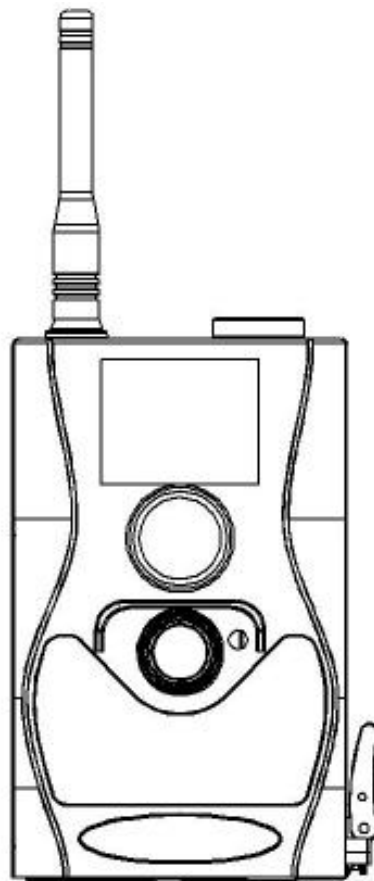


*Infrared Mobile Digital Scouting Camera*

***User Manual***  
***SG880MK-18mHD***

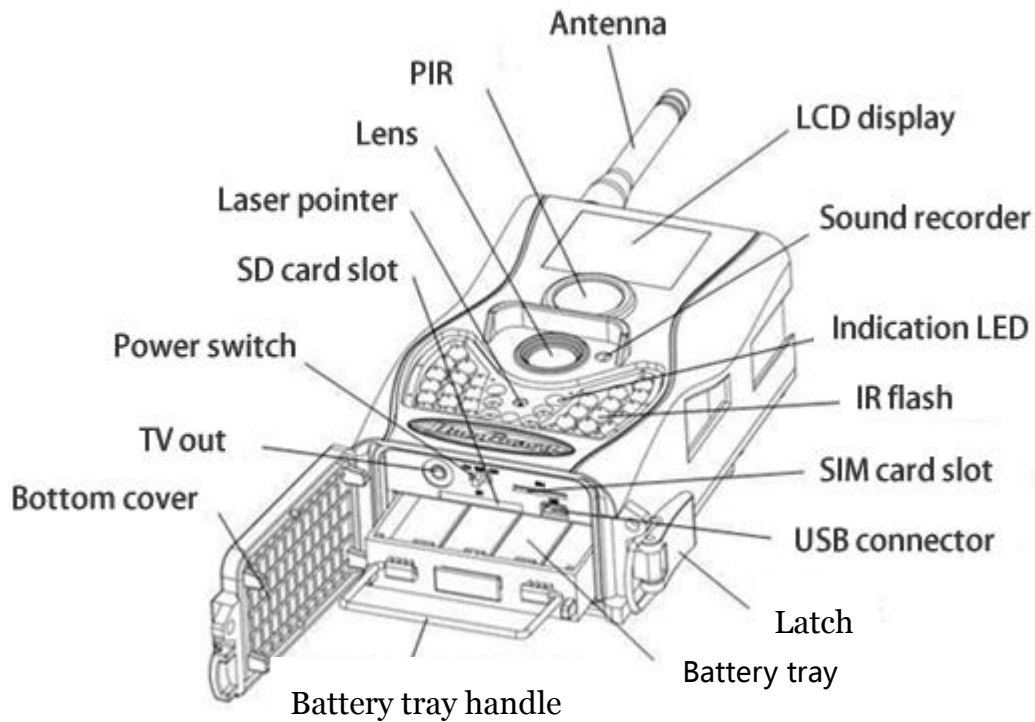




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# 1. Getting Started



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, which 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, rechargeable Alkaline or NiMH batteries are recommended. 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 if the SD card is not properly inserted.

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

The camera will power off if a locked SD card is inserted.

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

Try reformatting the SD card using the option in the camera's main settings.

## **2.3 SIM Card Information**

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

The camera SIM slot is designed for a standard size SIM card. If you have a nano or micro size SIM card, using a SIM card adapter (which is 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 ]

The camera will take pictures or videos 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 before the camera becomes active, if needed.

