

LTL ACORN[®]

Infrared Digital Scouting Camera

Ltl- 5610 Series

GPS Coordinate Input

1920×1080 Video



USER' S MANUAL

Version: Ltl- 5610A- 01

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GENERAL INFORMATION

Introduction

This manual applies to model Ltl- 5610A, Ltl- 5610WA. Ltl- 5610A/ WA are new generation products of LTL ACORN. With its highly sensitive Pyroelectric Infrared Radial (PIR) Sensor, detects the sudden change of ambient temperature caused by moving game in a region of interest (ROI), triggered to take photos/videos. With addition of new feature, GPS coordinate input, to save GPS coordinate into the photo properties, users can check the information of the position where the camera placed when reviewing the picture, as well as check the location of the coordinate on mapping software.

1.1 Features

- 5MP/ 12MP picture resolution.
- 1920× 1080/ 1280× 720/ 640× 480/ 320× 240 video resolution.
- Excellent quality of audio record.
- 44pcs LEDs improve the quality of night picture and video.
- Ltl-5610WA wide angle lens camera with a field of view of 100 degrees.
- For Ltl-5610A non-wide angle lens camera, the flash range of infrared night vision LEDs 850nm is as far as 30m, low-glow 940nm 18m.
- For Ltl-5610WA wide angle lens camera, infrared night vision LEDs 850nm flash range is as far as 18m, low-glow 940nm 13.5m.
- “Cam + Video” mode takes both picture and video at every trigger.
- Extremely long in-field battery life (in standby mode, up to 6 months with 12 AA batteries).
- Side PIR sensors and main PIR sensor form a 100° angle of induction range, to activate the camera in advance and gets ready to shoot, this split-second process could be short as 0.2 seconds.
- Perform in the most extreme temperatures from -49°F (-45°C) to 158°F (70°C).
- Compact size. Well designed to deploy covertly.
- 0.8 seconds trigger time.
- Turn on programmable Time-Lapse, camera would take pictures/videos as per the time setting. It is useful to observe plants growth and monitor parking area.
- When Timer setting is turned on, camera could be programmable to work in specified period every day. This feature can be used together with Time Lapse feature to meet your timetable.
- Convenient to be mounted on trunk or tripod.
- Serial number would be helpful for users to identify the location of picture from where it was taken.
- Build-in 2.36” TFT LCD color display to review images and videos.
- Date, time, temperature, moon phase and battery level could be stamped on picture.

- Lockable and password protected.
- Setup is a snap. Just run the user-friendly software on the enclosed CD to set the parameters on the computer, or set on camera directly.
- With Serial No. on, the picture/ video name would be started with Serial No., makes pictures easy to be classified.

1.2 Application

- Trail camera for hunting
- Animal or event observation
- Motion-triggered security camera, for home, office and community.

1.3 Illustration

- Figure 1.1: Front view of the camera (Part # Ltl- 5610A)
- Figure 1.2: Bottom view of the camera (Part # Ltl- 5610A)
- Figure 1.3: Back view of the camera (Part # Ltl- 5610A)

