HCO BG30L

Mobile (GSM) Surveillance Camera/Alarm System

User's Manual

Content

1 Product Information

General Description

The BG30L is a portable GSM Camera/Alarm system. It is based on GSM GPRS MMS (Multimedia Massage Service), GSM SMS (Short Message Service) and GSM Voice Technologies. You will need an activated SIM card from GSM wireless carrier with voice (listen-in function), text message (SMS) or data plan (GPRS). After being activated, it will send images (MMS) to your cell phone or e-mail. It also can send text alert (SMS) to your cell phone. It can be activated by motion (PIR Motion Detector) or text message command sent from your cell phone. The BG30L works 24/7. With its 940nm IR flash, it can take nighttime image without any visible flash light.

The BG30L can monitor your home, office, shop, store, warehouse or factory anywhere, any time. It also can be used for wildlife monitoring as well.

The BG30L can be programmed by PC through Micro SD card or USB cable. It also can be programmed by SMS command from your cell phone.

Interfaces

- LCD display
- USB port
- Micro SD card slot
- SIM-card slot.
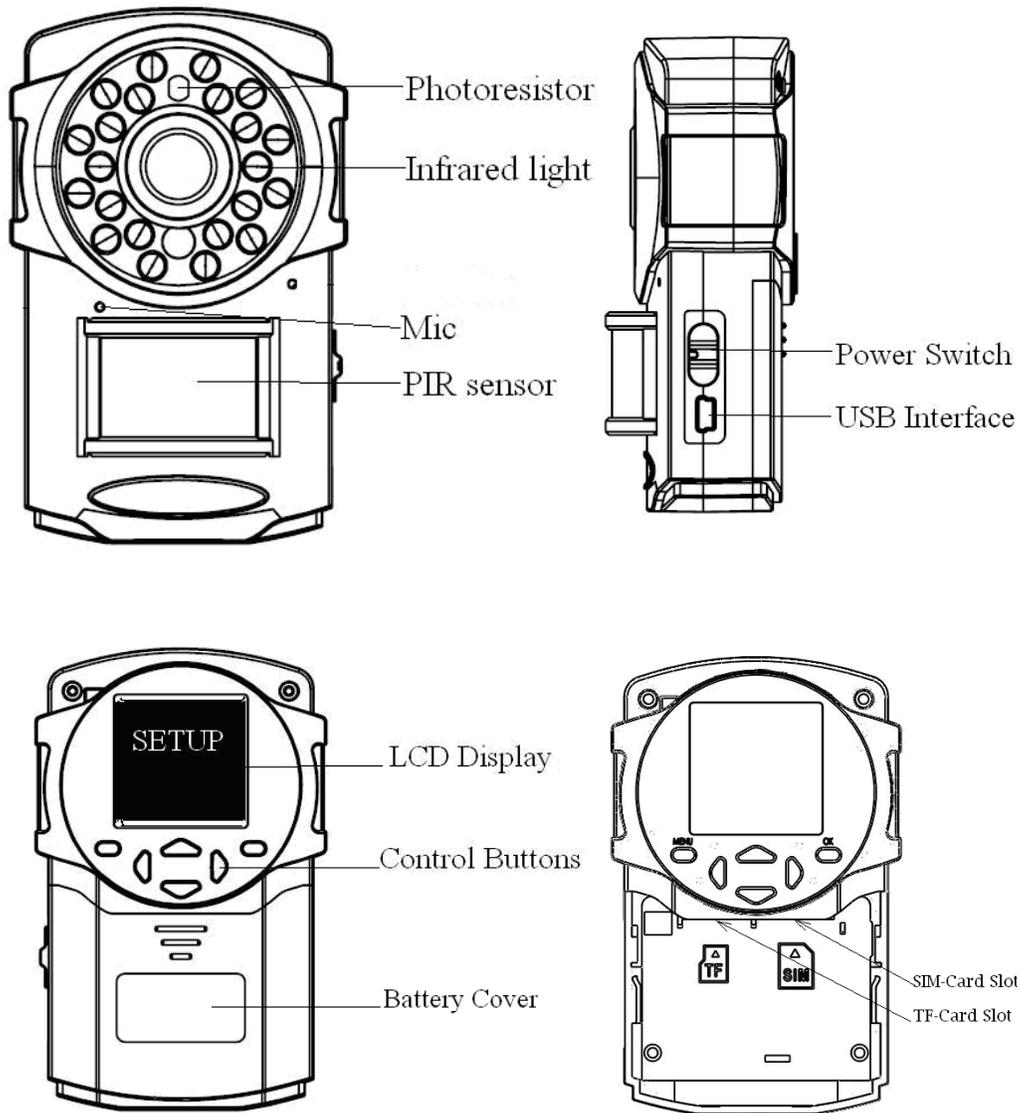
Information Display

When the camera is on (the power switch is switched to **ON** position), the camera setting information will be displayed on LCD display.

Signal Strength — Y.ıl A
Arm Status —

08-30-2011
12:24:12

Number of images —

[00000 / 300100]

Battery level
SIM Card
Date(M:D:Y)
Time(H:M:S)

Micro SD card capacity

Y.ıl A
08-30-2011
12:24:12
|00000 / 300100|

Blank(Setting mode)
A(Arm mode)
D(Disarm mode)

Menu
(Setting mode)
(Light Screen)

OK
(Check Status)

Left
(A(Arm))

Right
(C(Disarm))

Up
(Laser pointer)

Down
(Off Screen)

