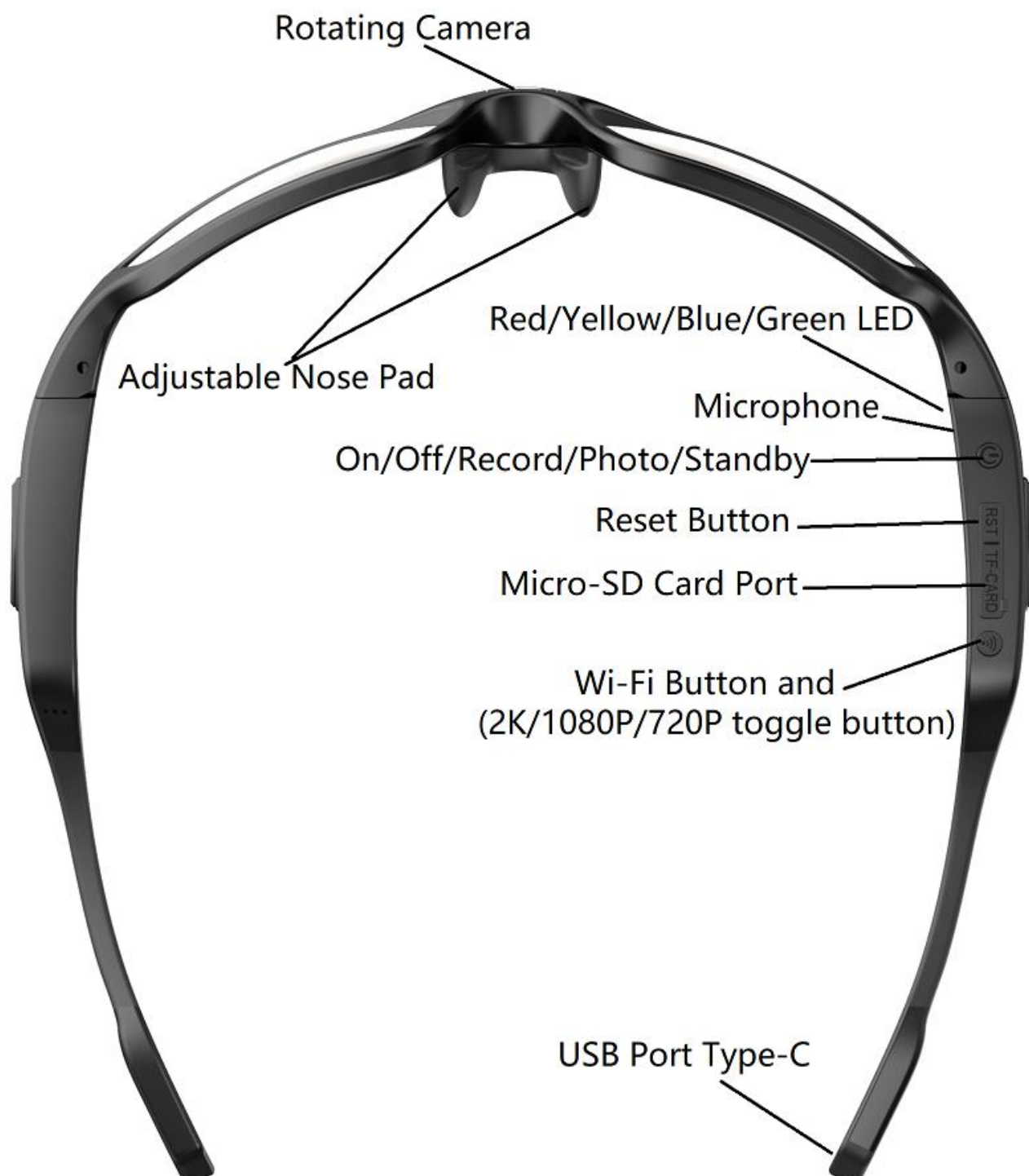
F. Red LED (LED Charging Light)
G. Yellow LED (LED WiFi Light)
H. Blue LED (1080P Recording Light)
I. Green LED (2K Recording Light)
PS: Blue and Green LED (720P recording Light)

1. Turning on to standby mode, short press again to start video recording

   To turn on the video-glasses, simply press the ON/OFF button for 1 second. The green/blue LED is on and the device enters into the initialization status and standby mode, it vibrates once and the green LED stays on (the default is 2K, green LED), press shortly again to start video recording, it will pulse vibrate tiwce and the green LED (factory default) flashes slowly, it begins to record automatically. Note: During recording, green LED is 2K light, blue LED is 1080P LED light,

   Blue and green LED is 720P light.

