

Scouting Camera
Ltl 5210A (12MP)



USER'S MANUAL

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GENERAL INFORMATION

1.1 Introduction

Our scouting camera (also called game camera/trail camera) is a scouting device. It can be triggered by sudden change of ambient temperature caused by moving game in a region of interest (ROI), which is detected by a highly sensitive Passive Infra-Red (PIR) sensor, and then take pictures or video clips automatically.

Ltl-5210A feature:

- 12 Mega Pixels Color CMOS
- With 10 languages to choose
- Voice recording function available
- Sharp and bright color pictures in daytime and clear black/white pictures at night
- Ultra low standby power consumption. Extremely long in-field life (in standby mode, up to 3 months with 4 x AA batteries and 6 months with 8 x AA batteries)
- Unique side Prep Sensor design provides wider sensing angle and enhances camera's response speed
- Perform in the most extreme temperatures from -22°F to 158°F
- Compact size (5 ½ x 3 ½ x 2 ½ inches). Well designed to deploy covertly
- Impressively quick trigger time (1 second)
- Backpack-looking tree grabber makes mounting and aiming a snap

- Serial Number function enables you to code locations in the photos. This helps multi-camera users identify the location when reviewing the photos
- Date, time, temperature, moon phase can be stamped in the pictures
- Lockable and password protected

1.2 Application

- Trail camera for hunting
- Animal or event observation
- Motion-triggered security camera, for home, office and community
- All other indoor/outdoor surveillance where invasion evidence needed

1.3 Illustration

- Figure 1.1 shows the front view of the camera
- Figure 1.2 shows the bottom view of the camera
- Figure 1.3 shows the back view of the camera

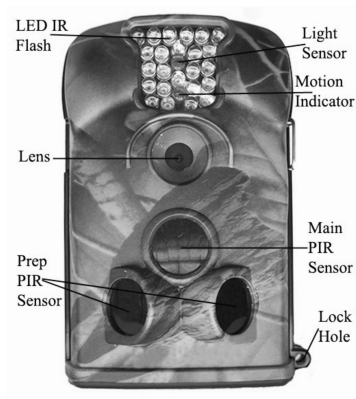


Figure 1.1: Front View

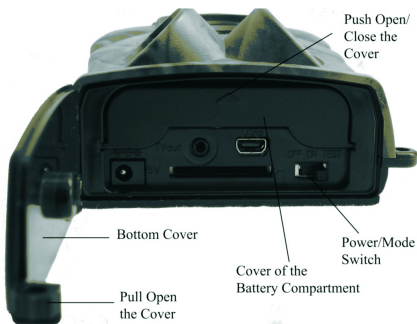


Figure 1.2: Bottom View-1



Figure 1.2: Bottom View-2

The camera provides the following connections for external devices: USB port, SD card slot, TV out jack, and external DC power in jack. The 3-way Power/Mode Switch is used to select the main operation modes: **OFF**, **ON** and **TEST**.

To supply power, it is recommended to use four new high-performance alkaline AA batteries or low self-discharge Ni-MH chargeable AA batteries. To achieve longer in-field time, install the additional battery box which contains four more AA batteries.

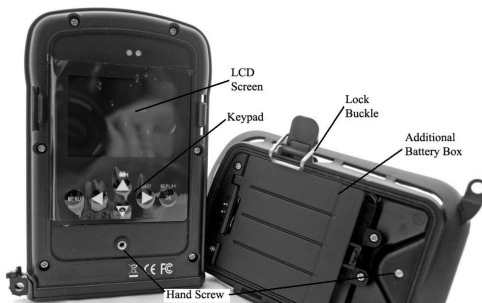


Figure 1.3: Back View

QUICK START

2.1 Load Batteries

Let us begin with loading the batteries. Please follow the instructions below.

- Open the bottom cover by pulling down the lock hole.
- Push the cover of the battery compartment and release. It will pop out.
- Install 4 AA batteries. Make sure the polarity matches the sign on the cover.
- Replace the cover.

Alternatively the camera can run on an external 6V DC power source (optional, user provided). When both external power and

batteries are connected, the camera will be powered by the external one.

