USER'S MANUAL

Most Cost-effective Scouting Trail Camera

Contents

1. Introduction

Thank you for choosing one of our easy operation highly qualified products. You now may enjoy the excellences reflected on this series product. This 12MP HD digital camera was totally R&D by our diligent and smart engineers based on feedbacks and requirements from customers globally. May you also enjoy and adore this product as we do. And our company is always open-minded with willing to adopt creative ideas from you.

1.1 Fully Functionality Introduction

Besides all the functions you may experience from any other similar product; This digital camera is aimed to offer user the most easy to use experience with gradually grow functions added; i.e.: GPRS model, SMS remote control, to configure camera various settings and enable camera to shoot a photo and send back instantly; etc. Follow up with possible upgrade unique features as 3G & Wifi.

1.2 Application

This digital camera is an ideal product for housing security, warehouse surveillance, and monitoring wild animals with its camouflage appearance and nice shape. It is convenient to install or fasten, could be used to take photographs manually and carry on long-time videos in Test mode.

a. Instant surveillance camera for home, office, construction site, and warehouse, etc.;

b. Motion-triggered infra-red night vision surveillance;

c. Animal observation and hunting;

1.3 Power Supply

A. AA Alkaline Batteries

This camera can either work with 4 or 8 AA Alkaline batteries. Pls note that the voltage of rechargeable AA batteries (1.2V) is insufficient to power this device. Batteries should be inserted as indicated inside the battery case. Upside down batteries electrode may cause device malfunction. Also, we strongly recommend changing the batteries when power icon on camera screen is empty or when you receive lower battery SMS alert (GPRS Model only).

B. Solar Panel

To bring users better using experience, our engineers designed this camera to be able to work with most standard 6~12V lithium battery build-in solar panels.

C. Power Adaptor—Security Surveillance Purpose

This camera can also be powered by an external 6~12V DC adapter. Recommend to remove the alkaline batteries when power adapter is used, to avoid surcharging. Electrical power is recommended for security purposes.

1.4 Attention

1. Insert the SD memory card correctly, camera does not support SD card hot swap

(insertion).

2. Please use AA battery with good quality in order to prevent battery cells from corrosion of leaked acid.

3. Use right adaptor (6V/1A or 2A) of this camera to supply power, and do not invert the electrode when put in batteries.

4. In Test mode, camera will automatically power off in 1min without any operations. Please manually turn ON it as if you want to use it again.

5. Don't interrupt power supply during system upgrade, please deliver it back to factory if the device doesn't work after upgrading.

6. Do not frequently insert or pull out SD card and battery or plug in and out the adaptor when the camera is on.

7. Do not have any floating objects, such as leaves, strings, or ribbons in the 3M motion detection zone of cameras, to avoid mistaking photograph or videos.

8. Do not keep camera next to hot irrelevant objects, air conditioner exhaust vents, and light, etc. to avoid mistaking photos or videos.

1.5 Key Features

a. Programmable 5/8/12 Megapixel high-quality resolution;
b. Especially designed function buttons for user's conveniences;
c. Optional to turn on/off camera speaker;
d. 40 pcs IR LEDs for flash range as 20 meters;
e. Adjustable PIR sensitivity;
f. Multi-shot pictures (up to 7 pics per trigger);
g. Impressive quick trigger time: 0.8-1s (GPRS trigger time is 1.2s);
h. Support standard 6~12V solar panel;
i. Color pictures during day; black and white at night.
j. Adjustable delay between motions;
k. With 8 AA alkaline batteries, the longest standby time is up to 6 months;
l. Available operation temperature: -20℃ to 60℃;
m. Time Lapse for automatically and constantly shooting of pictures/videos at preset interval;
n. With specified Timer, camera can be programmed to work only during preset time period every day;
o. Stamp of **USER LABEL**, date, time, temperature and moon phase on every picture enables you to identify where and when the camera shot photos;
p. Built-in 2.0" TFT color screen to review photos and videos in camera.
q. Audio Recording brings you heart pumping like ever before;
r. Two different TV OUT settings help you review photos/videos even from Television.

Below are for GPRS Model only
s. With SMS/MMS/GPRS/SMTP/HTTP function, camera can transmit photos to 1-4 settled mobile phones and 1-4 email accounts according to set intervals constantly at lower battery consumption.

t. SMS alert when battery is low;
u. SMS to realize various configurations;
v. SMS to enable camera to shoot a photo and send back instantly;
w. Support most 2G and most 3G SIM cards to get real-time photos;

2. Whole View and Details of Camera

2.1 Figure 1: Front View of Camera;
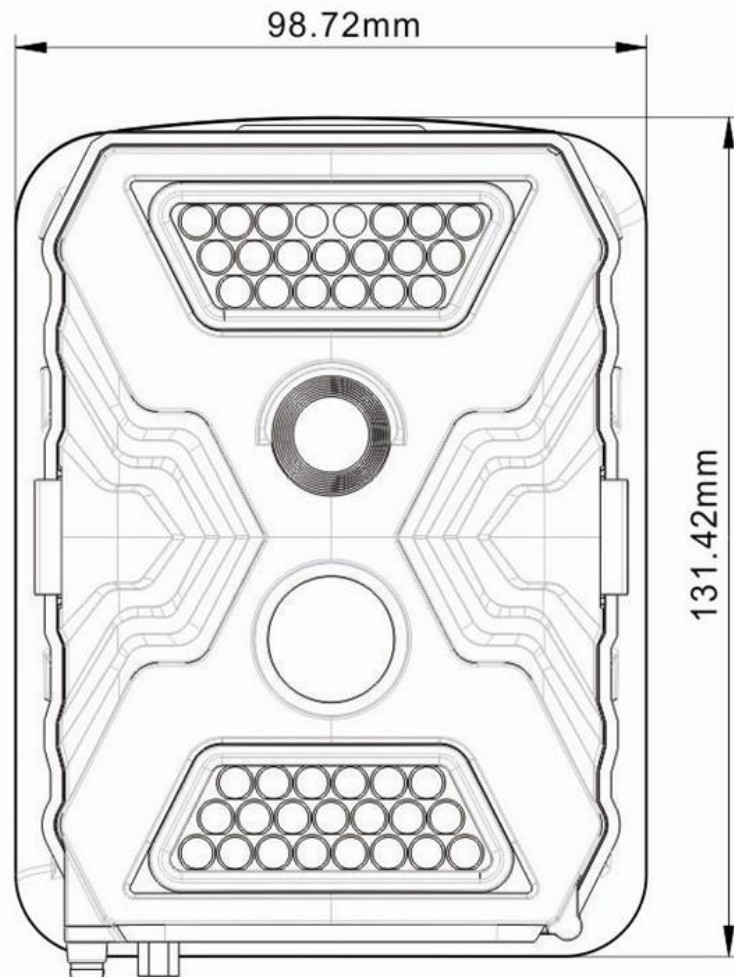
2.2 Figure 3.2: Bottom View of Camera;
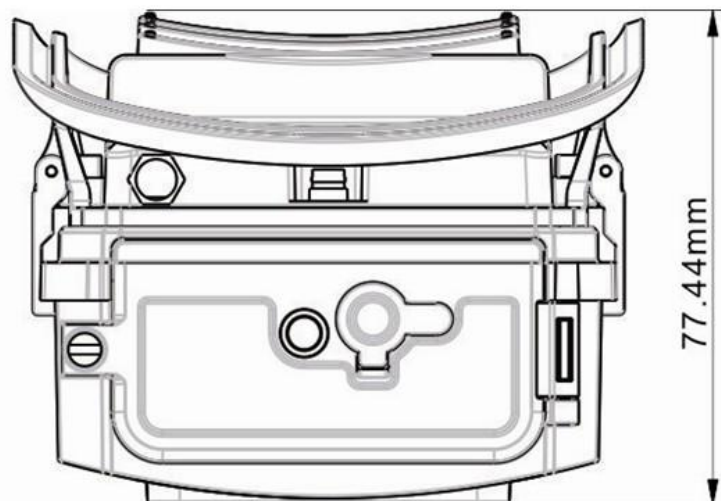
2.3 Figure 3.3: Side View of Camera.
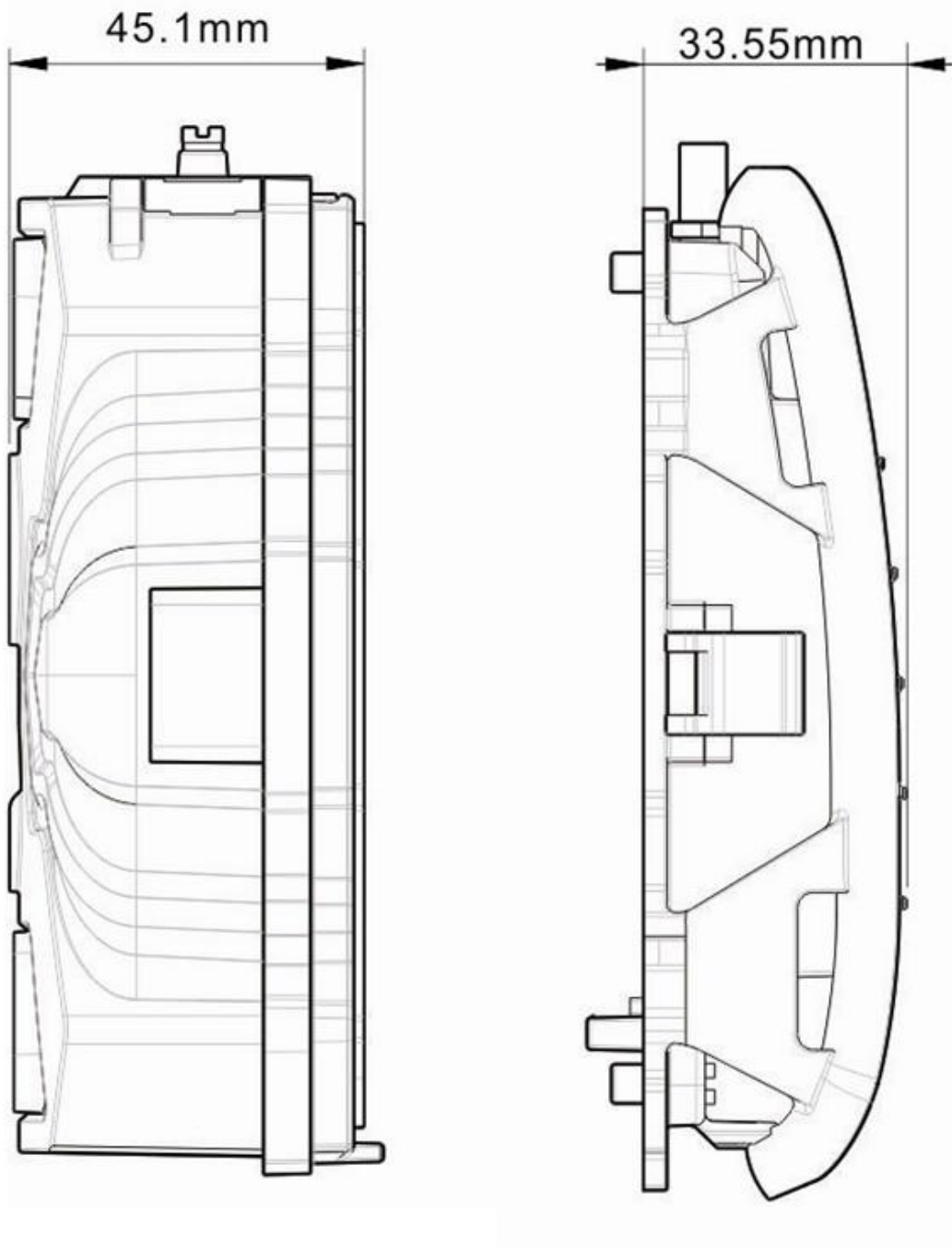
2.4 Figure 3.4: Internal View of Camera
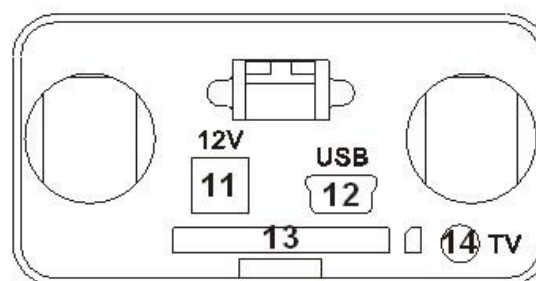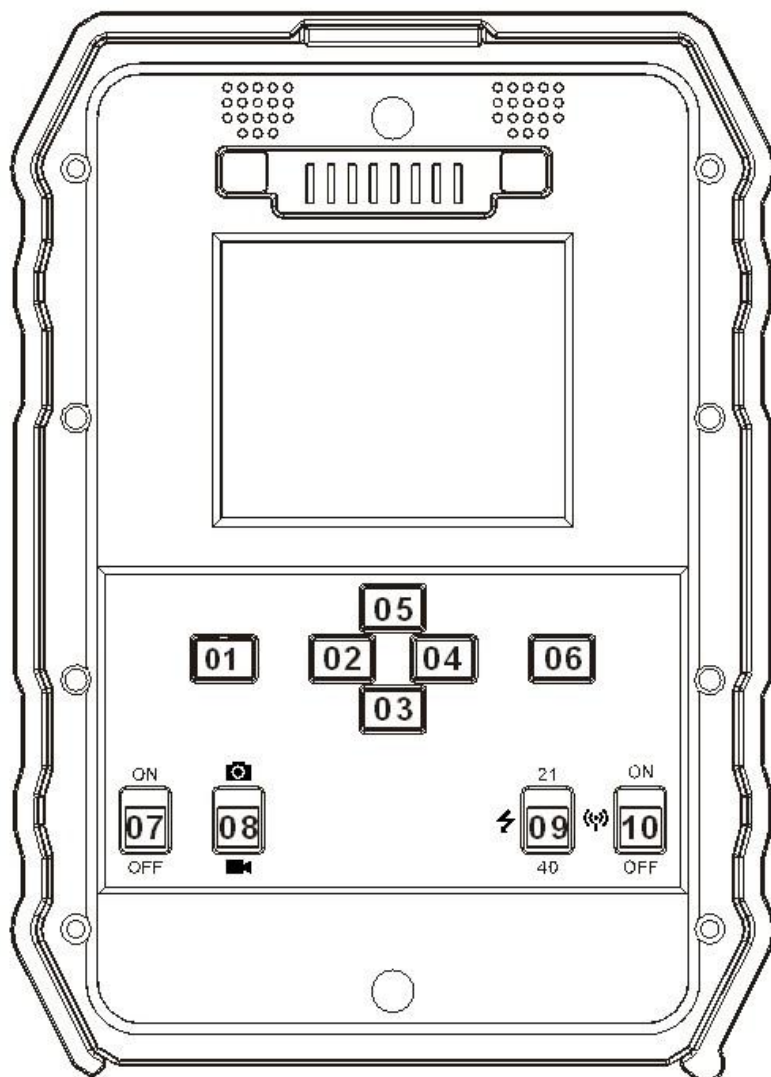
Introduction of each button

a) Press Buttons
01: Menu; **02/ 03/ 04/ 05:** navigation arrow buttons; **06:** OK

b) Switch Buttons
07: Power Switch; **08:** Camera/Video Switch; **09:** IR LEDs Group Switch; **10:** GPRS Switch

c) Interfaces
11: 12V DC in; **12:** USB Port; **13:** SD Card Slot; **14:** TV Out.

2.5 Function Keys & Other Details

A. Switch Buttons

Power Switch	Switch up: Power **On**—PIR intelligent automatically monitoring; light sensor flashes 5 times before entering Mode "Power On" Switch "On", press "OK" once to wake up camera LCD screen to enter TEST Mode; Press and hold button "OK" for 5 sec to get back to mode "Power On" Switch down: **OFF**—Camera stops working.
Video/Photo Switch	Switch up: **Pic**—Photographing Switch down: **Video**—Video Recording
IR LEDs Group Switch	Switch up: **19**—up side 19 pcs IR LEDs work Switch down: **40**—all 40 IR LEDs work
GPRS Switch	Switch up: **On**—GPRS function enabled; Switch down: **Off**—GPRS function disabled.

B. Navigation buttons

a) Power Switch by "On", press "OK" once to wake up camera LCD screen to enter TEST Mode;

b) Test mode, Press "Menu" once to enter camera setting menu; Press "OK" to shoot photo(s) or video clips.

c) To navigate the interface by pressing "←", "↑", "→", or "↓", press "OK" for selection. To modify the selection, press "↑" and "↓"again and press "OK" to confirm. To return to the previous menu, press "Menu".

d) Press and hold button "OK" for 5 sec to get back to mode "Power On"

3. Quick Start

3.1 How to start the camera?

Switch button ⑦ to "ON", press button ⑥ "OK" once to wake up camera LCD screen (to enter TEST Mode.)

3.2 How to set the functions?

C. Test mode, Press button ① "Menu" once to enter camera setting menu;

D. To navigate menu interface by pressing "←", "↑", "→", or "↓", press "OK" for selection. To modify the selection, press "↑" and "↓"again and press "OK" to confirm. To return to the previous menu, press "Menu".

E. Exit Menu, then press button ⑥ "OK" for 5 sec to enable camera to work automatically by itself.

F. Switch button ⑧ to switch "Photographing"/ "Video Recording";

G. Switch button ⑨ to turn on 19 IR LEDs or whole 40 IR LEDs.

H. Switch button ⑩ to turn on/off GPRS function.
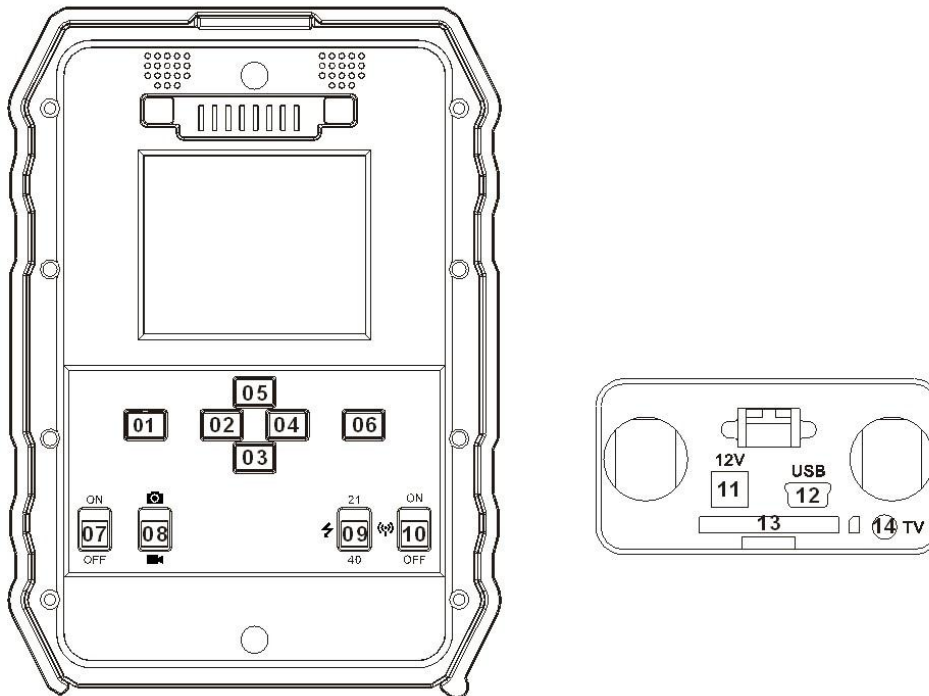
4. Operation List

4.1 Video/Photo Playback

In **Test** Mode without pressing button "Menu": press arrow button "↑" to enter Playback; press "←" and "→" for selection, "OK" to play photo/video. Press button "↑" again to return. Press "Menu" button to initiate Deletion of files or Format of SD card.

4.2 Delete:

a. Delete one: delete selected photo/video;
b. Delete All.
press"↑" and "↓"for selection, "OK" to confirm, "menu" return back to previous interface.

4.3 Format of SD Card

a. No
b. Yes: to format SD card via camera.
press"↑" and "↓"for selection, "OK" to confirm, "menu" return back to previous interface.

4.4 Operation Menu

Test mode, Press "Menu" once to enter camera setting menu; to navigate setting interface by pressing "←", "↑", "→", or "↓", press "OK" for selection, and "Menu" to return back to previous menu.

Main Menu	Default Setting	Functions Description
1. User Label	OFF	Select "ON" to set 4 digits/ alphabets for each camera. Such function can help user to identify photos are from where and which camera.
2. Camera + Video	OFF	Select "ON", camera shoots photo(s) first, then video upon same trigger event based on **Video Length** and **Multi-shot** user configured.
3. Multi-Shot	1P	Optional 1/2/3/4/5/6/7 photos per trigger
4. Image Size	5MP	12MP/8MP/5MP 4000x3000, 3264x2448, 2592x1944
5. Video Size	640	HD/640/320: 1080x720/640x480/320x160
6. Video Frame	30FPS	30fps/15fps, programmable
7. Digital Zoom	NO	Lens focus room in 2/ 3/ 4 times.
8. Video Length	5 Sec	5-60s video clips
9. PIR Sensitivity	Middle	High/ Middle/ Low; Higher sensitivity is 1) more sensitive to movements by smaller subjects; 2) longer detection distance; 3) easier for sensor to detect difference between body heat and outdoor temperature; 4) easier to trigger camera to record. In **high temperature** environment, body heat of subjects and environment temperature is hard to tell by camera, suggest set **High**.
10. Timer	OFF	Select "ON", to set the beginning time and end time (hour/minute); camera will only work during the time user set.
11. Time Lapse	OFF	Select "ON", to set the interval; PIR sensor of camera will be turned off; camera will shoot pics or video clips automatically upon the interval user set. **Configurable interval:** 5 seconds to 24 hours.
12. Delay	OFF	The pre-set time interval you desire between photo/video recordings upon motion. This option prevents from taking too many photos or videos. **Example:** Camera will wait 1 minute between photo/video recordings with motion **Configurable delay time:** 5 seconds to 2 hours.
13. Audio Recording	ON	Select "ON", audio available in video clips.
14. TV Out	N	NTSC/PAL
15. Stamp	ON	To select or cancel imprinting of programmed user label, moon phase, temperature, date, and time on photos.
16. Frequency	50Hz	Improper setting may cause camera screen flicker
17. Language	English	**English…**
18. Time/Date	01/ 01/ 2011 12: 00	Date/Time; Date: "month/ date/ year"; Time: "hour/minute"
19. Camera Sound	ON	Select "OFF" to turn off camera speaker.
20. Cycle Recording	OFF	Select "ON", camera will continue to record photos/videos by

		deleting earliest photos or video clips recorded in SD card.
21. Password	**OFF**	Select "ON" to enable password protection for your camera; support totally 6 digits/ alphabets long password access.
In sub menu to set URL/ APN/ IP/ Port, User can navigate to choose needed characters by pressing "←", "↑", "→", or "↓", press "OK" for selection, "**Menu" to switch group of characters.** Needed information entered, press "OK" to **confirm icon " ˄ " to save & exit.**		
22. Country Set (For MMS only)		Choose your local wireless operator(SIM Card provider) from the available list by steps below: i.e.: **China Mobile:** **"China"→press button "OK"→"China Mobile"** **Note:** Pls check if preset URL/ APN/ IP/ Port (Username & Password if required) in "**MMS Setup**" are exactly the same offered by your local operator.
23. MMS Setup		If you can't find your local operator from "Country Set" list, pls contact your operator for **URL/ APN/ IP/ Port (Username & Password if required); a**nd enter these info manually. (We'll do our best to add the needed operator info into "Country Set" list whenever we're informed with the detail information.)

24. SMTP Setup		1) Enter your SIM card provider APN;
		   Note: APN will be entered automatically if you select your operator in "Country Set"
		2) Enter your mailbox IP;
		   i.e.:
		   Hotmail IP: smtp.hotmail.com;
		   Gmail IP: smtp.gmail.com;
		3) Enter your mailbox port;
		   Port of most mailbox is 25; plz enter your mailbox corresponding port.
		4) Enter your mailbox password access.

25. FTP Setup		1) Enter your SIM card provider APN;
		   Note: APN will be entered automatically if you select your operator in "Country Set"
		2) Enter your FTP server IP;
		   i.e.:
		   FTP Server IP: ftp://dianwan2008.gicp.net/
		   Enter: dianwan2008.gicp.net
		   Gmail IP: smtp.gmail.com;
		3) Enter your FTP server port;
		   Port of most FTP server is 21; plz enter your FTP server corresponding port.
		4) Enter your FTP server password access.

26. Send to		Enter 1 to 6 phone number, or 1 to 6 email accounts to receive photos from camera.

		1) **Power Saving Mode: (Battery Power)** Camera GPRS module will only be activated upon trigger.
27. GPRS Mode		2) **Indoor Mode: (Power adapter connected)** Camera GPRS module stand-by all the time to send photos, and receive remote SMS command orders.
28. Card Txt	**OFF**	Select "ON" to enable camera to record the trigger time only, instead of shooting photos/Videos to save battery power. **How to use?** User can check out when and how many times the camera was triggered by moving objects by reading the time points listed in Txt file which is saved in SD card. Allow SMS command message from phone to withdraw this file remotely. **Usage:** Enable user to know what time period there will be more animals/ moving objects. User can by then to set "Timer" (manually or by SMS command message) to enable camera to shoot photos/videos only during that specific time period.
22. Reset	**No**	Select "Yes" to reset camera back to factory default setting.

5. Specification

Image Sensor	5 Mega Pixels Color CMOS
Effective Pixels	2560x1920
Day/Night Mode	Yes
IR arrange	20m
IR Setting	Top: 19 LED, Foot: 21LED
Memory	SD Card (8MB – 32 GB)
Operating keys	10
Lens	F=3.0; FOV=52°; Auto IR-Cut-Remove (at night)
LCD Screen	2" TFT, RGB, 262k
PIR Sensitivity	3 sensitive levels: High / Normal / Low
PIR distance	12m – 15m
PIR Angle	60°
Picture size	5MP/8MP/12MP = 2592x1944/3264x2448/4000x3000
Picture Format	JPEG
Video resolution	720P (1280x720), 640x320, 320x160
Video Format	AVI
Video Length	1-60sec. programmable
Shooting Numbers	1-7
Trigger Time	0.8-1s
Trigger Interval	2s-5s
Camera + Video	Yes
Playback Zoom in	2x, 3x, 4x

Device Serial No.	Yes
Time Lapse	Yes
Beep Sound	ON/OFF
SD Card cycle	ON/OFF
Card Txt (PIR Log Recording)	Yes (Most adorable feature)
Operation Power	Battery: 6V; DC: 12V
Battery Type	8AA
External DC	12V
Stand-by Current	0.15mA
Stand-by Time	4~6 months (4×AA~8×AA)
Auto Power Off	auto switch to mode "ON" in 60s without any operations
Power Consumption	150mA (+650mA when whole 40 IR LEDs light up)
Low battery Alert	4.8V (4.8V: alert; 4.6V: power off)
Interface	TV out/USB/SD Card/DC Port
Mounting	Strap; Tripod
Operating Temperature	-25°C to 60°C
Storage temperature	-30 °C to 70°C
Operation Humidity	5%-90%
Waterproof spec	IP54
Dimensions	131.42 x98.72 x77.44mm
Weight	300g
Certification	CE FCC RoHs

6. Phone SMS Message Remote Command Orders

All SMS message order codes start with "*", end with "#".

Camera GPRS module will confirm back to preset phone(s)/ email(s)/ FTP account with a successful configured notification message upon every single remote SMS command order message.

Note: plz only send next command message to camera upon notification message from camera.

Function Order	Code	SMS Command Example	Configured Setting
01	**Mode:** Camera(1), Camera + Video(2)	01*1#	Camera
02	Image Size: 12MP(1), 8MP(2), 5MP(3)	02*1#	12MP
03	**Multi-shot:** 1 photo per trigger(1), 2 photos per trigger(2), 3 photos per trigger(3), … 7 photos per trigger(7)	03*2#	2 photos per trigger
04	**Time Lapse:** Represent time with 2 digits, i.e.: 2h 1m 3s: 020103	04*020103#	Camera shoots photos/ videos every 2 hours 1minute 3 seconds automatically.

05	**PIR Sensitivity:** Low(1), Middle(2), High(3)	05*3#	High
06	**Digital Zoom:** No (1), 2 times (2), 3 times (3), 4 times (4)	06*3#	Digital Zoom in 3 times
7a		7a*15955559999#	Phone 1: 15955559999
7b		7b*15955559999#	Phone 2: 15955559999
7c	**Send to:**	7c*15955559999#	Phone 3: 15955559999
7d	**Phone number:** Maximum 20 types	7d*15955559999#	Phone 4: 15955559999
7e		7e*15955559999#	Phone 5: 15955559999
7f		7f*15955559999#	Phone 6: 15955559999
8a		8a*12ab@gmail.com#	Email1: 12ab@gmail.com
8b		8b*12ab@gmail.com#	Email2: 12ab@gmail.com
8c	**Send to:**	8c*12ab@gmail.com#	Email3: 12ab@gmail.com
8d	**Email:** Maximum 60 types	8d*12ab@gmail.com#	Email4: 12ab@gmail.com
8e		8e*12ab@gmail.com#	Email5: 12ab@gmail.com
8f		8f*12ab@gmail.com#	Email6: 12ab@gmail.com
9	Maximum number of photos sent from camera. (Camera sends photos every day based on the numbers use sets.)	9*#	No Limit
		9*19#	Enable camera to send 19 photos to preset phone(s)/ email(s)/ FTP only every day. (send to preset accounts separately.)
10	**Delay:** OFF, ON Represent time with 2 digits, i.e.: 2h 24m 21s: 022421	10*#	OFF
		10*022421#	Camera only shoot photos/videos every 2hours 24minutes 21seconds upon motion.
11	**Timer:** Represent time with 2 digits, hyphen to connect beginning time and end time; i.e.: **2:01:30 a.m. to 4:05:10p.m.:** 020130-160510	11*#	OFF
		11*020130-160510#	Camera works only between 2:01:30 a.m. and 4:05:10p.m. every day.
12	Require camera to shoot a photo and send back. **(Note:** Camera GPRS module will only be activated to execute the command upon trigger in **Power Saving Mode;** execute commands all the time in **Indoor Mode)**	12*#	Camera shoots a photo and send back to preset phone number(s)/ Emails/ FTP account. (send to preset accounts separately.)
13	GPRS Mode: Power Saving Mode (1) Indoor Mode (2)	13*1#	Power Saving Mode
		13*2#	Indoor Mode
14	Require camera to send "Card Txt" to preset phone(1)/ email(2)/ FTP(3)	14*1#	Send "Card Txt" to preset phone(s)
		14*2#	Send "Card Txt" to preset email(s)

		14*3#	Send "Card Txt" to preset FTP(s)
15	Turn Off camera	15*#	Camera OFF
16	User Label: 4 digits / alphabets i.e.: Coastal City position 1: CC01; New York Central Pack 2: NYC2	16*CC01#	Coastal City position 1
		16* NYC2#	New York Central Pack 2
17	Video Size: 720P (1); D1 (2); CIF (3)	17*1#	720P
18	Video Length 5-60s	18*10#	Each video clip length: 10s

7. SD Cards Selection and Battery Life Test Report

7.1 SD Card Selection

Using a memory card is required to operate the camera. When the camera is "ON" and no memory card is used, the screen displays "Pls insert memory card". The SD slot of the camera has a 32 GB memory capacity. Before inserting or removing the memory card, the camera must be turned "OFF". Failing to do so may cause loss of or damage the pictures already recorded from the memory card. When the SD card is full, the viewing screen indicates "Memory Full". The following data shows an approximate quantity of photos which can be recorded by the camera depending on the memory card capacity.

Chart below will show you the approximate capacity of different size SD cards. Pls check to see which size card can fit your needs best.

SD Size Capacity	1GB	2 GB	4 GB	8 GB	16 GB	32 GB
Photo (pictures)						
5MP	705	1373	2823	5517	11141	244962
8 MP	452	882	1813	3544	7157	14241
12 MP	201	392	806	1575	3181	6326
Video (hours)						
720P HD	00:09:27	00:18:32	00:38:15	01:14:53	02:31:20	04:53:40
640x480	00:26:01	00:50:48	01:44:33	03:24:27	06:52:58	13:09:27
320x160	01:14:07	02:24:28	04:57:04	09:40:39	19:32:30	39:15:10

7.2 Battery Life Test Report for Reference

Test Condition: LCD screen off. Mode: "Power On" _PIR intelligent automatically monitoring					
8AA Alkaline Batteries					
Photos shot per day		Working time	Video clips shot per day		Working time
IR LEDs On			IR LEDs On		
5MP	100 photos	51 days	320× 240	10 sec	10 clips	43 days

8MP	100 photos	49 days	640× 480	10 sec	10 clips	42 days
12MP	100 photos	45 days	1280× 720	10 sec	10 clips	40 days
IR LEDs Off			**IR LEDs Off**			
5MP	100 photos	59 days	320× 240	10 sec	20 clips	119 days
8MP	100 photos	55 days	640× 480	10 sec	20 clips	113 days
12MP	100 photos	51 days	1280× 720	10 sec	20 clips	101 days

8. Trouble Shooting

8.1 Photos Do Not Capture Subject of Interest

1. Check the "Sensor Level" (PIR sensitivity) parameter setting. For warm environmental conditions, set the Sensor Level to "High" and for cold weather use, set the sensor for "Low".
2. Try to set your camera up in an area where no heat resources are in the camera's field of view.
3. In some cases, set the camera near water will make the camera take images with no subject in them. Try to aim the camera over ground.
4. Try to set camera on stable and immovable objects, i.e.: large trees.
5. At night, motion detector may detect beyond range of the IR illumination. Reduce distance setting by adjusting sensor sensitivity.
7. Rising sun or sunset can trigger sensor. Camera must be reoriented.
8. If person/animal moves quickly, it may move out of the camera's field of view before photo is taken. Move camera further back or redirect camera.

8.2 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, camera will stop taking images. Or user can turn on Cycle Recording to avoid such problem.
2. Check batteries to make sure that alkaline or lithium AA batteries left power is enough for camera to work.
3. Make sure that the camera power switch is in the "On" position and not in the "Off" or "Test" modes.
4. When GPRS function is on, there will be around 1 minute interval for camera to send out photo before camera shooting the next photo. Turn off the GPRS, camera can shoot photos continuously.
5. Please format the SD card with camera before using or when camera stops taking images.

8.3 GPRS version camera stops sending photos to email or mobiles.

1. Check if the SIM card is out of charge.
2. Check if SIM card in using can work with mobile phone.
3. Check if the signal is too weak or there is no signal covered.
4. Make sure the GPRS setting is right (check the manual)

9. Warranty

With great pride and full confidence in our products, we always keep our words which are given to our customers as specified warranty terms and service below. Based on a strict QC system, we initially offer all our customers one year long time limited warranty, come along with selectable chargeable renewal policy of warranty as one, two, three, or four years.

Our products are warranted against defects in materials and workmanship for a period of one year from the date of original purchase. If a defect exists, we will, at our option and to extent permitted by law will (1) repair the product at no charge using new or refurbished parts; (2) exchange the product with a functionally equivalent product that is new or refurbished. Provided the product is returned freight charge paid.

This warranty excludes damage resulting from abuse, accident, modifications or other causes that are not defects in materials and workmanship, or by someone other than our authorized technicians. This warranty only covers failures due to defects in materials or workmanship under normal usage.

To obtain warranty service, please contact us to determine the nature of problem before return the product under this warranty (with a written description of the problem and print samples) for repairing or exchanging.

10. Plan for Upgrade 3G/Wifi Digital Camera