

BG636-48M User Manual

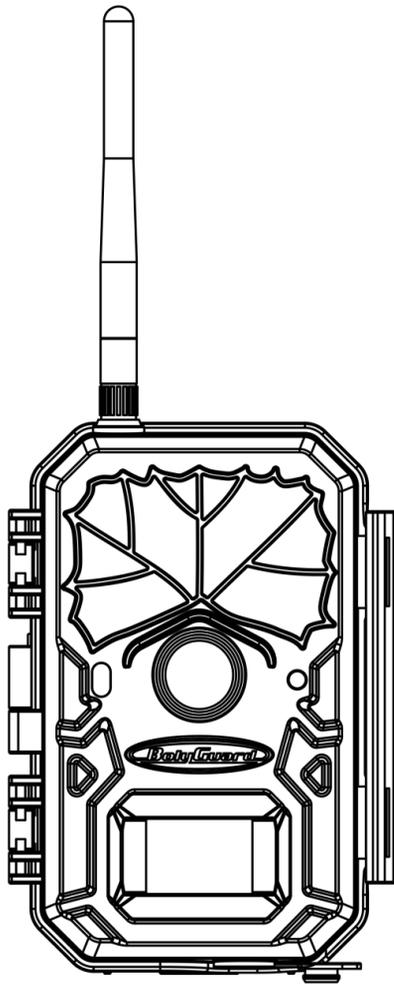


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1. Getting Started

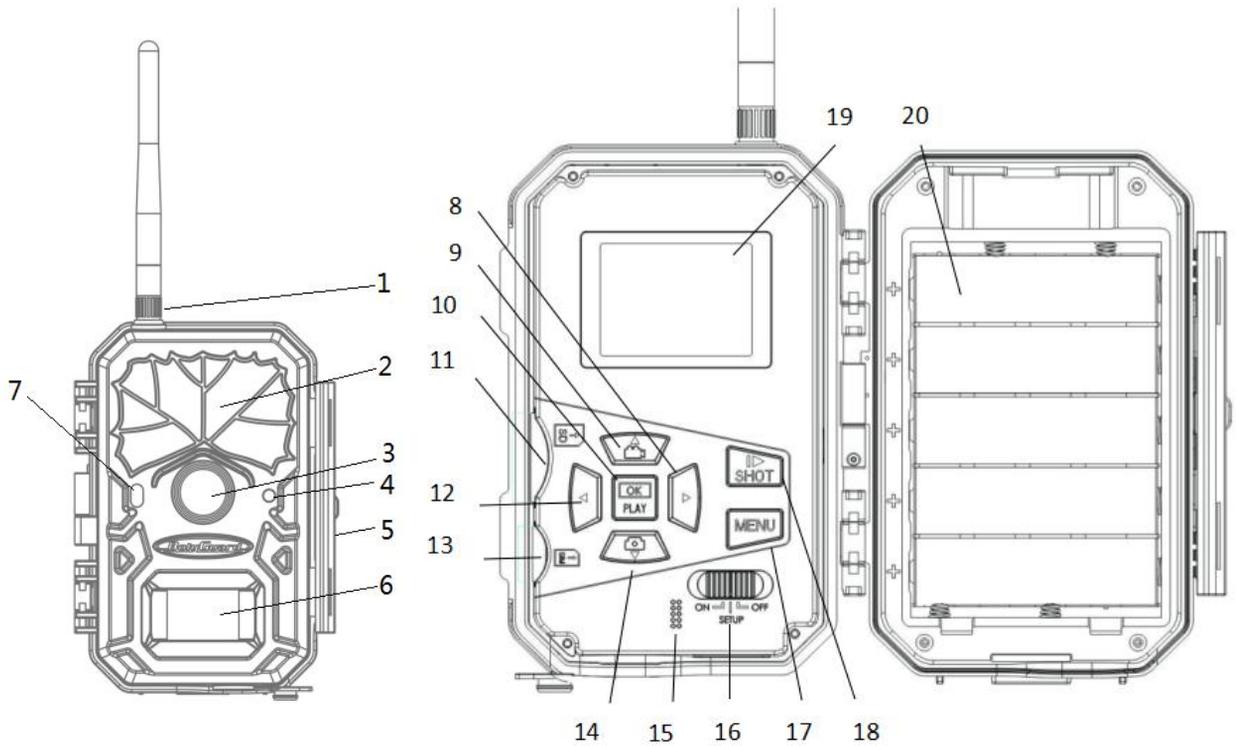


Fig. 1: Front View

Fig. 2: Inner Panel View

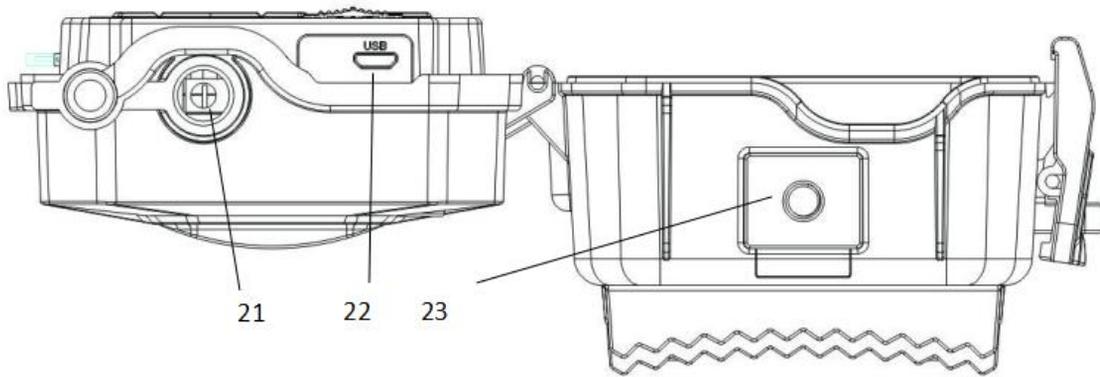


Fig. 3: Bottom view

1	Antenna	2	Infrared LED	3	Lens
4	Microphone	5	Lock	6	PIR
7	Indication LED	8	Right	9	Up/Video
10	OK/Play	11	SD Card Slot	12	Left
13	SIM Card Slot	14	Down/Photo	15	Speaker
16	Power Switch	17	Menu	18	Shot
19	LCD display	20	Battery Tray	21	DC In
22	USB Port	23	Screw Hole		

2. Camera Operations

2.1 Batteries / Power Supply

- **Powered by Batteries**

- ① 4 or 8 AA batteries

- High-density, high-performance rechargeable or non-rechargeable Alkaline batteries are recommended. You can also use NiMH batteries as well, each battery should be above 1.5V.

- ② 5 X 18650 batteries

- Need to use Pointed Head 18650 Battery. They can be charged by camera when it connects a DC 6-Volt.

- **Power Supply**

- A DC 6-Volt, 2 A 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 , which have faster transfer speeds and longer durability for extensive shooting in extreme outdoor conditions. Some SD cards are deemed Secure Digital High Capacity (SDHC) PRO cards, which only 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 it into the camera**

The camera will power off with a code stating that the SD card is locked when inserted.

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

Try reformatting the SD card, by using the camera's main settings options.

2.3 SIM Card Information

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

The camera SIM card 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 via SIM card.

- **Supported 4G communication band**

FDD LTE: B1/B3/B5/B7/B8/B20

TDD LTE: B38/B40/B41

WCDMA: B1/B5/B8

GSM: 900/1800

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

2.4 Camera Modes

The different modes are accessed by sliding the power switch to the different positions marked on the camera. The power switch is located inside the camera on the bottom right of the LCD screen.

The different camera modes are as follows:

- **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**

In this mode, the camera allows you to 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 red LED motion indicator 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 the

“▶/SHOT” button on the right of the control pad to manually capture photos or record video. Press “▶/SHOT” again to stop video recording.

2.6 Manage Images and/or Videos

Put the camera in TEST/SETUP mode and press the “OK/Play” button to view images or videos. The latest image or video will be shown on the LCD screen.

- **To view:**