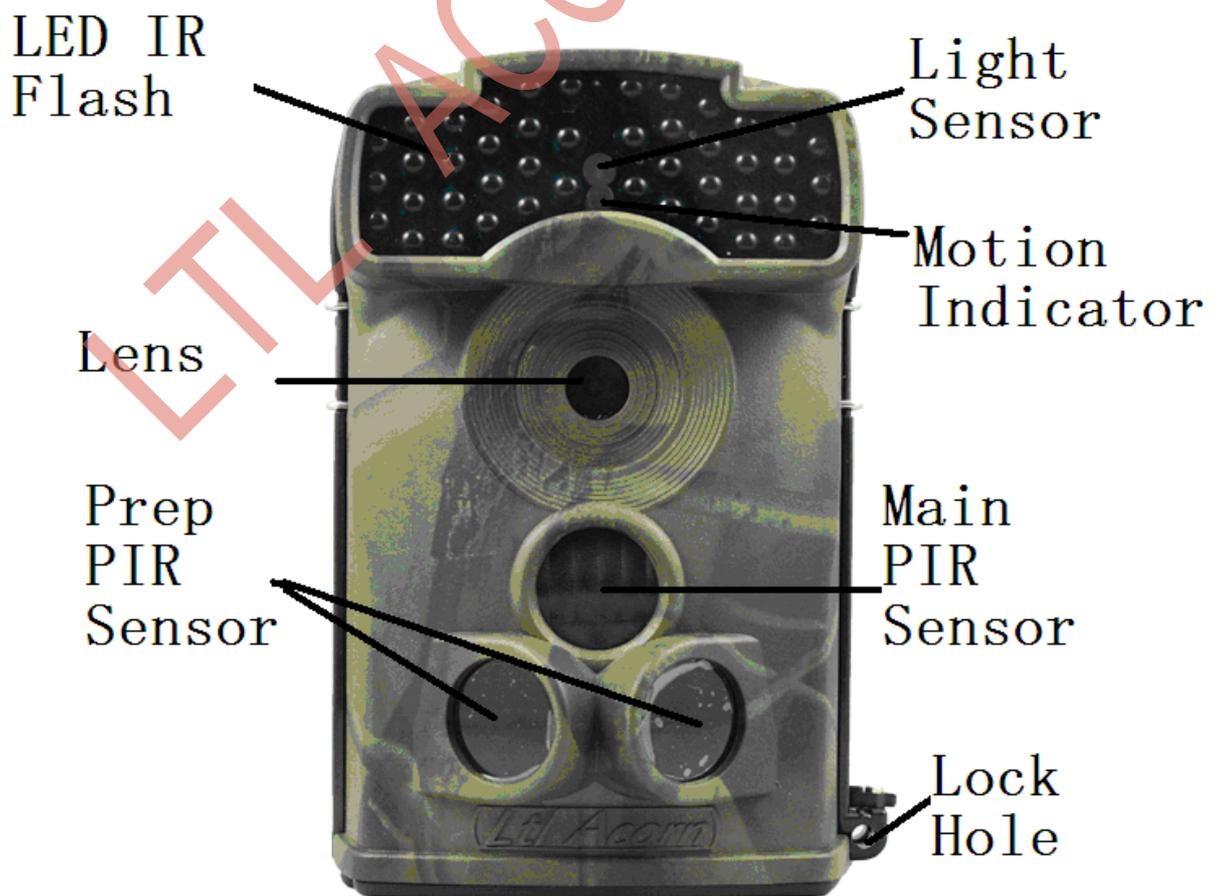


Figure 1.1: Front view of Ltl- 5610A

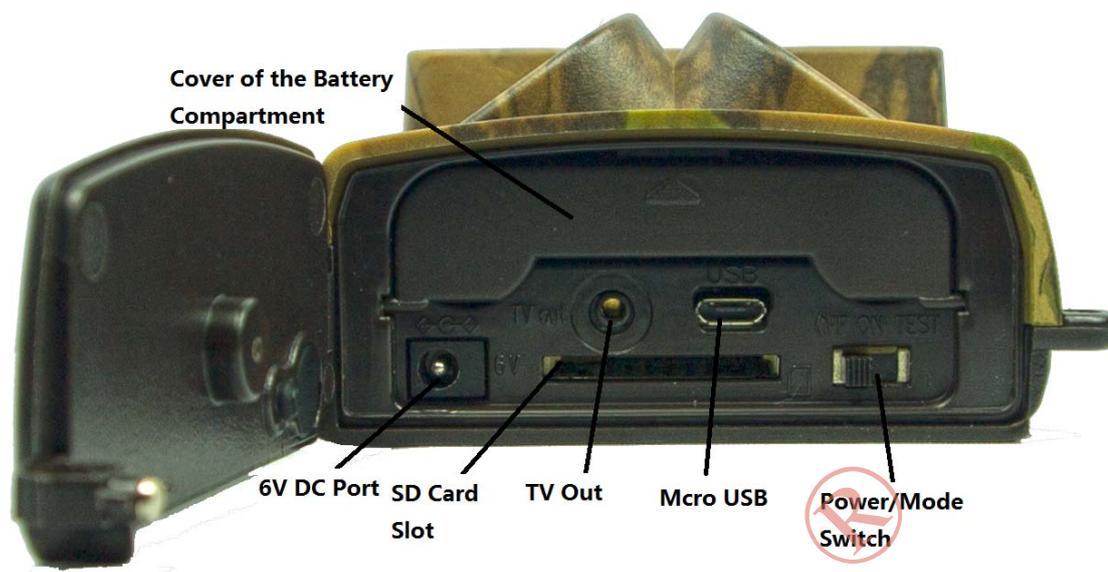


Figure 1.2: Bottom view of Ltl- 5610A

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

To power up the camera, install four **NEW** high-performance alkaline or lithium AA batteries in the camera. FOR BETTER PERFORMANCE, WE RECOMMEND USING **HIGH-ENERGY AA BATTERIES**. To achieve longer in- field life, always install full batteries. (Please refer to Appendix III Install Battery Box.)



Figure 1.3: Back view of Ltl- 5610A

CAUTION: If you are not using the camera for an extended period of time, it is highly recommended to remove the batteries from the camera to avoid possible acid leak that may damage the camera and void the warranty.

GETTING STARTED

2.1 Load Batteries on the Camera

Follow below instruction to load batteries on camera (Part # Ltl- 5610A)



Push to Open/Close the Battery Door

- Open the bottom cover.
- Push and release the battery door.
- Install 4 AA batteries in the camera. Make sure the polarity matches the sign on the battery door.
- Push to close the battery door.

Please refer to **Appendix III Install Battery Box** to install additional battery box (Part # Ltl- BM3).

Alternatively the camera can run on an external 6V~ 12V DC power source (optional). When external power and batteries are both connected, the camera will prefer to choose and powered by external power source. Connected to Ltl- SUN Solar Panel (optional), the camera can work in the field over one year without changing batteries.

When battery level gets low, the message “Low Battery” would be shown on the screen in the TEST mode.

2.2 Insert SD Card and Format It

The camera does not come with internal memory. It will not work without a SD (Secure Digital) memory card or SDHC (High Capacity) card. Before inserting the SD card,

please make sure the write-protect switch is on “OFF” side (NOT in the “LOCK” position). The supported memory capacity is up to 32GB. If you use a SD card which capacity is larger than 32GB, please make sure that you test it in advance.

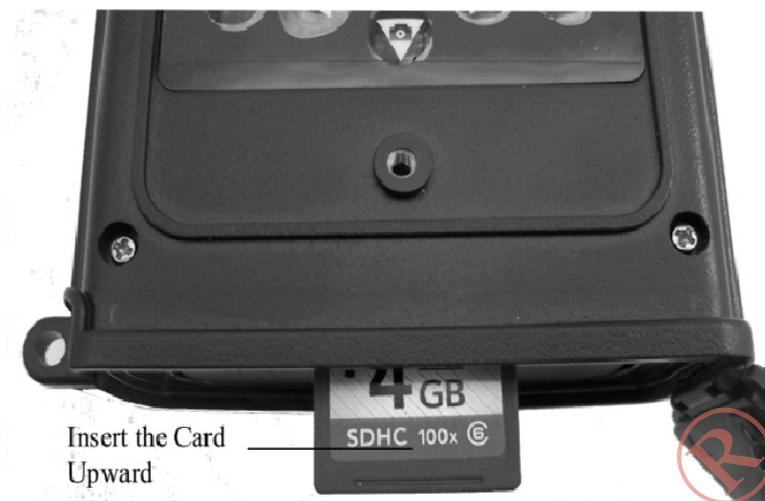


Figure 2- 2

Attention: Please switch to OFF position before loading or removing batteries/ SD card.

2.3 Enter Test Mode

Switch to the **TEST** position to enter the Test mode. In this mode, the camera can be used as a regular digital camera to take pictures or video clips, or you can enter the Menu to set up parameters. There are four “shortcut” functional keys on the keypad (see Figure 2- 3), working as below:

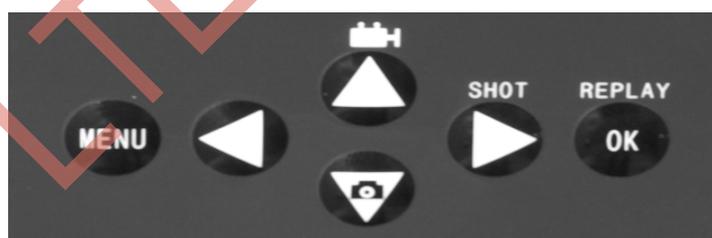


Figure 2-3

- Press the **▲**  key to set the camera to shoot video clips.
- Press the **▼**  key to set the camera to take pictures.
- Press the **▶ SHOT** key to manually take the picture/ video (depending on the camera setting), the picture/ video would be saved to the SD card. If the display shows “CARD PROTECTED” when you press the **SHOT** key, please switch the power OFF, remove the SD card and slide its write-protect switch to OFF. In addition, press **SHOT** to replay or end replaying the video.
- Press the **OK REPLAY** key to preview/playback photos/videos on the TFT LCD

screen or a connected TV with AV cable. Use ▲ and ▼ key to navigate the page, ◀ and OK key to zoom in image, ▲, ▼, ◀ and ▶ to move, MENU key to restore.

