User’s Manual

Infrared Scouting Trail Camera

BG8304-4G

Contents

1 Introduction 1
1.1 General Description 1
1.2 Key Features 1
1.3 Application 1
1.4 Two Way Communication 1
1.5 Cautions 2
2 Camera Overview and Details 3
2.1 Camera Overview 3
2.2 Mode Switch Introduction: 5
3 Camera General Operations 6
3.1 Power Supply 6
3.2 Insert SD card and SIM card 6
3.3 Preview Information Display 6
3.4 Settings Menu 6
3.4.1 Setting Items 7
4 Quick Set Network Parameters Use profile 9
4.1 Do the Camera Settings 9
4.2 Manually Send a MMS or GPRS Photo 10
4.3 SMS Control 10
5 APP and SMS Commands 11
5.1 Change Settings via Android/iOS APP or SMS 11
5.2 User Jurisdiction 11
5.3 Use Android/iOS APP 11
5.3.1 Firstly, set administrator number. 12
5.3.2 Set MMS Parameters: 13
5.3.3 Set GPRS Parameters: 13
5.3.4 Set receive numbers and email-address: 14
5.3.5 Set GPS Info: 14
5.3.6 Get one spot picture from camera : 15
5.3.7 Change camera general settings : 15
5.3.8 Other commands: 16
5.4 SMS Command List 16
6 Normal Questions and Advice 18
6.1 Camera can’t capture the target 18
6.2 Camera stops taking images or won’t take images 18
6.3 Camera stops sending photos/videos to email(s) or MMS(s). 18
Appendix I: Specifications 19
Appendix II: Parts List 20

1 Introduction

1.1 General Description

Thank you for choosing Boskoncam high qualified products. This camera is a digital scouting camera with 3G or 4G communication function. It is an 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 36M pixels) or records video clips (1080 Full HD). It sends picture instantly to your mobile device or video (less than 10M) to your e-mail via GPRS network. You'll be alerted when the camera is triggered or settings by user.

It is resistant against water and snow. The camera can also be used as a portable digital camera.

1.2 Key Features

A. Programmable 8/14/30 Megapixel high resolution.
B. Support Full HD(1080p 30fps) video record;
C. Take color pictures daylight and black white pictures at night;
D. 48 pcs IR LEDs for flash range as 100ft;
E. Available operation temperature: -20℃ to 60℃;
F. Build-In 2.31" TFT Screen to review photo and video in camera;
G. Support standard 5V-12V adapter and 8AA/12AA batteries; 8AA/12AA recommend;
H. Extra-long range PIR(More than 90ft);
I. Adjustable PIR sensitivity;
J. SMS Remote control (Android and iOS APP).;
K. Support most (maybe all) Bands of operators;
L. MMS/GPRS/SMTP support.

1.3 Application

This camera can be used as an automatic surveillance device for guarding and recording unexpected intrusion to homes, shops, schools, depots, offices, taxis, work sites, etc. It can also be used as a trail camera for hunting or monitoring animals by recording the traces of wild animals. It can be left alone for weeks and months, and it will save event records automatically in digital format.

1.4 Two Way Communication

You can set SMS control sub-menu 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/iOS APP command.

This camera can send pictures instantly to your mobile device via LTE(4G) /WCDMA(3G)/GSM(2G)(GSM&3G dose not work in the USA and Canada) 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; you need to open MMS and GPRS service from your service provider before using this function. It supports the following bands: **Europe**: LTE-FDD: B1/B3/B5/B7/B8/B20; WCDMA: B1/B5/B8; GSM: B3/B8; **North America:** LTE-FDD:B2/B4/B12/B13; WCDMA: B2/B4/B5

1.5 Cautions

- The working voltage of the camera is 5-12V. The camera is supplied by the power adapter or 8AA&12 AA batteries.
- Please install batteries according to shown polarity.
- Please insert the SD card before powering on camera. The camera has no internal memory for saving images or videos. The camera will not work if there is no SD card.
- Please unlock the write-protect switch before inserting the SD card.
- Please do not insert or take out the SD card when the power switch is at ON position.
- Please make sure that your SIM card supports the MMS and GPRS data business.
- When coming into the SETUP mode, allow the camera approximately 10-20 seconds to acquire a signal.
- It is recommended to format the SD card by the camera when used for the first time. Many other SD cards formatted by other cameras have poor compatibility with different brands of cameras. So it is best to format the SD card with this camera or a computer.
- In the SETUP mode, the camera will shut down automatically after 3 minutes without any operation. Please turn on the power again if you want to continue to work with the control.

2 Camera Overview and Details

2.1 Camera Overview

Take a few moments to familiarize with the camera controls and displays. It is helpful to bookmark this section and refer to it when reading through the rest of the manual.

