

Infrared Mobile Digital Scouting Camera

User Manual
SG880MK-18mHD

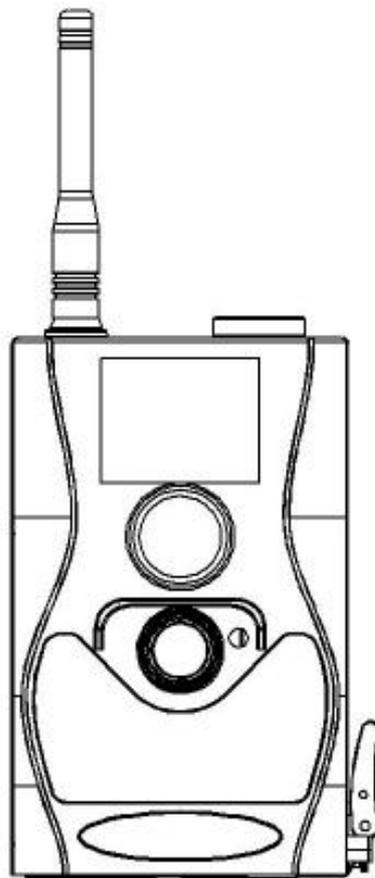
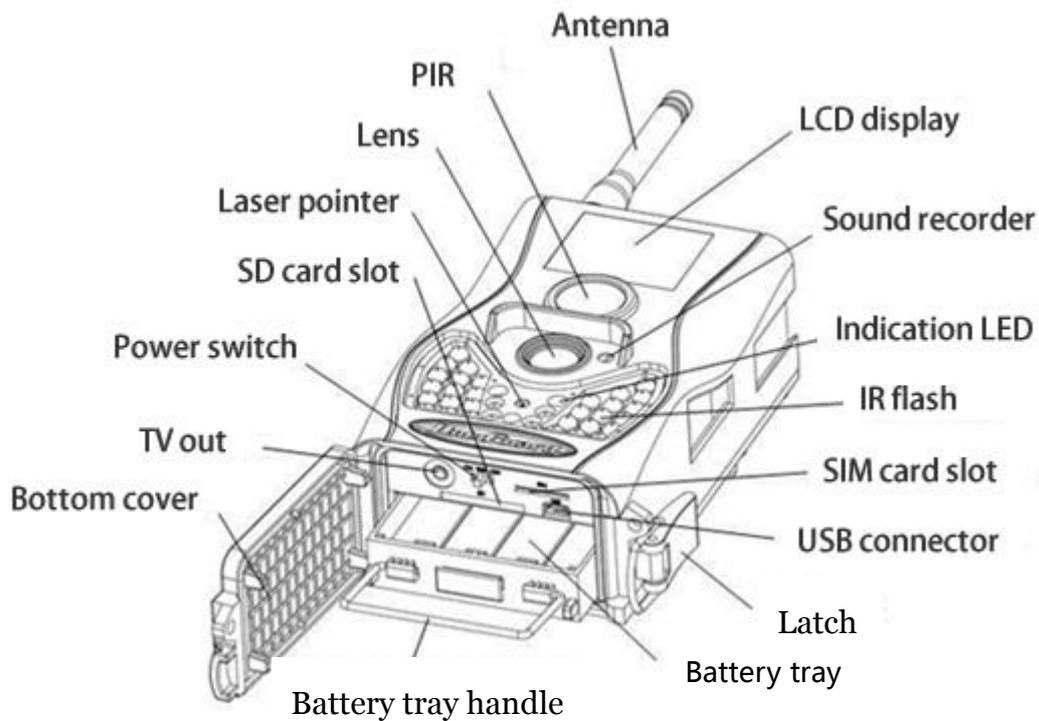


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1. Getting Started



When mounting the camera outdoors, use the strap that was included with the camera. Periodically clean the camera lens and PIR sensor to avoid dust build up that can reduce picture quality and check to make sure the mounting strap is not loose.

