

MG984G Series user manual

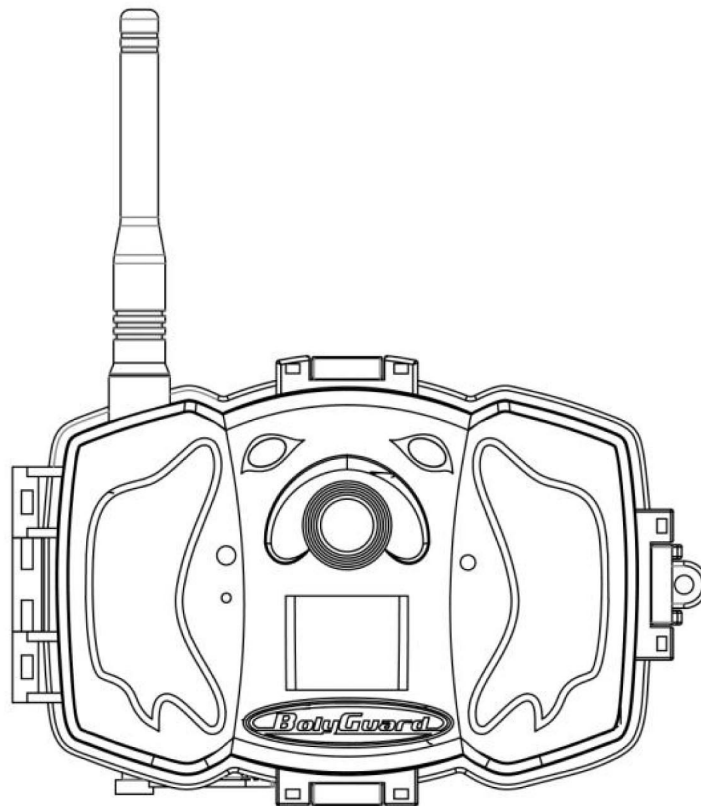
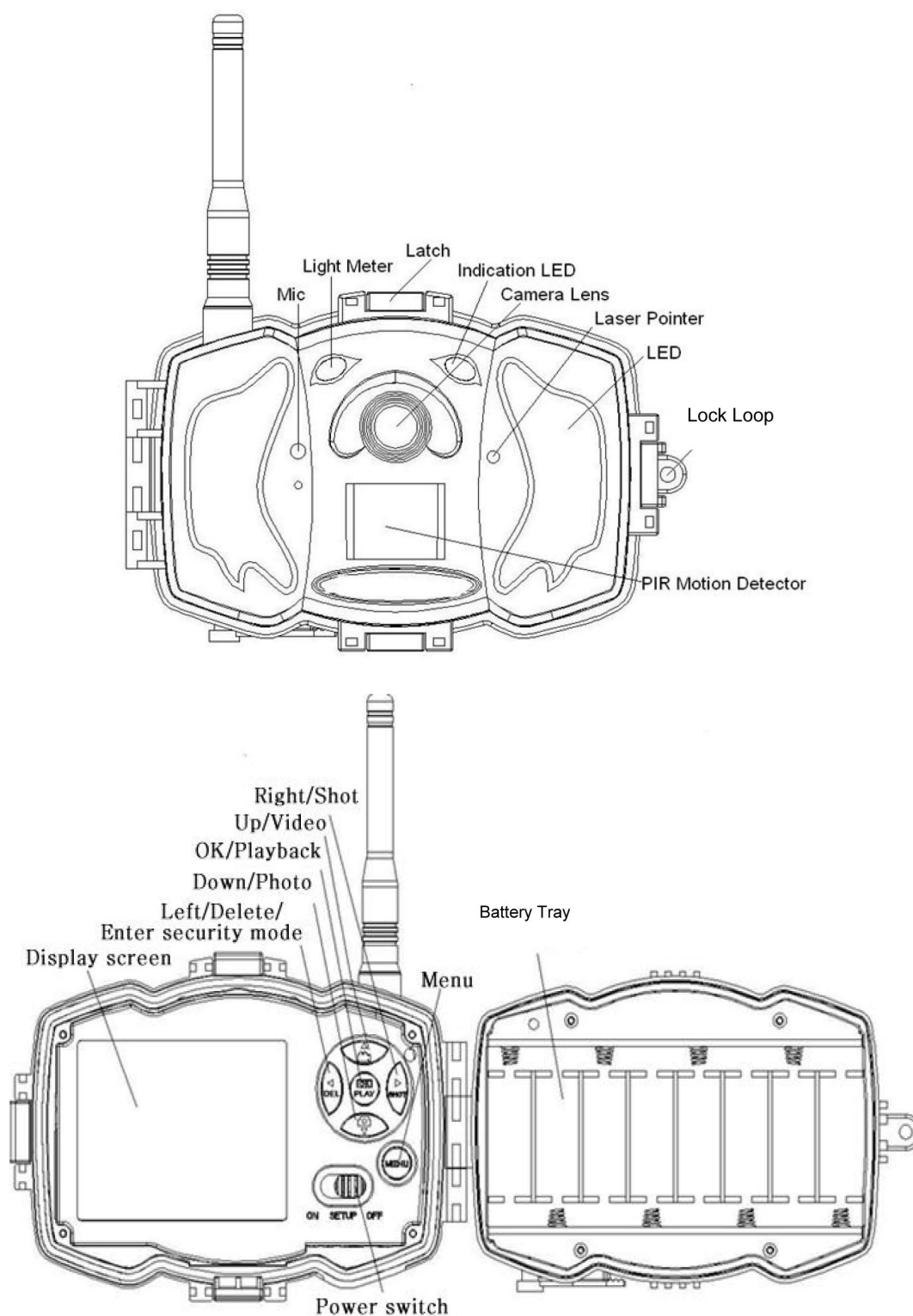
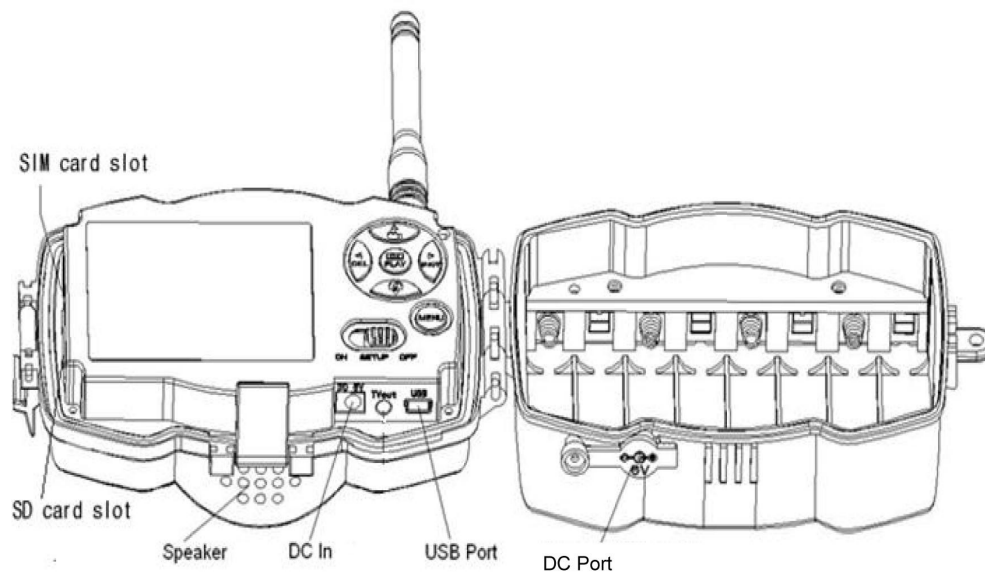


