SimPal-G4
3G Security Camera

User Manual

Manual version 1.2

SimPal Series 3G Remote Camera

Thank you for purchasing the SimPal camera. This camera is a remote controlled image-capturing device consisting of a microphone, LED lights and a high quality 5 megal-pixel camera lens. The SimPal camera can capture images according to a pre-programmed remote command and then send it to your multimedia messaging (MMS) or e-mail via cellular network. You can control and change the camera settings via SMS command.

The MMS sent by the SimPal camera can be viewed on your mobile phone. You also can check the images in your mobile phone email App.

The built-in high-light LED allows the camera to capture clear images even in dark environment.

The SimPal camera worked with encrypted 433MHz wireless sensors such as PIR-, door magnet sensors. As soon as the wireless sensor triggers the camera alarm, you or your families and/or your guards can thus receive the alarm message via SMS, MMS, Email or standard calls, according to the pre-programmed. If you choose to purchase the optional accessory -- an wireless siren, the SimPal camera can trigger the wireless siren to emit loud voice when it alarms.

However, the camera can perform its duty well without any wireless sensor too. The Camera has an integrated infrared body detector. It will therefore detect any unauthorized entry into your house and notify you via SMS, MMS, standard calls or E-mail.

All services and functions need to be supported by the GSM / WCDMA network and a SIM card.

This brochure suits for SimPal-G4 model.

Details of the functioning and advanced operation of this camera are described in this instruction manual.

CONTENTS

1. Purchase a 3G SIM card (mobile phone card) from network service operator and install it in the camera. This SIM card number is referred as SimPal camera number on this brochure.
2. The user needs to activate the MMS, Cellular data functions and Caller ID Presentation function of SIM card, and deactivate PIN code of the SIM. Contact with GSM network service for support.
3. Change the original password at the beginning use. Be sure to keep the password and SIM card number secret. Do not disclose this information to anyone other than the authorized users in order to ensure your safety.

For your safety

λ   This product is a wireless signal transmission device. Keep it away from electronic equipment likely to interfere with the wireless signals, in order to avoid signals interference.

λ   Switch off your SimPal camera and mobile phone when entering areas marked "Explosive", "Might explode", "Closed wireless transceiver devices" etc.

λ   Do not cast this product in a fire, as this may cause the battery to explode.

λ   This product should only be operated from power approved by the product manufacturer. The use of any other types of power may damage the product.

λ   Keep the product and its accessories out of the children reach.

Exception clause

λ   We operate on a policy of continuous development. We reserve the right to make changes and improvements to any of the products described in this document without prior notice.

λ   For the latest product information, please visit: http://www.simpal.cn. We don't guarantee for the document veracity, reliability or any content except regulate in proper laws. Including no guarantee for product suitable market or suitable area promise.

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λ   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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Chapter 1 Structure instruction

1.1 Package contents

1. Remote camera   1 unit
2. Power adapter(12V/1A)   1 pcs
3. GSM antenna   1 pcs
4. Temperature sensor   1 pcs
5. User manual   1 pcs
6. Mounting bracket   1 set
7. Remote control and wireless sensor   Optional