2.Camera Operations

2.1 Batteries/ Power Supply

The camera is powered by four or eight AA batteries - High-density, high-performance alkaline, rechargeable Alkaline or NiMH batteries are recommended,each battery need 1.5V. When the batteries are low, the indication LED will blink twice then the camera will automatically shut down.

A DC 6-Volt, 2 Amp external power supply adapter can also be used to power the camera (not included).

2.2 SD Card Information

To take full advantage of the latest technologies, we recommend Class 10 SD cards or better, which have fast transfer speeds and long durability for extensive shooting in the most extreme outdoor conditions. Secure Digital High Capacity (SDHC) PRO cards work with SDHC compatible devices only. Please check that your product is compatible with SDHC cards.

•Insert the SD card into the camera before turning on the camera

This camera supports up to a 32GB capacity SD

card and has no built-in internal memory. The camera will not function without the SD card properly inserted into the camera.

- **Make sure the SD card is unlocked before inserting the SD card into the camera**

The camera will power off with a locked SD card inserted.

- **If you experience any problems with an inserted SD card**

Try reformatting the SD card, utilizing the camera's main settings option.

2.3 SIM Card Information

- **Insert the SIM card into the camera before turning on the camera**

The camera SIM slot is sized for a standard SIM card. If you have a nano or micro size SIM card, utilizing a SIM card adapter (included with most of our cameras) will be required to connect your camera to the cellular network.

Note: The camera will still function without a SIM card. The SIM card is needed only for the wireless/cellular capabilities.

2.4 Camera Modes

The different modes are accessed by sliding the power switch to the different positions marked on the camera:

●OFF Mode

Turns the camera off. The camera will still consume a small amount of power while in OFF mode. It is recommended to remove the batteries if the camera will not be used for a long period of time.

●TEST/SETUP Mode

Customize the camera settings, or play back pictures and videos the camera has taken on the LCD display.

●ON Mode [Hunting Mode]

Camera will take pictures or video when motion is detected and/or at specific time intervals, according to the programmed settings. After switching the camera to the ON position, the motion indicator LED (red) will blink for about 10 seconds and then turn off. This preset time allows you to adjust the cameras position if needed, before the camera becomes active.

2.5 Trigger Modes

There are 3 different trigger modes for the camera: PIR Trigger/Sensitivity, Time Lapse, and a

combined PIR/Time Lapse mode. These modes are activated by three different menu options (PIR Trigger/Sensitivity, PIR Interval, and Time Lapse).

PIR Trigger/Sensitivity: The camera will activate when motion is detected. If the PIR Trigger/Sensitivity option is set to OFF, the camera will not respond to any motion within the camera's range.

Time Lapse: The camera will activate at the set time interval regardless of motion detection. If the Time Lapse option is set to OFF, this trigger function will be disabled.

Combined PIR/Time Lapse: For the combination of both PIR and Lapse triggering, the following settings must be set correctly:

- PIR Trigger/Sensitivity must **NOT** be set to OFF
- The Time Lapse interval must be set to a non-zero value.

The camera will capture pictures or video when motion is detected and at the preset time, regardless of motion detection.

Additional PIR settings to note:

PIR Interval

This setting indicates how long the PIR sensor will be disabled after each camera triggering. During

this interval time, the camera will not react to any detected motion or activate at the scheduled Time Lapse interval.

Further detailed information about the trigger modes can be found in section 3.2 of the manual.

2.6 Manual Image / Video Capturing

Place the camera in ON mode and press ► on the remote to manually capture photos or record video. Press ► again to stop capturing video.

2.7 Manage Images and/or Videos

Place the camera in TEST/SETUP Mode and press **OK** on the remote to view images or videos. The latest image or video will be shown on the LCD screen.

To view:

Press ▲ or ▼ to view the previous or next image or video. Press **OK** to start a video.

To delete:

Press **OK** on the remote in Test/Setup Mode to access the pictures and videos. Press the **MENU** key to enter into Playback mode. Press the ▲ or ▼ keys to find the Delete option. Press **OK** when the Del One option is selected. Press **OK** again to confirm you want to delete the picture or video.

