4G Cloud Trail Camera

User Manual

What's in the Box?

Instruction manual

USB cable

Mounting strap

Antenna

SIM Ace Card

Trail Camera

How to Get the Camera Ready?

1. Insert the batteries (not included)

Open camera house and insert the batteries as electrodes marked in battery case.

Note: 8AA Alkaline or Ni-MH are recommended. For better performance, please choose the "Battery Type" of the batteries in using.

2. Insert the SD card

Note: 4-32 GB SD card is recommended. Please insert it with correct direction as marked.

3. Mount the Antenna & Insert SIM card

How to Setup the Camera?

1. Power on the Camera & Configure Camera Settings

Switch to SETUP, screen will light up. Press MENU key, you will enter the menu to view & change settings. Please press arrow keys for navigation and OK key to confirm settings.

Default settings are preferred. Please refer to page 5 for default settings in red letters.

Hitting the MENU button twice will return you to the opening screen.

To test the camera operation - When in the SETUP mode hit the OK Button then hit the OK button again and it will transmit an image to your APP. This may take 35 to 45 second based on signal strength. Screen should show message = send successful.

2. How to Connect the Camera to Network?

Put the 4G SIM card into cloud camera, then camera has a signal "Searching"process when you switch the power key to SETUP.

It may take a minute or two to acquire a cellular network.

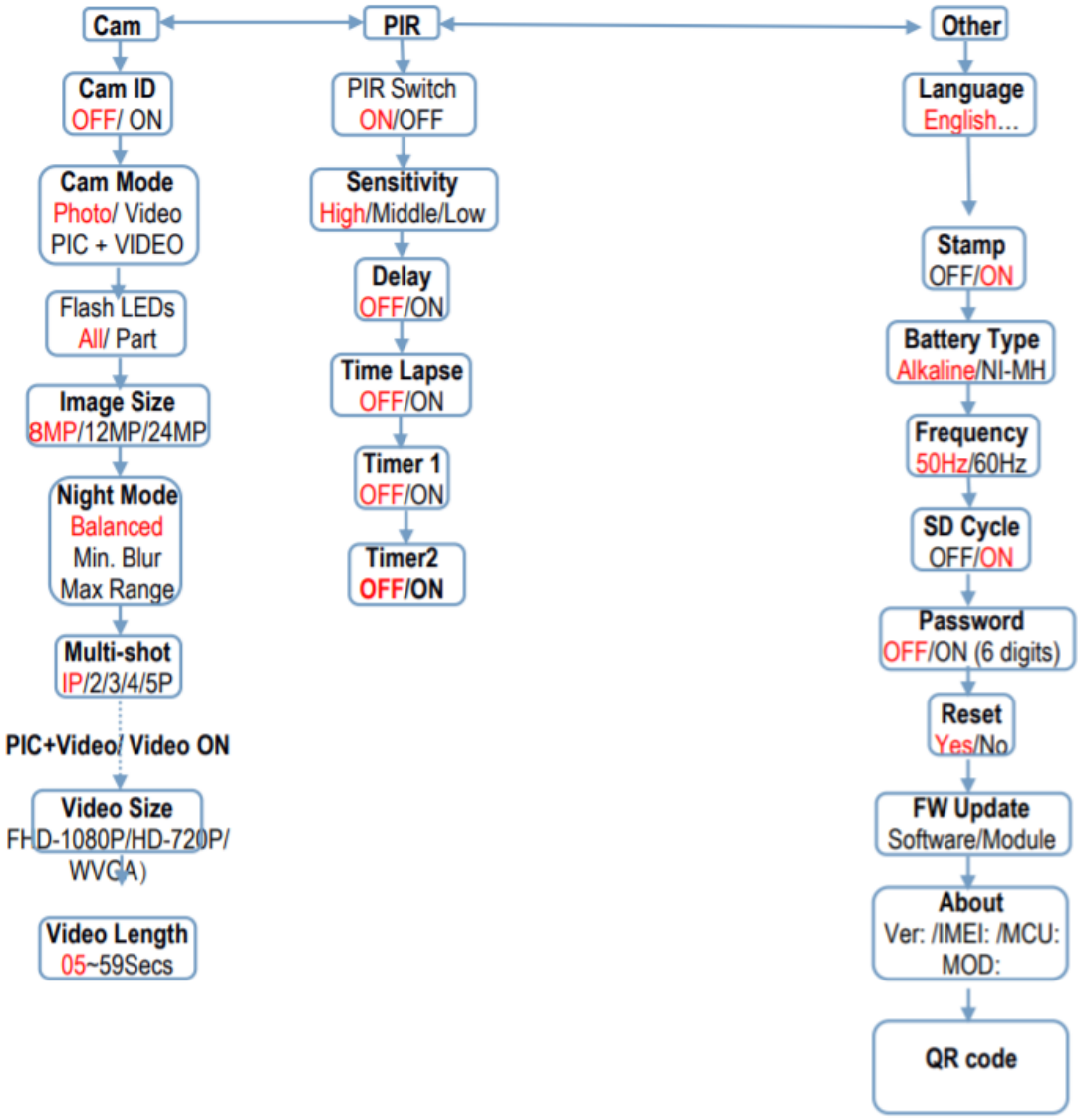
Once acquired the signal strength indicator will show on the screen. Once the signal has been acquired slide the button to ON to start sending pictures when motion is detected.

