Instruction MANUAL
Scouting Trail Camera

Contents

1. Introduction

Thank you for choosing one of our easy operation highly qualified products. You now may enjoy the excellence reflected on this series product. This 12MP FHD digital camera was totally R&D by our diligent and smart engineers based on feedback and requirements from customers globally. May you also enjoy and adore this product as we do. And our company is always open-minded with willing to adopt creative ideas from you.

1.1 Fully Functionality Introduction

Besides all the functions you may experience from any other similar products. This digital camera is aimed to offer user the most friendly using experience with many extraordinary features, like 100° FOV lens, 56pcs 60° IR LEDs, 0.4 seconds trigger time, and 1 burst within 1second multi-shot, user friendly operational menu, etc.

1.2 Application

This digital camera is an ideal product for housing security, warehouse surveillance, and monitoring wild animals with its camouflage appearance and nice shape. It is convenient to install or fasten, could be used to take photographs manually and carry on long-time videos in Test mode.

a. Instant surveillance camera for home, office, construction site, and warehouse, etc
b. Motion-triggered infra-red night vision surveillance;
c. Animal observation and hunting;

1.3 Power Supply

A. Batteries

Camera runs on 8 AA size batteries (**12V power supply to ensure camera well performance of all functions**); can work with alkaline, high-quality NiMH, and Lithium rechargeable batteries. But we suggest to run camera with NiMH and Lithium batteries only as performance of alkaline batteries is much poorer than either NiMH or Lithium batteries.

Batteries should be inserted as indicated inside the battery case. Upside down batteries electrode may cause device malfunction. Also, we strongly recommend changing the batteries when power icon on camera screen or photo stamp is empty.

Note: Don't mix batteries types! Different batteries to be used in camera may cause permanent damage which also violates warranty policy!

Due to different settings, objects activities within camera detection zone, different brands and quality of batteries, and using environment, etc; we're not able to list out exact number of photos and videos that camera can achieve. So given table below only shows approximate number of photos or videos camera can take with 8AA alkaline batteries; better performance can be given by 8 AA rechargeable NiMH and Lithium batteries.

Test Condition: LCD screen off. Mode: “Power On” _PIR intelligent automatically monitoring					
8AA Alkaline Batteries					
Photos shot per day		**Working time**	**Video clips shot per day**		**Working time**
IR LEDs On					
Max.Range	100 pics	36 days	10secs video clips	10 clips	37 days
Balanced	100 pics	31 days			
Min. Blur	100 pics	21 days			
IR LEDs Off					
Photo	100 pics	89 days	10secs video clips	10 clips	179 days

B. Solar Panel

To bring users better using experience, our engineers designed this camera to be able to work with most standard 12V/1~2 A lithium battery build-in solar panels. However, as rechargeable AA NiMH or lithium batteries need higher voltage for charging that solar panel can’t charge the batteries in using in camera batteries cases.

C. Power Adapter—Security Surveillance Purpose

This camera can also be powered by an external 12V/ 1~2A DC adapter. Recommend to remove the AA size batteries when power adapter is used. Electrical power is recommended for security purposes.

1.4 SD Card Selection

Using a memory card is required to operate the camera. When the camera is "ON" and no memory card is used, the screen displays "Pls insert memory card". The SD slot of the camera has a 32 GB memory capacity. Before inserting or removing the memory card, the camera must be turned "OFF". Failing to do so may cause loss of or damage the pictures already recorded from the memory card. When the SD card is full, the viewing screen indicates "Memory Full". The following data shows an approximate quantity of photos which can be recorded by the camera depending on the memory card capacity.

Chart below will show you the approximate capacity of different size SD cards. Pls check to see which size card can fit your needs best.