2. Switch to standby mode(Pause mode) from recording

   To go into standby mode(Pause mode), shortly press the ON/OFF button for once while recording. It pulse vibrates once and the LED stops flashing. To go back to recording mode, press ON/OFF button once again.

3. Turning off to stop video recording

   To turn off the video-glasses, press the ON/OFF button again for 2 seconds, it vibrates continuously for 3 seconds, the green and blue LED both flash fast for 3 seconds, the recorder automatically saves the recording file and then turns off.

   Note: To limit the file size, the recorder will automatically save the file every 30 minutes max and then start with a new file. It can be changed to 5 minutes, 15 minutes and 30 minutes a file in SETTING.txt.

4. How to start video recording during charging

   This device can record during wall charging or power bank charging. After connecting the power, the glasses enters into recording mode automatically.

   Note: If you don't want the glasses to enter into recordings automatically, please take out the memory card before connecting the power.

5. Taking photo

There are 2 ways to take photos (Each time, it would take 1,3 or 5 photos according to your setting):

   1) During recording, quick press the ON/OFF button 2 times quickly, the device pulse vibrates once and the green/blue LED both on, then it finished taking photo, after taken photo, it will pulse vibrate twice and go back to recording mode.

   2) During recording, short click the ON/OFF button once, it will vibrate once, the device go into standby mode and the recording LED will stay on. Double click the ON/OFF button, tit vibrates once and the green/blue LED will both be on, the photo is taken. After taken photo, it would keep

in standby mode, you can continue to take photos (clicking the ON/OFF button 2 times quickly), or click ON/OFF button 1 time to go back to recording mode (pulse vibrates twice).

5. Toggling 2k, 1080P and 720P recordings
    Factory default is 2K recording mode (Green LED). To toggle, press the Wi-Fi button for 2 seconds to change the recording mode.

6. Auto shut-off
    When battery is low or running out of memory, the device will save the current file and the green/blue LED will blink very fast and then vibrates continuously for approx 3 seconds, then shuts off.

7. Reset
    There is a reset button located next to the USB port of the glasses. Use a tip of a pen (or other fine tip object) to press the button in fully. It will reset your device back to the manufacturer default. Also, if the malfunction occurred or it can't be recognized by a computer, try resetting.
    Resetting will not delete recorded files.

Storage EN

1. The device supports external high speed micro-SD card memory 8GB~128GB. It is removable and interchangeable.
2. When space is insufficient, the green LED blinks very fast and the device vibrates continuously for approx 3 seconds, device will start data saving then shut off.

Note: 128GB default format: EXFAT, please format the memory as FAT32 format by your computer or camera etc equipments before using.

Connecting to PC/Laptop or Mac EN

1. System Requirements
    1.1 CPU 500MHz or higher
    1.2 Operating system: Windows XP, Win7, Win8, Win10, Vista 7/8, Mac OS
    1.3 USB2.0 HS port
    1.4 Minimum 1GB of free hard disk space
    1.5 Minimum 512MB RAM
2. How to playback with PC, Mac, iPad
    2.1 Moving out the memory to playback with PC, Mac, iPad.
        a. The video-glasses are equipped with an external micro SD card slot for up to 128GB HS memory(128GB format: FAT32). The micro SD card memory is removable and interchangeable.
        b. User can move the memory card into card reader/adapter to PC/Mac and TV etc to playback or move into mobile phone/iPad etc device to playback directly.
        c. To remove the SD card (when the glasses are turned off!!), shortly press the card. It would exit from the card slot.
        d. The directory for saving video file is *Disk\ DCIM\.

Note: In order to avoid damaging the glasses, please make sure to switch to the "power off" mode before removing the SD card.