## 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 controlled by three different menu options (PIR Trigger/Sensitivity, PIR Interval, and Time Lapse).

**PIR Trigger/Sensitivity:** Controls how responsive the camera is to motion. 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 if motion is detected. 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 Time 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 videos when motion is detected and at the preset time, regardless of if motion is detected at that time.

### **Additional PIR settings to note:**

#### **PIR Interval**

This setting indicates how long the PIR sensor will be disabled after it is triggered. During this time



interval, 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 recording 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 a different image/video:**

Press ▲ or ▼ to view the previous or next image or video. Press **OK** to play videos.

### **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 in the Menu options while the camera is in TEST/SETUP Mode. Images can only be sent when the wireless signal strength is adequate and a correctly setup SIM card is recognized and installed.

Send Mode settings will dictate how often you want pictures sent to you. 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:**

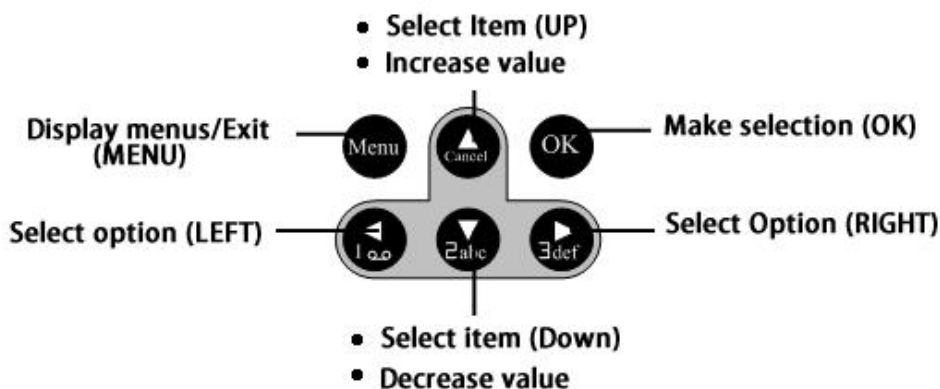
Do not point the laser at other people. There is a risk of physical harm if it is shined into the eyes.

## 3 Camera Setup Settings and Display

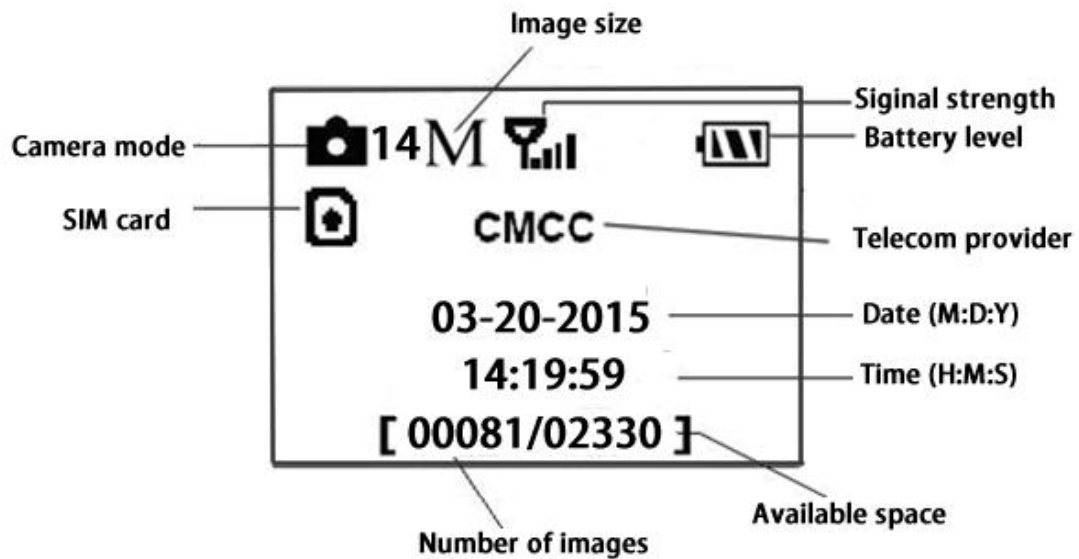
The remote control is required for the initial setup and for changing any camera settings. When powering on the camera, please allow 10-20 seconds for the camera to recognize the remote. An icon on the LCD screen will appear once the camera has recognized the remote. The maximum detectable range for the remote is 30 feet. The remote will not work properly if the antenna is not 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, GRPS, 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

