TRAIL CAMERA

User Manual

Introduciton

With highly sensitive 120° Passive Infra-Red (PIR) sensor, the camera detects the sudden change of ambient temperature caused by movement in area with (ROI), triggers to take pictures/videos, so you don´t miss what is walking in front of your camera.

Features

Programmble 3, 5, 8, 12 or 16 Megapixel high-quality resolution.

Infrared night vision LEDs for flash range 65 feet far.

In „Cam + Video" mode, camera takes both pictures and video at every trigger event.

Impressively quick trigger time (0.2-0.5 second, Pre boot 0.2 second).

Unique side Prep Sensor design provides wider sensing angle and enhances camera´s response speed.

In Time Lapse setting, the camera automatically and constantly takes pictures/videos at specified interval. This is very useful when observing plants flowering, birds building nest, or when monitoring unattended properties such as parking lots.

With Timer setting on, the camera can be programmed to only work in specified period every day. This feature can work together with Time Lapse feature.

Serial Number setting enables you to code locations in the photos. This helps multi-camera users identify the location when reviewing the photos.

Ultra low standby power consumption. Extremely long in-field life (in standby mode, up to 8 months with 8 x AA batteries).

Built-in 2.4" TFT color display to review images and videos

Date, time, temperature and moon phase can be stamped in the pictures.

Backpack-looking tree grabber makes mounting and aiming a snap.

Perform in the most extreme temperatures from -4°F to 140°F.

Compact size (5.3 x 3.5 x 3.0 inches). Well designed to deploy covertly.

Lockable and password protected.

IP56 water resistance.

Application

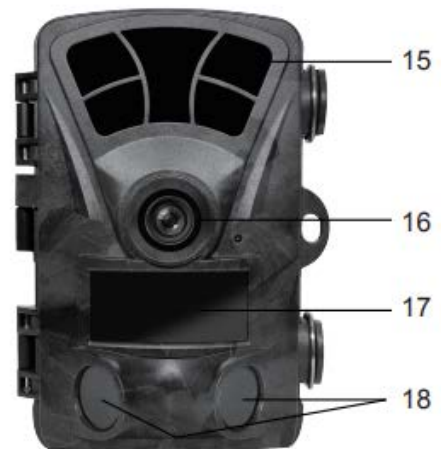Trail camera for hunting
Animal or event observation
Motion-triggered security camera, for home, office and communityAll other indoor/outdoor surveillance where invasion evidence needed

Camera overview

1. Up button

2. Right button

3. Shot button

4. Ok button

5. Left button

6. Menu button

7. Replay button

8. Down button

9. TF slot

10. AV jack

11. USB jack

12. OFF

13. Test

14. ON

15. Infrared LEDs

16. Lens

17. Front motion sensor

18. Side motion sensor

19. Display screen

Simple to use this camera
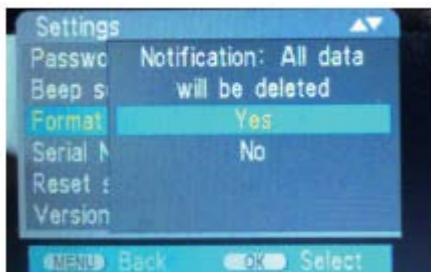

1. Install batteries
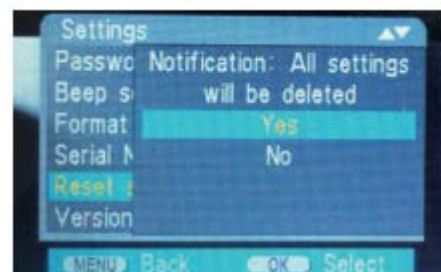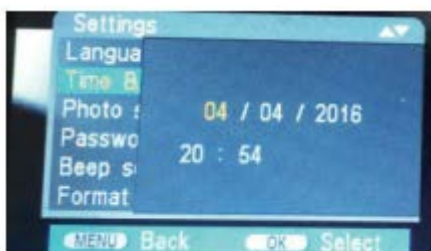

2. Micro SD memory card

3. Switch to TEST

4. Press Menu to setting

5. Format memory card

6. Reset to factory setting

7. Set The Date and Time

8. Switch to ON to use

BEFORE OPERATION

Power supply and Batteries Installation

Open the camera by unlocking latch first. The battery compartment is the right part of the camera. Open the protective cover of the battery compartment and insert 8 x 1.5 V LR6/AA batteries into the battery slots. Make sure to insert each battery with correct polarity.

Note:
NEVER INSTALL DIFFERENT TYPES OF BATTERIES or NEW AND OLD BATTERIES in the product at the same time.
Anytime you load or unload batteries, make sure that the camera is **OFF**. If using external power source, do not remove internal batteries.

Using an External Power Source

Optionally, you can connect an external 6V DC power source with at least 1.5A to the ´DC In´ jack at the bottom of the camera. The power connector is a 3.5x1.35 mm coaxial DC power plug with positive ´tip´ (inside pin) polarity. Leave internal batteries in the camera during use.