2.8 Sending Images

Images can be sent directly to your wireless device or email, based on the Send Mode settings. Email and wireless device information need to be set up while the camera is in TEST/SETUP Mode in the Menu options. Images can only be sent when a correctly setup SIM card is recognized, installed and the wireless signal strength is adequate.

Send Mode settings will dictate how often you want pictures sent to you and the options “Daily Report” and “Instant” will only be active when the camera is in the ON mode. You can find more detailed information on the Send Mode options in section 3.6.

2.9 Laser Pointer

The laser light pointer beam can be activated to assist in the camera’s positioning by pressing * on the remote control.

NOTE:

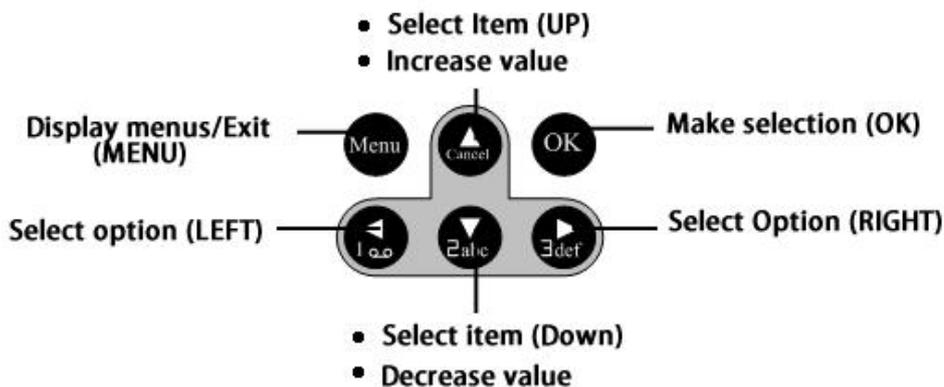
Do not point laser at people. There is danger of physical harm if shined into eyes.

3 Camera Setup Settings and Display

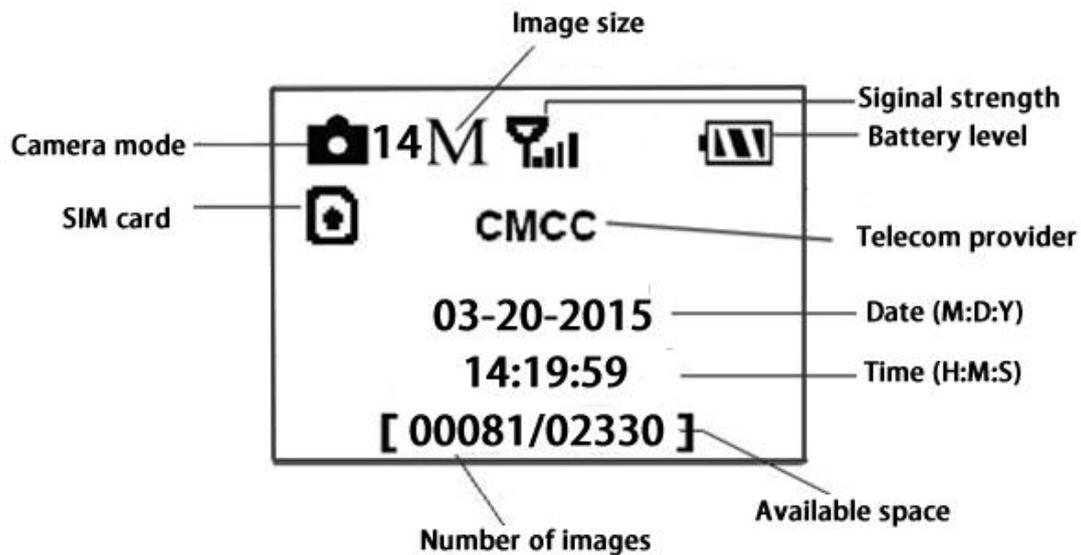
The remote control is required for initial setup and changing any camera settings. When powering on the camera, please allow 10-20 seconds for the camera to recognize the remote. An icon on the LCD screen will appear once the camera has recognized the remote. The maximum detectable range for the remote is 30 feet. The remote will not work properly without the antenna attached to the camera.

