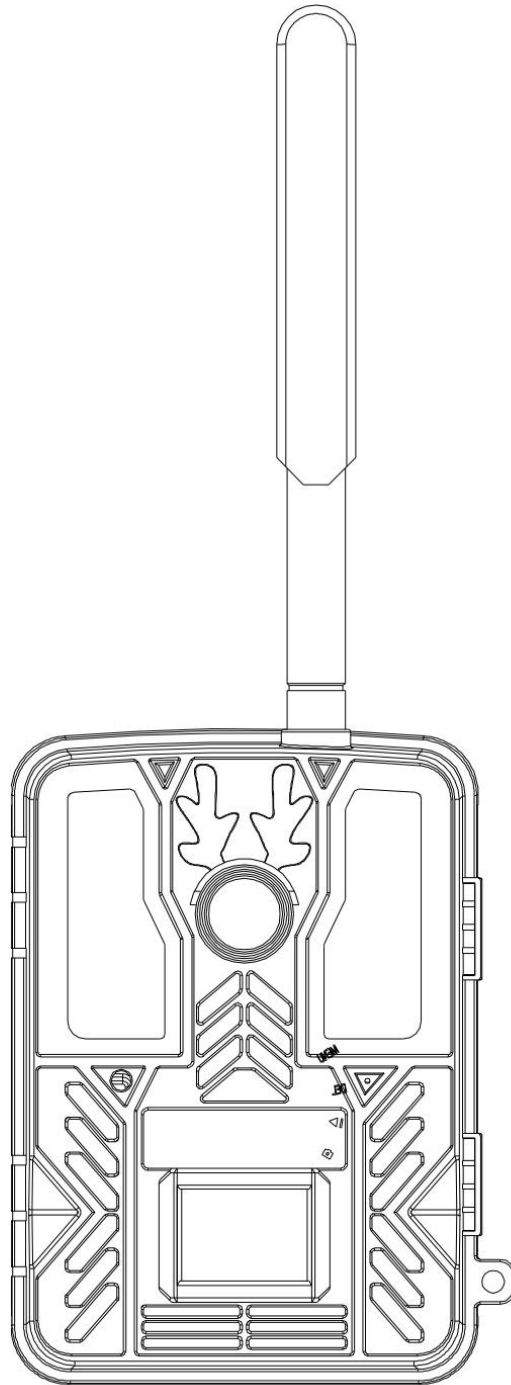


Wireless Trail Camera
BST8886 Series - 36M
User's Manual



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1 Introduction

1.1 General Description

Thank you for choosing BEST Hunting high qualified products. This camera is a digital Trail 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 36MP) 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 8MP/14MP/36MP high resolution;
- B. Support Full HD(1080P 30fps) video record;
- C. Take color pictures daylight and black white pictures at night;
- D. 48 pcs No glow IR LEDs for flash range as 90ft;
- 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 85ft);
- I. Adjustable PIR sensitivity;
- J. SMS Remote control (Android and IOS APP);
- K. Support most (maybe all) Bands of operators;
- L. MMS/GPRS/SMTP /FTP 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.

