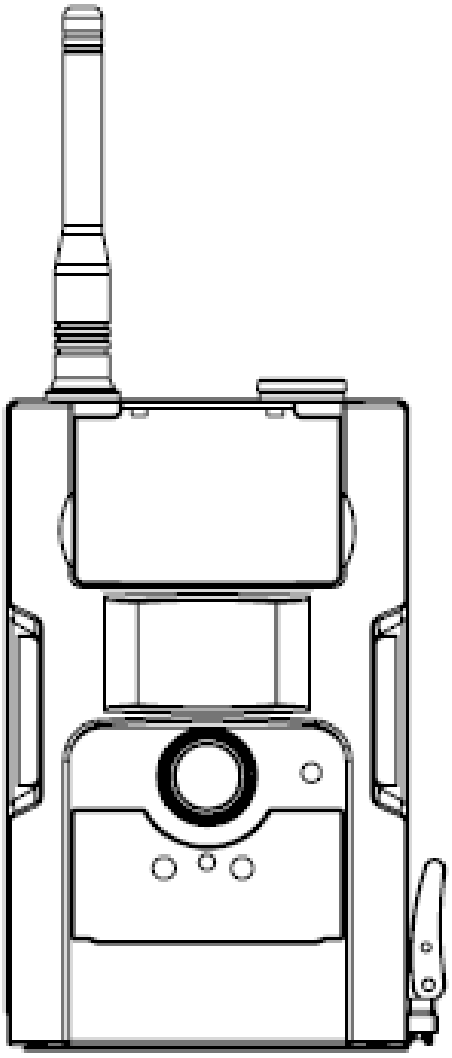
Infrared Mobile Digital Scouting Camera

User's Manual

MG883G-12mHD



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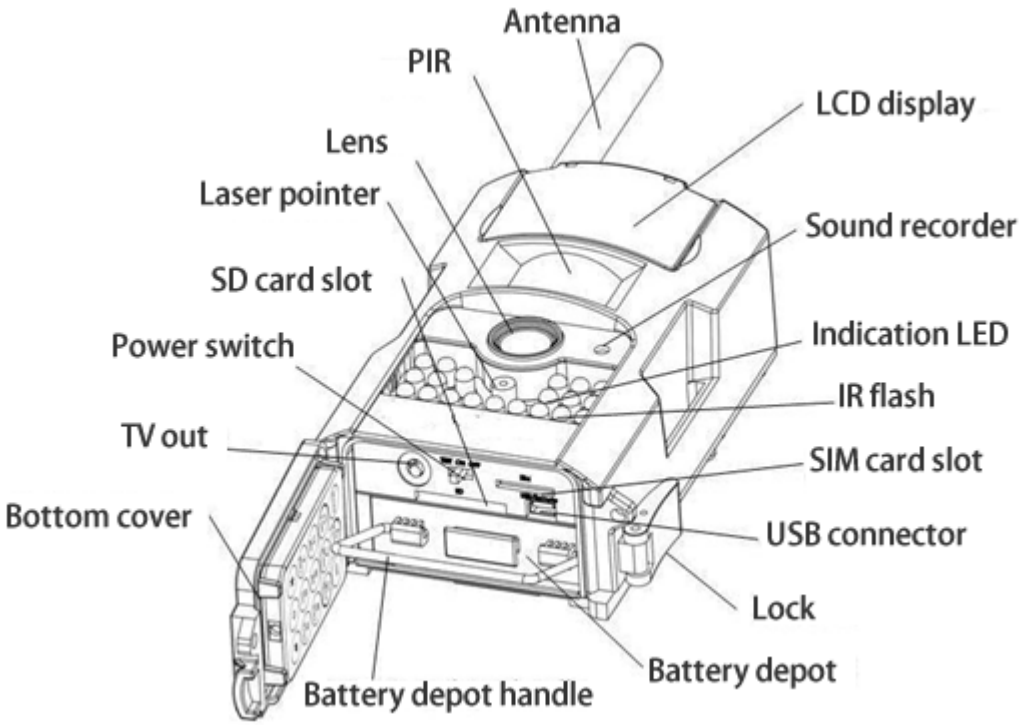
Content