Two bars of signal strength are required for the camera to function well.

If camera comes with a pop-up “SIM Auto Match failed…”, please go to the Menu, “SIM Auto Match” under “4G”, select “Manual”, and fill in local operator APN details in “Manual Setup”, the camera will connect to network to send photos.

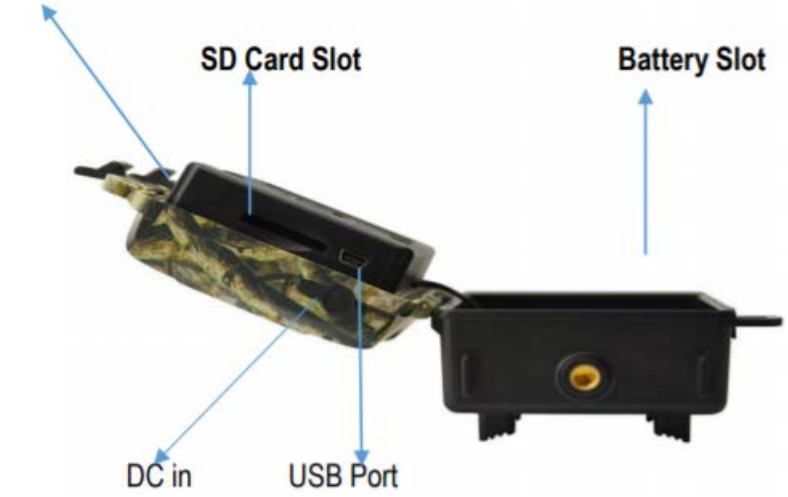
Camera Settings

Note: Default setting is in red letters.



Whole View and Details of Camera

The SIM Card's Golden Part faces the front housing side




LCD Colorful Screen
MENU Button
Navigation Buttons/ OK Button
Power Switch
(ON/ OFF/ SETUP Test Mode)
Battery Slot

Introduction

It has previously been briefly explained to you how this camera works within the contents in previous pages. Before more details are presented, we want to thank you for choosing one of our products. This 4G Cloud Trail Camera was R&D by our dilligent engineers based on feedback and requirements from customers globally. Our company is always open-minded and willing to adopt creative ideas from you. May you enjoy this product as we do.

Full Functionality

The 4G Cloud Camera is aimed to offer you a durable quality product with features such as a pre-installed SIM card, viewing images in the APP, a free remote control APP (both on iOs and Android), 20 meters (65 ft) invisible real night vision, 0.4 second trigger time, and 1 photo/sec (up to 5 photos per trigger), multi-shot capturing the whole track of objects and user friendly operational menu & setup.

Power Supply

A 9-12V power supply must be used to ensure the camera performes well and all functions work properly.