Table of Contents

1. Getting Started.....	1
2. Camera Operations.....	3
2.1 Batteries / Power Supply.....	3
2.2 SD Card Information.....	3
2.3 SIM Card Information.....	4
2.4 Camera Modes.....	5
2.5 Manual Image / Video Capturing.....	6
2.6 Manage Images and/or Videos.....	6
2.7 Sending Images via MMS or GPRS.....	7
2.8 Trigger Modes.....	8
3. Camera Setup Settings & Display.....	10
3.1 Settings Interface & Display.....	10
3.2 Mobile Communication.....	11
3.3 Camera Setup Software.....	12
3.4 Mobile Applications.....	14
3.4.1 User Level.....	15
3.4.2 BG Tools Usage Instructions.....	16
3.5 Camera Setup Options.....	20
4. Detection Ranges – PIR Detection Zones.....	25
5. Technical Specifications.....	26
Appendix : Parts List.....	27

1. Getting Started





This camera, a digital scouting camera with communication function, is a digital infrared surveillance camera, triggered by any movement of human or animal monitored by a high sensitive Passive Infrared (PIR) motion sensor, and then automatically captures high quality pictures (up to 30M pixels) or records video clips (1080 FHD).

MG984G-30M: It sends picture instantly to your mobile device or video (less than 10M) to your e-mail via GPRS network.

MG984G-V: It can only send pictures to your e-mail via GPRS network.

You'll be alerted just when the camera is triggered or per custom settings. It takes color pictures or videos under sufficient daylight. While at night, the built-in infrared LEDs can help to take clear pictures or videos.

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. 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 Manual Image / Video Capturing

Place the camera in TEST/SETUP mode and press “▶/SHOT” to manually capture photos or record video. Press “▶/SHOT” again to stop capturing video.

2.6 Manage Images and/or Videos

Place the camera in TEST/SETUP mode and press “OK/Play” 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 in Test/Setup Mode to enter into Playback mode and access the pictures and videos. 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.

2.7 Sending Images via MMS or GPRS

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. Images can only be sent when a correctly setup SIM card is recognized, installed and the wireless signal strength is adequate.