Attention:

This is real hardware decoding item, full HD 1080P, the data transmission is high. For more quality video,

- **Moving out the memory card from the video-glasses to playback is highly recommend.**
- **Please copy the recording files from memory card to PC to playback.**
- **It needs real high speed micro-SD card(TF card) U1 level or above.**
- **High version player.**
- **Please be sure there is enough virtual memory to support playing.**

2.2 USB Storage mode

a. When device is under "OFF" status.

b. Connect the device to PC or Mac through USB port with Micro USB2.0 HS cable provided in the kit, the red, green and blue LED are on.

c. After 2~3 seconds(depends on the memory Capacity), vibrating pulses twice, the movable disk icon will pop up in the computer.

d. The directory for saving video file is *Disk\ DCIM\.

e. You can then copy or cut and save to your local hard driver

f. When finished, click the movable device management icon at the lower right corner to remove the storage disk safely; Moving out USB cable, it vibrates continuously for 3 seconds, then switches off.

SETUP   EN

1. How to setup?

In app, we can set parameter by setting.

To change settings, please stop recording first and make sure it is in standby mode(pause mode). The change is set and ready for new recording.

2. Setting Real Date / Time, the default is hiding format.
This device can display the current date / time in your videos. The time is synchronized with the smart phone.
To set this function:

2.1 In app mode, Stopping records

2.2 Setting Date Stamp "on", then back to Recording mode

2.3 Time is set and ready for new recording.

Changing the lenses   EN

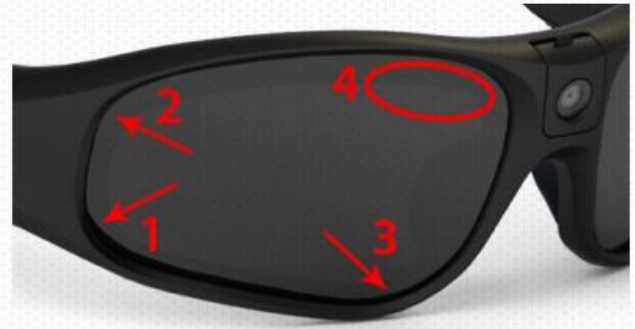Note: Remove the protective film on the lenses before wearing the sunglasses.

To remove the lenses,

hold the glasses and firmly push out on the area indicated by the red oval (see below)

To insert the lens,

insert the lens into the glasses frame starting with area 1, then 2, and 3; then

firmly push down on area 4 until you feel the lens click into place. (See below)

How to change the Lenses video link, FYI: https://youtu.be/gEWgAd1l9go

Power Supply and Low Battery Hinting   EN

Note: This device can record during wall charging or power bank charging. After connecting the power ready, the red LED lights on. Press "ON/OFF" button for 1 second, the glasses enters into standby mode, shortly press again to record automatically.

1. For optimum use of the power supply and battery health, DO NOT charge over 12 hours!

2. To maximize the storage capacity of the battery, continue to charge for 30 minutes to 1 hour after the red LED light goes off after every charge.

3. You can charge the battery by using the Type-C USB2.0 HS cable provided or power adapter. Usually a full charge will take about 1.5 hours.

4. The red LED will turn on when starting charging and it will turn off when the battery is fully charged.

5. If the camera has not been used for a long time, recharge it before using.

6. For a fast recharge and best product protection charge, keep the battery in the 'power-off' mode and take out the memory card.

7. Low battery hinting: When the battery low, both the green LED and blue LED flashing speed status begins changed from flashing slowly into flashing fast during recording.

WiFi Operation   EN

1. WI-FI PAIRING

This section explains how to turn on the WiFi signal of the glasses so you can connect your iOS/Android device to it and use the glasses APP.

   1.1. While the glasses is power on, press the WiFi button(next to the power button) for 1 second. The glasses vibrates once and yellow LED flashes, that indicates WiFi is turned on. To turn off WiFi, press the WiFi button once again)

   1.2. Turn to your iOS/Android device WiFi settings and connect to the WiFi

Network "LARK CamHD" (the default WiFi password is 12345678).
Wait until your iOS/Android device is connected (the yellow light stays on)

2. Camera APP overview, App Features & Settings

Before use this function, you have to download APP from APP store by searching keywords "LARK CamHD", please download the latest Android version App from the app market. After installation, you can use APP to control your glasses for recording, taking photos etc.