Figure 1 Diagram of camera functional indicators

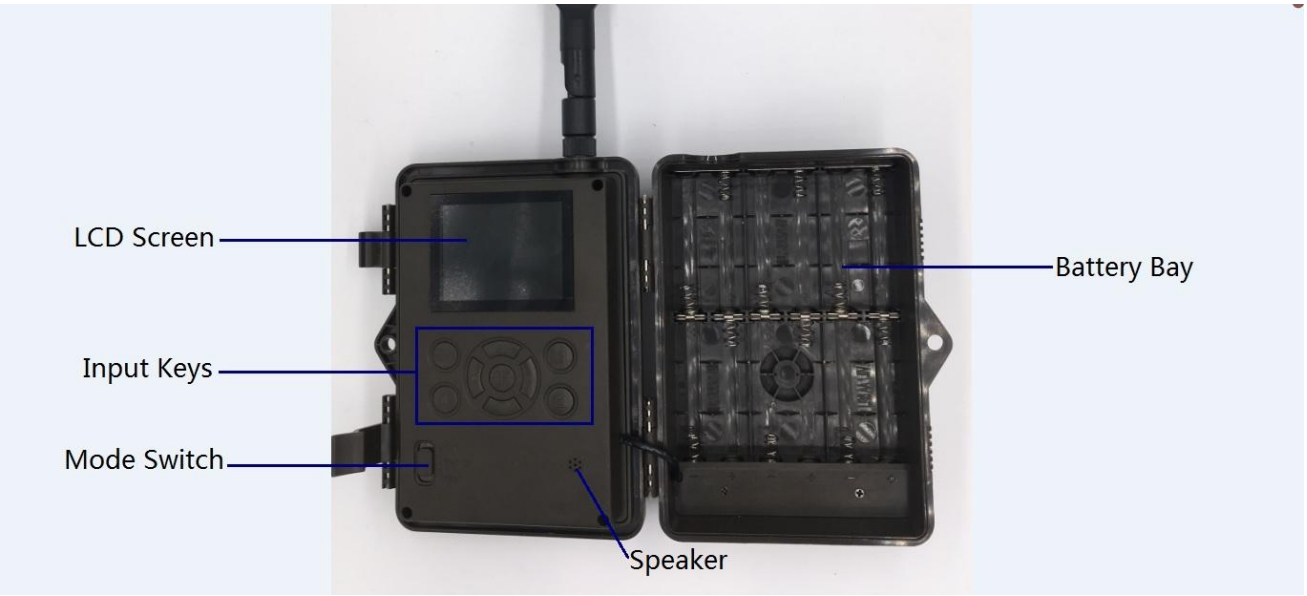


Figure 2 Inner panel view

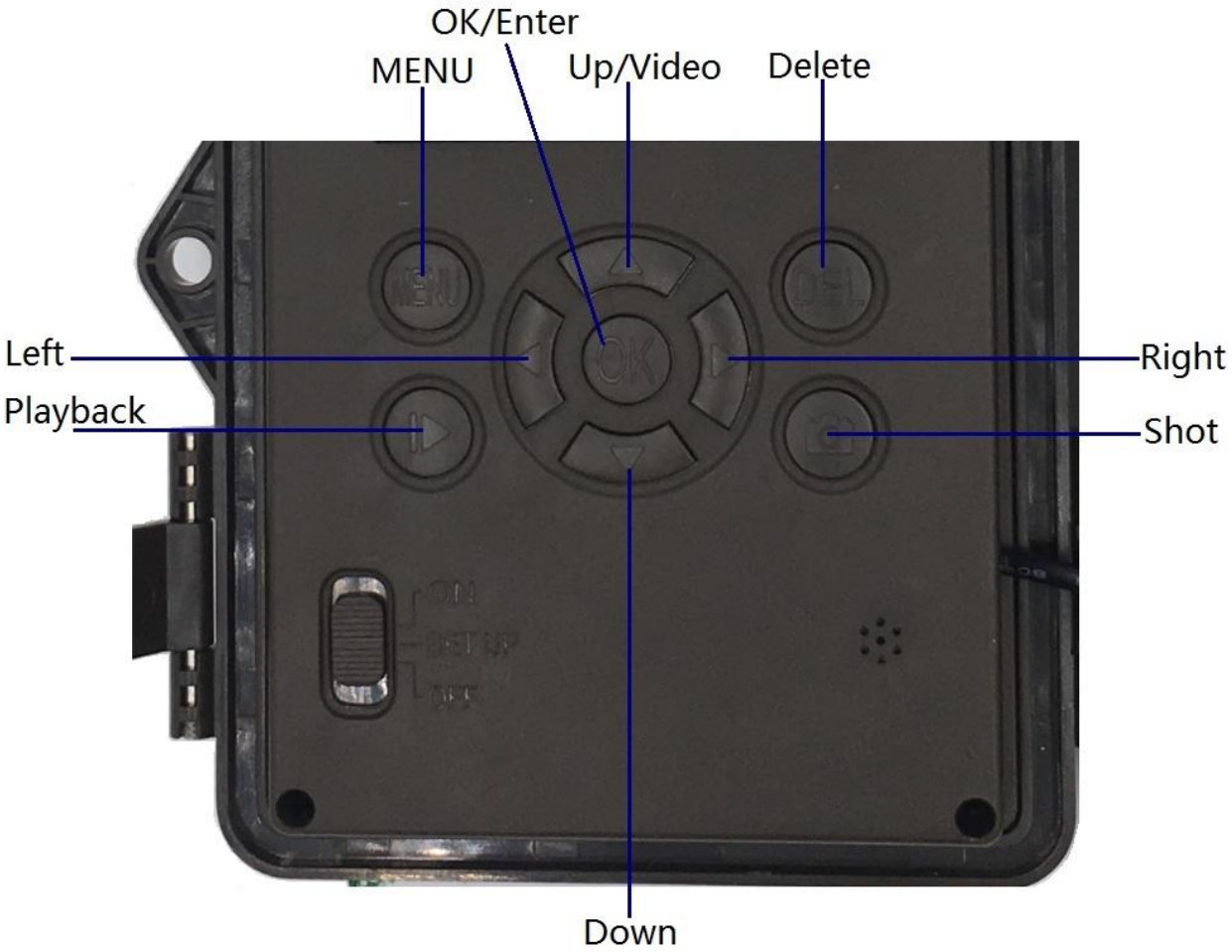


Figure 3 Diagram of Input Keys

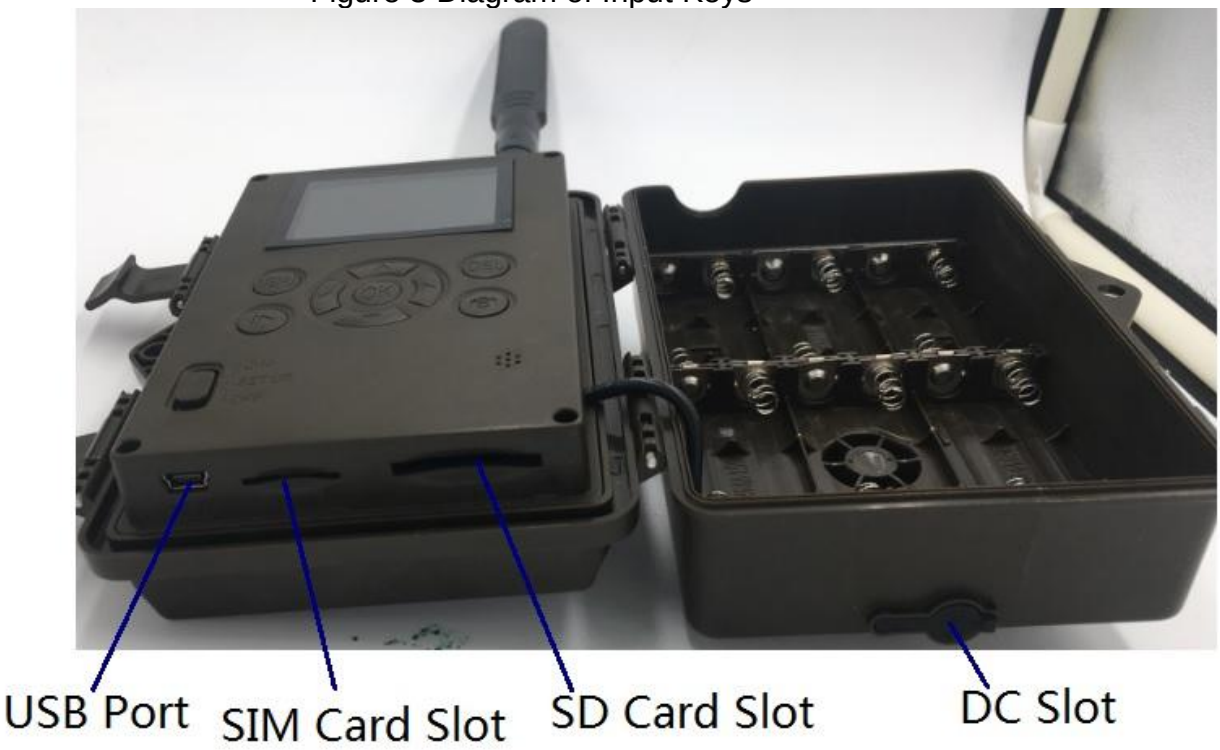


Figure 4 Diagram of camera interfaces

2.2 Mode Switch Introduction:

Setup Mode: Slide the Mode Switch to "**SET UP**", then the Camera will enter Set up mode. In this mode, you can program the camera or to playback the photos or video clips.
Hunting Mode: Slide the Mode Switch to "**ON**", then the Camera will enter hunting mode. In this mode, when animal or human intrudes into the monitoring region, the camera will take pictures or videos automatically according to the previous programmed settings. After switching to "**ON**" position, the motion indication LED (red) will blink for about 10~30 seconds. So you can put the camera in the correct position during this period.
OFF Mode: Slide the Mode Switch to "**OFF**", then the camera will power off.

Setup Mode

Hunting Mode

OFF Mode

3 Camera General Operations

This chapter explains the general operations for camera settings.

3.1 Power Supply

Use 12 AA batteries. High-density and high-performance alkaline or lithium batteries are recommended.

Also 5-12V external power supply and solar panel are supported. The battery can be just a backup for emergency use (5V support).

3.2 Insert SD card and SIM card

Insert an unlocked SD card and an available SIM card.

3.3 Preview Information Display

Slide the Mode Switch to "**SET UP**", then the Camera will enter Set up mode.

When the camera is enter "**SET UP**" mode the current settings will be displayed on screen.

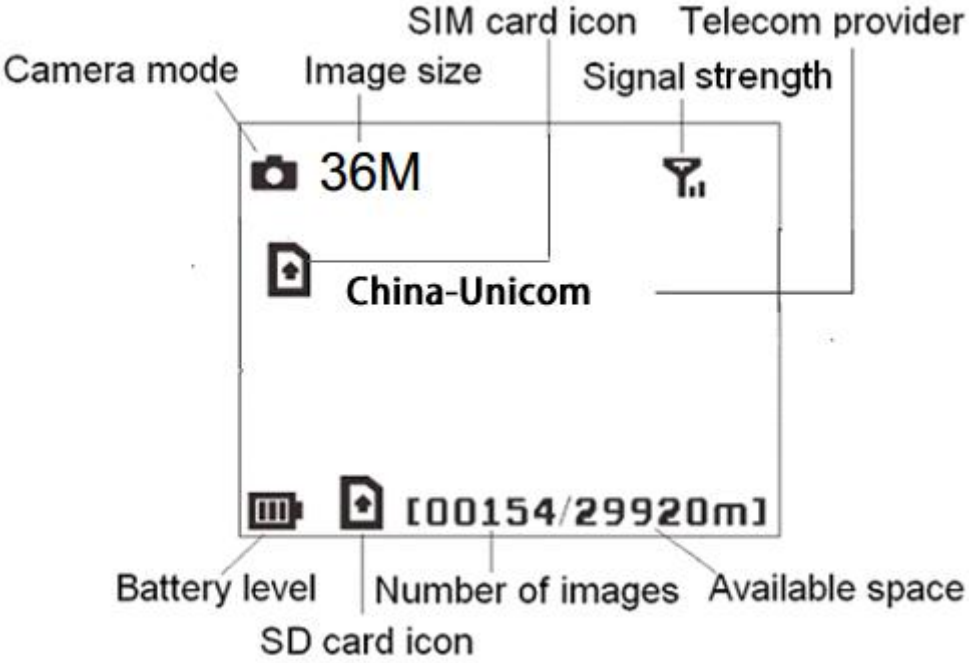


Figure 5 Preview information display

Indicates the correct SIM card status and the available space of SD card should be a none zero value.

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

Please check the signal strength is good before you use sending or SMS functions.

3.4 Settings Menu

Press "**MENU**" on the keyboard to enter into the menu settings. The settings menu will be shown on the LCD.