You have the options of email MMS, email GPRS, Phone MMS in the internet tab of the camera settings. Videos will be send less than 10M. (The MG984G-V only have one option:**email GPRS**)

To manually send a photo:

- Put the camera in TEST/SETUP mode
- Wait for the camera to acquire a network signal and the SIM card to be recognized

⬆ indicates the SIM card is recognized by the camera.

✗ indicates the SIM card is not recognized by the camera or the SIM card is not working due to connection/activation issues.

- Take a manual photo by pressing the SHOT button or press OK to view the photos stored on the camera
- Find the picture you want to manually send
- Press the MENU button to pull up the Send To: option that is currently set in the camera settings
- Press OK again to send the picture

Send Mode settings will dictate what time 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.

2.8 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.

- If PIR Trigger/Sensitivity and Time Lapse options are BOTH OFF, the camera will not capture any photos or videos.

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 *Camera Setup Options* section of the manual.

3. Camera Setup Settings & Display

3.1 Settings Interface & Display

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

To navigate the menus, utilize the following built-in buttons:

MENU: Enter the program menu in Preview Mode

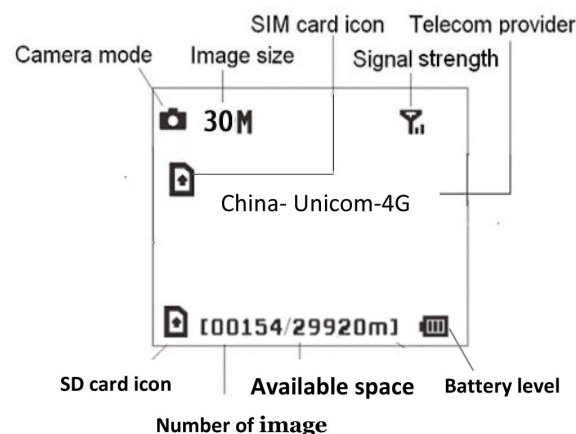
▲▼▶◀ : Selecting menu options

OK / PLAY: Save parameter settings and play videos


DEL / ◀: to delete an image or video

SHOT / ▶: Capture a photo or record a video manually

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



 indicates the SIM card is recognized by the camera.

 indicates the SIM card is not recognized by the camera or the SIM card is not working due to connection/activation issues.

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.

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 network settings (varies depending on carrier) (not available for MG984G-V)
- GPRS network settings (varies depending on carrier)
- Send to Phone option :
MG984G-30M:MMS or GPRS
MG984G-V:GPRS

*The MMS functionality is not available for MG984G-V. The settings for the network 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 basic instructions from our website

Open the software and select camera mode:



STEP 1: Select your country and carrier.

STEP 2: Check WAP/Internet Parameters:

Fill out the required fields (marked with an asterisk).

Input Email server such as “smtp.gmail.com” or “smtp.bolymedia.com.”

NOTE: If your email uses encryption techniques, select the corresponding protocol. Such as using Gmail as sending email, You should select SSL to ensure the success of sending mail.

BMC CONFIG : For MG983G-30M

Boly Media Communications Co., Ltd. (BMC)

Step 1 WAP / Internet Setting

Select Country Select Operator

Australia
Austria
Canada
China
China HongKong

China-Mobile
China-Unicom
China-Unicom-3G
Others.....

Step 2 Check WAP / Internet Parameters (L)

Step 4 Customer Information Setting

Admin...Number : 150XXXX1234 Receive Email 1 : bolyguard@bolymedia.com ☒ *

Phone Number 2 : 150XXXX1234 Receive Email 2 : admin_2@bolymedia.com

Phone Number 3 : Receive Email 3 : bolyguard@gmail.com

Phone Number 4 : Receive Email 4 :

Attention Please , The Data Above Will Be Saved In The Following File:

E:\GSM\MG983G-30M.TXT

Step 5

Camera Setting

Click "Default Setting" button if you don't know how to modify camera parameters !

Step 3

WAP / Internet Parameters

Current WAP / Internet Parameters As Follows, You Can Modify Highlighted 4 Items If Necessary !

WAP Setting

MMS URL : http://mmsc.monternet.com *

MMS APN : cmwap PORT : 80 *

MMS IP : 10 . 0 . 0 . 172 *

ACCOUNT :

PASSWORD :

Internet Setting

SEND EMAIL ADDR : bolyguard@bolymedia.com *

SEND EMAIL PWD : ***** *

SEND EMAIL SERVER : smtp.bolymedia.com *

GPRS APN : cmnet PORT : 80 *

GPRS ACCOUNT :

GPRS PASSWORD :

Advanced Setup

SMTP Server

☐ Enable encryption (E)

☐ This service requires SSL (S)

☐ This service requires STARTTLS (T)

STEP 3: Choose between default or manual settings. For first time use, we suggest using the default settings.

STEP 4: Input the phone number of the phone to receive/send the remote commands and images in the “administrator number” field and email address in “Receive Email 1” field (This is NOT the phone number of the inserted SIM card that resides in the camera).