In addition, enter **MENU** to set up parameter as required. Please refer to **3.1 Parameter Settings** for details.

Under the test mode, one useful function you may find is testing the working area of the Pyroelectric Infrared Radial (PIR) Sensor, especially the sensing angle and distance. To perform the test:

- First position the camera at proper height, aiming at the region of interest (ROI).
- Walk slowly from one side of the ROI to the other side parallelly. Try different distance and angle from the camera.
- If the Motion Indicator flashes blue, it means that the position you stand is detected by side PIR sensor. If the Motion Indicator flashes red, it means that the position you stand is detected by main PIR sensor.

Through this test, you can identify the best position to install the LTL ACORN camera. In general, we recommend placing 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 twigs. The ideal direction to aim at is the North or South orientation. Also, remove any twigs 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. When the game comes into the main PIR area, the camera takes pictures or videos immediately. If the game enters side PIR areas, the side sensor will be activated, if it keeps entering into main PIR area, the camera will shoot, but if the game left from the side PIR area, the camera will power off and enter sleep mode.

2.5 Advantages of Prep PIR Sensors

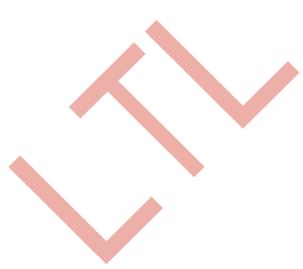
In general, the Infra-Red camera is in “sleep” mode to save battery power, with only the PIR sensor working. When the game is detected by the PIR sensor, the camera will be powered on and prepare to shoot. The time period from being activated to start triggering

is called trigger time. The trigger time varies from different scouting camera brands on the market, generally from 1 to 5 plus seconds. Our LTL ACORN scouting camera has an impressive 0.8 seconds trigger time. If the game passes across very quickly, the camera (which trigger time is 1- 5 seconds) may only capture the part of the body, or even nothing at all.

With LTL ACORN unique side prep PIR sensors design, our camera solves this problem ideally. The two side prep PIR sensors and the main PIR sensor form a 100° angle of induction range which is far over the 55 ° lens angle. When the game first crosses the PIR area of the side PIR sensor, the camera is activated and ready to shoot. If the game keeps entering the area of the main PIR sensor, the camera will take pictures immediately to catch the whole body of the game. This process could be short as 0.2 seconds.



If the game lingers in the area of the side PIR sensors, the system is designed to work as following ways to avoid the camera being powered constantly: If the game does not enter the area of the main PIR sensor, the camera will power off after 3 seconds. If the trigger events consecutively happened twice in the area of the side PIR sensors only, the camera will no longer be activated by the side prep PIR sensors, but only by the main PIR sensor. If the game enters the area of the main PIR sensor continuously, the whole body of the game will be captured thanks to the 0.8 seconds response time.



ADVANCED SETTINGS

The LTL ACORN trail camera comes with preset manufacturer settings. Users can change the settings in TEST mode as required.

3.1 Parameter Settings

Press “MENU” key to enter/ exit the camera setup menu. Press ▲, ▼ to move the marker.

Press ◀, ▶ to change the setting, and press **OK** to confirm the change. Always press **OK** to save the change, otherwise the new setting would not be saved.

Parameter	Settings (Bold = default)	Description
Mode	Camera , Video, Cam+ Video	Select whether picture or video to be taken. In Cam+ Video mode, camera first takes photos then video.
Format	Enter	All files will be deleted after formatting the SD card. Format the SD card on the camera at the first use. Caution: make sure the files on SD card have been backed up first!
Photo Size	12MP , 5MP	Select picture resolution 5MP or 12MP. Higher resolution produces better quality photos, but occupies more space and takes longer time to write to the SD card, which slightly affects the shutter speed. 5MP is recommended.
Video Size	1920× 1080 1280× 720 640× 480 320× 240	Higher resolution produces better quality videos, but occupies more space. 1280× 720 is recommended.
Set Clock	Enter	Press Enter to set up date and time. Internal capacitor will remain the clock time for up to 7 minutes when changing batteries.
Picture No.	01 Photo , 02 Photos, 03 Photos	Select the number of photos would be taken continuously at every trigger.
Video Length	AVI 10s , optional	AVI format videos can be played on

	from 1s to 60s	most media players.
Interval	1 Min , optional from 0s to 60min	Select the length of time that the camera will wait from when the last picture was taken and written in the SD card, until it responds to next new triggers. 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	High, Normal , Low, Off	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 to the high ambient temperature, and the Low setting is helpful in cold weather.
Time Stamp	On , Off	Select On , serial No., date, time, temperature and moon phase would be stamped on photo.
Timer1	Off , On	Select On , camera works in a specified 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 setting period, the camera will not be triggered. This feature can be used together with Time Lapse feature.
Timer2	Off , On	Timer2 is help to set another working time period. The function is same as above Timer1 .
Password Set	Off , On	Set up a password to protect your camera from unauthorized users. The length is 4 digits (0~ 9).
Serial No.	Off , On	Select On to assign a serial number to the camera. Use 4 digits (0~ 9)

		and/or alphabets (A~Z) to record the location in of photos (e.g. YSP1 for Yellow Stone Park). This helps multi-camera users to identify the location when reviewing the photos. Note: Please set a new serial number in advance if you want to change the name of photo/video. It would take effect only if the camera is restarted
Time Lapse	Off, On	Select On , the camera takes photos/videos automatically at the set interval (Note: In this mode, the PIR sensor is disabled). This is helpful to monitor fields in long range, or the process of flowering, etc. This feature can work together with Timer feature.
Side PIR	On, Off	The default setting is On . The two side PIR sensors provide wider sensing angle, activate the camera before game entering main PIR sensor area so as to catch the game, especially for those move fast. To avoid power consumption when the side PIR sensor is being activated constantly in the situation of game hangs around in side PIR sensor area but not trigger main PIR sensor, the side PIR would only work twice at one interval.
Coordinates	Enter	Click Enter , input the coordinate manually, the GPS information would be saved to photo properties, it is helpful to check the location where the camera placed when review pictures.
Recycle	Off ,On	Choosing ON enables the “cycling save” function, which automatically deletes the oldest files when the SD card becomes full to make room for the latest pictures or videos.
Default Set		Press OK Enter to restore the manufacturer default settings.