1.2 Products instructions
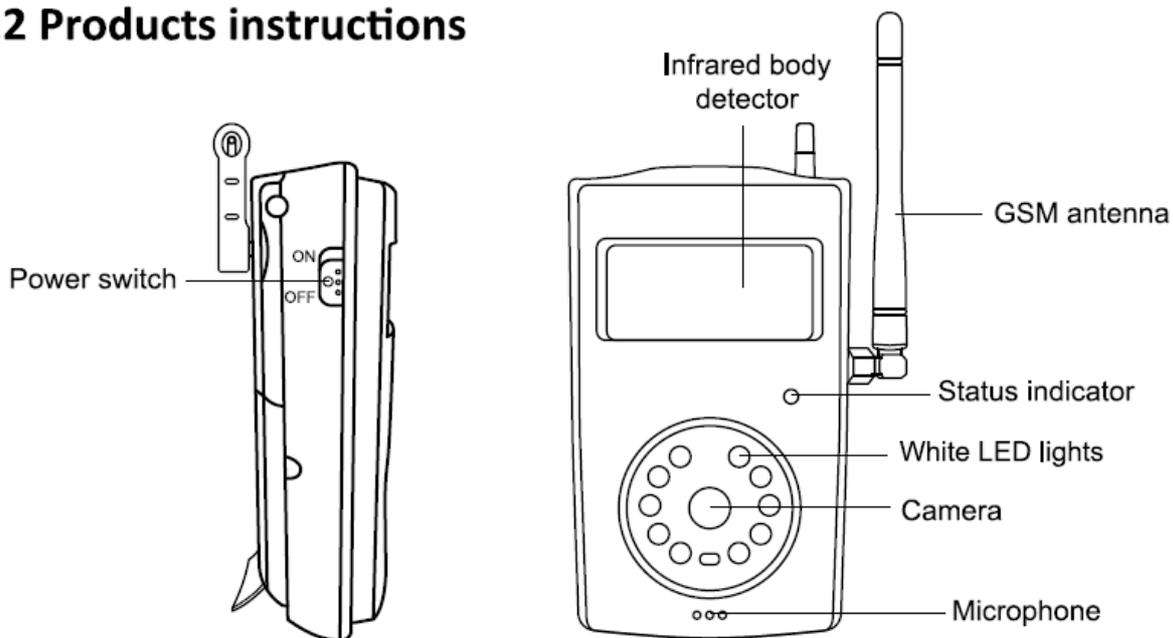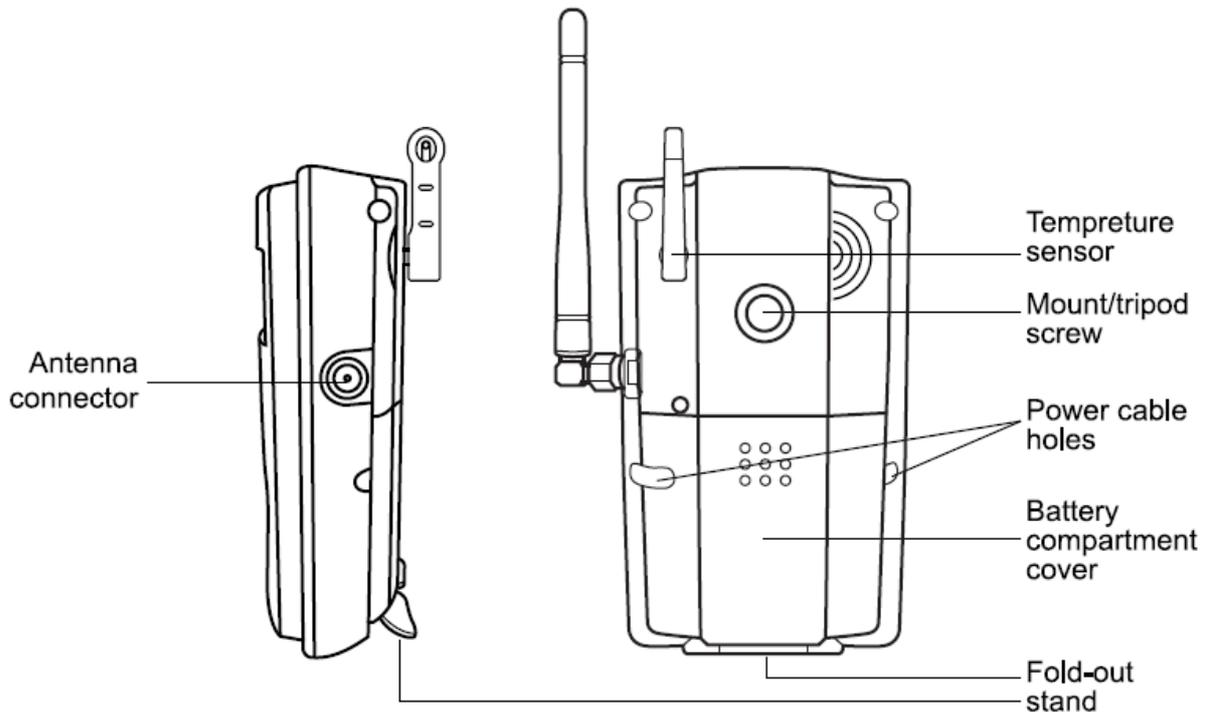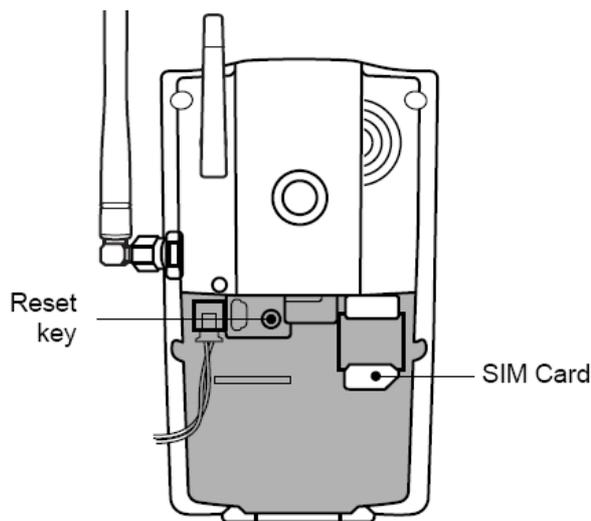
Figure 1: SimPal camera instructions

Tip: Keep the camera lens clean to insure best imaging quality.

1.4 Light indicator

Color	Action	Status
Red	Flash slowly	Searching the network.
	Flash quickly	Sensor alarm, infrared body detector alarm.
	Constant Light	Not installed SIM card, or the remote camera damaged.
Green	Constant Light	Armed status.
	Flash twice per 2	Arming command received. SimPal camera will enter arming

	seconds	mode after 20 seconds.
		The camera is at the alarm-suspension situation.
	Flash slowly	Disarmed status.
	Flash quickly	Processing data.
	Light 2 seconds	Successfully reset factory setting, or loading sensor.
Orange	Flash	Loading remote control status.
Red and Green	Two color lights alternately	Loading sensor

Note: Slow flash 1 time per second, quick flash 2 times per second.

Chapter 2 Installation

2.1 The antenna, temp sensor, SIM card and power adapter

Installing the antenna

- Mount the supplied antenna into the Antenna Connector on the camera.

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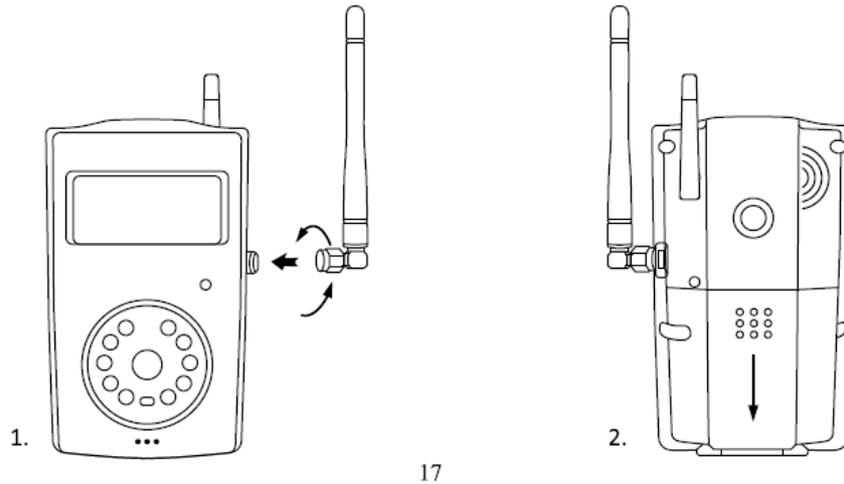
Installing the SIM card