Use "▲" or "▼" key to select the menu item, use "►" or "◄" to change different item pages or select the different options. Press "OK" to save the settings.

3.4.1 Setting Items

Setting Items	Description
Basic Settings	
Camera Mode	There are three camera modes: Photo，Video and Pic +Video. If you choose Pic +Video mode, the camera takes a picture with a video clip. **Default: Photo**
Photo Size	Choose the image size: 8MP (3264x2448), 14MP (4320x3240) or 36MP (7000x5250). **Default: 36MP**
Video Size	Choose the video size: 1920x1080, 1280x720 or 640x480. **Default:1080P**
Photo Burst	This parameter affects the number of pictures (1-5 photos) taken for each triggering in camera mode. **Default: 1 Photo**
Video Length	5 to 180 video clips. **Default: 10s**
Time and PIR Settings	
Set Clock	Set camera RTC (Real-Time-Clock). **Default:2019/01/01**
Time Lapse	**5Min~8Hour Optional.** Time lapse means the camera can capture images or videos at a preset time interval regardless of whether motions are detected. ***Please note that if the PIR Trigger is set to* Off*, then Time Lapse can't be set to* Off*.*** **Default: Off**
PIR Trigger	**High/Normal/Low/Off** Choose sensitivity of the PIR. The higher sensitivity indicates that the camera is more easily triggered by motion and takes more pictures or records more videos. It is recommended to use high sensitivity in room or environment with little interference, and to use lower sensitivity for outdoor or environment with lots of interference like a hot wind, smoke, near the window, etc. For normal use of the camera, the Normal mode is recommended and is the default setting. **Default: Normal**
PIR Interval	**0s-60Min Optional** This parameter indicates how long the PIR 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 animal). The minimum interval is 0 second. It means the PIR can work all the time. **Default: 5s**
Work Hour	**ON/OFF** Select "ON" to set the beginning time and ending time. Set Work Hour as off means the camera works all day. **Default: Off**
Network Control Settings	
Send to	There are 3 Sending modes:

	1. **Phone MMS**: send images to a mobile phone. 2. **Email GPRS**: send images to an e-mail address via GPRS use SMTP. 3. **FTP:** send images to ftp. You should set your receiving phone numbers (Max 4 numbers) and your receiving e-mail address (Max 4 Mails) from profile or in the APP program. **Default: Email-GPRS**
Send Mode	There are 4 Send modes: "Manual" works in SETUP mode，"Daily" and "Instant" work in "**ON**" mode. "OFF" means to close the communication function. 1. "Manual": Choose "Manual" in "**SETUP**" mode. Please ensure a SIM card is inserted properly. Phone MMS can only send photos; but you can send photos or videos(less than 10M) when you choose Email GPRS. 2. "Daily": Daily, just works in "**ON**" mode. Daily means the camera will report the summarized information at a preset time on how many pictures it had taken per day. 3. "Instant": Instant, just works in "**ON**" mode, which means the camera will send an MMS to your phone instantly with photos or to your email with Photos/Videos(less than 10M). Send numbers from 0-unlimited. 4. "Off": to disable Sending function. **Default: Instant(99 number)**
SMS Control	SMS Control enables two way communication. When SMS Control to ON, the camera can receive and respond to your SMS commands. **Default: ON**
Attachment Size	Setting the picture size which will be sent to your email. There are 3 options for this setting. **Low:** Sends a severely compressed picture. **Normal:** Sends a slightly compressed picture. **High:** Sends the original pictures. (Not available for Verizon) **Default: High**
Network Mode	Choose the network mode. You can choose GSM Only when the LTE and WCDMA networks are unstable. **Auto:** Auto register network (3G/4G priority). **GSM Only:** Only register GSM network. **Default: Auto**
Other Function Settings	
Language	Choose language. **Default: English**
Beep Sound	Enable or disable the beep sound. **Default: ON**
Format SD	Format the SD card. All images and videos in the SD card will be deleted.
Default Set	Restore all settings back to the default values.
Version	Version information

4 Quick Set Network Parameters Use profile

4.1 Do the Camera Settings

Get the camera set-up profile “BG8304.txt” form Boskoncam.

1) Open the profile “BG8304.txt”，then you can change the parameters as following (China Unicom as sample):

```
[BSKFileMark]
Model=BG8304

[Via WAP Settings]
URL=http://mmsc.myuni.com.cn
APN=3gwap
IP=10.0.0.172
Port=80
Account=
Password=

[Via Internet Settings]
GPRSAPN=3gnet
GPRSAccount=
GPRSPassword=
SendEmailServer=smtp.163.com
SendEmailPort=25
SendEmailAddr=13048980121@163.com
SendEmailPassword=boskon2019

[Receive number and receive email]
AdministratorNum=138xxxxxxxx
PhoneNum2=138xxxxxxxx
PhoneNum3=138xxxxxxxx
PhoneNum4=138xxxxxxxx
ReceiveEmail1=boskon2018@126.com
ReceiveEmail2=boskon2019@126.com
ReceiveEmail3=boskontest@126.com
ReceiveEmail4=boskoncam@126.com
```

Step1 MMS Parameters

Step2 Email-GPRS Parameters

Step3 Receive Info

Step1：Set MMS parameters：

Please get the MMS parameters form operator，then fill them into the profile.

If you don’t know how to get the MMS parameters，we will help you to get them.

Step2：Set Email-GPRS parameters：

Please get “APN” from the operator and fill it into the profile.

Then fill your send Email Info，you should make sure the info is correct.

Step3：Set the received info:

1） Please enter your receive Email address and phone numbers. Make sure they are correct.

2) The attached file is the demo file.

BG8304.TXT

3) After you finish entering the profile, create a folder named “GSM” in your SD Card. Then put the profile into the folder.

Step1: Create the “GSM” folder in SD Card

Step2: Put the profile “BG8304.TXT” into the folder

4.2 Manually Send an MMS or GPRS Photo

After you generate a setting file in your SD card, please slide the power switch to “**SETUP**” position. When the camera acquires signal and the SIM card icon appears, target an object and press “**Shot key**” to take a photo manually.

Then press the key “Playback” to review the photos, press “▲” and “▼” to switch previous or next photo. Press “**MENU**” and you can see a Send **Phone [MMS]** or **Email GPRS** interface, press “OK” to send out the MMS or Email.

After a few seconds (Usually less than 1Min), you will receive an MMS in your phone or Email in your mailbox.

4.3 SMS Control

When the camera is working, you can send a text message “#T#” to your camera’s SIM card to get a spot image or use our APP (Chapter 5). Note: you need to set **SMS control as ON** when using SMS command. Down load the Android control software from our website. *The specified website is written in the last page of the manual.*

For iPhone, just download it from the App Store by searching Boskoncam.

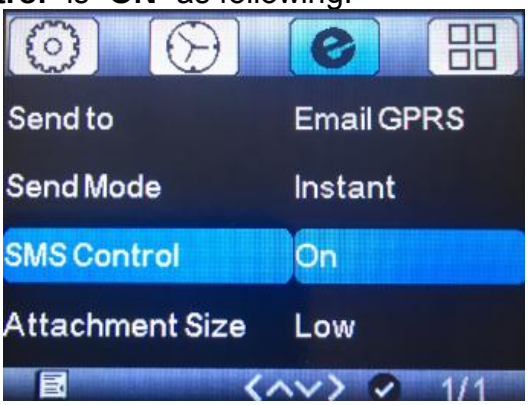
5 APP and SMS Commands

5.1 Change Settings via Android/iOS APP or SMS

If you find it inconvenient to use PC Settings, we provide an android /iOS APP to set up the camera.

When you are far away from your house, your camera position, you can get spot photos or change camera settings via our android/iOS APP or SMS.

If you want to use SMS Commands to control the camera, please make sure the submenu item "**SMS Control**" is "**ON**" as following:



After changing the "**SMS Control**" to "**ON**", slide the mode switch to "**ON**". Wait about 1min when the Indicated LED finish blink, you can send SMS commands.

5.2 User Jurisdiction

There are two user Jurisdiction: administrator and normal users. Each user has a different Jurisdiction level:

Functions	User Jurisdiction
Set administrator phone number	Only administrator's password
Set administrator's password	Administrator
Set camera parameters	Administrator
Set normal user	Administrator
Send SMS for on spot picture	Administrator
Receive MMS when triggered	Administrator, normal user
Check camera status	Administrator, normal user
Get help information	Administrator, normal user

5.3 Use the Android/iOS APP

It's easy to use the Android/iOS 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.