2.2 Insert SD Card

The camera does not come with internal memory. So it will not work without a SD (Secure Digital) memory card or SDHC (High Capacity) card. Before inserting the SD card into the card slot, please make sure the write-protect switch on the side of the SD card is “off” (NOT in the “Lock” position). The supported memory capacity is up to 16GB. If you use a card capable of above 16GB, make sure you test it before putting the camera in use.

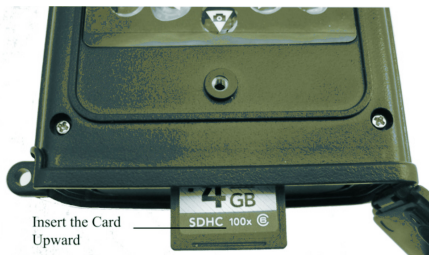


Figure 2.1



CAUTION: ALWAYS SWITCH THE CAMERA TO OFF MODE BEFORE YOU INSTALL OR REMOVE THE BATTERIES OR THE SD CARD.

2.3 Enter Test Mode

Switch to the **TEST** position to enter the Test mode. In this mode you can take pictures or video clips like a regular digital camera, or enter the Menu to set up parameters. On the keypad there are four “shortcut” functional keys (see Figure 2-1) working as below:



Figure 2.2

- Press the ▲  key to set the camera to shoot video clips.
- Press the ▼  key to set the camera to take still pictures.
- Press the ► **SHOT** key to manually trigger the shutter. A photo or video (depending on the camera setting) will be taken and saved to the SD card. If the display shows “CARD PROTECTED” when you press the **SHOT** key, switch the power OFF, remove the SD card and slide its write-protect switch to off.
- Press the **OK** **REPLAY** key to review/playback photos/videos on the LCD screen, or a connected TV monitor. Use ▲ and ▼ key to navigate.

There is another key, **MENU**, on the keypad that allows you to program the camera to work the way you want. Please make

reference to 3.1 Parameter Settings in the Advanced Operation section.

Under the test mode, one useful function you would like is testing the work area of the PIR (Passive Infrared) sensor, specifically the sensing angle and monitoring distance. To perform the test:

- First strap the camera on a tree aiming the region of interest (ROI).
- Walk slowly from one side of the ROI to the other parallel to the camera. Try different distances and angles from the camera.
- If the Motion Indicator flashes blue, it indicates the position from where you were detected by one of the side Prep PIR sensors. If the Motion Indicator flashes red, it indicates the position from where you were captured by the main PIR sensor.

By doing this test, you can find the best placement when mounting and aiming the Our scouting camera. In general, you are recommended to place the camera 3 to 6 feet (1 to 2 meters) above the ground.

To avoid potential false triggers due to temperature and motion disturbances, please do not aim the camera at a heat source (i.e. the sun) or nearby tree branches and limbs. The ideal direction to aim at is North or South. Also, remove any limbs close to the front of the camera.

2.4 Enter Live Mode

Switch to the ON position to enter the live mode. The Motion Indicator will flash red for about 10 seconds and the camera starts working by itself without any manual handling. It will at once shoot pictures or record videos when game or other objects enter the PIR area of the main sensor directly. If the game enters the PIR area of the prep sensors from the side, the prep sensors detect the movement and activate the camera. While the game keeps moving into the PIR area of the main sensor, the camera takes photos/videos immediately. If the game roams away after entering the PIR area of the prep sensors, the camera will power off and enter standby mode.

ADVANTAGES OF PREP SENSORS

In general, to save battery power, an Infer-Red camera is in “sleep” mode, with only the PIR sensor working. When game is detected by the PIR sensor, the camera is powered on and starts shooting pictures. The time period from being activated to starting firing is called trigger time. The trigger time varies among different scouting camera brands in the market, generally from 1 to 5 plus seconds. Our scouting camera has an impressive 1 second trigger time. However, when game passes across very quickly, the picture may only capture the rear part of the body, and possibly nothing at all.

With the unique side prep PIR sensors design, our Scouting camera solves this issue. The combination of the two side prep sensors and the main sensor comes up with a 100 to 120° angle of induction, a very wide scope far outweighing the 50 ° angle of the camera lens. When game first crosses the PIR area of the prep sensor, the camera is activated and ready to shoot after 1 second.





