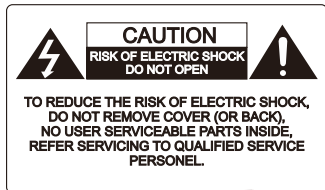# Trail Camera

A9 Series

User Manual

Thank you for purchasing our Camera.

Before attempting to connect or operate this product, please read these
Instructions carefully and keep this manual for future use.

Shenzhen Ereagle Technology Co.Ltd
WWW.EREAGLE.COM

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK),
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE
PERSONEL.

The lightning flash with an arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenace(servicing) instructions in the literature accompanying the appliance.

This equipment has been tested and found to comply with limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING: Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

WARNING: To prevent electric shock and risk of fire hazards:

- **Do not use power sources other than that specified.**

This installation should be made by a qualified service person and should confirm to all local codes.

Termly Inspection

Please refer inspection to accredited service person.

Do not install on weak upholder

Install on strong enough upholder, or may fall off or cause other hazards.

Do not touch the lens with wet hand

It May cause image blur.

Do not use if there were any problem occurs

It will cause fire, electric shock or other hazards.

Do not disassemble the camera without permission

It will cause damage to internal structure or components, fire, electric shock or other hazards.
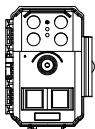
The battery polarity is installed correctly, Do not mix old and new batteries

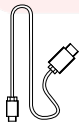It May cause the camera works abnormal, battery leakage or damage the camera.

1. Features

- 1/2.9 inch CMOS image sensor. up to 20MP still photos.
- 6.0mm HD fixed lens (H FOV: 56°, V FOV: 42°, F2.0).
- H.264 video encoding format. 1080P/30fps Full-HD video recording; Audio and Video Synchronized Recording; 1080P/720P/480P is optional.
- Image sizes are available for 20M/12M/8M/5M/2M; maximum support 5 continuous shooting pictures.
- The PIR triggered time is 0.5 seconds.
- Ultra-low standby power consumption, less than 100uA.
- Using double PIR heat source sensing design, the detecting distance can reach up to 20M (65ft) and the detecting angle is 50°. The sensitivity is higher and more accurate.
- Support photo and video mode, after taking picture, it will record video automatically, it's more convenient to observe the scene behavior.
- Support nighttime capturing with 850 nm or 940nm invisible infrared illumination, effective distance up to 30M (98ft).
- With built-in fully sealed HD infrared cut-off device, the daytime colors are more beautiful, and the IR-Cut switching is more stable and reliable.
- Support 8×AA /1.5V alkaline battery. The standby working time can be up to 8~10 months.
- Using precision structure, up to IP68 (dust proof /waterproof); camouflage design, easy to integrate with the natural environment.
- Support anti dismantling chain and protection lock to ensure the equipment safety.
- 2.4 inch high resolution color LCD display screen.
- Support TF card up to 128G.
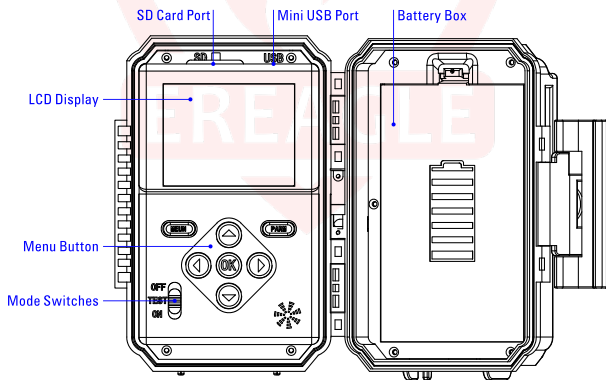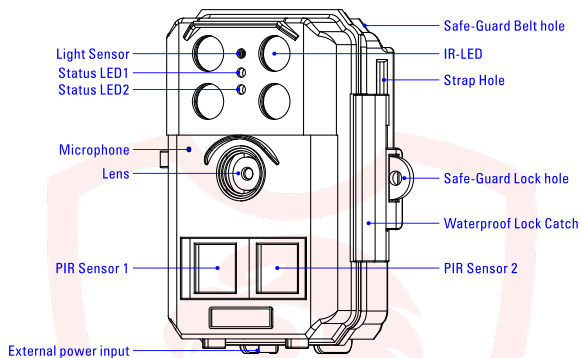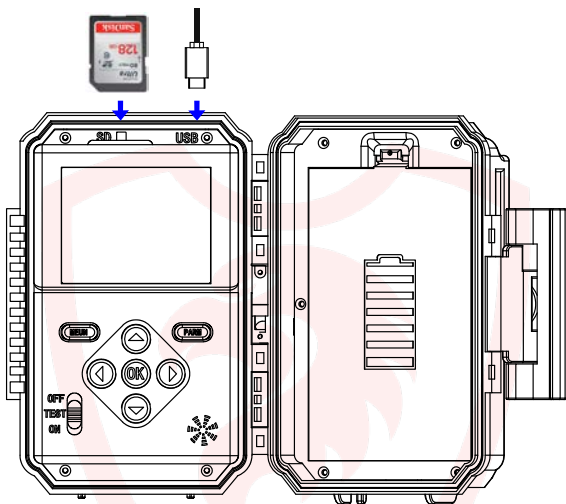
2. Packing list