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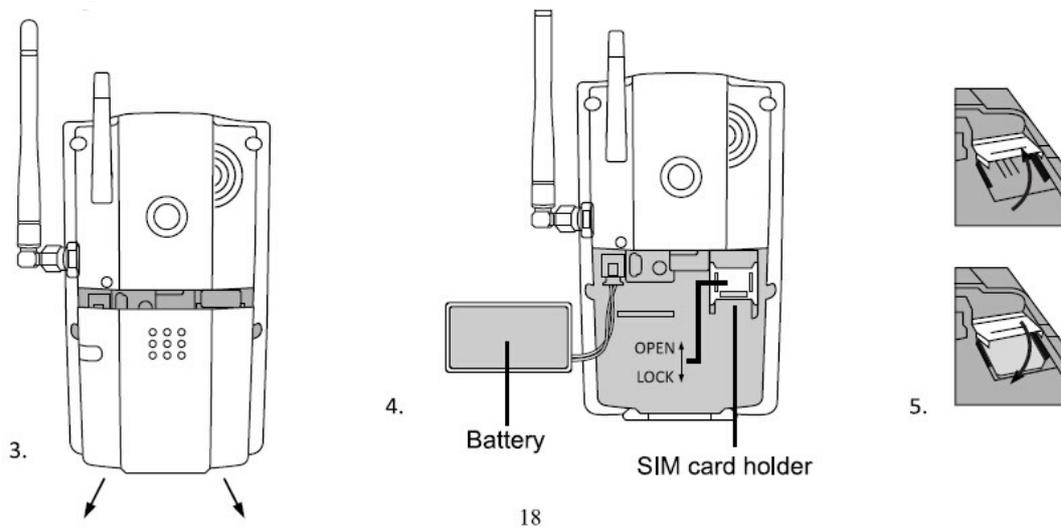
- Remove the Battery Compartment Cover from the rare of SimPal camera and a SIM card holder will be found.
- Open the SIM card holder.
- Insert the SIM card carefully into the card holder. Make sure that the golden

connectors on the card are facing downwards.
- Close the SIM card holder.
- Get back the Battery Compartment Cover of SimPal camera.

2.2 The power adapter and battery

Connecting to the power adapter

6.
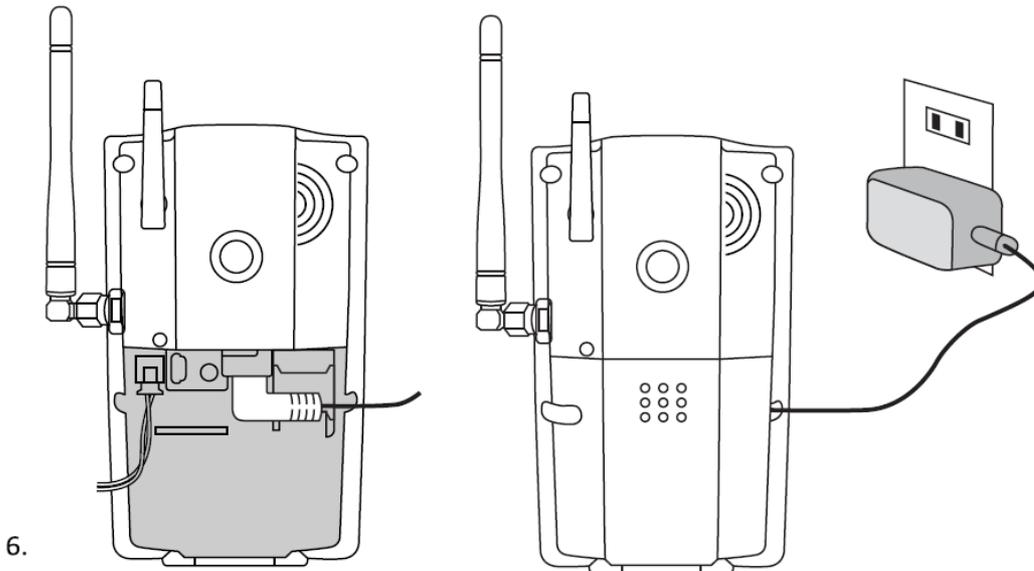
- Connect the plug to the power interface of the SimPal camera and then connect the adapter to an AC power.

The built-in rechargeable Lithium battery
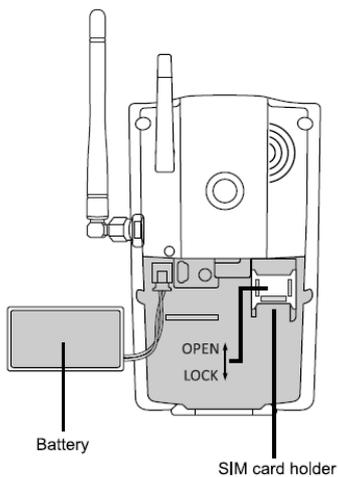
-
- The camera will notify the user when the power changes. For example, if the power adapter is disconnected or failure of the AC power occurs, SimPal camera will notify the user "External power cut. The device is operating on battery."

- If SimPal camera is again connected to the external power, or the AC power is available again, the notification will be sent to the user, i.e." The device is now resuming the use of external power source."
- **Low battery**: The configure setting can not be saved when SimPal camera is operating on low battery.

2.3 Install the host mounting bracket
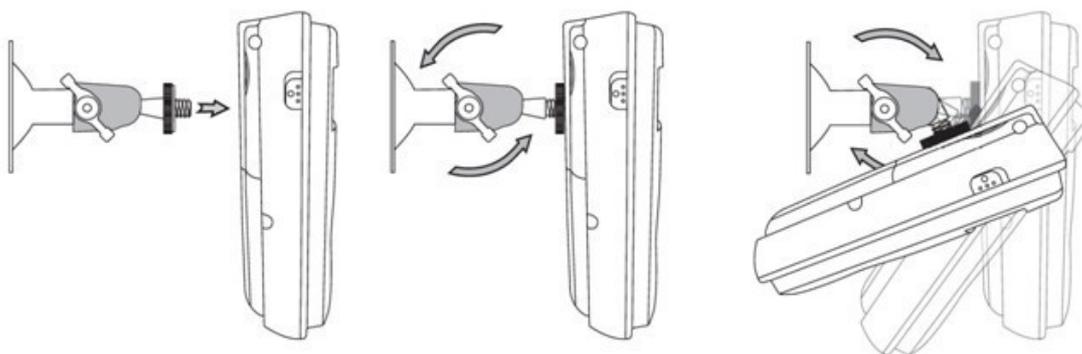
- The camera has a bottom bracket by which it can stand on the table.