SD Size / Capacity	**1GB**	**2 GB**	**4 GB**	**8 GB**	**16 GB**	**32 GB**
Photo (pictures)						
5MP	869	1631	3585	7492	15307	30936
8 MP	556	1041	2294	4798	9794	19795
12 MP	391	733	1613	3371	6887	13919
Video (hours)						
640x480	00:05:27	00:10:13	00:22:28	00:46:57	01:35:56	03:13:52
HD	00:03:56	00:07:23	00:16:13	00:33:53	01:09:14	02:19:56
FHD	00:02:04	00:03:53	00:08:31	00:17:48	00:36:20	01:13:21

1.5 USB Connection

When camera is connected via USB cable; screen display “MSDC”, press “Menu” once, “MSDC” turns to “PC Cam”, camera now can be used as a PC camera; press “Menu” again,

camera exits PC camera mode.

1.6 Attention

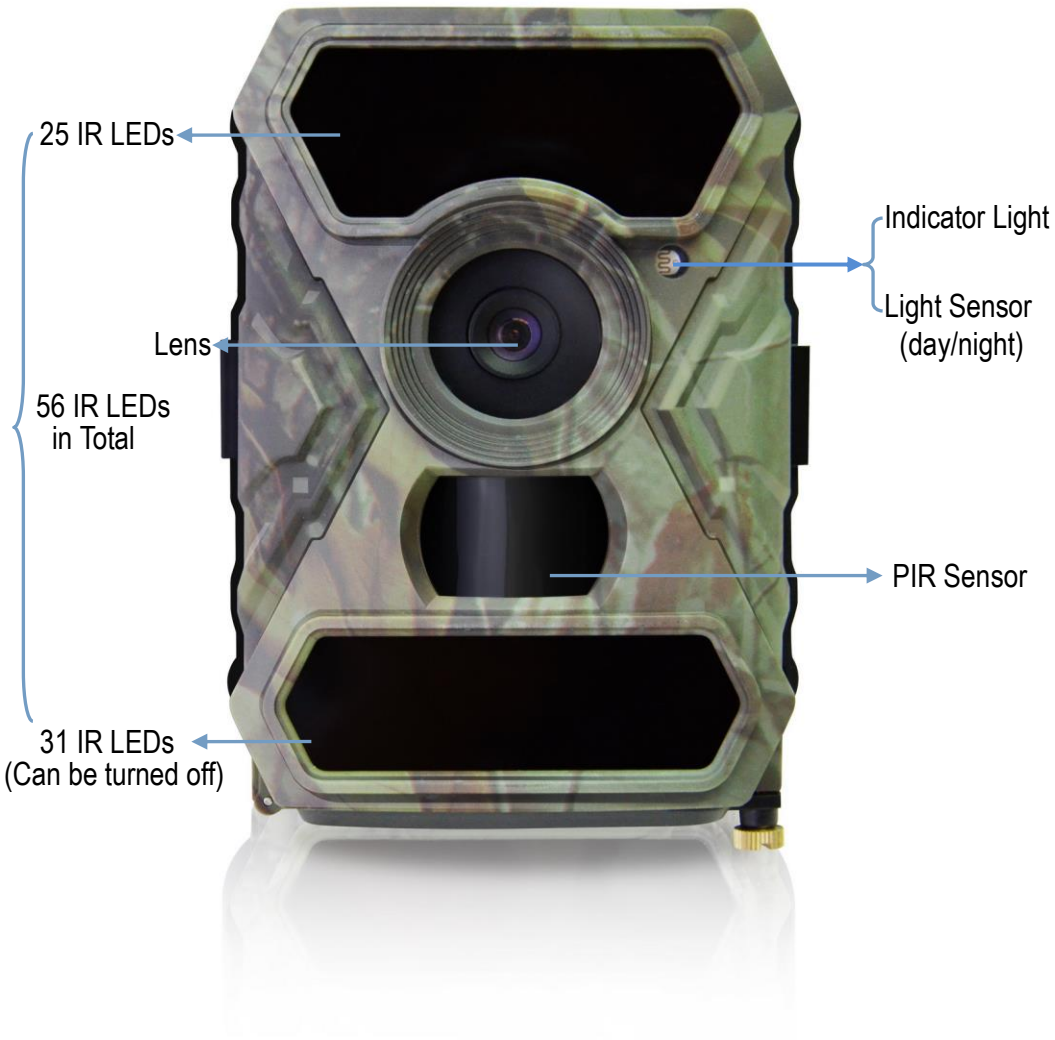
1. Insert the SD memory card correctly, camera does not support SD card hot swap (insertion).
2. Please use high-quality AA batteries in order to prevent battery cells from corrosion of leaked acid.
3. Use right adapter (12V/1A or 2A) of this camera to supply power, and do not invert the electrode when put in batteries.
4. In Test mode, camera will automatically enter PIR Auto mode if no keypad touching within 60 sec. Please manually turn ON it as if you want to do some further configuration.
5. Don't interrupt power supply during system upgrade, please deliver it back to factory if the device doesn't work after upgrading.
6. Do not frequently insert or pull out SD card and battery or plug in and out the adaptor when the camera is on.
7. Do not have any floating objects, such as leaves, strings, or ribbons in the 3M motion detection zone of cameras, to avoid mistaking photograph or videos.
8. Do not keep camera next to hot irrelevant objects, air conditioner exhaust vents, and light, etc. to avoid mistaking photos or videos.
9. Camera is with a 100° FOV lens which means more flash is needed to get better night time images than the average 52° FOV lens from market; that's why 56pcs 60° IR LEDs are used on this camera. But to ensure these 56pcs IR LEDs can give enough flash to back the wide angle lens up that high qualified AA batteries must be applied accordingly to deliver enough amperage to power the illuminator consistently in dark environments.
10. Programmed Date/Time can be saved in camera for 12 hours once camera was powered 1 hour above.