| Camera | USB Cable | Strap | Manual |

3. Camera illustration

Safe-Guard Belt hole
Light Sensor
IR-LED
Status LED1
Status LED2
Strap Hole
Microphone
Lens
Safe-Guard Lock hole
Waterproof Lock Catch
PIR Sensor 1
PIR Sensor 2
External power input

SD Card Port
Mini USB Port
Battery Box
LCD Display
Menu Button
Mode Switches

4. Installation of SD Card

The camera only support 4~128G SD card.
Insert the TF card in the specified direction correctly.

> 😊   ► SD Cards above C10 are recommended.
> ► If the SD card below C10 is used, it may lead to image mosaic, image loss or camera crash.

5. Battery Selection and Installation

Battery Pack installation

Battery Specifications: 14500×8

Choose low self-discharge battery as far as possible to reduce energy self-consumption.

1.5V
14500(AA)
Alkaline Battery
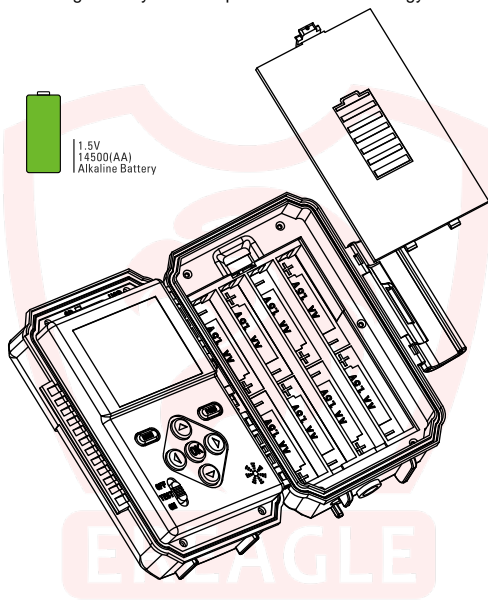
Remove the case battery cover, install the batteries according to battery polarity marked on the cover board correctly, then lock the cover board.

► When installing multi-group batteries, it's strictly prohibited to mixed use old batteries and new batteries, so as not to cause the camera works abnormal, or cause to battery leakage then damage the camera circuit.
► Please install the batteries according to battery polarity correctly, so as not to damage the camera.

6. External power and solar power supply

External Power Supply

The camera is normally powered by battery. To support more application scope, it also can support by external power supply.

DC 12V / 2A
5.5x2.1mm

Power Cable
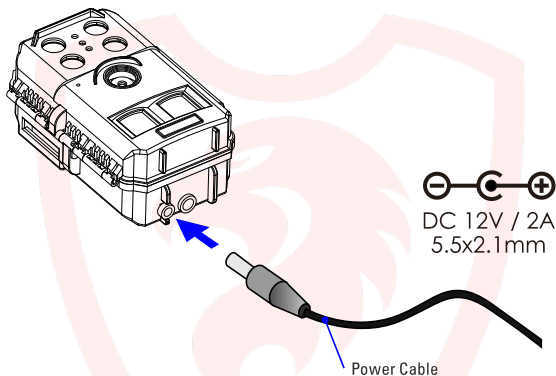
The product itself does not provide power adapter, to be ordered separately.
Please purchase additional power adapter with the following specifications.