- **Camera**
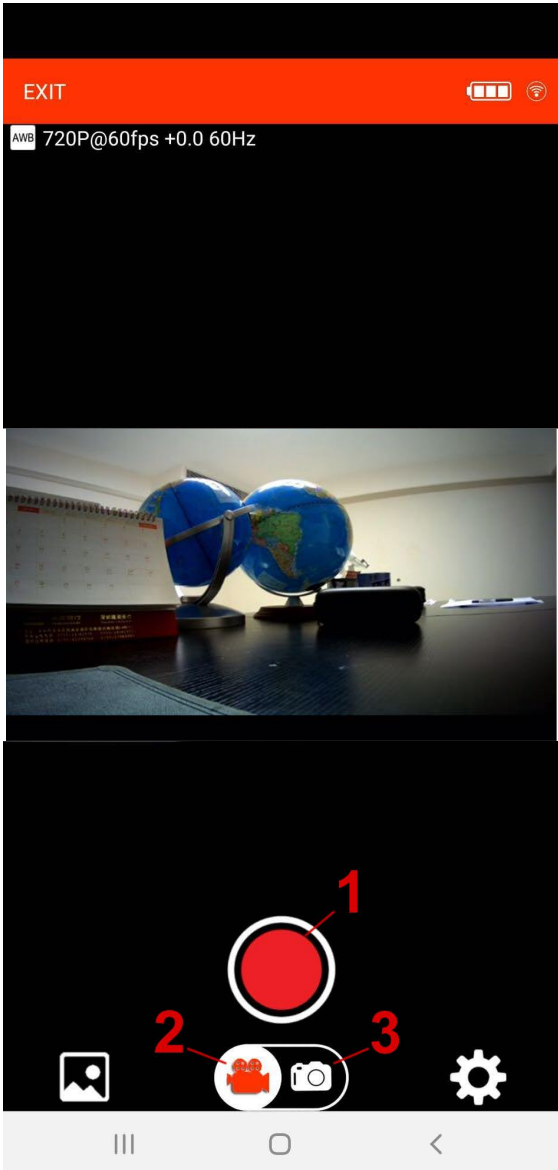
1. Start/Off button
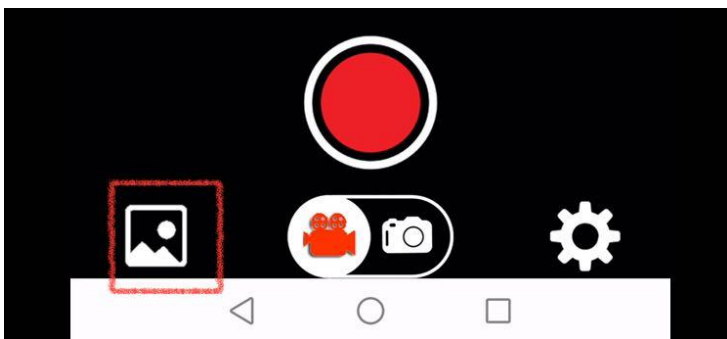2. Recording button
3. Taking photo button

It gives you real time viewing that sync up with your camera glasses.

You can start/stop recording video and taking photos by APP.
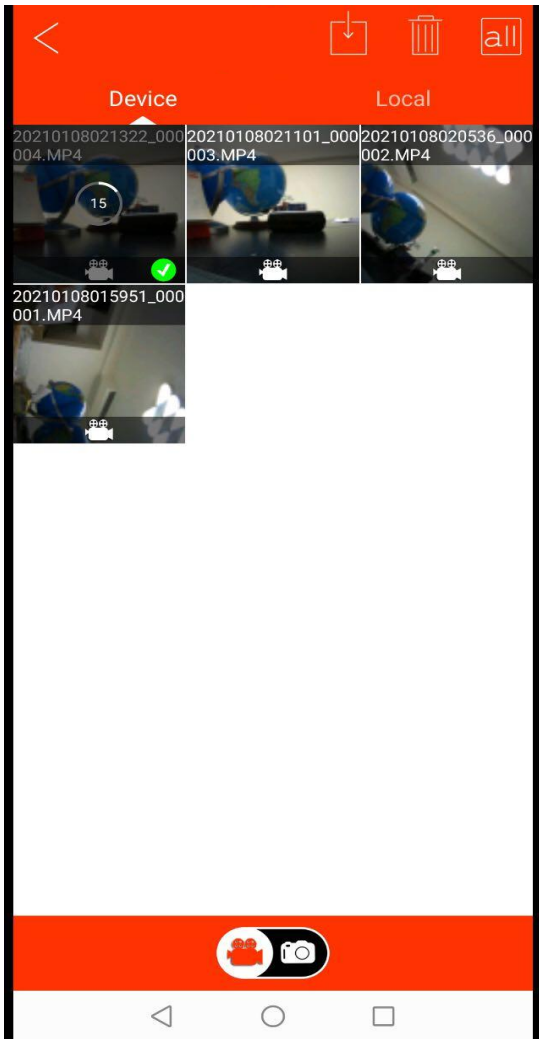
E.g. Taking photos, touch photo button (button 3), it would highlight after touch. Then touch Start button (button 1) for action.