1.7 Key Features

1. **0.4 seconds trigger speed;**
2. Wide lens model: **100 degree FOV lens; 110 degree PIR angle;**
3. Regular lens model: **52 degree FOV lens; 52 degree PIR angle;**
4. 12MP/ **1080P@30FPS;**
5. Programmable 5/8/12 Megapixel high-quality resolution;
6. **56pcs invisible IR LEDs**, offer 15 meters (50 feet) real night vision distance;
7. crystal clear day & night photo/video quality;
8. **1 photos burst within 1 second;**
9. Support multiple functions: adjustable PIR sensitivity, Multi-shot (1~5 photos per trigger), programmable delay between motions, Time Lapse, Timer, Audio Recording, TV out, stamp of (camera ID, date/time, temperature, moon phase) on every single photo;
10. Available operation temperature: -30℃ to 60℃;
11. Built-in 2.0" TFT color screen;

2. Whole View and Details of Camera

2.1 Figure 1: Front View of Camera;

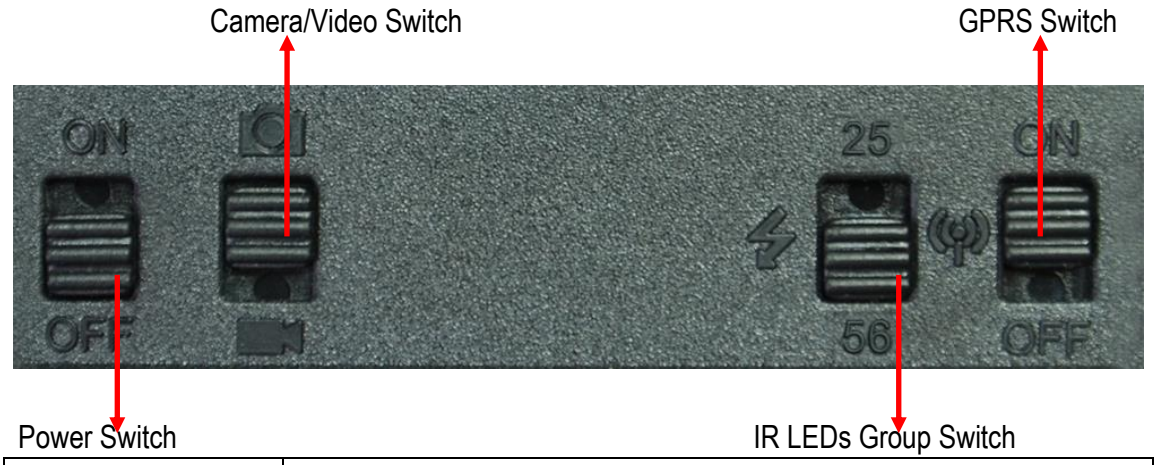


2.2 Figure 2: Bottom View of Camera;

2.3 Figure 3: Internal, Side and Back View of Camera

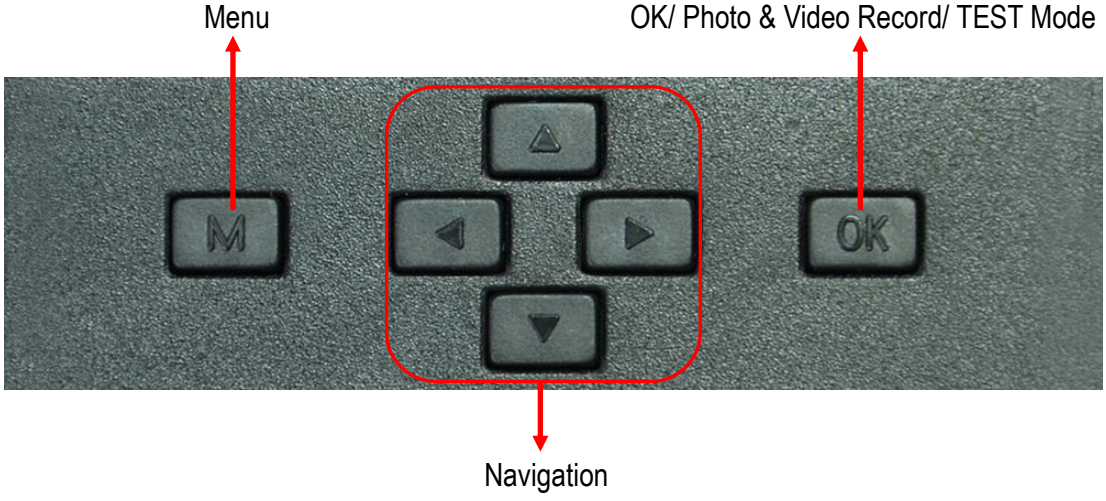
2.4 Function Keys & Other Details

A. Switch Buttons



Power Switch	1) Switch ON to enable camera to work; Note: indicator light flashes 5 times before camera starts to work on PIR **(PIR Auto Mode)** 2) Switch ON, then press "OK" once to wake up camera LCD screen to **enter TEST Mode;** 3) Press and hold button "OK" for 3 sec to get back to **PIR Auto Mode** **4)** Switch **OFF**—Camera stops working.
Video/Photo Switch	Switch ON to **Pic** icon—Photographing mode, or PIC + Video mode Switch Down to **Video** icon—Video Recording mode
IR LEDs Group Switch	Switch up: **25**—up side 25 pcs IR LEDs work Switch down: **56**—all 56 pcs IR LEDs work
GPRS Switch **(3.0CG only, not available)**	Switch up: **On**—GPRS function enabled; Switch down: **Off**—GPRS function disabled. **Note:** When user wants to configure camera settings, suggest disabling GPRS function to quick wake up LCD screen.