Power Adapter	DC9V/2A	DC12/2A
Interface Standard	5.5x2.1mm	

Solar Power Supply

Due to the difference of battery pack inside the equipment, it is impossible to charge the battery pack directly, so the solar power supply system must have battery to meet the power supply demand of the equipment.

Our company's EB-16 energy storage box with solar panels is the best choice.

EB-16
Solar cell box
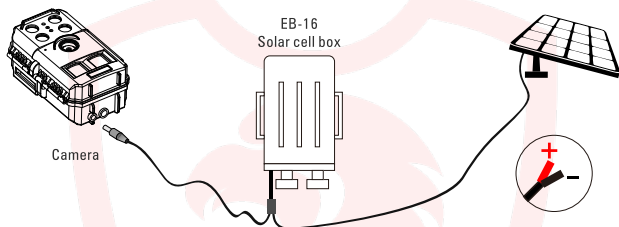
Camera

To use the eb16 battery box, please purchase the solar panels that meet the following specifications.

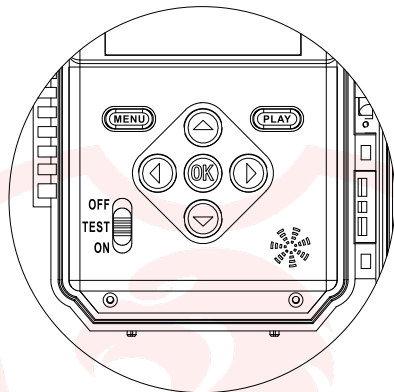| Solar Panel	DC18V / 1A above
Interface Standard	2 lines

8

7. Copy Camera Files to PC
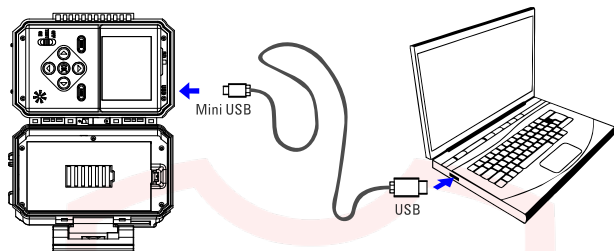
The camera connected to the PC with USB cable.
The removable disk will appear after the driver installed automatically.

8. Basic Operation Process of Camera

Key Functions Guide

Enter Test mode, Working mode and Power off
There are three mode for the switch, Power Off, TEST Mode and Working Mode.

Power OFF:
When switch to the OFF position, the camera will be power off automatically.

Boot into Test Mode
When the switch to the TEST position, the camera enters the preview test status, you can manually start taking pictures, record videos, view photos and videos, set the parameters and so on.

With this mode, you can also test the induction area of the PIR: When fix the camera into this mode, the user can walk slowly right in front of the camera from 3 to 20 meters. When the green LED indicator light flicker, means this location can be inducted by the right PIR. When red LED flicker, means this position can be inducted by the left PIR.

There are three status under test mode: Preview status (on the LCD screen or TV screen, you can see the current camera image in front of the lens), Setting status (enter the parameter setting menu) and Playback status (In the LCD screen or TV, you can see the images from the SD card). After turned on with test mode, the camera automatically enters into preview status.

10

Switching Working Mode

also called automatic infrared shooting mode. When the switch to the ON position, the camera enters On mode. When entering this mode, the system will wait about 10 seconds, at the same time the red LED flashes, then goes out after that and goes into induction shooting state. After entering this mode, the system will automatically shooting based on your setup parameters, when the person or animal enters the monitoring area.

Camera Setting

Press key MENU to enter the menu.

Press key UP/DOWN to move options.

Press key OK to enter the next menu or confirm the setting.

Press key MENU to the previous menu or exit the menu interface.

Shooting Test

In the real-time preview interface of test mode, Press key LEFT to take a picture, Press key RIGHT to record video.

Playback

In the real-time preview interface of test mode, Press key PLAY to playback mode.

Press key LEFT/RIGHT to select view picture or video.

Press key OK to enter the file preview interface.

