

Xenon Flash Digital Scouting Camera

User's Manual

Covert Reveal



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1 Instruction

1.1 General Description

This camera is a digital scouting camera with Incandescent Flash. It is triggered by any movement of humans or animals 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 uses 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 a durable and compact shape with low power consumption. It will take up to 1200 flash pictures with 8AA batteries and supports up to an 8 GB SD card.

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 programmer remote needs to be connected).

1.2 Application

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

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.

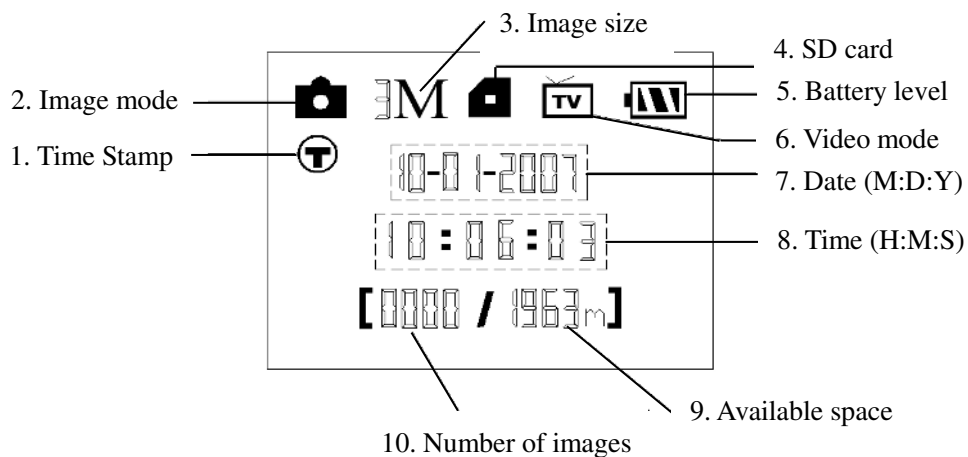
On the bottom of camera, there is a lock hole for theft-proof.

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



1.4 Shooting Information Display

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



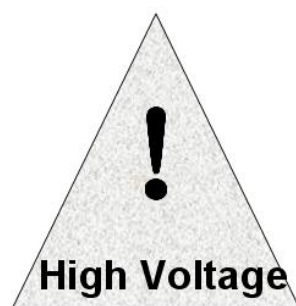
1.5 Supported Format

Item	Format
Image	JPG
Video	AVI
File format	FAT32

Here are some important notices. The file system format is not a concern of the camera unless you have problems with reading the SD-card with other devices. If this happens, please format the SD-card in the camera or in a computer and then reinsert the card into your camera.

2 Cautions

- ★ The working voltage of the camera is 6V. The camera is supplied by four or eight AA batteries.
- ★ Please insert the SD-card when the power switch is in the **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 remote 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 remote.
- ★ 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 a firmware upgrade, otherwise the upgrade process could be interrupted. If any fault occurs after the improper upgrading process, the camera may stop functioning properly.



Please don't disassemble the camera.

3 Quick Start Guide

3.1 Power Supply

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

Open the bottom cover. Confirm that the power switch is at the **OFF** position. Install the fully charged batteries into the slots 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

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



3.2 Insert the SD-card

Open the bottom cover. Insert SD-card into the card slot with unmarked side facing 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 (not locked) otherwise the camera will not function properly.

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 parameters or to playback the photos or video clips via TV.
3. **ON mode:** to work in the surveillance state.

Before switching on, please pay attention to the following:

1. Avoid temperature and motion disturbances in front of the camera such as a 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, **three to six feet** is 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) light will blink for about 10s. The 10s is a buffering time before automatically capturing photos or videos, e.g. for closing and locking the bottom cover, fixing the camera on a tree and walking away.

In **TEST** mode, it is required to connect the program remote. You are then able to customize the settings. The remote must then be unplugged in for the camera to function. **If the remote is connected with the camera, the camera will not work.** The camera will take pictures or videos automatically according to the default settings or preset customer settings.