3.2 GPS Coordinate

●Obtain GPS Coordinate

Obtain the GPS coordinate via mobile APP which developed by LTL ACORN, or via the third party software.

●GPS Coordinate Input

The GPS coordinate could be inputted on camera menu, as well as on PC SETUP software or Mobile SETUP APP, please refer to **3.4 Set up Camera on PC** or **3.5 Set up Camera on Mobile Phone** for details.

3.3 File Format

The original pictures and videos would be saved in DCIM\100IMAGE folder in SD card. Pictures would be named like IMAG0001.JPG and videos like IMAG0001.AVI.

When Serial No. is on, the name of pictures and videos would be started with serial number, which is helpful to be classified.

When Serial No. is off, the name of pictures and videos would return to default name.

Attention: Please set a new serial number in advance if you want to change the name of photo/ video. It would take effect only if the camera is restarted

Connect the camera to computer with Micro USB cable in any operating mode or get the SD card inserted into computer (a SD card reader may be needed), the pictures and videos could be reviewed online or downloaded.

The GPS coordinate could be inputted on Ltl- 5610 series camera, allows users to check the longitude and latitude where the camera located in photo properties, the mapping software can be used to check the location as well.

The AVI video can be played on most popular media players, such as Windows Media Player, etc. Please try another player if the video cannot be played.

3.4 Set up Camera on PC

To get the Setup.exe

After formatting the SD card on the camera, use Micro USB cable to connect the camera to computer. Or insert the SD card into the computer (a SD card reader may be needed).

Get enclosed CD from gift box and run on computer (an external disc drive would be needed if the computer without disc drive) to find Setup.exe.

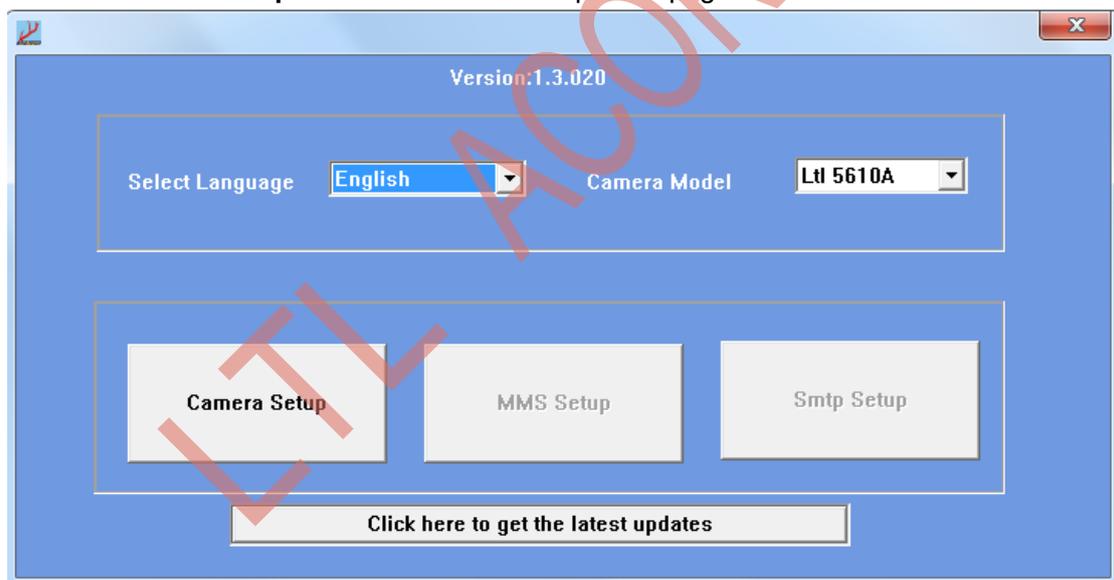
Or download from LTL ACORN's website:

<http://www.ltlacorn.cn/about/downloaden.html>

(Download→ Classification→ PC Setup→Setup.exe)



Double click the **Setup.exe** icon to enter Setup homepage:



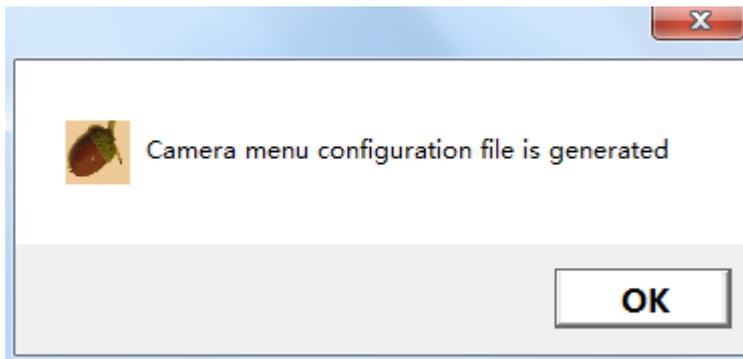
Select language and camera model **Ltl 5610A**. Click **Camera Setup**, enter camera setting interface:

The screenshot shows the LTL 5610A configuration window with the following settings:

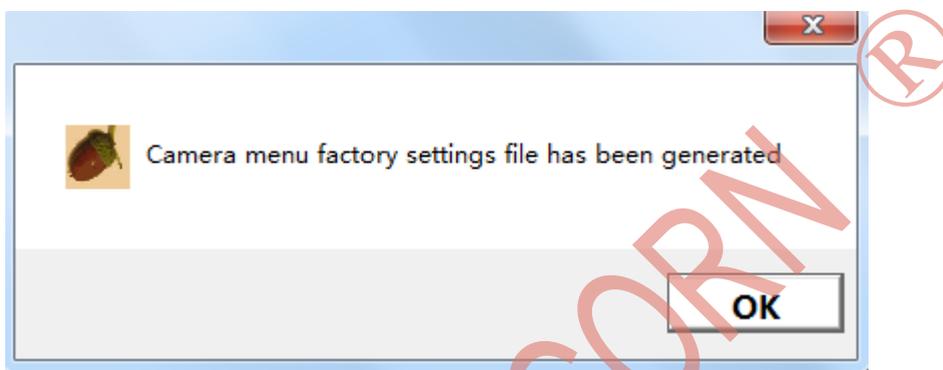
- Mode: Camera
- Image Size: 5MP
- Video Size: 1920x1280
- Picture No.: 01 Photo
- Time Stamp: On
- Sense Level: Normal
- Video Length: 10 Sec
- Interval: Min 1
- Date Format: YYMMDD
- Coordinate label: longitude: W, latitude: N
- Coordinate values: longitude (0, 0, 0), latitude (0, 0, 0)
- Set Clock: 2015/10/26 16:49:25
- Timer1: Off
- Timer2: Off
- Serial No.: Off
- Time Lapse: Off
- Select: C:\
- Buttons: Generate, Default, Exit

Set up the camera based on your requirements. Please refer to section **3.1 Parameter Settings**.

Click on **GetTime** to retrieve the computer time. Click **Select** to choose the save directory, SD card root directory is recommended (insert SD card into computer first). Click **Generate**, a message window will pop out as below.



Click **Default** to restore to default settings.



Click **OK**, a file named **menu.dat** has been created and saved in the selected directory. If the **menu.dat** is not saved in SD card, you have to move it to the SD card. Setup has been finished.

Click **Exit** to exit Camera Setup page. Retrieve the SD card and insert it into the camera. Switch to the **TEST** position to enter the TEST mode. The message "Updated menu.dat Successfully" would be shown on the TFT LCD screen, the setup file has been successfully installed.

ATTENTION:

THE PASSWORD SHOULD BE SET ON THE CAMERA ONLY, NOT ON PC.

3.5 Set up Camera on Mobile Phone

- Download and install Setup APP

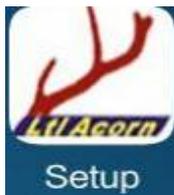
Get the Setup.apk from CD and run it on computer, or download it from LTL ACORN's website: <http://www.ltlacorn.cn/about/downloaden.html>

(Download→ Classification→ APP→ Setup)

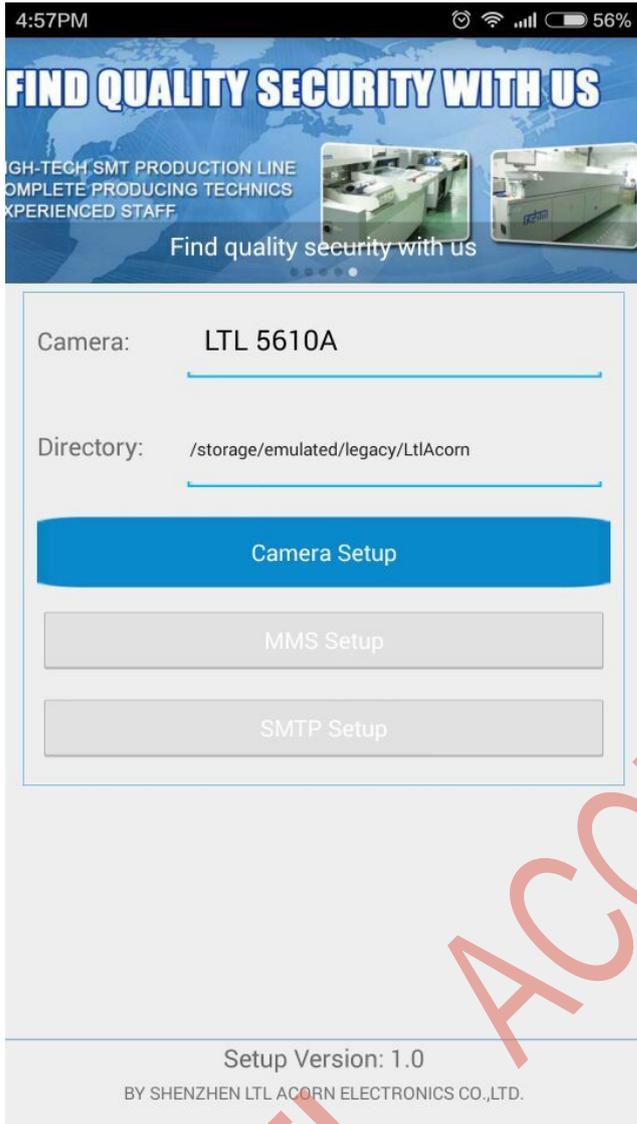
Copy the Setup.apk to mobile phone with USB or by any other methods, then install the APP.

Attention: An external disc drive may be needed if your computer without disc drive. Please turn on the mobile GPS function when install the APP, otherwise the mobile phone would not be able to achieve the coordinate information.

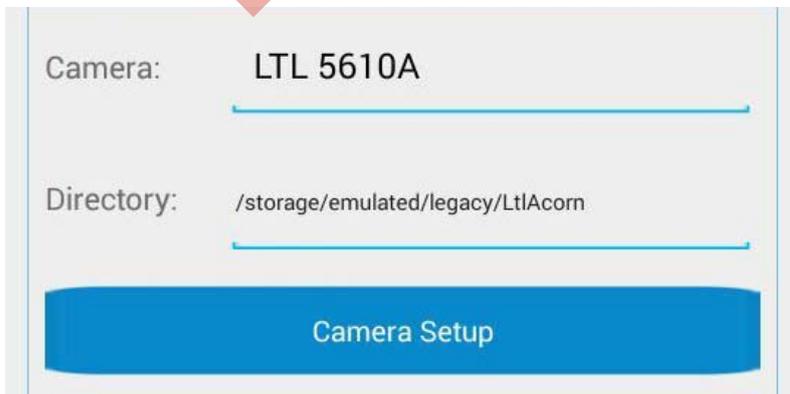
Icon of Setup APP:



Click to enter the Setup interface:



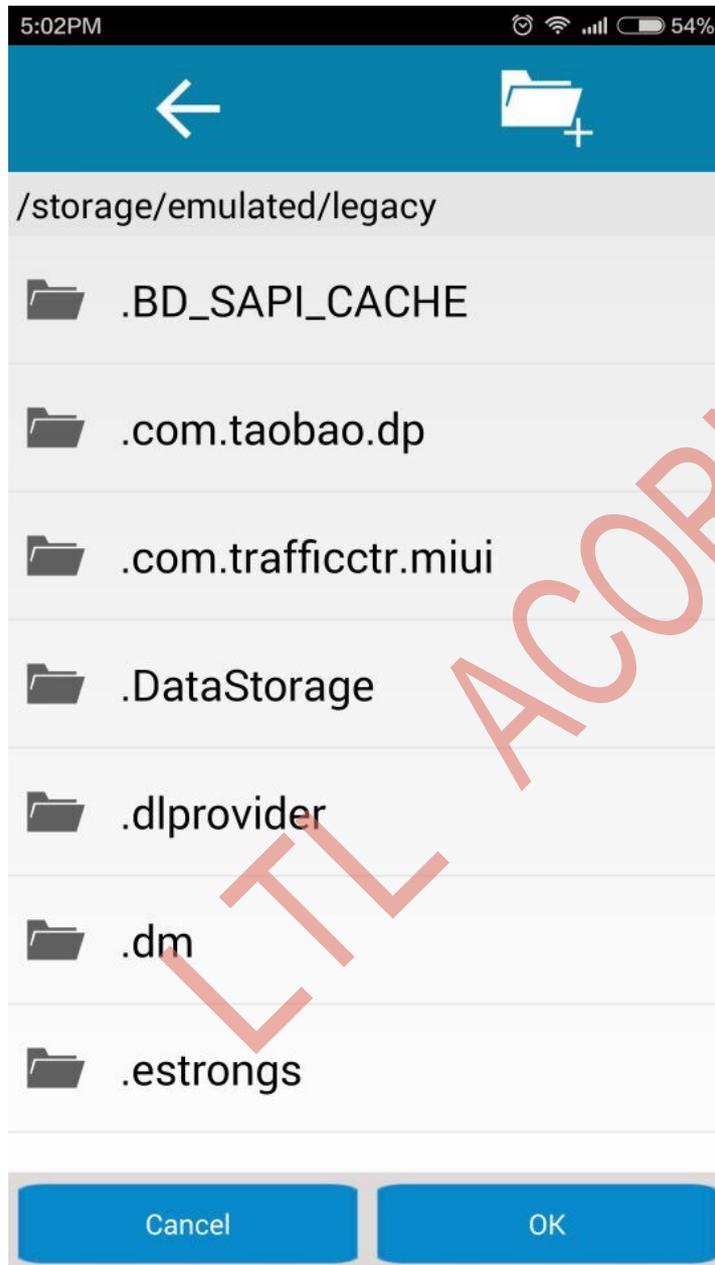
- **Select the directory to save configuration**



Camera: LTL 5610A is set as default model.

Directory: The **LtlAcorn** folder would be created in mobile phone and as default saving folder. Directory may be different on different mobile phone.

Users can choose other directory by clicking directory to save configuration, as below picture.

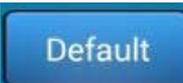


Attention: Remember the selected directory for searching file.

- **Set up camera**

Click , enter camera setup page:

Mode	Camera	ImageSize	5MP
VideoSize	1920x1080	PictureNo.	01photo
TimeStamp	ON	SenseLevel	Normal
VideoLength	10	Sec	
longitude: 113° 56' 40\"W	latitude: 22° 35' 15\"N	<button>Update</button>	
Interval	Min 1	DateFormat	YYMMDD
Set Clock	2015/10/26 16:57:51		
Timer1	switch	start	end
	OFF	00:00	00:00
Timer2	switch	start	end
	OFF	00:00	00:00

Set up the camera according to users' requirements, please refer to **3.1 Parameter Settings** in **Advanced Settings** to find detailed explanations. Click  to obtain the GPS coordinate. With camera setup finished, click , a message will pop out as below. Click  to obtain default setting if needed. A file named **menu.dat** would be created and saved in specified directory.

menu.dat find under the profile
has been generated, please set the
save directory

After camera setup finished, copy the configuration file to SD card for installation. Switch the camera to **TEST** position, the message "Updated menu.dat Successfully" would be shown on TFT LCD screen, the configuration has been updated successfully.

Ltl-5610 SERIES PRODUCTS

4.1 Ltl-5610 Series Component Parts:

1. Ltl-5610A/ WA main unit
2. Ltl-BM3 Standard battery box (without MMS module)

4.2 Models for Purchase:

- Ltl-5610A 55° lens angle hunting camera
- Ltl-5610WA 100° wide lens angle hunting camera
- Ltl-BM3 Standard battery box



Ltl- 5610A



Ltl- 5610WA



Ltl- BM3

IMPORTANT INFORMATION

5.1 Prevent Short Circuit of Electric Contacts

There are 2 electric contacts above the TFT LCD screen on the camera and 2 above the battery compartment of the battery box. To avoid short circuit or damage to the camera, please NEVER contact these electric contacts with any metallic materials.



5.2 Power Supply and Battery Box

The working voltage of Ltl-5610 Series is up to 12V. The 4 AA batteries in the camera main unit, 4 or 8 AA batteries in the battery box and the external power source form a three-path parallel circuit. Each path is isolated and does not charge or discharge each others. In addition, the camera can be powered by an external solar panel, Ltl- SUN, to extend its life in the field.

5.3 SD Card

There are various brands of SD card on the market. We tested on our camera as many brands as we can. However, we cannot guarantee every brand would be compatible with the camera. Please format the SD card on the camera before use. If it doesn't work, please try another brand.

5.4 Auto Adjustment on Video Length

To extend battery life, we strongly recommend using 8 AA alkaline batteries when operating the camera in Video mode or Cam+ Video mode. Compared to similar products on the market, our camera takes thirty percent more video clips. Moreover, when battery power gets low, our camera automatically shortens the video length so as to take more clips of more events.

As a result, the number of video clips would be double, even triple to other brand camera, and provide more useful records.