In the file preview interface, Press key RIGHT to view next file. Press key LEFT to view last file.

Press key MENU to delete file.

In the video preview interface, Press key OK to play/stop video.

Press key PLAY to exit playback mode.

9. Function Description

Time and date

Set time and date, to be local time synchronization, in order to accurately capture the target activity time. Therefore, please set the time and date according to local accurate time and date before using the camera.

The user can directly manual set the date and time in the menu.

Trigger shooting

When people or animals enter the PIR sensing area, the camera quickly starts to take photos and videos. The user can choose the appropriate trigger interval according to the frequency of animal activities; at the same time, the user can choose the corresponding sensitivity according to the different use environment, which can prevent repeated capture and reduce false capture, and obtain more accurate and effective data.

Trigger interval and Sensitivity settings

Our camera includes double PIR. When the heat source moves the object into the any PIR area, the camera immediately enters the start-up state; when another PIR is triggered in a short time, the camera quickly shoot. This method can be more accurately capture the target object and reduce false shooting.

Users can adjust the trigger interval and detect sensitivity according to the law of animal activity to prevent repeated capture and get the more accurate data.

Time Trigger Shooting

This function enables the camera to automatically capture images and videos at specified intervals in a specified period of time. Three time periods can be set every day.

Timing trigger shooting: shooting can only be triggered within the set time period.

Time lapse

Set the time interval of cycle shooting. The camera will automatically capture according to the shooting interval in the set period.

Camera Name

This parameter is used to set the name of the camera, in order to accurately get the camera information. The name will be stamped on the photo and video.

Setting the camera name can help to mark the camera installation position.

Password

Password protection is to increase security of camera parameters. You should input the correct password after you open the password protection function.

Stamp

Camera name, Shooting Date, Temperature and Moon phase will be displayed on the corresponding pictures taken.

SD Format

Format the SD card.

> 😊 ► This operation will clear all data in the TF card, be careful.

SD Cycle

After starting the SD Card Cycle, when TF card memory is full, the new file will automatically overwrite the old file.

Default Setup

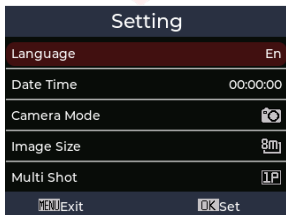When the parameter setting is wrong, you can reset all the parameters through the menu.

Version

Display the camera's current firmware version number.

Real time picture preview

Camera parameter settings

Setup menu list：

Name	Value	Function Description	Default
Language	English		En
	German		
Data/Time		Set the Data and time.	
Camera Mode	Picture	Take pictures.	Picture
	Video	Record video.	
	Pic+Video	First photo, then video	
Image Size	20M	20M /12M /8M /5M /2M	8M
Multi-Shot		Maximum 5 continuous shooting pictures.	1
Video Size	FHD	1920×1080 / 30FPS	FHD
	HD	1280×720 / 30FPS	
	VGA	640×480 / 30FPS	
Video length		5~240 Sec	5
PIR Sensitivity	A	Auto	A
	H	High	
	M	Middle	
	L	Low	
PIR Interval		0~3600 Sec	60
Timer	OFF	Enable	OFF
	ON	Disable	
Timer Lapse		00:00:00	00:01:00
Timer 1		00:00-23:59	
Timer 2		00:00-00:00	
Timer 3		00:00-00:00	
Camera Name		00:00-00:00	
Camera Password		00:00-00:00	
SD Cycle	OFF	Enable	OFF
	ON	Disable	
Reset		All parameters are restored to factory settings.	
Format SD		Format the SD card. This operation will delete all the files in the SD card.	
Version		Firmware version information	

Playback of images and videos
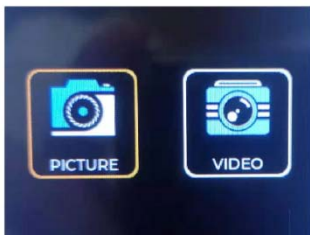
Playback interface

Automatic Mode Switching
When there is no operation in the test mode, the camera will automatically switch to the working mode after 120 seconds.

Auto Power Off
When the battery power is low, the camera will automatically power off.