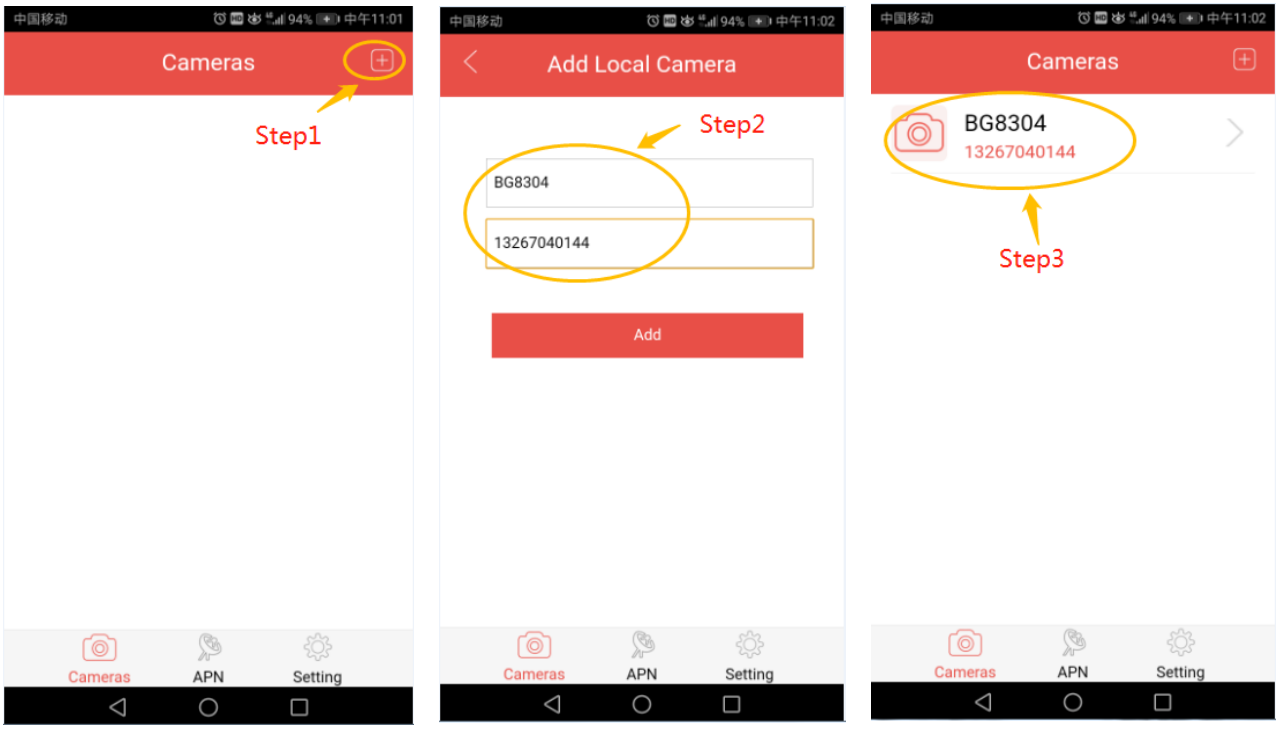
If you not use the "BG8304.txt" to set MMS and GPRS parameters, you should do the setting as following steps:

Step1: Click the button to add a camera.

Step2: Enter the camera's name and SIM card number. Then click Add to add the

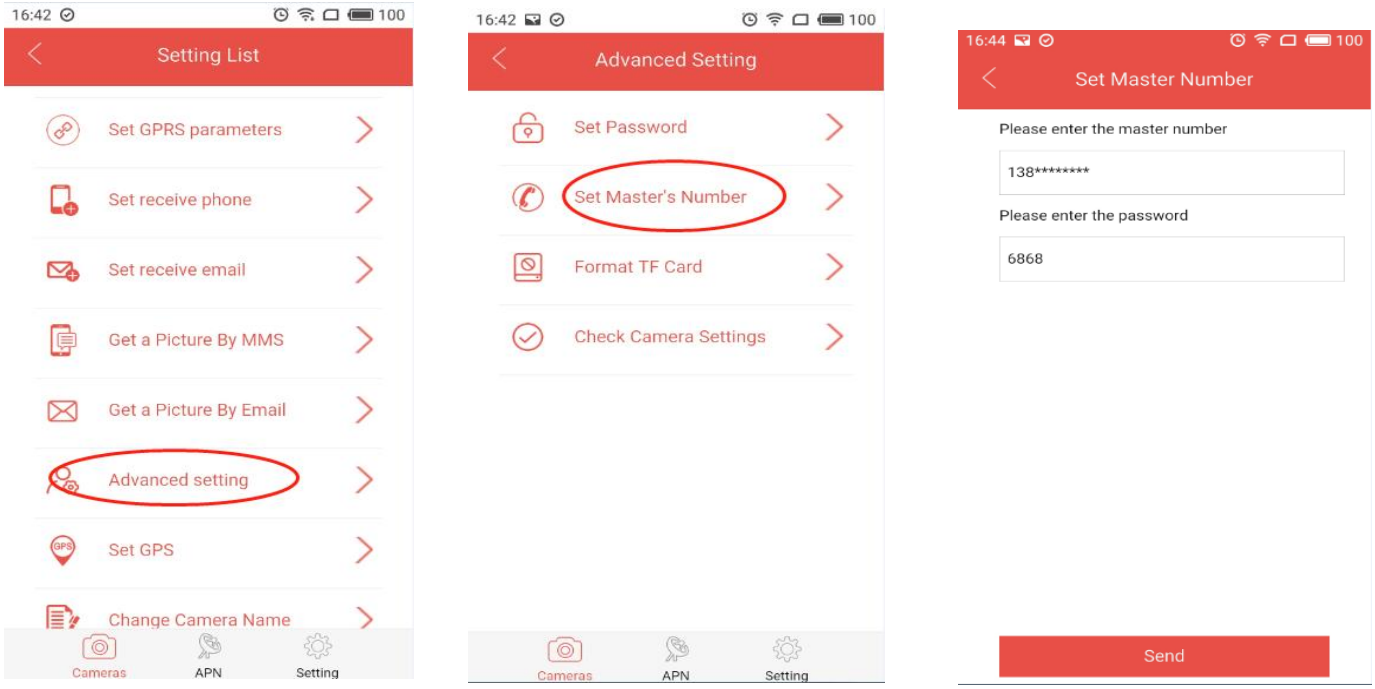
camera.

Step3: Click the “ BG8304 13267040144 ” to enter the setting page.



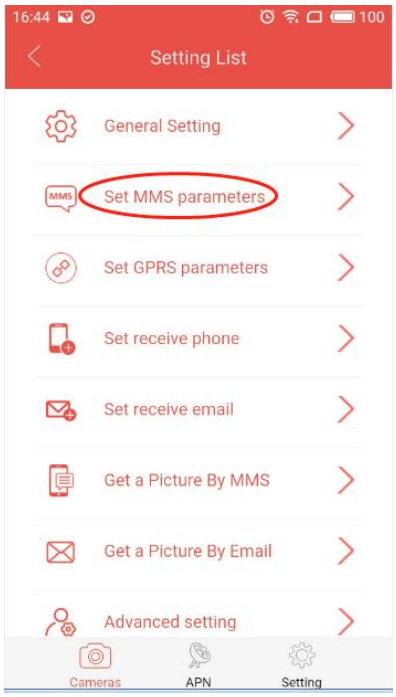
5.3.1 Firstly, set administrator number.