Attention: Our camera performs at extreme cold environment as low as -45°C , the battery power capacity will deteriorate drastically at extreme low temperature, accordingly, the number of video clips will decrease.

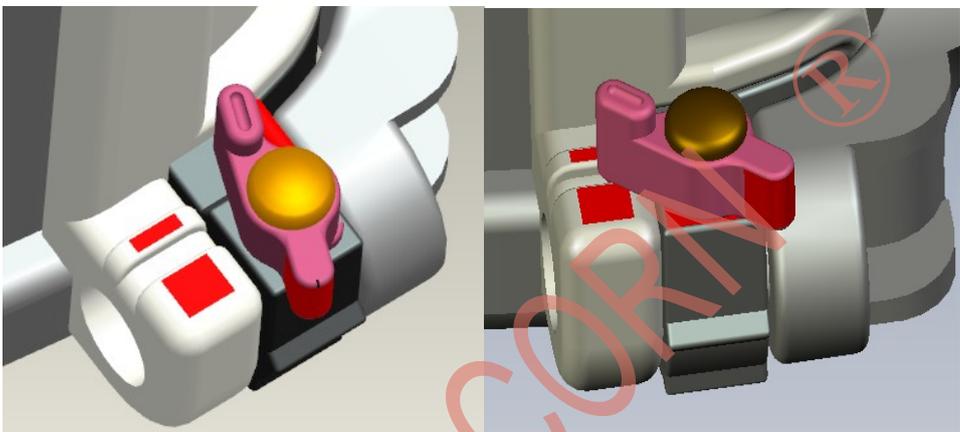
5.5 850nm and 940nm IR LED

There are two types of IR LED for Ltl- 5610 series camera, 850nm and 940nm. For normal lens angle camera Ltl-5610A, 850nm provides 30m flash range and 940nm provides 18m. For wide lens angle Ltl- 5610WA camera, 850nm provides 18m flash range and 940nm provides 13.5m.

The advantage of 940nm IR LED is it emits black flash which is invisible in the dark.

5.6 Mount on Tripod

The camera can be mounted on a 1/4" tripod. But please note and ensure the knob of bottom cover is locked in position to avoid the breakage of the hinge of bottom cover.



FIRMWARE UPGRADES

6.1 Firmware Upgrades

The manufacturer reserves the right to upgrade the camera and the firmware. Follow the steps below to implement the upgrades:

- Back up the contents in the SD card to your computer.
- Insert SD card into the camera and install batteries.
- Format the SD card.
- Obtain the firmware from LTL ACORN's website <http://www.ltlacorn.cn/about/downloaden.html> (Download→ Classification→ Software→ Ltl- 5610), or from authorized distributor.
- Retrieve the SD card and insert it into the computer (SD card reader may be needed). Copy and paste the FW5610.bin and ENA.BIN file to the root directory of the SD card, both files are necessary.
- Retrieve the SD card and lock it, insert it back into the camera. Switch camera to TEST mode, till the "UPDATE..." shown and camera is off.
- Retrieve SD card and unlock it.
- Enter **MENU**, navigate the marker to **DEFAULT SET**, and press **OK**.
- Re- format the SD card on the camera. The upgrade will have been completed.

Attention: The upgrade firmware for one model is not compatible with other models. In other word, a firmware for model Ltl-5610A/ WA only applies to that model. If a camera is accidentally upgraded by running a non-compatible program, it would quit working and need to be sent back for repair. This is not covered under warranty.

LIMITED WARRANTY

We take great pride in our products. We always stand behind our promises and provide leading warranty term and service. Every LTL ACORN trail camera comes with a limited warranty period.

We guarantee our trail cameras to be free of defects in materials and workmanship under normal use and service for a one-year warranty after the registered date of purchase. This warranty does not cover damages caused by misuse, abuse, improper handling or installation, by user installed batteries, or by repair attempts of someone other than our authorized technicians.

In the event of a defect under this warranty, we will, at our option, repair your camera or replace it with the same or comparable model free of charge, provided the product is returned postage paid. 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.

Please contact our tech support department to determine the nature of the problem before you return a LTL ACORN product under this warranty for repair or exchange.

Appendix I: TECHNICAL SPECIFICATION

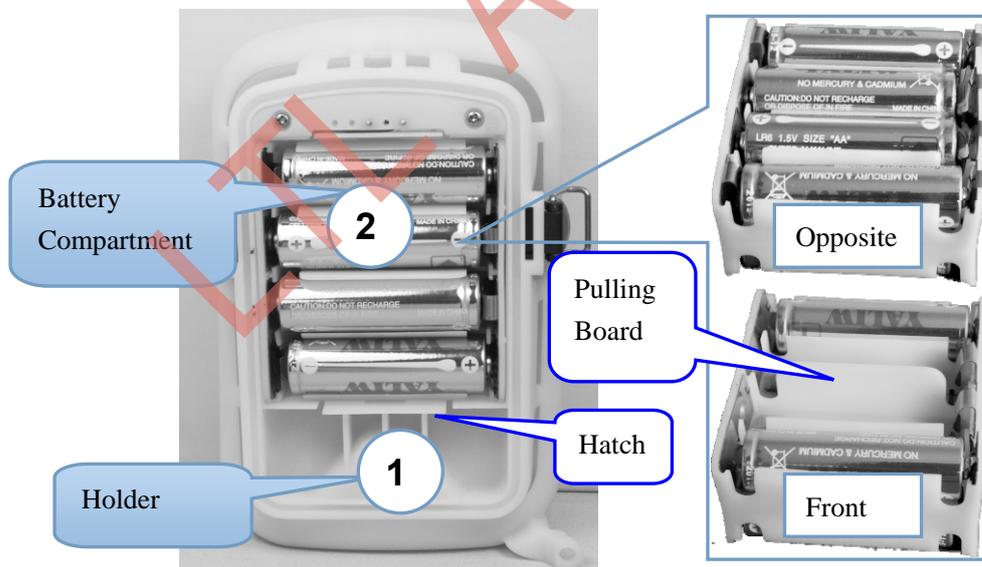
Item	Parameters	Ltl- 5610A	Ltl- 5610WA
Image Sensor	5 Mega Pixels Color CMOS	Yes	Yes
Lens	FOV=55°; Auto IR-Cut	Yes	N/ A
Lens	FOV=100°; Auto IR-Cut	N/ A	Yes
IR Flash	850nm LED	30 meters	18 meters
	940nm LED (black flash)	18 meters	13.5 meters
LCD Screen	2.36" TFT LCD; 16.7M Color	Yes	Yes
Operation Keypad	6 Keys	Yes	Yes
Memory	SD Card (8MB~ 32GB)	Yes	Yes
Picture Size	5MP (2592×1944), 12MP (4000×3000)	Yes	Yes
Video Size	1920×1080 (15fps), 1280×720 (30fps), 640×480 (30fps), 320×240 (30fps). With audio record.	Yes	Yes
PIR Sensitivity	High/ Normal/ Low/ Off	Yes	Yes
PIR Sensing Distance	20 Meters (below 77°F/ 25°C at the Normal level)	Yes	Yes
Prep PIR Sensing Angle	Left and right light beams form an angle of 100°; Each lens covers 10°	Yes	Yes
Main PIR Sensing Angle	35°	Yes	Yes
Operation Mode	Day/ Night	Yes	Yes
Trigger Time	0.8 Seconds	Yes	Yes
Trigger Interval	0 Sec~ 60 Mins; Programmable	Yes	Yes
Shooting Numbers	1~ 3	Yes	Yes
Video Length	1~ 60 Secs; Programmable	Yes	Yes
Camera + Video	First take photo then video.	Yes	Yes
Playback Zoom In	1~ 4 Times	Yes	Yes
Time Stamp	On/ Off; Including serial No., temperature, moon phase, date and time.	Yes	Yes
Timer1	On/ Off; Programmable; Accuracy error≤ 10s	Yes	Yes
Timer2	On/ Off; Programmable; Accuracy error≤ 10s	Yes	Yes
Password	4-digit Numbers (0~ 9)	Yes	Yes
Device Serial No.	4 digits and/ or alphabets (0~ 9, A~ Z); Turn on the Serial No. setting, the picture/ video name would start with Serial No.,	Yes	Yes