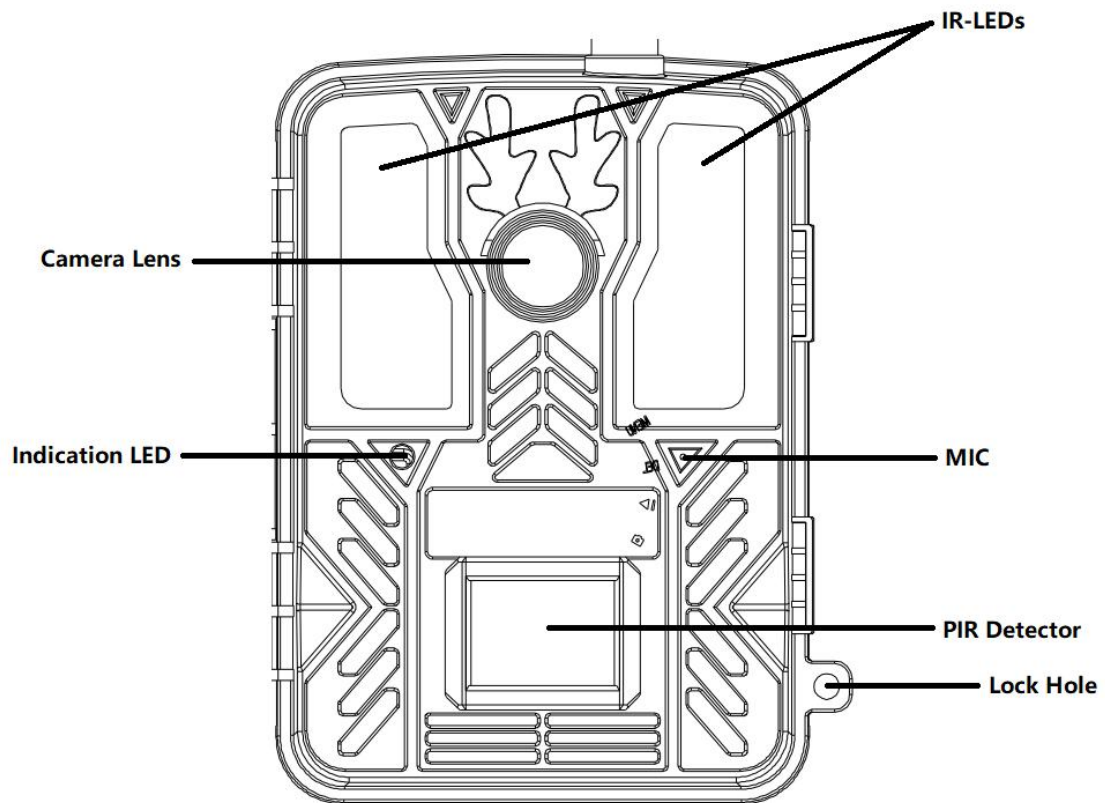


Figure 1 Diagram of camera functional indicators

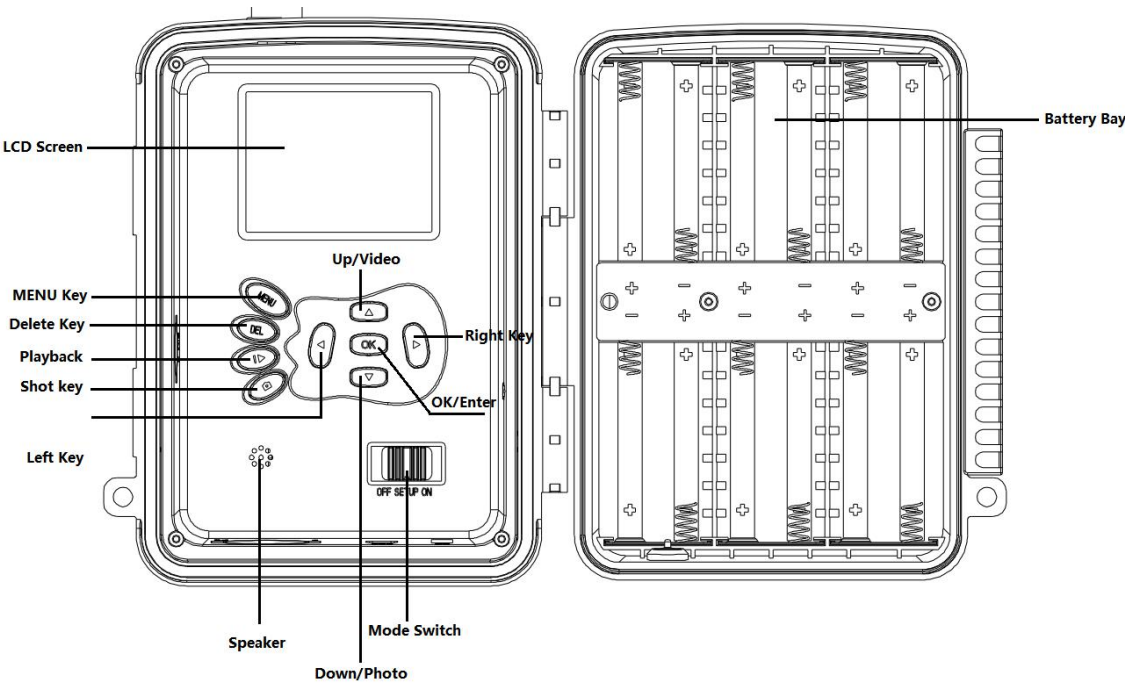


Figure 2 Inner panel view and Diagram of Input Keys

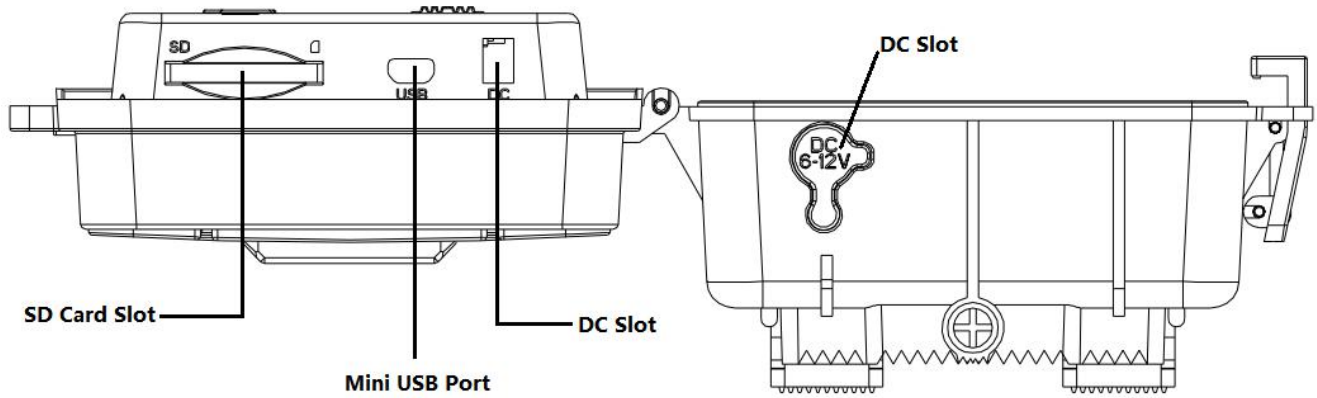


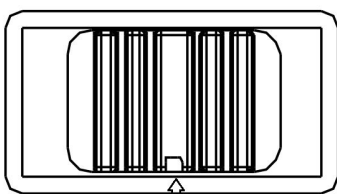
Figure 3 Diagram of camera interfaces

2.2 Mode Switch Introduction

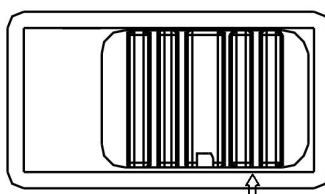
Setup Mode: Slide the Mode Switch to “**SET UP**”, then the Camera will enter Set up mode. In this mode, you can program the camera or to playback the photos or video clips.

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.

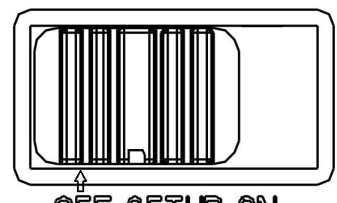
OFF Mode: Slide the Mode Switch to “**OFF**”, then the camera will power off.



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.