2.4 Mounting the SimPal camera

SimPal camera can be mounted on a wall (vertically with the screws) or put down on any suitable horizontal surface.

How to choose the Installing place:

- λ In order to capture better image quality, avoid any areas where bright light will be irradiated directly into the lens of the camera on the camera.
- λ In order to avoid backlighting photography, it is suggested that the camera is located at the place where can look down the monitoring place with the minimum angel 30°.
- λ The GSM network's signal strength may affect the image, live voice quality and images transmission speed. Therefore, upon installation, the user should ensure that SimPal camera is located in an area with a strong network signal.
- λ After installation, the user should perform a test-run by taking several images and sending it to the user's mobile phone. This allows the user to check the image quality of the camera. The position of SimPal camera can then be adjusted until a satisfactory image quality level is reached.

2.5 Power on/ off

Power on:

Operation	Indicator light	Status
Turn the power switch to "On" position.	Red light on 1 seconds, then off 20 seconds..	
	Red light flashing slowly for about 5 seconds.	
	A "Beep…" tone will be heard.	
	Green light flash slowly, or green light be on constantly.	SimPal camera is disarmed, or armed.

Power off:

Turn the power switch to downside "Off" position.

Chapter 3 Define the user and basic settings

3.1 User authorization level

There are two levels, each with a different authorization level, namely **Master**, **Families**.

Table 3.1 the difference in authority for Master, Families users:

User Type Functions		Master	Families
Change authority, password		**YES**	NO
Alarm	Receive SMS	**YES**	**YES**
	Receive MMS	**YES**	**YES**
	Receive alarm calling	**YES**	**YES**
	Get images by E-mail	**YES**	**YES**
	Receive emergency calling	**YES**	**YES**
Call the camera to listen in live voice		**YES**	**YES**
Get images by sending SMS command		**YES**	**YES**
Get images by E-mail		**YES**	**YES**
Set remote camera by SMS command		**YES**	NO
Add, modify or delete sensor		**YES**	NO

🔔 **Note**

- Any MMS enabled mobile phone can receive the images captured by SimPal camera by sending SMS command with password.

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- Any SMS enabled mobile phone can control SimPal camera with the password command.

All the settings of SimPal camera can be set or adjusted via a SMS command.

About the SMS Command:

9.1）SMS command format: #code#content#.

9.2）The password must be a four-digit number.

9.3）The original password is 1234.

9.4）The maximum digits that are allows for the phone number is sixteen.

9.5）SimPal camera will reply to the user after it receives the SMS command.

🔔 **Note**

- The "#" symbol must not be ignored when typing an SMS command.
- No allow any space within the commands.

3.2 Setup master number

Master user has all the rights of changing camera settings and receives alarm messages from camera. In order to enable all the functions on the camera, the **Master** user must store his/ her mobile number in the camera's memory. Only one **Master**'s mobile number (**Master** number) is allowed for a camera.

3.2.1 Add a master number to the camera

If SimPal camera is being used for the first time, or SimPal camera has been reset, the master user's number must be programmed into the camera, in order to ensure activation. The following methods can be used:

The **Master** user must edit and send the following SMS (text message) to camera from mobile phone (the phone number will be the **Master** number) to:

Setup master number: #00#　　　　　　　　　　(1)

If the camera reply master number already exists, please refer the Reset Factory Setting parts to delete old master number.

3.2.2 Change the master number

Master user sends following SMS message in order to:

Change the master user's number: #14#*NewMasterNumber*#　　　(2)

3.2.3 Change password

In order to ensure your privacy and safety during the use of this camera, change the password once start to use SimPal camera.

Master user sends following SMS message to:

Change the password:　　　#18#*oldpassword#newpassword#*　　　**(3)**
- The ***password*** is a four digit number.
- The original ***password*** is 1234.

3.3 Define family user

Family users have the authority to listen in on the camera, capture images, and receive notification when the integrated infrared body detector be triggered. The **family** user's mobile numbers and emails are set by the **Master** user. The **family** users should remember and safeguard the camera's SIM number.

3.3.1 Add a family number

Master user sends following SMS message in order to:
Add a family number:　　　#07#*FamilyNumber#*　　　**(4)**
- Up to 4 ***family*** users' number can be stored on one camera.

Add a family email address:　　　#07#*FamilyEmail#*　　　**(5)**
- Up to 4 ***family*** email and one Master email can be stored on one camera.

3.3.2 Delete family number

Master user sends following SMS message in order to:
Delete a family number:　　　#27#*FamilyNumber#*　　　**(6)**
Delete a family email:　　　#27#*FamilyEmail#*
Delete all family numbers and Emails:　　　#27#　　　**(7)**

3.4 Network parameter settings

3.4.1 MMS parameters setting

Camera already preset most operator MMS settings on the firmware. Users needn't to setup the MMS parameters. But if the GSM operator changes the MMS parameters or the local MMS settings do not preset on the firmware, users will receive SMS when they request MMS images: Sorry, the network is busy, MMS sending failed. **Master** number can setup the MMS parameters manually by following two methods.

Method 1:

User sends following SMS to:
Auto select MMS setting from firmware:　　　#54#　　**(8)**
Manual select MMS settings from firmware:　　#54#Network code#　　(9)
Network code is the MCC+MNC of this operator, such as 46001. If do not included network

code in this command, only send #54#, it will auto configure the setting according SIM card MCC+MNC.

Method 2:

Six MMS parameters be requested on the camera. **Master** send following SMS commands to camera.

Configure MMS parameter settings:

#25#MMSC#***Proxy IP***#***ProxyPort***#Proxy***Port2***#***APN***#***Username***#***Pssaword***#type#   **(10)**

The command included parameters:
- MMSC means MMS center, for example: http://mmsc.
- Proxy IP: The IP address for MMS, For example: 139.7.29.17
- Proxy Port: for example:9201 or 80
- Proxy Port2: for example: 80 or 8080
- APN
- User Name
- Password
- Type: name is this setting, normally the type is "mms"

If the User name and Password is empty, only leave blank and separate with #.