Batteries

The camera runs on 8AA size batteries, can work with alkaline and high-quality NiMH rechargeable batteries. We suggest to run the camera with NiMH batteries only as the performance of alkaline batteries is much poorer than the performance of NiMH batteries. Please also choose the battery type you're using in the menu option "Battery Type" to reach longer operation time.

The batteries should be inserted with the correct electrode positions as marked in the battery case. Upside down batteries may cause the device to malfunction. We also strongly recommend changing the btteries when the power icon on the camera screen or photo stamp is empty.

Note: Do not mix battery types! Different batteries used at once may cause permanent damage which violates warranty policy.

Due to the different settings, objects' activities within the camera's detection zone, different brands and quality of batteries, the environment of use, etc. we are not able to list the exact number of photos that our camera can achieve. The table below only shows the approximate number of photos the camera can take with 8AA alkaline batteries. Better performance can be achieved by using 8AA rechargeable NiMH batteries.

4G OFF_8AA Alkaline Batteries		
Photos Shot Per Day		Working Time
IR LEDs On		
Max. Range	100 pics	45 days
Balanced	100 pics	43 days
Min. Blur	100 pics	41 days
IR LEDs Off		
Photo	100 pics	56 days

Solar Panel

To bring the users a better experience, our engineers designed this camera to be able to work with most standard 12V/2A lithium battery built-in solar panels. The solar panel can't charge the batteries in use in the camera's battery case.

Power Adapter – Security Surveillance Purpose

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

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 "No 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 to the pictures/videos already recorded on the memory card. When the SD card is full, the viewing screen shows "Memory Full". The following data shows an approximate quantity of photos or videos which can be recorded by the camera depending on the memory card capacity.

The chart below will show you the approximate capacity of differently sized SD cards. Please check to see which card size fits your needs.

SD / Size Capacity	4 GB	8 GB	16 GB	32 GB
Photos (pictures)				
8MP	2104	4238	8476	16952
12MP	1445	2910	5816	11632
24MP	735	1480	2957	5914

USB Connection

When the camera is connected via USB cable, the screen will display "MSDC". Press the "Menu" button once, "MSDC" turns into "PC Cam". The camera can now be used as a PC camera. The camera exits the PC camera mode once you press the "Menu" button again.

Attention

1. Insert the SD memory card correctly, the camera does not support SD card hot swap.
2. Please use high-quality AA batteries in order to prevent battery cells from corrosion of leaked acid.
3. Use the right adaptor (12V/2A) of this camera to supply power. Do not invert the electrodes when putting in the batteries.
4. In the Test Mode, the camera will automatically power off in 3 minutes if there is no touching of the keypad.
5. Do not interrupt the power supply during a firmware upgrade. Please deliver the device back to the factory if the device doesn't work after upgrading.
6. Do not frequently insert or pull out the SD Card and battery or plug in or 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 the camera to avoid unnecessary photos or videos.
8. Do not keep the camera next to hot objects, air conditioner exhaust vents, lights, etc. to avoid taking unnecessary photos or videos.
9. The camera is equipped with a 58° FOV lens and 60pcs IR LEDs. To ensure the IR LEDs can give enough of a flash, high quality AA batteries must be applied accordinly to deliver enough amperage to power the illuminator consistently in dark environments.
10. The camera functions best when 4 to 6 feet off the ground. At any lower point the motion sensor does not function well. Motion detection functions out and down – not up and out.

Key Features

1. 0.4 second trigger speed.
2. Regular lens model: 58° FOV lens, 52° PIR angle.
3. Programmable 8/12/24 Mpx high-quality resolution.
4. 60pcs invisible IR LEDs, which offer 20 meters (65 feet) real night vision distance.
5. Clear day & night photo quality.
6. 1 photo burst per seconds to get full movement tracking of objects.
7. Support of multiple functions: adjustable PIR sensitivity, Multi-shot (1-5 photos per trigger), programmable delay between motions, Time lapse, Timer, stamp of camera ID, date/time, temperature, moon phase on each photo.
8. Available operation temperature: -25°C to 60°C
9. Built-in 2.4" TFT color screen.
10. 4G function, camera can transmit photos to your APP.
11. Optional small size (640*480) or large size (2560*1920) thumbnail photos. The small thumbnail images is the default setting and consumes approx. 45kb of data. Large thumbnails consume approx. 300kb of data.
12. The APP is available in iOs&Android APP stores.