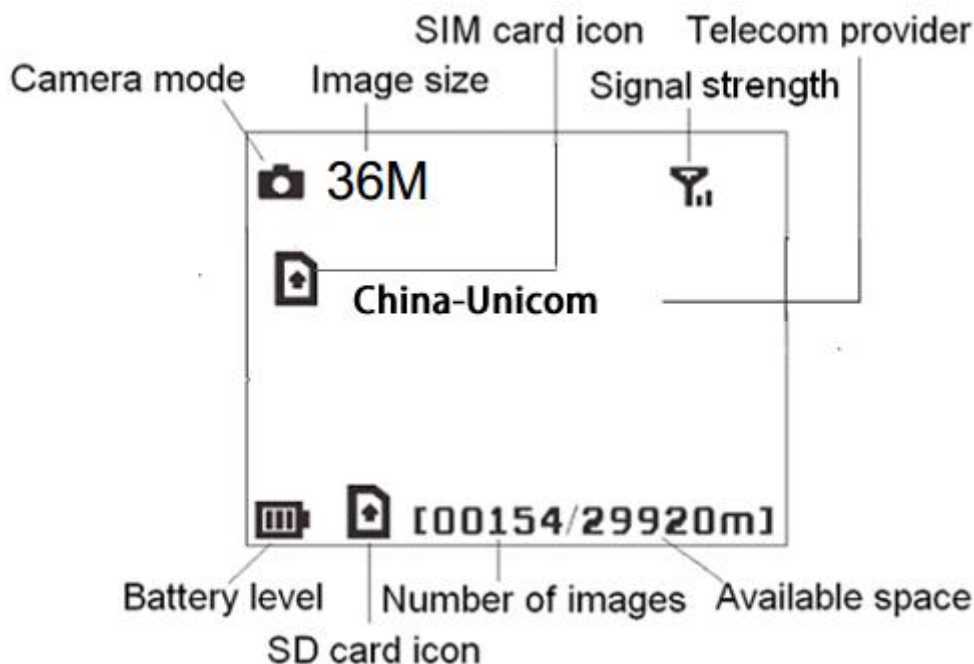


Figure 5 Preview information display



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	5s to 180s 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:

	<ol style="list-style-type: none"> 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. <p>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.</p> <p>Default: Email-GPRS</p>
Send Mode	<p>There are 4 Send modes: "Manual" works in "SETUP" mode, "Daily" and "Instant" work in "ON" mode. "OFF" means to close the communication function.</p> <ol style="list-style-type: none"> 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. <p>Default: Instant(99 number)</p>
SMS Control	<p>SMS Control enables two way communication. 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 email. There are 3 options for this setting.</p> <p>Low: Sends a severely compressed picture.</p> <p>Normal: Sends a slightly compressed picture.</p> <p>High: Sends the original pictures. (Not available for Verizon)</p> <p>Default: High</p>
Network Mode	<p>Choose the network mode. You can choose GSM Only when the LTE and WCDMA networks are unstable.</p> <p>Auto: Auto register network (3G/4G priority).</p> <p>GSM Only: Only register GSM network.</p> <p>Default: Auto</p>
Other Function Settings	
Language	Choose language. Default: English
Beep Sound	Enable or disable the beep sound. Default: OFF
Camera ID	Set Camera IDs
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 Set network by profile and keypad

4.1 Get Profile from Best Hunting Expert:

For assistance with the camera setup, you can get the sample Profile “BST886.txt” from Best hunting expert .

1. Open the profile “BST886.txt”, then you can change the parameters as following (China Mobile as sample) :

```
[BSTFileMark]
Model=BST886
```

```
[Via WAP Settings]
URL=http://mmmc.monternet.com
APN=cmwap
IP=10.0.0.172
Port=80
Account=
Password=
```

Step1: Set MMS Parameters

```
[Via Internet Settings]
GPRSAPN=cmnet
GPRSAccount=
GPRSPassword=
SendEmailServer=smtp.126.com
SendEmailPort=25
SendEmailAddr=zhangsan@126.com
SendEmailPassword=*****
```

Step2: Set GPRS Parameters

```
[Receive number and receive email]
AdministratorNum=150xxxxxxx
PhoneNum2=
PhoneNum3=
PhoneNum4=
ReceiveEmail1=lisi@126.com
ReceiveEmail2=
ReceiveEmail3=
ReceiveEmail4=
```

Step3: Set Recieve Parameters

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 customer to get them.