1 Instruction.....1
1.1 Camera Body Interfaces.....1
1.2 General Description.....1
1.3 Remote Control.....2
1.4 Shooting Information Display.....3
1.5 Two Way Communication.....3
1.6 Cautions.....4
2 Quick Start Guide.....6
2.1 Power Supply.....6
2.2 Insert the SD card and SIM card.....7
2.3 Do the Camera Settings.....7
2.4 Enter into Test Mode.....8
2.5 Custom Settings.....9
2.6 Enter into On Mode.....9
2.7 SMS Control.....10
2.8 SMS Command List.....11
2.9 Power Off.....12
3 Item Settings.....13
3.1 Camera Menu.....13
3.2 Default Setting.....19
3.3 Playback Mode.....20
3.4 Laser Pointer.....21
4 Trouble Shooting.....22
5 PIR Detection Zone.....23
6 Technical Specifications.....24
7 Parts List.....25

1 Instruction

1.1 Camera Body Interfaces



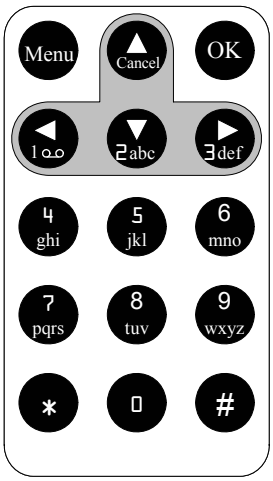
1.2 General Description

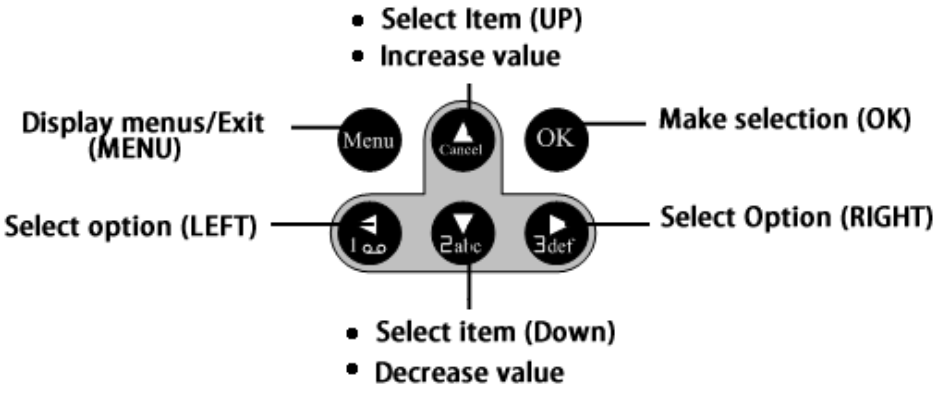
This camera, a digital scouting camera with black IR and 3G communication function, is a digital infrared surveillance camera, triggered by any movement of humans or animals monitored by a high sensitive Passive Infrared (PIR) motion sensor, and then automatically captures high quality pictures or records video clips according to default settings or preset customer settings. It will then send the pictures instantly to your mobile device or e-mail via GSM/WCDMA network. You'll be alerted just when the camera is triggered or per custom

settings.
There is a 1.5” color LCD display screen on the camera and a sound recorder embedded in the camera. A laser pointer is used to help target the photo area of the camera.
It is resistant against water and snow. The camera can also be used as a portable digital camera.