	makes the file easy to be classified.		
Time Lapse	On/ Off; 0 Sec~ 23 Hrs 59 Mins 59 Secs; Programmable	Yes	Yes
Coordinates	GPS Coordinates Input	Yes	Yes
Recycle	On/ Off;	Yes	Yes
Power Supply	4× AA; Expandable to 12× AA (with additional battery box)	Yes	Yes
External DC Power Supply	Plug Size: 4.0mm× 1.7mm 6~ 12V (2~ 1A)	Yes	Yes
Stand-by Current	0.4mA	Yes	Yes
Stand- by Time	3~ 6 Months (4× AA~12× AA)	Yes	Yes
Auto Power Off	Auto power off in 3 minutes if no keypad input.	Yes	Yes
Power Consumption	150mA (+ 650mA with 850nm LED lights on); 150mA (+ 700mA with 940nm LED lights on);	Yes	Yes
Low Battery Alert	When battery level gets low, the message “Low Battery” would be shown on the screen in the TEST mode.	Yes	Yes
Interface	TV Out ; Micro USB; SD Card Slot; 6V DC Port	Yes	Yes
Mounting	Strap; Tripod	Yes	Yes
Ingress Protection	IP54	Yes	Yes
Operation Temperature	-49°F (-45°C)~ 158°F (70°C)	Yes	Yes
Operation Humidity	5%~ 95%	Yes	Yes
Certificate	FCC & CE & RoHS	Yes	Yes

Appendix II: STANDARD PACKAGE CONTENTS

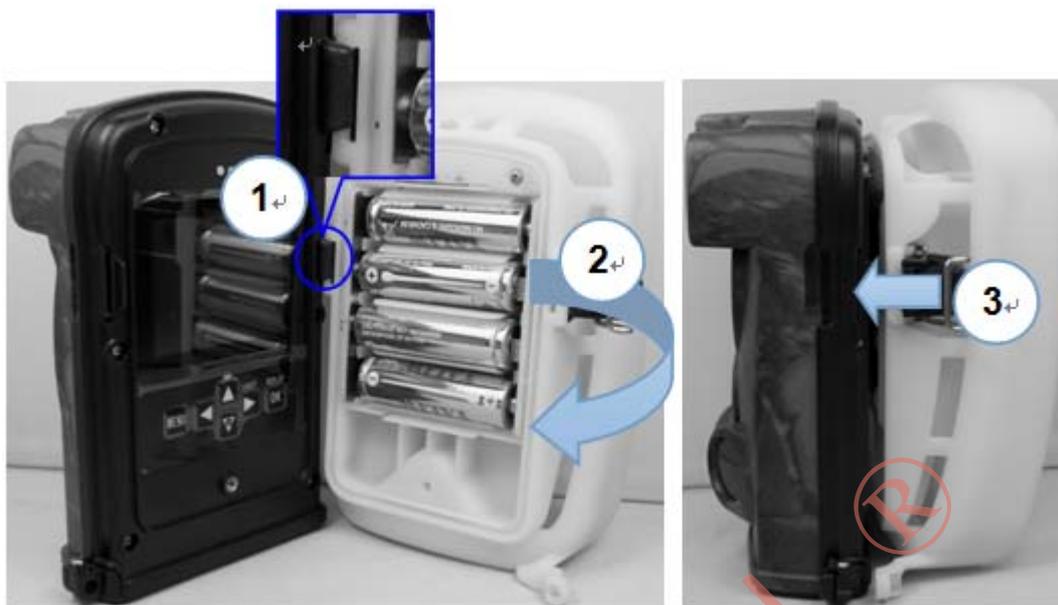
Part Name	Quantity (Ltl-5610A)	Quantity (Ltl-5610WA)
Digital Camera	1	1
Battery Box	1 (Standard Battery Box)	1 (Standard Battery Box)
TV AV IN Cable	1	1
Micro USB Cable	1	1
Strap	1	1
External DC Cable (Optional)	1	1
CD	1	1
Warranty Card	1	1

Appendix III: Install Battery Box



Battery Box Model: Ltl-BM3: Consist of ① Holder and ② Battery Compartment. 4 AA batteries in front and opposite side of battery compartment respectively, 8 AA batteries in the battery compartment at most.

Install battery box as below:



LTL ACORN



Take apart the Battery Compartment as below:

1. Unload the 2 middle batteries.



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2. Pull down the Hatch of the Holder, then pull the Pulling Board and take out the Battery Compartment.