Step2: Set Email-GPRS parameters:

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

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

Step3: Set the receive info:

Please fill your receive Email address and phone numbers. Make sure they are correct.

- 1) The attached file is the demo file.



BST886.TXT

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



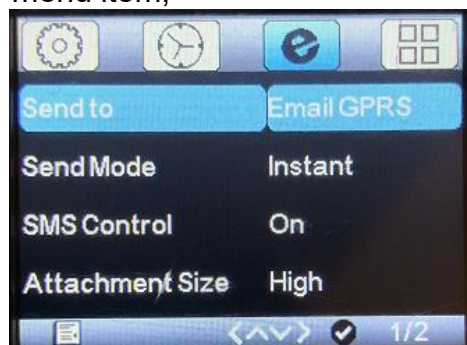
Step1: Create “GSM” folder in SD Card



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

4.2 Use the Internal keypad to set Parameters(Email GPRS for Example).

Step1: Find the Email-GPRS menu item;

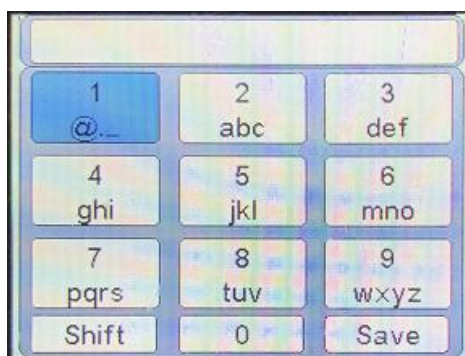


Step2: Press OK to Enter Email GPRS Parameter Setting page.



The screen displays the 'Email GPRS' title at the top. Below it are three input fields: 'Email User:', 'Email password:', and 'Server:'. The 'Email User:' field is currently selected and highlighted with a blue border. A small row of asterisks is visible between the 'Email User:' and 'Email password:' labels.

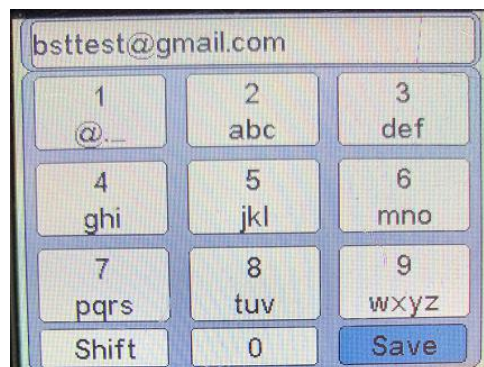
Step3: Press OK to Enter the keypad page.



The screen shows a numeric keypad with letters associated with each number. The layout is as follows:

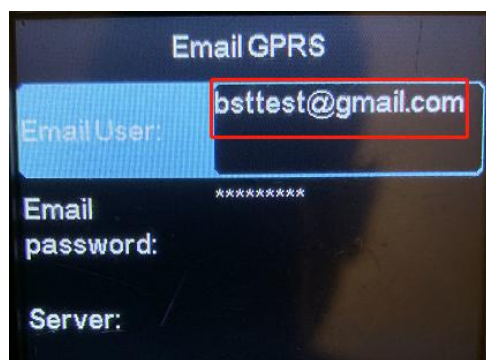
1 @_	2 abc	3 def
4 ghi	5 jkl	6 mno
7 pqrs	8 tuv	9 wxyz
Shift	0	Save

Step4: Use Up/Down/Left/Right/OK keys to set your Email Info.




The screen shows the same keypad as in Step 3, but the top input field now contains the email address 'bsttest@gmail.com'. The 'Save' button at the bottom right is highlighted with a blue border.