B. Buttons



3. Quick Start

3.1 How to Start the Camera?

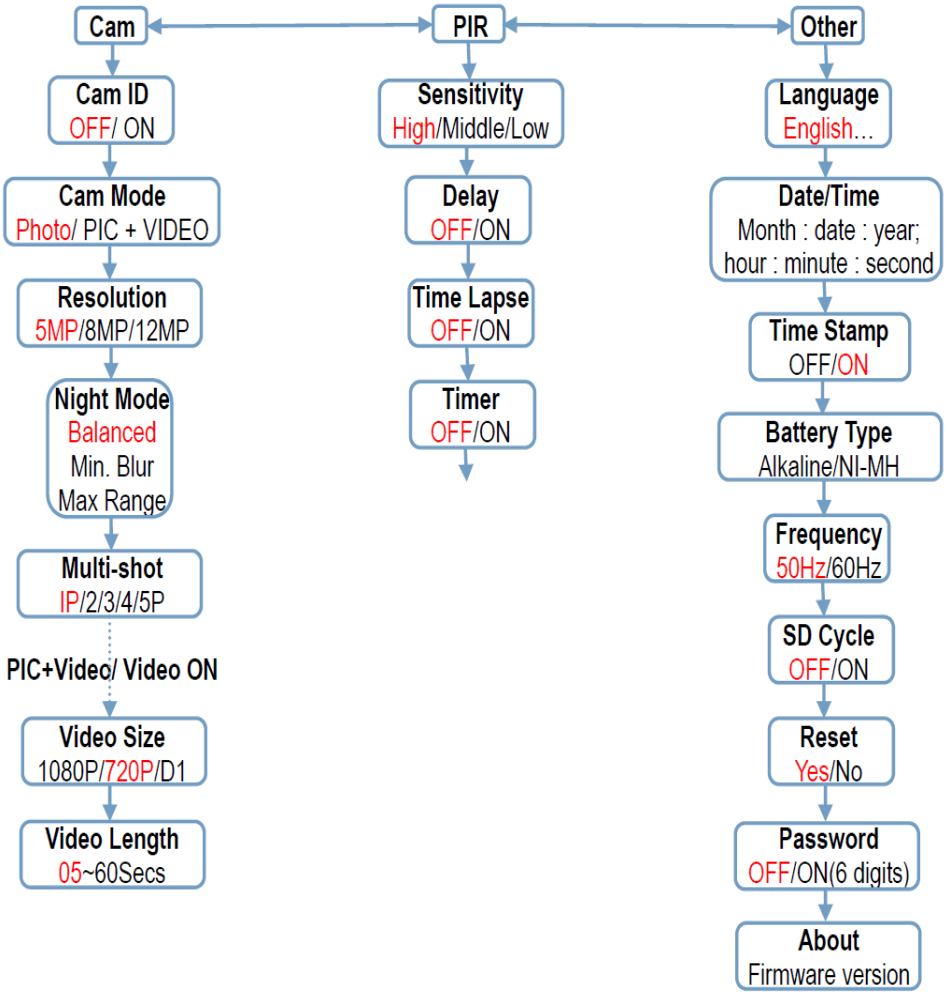
Switch ON "Power Switch"

Note: Camera comes pre-programmed with factory default settings. So for test purpose, user only needs to insert a SD card and batteries to start test by powering on.

3.2 How to Set the Functions?

a. Switch ON "Power Switch", Press "OK" once to enter Test mode; then press button "Menu" once to enter camera setting menu;
Use navigation buttons "←", "↑", "→", or "↓" to obtain favored settings, press "OK" for confirmation and save the preferred change, **press "Menu" to exit current page;**
c. Exit main menu, then press button "OK" for 3 secs to enable camera to work on PIR.
Note: For some settings, user needs to press "Menu"to save & exit the configuration after pressing "OK"to confirm; (Cam ID, Deley, Time Lapse, Timer, Password)

3.3 Camera Default Settings in Red Letters



4. Operation List

4.1 Video/Photo Playback

Switch ON “Power Switch”, Press “OK” once to enter Test mode, press arrow button “↑” to enter Playback; press “←” and “→” for selection, “OK” to play photo/video.

1) Press button “↑” again to exit.
2) In Playback Mode, press “Menu” button to delete files, or format SD card; press “Menu” again to exit.

4.2 Delete

a. Delete one: delete selected photo/video;
b. Delete All.

Press “OK” to choose, press“↑” and “↓”for selection, “Yes” to confirm, “No” to exit to previous page.

4.3 Format of SD Card

a. No
b. Yes: to format SD card via camera.

Press “←” and “→” for selection, “Yes” to confirm, “No” to exit to previous page.