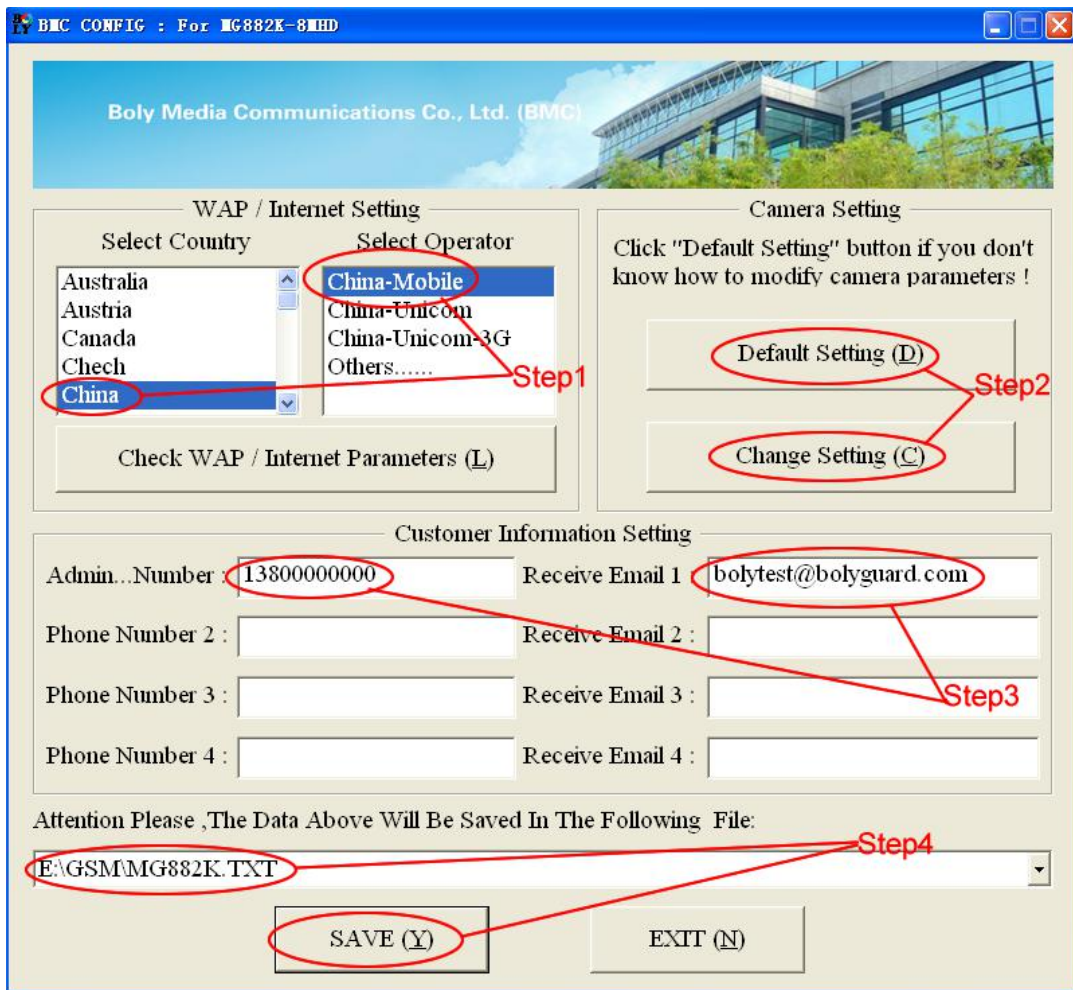
The settings for these options vary between service providers. You will need to contact your SIM service provider for specifics on these settings.