3.1 Settings Interface & Display

To update the camera settings, slide the power switch to the TEST/SETUP position.



When the camera is in TEST/SETUP Mode, the screen will activate and display the following:



3.2 Mobile Communication

The camera can receive and respond to commands sent via SMS, MMS, GPRS and the Apple or Android application, as long as the camera is correctly connected to a wireless carrier.

Supported wireless carrier bands:

GSM (MHz): 850, 900, 1800, 1900

WCDMA (MHz): 850, 900, 1900, 2100

To enable the SMS functionality using the mobile application, complete the following steps.

- Place the camera in Test/Setup Mode and go into the menu Setup options
- Set SMS control to ON

For MMS and GPRS functionality, the following

menu Setup options will need to be set:

- MMS set
- GPRS set
- Send to Phone

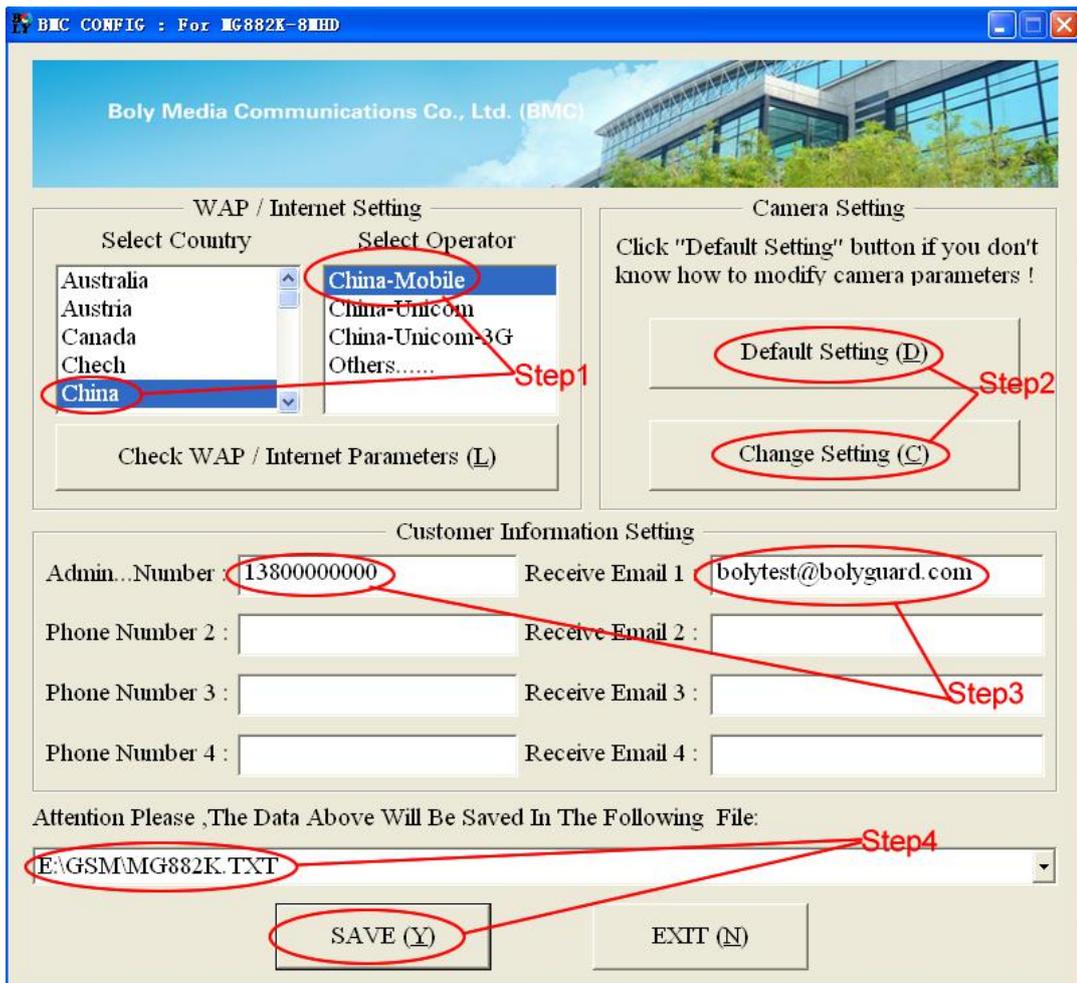
The settings for these options vary between service providers. You will need to contact your SIM service provider for specifics on these settings.