Press ▲ or ▼ to view the next or previous 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 ▼ to toggle between photos to find the photo(s) to delete. Once selected, press the “◀/DEL” button and the options Del One and Del All will appear. Press OK when the Del One option is selected. Press OK again to confirm you want to delete the selected picture or video.

2.7 Sending via MMS/GPRS/Molnus/FTP

Images can be sent directly to your wireless device/email/Molnus, based on the Send Mode settings.

-
- 1) Insert the SD & SIM card into the camera before turning on the camera.
 - 2) Turn on the camera in TEST/SETUP mode. Make sure the SIM card is recognized and signal strength is adequate.
 - 3) Select the send mode setting and fill in the correct parameters.

You have the options of Molnus (default setting), Phone MMS, Email MMS, or Email GPRS. Videos will be sent in less than 10MP.

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
 - Press OK again to send the picture via the messaging option chosen in your camera settings

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**

In this trigger mode, 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 trigger detection range.

- **Time Lapse**

In this camera mode, 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 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 video when motion is detected and at the preset time(s), 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.

2.9 Password Setup

For encryption settings, enter your four digit pre-set password to enter the camera. This function helps protect your privacy.

This function is off by default. To use this function:

2.9.1 Press ▲/▼ to adjust the number from 0~9, and ◀/▶ to change the password

2.9.2 The same password must be entered twice in order to take effect.

2.9.3 After the password is set up, you will be required to enter the same password on the next boot to enter the camera.

If you forgot your password, please contact us for assistance

Above is the password settings interface. You will need to enter the same password two twice.

After the password is successfully set, the next boot will need to enter the correct password to enter the camera.

2.10 Find Camera

This is GPS protection against burglars , if you input the email address, the GPS mode will be fixed to always ON, the camera will send picture to you, you can also find the longitude and latitude in email. So this function helps you find your camera if it has been stolen.

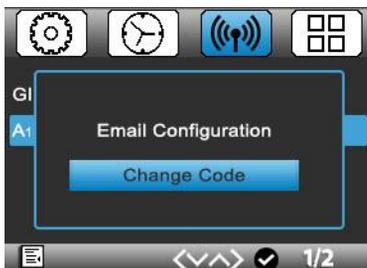
This function is off by default. To use this function:

2.10.1 The initial password is 0000, Press ▲/▼ to adjust the number from 0~9.



2.10.2 Put in the right password, it will shows two menu, one is Email Configuration, you can set your email address.

When you select Sent to Email, camera will send the picture to this email address secret(means Secret delivery).