STEP 5: Save the .txt file in the GSM folder of SD card after all settings are complete.

If your country or SIM card provider is not listed, select “Others”. You will need to ask the SIM card provider for their specific MMS URL, MMS APN, Port, MMS IP, Account, Password, GPRS APN, GPRS account, GPRS password. For email sending, your email service provider will be able to provide the send email server and port settings.

Note: Once the SD card is inserted into the camera and the camera is turned on, this file will automatically be uploaded to the camera and be deleted from the SD card.

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. There are currently apps 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 search **BGTools** from Google store
- For Apple, search BGTools in the official Apple Apps store.

3.4.1 User Level

There are two user authorization levels for this feature: administrator and normal users.

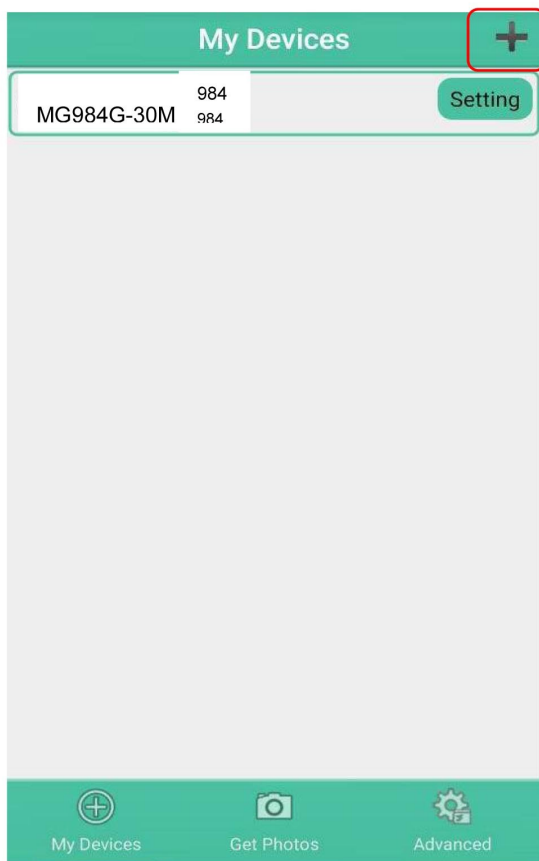
Functions	User Level
Set administrator phone number	Only administrator's password
Set administrator's password	administrator
Set camera parameters	administrator
Set normal user	administrator
Receive emergency calling	administrator, normal user
Send SMS for on spot picture	administrator
Receive MMS when triggered	administrator, normal user

3.4.2 BG Tools Usage Instructions

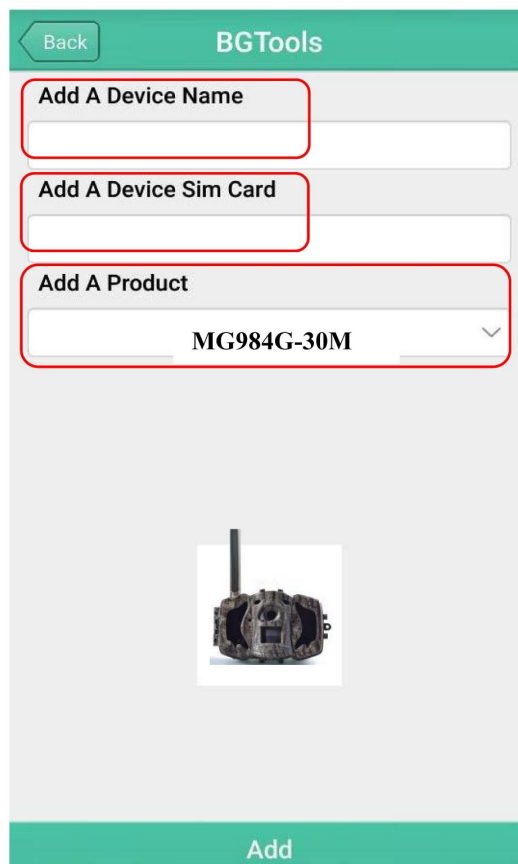
It's easy to use the Android APP to communicate with the camera, so you don't need to edit the SMS. You just need to click the button to finish the operation.

STEP 1: Open the BG Tools app, click on the icon  add a new device.

STEP 2: ① Input a name for you camera ② Input your SIM card number which is inserted in your camera. ③ Choose your camera model number, then click "Add".