Get the current operative network parameter settings: #25#   **(11)**

3.4.2 Cellular data parameters setting

Camera already preset most operator cellular data settings in firmware, but if can not connect the network, user can set up the GPRS parameters manually.

Method 1:

Manual select from another list of firmware, Master send following SMS to

Manual select Cellular data settings: #54#   **(8)**

Method 2:

SMS command configure Cellular data (GPRS) parameter settings:

#24#APN#Username#Password#MCC#MNC# proxy#port#type#   **(12)**

For example: #24#live.vodafone.com###505#03##80#default#

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If the User name and Password is empty, only leave blank and separate with #.
Normally the type is "default".

Check Cellular data (GPRS) parameter settings: #24# **(13)**

3.4.3 Email parameters setting

The SimPal camera support SMTP protocol sending images email, user need to configure the SMTP parameters before using this service. It needs to activate POP3/SMTP functions on email website settings.

3.4.4Configure email SMTP parameters

#26#email#password#SMTP#SMTP port#Type#tls# **(14)**

Email: The email address is use to sending email, the sending and receiving email can be same or different email address. Recommend to use same email address can reduce email delay chance.
Password: This is the password to log in email account, need to fill with letter or number.
SMTP: Simple Mail Transfer Protocol.
SMTP port: the port for SMTP.
Type: setting email SMTP or SMTPS protocol. 0 means SMTP, 1 means SMTPS.
Tls: this is encryption of hotmail and outlook, only hotmail or outlook need to activated this function. 0 means deactivated TLS, 1 means activated TLS.

Some email setting as following:
- **Gmail**: the SMTP port is 465, and need to select SMTPS, deactivated TLS.
  #26#simpaltest@gmail.com# PASSWORD#smtp.gmail.com#465#1#0#
- **Outlook, Hotmail:** the SMTP port is 587, and select SMTP, activated TLS.
  #26#sim.pal@outlook.com#PASSWORD#smtp.live.com#587#0#1#
- **Company email:** It need to switch the SMTP server to IP address, and select SMTP, deactivated TLS.
  #26#sales@simpal.cn#PASSWORD#218.85.138.181#25#0#0#

It will send one confirm email after configure the sending email successfully.

Check email SMTP parameters: #26# **(15)**
It will reply current email settings by sending this command.

3.4.5Configure receiving email address

Master sending following SMS to set email address which use to receive alarm from camera. Only allow to set one email for master number.

Configure receiving email address: #09#email#   **(16)**
Delete email address: #09#   **(17)**

Chapter 4 Operations and settings

4.1 Call the camera to listen in

Master and **family** user calls SimPal camera after which it will answer automatically. The user can then listen in the live audio in the monitoring area. Only one line can be connected to SimPal camera at a time.

4.2 Capture images

Authority:
Master/ family send SMS to the camera to get the image and send by MMS or email.

4.2.1 Capture images to mobile phone

Method：
     The user sends following SMS message in order to:
Capture image and send to the user mobile by MMS:
     For master and family users：   #03#   **(18)**
Capture one image and send to other user number:
     For *master* users: *#03#Phone-Number#*   **(19)**

4.2.2 Capture images to user's E-mail address

Need to configure email settings before using this function. The camera will sending images email via Cellular data. It will charge cellular data cost by network operator.

Capture image and send to user email: #05#   **(20)**
Capture image and send to other email address   #05#email#   **(21)**

4.2.3 Schedule send images

Master sends following SMS message in order to:

Set schedule to auto-send images parameters:

#43#Mode#*WorkDay#StartTime#EndTime#IntervelTime#.*   **(22)**

● **Mode:** the parameter is 0 and 1, 0 means sending images to email, 1 means sending images by MMS.

- ● **WorkDay**: one digit, the values lie in the range of "0" to "9".

  The following table contains the descriptions of each value:

Value	Corresponding day
0	Everyday
1	Monday
2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday
7	Sunday
8	Monday to Friday
9	Weekend

- • **StartTime and EndTime**: Be consists of 4 digits (hh:mm) and works on a 24 hour clock. For example: 0000 means time 00:00(hh:mm), 2359 means time 23:59(hh:mm). the EndTime can be earlier than StartTime, it will set as end of next day.
- • **IntervalTime:** This consists of 2 or 3 digits and has values in the range of "5" to "480" minutes.

For example: #43#0#*0#2100*#0800#10# The camera will reply SMS following:

Schedule capture images function: OFF

Receive mode: Email

Everyday

Time: 21:00-08:00

Interval: 10 minutes.

Activate schedule send images: #06#1#   **(23)**

Master sending this command to activate Schedule sending images functions.

Deactivate schedule send images: #06#0#   **(24)**

4.3 Arming or disarming SimPal camera

4.3.1 Arming SimPal camera

- ● When user arm the SimPal camera, the built-in infrared body detector (PIR) will start working and detecting body heat. SimPal camera will automatically send alarm

message or making a phone call once it be triggered.

● SimPal camera has 30 seconds alarm-suspension period after it be armed. The user can leave the camera place during this time to avoid misalarm.

Method 1:

The user sends following SMS message in order to:

Arming SimPal camera manually: #01#   **(25)**

Method 2:

Master or Family number calling the camera number, hand up before it answer the calling. By this method, camera will switch from Arm and Disarm mode.

4.3.2 Camera alarm

Once the camera be triggered, the LED will flash fast in green, then turn red and flash fast. It will sending alarm SMS, MMS, Email or make voice calling according to the setting. After it finish alarm process, camera will enter 30 seconds alarm-suspension period and then it can alarm again.

4.3.3 Disarming SimPal camera

SimPal camera in disarm mode, all loaded Normal wireless sensor, built-in infrared body detector will not working. 24 Hours sensor and remote control still working in disarm mode.

Method 1:

The user sends following SMS message in order to:

Disarming SimPal camera manually: #02#   **(26)**

Method 2:

Calling the camera, hand up before it answer the calling. It will send SMS to notify camera Disarm.