Arm — A   B — Laser

Emergency — C   D — Disarm
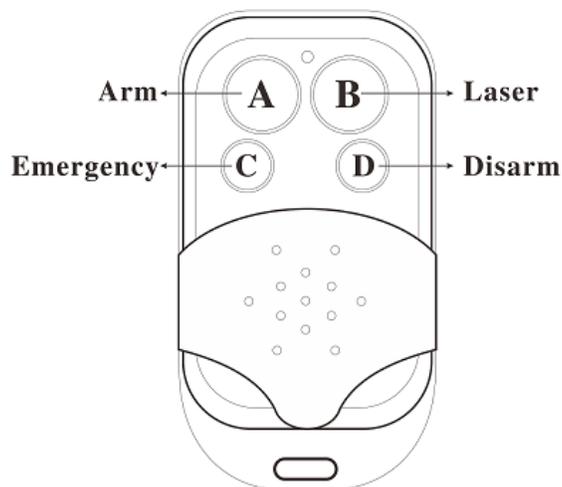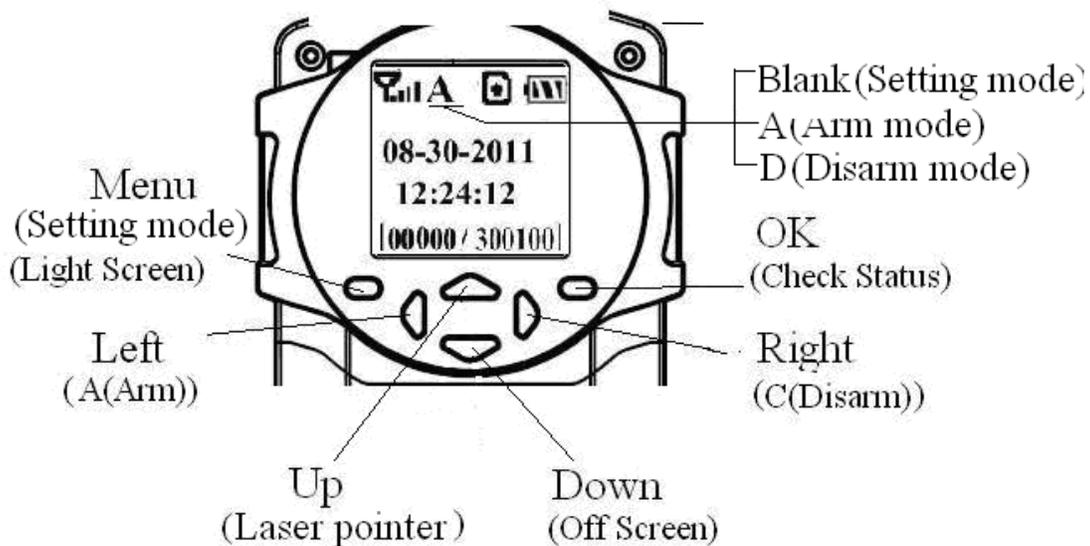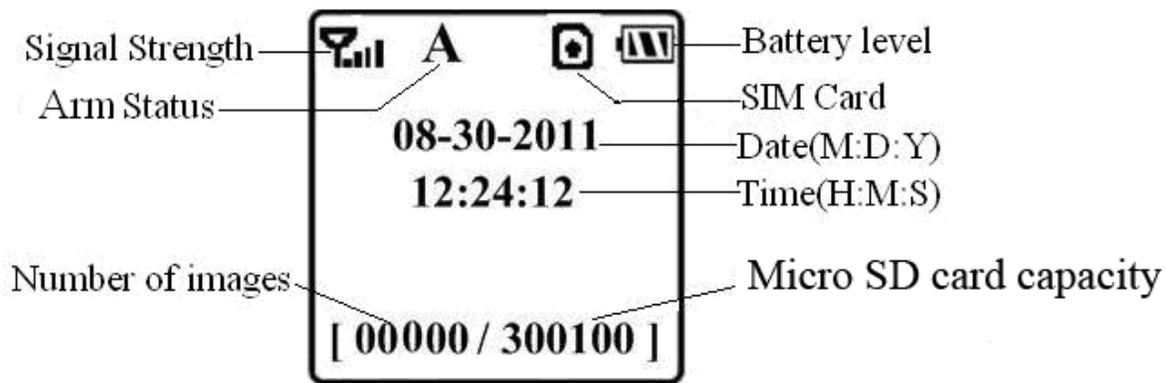
Features

- GSM wireless camera/alarm system

The system is based on GSM GPRS MMS (Multimedia Message Service), GSM SMS (Short Message Service) and GSM Voice Technologies. When it is activated, it will send MMS (Pictures) and text alert by SMS to your cell phone. It also can send MMS (Pictures) to your Email.

- Standalone system, installation is very simple

The unit can work as a separate camera/alarm system and talks directly with your cell phone or Email. With build-in Li-ion battery and capacity to be connected to external power source, the unit is extremely easy to be installed anywhere with cellular network and start working immediately.

- Super compact

The unit weight around 6 oz and measures 4-1/4 inches by 2-3/4 inches by 1-1/2 inches.

- Black-out IR flash

940nm IR LEDs provide invisible flash during night time.

- Two-way communication

You can send text command to the unit and it will take a picture or change the setting and reply with the status. This will help you control the camera remotely.

- Real-time sound monitoring

By calling the number, it will pick up and let you hear the surrounding sound.

- RF wireless remote control

It will allow you to ARM, DISARM, turn on laser pointer (position assistance) or make emergency calls without touching the unit.

- Integrate with wireless motion detector

You can program a regular 433MHZ wireless motion detector to the camera to trigger the camera.

- Very low power consumption

With <0.25mA (<6mAh/Day) standby current, build-in Li-ion battery will take and send hundreds of images. You also can use the external power source.

2 Cautions

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- We hold no responsibility for any loss of data or income; or any special, incidental, consequential or indirect damages howsoever caused.