1.3 Remote Control

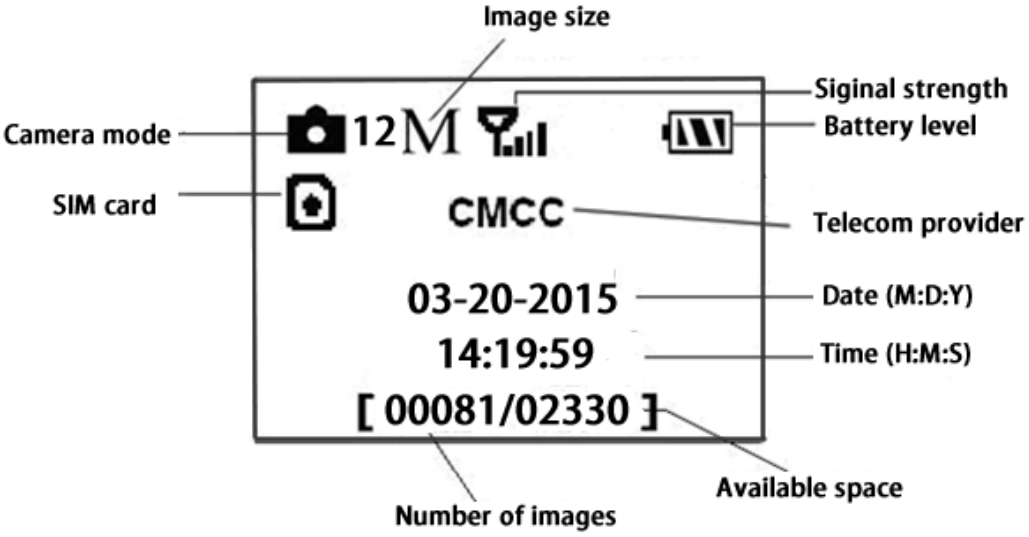
The remote control is the input device for the camera and is primarily used for customer settings. This is an infrared type wireless remote control. The maximum remote distance is about 30 feet.
Note:
The remote will not work properly without the antenna attached.
When power on the camera, allow approximately 10-20 seconds for the camera to acquire a signal. The remote will not function properly until the camera has acquired a signal. You can determine that the camera has acquired a signal by locating the signal icon on the LCD screen.
Press the punctuation “*” for laser pointer.





1.4 Shooting Information Display

When the camera is turned on (power switch is slid to TEST position), the current settings will be displayed on the screen.



1.5 Two Way Communication

You can set SMS control submenu as ON to open the two way communication function. Under this setting, the camera can receive and respond to your SMS command or the Android APP command. This camera can send pictures instantly to your mobile device via WCDMA/GSM network. You'll be alerted

just when a picture or video has been taken. The camera sends MMS or Email message through MMSC(MMS Service Center) or GPRS network, so before using this function, you need to open MMS and GPRS service from your service provider. It supports following bands:**GSM with 850MHz, 900MHz, 1800MHz and 1900MHz；WCDMA with 850MHz, 900MHz, 1900MHz and 2100MHz**.

SIM card Icon：There are two SIM card icons which stand for different installation situations. means the SIM card is inserted and it works well. means the MMS function can't work correctly because of loss of signal or other communication issues.

1.6 Cautions

★The working voltage of the camera is 6V.The camera is supplied by 8 AA batteries or DC power adapter with output of 6V. Please install batteries according to shown polarity.

★Please insert the SD card when the power switch is in the OFF position before testing the camera. The camera has no internal memory for saving images or videos. If no SD card is inserted, the camera will shut down automatically after a continuous indication beep.

★Please do not insert or take out the SD card when the power switch is in the ON position.

★It is recommended to format the SD card by the camera when used for the first time.

★The camera will be in USB mode when connected

to a computer. In this case, the SD card function is as a removable disk.

★In TEST mode, the camera will shut down automatically after 3 minutes if no operation is done. Please turn on the power again if you want to continue to work with the camera.

★The normal operate position is more than 20cm

2 Quick Start Guide

2.1 Power Supply

To supply power for the camera, four or eight size AA batteries are needed.

1. High-density and high-performance alkaline batteries (Recommended)
2. Rechargeable alkaline batteries
3. Rechargeable NiMH batteries

When in a low-battery state, the camera will be automatically shut down after two indication sounds. Please change the batteries at this time. If you have set the MMS function, it will send you a SMS or Email to indicate the low battery situation.

Caution: Risk of explosion if battery is replaced by an incorrect type. Also dispose of used batteries according to the instructions.