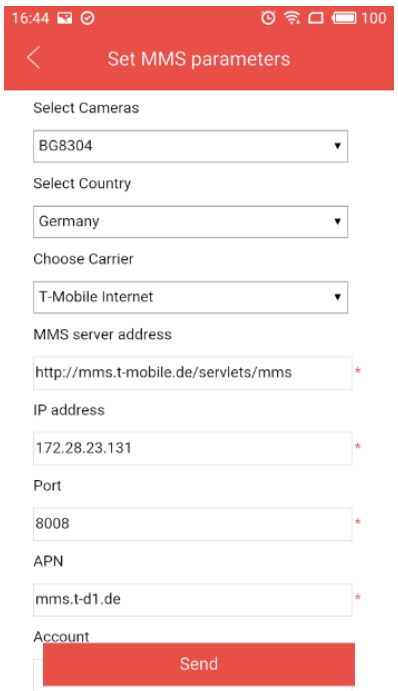
1: Click “**Advanced setting”** the Advanced setting list will be shown.
2: Click “**Set Master’s Number**”, the Set Master’s Number list will be shown.
3: Enter your master number and password in the Set Master Number page(The initial password is 6868),
4: Then click Send. After a few seconds, you can receive on message form the camera like “**Dear master, your number is 138********”**.



5.3.2 Set MMS Parameters:

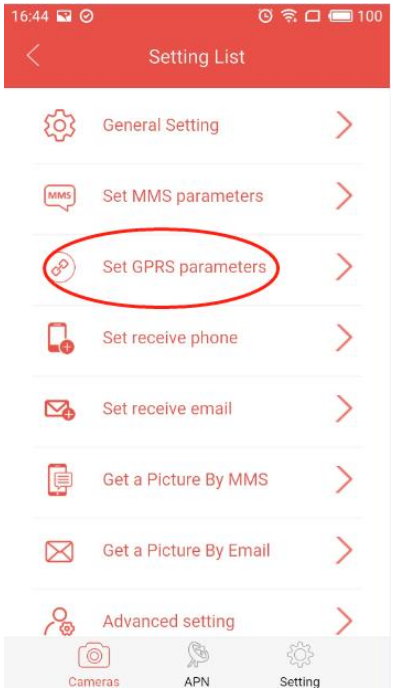
Click "**Set MMS parameters**" to enter the MMS parameters setting page.
Choose your Country and SIM card Operator. You can setting MMS parameters automatically. Then click Send, you will receive one message from the camera like "**URL= http://******, IP=******, port=**, APN=******, Account=******, Password=********"

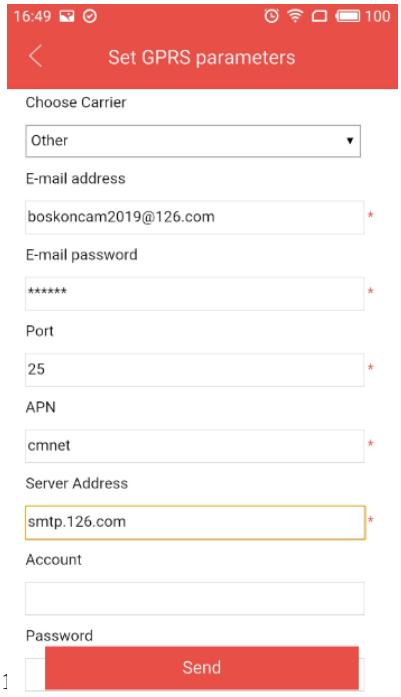




5.3.3 Set GPRS Parameters:

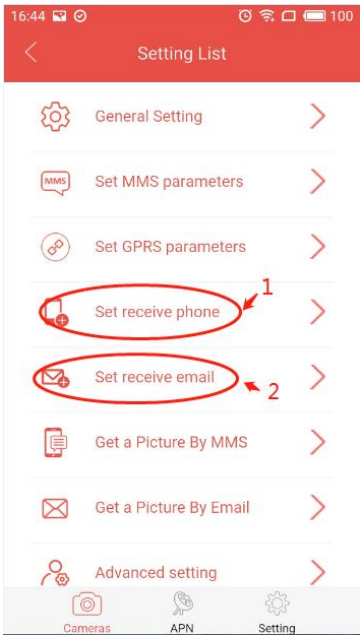
Click "**Set GPRS parameters**" to enter the GPRS parameters setting page.
Enter your sending Email address and password. Enter the port and SMTP server. Then click Send, you will receive one message from the camera after few seconds like "**SendEmailServer=smtp.***.com,SendEmailPort=***,GPRSAPN=***,GPRSAccount=, GPRSPassword=,SendEmailAddr=******@**.com,SendEmailPassword=******".**

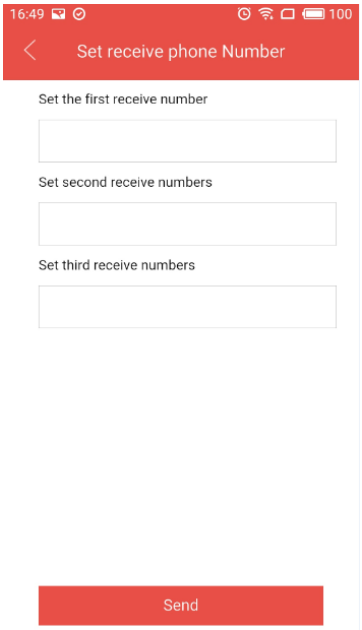


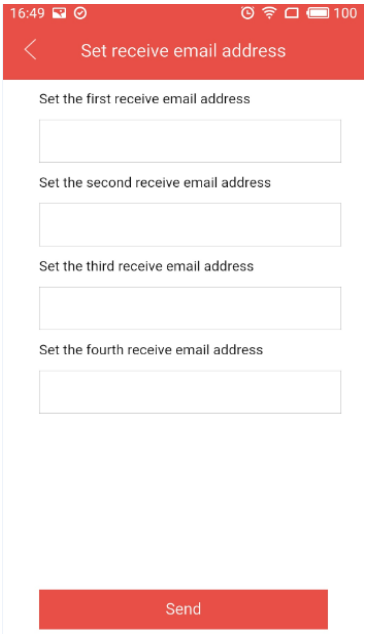


5.3.4 Set receive numbers and email-address:

Enter your received numbers and received email address pages.