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3   Quick Start

- In this manual, we will use AT&T setup parameters as sample. If you are not using AT&T, you will need to contact your wireless carrier for the correct parameters.
- In this manual, 1234567890 is the master number. 1234567891, 1234567892 and 1234567893 are normal user. You will need to change them to the correct number you are using.
- You must set a master number.
- You must set the network parameters for MMS, SMS and e-mail.
- You must set at least one receiving phone number or one receiving e-mail address.

3.1 Install Micro SD card and SIM card

Open the battery cover. Insert Micro SD card and SIM card into the card slot according to the direction shown.
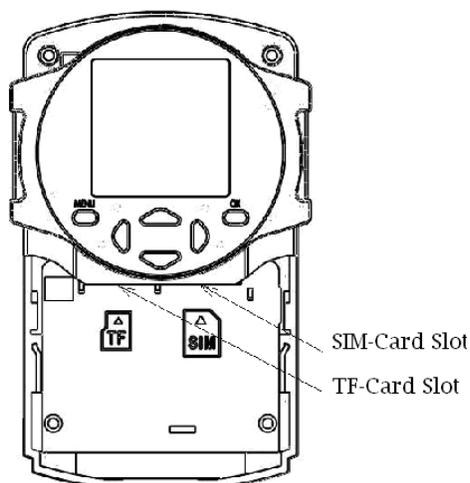
3.2 Insert the battery and Power on

Open the battery cover. Find the spare lithium battery connector and connect

to the lithium battery. Insert the power adapter (supplied) into the Power/USB interface for power supply, and slide the power switch to ON position.

Backup Battery Connector

Power/USB interface
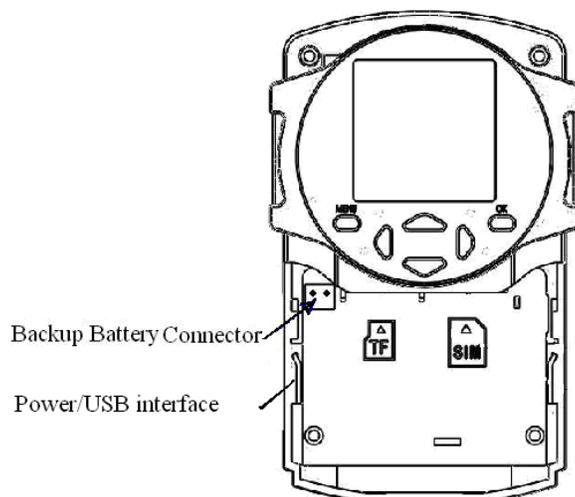
3.3 Steps：

Step 1: Confirm cards status

Confirm the Micro SD card and SIM card are inserted correctly. You can see the card status on the display.

SIM Card

08-30-2011
12:24:12

Micro SD Card Capacity

[00000 / 300100]
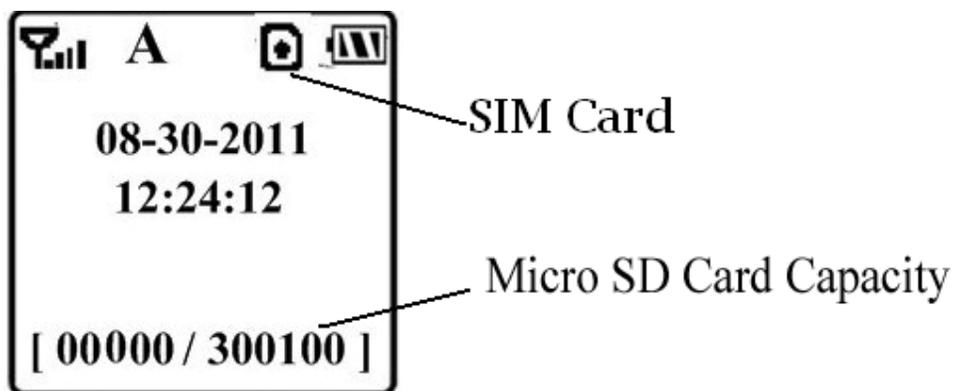
means the SIM card is inserted and it works well. means no SIM card or the SIM card is not properly inserted.

Micro SD card capacity means how many pictures can be stored. It

should be a non-zero number.

Step 2: Edit MMS parameters via PC

A new file named"profile.txt" is created automatically in a new folder named "MMS" in the Micro SD card. Open the file with notepad and edit the file to set the MMS parameters, below is for reference:

; for MMS application

[Via WAP Settings]

When Send Mode is Number, these parameters need to be edited. They are network WAP settings.

> **URL=http://mmsc.cingular.com**
> **APN=wap.cingular**
> **IP=066.209.11.32**
> **Port=80**
> **Account=**
> **Password=**

Receiving phone numbers:

> **MasterNum=**
> **PhoneNum2=**
> **PhoneNum3=**
> **PhoneNum4=**

; for Email application

[Via Internet Settings]

When Send Mode is E-mail, these parameters need to be edited. They are network internet settings.

GPRSAPN=wap.cingular

GPRSAccount=wap@cingulargprs.com

GPRSPassword=CINGULAR1

Receiving e-mail addresses:

ReceiveEmail1=

ReceiveEmail2=

ReceiveEmail3=

ReceiveEmail4=

Sending E-mail parameters (Default settings can be used).

SendEmailAddr=

SendEmailPassword=

SendEmailPort=

SendEmailServer=

Step 3: Choose "Send Mode"

There are 3 mode: Number (Send MMS to mobile phone), e-mail (Send images to E-mail address), and Local (Just store images in the Micro SD card, do not send out). For the first time use, we suggest you choose "Number" to test if you can get MMS.

Step 4: Go to Arm Status

Arm status is the live status. The camera can be set to ARM by 2 ways:

- When the camera is ON, don't press any key for 1 minute, the camera will automatically switch to Arm Status.