3.3 Camera Setup Software

For easier camera setup, download the camera setup application (BMC_config.zip), along with the instructions from our website (bolymedia.com)

Select the camera you are going to use through the drop down window.





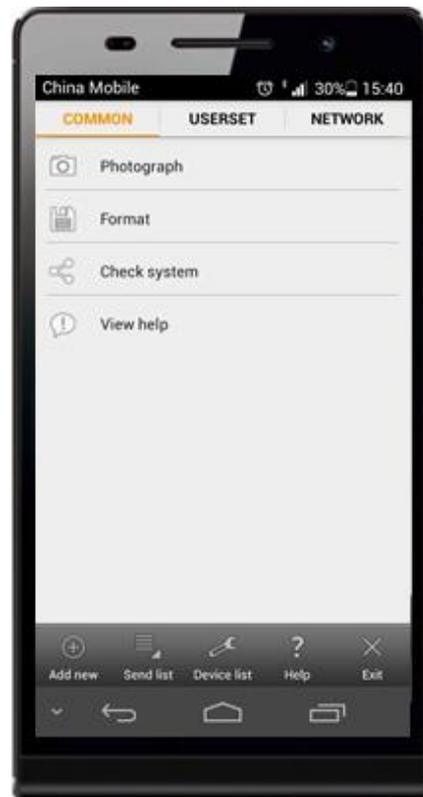
First, select your country and carriers (step1) according to your SIM card and input your receiving phone number in “administrator number” and receiving e-mail address in “ Receive Email 1 ” (step3). For first time use, we suggest you to use default settings (step2), any settings you want to change, please click “Change Setting”

Please note save the txt file in the root directory of GSM folder of SD card after all settings being done (step4), the file will automatically disappear once camera is turned on.

3.4 Mobile Applications

When the camera is switched to the ON mode, you can change some of the basic camera settings through the mobile application. The mobile application is currently supported by Android and Apple devices. Charges or fees may be incurred through your cellular provider when sending text messages to the camera.

For **Android**, you can download the application directly from our website: (<http://www.bolymedia.com/index/Support>)



For **Apple**, search BGTools in the official Apple Apps store.

3.5 SMS Command List

Note: Only the Admin phone number is able to send SMS commands to the camera - The Admin number is the first phone number you enter in the software setup outlined in 3.3 of the manual

No	Function	SMS Command
1	Set Supper User	#SG88oMK-18mHD#0518#13800138000# (#Model Name#0518#Admin phone number#)
2	Set MMS Parameters	#m# http://mmsc.cingular.com #66.209.11.32#8080#wap.cingular# account#password# (The example parameters are for the carrier of AT&T)
3	Set GPRS Parameters	#s# bmctest123@163.com #bmc123#25#cmnet#smtp.163.com#account#password# (The example parameters are for 163 email)
4	Set Normal User's Phone	#n#13800138001#13800138002#13800138003#
5	Set Receive Email Address	#r#bmc1@sina.com#bmc2@sina.com#bmc3@bmc3@sina.com#
6	Get On Spot Photo	#t# (Send MMS to phone) #t#e# (Send picture to Email by GPRS)
7	Check Camera Settings	#L#
8	Edit Work Parameters	#e#cp#s5#fh#b1#v60#t#l10m#pn#i5s#Hon08:30-20:30 (cp: camera mode, s5:photo size, fh: video size, b1:photo burst,

		V60: video length, t: set clock, l10m: time lapse, pn: pir trigger, i5s: PIR interval, mp: send to, Hon: work hour)
9	Format SD Card	#F#
10	Help	#H#
11	Change Password	#P#1234# (1234 New Password)
12	Query Battery Power	#C#

Note all sms commands are only available by admin number, each camera has only one admin number.