### 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](http://bolymedia.com))

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





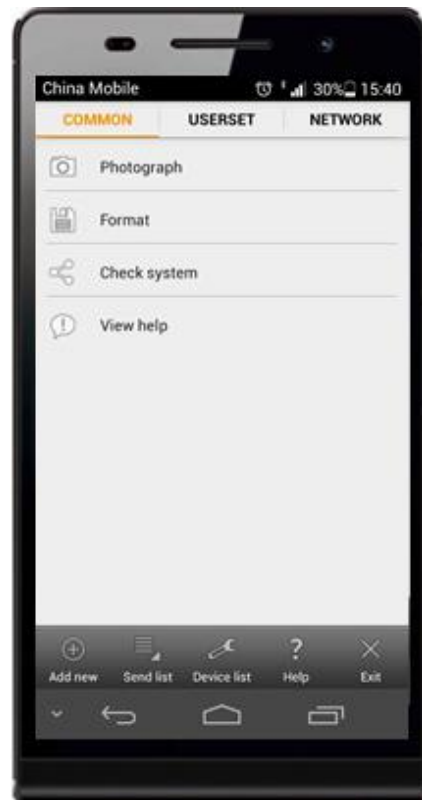
First, select your country and carriers (step1) according to your SIM card and input your receiving phone number in “administrator number” and receiving e-mail address in “ Receive Email 1 ” (step3). For first time use, we suggest you to use default settings (step2). If there are any settings that you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

Please save the txt file in the root directory of the GSM folder of the SD card after all the settings are set (step4); the file will automatically disappear once the 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 devices**, you can download the application directly from our website: (<http://www.bolymedia.com/index/Support>)



For **Apple devices**, search for the BGTools app 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 MMS Parameters	#m# <a href="http://mmsc.cingular.com">http://mmsc.cingular.com</a> #66.209.11.32#8080#wap.cingular#account#password# (The example parameters are for if your carrier is AT&T)
2	Set GPRS Parameters	#s#bmc123@163.com#bmc123#25#cmnet#smtp.163.com#account#password# (The example parameters are for if your email host is 163)
3	Set Normal User's Phone	#n#13800138001#13800138002#13800138003#
4	Set Receive Email Address	#r#bmc1@sina.com#bmc2@sina.com#bmc3@bmc3@sina.com#
5	Get On Spot Photo	#t# (Send MMS to phone) #t#e# (Send picture to Email by GPRS)
6	Check Camera Settings	#L#
7	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)
8	Format SD Card	#F#
9	Help	#H#

**Note: all SMS commands are only available for the 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 the “▲” or “▼” key to select the sub-menu, use the “◀” 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
<b>Language</b>	Choose language you need. It supports four languages: English, Finnish, German, Swedish. <b>Default: English</b>
<b>Camera Mode</b>	Choose capturing Photo, Video or Pic+Video. <b>Default: Photo</b>
<b>Set Clock</b>	Set the camera’s date and time. You should set this parameter when

	necessary, e.g., after every battery change. The date format is <b>month/day/year</b> ; the time format is <b>hour: minute: second</b> . Valid values for the year are between 2009 and 2050.
<b>Photo Size</b>	Choose the image size, e.g. 18 mega pixels, 12 mega pixels or 5 mega pixels. <b>Default: 18MP</b>
<b>Photo Burst</b>	Choose the number of continuous photos taken when the camera is triggered. <b>Default: 1</b>
<b>Video Size</b>	Choose the video size: 1920x1080, 1280x720 or 640x480. <b>Default: 1920x1080</b>
<b>Video Length</b>	Choose the duration of video recordings. This parameter is only active and adjustable when the device is on and in video mode. Valid values are between 5 and 60 seconds with a step of one second. The default value is 10 seconds. Press <b>LEFT</b> or <b>RIGHT</b> to decrease or increase the value by 1 second. <b>Default: 10 sec</b>
<b>Time Lapse</b>	Time lapse means the camera will capture images or videos at a preset time interval regardless of whether motion is detected. The default

	<p>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 the camera will take photos at the given time interval.</p> <p><b>Please note that if PIR Trigger is set to Off, then Time Lapse can't be set to Off.</b></p> <p><b>Default: off</b></p>
<p><b>PIR Trigger</b></p>	<p>Choose the sensitivity of the PIR sensor.</p> <p>This parameter defines the sensitivity of the PIR. There are four sensitivity parameters: High, Normal, Low and Off. The default value is “Normal”. A higher sensitivity means the camera is more responsive to motion. It is recommended to use high sensitivity in rooms or environments with little interference, and to use lower sensitivities for outdoor environments or environments with lots of interference like hot wind, smoke, being near a window, etc. Furthermore, the sensitivity of the PIR is dependent on the temperature. Higher temperature leads to lower sensitivity. Therefore it is suggested to set a higher sensitivity for a high temperature environment.</p>