- Use the remote control, press "A", then it will go to Arm Status immediately.
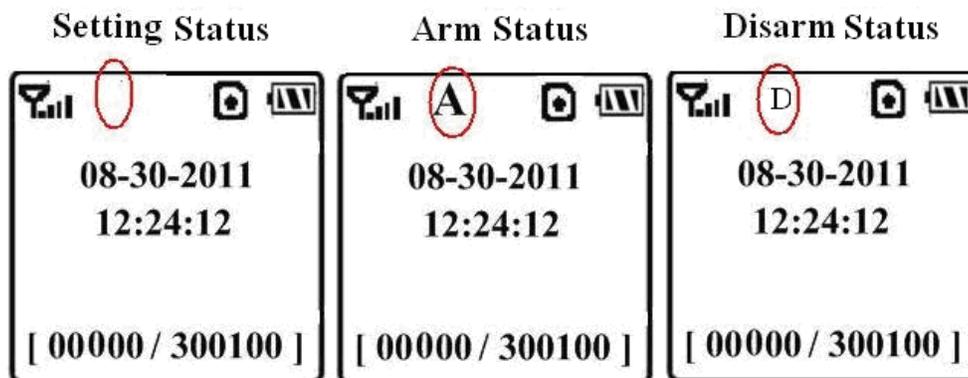
In ARM Status, when it's triggered, the camera will do the following:

- **Only insert Micro SD card**: It will take a picture and store the picture in the Micro SD card only.
- **Only insert SIM card**: It will take a picture and send out via MMS or email only.
- **Insert both Micro SD and SIM card**: It will take a picture, store in the Micro SD card and send out to your cell phone or your email.

Step 5: Check setting parameters

If you can't get MMS or the camera is not working properly, you can press "OK" button when you are at Home screen (before enter the Menu), it will show you the current MMS settings for you to check.

Step 6: Get on-spot images via SMS

When the camera is armed and the Send Mode is Number, you can send a text message #T # to your camera's SIM card number to get an on-spot image.
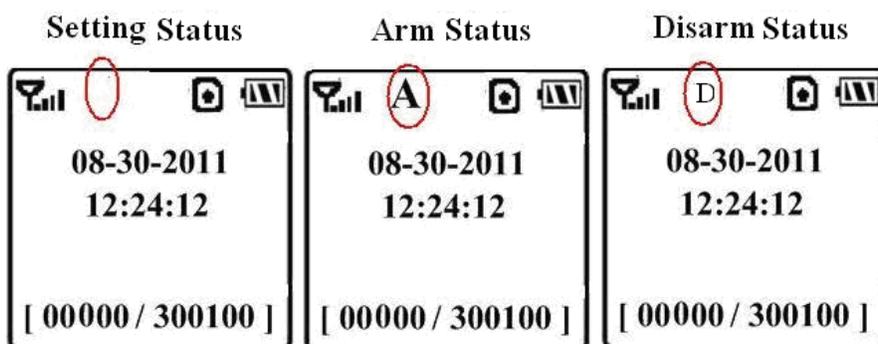
4   Camera Setup

4.1 Mount the camera

The camera features a tripod mounting hole in the bottom with a standard screw thread. You can mount it to any suitable surface. You can press "⬠"button to turn on the laser pointer to help with your mounting.

4.2 Camera status

From the basic operations of the camera in previous chapter, we know that the camera has three basic operation statuses:

- **Setting Status**: You can change or check camera settings in this status. You can also change or check the settings via SMS.
- **Arm Status**: It's the live status In ARM Status, when it's triggered, the camera will do the following:
  - ➤ **Only insert Micro SD card**: It will take a picture and store the picture in the Micro SD card only.
  - ➤ **Only insert SIM card**: It will take a picture and send out via MMS or email only.
  - ➤ **Insert both Micro SD and SIM card**: It will take a picture, store in the Micro SD card and send out to your cell phone or your email.
- **Disarm Status**: The camera will not be triggered in disarm status.

4.3 User authorization

There are two levels of users: Master and Normal users. Each user has a different authorization level:

Functions	User Level
Set master number	Only Master's password
Set master 's password	Master
Set camera parameters	Master
Set normal user	Master
Receive emergency calling	Master, Normal user
Send SMS for on spot picture	Master, Normal user
Call the camera to listen in live voice	Master, Normal user
Receive MMS when triggered	Master, Normal user
Check camera status	Master, Normal user
Get help information	Master, Normal user

4.4 Set Master Number

You should set a master number when you first use the camera. There are two ways to set the Master Number:

Method 1: Send SMS command:

Send **#BG30L#5555#1234567890#** to your camera's SIM card phone number. **5555** is the original master's password. Please note all the SMS commands should begin and end with "**#**". 1234567890 is the Master Number you want to use. If success, you will receive a reply SMS: **Dear master, your number is 1234567890**. If fail, you will receive a reply SMS: **Please check the password.**

Method 2: Editing the profile.txt:

After you open the profile.txt in a notepad, find the to **MasterNum=** line and

change to **MasterNum=1234567890**.