3.6 Camera Setup Options

To view the camera settings menu, press **MENU** in **TEST** mode. With the remote, use “▲” or “▼” key to select the sub-menu, use “◀” or “▶” key to select the different options. Press “OK” to save the settings.

After changing EACH setting in TEST menu you must press “OK”, otherwise the camera will stay at the default setting.

Setting Items	Description
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Language	Choose language you need. It supports four languages: English, Finnish, German, Swedish. Default:English
Camera Mode	Choose capturing Photo, Video or Pic+Video. Default:Photo
Set Clock	Set camera date and time. You can change the date and time of the device by setting this parameter when necessary, e.g., after every battery change. The date format is month/day/year , the time format is hour: minute: second . The valid value for year is between 2009 and 2050.
Photo Size	Choose the image size, e.g. 18 mega pixels, 12mega pixels or 5 mega pixels. Default:18MP
Photo Burst	Choose the continuous shooting numbers after each triggering. Default:1
Video Size	Choose the video size: 1920x1080, 1280x720 or 640x480. Default:1920x1080
Video Length	Choose duration of recording video. This parameter is effective and can be adjusted only when the device in the video mode under ON mode. Its value extends from 5 to 60 seconds with a

	<p>step of one second. The default value is 10 seconds. Press LEFT and RIGHT to decrease or increase the value by 1 second.</p> <p>Default:10 sec</p>
<p>Time Lapse</p>	<p>Time lapse means the camera can capture images or videos at a preset time interval regardless of whether motions are detected. The default parameter is Off, which means the timer function is disabled. Changing this parameter to a non-zero value turns on the Time Lapse mode, and camera will take photos at given time interval.</p> <p>Please note that if the PIR Trigger is set to Off, then the Time Lapse can't be set to Off.</p> <p>Default:off</p>
<p>PIR Trigger</p>	<p>Choose sensitivity of the PIR sensor. This parameter defines the sensitivity of the PIR. There are four sensitivity parameters: High, Normal, Low and Off. The default value is “Normal”. The higher degree indicates that the Camera is more easily to be triggered by motion, taking more pictures or recording more videos. It is recommended to use high sensitivity degree in room or environment with little interference, and to use lower</p>

	<p>sensitivity for outdoor or environment with lots of interference like hot wind, smoke, near window etc. Furthermore, the sensitivity of the PIR is strongly related to the temperature. Higher temperature leads to lower sensitivity. Therefore it is suggested to set a higher sensitivity for high temperature environment.</p> <p>Please note that if the Time Lapse is set to Off, then the PIR Trigger can't be set to Off.</p> <p>Default:Normal</p>
<p>PIR Interval</p>	<p>This parameter indicates how long the PIR (Passive Infrared motion sensor) will be disabled after each triggering in ON mode. During this time the PIR of the device will not react to the motion of human (or animals). The minimum interval is 0 second, it means the PIR works all the time. The maximum interval is 1 hour. It means the PIR will be disabled for 1 hour after each triggering. Press LEFT or RIGHT to decrease or increase the value.</p> <p>Default:5Sec</p>
<p>Work Hour</p>	<p>Choose a time period of a day to let the camera work. The camera will awake at the setting time duration in a day. In the rest of the time the</p>

	<p>camera is sleeping. Set Work Hour as off means the camera works all day. Default:off</p>
MMS Set	<p>The camera sends MMS message through GPRS network, so before using this function, you need to open GPRS service from your service provider. You should set the right MMS setting parameters. The settings of MMS: URL, APN, IP and Port. Please contact the network service provider if you are not familiar with the settings.</p>
GPRS Set	<p>The camera sends image through GPRS network with SMTP protocol to an Email address. In this way the communication cost will be much cheaper in many countries. You should set the right GPRS setting parameters. The settings of GPRS: Email server port, APN and so on, please contact the network service provider if you are not familiar with the settings.</p>
Send Mode	<p>There are 3 sending modes: “Manual”works in TEST mode, “Daily report”and“Instant”work in ON mode. 1)“Manual”: Choose“Manual” in Test mode. Please ensure a SIM card is inserted</p>

properly; Please note, only photos can be sent, video information can't be sent in TEST mode.