4.4 PIR Test

Switch ON “Power Switch”, Press “OK” once to enter **Test mode**, press arrow button “↓” to enter **PIR Test mode**; screen display “DETECTING” when camera is in this mode.

Red indicator of camera flashes when PIR sensor detects anything in front of camera; but no photos or videos will be recorded. Press “OK” to exit PIR Test Mode.

Note: no matter camera detects anything or not, camera enters PIR AUTO MODE 5mins later.

4.5 Auto Power Off

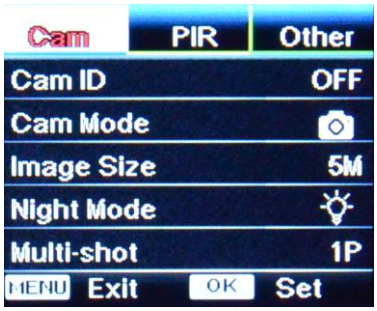
In Test mode, camera will automatically enter PIR Auto mode if no keypad touching within 60 sec. Please manually turn ON it as if you want to do some further configurations.

Note: camera stay in “Test” mode if camera is in Menu configuration pages.

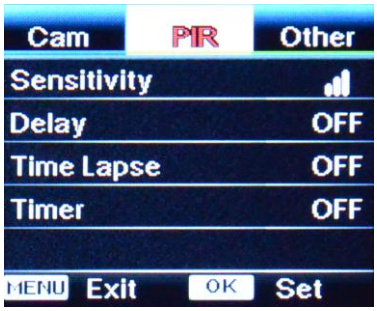
4.6 Operation Menu

Test mode, Press “Menu” once to enter camera setting menu; to navigate setting interface by pressing “←”, “↑”, “→”, or “↓”, press “OK” for selection, and “Menu” to exit to previous page.

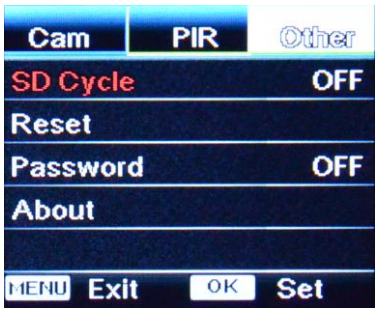
Note: For some settings, user needs to press “Menu” to save & exit the configuration after pressing “OK” to confirm; (Cam ID, Deley, Time Lapse, Timer, Password)



Cam	
Settigs	**Programmable Options**
Cam ID	Select “ON”, press “OK”, to set 4 digits/ alphabets for each camera. Such function can help user to identify photos are from where and which camera.
Cam Mode	Photo, PIC+VIDEO, Video 1) Switch ON “Photo/Video Switch” to **Pic** icon—Photographing mode, or PIC + Video mode; 2) Select “PIC+VIDEO”, camera shoots photo(s) first, then video upon same trigger event based on **Video Length** and **Multi-shot** user configured. 3) Switch Down “Photo/Video Switch” to **Video** icon—Video Recording mode
Image Size	5MP, 8MP, 12MP
Night Mode	1) **Min. Blur:** Short exposure time to minimize motion blur for better image quality; shortened IR flash range; 2) **Max. Range:** Longer exposure time to extend IR flash range for better night vision; lower image quality; 3) **Balanced:** combination of above 2 options;
Multi-shot	Programmable 1~5 photos per trigger
Video On	
Video Size	FHD1080P: 1920*1080, HD720P: 1280*720, 640*480
Video length	5~60 Secs