List of Operations

Photo Playback

Turn the “Power Switch“ to the SETUP position to enter test mode. Press the arrow button “↑“ to enter Playback. Press “←“ and “→“ for selection, “OK“ to play photo/video.

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

Delete

1) Delete one selected photo/video: Press “OK” to choose, press“↑” and “↓”for selection, “Yes” to confirm, “No” to exit to previous page.
2) Delete All.

Format of SD Card

a) No.
b) Yes: to format your SD card via camera:
Press “←” and “→” for selection, “Yes” to confirm, “No” to exit to previous page.

Auto Power Off

In Test mode, the camera will automatically power off in 3 minutes if you do not touch the keypad. Please manually turn the camera ON it as if you wanted to do some further configuration.

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

Operation Menu

In Test mode, Press “Menu” once to enter the camera settings menu. To navigate the settings interface, press “←”, “↑”, “→”, or “↓”. Press “OK” for selection, “Menu” to exit to previous page, and “Menu” to switch alpha/digits/symbols.

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

Cam	
Settings	**Programmable Options**
Cam ID	Select "ON. Press "OK" to set 12 digits/letters for each camera. These functions can help the user identify what photos are from where and which camera.
Image Size	8MP (3264x2448), 12MP (4032x3024), 24MP (5632x4224) stored on SD Card.
Night Mode	a) **Min. Blur:** Short exposure time to minimize motion blur for better image quality; shortened IR flash range. b) **Max. Range:** Longer exposure time to extend IR flash range for better night vision. lower image quality. c) **Balanced:** combination of the two options above.
Multi-shot	d) Programmable 1~5 photos per trigger

PIR	
Settings	**Programmable Options**
PIR Switch	OFF/ON. 4G function can be turned off and photos will not be transmitted.
Sensitivity	High, Middle, Low Higher sensitivity is 1) More sensitive to movements by smaller objects. 2) Longer detection distance. 3) Easier for the sensor to detect differences between body heat and outdoor temperatures. 4) Easier to trigger camera to record. In high temperature environments, body heat of subjects and environment temperatures are hard to tell by camera.
Delay	Select "ON" and press "OK" to set a time interval that you desire between photos/videos upon motion. This option keeps the camera from taking too many photos. **Example:** Camera will wait 1 minute between photo recordings only when motion is occuring if the pre-set time interval is 00:01:00 **Configurable delay time:** 00:00:05~23:59:59. **Note:** Please don't turn ON Time Lapse and Delay simultaneously!
Time Lapse	Select "ON" and press "OK", to set the interval. **Turns off motion detection.** The camera will take pictures automatically upon the interval which the user has set. **Configurable interval:** 00:00:05~23:59:59. Note: Please don't turn ON Time Lapse and Delay simultaneously!
Timer1	Select "ON" and press "OK" to set the beginning and end time (hour/minute). The camera will only work during the time period the user set when motion activated. i.e.: 15:00 – 18:00: the camera only works during 15:00 – 18:00.
Timer2	Select "ON" and press "OK" to set the beginning and end time (hour/minute). The camera will only work during the time period user set when motion activated. i.e.: 15:00 – 18:00: the camera only works during 15:00 – 18:00.

Max Num/Day
Default: Unlimited. Optional: 1-99 i.e.: if the user chooses 50, then the camera will only send photos 50 times every day. The camera will send photos to the APP. The photos will only be stored in the SD card when taking them.
Remote Ctrl
1) Delay: (Suggested setting to reduce battery consumption) The camera will be able to change, save setups and transmit instant picture requests remotely from your APP upon the next motion trigger. Otherwise, the camera will execute commands based on the Delay setup. Delay 0.5h; Delay 1h; Delay 2h; Delay 3h;Delay 4h;Delay 6h;Delay 12h;Delay 24h 2) Real Time: Caution: This setting will deplete batteries a lot quicker. This setting allows the camera's 4G module to be in the stand-by at all times. Remote commands sent from the APP (including "Take photo now") will take effect immediately.