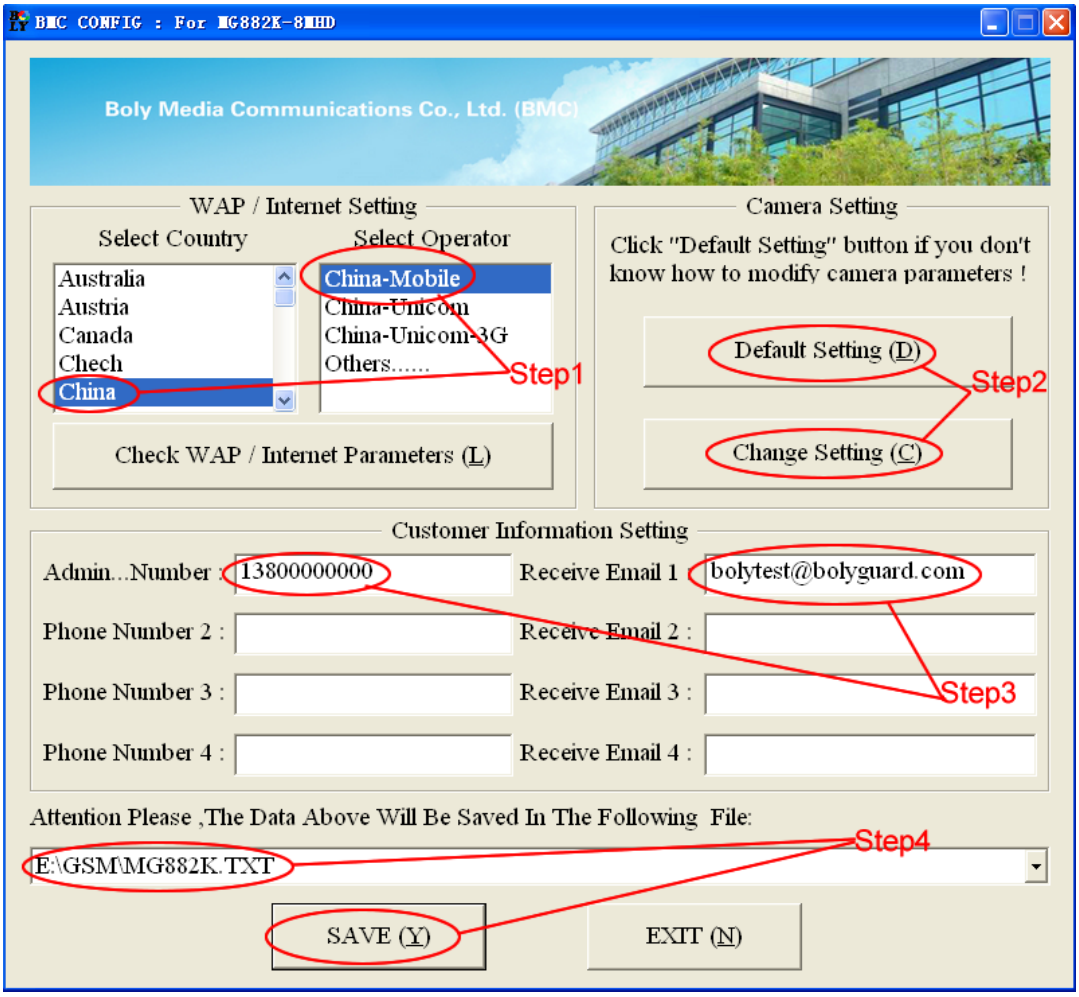
Correct Disposal of this product. This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

2.2 Insert the SD card and SIM card

Open the bottom cover. Insert SD card and SIM card into the card slot. Please note that the SD card is on the “write” (not locked) position otherwise the camera will not function correctly.

2.3 Do the Camera Settings

Down load the camera setup software (BMC_config.zip) with a simple instruction from our website. *The specified website is written in the last page of the manual.*



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.

2.4 Enter into Test Mode

Slide the power switch to the TEST position and

enter into TEST mode, default the camera in menu setting. There are some functions in TEST mode: custom settings, manual capture, preview or send MMS manually. The remote control is needed in this mode.

2.5 Custom Settings

Press **MENU** on the remote control to enter into the menu setting. The camera can be adjusted to manually customize the camera settings which display on the LCD screen of the camera.
You can press **RIGHT** key to manually capture photos or record a video and again **RIGHT** to stop a video after exit menu setting.
When **Send Mode** is set as “Manual”, you can send the selected photo (in playback mode by pressing **OK** to enter) to the preset address in TEST mode. ”Daily Report” and “Instant” mode are used in ON mode. Please note that the images can only be sent and video cannot be sent. If the SIM card is not inserted, the image cannot be sent as well.