PIR	
Settings	**Programmable Options**
Sensitivity	High, Middle, Low Higher sensitivity is 1) more sensitive to movements by smaller subjects; 2) longer detection distance; 3) easier for sensor to detect difference between body heat and outdoor temperature; 4) easier to trigger camera to record. In **high temperature** environment, body heat of subjects and environment temperature is hard to tell by camera, suggest setting **High**.
Delay	Select "ON", press "OK", to set a time interval that you desire between photos/videos upon motion. This option avoid camera taking too many photos or videos. **Example:** Camera will wait 1 minute between photo/video recordings with motion if pre-set time interval is 00:01:00 **Configurable delay time: 3** second to 24 hours. **Note:** Pls don't turn ON Time Lapse and Delay simultaneously!
Time Lapse	Select "ON", press "OK", to set the interval; **PIR sensor of camera will be turned off;** camera will shoot pics or video clips automatically upon the interval user set. **Configurable interval:** 3 seconds to 24 hours. **Note:** Pls don't turn ON Time Lapse and Delay simultaneously!
Timer	Select "ON", press "OK", to set the beginning time and end time (hour/minute); camera will only work during the time period user set. i.e.: 15:00 – 18:00; camera only works during 15:00 – 18:00



Other	
Settings	**Programmable Options**
Language	**English…**
Date/Time	Month : date : year; hour : minute : second **Note: Pls adjust camera date/time to ensure some functions work as expected.**
Time Stamp	Imprints of programmed camera ID, moon phase, temperature, date, and time on photo
Beep	Select “OFF” to turn off camera speaker.
Battery Type	Alkaline/ NI-MH Choose correct battery type of used batteries in camera makes camera perform better.
TV Out	NTSC, PAL
Frequency	50HZ, 60HZ; improper setting may cause camera screen flicker
SD Cycle	Select “ON”, press “OK”, camera will continue to record photos/videos by deleting earliest photos or video clips.
Reset	Select “Yes” to reset camera back to factory default settings.
Password	Select “ON”, press “OK”, to enable password protection for your camera; support totally 6 digits/ alphabets long password access.
About	Firmware version in camera

5. Specification

Image Sensor	5 Mega Pixels Color CMOS	
Effective Pixels	2560x1920	
Day/Night Mode	Yes	
IR range	20m	
IR Setting	Top: 25 LEDs, Foot: 31LEDs	
Memory	SD Card (8MB – 32 GB)	
Operating keys	10	
Lens (**Wide lens model**)	F=3.0; FOV=100°; Auto IR-Cut-Remove (at night)	
Lens (**Regular lens model**)	F=3.0; FOV=52°; Auto IR-Cut-Remove (at night)	
LCD Screen	2” TFT, RGB, 262k	
PIR Sensitivity	3 sensitive levels: High / Normal / Low	
PIR distance	12m – 15m	
PIR Angle	**Wide lens model**: 110°; **Regular lens model**: 52°	
Picture size	5MP/8MP/12MP =2560x1920/3264x2448/4000x3000	
Picture Format	JPEG	
Video resolution	1080P (1920x1080): 30FPS, 720P (1280x720), 640x480	
Video Format	AVI	
Video Length	5-60sec. programmable	
Shooting Numbers	1-5	
Trigger Time	0.35~0.45s	
Trigger Interval	4s-7s	
Camera + Video	Yes	
Playback Zoom in	2x, 3x, 4x	
Device Serial No.	Yes	
Time Lapse	Yes	
Beep Sound	ON/OFF	
SD Card cycle	ON/OFF	
Trigger Logs (PIR Log Recording)	Yes (Unique Feature)	
Operation Power	Battery: 12V; DC: 12V	
Battery Type	8AA	
External DC	12V	
Stand-by Current	0.173mA	
Stand-by Time	4~6 months (4×AA~8×AA)	
Auto Power Off	auto switch to mode “ON” in 60s without any operations	
Power Consumption	IR LEDs Off	Photo: 120mA; Video: 110mA
	IR LEDs On	Regular lens Photo: Max.Range: 670mA Balanced: 850mA Min.Blur: 1050mA Video: 670mA

		Wide lens Photo: Max.Range: 850mA Balanced: 1050mA Min.Blur: 1250mA Video: 670mA
Low battery Alert	8.8V (8.8V: alert; 8.6V: power off)	
Interface	TV out/USB/SD Card/DC Port	
Mounting	Strap; Tripod	
Operating Temperature	-30°C to 60°C	
Storage temperature	-30 °C to 70°C	
Operation Humidity	5%-90%	
Waterproof spec	IP54	
Dimensions	131.42 x98.72 x77.44mm	
Weight	404g	
Certification	CE FCC RoHs	