Other	
Language	English
Battery Type	Alkaline or NiMH Choose the correct battery "type" in the camera to make the camera perform better.
Password	Select "ON" and press "OK" to enable password protection for your camera. Supports 6 digits/letters.
Reset	Select "Yes" to reset the camera back to factory default firmware settings.
FW Update	With updated firmware in the SD card, you can enter this menu to update camera firmware by confirming "Yes" in the options.
About	Firmware version in camera (Version: / IMEI: / MCU: / MOD:)

Specifications

Image Sensor	5 Mega Pixels Color CMOS
Effective Pixels	2560x1920
Day/Night Mode	Yes
IR Range	20m
IR Setting	60 LEDs
Memory	SD Card (4GB - 32GB)
Operating Keys	7
Lens	F = 3.0, FOV 58°, Auto IR-Cut-Remove (at night)
PIR Angle	52°
LCD Screen	2.4° TFT, RGB, 262k
PIR Distance	20m (65 feet)
Picture Size	8MP/12MP/24MP = 3264x2448/4032x3024/5632x4224 (Transmitting image size: 640x480, 2560x1920)
Picture Format	JPEG
Shooting Numbers	1-5
Trigger Time	0.4s
Trigger Interval	4s-7s
Device Serial No.	Yes
Time Lapse	Yes
SD Card Cycle	ON/OFF
Operation Power	Battery: 9V, DC: 12V (optional AC power supply is available)
Battery Type	8AA
External Solar DC - Optional	12V solar charger
Stand-by Current	0.165mA
Stand-by Time	6 months (12×AA)
Auto Power Off	In Setup mode, camera will automatically power off in 3 minutes if there is no touching of the keypad.
Interface	USB/SD Card/DC Port
Mounting	Strap (included)
Operating Temperature	-25°C to 60°C
Storage Temperature	-30°C to 70°C
Operation Humidity	5% to 90%
Waterproof Spec	IP66
Dimensions	128×96×76mm
Weight	260g
Certification	CE FCC RoHs

Specifications are subject to change without prior notice.

APP Installation

Step 1: Add Camera to the App Account

1. Download and install the app on your phone by scanning the app QR code below, or by searching **"TrailCam Ace"** in the AppStore/Google Play.

2. Please use a valid email address to register, then activate the account through the email you recieved from **trailcam@wuyuantech.net**, and log in.
3. Install the camera's antenna, the SD card (up to 32GB), and 8pcs of AA batteries.
    a. The SD card and batteries are not included.
    b. The camera is installed with the SIM Ace card.
4. Switch the Power Button to the **"SETUP"** position, wait about 10-15 seconds. Then, enter "Menu > Other > QR Code" to get the camera's unique QR code.

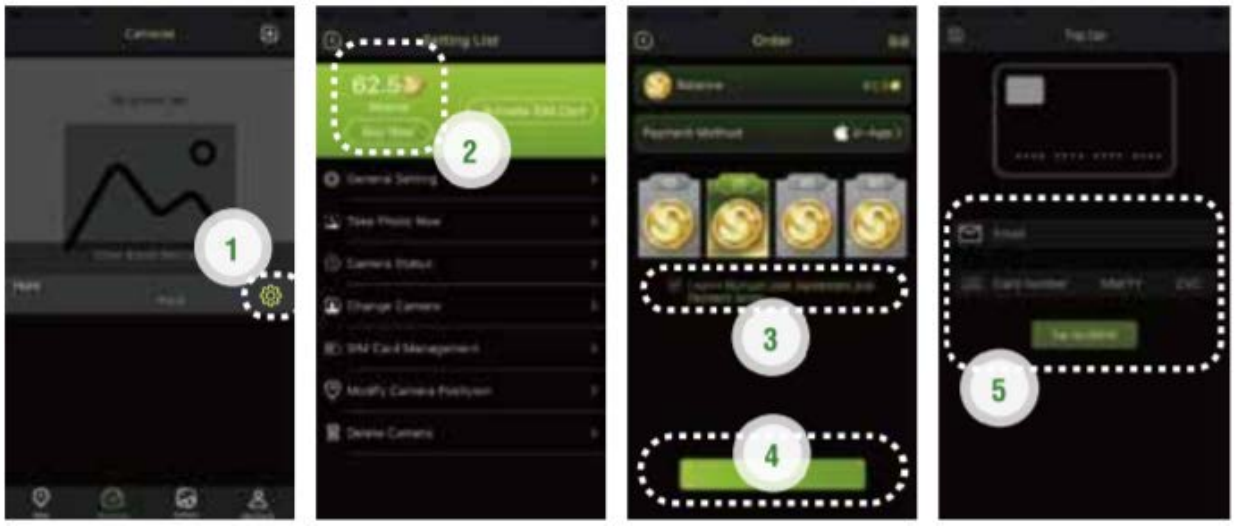
5. Click the "Add Camera > Next" buttons in the app and scan the camera's QR code to add the camera to your app account.