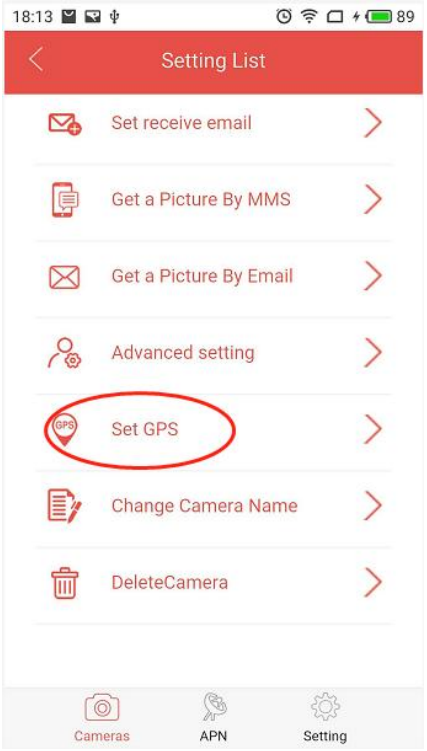


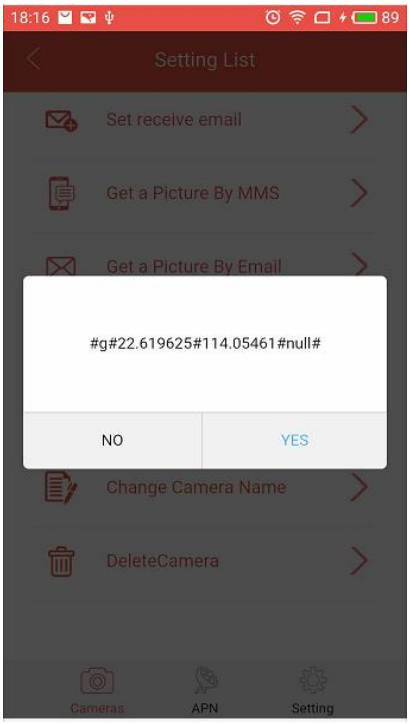




5.3.5 Set GPS Info:

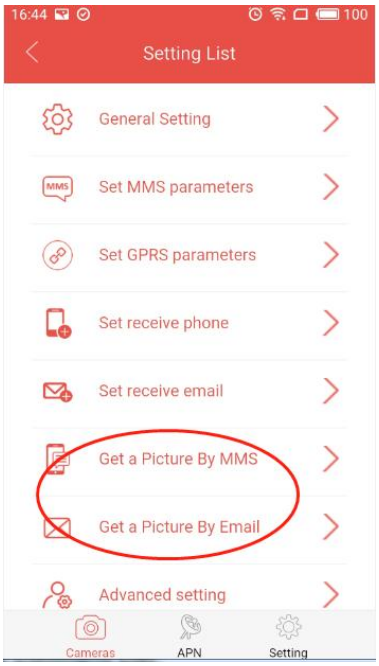
Click "**Set GPS**" to set the current GPS info to the camera. It is the real position when you put your camera on a tree or some place. Please make sure the switch of "GPS" in your cell phone (master number) is turned on. Then you can find the GPS info on the stamp as follows:





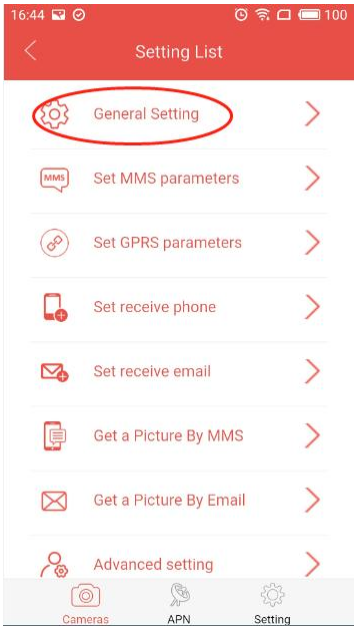
5.3.6 Get one spot picture from the camera :

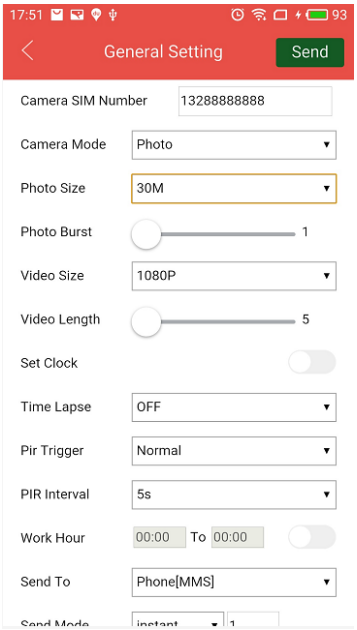
After you set parameters from 5.3.1~5.3.4 or use “BG8304.txt” to set the parameters. You can get a picture by MMS or by Email to verify the parameters. If the parameters are correct, you can receive one picture from the camera after 20s~40s. If not, please recheck the parameters you set before or do the steps from 5.3.1~5.3.4 again.

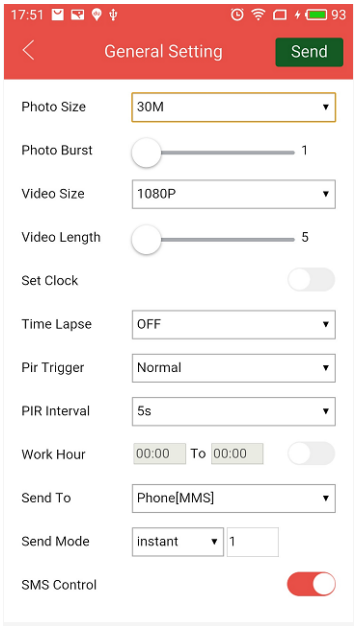


5.3.7 Change camera general settings :

Click “**General Settings**”, then enter general setting page. You can change any item like operating the camera’s menu settings.