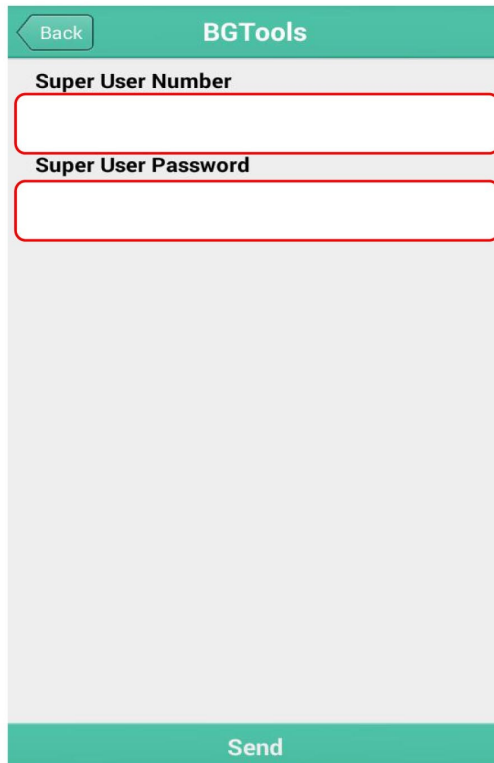
STEP 1



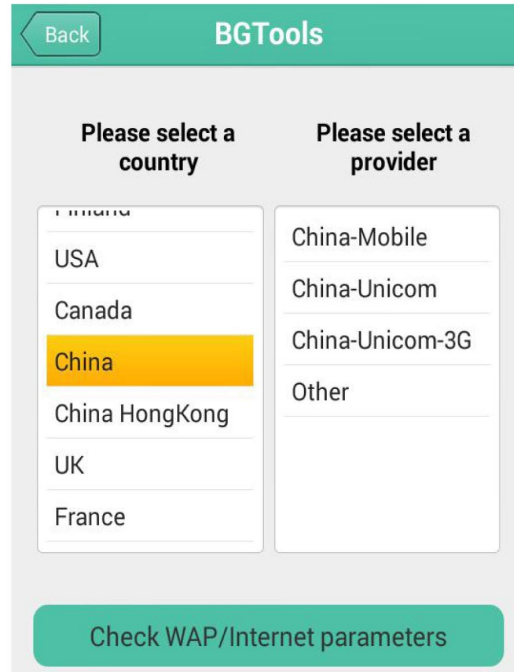
STEP 2

STEP 3: Set super user number and password. For the first time use the super user password is 0518. (The Super User number is the SIM card number which is inserted in your mobile phone).

STEP 4: In the step 3 Click "send", then choose the country and provider according to your SIM card (which is inserted in your camera). Then Click "Check WAP/Internet Parameters" to check whether you have all parameters filled in. The "User name and User Password" is your MMS name and password.

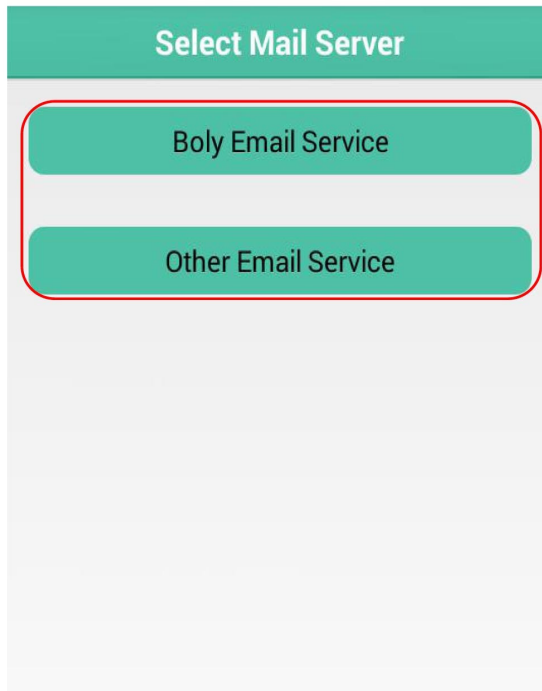


STEP 3

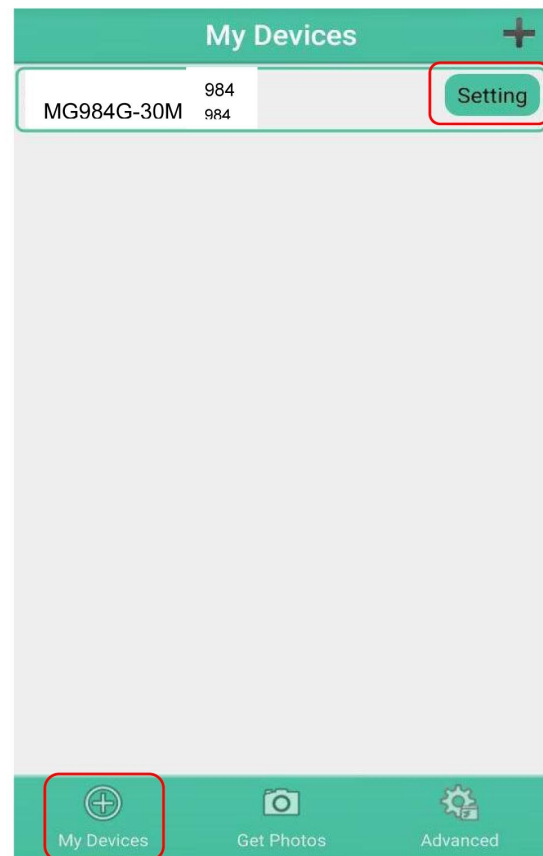


STEP 4

STEP 5: Select Mail Server: Boly Email or Other Email.
Select "my device" you can add or delete a device.
STEP 6: Select "Setting" to set users parameters or set to default.