2.10.3 The other menu is Change Code, you can change your Code through this function.



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

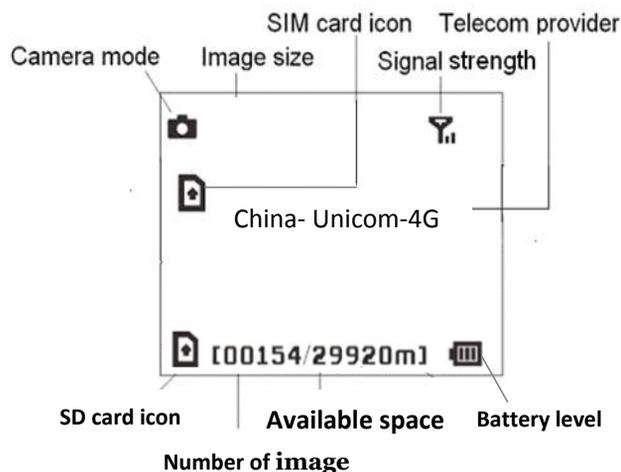
▲▼▶◀ : Move between menu options (OK to select)

OK / PLAY: Save parameter settings and play videos

DEL / ◀: Delete an image/video when viewing them

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, FTP, Molnus 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, you must complete the following steps:

- Place the camera in Test/Setup Mode and go into the menu Setup options
- Set SMS control to ON in the second tab from the right in the camera menu.

For MMS/GPRS/Molnus/FTP functionality, the following menu Setup options will need to be set:

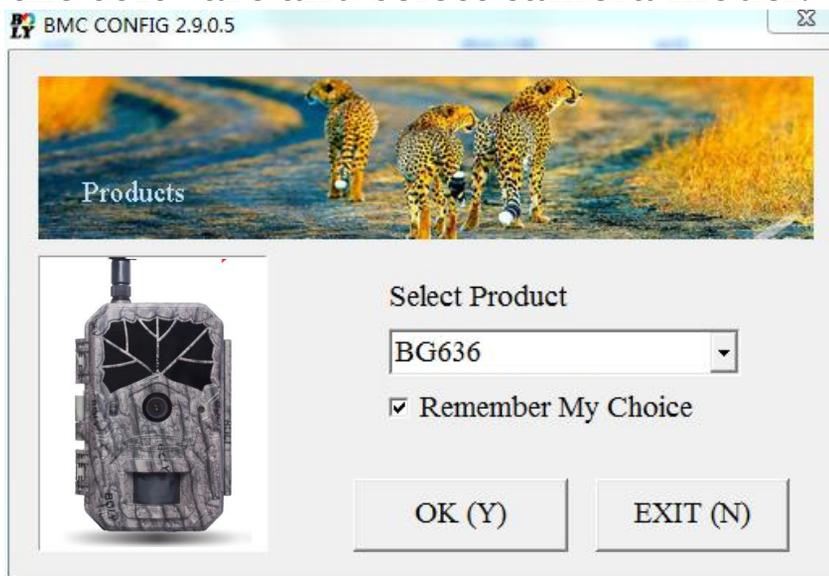
- MMS network settings (varies depending on carrier)
- GPRS network settings (varies depending on carrier)
- FTP network settings (varies depending on carrier)
- Molnus (varies depending on carrier)

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 assistance with the camera setup, download the camera setup application (BMC_config.zip), along with the basic instructions both found from our website www.bolymedia.com/index/Support.

Open the software and select camera model:



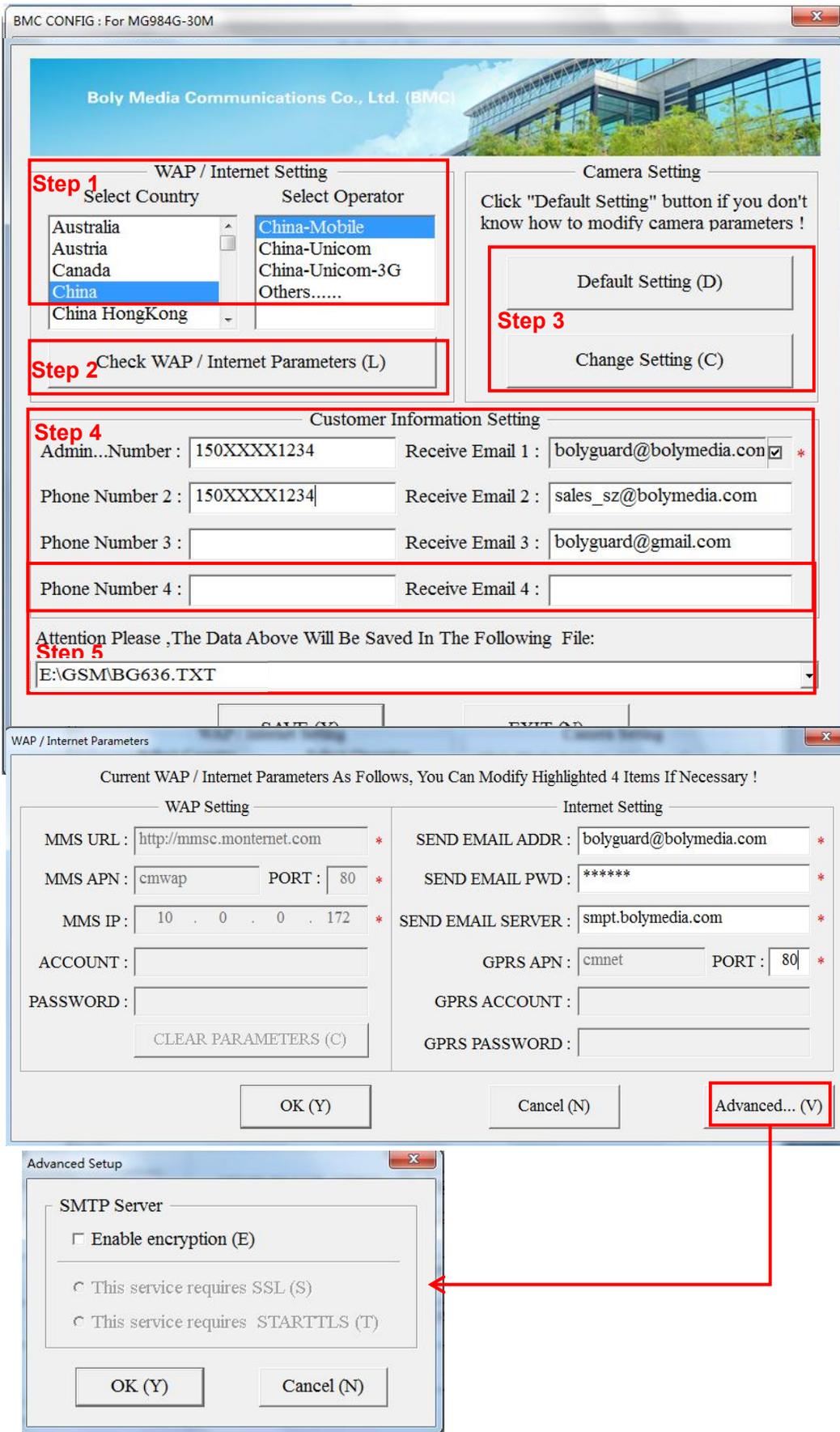
STEP 1: Select your country and carrier.