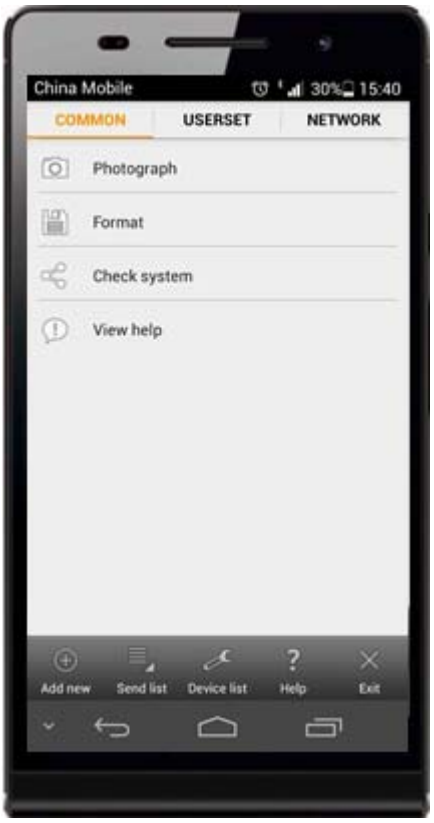
2.6 Enter into On Mode

Slide the power switch to the **ON** position to power on the camera and enter into the **ON** mode. Before entering into the ON mode, you can adjust the camera towards the target monitoring area by laser pointer (press * on the remote to control).
After switching on the camera, the motion indication LED (red) light will blink for about 10s.

The 10s is a buffering time before automatically capturing photos or videos, e.g. for closing and locking the bottom cover, fixing the camera on a tree and walking away.
The camera has the sound recording function, so the sound will be embedded in the video clip while capturing a video.

2.7 SMS Control

When camera is in ON mode, you can send text message to camera to change some settings. Besides, command of "#T#" can help you to get an on spot image. Also we support an Android application tool for you to send commands to the camera. But the APP will charge you an SMS fee for each command.
Down load the Android control software (BGTools.zip) from our website. For Iphone, just download it from the APP Store by searching BGTools.
The specified website is written in the last page of the manual.



2.8 SMS Command List

No	Function	SMS Command
1	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)
2	Set GPRS Parameters	#s#bmctest123@163.com#bmc123#25#cmnet#smtp.163.com#account#password# (The example parameters are for 163 email)
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	Set Administrator's Password	#P#0000#
10	Help	#H#

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

2.9 Power Off

Slide the power switch to **OFF** position to power off the camera. Please note that even in **OFF** mode, the camera still consumes a small amount of battery power. Therefore, please remove the batteries if the camera is not in use for a length of time.

3 Item Settings

3.1 Camera Menu

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
Language	Choose language you need. It supports four languages: English, Finnish, German, Swedish.
Camera Mode	Choose capturing Photo, Video or Pic+Video.
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. 12 mega pixels, 8 mega pixels or 5 mega pixels.
Photo	Choose the continuous shooting numbers

Burst	after each triggering.
Video Size	Choose the video size: 1280x720 or 640x480.
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 step of one second. The default value is 10 seconds. Press **LEFT** and **RIGHT** to decrease or increase the value by 1 second.
Time Lapse	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. **Please note that if the PIR Trigger is set to Off, then the Time Lapse can't be set to Off.**
PIR Trigger	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 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. **Please note that if the Time Lapse is set to Off, then the PIR Trigger can't be set to Off.**
PIR Interval	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.
Work Hour	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 camera is sleeping.

	Set Work Hour as off means the camera works all day.
MMS Set	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.
GPRS Set	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.
Send Mode	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 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 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. 4) “**OFF**”: To disable communication function.
Send To	Choose sending the image to your Phone or to Email. Phone[MMS]:Send the image to cell phone via WAP. Email[MMS]:Send the image to Email address via WAP. Email[GPRS]:Send the image to Email address via **SMTP**. In this way the communication cost will be much cheaper in many countries.
SMS Control	**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.
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.
Version	This parameter shows the information about Firmware and IMEI of this camera.
Format SD	All images and videos in the SD card will be deleted, so make sure that you have made a backup of important data.
Default	Restore all customer settings to default

Set	values.