STEP 5



STEP 6

STEP 7: Select “Get Photos” means you can get a photo from your camera device. There are two ways:
Cellphone: Send MMS to phone (*not available for MG984G-V*)

Email : Send to email by GPRS.

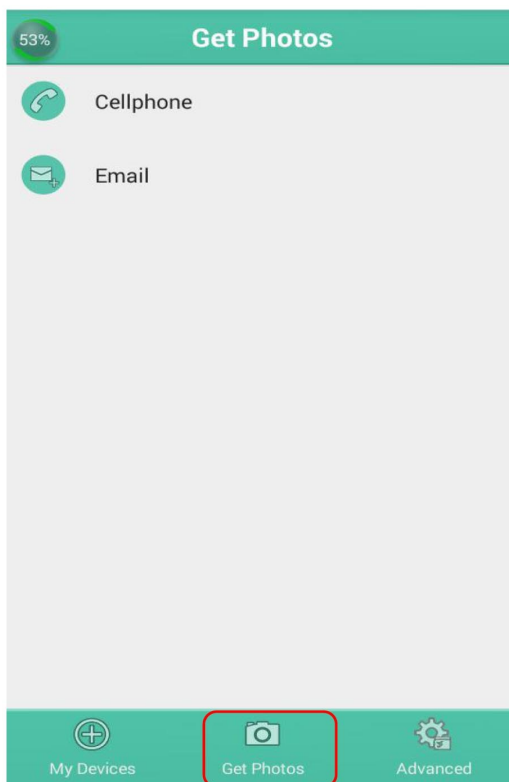
STEP 8: Select “Advanced” to set Super user information change password, Format SD card, System Checking, Arming, Disarming. View the Version.

Set password:

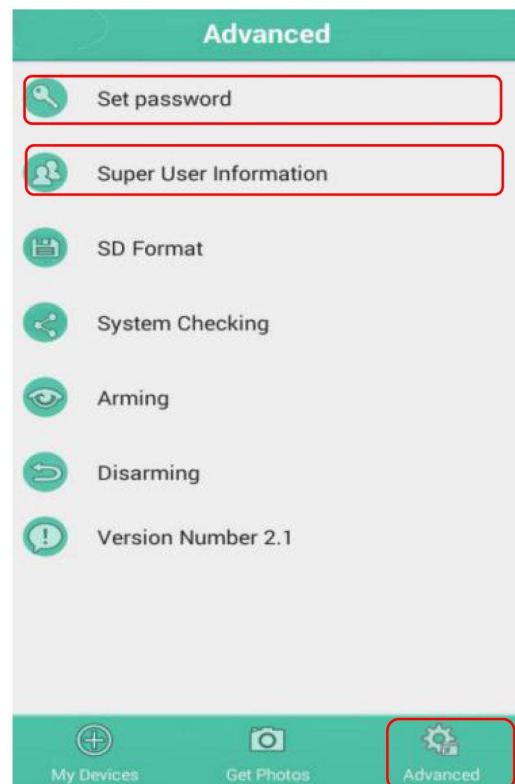
Set a new super user password If you forget it.

Super User information:

Change your super user and password



STEP 7



STEP 8

3.5 Camera Setup Options

To view the camera settings menu, slide the power switch to TEST/SETUP mode and press MENU on the remote. Use ▲ or ▼ keys to select the sub-menu. Use ◀ or ▶ keys to select the different options. Press “OK” to save the settings.

After changing EACH setting in the Setup menu, you must press OK or the camera will retain the previous setting.

*Dependent on the model and firmware version, not all Menu options may be available on your specific camera. The menu options with * means it is not available for MG984G-V.*

Menu Options	Descriptions
Basic Settings	
Camera Mode	Choose between capturing images, videos or both at the same time: Photo, Video, Pic+Video Default: Photo
Photo Size	Choose the image size: 14MP, 20MP, or 30MP (mega pixel) options are available. Default: 30 MP
Video Size	Choose the video size: 1920x1080, 1280x720 or 640x480. Default: 1920x1080
Photo Burst	Choose the number of photos taken after the camera is triggered: 1 Photo, 2 Photos, or 3 Photos, 4 Photos, 5 Photos. If Pic+Video is selected, Photo burst defaults to 1 photo, regardless of entered value. Default: 1 Photo
Video Length	Choose the duration of the video recording: Valid