4.3.4 Schedule arming the camera

Master sends following SMS message in order to:

Enable schedule arms the camera: #04#1#   **(27)**

Set time period to arm the camera:

#41#*WorkDay*#*StartTime*#End*Time*#   **(28)**

Disable schedule arm the camera: #04#0#   **(29)**

- **WorkDay**: The value description is same with command 21.

- **StartTime and EndTime**: Be consists of 4 digits (hh:mm) and works on a 24 hour clock. For example: 0000 means time 00:00(hh:mm), 2359 means time 23:59(hh:mm). the EndTime can be earlier than StartTime, it will set as end of next day.

4.5 Remote control

4.5.1 Pairing remote control

User can buy Remote control separately and use with SimPal camera, remote control to arm, disarm or make emergency alarm by pressing remote control buttons, user should pair remote control before use. A camera can pair up to 5 remote controls.

Camera indicator	Operations	Status
Green, flashing or constantly light.	1. Press and hold the **Reset key** for 2 seconds	Indicator light turns to orange (Learning mode)
Orange, flashing	2. Press any button on the remote control (with battery inside) to send a signal to SimPal.	SimPal will emit a "Beep" tone and indicator will turn green for 2S. (Added successfully.)
Orange, flashing	3. Repeat step2 to load another new remote control.	
Orange, flashing	4. Press the **Reset key** to exit the learning mode or waiting for 15 seconds to auto-exit.	Indicator light turns green, flashing or constantly light. (Exit learning mode)

4.5.2 Remote control instruction

There are three buttons on the remote control:

A. 🔒 **Arm SimPal camera :**When 🔒 is pressed, the indicator light on SimPal camera will turn green. This indicates that SimPal camera is in armed mode.

B. 🔓 **Disarm SimPal camera :**When 🔓 is pressed, the indicator light on SimPal camera will slowly flash green. This indicates that SimPal camera is in disarmed mode.

C. ⚡ **Emergency button :**When ⚡ is pressed, the indicator light on SimPal camera will rapidly flash green. Then SimPal camera will dial the master user's number. Live audio stream can be heard upon answering the emergency call.

4.5.3 Removing remote control from the camera

Master user sends following SMS message in order to:

Remove all remote controls from the camera: #29#   **(30)**

4.6 Infrared body detector

Master user sends following SMS message in order to:

Activate built-in infrared body detector (default):   #17#1#   **(31)**

Deactivate built-In infrared body detector: #17#0#   **(32)**

4.7 Wireless sensor

Optional 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. Up to 15 wireless sensors and wireless panic buttons can be loaded onto one SimPal camera.

There are two modes for wireless sensor:

Arming-alarm mode: sensor only alarm when the camera in arm mode, normally, door sensor, infrared sensors work with this mode. We call normal sensor.

Always-alarm mode: sensor will always alarm once the sensor triggered even the camera disarm, normally smoke detector, gas detector, panic button work with this mode. We call 24 hours sensor.

4.7.1 Loading sensor onto the camera

1. Power on the wireless sensor.
2. **Master** sends following SMS message to make SimPal camera enter loading mode:

Loading Normal sensor: _#08#1#SensorName#_   **(33)**

Loading 24 Hours sensor: _#08#2#SensorName#_   **(34)**

- *SensorName* is used for identify different sensors affiliated with each camera. It can be numbers and letters.
- *SensorName* could be empty. For _#08#1#_, SimPal camera will name the sensors with Sensor and number such as: Sensor1, Sensor2, Sensor3. For #08#2#, SimPal camera will name the sensors with SOS and number such as SOS1, SOS2, SOS3.
- Up to 9 characters can be included in the **SensorName.**
- Sensor alarm way will be same as built-in infrared body detector setting.

3. When SimPal camera received the SMS command, it will emit a BEEP tone and the indicator will flash red and green alternately. SimPal camera will then send a notification SMS to the user: Camera pairing sensor, activate sensor then wait for confirmation SMS.
4. The user needs to make the sensor work and transmit signal to be studied by SimPal camera.
5. When SimPal camera receives the sensor signal, it will emit a Beep tone and send a notification message via SMS: *** sensor load successfully.
6. To exit the loading mode manually, press the **Reset key** of the camera, SimPal camera will emit a Beep tone and exit the loading mode.

4.7.2 Check sensor

    Master sends following SMS message to SimPal camera:

Check paired sensors: _#08#_   **(35)**

      Camera will reply SMS and list all sensors which already paired with this camera.

4.7.3 Removing sensor

Master sends following SMS message to SimPal camera:

Remove certain sensors: #28#*SensorName*#   (36)

  Remove all wireless sensors: #28#   (37)

- **SensorName** should be the existing sensor which the user wants to remove.

4.7.4 Temperature sensor

A range of temperature can be pre-set onto the camera. In this case, if the surroundings temperature is detected out of the pre-set temperature range, the SimPal camera will auto-send the SMS alarm message to user's mobile phone.

This feature depends on the temperature sensor.

The **Master** sends following SMS message in order to:

Check current temperature value: #15#   (38)

Enable over-temperature alarm: #15#1#   (39)

Set limits of temperature: #16#MinTemp#MaxTemp#   (40)

- **MinTemp** and **MaxTemp**: The values can be set within the range of -10 to 50 centigrade degree.

Disable the alarm upon going beyond limits temperature: #15#0#   (41)

4.8 Image size setting

The **master** or **family** user sends following SMS message to SimPal camera in order to:

Change the image size: #22#*value*#   (42)

- If the **value** is 1, the image size is 320 ×240(pixels). It's for a standard small screen mobile phone. The size of one MMS image file is about 35K.
- If the **value** is 2, the image size is 640×384(pixels). The size of one MMS image file is about 65K.
- If the **value** is 3, the image size is 1280 × 768(pixels). The size of one image file is about 170K. Only allow sending this size images to email.