3.2 Default Setting

Setting Items	Default	Options	Submenu
Language	English	Suomi Deutsch Svenska	
Camera Mode	Photo	Video Pic+Video	
Set Clock	Enter		Adjust Clock
Photo Size	12MP	5MP 8MP	
Photo Burst	1 Photo	2 Photos 3 Photos	
Video Size	1280x720	640x480	
Video Length	10 sec	5–60 sec	
Time Lapse	Off	5–55Min 1–8Hour	
PIR Trigger	Normal	High Low Off	
PIR Interval	5 Sec	0–55 Sec, 1–60 Min	
Work Hour	Off	On	00:00–23:59
MMS Set	Enter		URL, APN, IP, Port
GPRS Set	Enter		Server, Port,

			APN
Send Mode	Manual	Daily Report, Instant, Off	
Send To	Phone[MMS]	Email[MMS], Email[GPRS]	
SMS Control	Off	On	
Position ID	Off	A-Z	
Version	Enter		Firmware IMEI
Format SD	Enter		Yes, No
Default Set	Save		

3.3 Playback Mode

In playback mode, images or videos can be viewed and deleted. An image can also be manually sent by MMS or GPRS. It can only be done in TEST mode. The images can be viewed on the LCD screen on camera. The videos can only be viewed on your computer. For simplicity, operations with PC won't be introduced here.

View photo in playback mode: Press **OK** of the remote to view the latest picture in **TEST** mode, **UP**

or **DOWN** to view the previous and the next one. And **OK** to return to info display. Note that video can not be displayed on the screen.

Delete photo or video: View the image (or video) which to be deleted, select the one you want to delete. Press **MENU**, then **UP** or **Down** to delete.

3.4 Laser Pointer

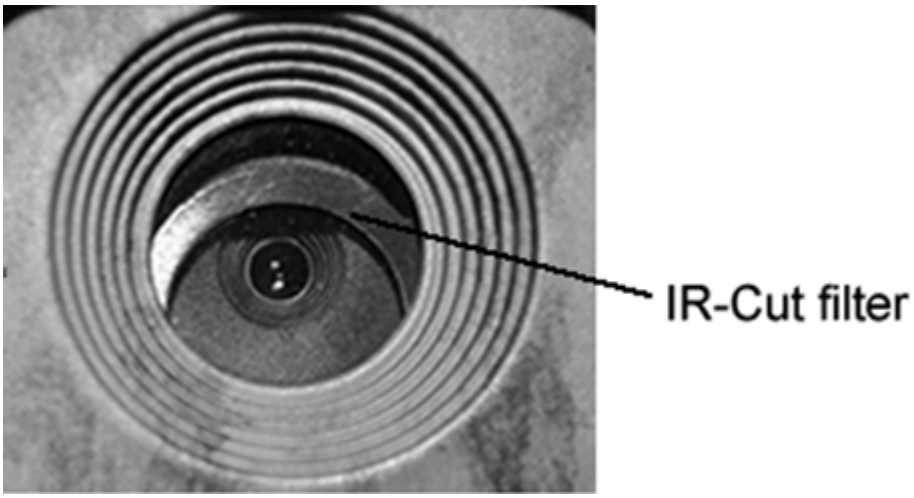
The laser light pointer beam can be turned on as an additional function for pointing to an object or a certain region of interested (ROI) by pressing * of the remote.

NOTE:

The laser could be harmful to eyes if pointed at other person.

4 Trouble Shooting

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



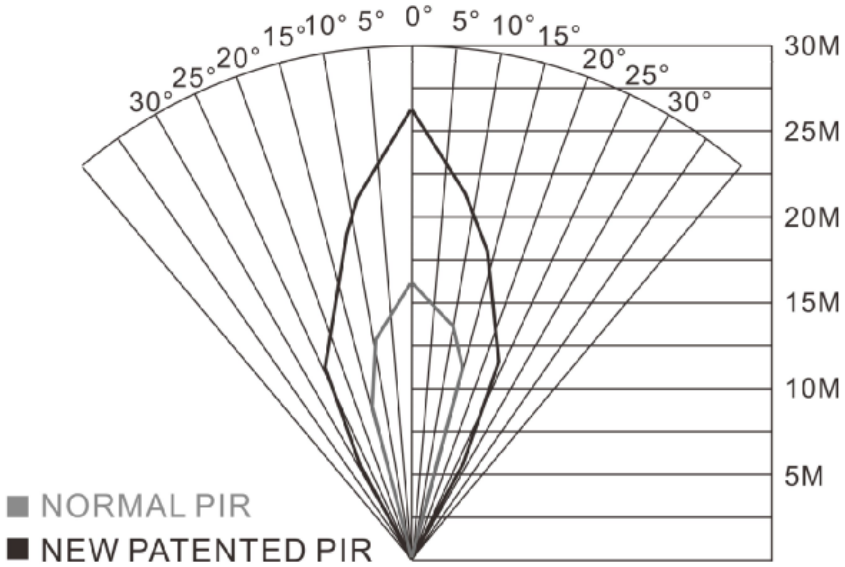
A: The camera is not broken. It's an IR-cut filter. When the camera is powered on, the IR-cut will be reset and cover the lens. Only when the camera is powered off, the IR-cut will be at a random place.