	<p>values extend from 5 to 180 seconds with a one second delay. Press ◀ and ▶ keys to decrease or increase the video length.</p> <p>Default: 10 seconds</p>
Clock Settings	
Set Clock	<p>Set the cameras date and time. The date format is month/day/year. The time format is hour: minute: second. The valid values for the year is between 2017 and 2050 .</p>
Time Lapse	<p>The camera can capture images or videos at a preset time interval regardless of motion detection. Changing this setting to a non-zero value turns on Time Lapse mode and the camera will take photos at the set interval time – Values range from 5 minutes to a maximum of 8 hours.</p> <p><i>If PIR Trigger/Sensitivity and Time Lapse options are BOTH OFF, the camera will not capture any photos or videos.</i></p> <p>Default:OFF</p>
PIR Trigger/ Sensitivity	<p>This setting is for the sensitivity of the PIR sensor. There are four sensitivity parameters: High, Normal, Low and Off. It is recommended to use HIGH sensitivity in areas with little environmental interference and also for warmer, humid temperatures or climates. Use LOW sensitivity for areas that have a lot of interference. The sensitivity of the PIR is effected by temperature. Higher temperatures leads to lower sensitivity.</p> <p><i>If PIR Trigger/Sensitivity and Time Lapse options are BOTH OFF, the camera will not capture any photos or videos.</i></p> <p>Default: Normal</p>
PIR Interval	<p>This setting indicates how long the PIR sensor will be disabled after each camera triggering. During this time the PIR sensor will not react to any detected motion or scheduled timer functions. The PIR Interval can be set between</p>

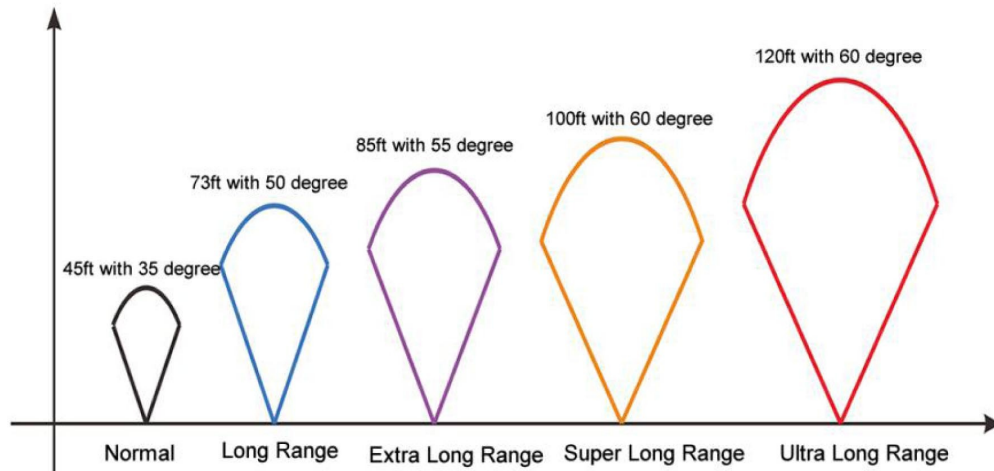
	<p>zero seconds to a maximum of 1 hour. Press LEFT or RIGHT to decrease or increase the desired PIR Interval time.</p> <p>Default: 5 seconds</p>
Work Day	<p>Choose the days of the week you want the camera to work.</p> <p><i>This setting is only available in Hunting Mode.</i></p> <p>Default: All</p>
Working Hour	<p>This setting allows the camera to be active only during the set period of time per day. If activated, the camera will NOT take pictures or video outside of the specified working hour, regardless of any other setup option settings. The values are set to military time that range from 00:00 to 23:59.</p> <p>Default: OFF</p>
Send settings	
Send To	<p>Send the image to your phone or email options.</p> <ul style="list-style-type: none"> * Phone [MMS]: Send the image to cellular device via WAP.(not available for MG984G-V) * Email [MMS]: Send the image to email address via WAP.(not available for MG984G-V) Email [GPRS]: Send the image to email address via SMTP. <p>Default: Email [GPRS]</p>
<p>*Phone MMS (not available for MG984G-V)</p>	<p>The camera sends images to mobile phone. Required MMS settings: URL, APN, IP and Port,Account,Password.Contact your cellular or network service provider if you are not familiar with the settings.</p> <p>“Phone1-Phone4” means the receiving phone number.</p>
<p>*Email MMS (not available for MG984G-V)</p>	<p>The camera sends image to email address via WAP.Required MMS settings: URL, APN,Account,Password, IP and Port. Contact your cellular service provider if you are not familiar with these settings.</p>