3.4 Enter into the TEST Mode

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

3.4.1 Customer Settings

Press **MENU** on the remote to enter into menu settings. The camera can then be manually customized in settings which display on the LCD screen on the camera or external TV monitor. The detailed operations will be described in the “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. The SHOT key must be pressed a second time 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. Viewing the SD card by computer or card reader
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 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 the **OFF** position to power off the camera. Please note that even in the **OFF** mode, the camera still consumes some power. Therefore, please remove the batteries if the camera will not be used for a long period of time.

4 Advanced Operations

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

1. **OFF** mode: Power switch is at the **OFF** position.
2. **ON** mode: Power switch is at the **ON** position.
3. **TEST** mode: Power switch is at the **ON** position and the remote 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 the remote is needed.

4.1 Settings Menu

To view the camera settings menu, press **MENU** in the **TEST** mode (Power switch is at the **ON** position; remote needs to be connected). The settings menu will be shown on the LCD on the remote 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. While using white flash, the camera can take color images day and night. Video mode can only work under sufficient daylight. In video mode, it will switch 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 using flash, the photo burst option does not apply)
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 the PIR. The camera PIR is strongly related to the temperature. On high, the camera will trigger more easily. Therefore we recommend the High setting for temperatures exceeding 95 degrees Fahrenheit. Use the Low setting for temperatures below 35 degrees Fahrenheit to reduce false triggers. For normal use of the camera, the Normal mode is recommended and is the default setting.
Time Stamp	Date and time of capturing can be imprinted on image or video.
Timer Switch	The camera can be set to only record/capture at a certain time of the day when set to On . The rest of the time the camera will be shut off and will not record any triggers set off by movement. This function can be set to Off and will function to the interval settings.
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 options: 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 options: 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 at 10:30, 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 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 option only work on “1.”

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 decrease or increase the value by 1 second.

The following shows how to set video length to **5 Seconds** provided that the previous value is **1 Second**:

- 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 end and automatically switch to camera mode.

4.1.9 Set Triggering Interval Time

This parameter means how long the PIR (Passive Infrared motion sensor) will be disabled after each triggering in the ON mode. During this time the PIR of the device will not react to the motion of human (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 the 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 triggered by motion, taking more pictures or recording more videos. 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. On high, the camera will trigger more easily. We recommend the **High** setting for temperatures exceeding 95 degrees Fahrenheit. Use the **Low** setting for temperatures below 35 degrees Fahrenheit to reduce false triggers. For normal

use of the camera, the **Normal** mode is recommended and is the default setting.

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 the 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 viewing 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.

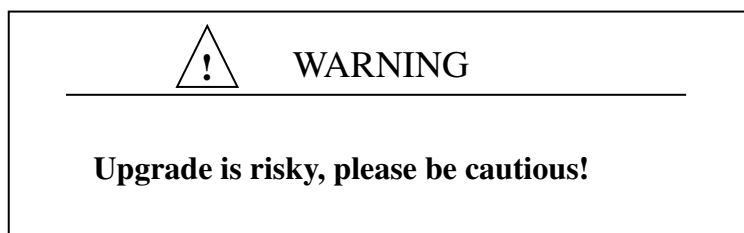
Please note that after deleting a picture or a video file, the deleted files can't be restored! Furthermore, in order to delete all images and video clips in the SD-card, it is suggested to format the SD-card.

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. Names will save in 000001.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.



5 Mounting the Camera

When you want to use the ON mode of the camera outside, such as hunting and monitoring the living habits of wild animals, you must mount the device on a certain place properly. To get the optimal picture quality, the tree can be 15 feet away from the place to be monitored, and at a height of 3-6 feet.

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

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

Adjust the belt to go through the two back holes of the camera. At the end, tie it off to secure the camera properly.

- **Using bottom screw.**



Appendix I : 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 remote
Mounting	Rope/Belt/Python lock
Dimensions**	130x 80x 50 mm
Operation Humidity	5% - 90%
Security authentication	FCC, CE, RoHS

*without battery

Appendix II : Parts List

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