2)“**Daily Report**”:

Daily Report works only in the ON mode, which means that the camera will report the summarized information at the preset time (if the preset time is, eg.20:00PM) on how many pictures it had taken per day. So, you will get a summarized text message with the last picture taken until 20:00PM.

If it is on Photo mode, the camera will send a MMS at the preset time. The MMS will show you the latest photo and the total qty of the pictures got taken. If it is on Video mode, the camera will send a SMS at the preset time. The SMS will show you how many video clips the camera has taken within 24 hours.

3) “**Instant**”:

Instant, just works in ON mode, which means the camera will send a MMS instantly after it captures a photo. You can choose the number of how many pictures you want it to send out per day.

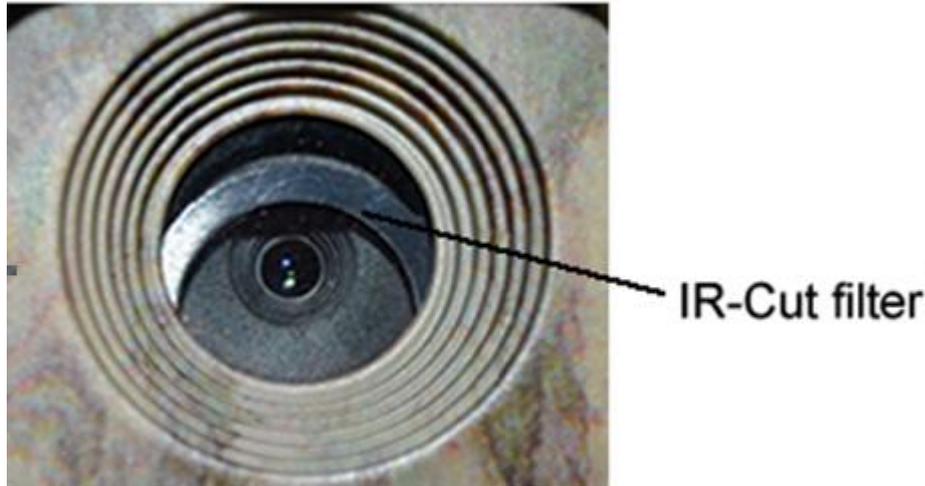
If it is on Photo mode and you chose the Instant MMS mode, and set

	<p>the MAX number is 10, the camera will send 10 MMS within 24 hours .And then it continues to capture photos and save them on the SD card. After 24 hours, the camera will send MMS again when it captures photos. If it is on Video mode, the Camera will send only SMS instead of MMS.</p> <p>4) “OFF”: To disable communication function.</p> <p>Default:Manual</p>
<p>Send To</p>	<p>Choose wh sending the image to your Phone or to Email.</p> <p>Phone[MMS]:Send the image to cell phone via WAP.</p> <p>Email[MMS]:Send the image to Email address via WAP.</p> <p>Email[GPRS]:Send the image to Email address via SMTP. In this way the communication cost will be much cheaper in many countries.</p> <p>Default:Phone[MMS]</p>
<p>SMS Control</p>	<p>SMS Control can enable two way communication function. It means if you choose SMS Control as ON, this camera can receive and respond to your SMS command. Also you can retrieve live pictures at any time. But the power consumption will be a little more than normal hunting status.</p>

	Default:Off
Position ID	It means camera position. You can set A-Z position for your camera, so that you can distinguish which photo is taken by which camera. Default:Off
Version	This parameter shows the information about Firmware and IMEI of this camera.
Format SD	Deletes all images and videos in the SD card. Make sure you have made a backup of important data before selecting this option.
Default Settings	Restore all customer settings to default values.

4 Trouble Shooting

1 There is something in front of the camera lens. Is the camera broken?



A: The camera is not broken. It's an IR-cut filter. When the camera is powered on, the IR-cut will be reset and cover the lens. Only when the camera is powered off, the IR-cut will be at a random place.