	<p>“Email1-Email4” means the receiving Email address</p>
Email GPRS	<p>The camera sends image to email address via GPRS network with SMTP protocol. Required GPRS settings: APN, Account Password, Server, Port, Ssl. Contact your cellular or network service provider if you are not familiar with the settings.</p> <p>“Email User and Email password ” means the sending email address and password.</p> <p>“Email1-Email4” means the receiving Email address.</p>
<ul style="list-style-type: none"> Send Mode 	<p>There are 3 options for this setting.</p> <ul style="list-style-type: none"> Daily : Only works in ON mode. Photo Mode: This setting will send summarized information and the last picture taken at the end of time you have set. Video Mode: the summarized information will include how many videos were taken and the last video taken at the end of time you have set (less than 10M). Pic+Video Mode: the summarized information will include how many videos and pictures were taken and the last picture taken at the end of time you have set. Instant: Only works in ON mode. The camera will send a message instantly after it captures a photo or video. OFF: Disable all communication functions. <p><i>Please Note: Some cellular carriers limit the size of files being sent. Some image and video files may be too large to send.</i></p> <p>Default: Instant</p>
SMS Control	<p>SMS Control enables mobile communication functionality. When SMS Control to ON, the camera can receive and respond to your SMS commands.</p> <p>Default: On</p>

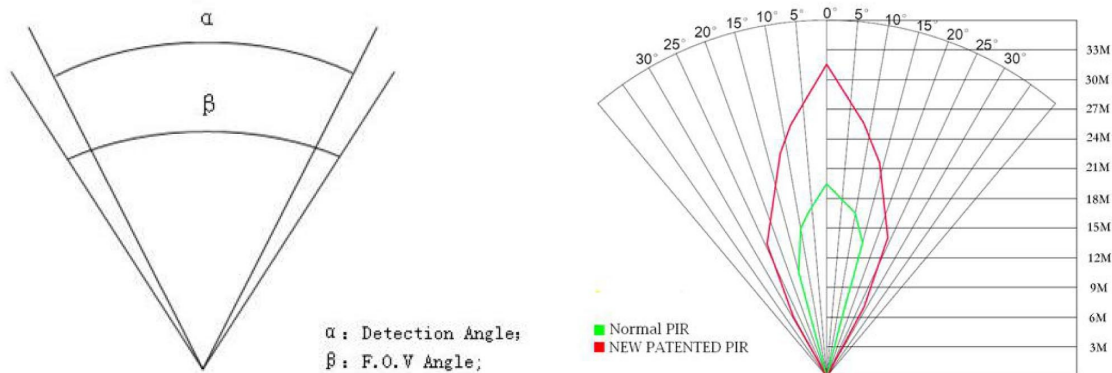
Attachment Size	<p>Setting the picture size which will be sent to your phone or email. There are 3 options for this setting.</p> <p>Low: Send severely compressed picture.</p> <p>Normal: Send slightly compressed picture.</p> <p>*High: Send the original pictures.<i>(not available for MG984G-V)</i></p> <p>Default:Low</p>
Others	
Language	<p>Choose the language you prefer. Language options include: English, suomi, Deutsch, Svenska, Dansk, Norsk, Czech, Russian, Italiano, French.</p> <p>Default: English</p>
Beep Sound	<p>Enable or disable the sound the camera will make while navigating the menu settings.</p> <p>Default: On</p>
Camera Position	<p>Used for multiple cameras in an area. You can set an A-Z indicator for each of your cameras in order to distinguish between which photos are from a specific camera.</p> <p>Default: OFF</p>
Game Call	<p>This allows the camera to play an audio file at preset times - The audio file must be saved in the directory of \DCIM\100BMCIM\ with the name IMAG0001.WAV .You must delete the IMAG0001.jpg from your SD card.</p> <p>Default:OFF</p>
Format SD	<p>All information on the SD card will be deleted. Make sure that you have made a backup of important data already on the SD card.</p>
Default Settings	<p>Restore all settings back to the default values.</p>
Version	<p>Shows firmware and IMEI (International Mobile Equipment Identity) information of the camera.</p>

4. Detection Ranges – PIR Detection Zones

This pictures shows Bolymedia's 5 kinds of detection range at different detection angles. This camera is super long range with 60 degree.



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.



This camera has a new design of PIR and the new PIR is patented. The new patented PIR's detection range can reach to 100ft (in good environments). The last picture shows the compared detection zone between normal PIR and the new patented PIR.

5. Technical Specifications

Picture Resolution	14/20/30 MP
Video Length	5 to 180 sec
Detection Range	100ft.
Illumination Distance	90ft.
Image Sensor	14MP Color CMOS
Aperture	<i>f</i> / 2.4
Field of View	60 degrees
Trigger Time	< 1.0 sec
Memory Card	32GB max
Display Screen	Built-In 3" LCD
Sound Recording	Yes
Operating Ambient Temperature	-20 degrees to + 60 degrees C
Non-Operating Temperature	-30 degrees to + 70 degrees C
Relative Humidity	5% to 90% noncondensing
Dimensions	147x96x79 mm
Unit Weight	~ 0.30kg
Power Supply	4 or 8AA batteries or 6V, 2A external power supply
Standby Power Consumption	<0.3mA(<7mAh/Day)
Compliances	FCC, CE, RoHS

* When Camera Mode is set to Pic+Video, Photo Burst option automatically disables, resulting in only one picture captured along with the video. When Camera Mode is set to Photo, Photo burst option will operate normally as specified.

For more information contact your local support at Leo M&T d.o.o.,
email: info@lionshop.si or phone: +38664120066