If the game continually enters into the PIR area of the main sensor, the camera takes pictures immediately, therefore catching the whole body of the game. This split-second process could be as short as 0.2 second.

In the case the game browses only in the PIR area of the prep sensors, to avoid the camera being powered on constantly, the system is designed to work in the following way: If the game does not enter the PIR area of the main sensor and therefore not trigger the main sensor, the camera will power off after 3 seconds. If the trigger events consecutively happened twice only in the PIR area of the prep sensors, the camera will not be activated by the side prep sensors, but only by the main sensor. So later on when the game enters the PIR area of the main sensor eventually, since it is not in fast movement, the picture will by all means capture the whole body of the game based on our standard 1 second response time.

ADVANCED SETTINGS

The Scouting camera trail camera comes with preset manufacturer settings. You can change the settings to meet your requirements. Please make sure the camera is in the test mode.

3.1 Parameter Settings

Press “MENU” key to enter/exit the menu. Press ,  to move the marker, ,  to

change the setting, and **OK** to confirm the change. Always remember to press **OK** to save the change. Otherwise you will lose your new setting.

Parameter	Settings (Bold = default)	Description
Mode	Camera , Video, Camera+Video	Select whether still photos or video clips are taken. In Camera+Video mode, Ltl-5210A can first take photos and then shoot videos afterward.
Format	Enter	All files will be deleted after formatting the SD card. Highly recommend you format the SD card if it has been used previously in other devices. <i>Caution: make sure wanted files on the SD card have been backed up first!</i>
Photo Size (affects still photos only)	1MP, 3MP, 5MP , 8MP, 12MP available	Select desired resolution for still photos from 1 to 12 megapixels. Higher resolution produces better quality photos, but creates larger files that take more of the SD card capacity. Besides, larger files require longer time to write to the SD card, which will slightly slow the shutter speed.

Video Size (affects video clips only)	1280×720 720×480 640×480, 320×240	Select video resolution (pixels per frame). Higher resolution produces better quality videos, but creates larger files that take more of the SD card capacity.
Set Clock	Enter	Press Enter to set up date and time.
Picture No. (affects still photos only)	01 Photo , 02 Photos, 03 Photos	Select the number of photos taken in sequence per trigger in Camera mode. <i>Please also refer to the Interval parameter.</i>
Video Length (affects video clips only)	Avi 10 s , optional from 1s to 30s	Videos are in AVI format that can be played back on most video players.
Interval	1 Min , optional from 1S to 60M	Select the shortest length of time that the camera will wait until it responds to any subsequent triggers from the PIR sensor after a game is first detected. During the selected interval, the camera will not take pictures/videos. This prevents the SD card from filling up with too many redundant images.
Sense Level	Normal , High, Low	Select the sensitivity of the PIR sensor. The High setting suits indoors and environments with little interference, while the Normal/Low suits outdoors and

		environments with more interference. Temperature also affects the sensitivity. The High setting is suitable when the ambient temperature is warm, and the Low setting is helpful in cold weather.
Date Stamp (affects still photos only)	On, Off	Select On if you want the date & time imprinted in every photo.
Timer Switch	Off, On	Select On if you only want the camera to work within a specified time period every day. For instance, if the starting time is set at 18:35 and the ending time at 8:25, the camera will function from 18:35 the current day to 8:25 the next day. Outside the time period the camera will not be triggered or take photos/videos.
Password Set	Off, On	Set up a password to protect your camera from unauthorized users.
Serial No.	Off, On	Select On to assign a serial number to each camera you have. You can use the combination of 4 digits and/or alphabets to record the location in the photos (e.g. YSP1 for Yellow Stone Park). This helps multi-camera users identify the location when

		reviewing the photos.
Time Lapse	Off, On	If set On , the camera will automatically take photos/videos according to the set interval, regardless of whether the PIR sensor has detected any game. This is helpful when observing cold-blooded animals like snakes, or the process of flowering, etc.
Side PIR	On, Off	The default setting is On . The two side prep PIR sensors provide wider sensing angle and detect more potential triggers. In some situations, you only want to monitor a narrow spot. Too many irrelevant triggers by the side sensors outside of that spot will keep the camera on and off, which drains the battery power rapidly. Or in some other situations you have difficulty removing the interfering branches, or avoiding the sunlight. If so, you have the option to turn off the side sensors.
Audio	On,Off	The default setting is On,when it is on, the camera can record voice,otherwise,the video will be silent.
Default Set		Press OK Enter to return all your previous settings back to the

		manufacturer default.
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3.2 File format

The camera stores photos and videos in the folder \DCIM\100MEDIA in the SD card. Photos are saved with filenames like PICT0001.JPG and videos like VIDO0001.AVI.