    a. For SIM Ace users, please follow step 2.1.
    b. For non-SIM Ace users, please follow step 2.2.

Step 2.1: Choose your Data Plan (For SIM Ace Users)

1. Go to the app's homepage screen and click the cog icon ( ) to enter the camera settings page.
2. Choose "Refill" to top up $10 USD/EUR, then exit to the camera settings page. Alternatively, you can log in to our website (pay.wuyuantech.com) to top up your account.

*You will recieve a top-up notification by email.



3. Click the "Activate SIM Card" button to choose your preferred data plan.

Step 2.2: Get Credits (For Non-SIM Ace Users)

1. Every new camera comes with 1000 free credits, which you can find in **"APP > Account > Credits"**.

2. The Camera will connect to a 4G network automatically after a SIM card is inserted.

If a message pops up reading **"SIM Automatch failed, please enter the setup manually"**, please enter the manual selection menu under **"Cam Menu > 4G Set Up > Manual"**. Then, enter the correct 4G APN, corresponding user name and password.

Note: It is not necessary to enter a Username and Password of the APN. Some operators may require this password to set up a connection to their 4G network though. Please reach out to your operator to get this confirmed/denied.

Step 3: Start Using the Product

1. Turn off the camera, then switch the Power Button to the **"SETUP"** position. Wait about 10-15 seconds until the screen shows 4G signal bars.
2. Press the "OK" button to také a photo, wait about 30 seconds and the photo will be sent to your app.
3. Switch the Power Button to the "ON" position. The camera indicator light will flash 5 times before it enters auto work mode.

Troubleshooting

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 sources are in the camera’s field of view.
3. In some cases, setting 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 the camera on stable and immovable objects, i.e.: large trees.
5. At night, the motion detector may detect beyond the range of the IR illumination. Reduce the distance setting by adjusting sensor sensitivity.
6. Rising sun or sunset can trigger the sensor. Camera must be reoriented.
7. If a person/animal moves quickly, it may move out of the camera’s field of view before a photo is taken. Move the camera further back or redirect the camera.

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, the camera will stop taking images. The user can turn on Cycle Recording to avoid this problem.
2. Check batteries to make sure that alkaline, or NiMH AA batteries power level 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 the 4G function is on, there will be an approximately 1 minute long interval for the camera to send out a photo before the camera shoots the next photo. Pull out the SIM card, the camera can then shoot photos continuously.
5. Please format the SD card with camera before using or when camera stops taking images.

Night Vision Flash Range Doesn’t Meet Expectations

1. Please check to make sure that the batteries are fully charged or that there is enough power in the batteries for use.
2. “Max Range” offers better IR flash range. Given that the IR flash range values are based on Max Range setting, please adjust Night Mode to Max Range for better night vision flash range.
3. High-quality 1.2V NiMH rechargeable AA batteries can also offer a much better IR flash range. Alkaline batteries cannot deliver enough amperage to power the illuminator consistently at night.
4. To ensure accuracy and quality of night time image, please mount the camera in a dark environment without any obvious light sources.

5. Certain surroundings (like trees, walls, ground, etc.) within flash range can get you better night time images. Please do not aim camera to a total open field where there is nothing within IR flash range to reflect flash back. It would be like shining a flashlight into sky in night, you couldn't see anything, the camera can neither.

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, setting 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.