Inserting the SD Card

The camera uses a Micro SD (Secure Digital) memory card to save photos (in .jpg format) and/or videos (in .AVI format). SD and SDHC (High Capacity) cards up to a maximum 32 GB capacity are supported. Insert the SD card (With the camera's power switch in the **OFF** position) before beginning to operate the camera. Don't insert or remove the SD card when the power switch is in the ON position.

Before inserting the memory card, please open the front cover and make sure that the write-protect switch on the side of the card is 'OFF' (NOT in the "Lock" position).

Insert the SD card into the card slot. A "click" sound indicates that the card is installed successfully. If the wrong side of the card is facing up, you will not be able to insert it without force-there is only one correct way to insert cards.

To take out the SD card, just gently push in the card (do not try to pull it out without pushing in first). The card is released from the slot and ready to be removed when you hear the click.

Note: Be sure the camera's power is switched OFF before inserting or removing SD cards or batteries.

Camera will not operate without an SD memory card installed.

CAMERA OPERATION

Mode Switch

There are three basic operational modes:

- **OFF** mode: Power switch in the **OFF** position.
- **ON** mode: Power switch in the **ON** position (LCD screen is off).
- **TEST** mode: Power switch at **TEST** position (LCD screen is on).

OFF Mode
The OFF mode is the "safe" when any actions must be taken, e.g. replacing the SD or batteries, or transporting the device.

ON Mode
The camera will take photos or videos automatically (according to its current parameter settings) when it is triggered by the PIR sensor's detection of activity in the area it covers.

TEST Mode
In the **TEST** mode you can check and change the settings of the camera with the help of its built-in **LCD**. These settings, found in the **TEST** Menu, let you change the photo or video resolution, interval between photos, switch the time imprint on, etc.

Change Setting in TEST Mode
The main purpose of the **TEST** mode is to allow you to change the settings of the camera's parameters so your trail camera operates exactly the way you want it to.
- Press the UP key, then press SHOT to take video for test.
- Press the DOWN key, then press SHOT to take photo for test.
- Pressing the MENU button, the setup menu will be shown on the LCD. Press the UP or DOWN key scrolls to the next or previous parameter.
- Press the RIGHT or LEFT key to change the setting.
- Press the OK button to save the new setting.
- Press the MENU button to exit the SETUP menu.

Mode
Photo: Capture photos with motion detection.
Video: Capture video clips with motion detection.
Photo + Video: Capture both photos and video with motion detection.

Photo resolution
Set resolution for still photos. We recommend the resolution 8MP.
Options: 3MP, 5MP, 8MP (preset), 12MP or 16 MP.

Photo series
Selects how many photos are taken in sequence per trigger. In addition to single shot mode (1 photo), you can take "2 photos in series" or "3 photos in series".

Video resolution
Select video resolution.
Options: 1080P (1920 x 1080, 25 fps), (1080 x 720, 30 fps), WVGA (720 x 480, 30 fps), VGA (640 x 480, 30 fps), (320 x 240, 30 fps)

Video Length
Set the length of each video clip recorded each time motion is detected (between 3-60 seconds or 1-10 minutes). The longer the recording time selected the shorter the operating time. The preset video length is 5 seconds.

Audio recording
Opening this function, you can record sound while recording video.

Shot lag
Set the time period that the camera should wait before reacting to subsequent activation of the main sensor after the initial recording. During the selected interval, the camera will not record any images or videos. This prevents the memory card from being filled up whit too many recordings of the same event. You can select between 5-60 seconds or 1-60 minutes.

Side motion sensors
The default setting is On. The two sides PIR sensors provide wider sensing angle and enhance response time. However, in some situations you have difficulty removing the interfering twigs, or avoiding the sunlight. If so, you have the option to turn off the side sensor.

Sensitivity motion sensors
The sensitivity of the main motion is set here. For interior areas and environments with little interface, such as branches blowing in the wind, select "High". Select "Medium" for exterior areas and environments with a normal amount of interference, and select "Low" for environments with a high level of interference. The temperature can also affect the sensitivity. The "High" settings is suitable for warm ambient temperatures, whereas "Low" should be selected for cold Environments.

Target recording time
Select "On" of the camera should only be active during a certain time period. In screed menu that subsequently appears, you can then set the start and end time for the active phase. The settings made here apply every day. The camera will not record any images outside of the active phase.

Time lapse
Time lapse mode disables the PIR sensor and instead takes photo or records video clip automatically at your choice of intervals. This has the advantage for scouting further distances that out of the PIR sensor's range, such as big open areas (food, plots, fields, etc) or monitoring the flowering, sunrise and sunset. When you confirm "On" with the OK button, you can them set the desired time interval using the menu that now appears.

Language

Here you can set English, German, Finnish, Swedish, Danish, French, Italian, Dutch, Spanish, Portuguese, Japanese or Chinese as the menu language.

Time & date

Here you can set the date format (YYYY/MM/DD, DD/MM/YYYY or MM/DD/YYYY), the time format (12/24 hrs) and the time and date. Use **LEFT** and **RIGHT** keys to move to next field. Use **UP** or **DOWN** keys to change the settings, pressing **OK** button to save.