	<p><b>Please note that if the Time Lapse is set to Off, then the PIR Trigger can't be set to Off.</b></p> <p><b>Default: Normal</b></p>
<b>PIR Interval</b>	<p>This parameter indicates how long the PIR (Passive Infrared motion sensor) will be disabled after being triggered in the ON mode. During this time the device will not react to motion. The minimum interval is 0 seconds, which means the PIR is always working. The maximum interval is 1 hour, which means the PIR will be disabled for 1 hour after being triggered. Press <b>LEFT</b> or <b>RIGHT</b> to decrease or increase the value.</p> <p><b>Default: 5Sec</b></p>
<b>Work Hour</b>	<p>Choose the time period when the camera is working each day. The camera will be active during the specified time period each day. During the rest of the time, the camera will sleep. Setting the Work Hour to off means the camera works all day.</p> <p><b>Default: off</b></p>
<b>MMS Set</b>	<p>The camera sends MMS messages through a GPRS network, so before using this function, you need to open a GPRS service from your service</p>

	<p>provider. You should set the right MMS parameters for the settings: <b>URL, APN, IP</b> and <b>Port</b>. Please contact your network service provider if you are not familiar with these settings.</p>
<p><b>GPRS Set</b></p>	<p>The camera sends images through a GPRS network with the SMTP protocol to an Email address. This way, the communication cost will be much cheaper in many countries. You should set the right GPRS parameters for the settings: Email <b>server port, APN</b> and so on. Please contact your network service provider if you are not familiar with these settings.</p>
<p><b>Send Mode</b></p>	<p>There are 3 send modes: “Manual” works in TEST mode, whereas “Daily report” and “Instant” work in ON mode.</p> <p>1)“<b>Manual</b>”:  Choose “Manual” in Test mode. Please ensure a SIM card is inserted properly. Please note, only photos can be sent in this mode, video information can’t be sent.</p> <p>2)“<b>Daily Report</b>”:  Daily Report works only in the ON mode, which means that the camera will summarize at the preset time (if the preset time is, e.g. 20:00PM) how</p>

many pictures it had taken each day. So, you will get a summarized text message with the last picture taken before 20:00PM.

If it is in Photo mode, the camera will send a MMS at the preset time. The MMS will show you the latest photo and the total quantity of the pictures taken. If it is in 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 only works in ON mode. In instant mode, the camera will send a MMS immediately after it captures a photo. You can choose how many pictures you want it to send out each day.

For example, if it is in Photo mode and you chose the Instant MMS mode, and set the MAX number to 10, the camera will send 10 MMS within 24 hours. After sending the 10 messages, it will continue to capture photos and save them on the SD card. After 24 hours, the camera will begin sending MMS again when it captures photos. If it is in Video mode, the Camera will send SMS messages