In the **OFF** mode, you can use the provided USB cable to download the files to a computer. Or you can put the SD card to a SD card reader, plug in a computer, and browse the files on the computer without downloading.

The AVI video files can be played back on most popular media players, such as Windows Media Player, QuickTime, etc.

WARRANTY

We take great pride in our products. We always stand behind our promises. We provide a leading warranty term and service. Buying a our product, you are covered under a limited warranty.

We guarantee our products to be free of defects in materials and workmanship for a limited warranty of the original purchase date. This warranty does not cover consumer caused damages such as misuse, abuse, improper handling or installation, or repairs attempted by someone other than our authorized technicians.

We will, at our option during the warranty period, repair your camera or replace it with the same or comparable model free of

charge. This warranty only extends to the original retail buyer from our authorized dealer. Purchase receipt or other proof of the date of the original purchase is required to receive warranty benefits. The warranty on any replacement product provided under the original warranty shall be for the remaining portion of the warranty period applicable to the original product.

This warranty extends solely to failures due to defects in materials or workmanship under normal use. It does not cover normal wear of the product.

If you need to return a product under this warranty, please contact your dealer or our distributor.

Appendix I: TECHNICAL SPECIFICATION

Model	Parameters
Image Sensor	12 Mega Pixels Color CMOS
Max. Pixel Size	4000x3000
Lens	F=3.1; FOV=55°; Auto IR-Cut
IR Flash	65 Feet/20 Meters
LCD Screen	48x35.69mm(2.36"); 480(RGB)*234DOT; 16.7M Color
Operation Keypad	6 Keys
Memory	SD Card (8MB ~32GB)
Picture Size	12MP=4000x3000; 5MP = 2560x1920;
Video Size	1280x720p: 30fps; 720x480: 20fps; 640x480: 20fps; 320x240: 20fps
PIR Sensitivity	High/Normal/Low
PIR Sensing Distance	65ft/20m (Below 77°F/25°C at the Normal Level)
Prep PIR Sensing Angle	Left and right light beams form an angle of 100°; Each lens covers 25°

Main PIR Sensing Angle	58°
Operation Mode	Day/Night
Trigger Time	1 Second (When using the 2G SD card)
Trigger Interval	0sec. - 60min; Programmable
Shooting Numbers	1~3
Video Length	1-30sec.; Programmable
Camera + Video	First take Picture then Video
Playback Zoom In	1~8Times
Time Stamp	On /Off; Include serial no.,
Timer	On /Off; Timer Set
Password	4-Digit Numbers
Device Serial No.	4 digits and 26 alphabets set by yourself
Time Lapse	1 Second ~ 24 Hours
Audio	On/Off
Language	English/Chinese/French/Norwegian/Deutsch/ Spanish/Portuguese/Japanese/Russian

Power Supply	4xAA; Expandable to 8xAA (With additional battery box)
Stand-by Current	0.4mA
Stand-by Time	3~6 Months (4xAA~8xAA)
Auto Power Off	Auto power off in 2 minutes while no keypad controlling
Power Consumption	150mA (+500mA when IR LED lights up)
Low Battery Alarm	4.2~4.3V
Interface	TV out (NTSC); USB; SD Card Slot; 6V DC External
Mounting	Strap; Tripod Nail
Waterproof	IP54
Operation Temperature	-22~+158°F/-30 ~+70°C
Operation Humidity	5% ~ 95%
Certificate	FCC & CE & RoHS

Appendix II: PACKAGE CONTENTS

Part name	Quantity
Digital camera	1
Additional battery box	1
TV AV IN cable	1
USB cable	1
Strap	1
External DC cable (optional)	1
Instruction Manual	1
Warranty Card	1

Appendix III: INSTRUCTION ON INSTALLING ADDITIONAL BATTERY BOX