4.5 Set Normal Users

You can set at most 3 Normal Users. The Normal Users can be set by the Master. There are two ways to set the Master Number:

Method 1: Send SMS command:

Send **#N#1234567891#1234567892#1234567893#** to your camera's SIM card phone number. If success, you will receive a reply SMS:

http://mmsc.cingular.com, 066.209.11.32, 80, wap.cingular,,,

1234567890, 1234567891, 1234567892, 1234567893

If fail, you will receive a reply SMS: **Command error! Please check again.**
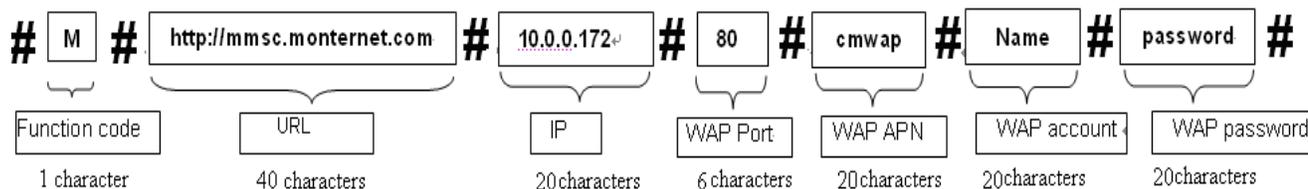
Method 2: Editing the profile.txt:

After you open the profile.txt in a notepad, find the PhoneNumX= line and change to PhoneNum2=1234567891, PhoneNum3=1234567892, PhoneNum4=1234567893.

4.6 Set MMS Parameters

If you want get instant MMS images when the camera is triggered, you should set the MMS parameters correctly.

Method 1: Send SMS command:

Send **#M#URL#IP#Port#APN#Account#Password#** to your camera's SIM card phone number. The following chart shows the meaning of each field. Please note that character **#** is between each field. Please don't forget the character "**#**" at the end of the command.

#	M	#	http://mmsc.monternet.com	#	10.0.0.172	#	80	#	cmwap	#	Name	#	password	#
	Function code		URL		IP		WAP Port		WAP APN		WAP account		WAP password	
	1 character		40 characters		20 characters		6 characters		20 characters		20 characters		20 characters	

Please note each field has a maximum character number limit.

If success, you will receive a reply SMS: **http://mmsc.cingular.com, 066.209.11.32, 80, wap.cingular, name, password, 1234567890,,,,**

If fail, you will receive a reply SMS: **Command error. Please check again!**

Method 2: Edit the profile.txt:

After you open the profile.txt in a notepad, you can set the MMS parameters. Below is for reference:

When Send Mode is Number, these parameters need to be edited. They are network WAP settings.

> **URL=http://mmsc.cingular.com**
>
> **APN=wap.cingular**
>
> **IP=066.209.11.32**
>
> **Port=80**
>
> **Account=**
>
> **Password=**

Receiving phone numbers:

> **MasterNum=**
>
> **PhoneNum2=**
>
> **PhoneNum3=**
>
> **PhoneNum4=**

For details of URL, APN, IP, Port, Account and Password, please contact your network service provider.

4.7 Set E-mail Parameters

You also can receive the pictures by e-mail via GPRS (data plan). There are two ways to set the e-mail parameters:

Method 1: Send SMS command:

Send **#S#e-mail address#email password#email server port#GPRS APN#SMTPServer#Account#Password**
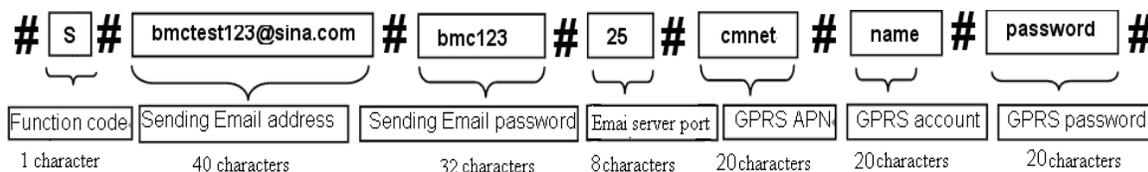
Please note each field has a maximum character number limit.

If success, you will receive a reply SMS: **bmctest123@sina.com，bmc123，25，cmnet，smtp.sina.com，，，，**

If fail, you will receive a reply SMS: **Command error! Please check again.**

Method 2: Editing the profile.txt

After you open the profile.txt in a notepad, edit the profile.txt in the PC to set the e-mail parameters, below is for reference:

When Send Mode is E-mail, these parameters need to be edited. They are network internet settings.

GPRSAPN=wap.cingular

GPRSAccount=wap@cingulargprs.com

GPRSPassword=CINGULAR1

Receiving e-mail addresses:

ReceiveEmail1=

ReceiveEmail2=

ReceiveEmail3=

ReceiveEmail4=

Sending E-mail parameters (Default settings can be used).

SendEmailAddr=

SendEmailPassword=

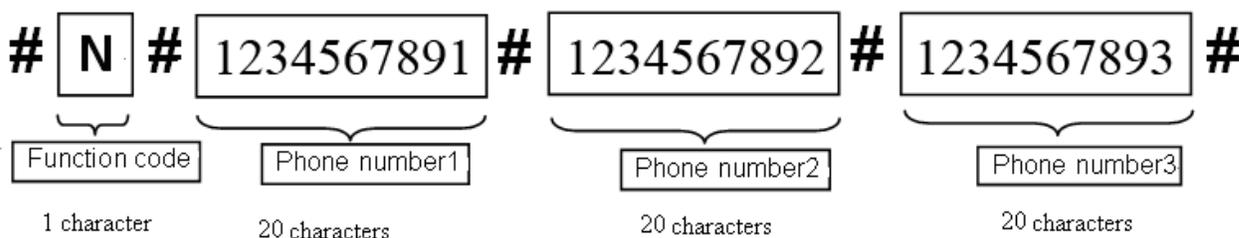**SendEmailPort=**

SendEmailServer=

For details of GPRS APN, GPRS Account and GPRS Password, please contact your network service provider.

4.8 Set Receiving Phone Number

There are two ways to set the receiving phone number:

Method 1: Send SMS command:

Send **#N#1234567891# 1234567892#1234567893#**

The receiving phone number1 is the master number.