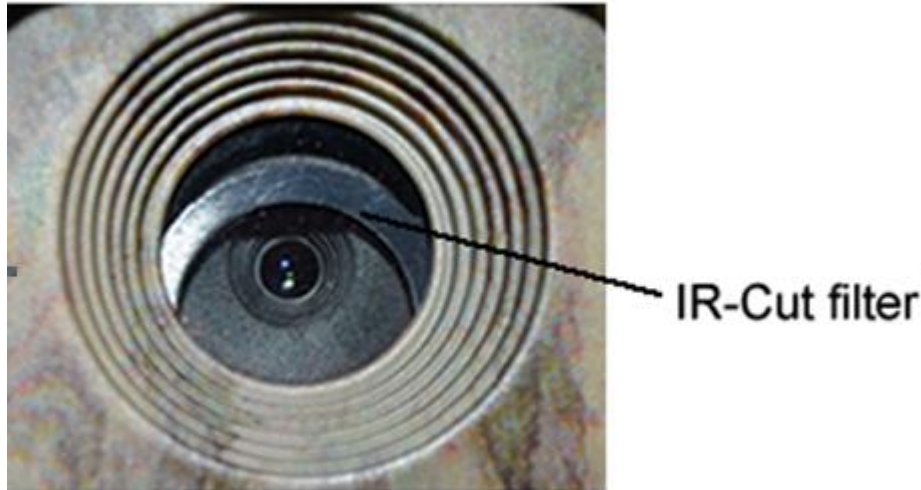
	<p>instead of MMS.</p> <p>4) “<b>OFF</b>”: Disables the communication function.</p> <p><b>Default: Manual</b></p>
<b>Send To</b>	<p>Choose whether to send the image to your Phone or to to your Email.</p> <p>Phone[MMS]: Send the image to your cell phone via WAP.</p> <p>Email[MMS]: Send the image to your Email address via WAP.</p> <p>Email[GPRS]: Send the image to your Email address via <b>SMTP</b>. This way, the communication costs will be much cheaper in many countries.</p> <p><b>Default: Phone[MMS]</b></p>
<b>SMS Control</b>	<p><b>SMS Control</b> can enable the two way communication function. If you turn <b>SMS Control ON</b>, the camera can receive and respond to your SMS commands. You can also retrieve live pictures at any time. However, the power consumption will be a little more than in the normal hunting mode.</p> <p><b>Default: Off</b></p>
<b>Position ID</b>	<p>Labels the camera position. You can set an A-Z position for your camera, so that you can distinguish which photo is taken by which camera.</p> <p><b>Default: Off</b></p>
<b>Version</b>	<p>This parameter shows information</p>

	about the Firmware and IMEI of this camera.
<b>Format SD</b>	Deletes all images and videos in the SD card. Make sure you have made a backup of important data before selecting this option.
<b>Default Settings</b>	Restore all camera settings to the default values.



## 4 Troubleshooting

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



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

2 The camera display screen is not working anymore.

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

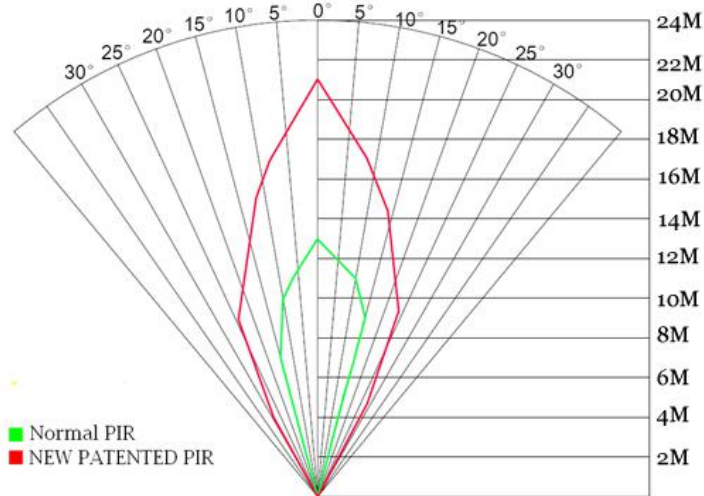
3 Why can't my phone receive MMS?

A: The MMS/GPRS function needs the SIM cards in both your camera and phone to have enough balance and have access to a data plan.

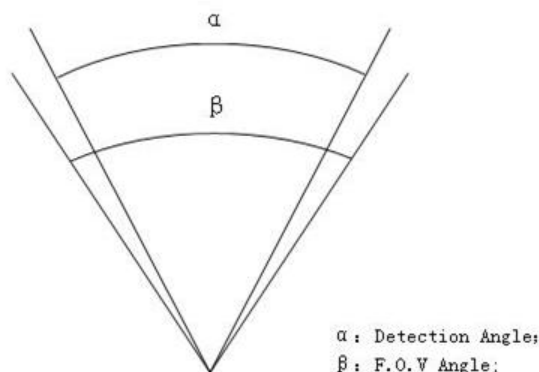


# 5 PIR Detection Zone

This camera has a new PIR design, which is patented. The new PIR's detection range can reach 90ft in good environments. The following picture compares the detection zone between the normal PIR and the new PIR.



The PIR detection angle ( $\alpha$ ) is barely smaller than the field of view (FOV) angle ( $\beta$ ). This design helps reduce the empty picture rate and capture most, if not all, motions.



## 6 Technical Specifications

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



Version 1.0