6. Trouble Shooting

6.1 Photos Do Not Capture Subject of Interest

1. Check the "Sensor Level" (PIR sensitivity) parameter setting. For warm environmental conditions, set the Sensor Level to "High" and for cold weather use, set the sensor for "Low".
2. Try to set your camera up in an area where no heat resources are in the camera's field of view.
3. In some cases, set the camera near water will make the camera take images with no subject in them. Try to aim the camera over ground.
4. Try to set camera on stable and immovable objects, i.e.: large trees.
5. At night, motion detector may detect beyond range of the IR illumination. Reduce distance setting by adjusting sensor sensitivity.
7. Rising sun or sunset can trigger sensor. Camera must be reoriented.
8. If person/animal moves quickly, it may move out of the camera's field of view before photo is taken. Move camera further back or redirect camera.

6.2 Camera Stops Taking Images or Won't Take Images

1. Please make sure that the SD card is not full. If the card is full, camera will stop taking images. Or user can turn on Cycle Recording to avoid such problem.
2. Check batteries to make sure that alkaline, NiMH or lithium AA batteries left power is enough for camera to work.
3. Make sure that the camera power switch is in the "On" position and not in the "Off" or "Test" modes.
4. When GPRS function is on, there will be around 1 minute interval for camera to send out photo before camera shooting the next photo. Turn off the GPRS, camera can shoot photos continuously.
5. Please format the SD card with camera before using or when camera stops taking images.

6.3 Night Vision Flash Range Doesn't Meet Expectation

1. 4pcs AA batteries is not able to support camera night vision ability; please install 8 pcs AA batteries;
2. Please check to make sure that batteries are fully charged or left power is enough;
3. "Max Range" offers better IR flash range. Given IR flash range values are based on Max Range setting; so please adjust Night Mode to Max Range for better night vision flash range;
4. High-quality 1.5V NiMH or Lithium rechargeable AA batteries can also offer much better IR flash range; alkaline batteries cannot deliver enough amperage to power the illuminator consistently at night;
5. To ensure accuracy and quality of night time image, please mount camera to dark environment without any obvious light sources;
6. A certain surroundings (like trees, walls, ground, etc.) within flash range can get you better night time images; please do not aim camera to total open field where there is nothing within IR flash range to reflect flash back; it's like shinning a flashlight into sky in night, you just can't see anything; same does camera;

6.4 Photos Do Not Capture Subject of Interest

1. Check the "Sensor Level" (PIR sensitivity) parameter setting. For warm environmental conditions, set the Sensor Level to "High" and for cold weather use, set the sensor for "Low".
2. Try to set your camera up in an area where there is not a heat source in the camera's line of sight.
3. In some cases, set the camera near water will make the camera take images with no subject in them. Try aiming the camera over ground.
4. Try to avoid setting the camera up on small trees that are prone to being moved by strong winds.
5. Remove any limbs which are right in front of the camera lens.

7. Warranty

With great pride and full confidence in our products, we always keep our words which are given to our customers as specified warranty terms and services below. Based on a strict QC system, we initially offer all our customers one year long time limited warranty, come along with selectable chargeable renewal policy of warranty as one, two, three, or four years.

Our products are warranted against defects in materials and workmanship for a period of one year from the date of original purchase. If a defect exists, we will, at our option and to extent permitted by law will (1) repair the product at no charge using new or refurbished parts; (2) exchange the product with a functionally equivalent product that is new or refurbished. Provided the product is returned freight charge paid.

This warranty excludes damage resulting from abuse, accident, modifications or other causes that are not defects in materials and workmanship, or by someone other than our authorized technicians. This warranty only covers failures due to defects in materials or workmanship under normal usage.

To obtain warranty service, please contact us to determine the nature of problem before return the product under this warranty (with a written description of the problem and print samples) for repairing or exchanging.