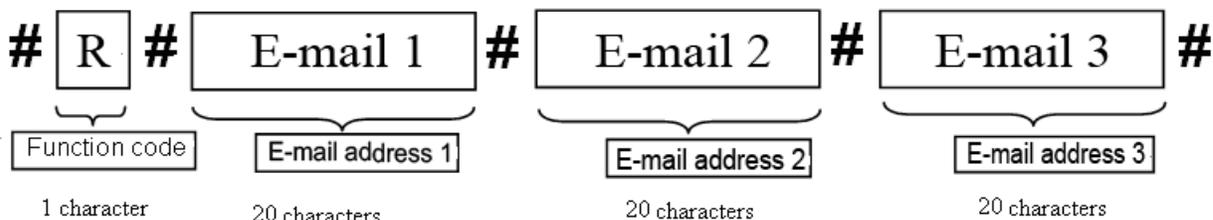Please note each field has a maximum character number limit.

If success, you will receive a reply SMS: **http://mmsc.monternet.com, 10.0.0.172, 80, cmwap，，，master number，receiving phone number 1, receiving phone number 2, receiving phone number 3,**

Method 2: Editing the profile.txt

After you open the profile.txt in a notepad, edit the profile.txt in the PC.

4.9 Set Receiving E-mail Address

There are two ways to set the receiving e-mail address:

Method 1: Send SMS command:

Send **#R#email address 1# email address 2# email address 3#**

Please note each field has a maximum character number limit.

If success, you will receive a reply SMS: **http://mmsc.monternet.com,**

10.0.0.172, 80, cmwap，，，，，，receiving email address 1, receiving email

address 2, receiving email address 3,

Method 2: Editing the profile.txt

After you open the profile.txt in a notepad, edit the profile.txt in the PC.

4.10 Get on spot photo

You can Send SMS command to your camera's SIM card phone number.
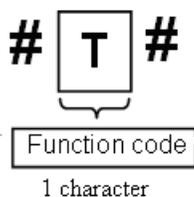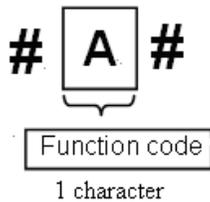

If success, the camera will take an on-spot picture and send to your mobile

phone. If fail, you will receive a reply SMS: **Photo error:xx** , **Settings**

error:xx , **MMS error:xx** or **Time out**!

4.11 Enter Arm Status

Arm status is camera's live status. There are two ways to arm the camera:

Method 1: Send SMS command **#A#** to your camera's SIM card phone

number.

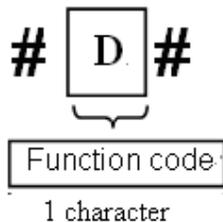If success, you will receive a reply SMS: **Arm mode is active!**

If fail, you will receive a reply SMS: **Command error! Please check again.**

Method 2: Use the remote control

You can press the button **A** on the remote to arm the camera.

4.12 Enter Disarm Status

There are two ways to disarm the camera:

Method 1: Edit SMS **#D#** and send to your camera's SIM card.

If success, you will receive a reply SMS: **Disarm mode is active!**

If fail, you will receive a reply SMS: **Command error! Please check again.**
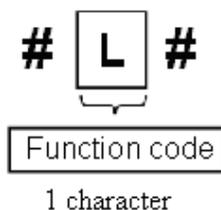
Method 2: Use the remote control

You can press the button **D** on the remote to disarm the camera.

4.13 Check camera settings

There are two ways you can check the camera settings:

Method 1: Send SMS command **#L#** to your camera's SIM card phone number.

Function code

1 character

If success, you will receive a reply SMS: **Email address, password, port, SMTPServer,protocol, email1,email2, email3,email4, mms serve net address，server ip，port， protocol，Number1，Number2，Number3，Number4，Alarm:on/off， Interval 0m:0s,photo Burst 1, Send Mode: Local/Number/Email, Work Day 1111111, Timer: off/on 09h00m:17h00m, Date Time:2011/7/12 18:12:12,Active Zone:0111111**

Method 2: On the camera display

You can press OK button when you are at Home screen (before enter the Menu), it will show you the current MMS settings for you to check.

4.14 Set camera parameters

Method 1: Via Setting menu

To view the camera settings menu, press MENU in the TEST mode. The settings menu will be shown on the LCD.

Items	Default	Options	Description
Set Clock	Enter		Set camera date and time.
Format	Enter		Format the SD-card. All images and videos in the SD-card will be deleted.
PIR Interval	1 Minute	0–59 seconds, 1-60 minutes	Choose how long the camera will stop functioning after each triggering. The camera's PIR will be disabled during this interval.
Photo Burst	1 Photo	2 -9Photos	Choose the continuous shooting numbers after each triggering.
Send Mode	Number	Email\Local	Number: Send MMS to preset phone number; Email: Send picture to preset email address; Local: Just take pictures, don't send out.
Work Day	All	Sunday	Choose which day the camera works.

		Monday Tuesday Wednesday Thursday Friday Saturday	
Timer Switch	Off	On	The camera will be awoken up at certain time duration in a day. In the rest of the time the camera is shut off.
RGB Set	Off	On	R:0-9;G:0-9;B:0-9;
Password	Off	ON, set	This password is used to lock or unlock the camera's control panel.
Default Set			Restore customer settings to default values.