. Accessing the recorded meda

Tap the Album icon to access localy recorded media.

. Local media (SD Card Media)

1. Select files by taping on the icons, to select multiple files, touch and hold for about a second.

2. Tap Download icon
This folder displays the videos and photos stored on the SD card of the glasses. Select files to transfer or save them to your iOS/Android device by click the download icon. Once the files are saved to your device, those will display in the Saved Media folder. You can also delete files (That means the files stored on the SD card would be dropped permanently).

. Local Files (Saved Media)
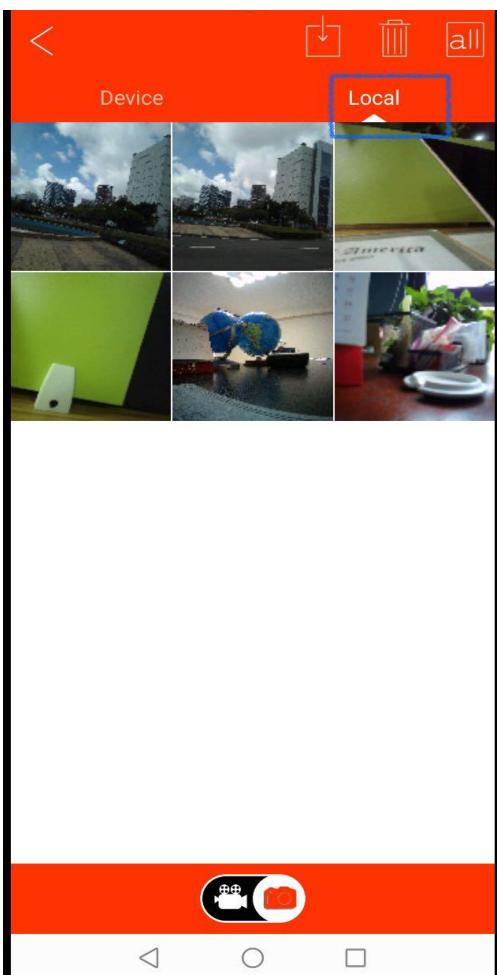
This folder displays the photos and videos that are saved by APP or your phone. No matter if you're connected to the glasses or not, these files will display there. You can open to preview them or share files to others.

• *Settings*
To change settings, please stop recording first and make sure it is in standby mode (pause mode).
You can also set video resolution, white balance, photo burst number etc via APP settings. E.g. Change 1080P recording mode into 720P mode. Firstly, stop recording. Then click Settings icon and select Video Resolution-->720P (1280x720 60FPS) in Settings, click the record icon to start recording with new recording mode.

Setting Menu in APP for reference

Setting	
Movie	
Video Resolution	2K@30fps >
Recording File Length	3 Minutes >
WDR	Off >
Audio Volume	Off >
Date Stamp	Off >
Video Lapse	Off
Photo	
Photo Resolution	12M(4032x3024) >
White Balance	Auto >
Photo Burst Number	1 Photo >
Exposure	+0.0 >
System	

Setting	
Photo	
Photo Burst Number	1 Photo >
Exposure	+0.0 >
System	
Light Frequency	60Hz >
Format SD card	>
Reset to Defaults	>
Auto PowerOff	3 Minutes >
WiFi	
Wifi Name	>
Password	>
Others	
Firmware version	2020/11/17, 12:4...

LED Indicator

No.	Operation Mode	LED Indicator Status
1	Turn ON	The green/blue LED is on and the device enters into the initialization status and standby mode, the vibrating buzzes once and the green LED keeps on (the default is 2K, green LED), press shortly again to start video recording, the vibrating buzzes twice and the green LED (factory default) flashes slowly, it begins to record automatically. Note: During recording, green LED is 2K light, blue LED is 1080P LED light, Blue and green LED is 720P light.
2	Turn OFF	The vibrating buzz alerts continuously for 3 seconds, all LED off.
3	Video recording	Working LED(2K:Green LED, 1080P: Blue LED. 720P: Green and Blue LED) flashes slowly, flashes fast when low battery