Low Power Alert
If the camera battery power is less than 20%, when you enter the test interface, it will remind a low power alert, battery icon turns red.
When the battery voltage is less than 4.2 V, the camera will automatically turn off.

10. Firmware Update

First of all "sphost.brn" The upgrade file is copied to the SD card. After the camera is turned on, it is detected in the SD card "sphost.brn" File, it will be upgraded automatically. Automatically shut down after upgrade.

After the upgrade is complete, sphost.brn The file is automatically removed from the SD card.

11. SD Card Capacity Datasheet

Resolution	Pixel	File size	TF Card	Capacity	Picture amount
2M	1920×1080	384K	8G	7.45G	19400
			16G	14.9G	38800
			32G	29.8G	77600
5M	2880×1620	896K	8G	7.45G	8300
			16G	14.9G	16600
			32G	29.8G	33200
8M	3840×2160	1408K	8G	7.45G	5290
			16G	14.9G	10580
			32G	29.8G	21160
12M	4800×2700	2176K	8G	7.45G	3420
			16G	14.9G	6840
			32G	29.8G	13690
20M	6016×3384	1408K	8G	7.45G	3420
			16G	14.9G	6840
			32G	29.8G	13690

Photo storage sheet

Resolution	Pixel	File size /Sec	TF Card	Capacity	Video length (minute)
480P	640×480 30FPS	512K	8G	7.45G	242
			16G	14.9G	484
			32G	29.8G	970
720P	1280×720 30FPS	1024K	8G	7.45G	121
			16G	14.9G	242
			32G	29.8G	485
1080P	1920×1080 30FPS	2048K	8G	7.45G	60
			16G	14.9G	121
			32G	29.8G	242

Video storage sheet

12. Installation and location selection

Bandage installation

The camera is designed with a bandage hole for fixing the camera.

Thread the bandage from one side to another side of the hole, then fix the bandage in a solid trunk of the tree, you can adjust the tension of bandage to adjust the camera position, tighten it after the adjustment.

Seal the bottom cover

After installation and testing, please make sure the cover locked firmly to ensure that the camera with good waterproof, dustproof performance.

Installation location selection
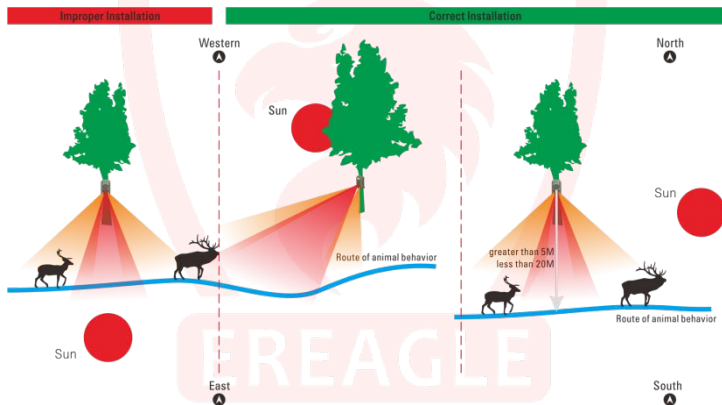
After selecting shooting place, fix the camera on the thick trunk with the bandage and adjust the induction angle.

When finishing, shake the camera to see whether firm enough.

If fixed in the wall, you need to install the matched mounting bracket by standard British screw.

► The camera is installed on a relatively thick tree or on the wall, To keep the proper height when fixed, so that it can shoot the corresponding action target.
► Avoid direct sunlight on camera lens.