- **Photo Burst**

It means Continuous Capturing Number after each trigger in camera mode. It has nine values: 1-9 Photos.
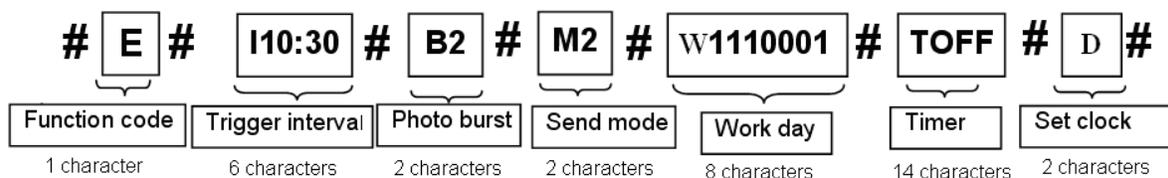
- **PIR Interval**

It means that how long the PIR (Passive Infrared motion sensor) will be disabled after each trigger in ON mode. During this time, the PIR of the device will not react to the motion of human (or animals). The minimum interval is 0 second which means the PIR works all the time. The maximum interval is 1 hour which means the PIR will be disabled for 1 hour after each trigger. The default value is 1 minute. Press ◄ or ► to decrease or increase the value.

- **Timer**

This defines a certain time period in a day the camera can be triggered. The rest of the time period the device is shut off. The effective value range from 00:00:00 to 23:59:59. Timer switch OFF means the camera works all the time. Timer switch ON means the camera works only during the time period set.

Method 2: Send SMS command:

 # E # I10:30 # B2 # M2 # W1110001 # TOFF # D #

Function code	Trigger interval	Photo burst	Send mode	Work day	Timer	Set clock
1 character	6 characters	2 characters	2 characters	8 characters	14 characters	2 characters

I10:30 I means Trigger Interval. 10: the minutes (0～59min). 30: the seconds (0～59sec).

B2 B means Photo Burst. 2: the numbers of the pictures taken after each trigger (1 picture~9pictures).

M2 M means Send Mode. 2: the function number (0: local. 1: MMS. 2: e-mail;).

W1110001 W means Work Day. 1110001: Each number represents a day at the sequence of Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday. 1 means Arm. 0 means Disarm.

T OFF T means Timer. OFF: Timer function off which means the PIR sensor will work all the time.

**TON10:20-16:30** T means Timer. ON10:20-16:30 means the PIR sensor will work from 10:20 to 16:30.

D D means Set Clock. This command can set clock use your current cell phone time.

If success, you will receive a reply SMS: **Interval 10:30, Burst 2, Work Day 1110001, Time Switch OFF, Date Time: 2011/8/2418:12:12, Active Zone: 0111111**

If fails, you will receive a reply SMS: **Command error! Please check again.**

Note: **#E#** can't be omitted when use this command to change any camera settings.

4.15 Format Micro SD card

Method 1: Send SMS command

```
#  F  #
   └─┘
 Function code
  1 character
```
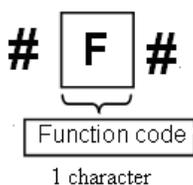
Send SMS **#F#** to your camera's SIM card phone number.

If success, you will receive a reply SMS: **Format SD card successfully!**

If fails, you will receive a reply SMS: **Format SD card failed!**

Method 2: Set in camera menu

Enter the camera menu, scroll down to Format. Press OK and then highlight (by pressing Left or Right key) Yes, press OK again to confirm. If format success, Format Successfully will shown on the screen.

4.16 Set master's passwords

Method 1: Send SMS command:

```
#  P  #  4321  #
   └─┘     └─┘
 Function code  New master password
  1 character    4 characters
```

Send SMS **#P#your password#** to your camera's SIM card phone number.

If If success, you will receive a reply SMS: **The password is successfully changed to 4321.**

Method 2: Set in camera menu

Enter the camera menu, scroll down to Password. Use Left or Right button to switch between On, Off and Set. Highlight Set and press OK. You will be asked to input your old password. If you never changed your password before, the default password is 5555. Input your old password and press OK. Input your new password and press OK. Input your new password again and

press OK. If success, New Password Set Success will shown on the screen.
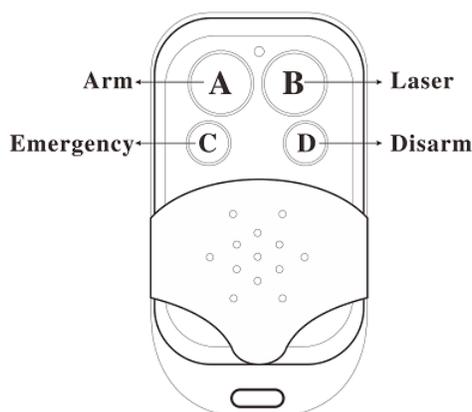
## 4.17 Get help

Method: Send SMS command
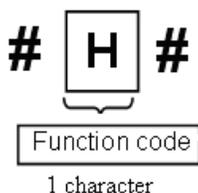
Send **#H#** to your camera's SIM card phone number.

If success, you will receive a reply SMS: **A: Arm, D: Disarm, H: help, L: look over settings, T: take photo.**

4.18 Use the Remote control

Before you can use the remote, you will need to add the remote control(s) to the camera. This can be done through the camera menu. Turn on the camera, press LEFT button and enter the study code menu. Choose RCH, press OK button. You will be asked to trigger the remote control you want to add. Press the button A on the remote control. When it's successful, there will be a * before RCH.