4	Memory full	Both Blue and Green LED blinks very fast and vibrates continuously for 3 seconds, then shuts off.
5	Wi-Fi	Power on Wi-Fi: Yellow LED flashes, the vibrates once. Power off Wi-Fi: Yellow LED off. Wi-Fi working: Yellow LED stays on.
6	Taking Photos	Blue and Green LED on together, the vibrates once
7	Low battery	When low battery, Both Blue and Green LED blinks very fast. When very low battery, tit vibrates continuously for 3 seconds, then shut off.
	Charging	Red LED on
	Full charge	Red LED off
8	USB Storage mode	Both the Blue and Red LED are on then it vibrates twice . Blue LED and Red LED both on

Technical SpecificationsEN

Dimensions	170x150x48mm(unfolded), 150*76*48mm (folded)
Physical weight	46g
Video Resolution	2K(2560x1440) @30fps, 1920*1080P @ 60fps, 1280*720P @ 60fps
Video format	MP4
The ratio of video	16:9
Audio Processing	AAC encode/decode
Interface	Type-C USB 2.0 HS works with Mac and PC
Storage memory type	Easily external micro-SD card memory removable, Up to 128GB(max), 128GB format: FAT32
Power supply	3.7V high-capacity lithium polymer battery, rechargeable
Power adapter	5V DC/480mAh
Power duration	About 1.5 hours
Operating temperature	-10°C - 55°C
Storage temperature	-10°C - 50°C
Player	Common media players, or Mainstream audio and video media playing software, with the high version player
Operating System	Windows XP, Win7/8/10, Vista 7/8, Mac OS, Android system

Symptom	Possible reason	Solution
Failing to start	Flat battery	Recharge battery
	Device jam	Reset, then start again
Auto shut-off	Low battery	Recharge battery
	Memory full	Remove files from memory or change to a new memory
Power auto off after start	Low battery	Recharge battery
	Memory full	Delete unwanted files
	No TF card loaded or TF card not fix well	Load TF card or fix well TF card
Can't recognize when connected to PC / laptop	Glasses is turned on when you plug it into a computer	Make sure the video-glasses is turned off when plugged.
	USB cable failure	Replace cable
	PC Bios disabled	Set USB enabled
	USB cable didn't connect glasses and PC well	Make sure the USB cable connect with the glasses and Computer well
	PC system Jam	Reboot PC
Recordings not saved	Memory full	Delete unwanted files to clear space
APP can't connect to glasses	APP open ahead of Wi-Fi connection	Close APP and Open it again
The device no respond	Wrong operations	reset the device

Application
Strictly follow relevant regulations and laws. This product should not be used for any illegal purposes. The user is fully responsible for its operational uses.

Proper use of eyewear
Warning: This eyewear is not designed to protect the wearer from injuries in events of impact with hard objects.
Sunglasses must not be used for night driving.
To avoid damage to optical devices, DO NOT expose the camera directly to strong lights, such as the sun or strong artificial light sources.
Sunglasses are not recommended for industrial protections.
WARNING: DO NOT attempt to dismantle the device. Any attempt to alter or repair the unit, except by the original manufacturer or an Authorized Service Facility, will void the limited warranty.

Recycling
Please contact your local corporate offices for recycling/disposal information

for this product. Do not dispose with household waste.

Battery
DO NOT attempt to remove the battery. (Note: Battery disposal must be in accordance with local environmental regulations. See "RECYCLING" above.) If the recording function has not been used for lengthy period, charge it fully before using.

File security
This product is not a professional storage device. It does not guarantee the integrity and security of saved files. Please back up your important documents on the computer or other storage devices.

Operating temperature: 0—55°C. To extend the unit's lifespan it is best used at room temperature.

DO NOT expose to excess moisture.
WARNING: Although the device features a water resistant design, operation can be affected in excessively humid environments – it is NOT completely waterproof.

Cleaning
Avoid using it in excessively dusty environments. Use a normal lens cleaning cloth to clean the lens.

Other matters
The product is a sophisticated electronic product – protect against impact and strong vibration. Do not use it close to magnetic or high electric currents.
Note: Please contact your local dealers for other matters.

ANNOUNCEMENT   EN

We reserve the rights to upgrade or ameliorate the product without any prior notices, the content of which can be obtained from our website notice or salesperson. Normally a generous transitional period is offered but we cannot guarantee to inform everybody timely.

CE   RoHS   Made in China