4.9 Image quantity setting

The **master** sends following SMS message to SimPal camera in order to:

Set alarm image quantity: #21#*quantity*#   (43)

- For image size is 320 ×240(pixels)
- For images size 640×384(pixels)
- For image size is 1280 × 768(pixels)

4.10 Warning tone upon alarm triggering

SimPal camera will emit a Beep tone upon alarm activation. The **master** sends following SMS message to SimPal camera in order to set:

Warning tone upon alarm triggering: #30#1#   **(44)**

No warning tone upon alarm (Default): #30#0#   **(45)**

4.11 SMS notification upon alarm triggering

The **master** sends following SMS message to SimPal camera in order to set:

No SMS notification upon alarm triggering: #11#0#   **(46)**

SMS notification upon alarm (Default):   #11#1#   **(47)**

4.12 Images notification upon alarm triggering

The **master** sends following SMS message to SimPal camera in order to set:

MMS notification upon alarm triggering: #12#1#   **(48)**

Email notification upon alarm (Default):   #12#2#   **(49)**

Without images notification upon alarm: #12#0#   **(50)**

4.13 Call notification upon alarm triggering

The **master** sends following SMS message to SimPal camera in order to set:

No call notification upon alarm triggering(Default): #13#0#   **(51)**

Call notification upon alarm: #13#1#   **(52)**

SimPal camera will call the master and the family user's numbers for not more than 3 times. If it is still no one answers the call, SimPal camera will then exit dialing mode automatically.

4.14 SMS notification to family number

The **master** sends following SMS message to SimPal camera in order to set:

No SMS notification to family number: #32#0#   **(53)**

SMS notification to family number (Default):   #32#1#   **(54)**

4.15 Images notification to family number

The **master** sends following SMS message to SimPal camera in order to set:

Images notification to family number: #33#1#   **(55)**

No Imgaes notification upon alarm(Default):   #33#0#   **(56)**

The images notification may be MMS or Email images, the setting depend on camera setting, If Master set alarm with MMS, it will send MMS to family number, if Master set alarm with Email, it will sending email images to family user.

4.16 Turn on/off LED indicator on the camera

If the LED indicator is on, it will display in different ways to show the working status. If it turns off, it can make SimPal camera private and avoid to be found easily.

The **Master** sends following SMS message in order to:

Turn off indicator: #31#0#   **(57)**

Turn on indicator(Default):   #31#1#   **(58)**

4.17 Turn on/off night vision LED lights

There are 10pcs LED light help lighting when capture images in dark environment.

The Master sending following SMS to set

Night vision LED lighting: #20#mode#   **(59)**

Mode represent LED working mode, There are three mode of LED lighting: 1 represent "Auto", 2 represent "Constantly ON", 0 represent "OFF".

"Auto" mode means the LED will auto turn on when camera detect dark environment.

"Constantly ON" means the LED will always lighting when camera detect motion.

"OFF" means LED will always OFF even in dark environment.

4.18 Mains power change alert

The Master sending following SMS to set

Enable Mains power change alert: #35#1#   **(60)**

Disabled Mains power change alert: #35#0#   **(61)**

4.19 Unknown SMS forward

The camera default sending unknown SMS to Master number, Master can receive SMS about the camera SIM card credit change from operator.

Enable unknown SMS to Maser: #50#1#   **(61)**

Disable unknown SMS to Maser: #50#0#   **(62)**

4.20 Check status

The user sends following SMS message in order to:

Check the present settings and work status of SimPal camera:

- For **master** and **family** users: #10# **(63)**

Check firmware, IMEI and GSM signal of SimPal camera:
  For Master user: #40# **(64)**

4.21 Restart the camera

The network cellular data sometimes unable to connect, it needs to restart the camera to initialize network settings. The maser sendings following SMS message in order to:
Restart the camera: #42#password# **(65)**

4.22 Resetting the camera

User can reset the camera to factory setting if the user forgot the master number or camera do not work normally.
After reset factory setting, camera will delete all setting numbers and setting values, user need to setup master number from beginning.
Method 1: Reset via the camera
- Make SimPal camera in working mode and registered network.
- Remove the battery cover, the setting button is near the DC power connector.
- Keep pressing the setting button for 5 seconds, camera will beep ring..
- Then the camera reset to factory setting successfully.

Method 2: Reset via SMS command
  The user sends following SMS message to SimPal camera in order to:
Reset the camera: #19#*password*# **(66)**

Reset 3G module factory setting:

Master sending following SMS message to reset 3G module factory setting, it will clean all storage setting and reset the module to factory setting. After this command, User may need to set up network, MMS and Email parameters again. Use this command with caution, request to connect external power, this command will make camera system initialization, do not allow to turn off camera during initialization, it may destroy camera system and make camera not working. Camera indicator will stay in constant RED for 10 minutes then return to normal status. After 10 minutes, if the camera still is not working, need to manually restart the camera.

Reset 3G module setting: #49# **(67)**

Chapter 5 General troubleshooting

No.	General Trouble	Possible Reason	Solution
1	Can't start camera	Other master is already set in the	Reset to factory default setting.

No.	General Trouble	Possible Reason	Solution
	(Indicator is working)	camera.	
2	All functions disable (Indicator is working)	Caller ID presentation or MMS, Cellular data functions of the SIM card do not active, insufficient fee of the SIM card.	Contact network provider to active SIM card function. Pay for the card.
3	Indicator constant light in red color.	Can't find or identify the SIM card.	SIM card no install properly: Power off the camera and check it again.
4	Camera didn't response of any operation.	SimPal camera work abnormally.	Switch off the power, check SIM card, or reset factory setting.
5	After starting the camera, indicator flashed in red color and can not turn to green.	Network signal weak or network busy.	Place the camera at other place with strong signal and try again.
		SIM card PIN code actives.	Close the PIN code.
		SIM card invalid.	Contact with local operator to check of it.
6	Remote control can't work. Or action slowly. Or control distance range shortened.	Camera low power.	Connect external power to recharge the battery.
		Remote control low power.	Change remote control battery.
		Two remote controls work simultaneously.	Try only one remote control.
7	Can't add new remote control or wireless sensor	The remote control or sensor already studies successfully.	Exit the loading status.
		The sensor quantity is already reaches its max number.	Delete old sensors before add new sensor.
		Didn't set master user number	Set master number before add sensor.
8	Can't start the camera after long time supply with the battery.	Battery runs out of power.	Connect the camera to external AC power and charge for at least one hour, then, restart camera.