2 The camera display screen is not working anymore.

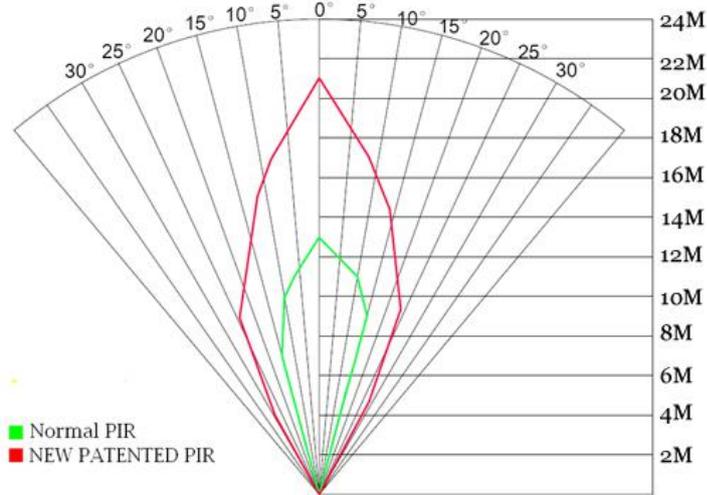
A: Most likely, no SD card has been inserted in the camera when it is turned on. Please make sure a working SD card has been inserted in the camera before it is turned on.

3 Why my phone can't receive MMS?

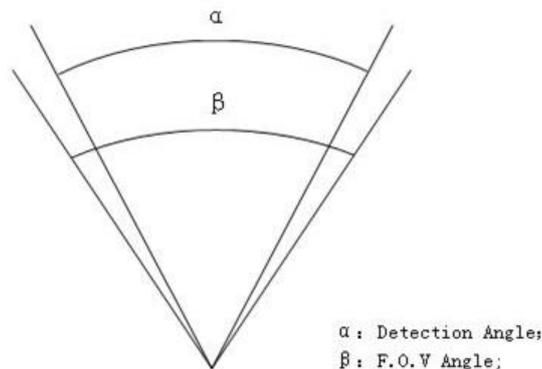
A: MMS/GPRS function needs the SIM cards in both your camera and phone to have enough balance and to be opened to data business.

5 PIR Detection Zone

This camera has a new design of PIR and the new PIR is patented. The new patented PIR's detection range can reach to 90ft in good environments. Following picture shows the compared detection zone between normal PIR and the new patented PIR.



The PIR detection angle (α) is just smaller than the field of view (FOV) angle (β). The advantage of this design is to reduce empty picture rate and capture most, if not all, motions.



6 Technical Specifications

Image Sensor	5MP Color CMOS, 12MP, 18MP Interpolation
Lens	F/NO=2.4 FOV(Field of View)=57°
PIR detection range	90ft
Display Screen	1.44" LCD
Memory Card	From 8 MB to 32 GB
Picture Resolution	18MP = 4864x3648 12MP = 4032x3024 5MP = 2560x1920
Video Resolution	1920x1080 ,1280x720,640x480
PIR Sensitivity	Adjustable (High/Normal/Low)
Trigger Time	1.2s
Weight	0.30 kg (without battery)
Operation/Storage Tem.	-20 - +60°C / -30 - +70°C
Power Supply	8xAA or 4xAA External DC 6V,2A
Low Battery Alert	LED Indicator
Sound Recording	Available
Mounting	Rope/Belt/Python lock
Dimensions	140 x87 x55 mm
Operation Humidity	5% - 90%
Security Authentication	FCC, CE, RoHS

7 Parts List

Part Name	Quantity
Digital Camera	One
Wireless Remote	One
USB Cable	One
Belt	One
User Manual	One
Enhanced Antenna	One
Warranty Card	One

Download the camera setup software from here:

<http://www.bolymedia.com/index/Support>

For Mobile applications:

- Android: Visit our website @ www.bolymedia.com
- Apple: Download the authorized application using the Apple Apps online store.



Version 1.1