Step5: Press Save after you set your Email Info, then you can review them on the Email GPRS Parameter Setting page.



The screen displays the 'Email GPRS' title. The 'Email User:' field now contains the saved email address 'bsttest@gmail.com', which is highlighted with a red rectangular box. The 'Email password:' and 'Server:' fields remain empty. A small row of asterisks is visible between the 'Email User:' and 'Email password:' labels.

4.3 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, this file will automatically be uploaded to the camera and be deleted from the SD card. 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.

4.4 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 . Note: you need to set **SMS control as ON** when using SMS command.

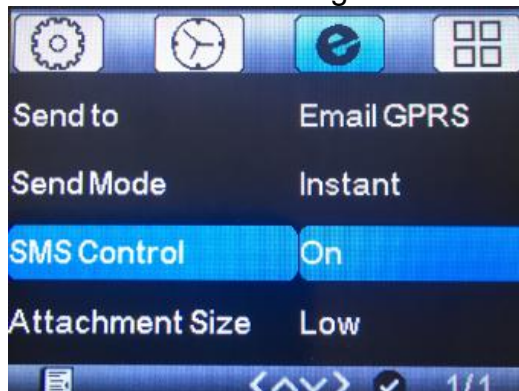
5 SMS Commands

5.1 Change Settings via 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 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

Under Development.

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 Administrator Number	#BST886#6868#136*****#
2	Set Normal Users Phone Number	#n#138*****#150*****#152*****#
3	Set MMS Parameters	#m# http://mmmc.monternet.com #10.0.0.172#80#cmwap# name#password# (The example parameters are for the carrier of China Mobile)
4	Set Send Email Parameters	#s#bsttest123@163.com#bst123#25#cmnet#smtp.163.com#name#password#
5	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 Settings	#L#
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

Supporting network	Worldwide FDD-LTE, UMTS/HSPA+ and GSM/GPRS/EDGE coverage
MMS Function	1-4 mobile ID(only sent picture)
SMTP function	1-4 Email (3G/4G network support No SSL/SSL/TSL ,can send original picture and video (video<10MB), Picture+video only sent picture)
SMS Remote Control	Yes
FTP function	Yes
APP	Under Development
Send Original Picture	Yes (not available for Verizon)
Send Videos(<10MB)	Yes(not available for Verizon)
Image Sensor	14MP Color CMOS, 36MP Interpolation
Lens	F/NO=1.8; FOV=70°
Picture size	36MP = 7000×5250,14MP = 4320×3240,8MP = 3264×2448
Picture Format	JPG
Video Resolution	1080PFHD(1920×1080) 30 fps, 720P HD (1280×720) 30fps VGA (640×480)
Video Format	MOV H.264
Video Length	5 ~ 180 sec programmable
Display Screen	2.31" TFT
Memory Card	Up to 32 GB
IR Led	48 pcs 940nm No glow IR LED
IR range	28m/90ft
Day/Night Mode	Auto
PIR Sensitivity	Adjustable (High / Normal / Low/Off)
PIR Detection Range	25m/85ft
Shooting Numbers	1~5
Trigger Time	<0.6s

Trigger Interval	0 sec ~ 60 min
Time lapse	supporting
Built-in Speaker	Yes,ON/OFF
Sound Recording	Available
Power Supply	8AA or 12AA, 5~12V External Power Supply
Stand-by Current	< 0.20 mA (<6mAh / Day)
Language	English, suomi, Deutsch, Svenskt, Dansk, Norsk, Czech, Russian, Italiano, French,Chinese.....
Mounting	Rope(<ø10mm) /Belt
Operation/Storage Temperature	-20 ~ +60°C / -30 ~ +70°C
Operation Humidity	5 % - 90 %
Waterproof Grade	IP67
Dimensions	147 x 96 x 79 mm
Weight	0.30 kg(without battery)
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

(Version 1.0)