13. Technical Specifications

Image and Video	
Photo Resolution:	20M / 12M / 8M / 5M /2M
Shooting Number:	1~5
Video Resolution:	FHD(1920*1080) / HD(1280*720) / VGA(640*480)
Video length:	1~240s
Lens:	6.0mm HD fixed lens(H FOV:56°, V FOV:42°, F2.0)
Trigger time:	< 0.5 Sec
Photo+Video:	First photo, then video
Display Screen:	2.4 "LCD Screen, definition:320 × 240
Audio	
Microphone:	48dB high sensitivity sound collection
Buzzer:	-
Trigger Alarm	
PIR Sensing Angle:	2 PIR, Horizontal: 50°, 2+5 area Fresnel Lens, each lens covers 10°
PIR Sensing Distance:	20M / 65ft (at 77°F / 25°C)
PIR Sensitivity:	Auto / High / Middle / Low
Trigger interval:	00:00-59:59 Optional (Default: 01:00)
Night vision	
Light Source:	Highlight IR LED, 850nm
IR Flashlight Distance:	30M / 98ft
Day/Night Mode:	Day/night, Auto Switching (Built-in ir-cut)
Interface Stamp	
Stamp Content:	Camera name, Shooting date, Moon phase, Temperature, Battery Power
Date and Time:	
Date Setting:	Support
Date Format:	Year/Month/Day（fixed）
Timer:	
Timer Switch:	ON / OFF
Time Frame:	Three time frame can be set every day.
Time Interval:	24 Hour
Data Storage:	
Storage Medium:	SD Card, 4G~128G
SD Card Cycle Save:	ON / OFF
Power Supply	

Battery Powered:	8×14500 (1.5V)
Standby Time:	8~10 Month
External Power Supply:	DC 12V / 2.0A
Standby Power:	<100uA (0.0002A / 12V)
Power Consumption:	150 mA (800mA LED on)
Others	
Connector:	DC input, SD card、USB port、Button
Installation Mode:	Strap and Bracket
Operating Temperature:	-20°C~+60°C
Operating Humidity:	30% ~ 90%RH
Waterproof Grade:	IP68 (Dust proof / Submerging test)
Dimension:	143 x103 x 66mm
Net Weight:	210g
Gross Weight:	330g
Certificate:	FCC / CE / RoHS

14. Dimension

103mm

66mm

143mm
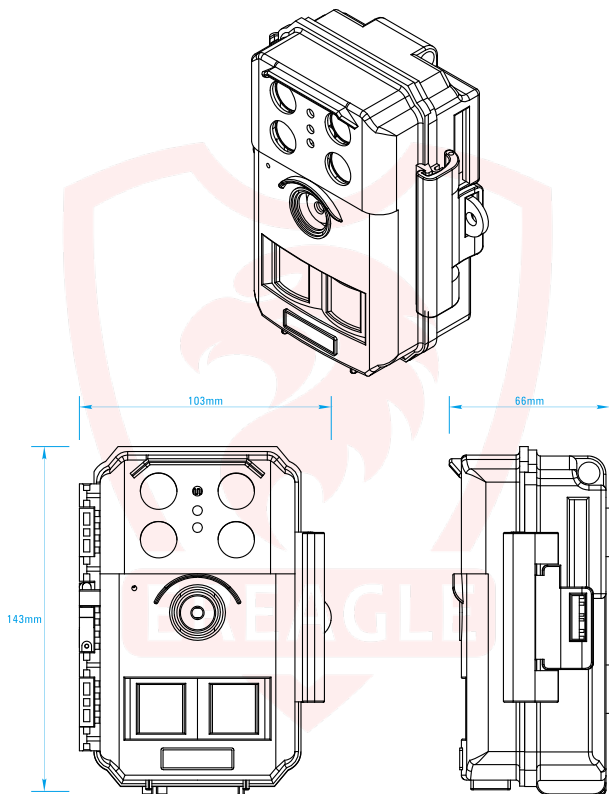
15. Warranty Information

If the camera malfunction, please see the following guide operation, if the malfunction can't be solved, please contact our local distributor.

General malfunction	Self-test and solution
camera can't be open	Check whether the batteries are installed correctly, the external power whether open circuit or not, the SD card capacity size meets requirement, confirm the switch is not on OFF position.
Always black and white image	Check the camera setting is correct with the corresponding parameter's setting
Button doesn't work	Disconnect the power and restart the camera
The camera auto power off in test mode	Check whether the power supply is normal, or long time no operation on buttons
Abnormal display shows	Check whether screen surface is clean, if under the condition of low and high temperature, display screen shows may seem a bit dark, It can be automatically recover in normal temperature.
Image out of focus	Whether there is a big shake when shooting camera, you can fix the camera and see the effect.
SD card can not be stored	Check whether the SD card is write protected or damaged
Password lost	Press "View" for 3 seconds and enter to set new password, then re-burning software.