Note: If the problem can't be solved with above guidelines, contact to your local distributor or after service center.

Chapter 6 Main technical parameters

Power adaptor   Input: 100V～240V/50Hz Output: 12V 1A DC

Operating temperature   -10℃～+45℃

Store temperature   -20℃～+60℃

Relative humidity   10-90%，without condensation

Working band   GSM 850/900/1800/1900MHZ WCDMA /HSUPA 2100MHz (850/1900 Mhz Optional)

Wireless sensor receiving band   433MHz

Max. wireless sensors   15 units

Remote control receiving band   433MHz

Effective distant of the remote control   20 meters (wide area)

Image format   JPEG

Image resolution   320×240, 640×480, 1280×768

Camera pixel   5.0 Megal pixel

Camera Shooting angel   68 degree

Best shooting distance at night   ≤5meters

Detect distance of build-in PIR sensor   ≤5 meters

Listen in distance   ≤5meters

Lithium battery (Inner)   800mAh

Battery standby time   12 hours（Affected by network）

Appendix: SMS commands list

Category	Function	Command	User
Define the user	Add a master number to the camera	(1) #00#	Master
	Change the master user's number	(2) #14#*NewMasterNumber*#	Master
	Change the password	(3) #18#*oldpassword#newpassword*#	Master
	Add a family number	(4) #07#*FamilyNumber*#	Master
	Add a family email	(5) #07#email#	
	Delete a family number	(6) #27#*FamilyNumber*#	Master
	Delete all family numbers	(7) #27#	Master
Network parameter settings	Manual select MMS and network setting	(8) #54#	
	Select certain network setting	(9)#54#MCC+MNC#	
	Set MMS parameters	(10) #25#MMScenter#ProxyIP#ProxyPort#ProxyPort2#APN#Username#Password#mms#	Master
	Check MMS parameters	(11) #25#	Master
	Set Cellular data parameters	(12) #24#APN#Username#Password#MCC#MNC#proxy#port#default#	Master
	Check Cellular data parameters	(13) #24#	Master
Email settings	Configure sending email parameters	(14) #26#email#password#STMP#SMTPport#SSL#tls#	Master
	Check email parameters	(15) #26#	Master
	Set receiving email account	(16) #09#email#	Master Family
	Delete receiving email account	(17) #09#	Master Family
Capturing images	Capture one image and send to the user mobile	(18) #03#	Master Family
	Capture images and send to other phone number	(19) *#03#number#*	Master Family
	Capture image and send to pre-set E-mail	(20) #05#	Master Family
	Capture images and send to other E-mail	(21) #05#*Email*#	Master Family
Schedule send images	Set schedule to auto-send images parameters	(22) #43#Mode#WorkDay#StartTime#EndTime#IntervelTime#	Master
	Enabled schedule send images	(23) #06#1#	Master

Category	Function	Command	User
	function		
	Disable schedule send images function	(24) #06#0#	Master
Arming or disarming SimPal camera	Arming SimPal camera manually	(25) #01#	Master Family
	Disarming SimPal camera manually	(26) #02#	Master Family
	Enable schedule arms the camera	(27) #04#1#	Master
	Set time period to arm the camera	(28) #41#WorkDay#StartTime#EndTime#	Master
	Disable schedule arm the camera	(29) #04#0#	Master
Remote control	Remove all remote controls from the camera	(30) #29#	Master
Infrared body detector	Activate infrared body detector (default)	(31) #17#1#	Master
	Deactivate infrared body detector	(32) #17#0#	Master
Wireless sensor	Pairing normal sensor	(33) #08#1#sensor#	Master
	Pairing 24 Hours sensor	(34) #08#2#sensor#	Master
	Check all paired sensor	(35) #08#	Master
	Remove a wireless sensor	(36) #28#sensor#	Master
	Remove all sensors	(37) #28#	Master
	Check temperature value	(38) #15#	Master Family
	Enable over-temperature alarm	(39) #15#1#	Master
	Set limits of temperature	(40) #16#*MinTemp*#*MaxTemp*#	Master
	Disable over-temperature alarm	(41) #15#0#	Master
Image	Image size	(42) #22#*value*#	Master
	Alarm image quantity	(43) #21#*quantity*#	Master
Alarm settings	Warning tone upon alarm triggering	(44) #30#1#	Master
	No warning tone upon alarm (Default)	(45) #30#0#	Master
	No SMS notification upon alarm	(46) #11#0#	Master
	SMS notification upon alarm (Default)	(47) #11#1#	Master
	MMS notification upon alarm	(48) #12#1#	Master
	Email notification upon alarm	(49) #12#2#	Master
	Without image notification upon alarm	(50) #12#0#	Master
Calling alarm setting	No call notification upon alarm (Default)	(51) #13#0#	Master
	Call notification upon alarm	(52) #13#1#	Master Family
Family alert function setting	Disabled family SMS alert	(53) #32#0#	Master
	Enable family SMS alert	(54) #32#1#	Master
	Enabled family images alert	(55) #33#1#	Master
	Disable family images alert	(56) #33#0#	Master
Indicator	Turn off indicator light	(57) #31#0#	Master

Category	Function	Command	User
light	Turn on indicator light	(58) #31#1#	Master
Night vision LED setting	Night vision LED lighting mode and time setting	(59) #20#mode#	Master
Mains power change alert	Enabled mains power change alert	(60) #35#1#	Master
	Disabled mains power change alert	(61) #35#0#	Master
Unknown SMS forwarding	Enable unknown SMS to Maser	(62) #50#1#	Master
	Disable unknown SMS to Maser	(63) #50#0#	Master
Check status	Check the present settings and work status of the camera	(64) #10#	Master
	Check firmware version, IMEI and network signal	(65) #40#	Master
Restart	Restart the camera manually	(66) #42#password#	Master
Resetting	Resetting the camera	(67) #19#*password*#	Master
	Reset 3G module to factory setting	(68) #49#	Master