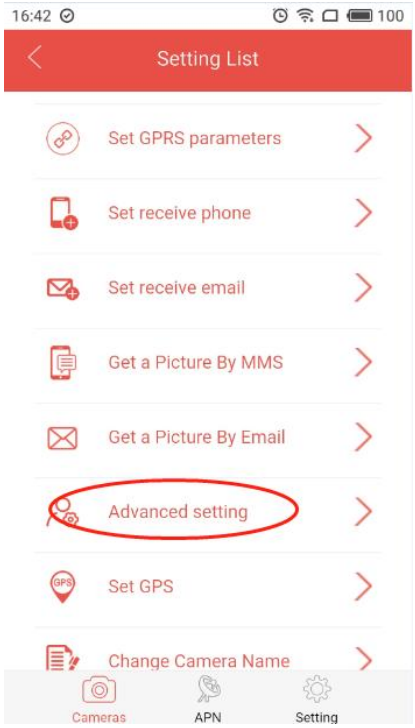


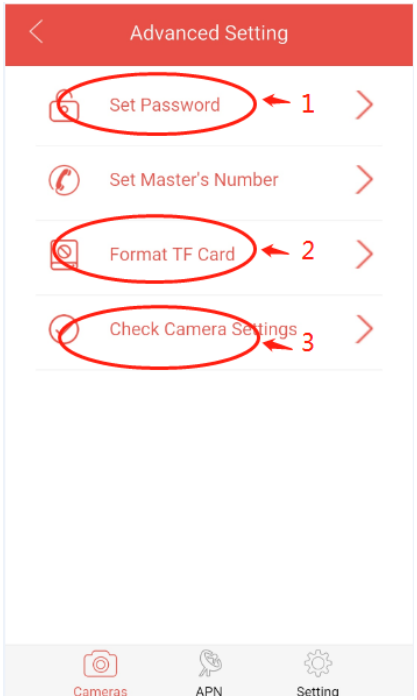




5.3.8 Other commands:

Click "**Advanced setting**", then you can change password, format SD/TF card, check all camera settings





5.4 SMS Command List

The list below shows all the SMS commands for you. You can control your camera via SMS.

A. Set Network Parameters		
No	**Functions**	**SMS Commands**
1	Set Normal Users Phone Number	#n#138********#150********#152********#
2	Set MMS Parameters	#m#http://mmsc.monternet.com#10.0.0.172#80#cmwap# name#password# (The example parameters are for the carrier of China Mobile)
3	Set Send Email Parameters	#s#bsktest123@163.com#bsk123#25#cmnet#smtp.163.com#name#password#
4	Set Receive E-mail address	#r#mail1@163.com#mail2@163.com #mail3@163.com #mail4@163.com#
B. Normal Control		
No	**Functions**	**SMS Commands**
1	Get One Spot Photo	#T# (Send MMS to phone) #T#E#(Send to email by GPRS)
2	Check Camera	#L#

	Settings	
3	Format SD Card	#F#
4	Set Administrator's Password	**#P#0000#** (It's suggested that the administrators password be changed at the beginning)
5	Set GPS Info	#g# Latitude# Longitude# Altitude#
6	Help	#H#
C. Set Menu Parameter		
No	**Functions**	**SMS Commands**
1	Change Camera Mode	#e#cp# (photo mode) or #e#cv# (video mode) or #e#ct#(pic+video)
2	Change Photo Size	#e#s8# (8mp) or #e#s14# (14mp) or #e#s30(36Mp)#
3	Change Photo Burst	#e#b1# (1~5 photos)
4	Change Video Size	#e#ff#(1080p) or #e#fh#(720p) or #e#fl#(VGA)
5	Change Video Length	#e#v5# or #e #v30# (the number after V is seconds)
6	Change Date Time	#e#t# (adjustment the time)
7	Change Time Lapse	#e#l1h# (1 hour) or #e#l5m# (5 min)
8	Change PIR Trigger	#e#po# (Off) or #e#ph# (High) or #e#pn# (Normal) or #e#pl# (Low)
10	Change PIR Interval	#e#i30m# (30min) or #e#i30s# (30sec)
11	Change Send To	#e#mp# (phone) or #e#mg# (e-mail gprs)
12	Change Send Mode	#e#ed# (daily) or #e#ei10# (to set instant mode and the max number per day) or #e#eo# (off) or #e#em#(Manual)
13	Change Work Hour	#e#hoff# or #e#hon10:00-18:00#

6 Normal Questions and Advice

6.1 The camera can't capture the target

1. Please check the protective film of the PIR Fresnel lens is removed or not.
2. Check the "**PIR Trigger**" (PIR sensitivity) parameter setting. For warm environmental conditions, set the Sensor Level to "**High**" and for cold weather use, set the sensor for "**Low**".
3. Try to set your camera up in an area where no heat resources are in the camera's field of view.
4. Try to set camera on stable and immovable objects, i.e.: big trees.
5. If human being/animal moves fast, it may move out of the camera's field of view before photo is taken. Move camera further back or redirect camera.

6.2 The camera stops taking images or won't take images

1. Please make sure that the SD card is not full. If the card is full, the camera will stop taking images.
2. Please make sure the batteries power is sufficient.
3. Make sure the camera mode switch slide to "**ON**" position.
4. When sending(MMS or Email) function is on, there will be around 1-minute interval for the camera to send out photo before camera shooting the next photo. Turn off the sending function; camera can shoot photos continuously.
5. Please format the SD card with the camera before using or when the camera stops taking images.

6.3 The camera stops sending photos/videos to email(s) or MMS(s).

1. Check if the SIM card is out of the connection.
2. Check if the SIM card is available.
3. Check if the signal is too weak or there is no signal covered.
4. Make sure the GPRS/MMS parameters setting is correct (check the manual).

Appendix I: Specifications

Image Sensor	14MP Color CMOS, 36MP Interpolation
Lens	F/NO=1.8；FOV=70°
PIR Detection Range	25m/85ft
Display Screen	2.31'' TFT
Memory Card	Up to 32 GB
Picture Resolution	36MP = 7000×5250 14MP = 4320×3240 8MP = 3264×2448
Video Resolution	1080FHD(1920×1080) 720P HD (1280×720) VGA (640×480)
PIR Sensitivity	Adjustable (High / Normal / Low/Off)
Trigger Time	<0.8s
Weight	0.30 kg(without battery)
Operation/Storage Temperature	-20 ~ +60°C / -30 ~ +70°C
PIR Interval	0 sec ~ 60 min
Video Length	5 ~ 180 sec
Power Supply	8AA or 12AA 5~12V External Power Supply
Stand-by Current	< 0.25 mA (<6mAh / Day)
Sound Recording	Available
Network	Yes(2G,3G,4G)
Send Original Picture	Yes (not available for Verizon)
Send Videos(<10MB)	Yes(not available for Verizon)
SMS Remote Control	Yes
GPS Setting	Yes(Show LNG&LAT)
APP	Android/iOS APP
Language	English, suomi, Deutsch, Svenskt, Dansk, Norsk, Czech, Russian, Italiano, French…..
Mounting	Rope(<Ø10mm) /Belt
Waterproof Grade	IP67
Dimensions	147 x96 x79 mm
Operation Humidity	5 % - 90 %
Security Authentication	FCC, CE, RoHS

Appendix II: Parts List

Part Name	Quantity
Trail Camera	One
USB Cable	One
Belt	One
User's Manual	One
Antenna	One
Warranty Card	One
SIM Card Adapter	One

Website Information: Download the APP software from here:
Android APP Download address：

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

(Version 1.0)

FCC ID:2ATLL-BG8304

FCC WARNING:

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

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.

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.

This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter