Digital Scouting Camera

User's Manual
SG565FV

Content

1   Instruction

1.1 General Description

This camera is a digital scouting camera with Incandescent Flash It can be triggered at once by any movement of human (or animals) in a certain region of interested (ROI) monitored by a high sensitive Passive Infrared (PIR) motion sensor, and then automatically captures high quality pictures (up to 5M pixels) or records video clips (VGA) according to default settings or preset customer settings.

This camera use integrated xenon flash instead of IR LED lamination .It can take color images day and night. It also can take video clips during the day.

It has elegant and cute shape, most compact design in its class. And it has low power consumption, up to 1200 flash pictures with 8AA batteries.

The device is designed for outdoor use and is resistant against water and snow. Furthermore, the camera can be used as a portable digital camera. Pictures or videos can be taken manually by pressing **OK** on the control in **TEST** mode (The wired control needs to be connected).

1.2 Application

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

1.3 Camera Body Interfaces

The camera has the following I/O interfaces: USB connector, SD-card slot, TV output and external DC power connector.

On the head of camera, there is a lock hole for theft-proof.

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

1 Flash

2 Indication LED

3 PIR

4 Lens

5 Battery depot

6 Power switch

7 SD card slot

8 USB connector

9 TV-out connector

12 external DC power connector

11 Locker

10 Scrow
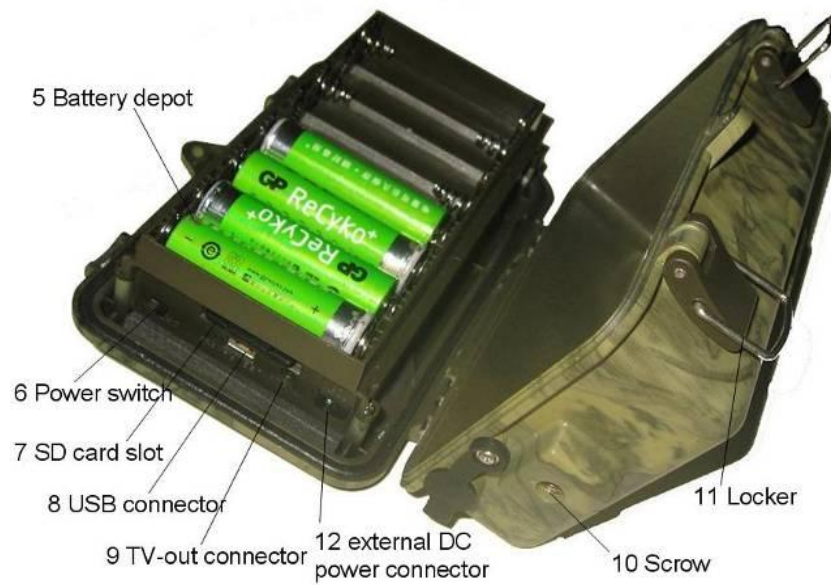
1.4 Shooting Information Display

When the camera is turned on (the power switch is slid to **ON** position), the shooting information will be displayed in the monitor.
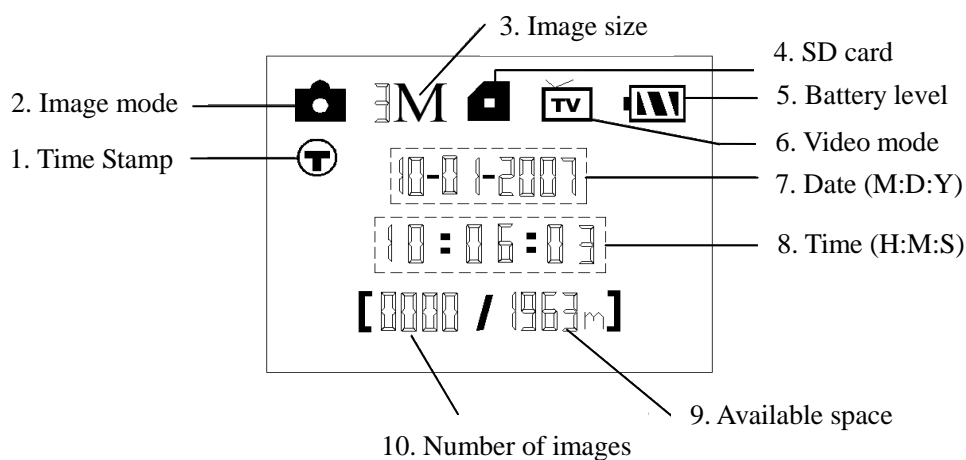
1.5 Supported Format

Item	Format
Image	JPG
Video	AVI
File format	FAT32

Here are some important notices. You don't need to concern about the file system format of the camera unless you have problems with reading the SD-card by your other equipments. If this happened, please format the SD-card in the camera or in a computer at first and then reinsert the card into your camera to make a try.

2   Cautions

★ The working voltage of the camera is 6V. The camera is supplied by four AA batteries.

★ Please insert the SD-card when the power switch is at **OFF** position before testing the camera. The camera has no internal memory for saving images or videos. If no SD-card is inserted, the camera will shut down automatically after a continuous indication sound.

★ Please unlock the write-protect before inserting the SD-card. Please do not insert or take out the SD-card when the power switch is at **ON** position.

★ In the **TEST** mode(insert the control into the USB interface then switch the camera at **ON** position), the camera will shut down automatically after 3 minutes if no operation is done. Please turn on the power again if you want to continue to work with the control.

★ The camera will be in USB mode when connected to a USB port of a computer. In this case, the SD-card functions as a removable disk.

★ Please ensure sufficient power when having firmware upgrade, otherwise the upgrade process could be interrupted incorrectly. If any fault occurs after improper upgrading process, the camera may stop function properly.
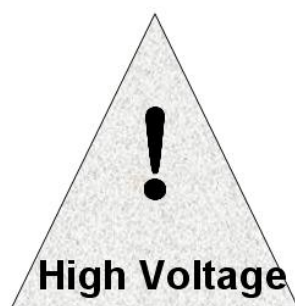
Please don't disassemble the camera.

3   Easy Operations

3.1 Power Supply

To supply power for the camera, four AA size batteries are needed.

Open the bottom cover. Confirm that the power switch is at the **OFF** position. Install the fully charged batteries into the depot according the polarities sign shown below. The following batteries with 1.5V output can be used:

1. High-density and high-performance alkaline batteries (Recommended)
2. Rechargeable alkaline batteries
3. Rechargeable NiMH batteries

There are two battery slots.

When in low-battery state, camera will be automatically shut down after two indication sounds. Please change the batteries in time.

3.2 Insert the SD-card

Open the bottom cover. Insert SD-card into the card slot with unmarked side upwards. Please note that the SD-card can only be plugged in one direction. Make sure that the write-protect switch of the SD-card is on the "write" position otherwise the camera cannot be switch on.

3.3 Power on and Entering into the ON Mode

The Camera has three basic operation modes:

1. OFF mode: to turn off the camera.

2. TEST mode: to set operational parameters, or to playback the photos or video clips via display screen or via TV.

3. ON mode: to work at surveillance state.

Before switching on, please pay attention to the follows:

1. Avoid temperature and motion disturbances in front of the camera such as big leaf, curtain, air-conditioner, air outlet of the chimney and other heat sources

to prevent from false triggering.

2. The height from ground for placing the camera should vary with the object size appropriately. In general, **one** to **two meters** are preferred.

Slide the power switch to the **ON** position to power on the camera and enter into the **ON** mode.

After switching on the camera, the motion indication LED (red) will blink for about 10s. The 10s is a buffering time before autonomic capturing photos or videos, e.g. for closing and locking the bottom cover, fixing the camera on a tree and walk away.

In **TEST** mode, it requires to connect the control then to do further customizing settings, when the user complete the settings, it requires to unplug the control to enter into normal use, that is, **if the wired control still be connected with the camera, the camera will not work.** The camera (the control must be unplugged when in **ON** mode) will take pictures or videos automatically according to the default settings or preset customer settings.

3.4 Enter into the TEST Mode

Connect the wired control, then switch to the **ON** position and enter into the **TEST** mode. There are some functions in **TEST** mode: Customer settings, manual capture and preview. The control is needed in this mode.

3.4.1 Customer Settings

Press **MENU** on the control to enter into menu settings. The camera can be taken over control to manually customize the camera settings which display on the LCD screen on the camera or external TV monitor. The detailed operations will be described in "Advanced Operations" chapter.

3.4.2 Manual Capturing

The TV-in connector should be unconnected, and then press **SHOT** to manually capture photos or record videos. It is also SHOT key to stop the manual capturing of the video.

3.4.3 View Images or Videos

There are two ways to view the captured images or videos:

1. LCD screen on the control
2. TV monitor which connect to camera with TV cable

Press **OK** to view images, the latest image will be shown in the LCD screen on the control or TV monitor. Press **UP** to view the previous image and press **DOWN** for the next. Please note that video cannot be played in the LCD screen and only thumbnail of the video is showed.

The detailed operations like deleting images or videos will be described in "Advanced Operations" chapter.

3.5 Power Off

Switch the camera to **OFF** position to power off the camera. Please note that even in the **OFF** mode, the camera still consumes certain power at µA level. Therefore,

please remove the battery if the camera will not be used for a long time.

4   Advanced Operations

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

1. **OFF** mode: Power switch is at **OFF** position.
2. **ON** mode: Power switch is at **ON** position.
3. **TEST** mode: Power switch is at **ON** position and the control needs to be connected.

In the above three modes, the **OFF** mode is the specified safe mode when replacing the SD-card or batteries and transporting the camera.

This chapter explains the advanced operations for customizing the camera settings. The settings can only be customized in **TEST** mode and control is needed.

4.1 Settings Menu

To view the camera settings menu, press **MENU** in the **TEST** mode (Power switch is at **ON** position; control needs to be connected). The settings menu will be shown on the LCD on the camera or the external TV monitor (only when the camera is connected to a TV).

Setting Items	Description
Camera Mode	Choose capturing images or recording videos. As using white flash , the camera can take color images day and night. But video can just work under sufficient daylight. If you set video mode , it will turn to camera mode automatically at night.
Format	Format the SD-card. All images and videos in the SD-card will be deleted.
Image Size	Choose the image size, e.g. 5 mega pixels.
Video Size	Choose the video size, e.g. 640×480 (VGA).
Set Clock	Set camera date and time.
Photo Burst	Choose the continuous shooting numbers after each triggering. （Note: When use flash, the photo burst function will be forbidden ）
Video Length	Choose duration of recording video.
Interval	Choose how long the camera will stop functioning after each triggering. The camera's PIR will be disabled during this interval.
Sense Level	Choose sensitivity of PIR. The higher, the easier the motion sensor would be triggered. It is recommended to use **Normal** mode. The sensitivity of PIR is strongly related to the temperature. Higher temperature leads to lower sensitivity.
Time Stamp	Date and time of capturing can be imprinted on image or video.
Timer Switch	The camera will be awoken up at certain time duration in a day. In the rest of the time the camera is shut off.
Default Set	Restore all customer settings to default values.

4.1.1   Default Settings

Default settings are listed below:

Setting Items	Default	Options	Submenu
Camera Mode	Image	Video	
Format	Enter		Yes, No
Image Size	5M Pixel	3M Pixel	
Video Size	640×480	320×240	
Set Clock	Enter		Adjust Clock
Capture Number(Photo Burst)	1 Photo	2 Photo, 3 Photo	
Video Length	Avi 10 seconds	Avi 1–60 seconds	
Interval	1 Minute	1–59 seconds, 1-60 minutes	
Sense Level	Normal	High, Low	
Time Stamp	On	Off	
Timer Switch	Off	On	Start, Stop (00:00 – 23:59)
Default Set			

4.1.2   Set Camera Mode

There are two camera modes: Camera or Video. There are two ways to set the camera mode: 1. Via shortcut key; 2. Via setting menu.
 1. Shortcut key: Press **UP** to set the camera mode as **Video** or press **DOWN** to set camera mode as **Image** in info display of **TEST** mode.
 2. Setting menu: The following shows how to set camera mode to **Video**, provided that the previous option is **Image**:
   a) Press **MENU** to display the setting menu.
   b) Press **UP** or **DOWN** to select **Mode**.
   c) Press **RIGHT** to select **Video**.
   d) Press **OK** to save the current setting and the option will be un-highlighted.
       Press **MENU** to cancel setting and return to info display.

4.1.3   Format SD-Card

The system will delete all images or videos stored in the SD-card after formatting, make sure that you have made a backup of important data.
   a) Press **MENU** to display the setting menu.
   b) Press **UP** or **DOWN** to select **Format**.
   c) Press **OK** to choose **Enter** to enter into submenu.
   d) Press **RIGHT** to select **Yes**. **Yes** will be highlighted.
   e) Press **OK** to start formatting the SD-card. During formatting, the display screen will show a message "Formatting…" as below.
       Press **MENU** to cancel setting and return to info display.

```
┌─────────────────────────────┐
│        Formating...         │
│                             │
│        please wait          │
│       for format end        │
└─────────────────────────────┘
```

4.1.4　Set Image Size

This parameter has two values: 5 mega pixels (5M Pixel or 5MP) and 3 mega pixels (3M Pixel or 3MP). The following shows how to set pixel size as **3M Pixel** provided that the previous option is **5M Pixel**:

a)　Press **MENU** to display the setting menu.

b)　Press **UP** or **DOWN** to select **Image Size**.

c)　Press **RIGHT** to select **3M Pixel**.

d)　Press **OK** to save the current setting and the option will be un-highlighted.
　　 Press **MENU** to cancel setting and return to info display.

4.1.5　Set Video Size

This parameter has two values: 5 mega pixels (5M Pixel or 5MP) and 3 mega pixels (3M Pixel or 3MP). The following shows how to set video size as **320×240** provided that the previous option is at **640×480**:

a)　Press **MENU** to display the setting menu.

b)　Press **UP** or **DOWN** to select **Video Size**.

c)　Press **RIGHT** to select **320×240**.

d)　Press **OK** to save the current setting and the option will be un-highlighted.
　　 Press **MENU** to cancel setting and return to info display.

4.1.6　Set Date and Time

The date format is **month**/**day**/**year**, the time format is **hour**: **minute**: **second**. The valid value for year is between 2006 and 2031. Provided that the date and time are needed to be set to November 15th, 2007 and half past ten, the steps are as following:

a)　Press **MENU** to display the setting menu.

b)　Press **UP** or **DOWN** to select **Set Clock**.

c)　Press **OK** to **enter** into submenu.

d)　Press **RIGHT** to select item, press **UP** or **DOWN** to change the value.

e)　Press **OK** to save all current setting and return to info display.
　　 Press **MENU** to cancel setting and return to info display.

4.1.7　Set Continuous Capturing Number

This parameter affects the number of pictures taken for each triggering in the camera mode. It has three values: "1 Photo" "2 Photos" and "3 Photos". Its default value is "1 Photo".

The following shows how to set continuous capture number to **3 Photos** provided that the previous option is **1 Photo**:

a) Press **MENU** to display the setting menu.
b) Press **UP** or **DOWN** to select **Capture Number** or **Photo Burst**.
c) Press **RIGHT** to select **3 Photos**.
d) Press **OK** to save the current setting and the option will be un-highlighted.
   Press **MENU** to cancel setting and return to info display.
   Note: When use flash light, the photo burst function will be forbidden .

4.1.8 Set Video Length

This parameter is effective and can be adjusted only when the device in the video mode for the ON mode. Its value extends from 1 to 60 seconds with a step of one second. Press **RIGHT** to decreases or increases the value by 1 second.

The following shows how to set video length to **5 Seconds** provided that the previous value is **1 Seconds**:
a) Press **MENU** to display the setting menu.
b) Press **UP** or **DOWN** to select **Video Length**.
c) Press **RIGHT** to increase to **5 Seconds**.
d) Press **OK** to save the current setting and the option will be un-highlighted.
   Press **MENU** to cancel setting and exit.

Note : If there is not sufficient daylight , the Video mode will be forbidden in TEST mode and it will turn to camera mode automatically in ON mode.

4.1.9 Set Triggering Interval Time

This parameter means that how long the PIR (Passive Infrared motion sensor) will be disabled after each triggering in ON mode. During this time the PIR of the device will not react to the motion of humen(or animals). The minimum interval is 1 second. The maximum interval is 1 hour. The default value is 1 minute.

Press **RIGHT** to decreases or increases the value by 1 second or 1 minute.

The following shows how to set triggering interval time to **5 Minutes** provided that the previous value is **1 Minute**.
a) Press **MENU** to display the setting menu.
b) Press **UP** or **DOWN** to select **Interval**.
c) Press **RIGHT** to decrease or increase to **5 Minutes**.
d) Press **OK** to save the current setting and the option will be un-highlighted.
   Press **MENU** to cancel setting and return to info display.

4.1.10 Set PIR Sensitivity

This parameter defines the sensitivity of the PIR. There are three parameters: High, Normal, and Low. The default value is "Normal". The higher degree indicates that the Camera is more easily to be triggered by motion, taking more pictures or recording more videos. It is recommended to use high sensitivity degree in room or environment with little interference, and to use lower sensitivity for outdoor or environment with lots of interference like hot wind, smoke, near window etc. Furthermore, the sensitivity of the PIR is strongly related to the temperature. Higher temperature leads to lower sensitivity. Therefore it is suggested to set a higher sensitivity for high temperature environment.

The following shows how to set PIR sensitivity as **Low** provided that the previous option is **Normal**.
a) Press **MENU** to display the setting menu.
b) Press **UP** or **DOWN** to select **Sense Level**.
c) Press **RIGHT** to select **Low**.
d) Press **OK** to save the current setting and the option will be un-highlighted.
   Press **MENU** to cancel setting and return to info display.

4.1.11 Set Date and Time Stamp
The following shows how to set time stamp as **Off** provided that the previous option is **On**.
a) Press **MENU** to display the setting menu.
b) Press **UP** or **DOWN** to select **Time Stamp**.
c) Press **RIGHT** to select **Off**.
d) Press **OK** to save the current setting and the option will be un-highlighted.
   Press **MENU** to cancel setting and return to info display.

4.1.12 Set Timer
This parameter defines a certain time lapse in a day when the Camera can be triggered. In the rest of the time the device is shut off. The effective value of the hour ranges from 0 to 23 while the minute ranges from 0 to 59.

Please note that the start and stop time can only be effective when the timer is set as **On**. Provided that the camera should work from eight a.m. to five p.m., the steps are as following:
a) Press **MENU** to display the setting menu.
b) Press **UP** or **DOWN** to select **Timer Switch**.
c) Press **RIGHT** to select **On**.
d) Press **OK** to enter into submenu.
e) Press **RIGHT** to select item, press **UP** or **DOWN** to change the value until the start time changes to 8 and the stop time changes to 17.
f) Press **OK** to save all current setting and the option will be un-highlighted.
   Press **MENU** to return to previous menu.

4.1.13 Reset to Default Settings
To reset the setting to the default values, the steps are as follows:
a) Press **MENU** to display the setting menu.
b) Press **UP** or **DOWN** to select **Reset**.
c) Press **OK** to reset to default settings and return to info display.
   Press **MENU** to cancel setting and return to info display.

4.1.14 View Image or Video
a) Switch to **TEST** mode and enter into info display.
b) Press **OK** to view the latest picture (or video) in LCD screen on camera, TV monitor or Image viewer with TV-in connector.
c) Press **NEXT** to start playing the video clip in TV monitor. NOTE: Video clip cannot be played in LCD screen on the control.

d) Press **NEXT** to stop playing and return to playback mode.

e) Press **UP** to view the next picture (or video) and **DOWN** for the previous.

f) Press **OK** to return to info display.

When view images, the total number of all images in the SD-card and the index of the displaying image will be shown respectively.

4.1.15 Delete Image or Video

a) View the image (or video) which to be deleted.

b) Press **MENU** to display the DELETE SELECT menu.

c) Press **SHOT** to select **delete One or All image** . **One** is highlighted.

d) Press **OK**, **No** and **Yes** are prompted. **No** is highlighted.

e) Press **SHOT** to highlight **Yes**.

f) Press **OK** to delete the image or video.

Press **MENU** to cancel and return to playback.

Please note that after deleting a picture or a video file, the deleted files can't be restored! Furthermore, in order to delete all images and video clips in the SD-card, it is suggested to format the SD-card.

4.2 File Numbering

Images and videos are saved in the pre-named folder. File numbering continues by adding one to the last number for each new image or video. The saving name likes IM000001.JPG or IM000001.AVI. Through the suffix you can distinguish whether the file is an image (with suffix .jpg) or a video (with suffix .avi).

4.3 Firmware Upgrade

This camera is equipped with an automatic upgrade function for you. Upgrading is needed only when an improved firmware is available.

⚠ WARNING

Upgrade is risky, please be cautious!
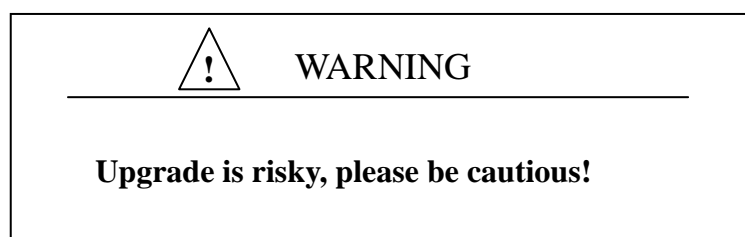
5   Mounting the Camera

When you want to use the ON mode of the camera in the outdoor, such as hunting and monitoring the living habits of wild animals, you must mount the device on a certain place properly. It is recommended to mount the camera on a tree whose diameter is about 15cm. To get the optimal picture quality, the tree can be 5 meters away from the place to be monitored, and at a height of 1.5~2 meters. The aiming direction of lens and the movement direction of the object should be orthogonal.

There are two ways to mount the camera: using a band shaped belt, bottom screw.

● **Using the belt:** To use the belt to fix the camera on a tree is illustrated below.

Take the belt toes to go through the two back holes of the camera. At the end, tie the two toes to the tree to finish fixing.

- **Using bottom screw.**

AppendixⅠ: Technical Specifications

Image Sensor	5MP Color CMOS
Lens	F/NO=3.0mm FOV(Field of View)=52°
Detection sensitivity	2m to 10m
Memory Card	From 8 MB to 8 GB
Picture Resolution	5MP = 2560×1920 3MP = 2048×1536
Video Resolution	640×480 (16fps) 320×240 (20fps)
PIR Sensor	Multi Zone
PIR Sensitivity	Adjustable (High/Normal/Low)
Trigger Time	1.2s
Weight *	0.26 kg
Operation/Storage Tem.	-20 - +60°C / -30 - +70°C
Interval	1s – 60 min.
Photo Burst	1-3
Video Length	1–60s
Power Supply	8×AA(Recommended), 4× AA(Emergency)
Stand-by Current	< 300uA
Power Consumption	>1200 pictures(8×AA, open flash, room temperature)
Low Battery Alert	LED indication (Note the low battery alert LED flashes quickly (10Hz), and the motion indication LED flashes slowly (2Hz).)
Display Screen	LCD display on control
Mounting	Rope/Belt/Python lock
Dimensions**	130x 80x 50 mm
Operation Humidity	5% - 90%
Security authentication	FCC, CE, RoHS

*without battery

AppendixⅡ: Parts List

Part Name	Quantity
Digital Camera	One
Wired control	One
USB Cable	One
Mounting Strap	One
User Manual	One

HCO Outdoor Products

3120 Medlock Bridge Rd.

H400

Norcross, GA 30071

Tel: 1-770-582-0004

Fax: 1-770-582-0335

Email: support@hcooutdoors.com

Web: www.hcooutdoors.com