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, please select the corresponding protocol. For example, when using Gmail as the sending email you should select SSL to ensure the success of sending mail.



STEP 3: Choose between default or manual settings. For first time users, 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. The program names the .txt file. The txt file must be loaded into the specific camera’s GSM folder.

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 sending emails, your email service provider will be able to provide the send email server and port settings.

Note: Once the SD card is inserted in 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 Cloud Service - Molnus

Molnus is a cloud service that allows users to accessibility to transfer and store images taken through the cameras with the use of compatible devices or a computer.

To get started, you need to supply the camera with batteries and a SIM-card that has internet access.

You also need to have the phone number and the APN name to the SIM-card you will use for the camera.

The APN name is provided by the operator of the SIM card. Each operator has their own APN name. If not present in any documents sent along with the SIM-card, then please check the operator's homepage for APN settings.

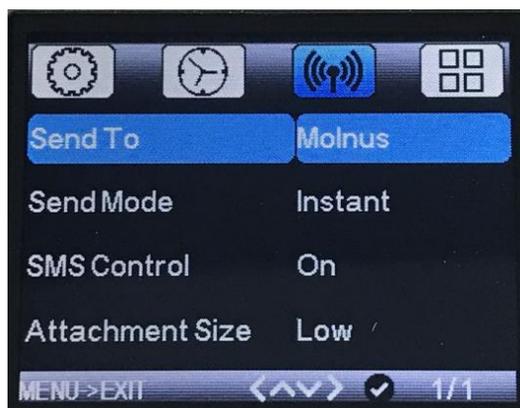
IMEI, Control Code can be found on your camera. You will need a SIM-card that has internet access. Start the camera in SETUP mode, look for the operator's name in camera display, then check the Version.



Step1 Register your Molnus account. (In Molnus)

Step2 Log in to your Molnus account and go to the My Cameras page. (In Molnus)

Step3 Slide the functions switch to SETUP position on your camera, and make sure Send mode is "Molnus". (On camera)



Step4 Press the Register camera button to register your camera. (In Molnus)

Step5 Slide the functions switch to ON position on your camera. Quickly place the device with the camera facing an

area with no movement, for example against the wall. (On camera)

Step6 Press the Register button in Molnus, and wait for about 5 minutes. (In Molnus)

The registration should now be done, and camera should now be able to upload images to Molnus.

Test the function by making movement in front of camera. Within a few seconds to a minute, the images will show up in the gallery in Molnus.

If you would like to use Molnus on your smartphone, please download the app on Google Play or Apple's App Store.

For more details please refer to the Molnus website:

<https://www.molnus.com/>

3.5 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 apply when sending text messages to the camera depending on your cellular provider.

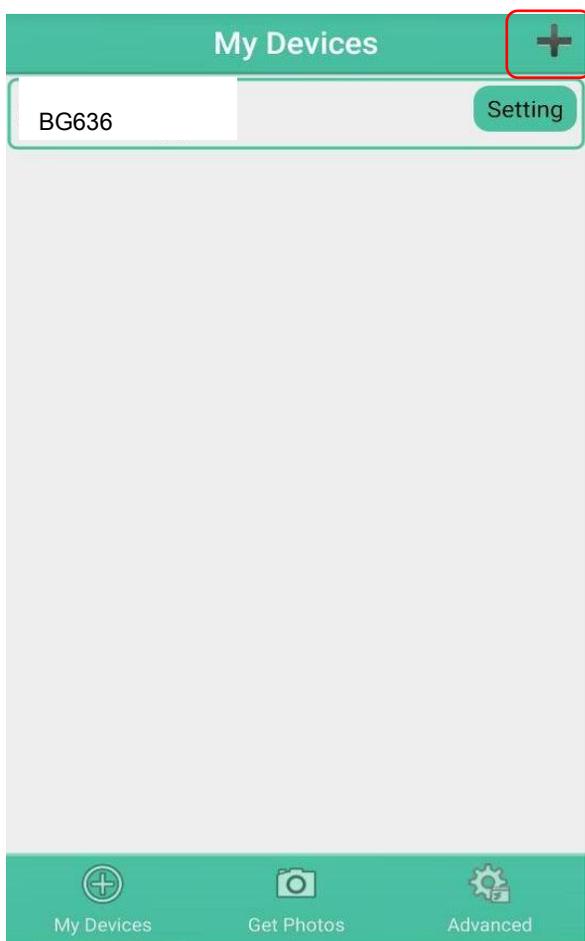
- For Android, you can search **BGTools** from the Google store or download the application directly from our website, under the *Downloads* section:
<http://www.bolymedia.com/index/Support>
- For Apple, search BGTools in the official Apple Apps store.

3.5.1 BG Tools Usage Instructions for Android App

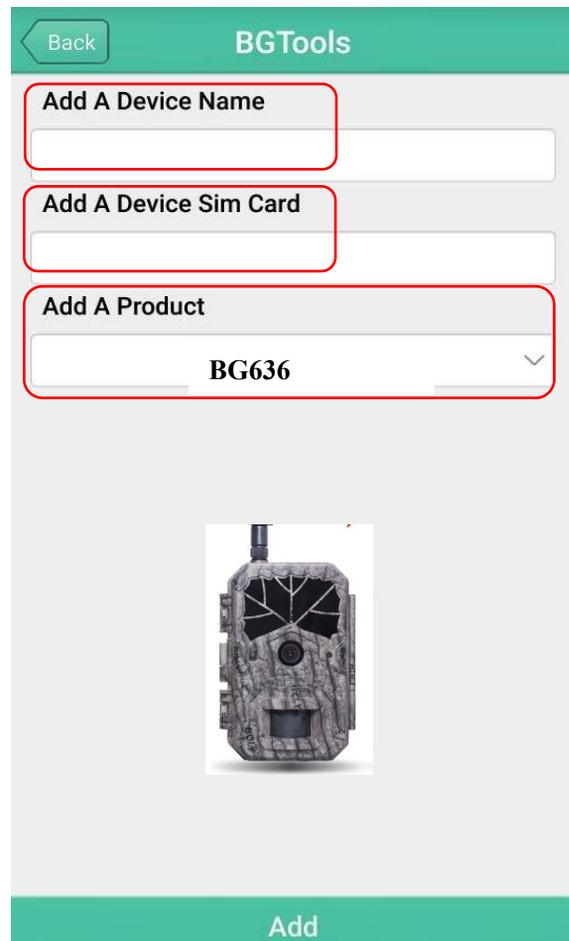
The Android APP makes it easy to communicate with the camera, so you don't need to edit the SMS.

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

STEP 2: ①Input the model of your camera ②Input your SIM card number which is inserted in your camera ③Select your camera model number, then click “Add” to finalize.

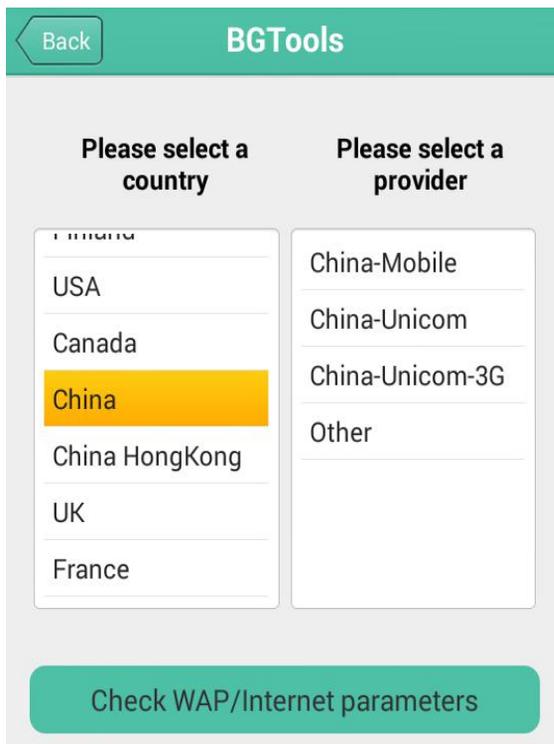


STEP 1

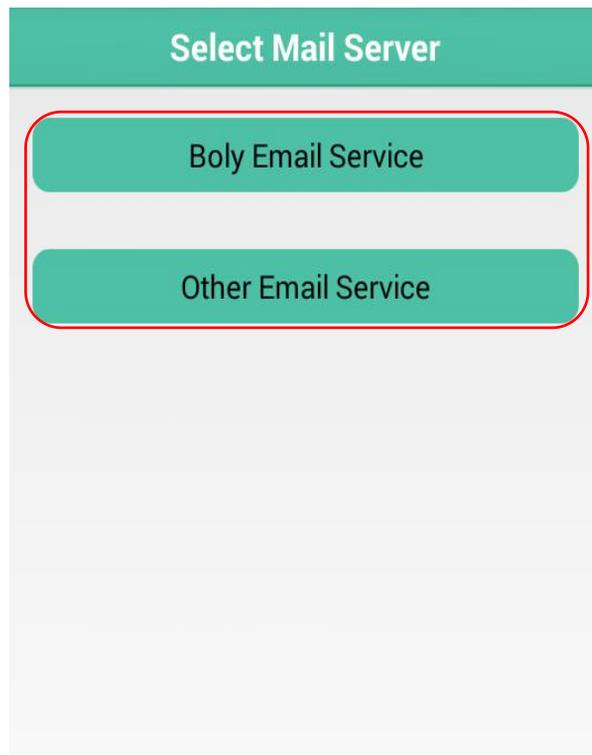


STEP 2

STEP 3: Choose the country and provider that corresponds with your SIM card (which is inserted in your camera). After that, choose “Check WAP/Internet Parameters” to check whether you have all the required parameters filled in. The “User name and User Password” is your MMS name and password.



STEP 3

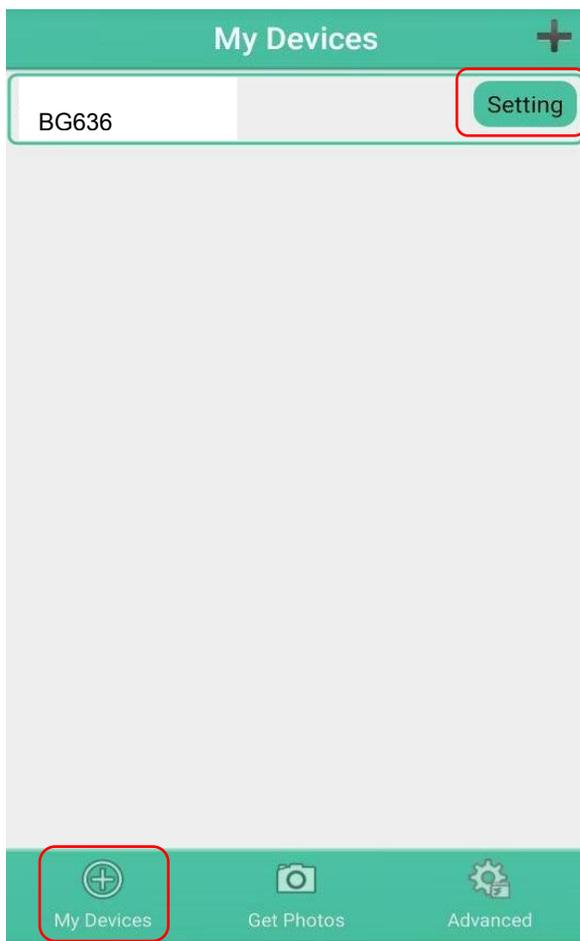


STEP 4

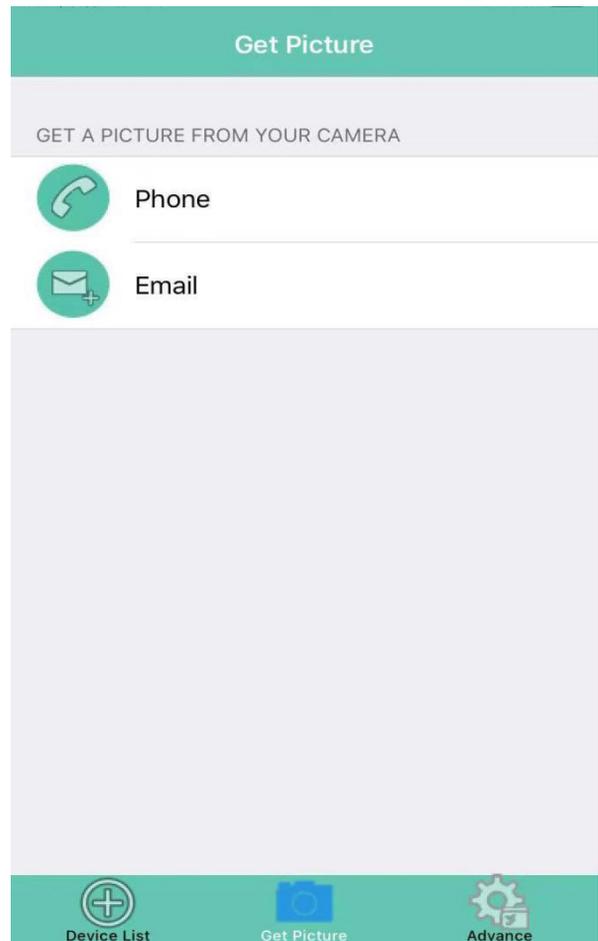
STEP 4: In the Select Mail Server: you can decide on using a Boly Email or Other Email service.

Select “my device” to add or delete a device.

STEP 5: Select “Setting” to set users parameters or set to default.



STEP 5



STEP 6

STEP 6: Select “Get Photos” means you can get a photo from your camera device. There are two ways to send an image via:

Email : Send to email by GPRS.

STEP 7: For more settings, select “Advanced” to set Super user information, change the password, format the SD card, system checking, arming, or disarming.

Add or Delete a device:

Android

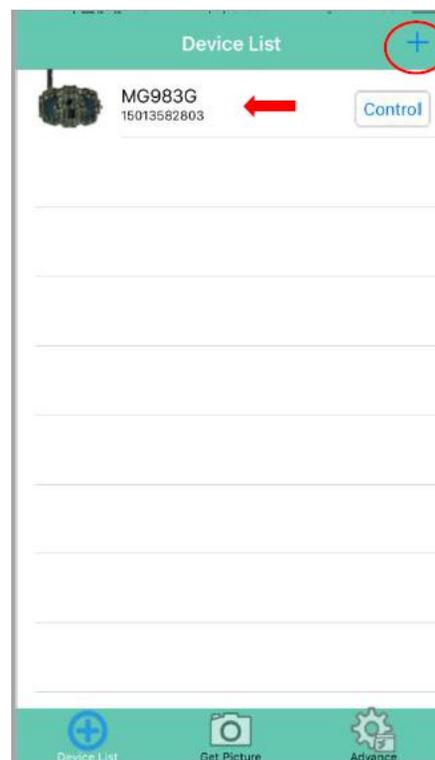
Select “My Device” to add a device,
Long click on the device to select the delete option.

IOS

Click “” to add a device and choose your device, or slide to the left to delete it.



Android



IOS

3.6 Camera Setup Options

To view the camera's settings menu, slide the power switch to TEST/SETUP mode and press MENU button on the remote. Use the ► or ◀ keys to toggle between the sub-menus. Use the ▲ 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 else the camera will not save new settings.

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: 12MP, 24MP, 36MP , or 48MP(mega pixel) options are available. Default: 12MP
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: option of 1-3 photo(s). 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 values extend from 5 to 90 seconds with a one second delay. Press the ► or ◀ keys to decrease or increase the video length. Default: 10 seconds

Clock Settings	
Set Clock	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 are between 2017 and 2050.
Time Stamp	When this function is turned on, the camera can print time and Logo on video. Default: ON
Time Lapse	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. <i>If PIR Trigger/Sensitivity and Time Lapse options are BOTH OFF, the camera will not capture any photos or videos.</i> Default: OFF
PIR Trigger/ Sensitivity	This setting is for the sensitivity of the PIR sensor. There are four sensitivity parameters: High, Normal, Low, OFF. It is recommended to use HIGH sensitivity in areas with little environmental interference and for warmer, humid climates. Use LOW sensitivity for areas that have a lot of interference. The sensitivity of the PIR is affected by temperature. Higher temperatures lead to a lower sensitivity. <i>Please note that if Time Lapse is set to off, then PIR Trigger can't be set to off.</i> Default: Normal
PIR Interval	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 zero seconds to a maximum of 1 hour. Press LEFT or RIGHT to decrease or increase the desired PIR Interval time. Default: 5 seconds
Work Day	Choose the days of the week you want the camera

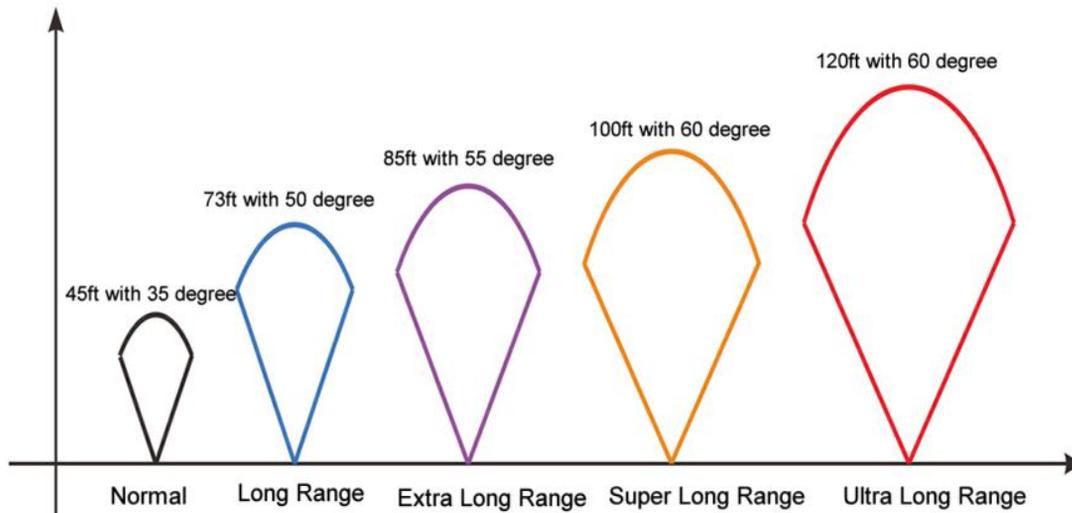
	<p>to work. <i>This setting is only available in Hunting Mode.</i> Default: All</p>
Working Hour	<p>This setting allows the camera to be active only during the set period of time per day. If activated, the camera will NOT take pictures or video outside of the specified working hour, regardless of any other setup option settings. The values are set to military time that range from 00:00 to 23:59. Default: OFF</p>
Send settings	
Send To	<p>Send the image to your phone or email options.</p> <p>MMS: Send the image to the cellular device via WAP. Email: Send the image to an email address via SMTP. Molnus: Send the image/video to Molnus via network. FTP: Send the image to FTP address via network. Default: Molnus</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 had set. Video Mode: The summarized information will include how many videos were taken and the last video taken at the end of time you had 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: Disables all communication functions. <p><i>NOTE: Some cellular carriers limit the size of files being sent. Some image and video files may be too large to send.</i></p>

	Default: Instant
SMS Control	SMS Control enables mobile communication functionality. When SMS Control to ON, the camera can receive and respond to your SMS commands. Default: OFF
SIM Set	When this function is turned auto, the camera automatically recognizes the carrier after booting and automatically configures communication parameters, such as MMS_URL, MMS_APN, MMS_IP, MMS_PORT, MMS_ACCOUNT, MMS_PASSWORD, GPRS_APN, GPRS_ACCOUNT, GPRS_PASSWORD. When you select manual option, you can input parameters by manual. Default: Auto Note: When this function is turned auto, the first boot time will be about 2min or later.
Select network	You can lock network, there are 2G,3G,4G option. If you select 2G, camera will send picture through 2G network. Default: Auto
Attachment Size	Setting the picture size which will be sent to your phone or email. There are 3 options for this setting. Small: Sends severely compressed picture. Medium: Sends slightly compressed picture. Original: Sends the original pictures. Default: Low
GPS	Automatic positioning function,add longitude and latitude into image properties, can also send GPS information to mobile phone or Email, for viewing camera location. Default: OFF
Find Camera	If you choose Enter admin Code and Email address, a hidden copy of the email should always be sent to this Admin Email address, then you can receive GPS location in Email, so you can find the camera through this function if it has be stolen.
Register Camera	This function is service for Molnus, it will shows QR code which contain camera's information, you can add a camera through your phone APP(Molnus) scan the QR code.

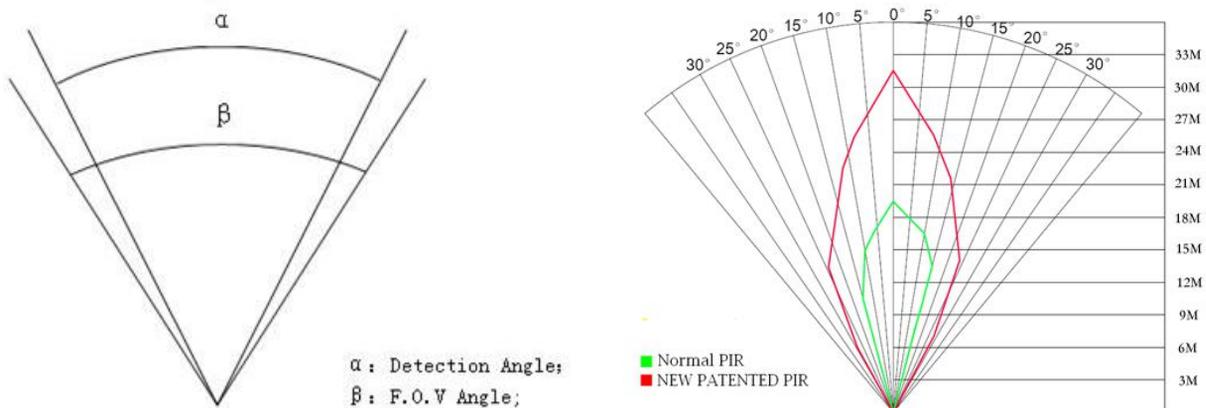
Others	
Language	Choose the language you prefer. Language options include: English, Suomi, Deutsch, Svenska, Dansk, Norsk, Czech, Russian, Italian, French. Default: English
Beep Sound	Enable or disable the sound the camera will make while navigating the menu settings. Default: On
Camera Position	Used 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. Default: OFF
Format SD	All information on the SD card will be deleted. Make sure that you have already made a backup of important data on the SD card.
Default Settings	Restore all settings back to the default values.
Version	Shows firmware and IMEI/Control Code information of the camera.
Password Set	Enter your four digits password to enter your camera when powering it on. Default: OFF
Recycle Storage	In hunting mode, when the SD card is full, the first images or videos will be covered by new getting pictures or videos. So that you don't need to retrieve your memory card manually. But in SETUP mode, SD can't recycle storage. Default: OFF

4. Detection Ranges – PIR Detection Zones

This picture shows Bolymedia's 5 types of detection ranges at various detection angles. This camera has a super long detection range with a 60 degree FOV angle.



The PIR detection angle (α) is 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, patented design of the PIR. The new patented PIR's detection range can reach to 100ft (in good environments). The previous picture shows the compared detection zone between normal PIR and the new patented PIR.

5. Technical Specifications

LED Type	940Nm
LED Number	4Pcs
Illumination Distance	90Ft.
Image Sensor	16MP Color CMOS
Aperture	<i>f/ 2.4</i>
Field of View	60 Degrees
Memory Card	32GB Max
Display Screen	Built-In 2.3" LCD
Sound Recording	Yes
Operating Ambient Temperature	-20 °C to + 60 °C
Non-Operating Temperature	-30 °C to + 70 °C
Relative Humidity	5% to 90% Noncondensing
Dimensions	145.1*90*145mm
Unit Weight	~ 0.40Kg
Power Supply	4 or 8AA batteries or 6V, 5 Pointed Head 18650 Batteries 2A external power supply
Standby Power Consumption	<0.3mA(<7mAh/Day)
Compliances	FCC, CE, RoHS

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Appendix : Parts List

Part Name	Quantity
Digital Camera	1
USB Cable	1
Mounting Bracket	1
Belt	1
User's Manual	1
Antenna	1
Warranty Card	1



Version 1.1

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