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.

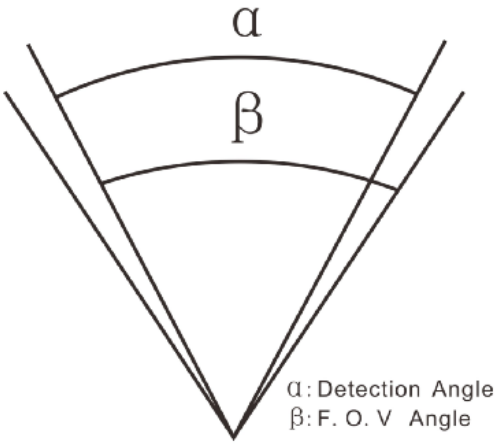
3 Why my phone can't receive MMS?
A: MMS/GPRS function needs the SIM cards in both your camera and phone to have enough balance and to be opened to data business.

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 85ft 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, 8MP, 12MP Interpolation
Lens	F/NO=2.2 FOV(Field of View)=60°
PIR detection range	85ft
Display Screen	1.5” LCD
Memory Card	From 8 MB to 32 GB
Picture Resolution	12MP=4032×3024 8MP = 3264×2448 5MP = 2560×1920
Video Resolution	1280x720 640×480
PIR Sensitivity	Adjustable (High/Normal/Low)
Trigger Time	1.2s
Weight	0.30 kg (without battery)
Operation/Storage Tem.	-20 - + 40°C / - 10 - + 50°C
Power Supply	8×AA or 4×AA 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	CE, RoHS

7 Parts List

Part Name	Quantity
Digital Camera	One
User Manual	One
Enhanced Antenna	One
Warranty Card	One

Down load the APP software from here:

http://www.bolyguard.com/download.html

Version 1.0

FCC RF EXPOSURE INFORMATION:

WARNING!! Read this information before using your phone

In August 1986 the Federal Communications Commission (FCC) of the United States with its action in Report and Outer FCC 96-326 adopted an updated safety standard for human exposure to radio frequency (RF) electromagnetic energy emitted by FCC regulated transmitters. Those guidelines are consistent with the safety standard previously set by both U.S. and international standards bodies. The design of this phone complies with the FCC guidelines and these international standards. Use only the supplied or an approved antenna. Unauthorized antennas modifications, or attachments could impair call quality, damage the phone, or result in violation of FCC regulations. Do not use the phone with a damaged antenna. If a damaged antenna comes into contact with the skin, a minor burn may result. Please contact your local dealer for replacement antenna.

Your wireless handheld portable camera is a low power radio transmitter and receiver. When it is ON, it receives and also sends out radio frequency (RF) signals. In August, 1996, the Federal Communications Commissions (FCC) adopted RF exposure guidelines with safety levels for hand-held wireless camera. Those guidelines are consistent with the safety standards previously set by both U.S. and international standards bodies:

<ANSIC95.1> (1992) / <NCRP Report 86> (1986) / <ICNIRP> (1999)

Those standards were based on comprehensive and periodic evaluations of the relevant scientific literature. For example, over 120 scientists, engineers, and physicians from universities, government health agencies, and industry reviewed the available body of research to develop the ANSI Standard (C95.1). Nevertheless, we recommend that you use a hands-free kit with your phone (such as an earpiece or headset) to avoid potential exposure to RF energy. The design of your camera complies with the FCC guidelines (and those standards).

Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the phone and may violate FCC regulations.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

The device has been evaluated to meet general RF exposure requirement. The separation distance between the user and the antenna of the device is 20 cm.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help

Do not use the device with the environment which below minimum -10℃ or over maximum 50℃, the device may not work.

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.