Setting Status	Study Code Menu	Study Code Menu
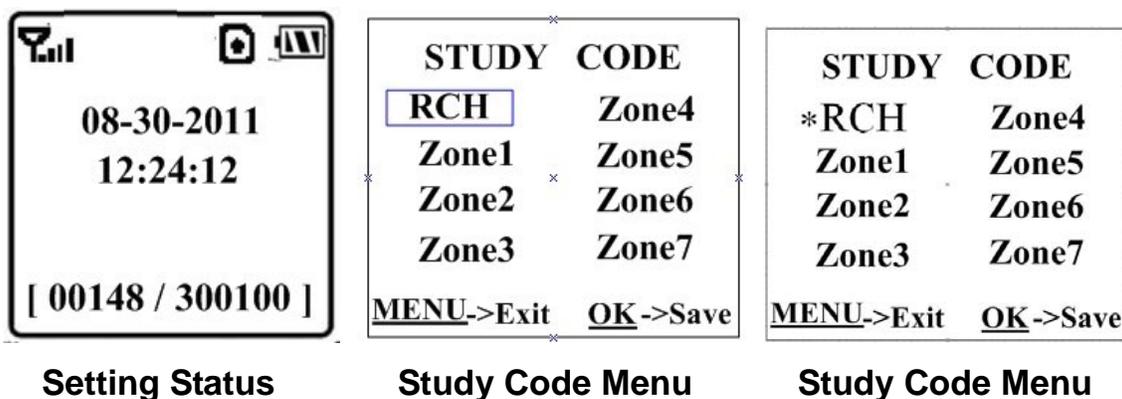
You can use the remote control to easily Arm (button A) or Disarm (button D). Also you can dial the emergency numbers via button C in case of emergency. Press button B can open or close the laser (You can easily mount the camera with the help of the laser point.).
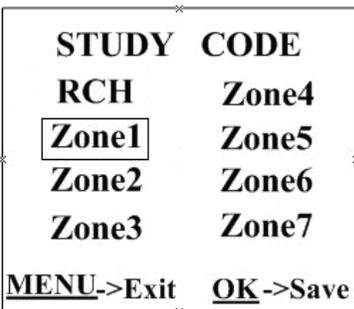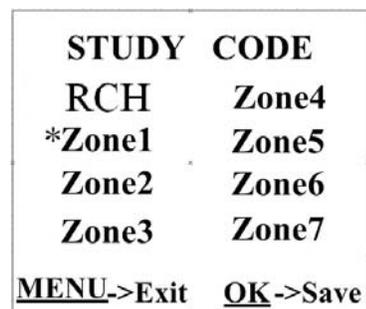
- Button A : Arm the camera
- Button D :Disarm the camera
- Button C :Emergency call button
- Button B :Laser point

4.19 Load or remove a wireless sensor

Any 433MHz wireless sensor, such as infrared body sensor, wireless door magnet, wireless smoke detector, etc. can be set as an alarm sensor of the camera.

Please follow the instruction below to load or remove a wireless sensor:

1. Power on the wireless sensor.
2. Turn on the camera, press LEFT button and enter the study code menu. Choose Zone1 or Zone2, press OK button, then trigger the wireless sensor. When it's loaded successfully, there will be a *before zone1 or zone2.

Setting Status	Study Code Menu	Study Code Menu
▼₁₁ 　　 📷 🔋 08-30-2011 12:24:12 [00148 / 300100]	STUDY　CODE RCH　　Zone4 Zone1　Zone5 Zone2　Zone6 Zone3　Zone7 MENU->Exit　OK->Save	STUDY　CODE RCH　　Zone4 *Zone1　Zone5 Zone2　Zone6 Zone3　Zone7 MENU->Exit　OK->Save

3. When you want to remove the wireless sensor. Please enter the study code menu, press LEFT button to cancel the "*". If there is not a "*" before the zone, it means the sensor has been removed from the camera.

SMS Command List

Function	SMS Command
Set Master Number	#HCO#5555#1234567890#
Set Normal Users	#N#1234567891#1234567892#1234567893#
Set MMS Parameters	#M#http://mmsc.cingular.com#066.209.11.32#80#wap.cingular#
Set Email Parameters	#S#bmctest123@sina.com#bmc123#25#cmnet#smtp.sina.com#
Set Receiving Phone Number	#N#12345678901#12345678902#
Set Receiving Email Address	#R#mail1@163.com # mail2@163.com#
Get on spot Photo	#T#
Arm	#A#
Disarm	#D#
Check camera settings	#L#
Set Camera Parameters	#E#I10:30#B2#M2#W1110001#TOFF#D# (Trigger Interval: I; Photo Burst: B; Send Mode: M; Work day: W; Timer: T; Date Time Set: D;)
Format Micro SD card	#F#
Set Password	#P#4321#
Help	#H#

Specifications

Model	BG30L
Image Resolution	640*480
Lens	F=3.1mm FOV(Field of View)=80°
Trigger Method	PIR Sensor 433MHz Wireless Sensor Wireless Command
Trigger Speed	0.3s
PIR Detection Range	70 Ft
Flash Type	Blackout(Invisible) Infrared
Flash Range	20-40Ft
Display	Built-in 1.4" LCD Color Display
User Interface	Built-in Display PC Software SMS Remote
Sound Recording	Yes
Non-wireless Operation	Yes
Memory(Included)	Micro SD Card
Working Media	GSM Cellular Network(SMS/MMS/GPRS/Voice) Micro SD Card
PIR Sensor	Multi Zone
Illumination	22 High-Output Blackout IR LEDs
Operation	Day/Night(24hours)
Delay	1s – 60m Programmable
Capture Mode	1~9 Programmable
Power Supply	5V 2000mA DC Lithium battery(backup, included)
Standby Current	<0.25mA(<6mAh/Day)
Ports & Jacks	SIM Card Slot USB Jack Micro SD Card Slot 6V DC Plug
Mounting	Tri-pod Port
Dimensions	Heights: 4-1/4 inches Width: 2-3/4 inches Depth: 1-1/2 inches
Weight	Approximate 5.5oz without Battery
Operation Temperature	-4F to 140F
Storage Temperature	-22F to 158F
Operation Humidity	5% - 90%
Certificates	FCC, CE, RoHS
Visit us at www.hcooutdoors.com for more information!	

Packing List

Item	Quantity
Camera	1
Remote control	2
Power adaptor	1
Lithium battery	1
USB cable	1
Universal mounting kit	1
Adhesive tape	1
User Manual	1
Warranty Card	1
2G Micro SD card	1

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