Photo stamp

Select **ON** to print the temperature, moon phase, date, and time on each photo (only for photos). Select **OFF** for no imprint.

Password protection

Select "On" if you want to use a password to protect the camera from unwanted access. You can set a 4-digit combination. Once the code is set, the camera will prompt you to enter the correct code.
If you forger the number combination, proceed as follows to unlock the camera and to reset it to its factory default settings:

- Copy the file "FWDLJA.bin" from the supplier onto an empty memory card.
- Insert the memory card into the device while the operating mode selector switch is set to the OFF position
- Keep the button pressed while moving the operating mode selector switch to the SET position. Keep the button pressed.
- After about 5 seconds the camera reset finished

Format memory card

Delete (erase) all files stored on a card to prepare it for reuse. Always format a card that has been previously used in other devices.
Caution! Make sure you have downloaded and backed up any files you want to preserve first! Press OK to execute, press MENU to exit without formatting.

Serial NO.

Select "On" if you want to use a serial number to rank the camera. You can set a 4-digit combination. This helps multi-camera uses identify the location when reviewing the photos, since each camera will imprint its number on all photos it captures.

Reset setting

Select "Yes" and press OK to restore all parameters to the original factory settings.

Aligning the camera

In test mode you can work out the optimum exposure angle and the range of the motion sensors.

- During alignment, consider whether the use of the side motion sensors may be useful for attaining the desired observation results. You can activate/deactivate the side motion sensors using the above-described menu.

Align the camera as follows:

Fasten the camera to a tree or similar object at a height of 1-2 meters and align the camera in the desired direction. The move slowly from one side of the target area to the other side. While doing this, monitor the motion display. If this lights up blue, you have been detected by one of the activated side motion sensors. If it lights up in red, you have been detected by the front motion sensor. In this way, you can work out the best alignment for the camera. The motion display only lights up when the operating mode selector is in the SET position and of the motion

Sensors has detected movement. During normal operation, there will be no LED display in this case. To ensure that the camera does not make unwanted recordings of irrelevant movements, it should not be set up in a sunny location or close to branches that can move in the wind. The recording angle of the sensors is about 100° from the corner to the corner; and the recording field for photos and videos is around 89°.

CAMERA IS READY TO USE

CAMERA IS READY TO USE - Switch to ON

AFTER CHARGING TO DESIRED SETTING and SIMPLY SLIDING SWITCHES TO ON POSITION, the camera is active standby mode and will record media according to the switch settings. Firstly, **the motion indicator LED will blink red for about 15 seconds. Any motion is detected by the side PIR sensor; the camera will be active without trigger. As soon as the further motion is detected by the central PIR sensor within 5 minutes, the camera will take photos or videos. Otherwise the unit will return to standby state.**

VIEWING/DELETING THE PHOTOS/VIDEOS

- Reviewing Images on the Camera LCD
- Put he power switch in TEST position.
- Press the Replay key to enter image review mode.

Use the UP/DOWN keys to scroll through your photos or videos.

- A zoom feature is available for still photos: Use the SHOT/OK keys to zoom in or out. Press the REPLAY key at any time to exit.
- Press the OK key to play or pause a video.

Deleting Photos or Videos
- Put the power switch in TEST position.
- Press the Replay key to enter image review mode.
- Press the MENU key. You will see the first delete screen.
- It les you select the option to delete only the currently displayed photo/video, or all photos/videos.
- Press OK to Delete.
- Press MENU to cancel the operation without deleting any files.

Activate Slide Show
This function can be used to play back the photos stored on the memory card automatically. Each photo is shown for about 2 seconds. To stop the slide show and keep the current image permanently on the screen, press the OK Button.

Write protection
This function can be used to protect individual recordings or all saved recordings from accidental deletion.
- Select "Write-project current file" to protect he currently selected recording from accidental deletion.
- Select "Write-protect all files" to protect all saved recordings from accidental deletion.
- Select "Unlock current file" to remove the write protection for the currently selected recording.
- Select "Unlock all files" to remove the write protection for all saved recordings.

Reviewing Images by Connecting to a Computer
When using a PC (or MAC*) to view photos (or video clips*), first connect the device to the computer with the USB cable (supplied). It will be recognized as a "mass storage". You can view images and videos in the folder \DCIM\.

Showing recordings on an external monitor
A Tv monitor can also be used to play back pictures (or videos) from the device. Connect a TV to the camera using the supplied cable. Then:
- Set the video input source of the TV to "video".
- Put the power switch in TEST mode.
- Use REPLAY/UP/DOWN/OK/SHOT keys to view photos/videos.

TROUBLESHOOTING/FAQ

Photos Do no Capture Subject of Interest

These are the result of placing the camera in an environment where there is motion associated with tree branches creating motion or an area where there is high heat in the foreground and any motion from wind. Setting a camera up over water is also a potential cause for this issue. To remedy this situation:

1. Try moving the camera to an area that does not have any of these issues.
2. If the camera continues to take images of no interest subject, try placing the camera in an inside environment and aiming at a location where there is no motion.
3. If the camera continues to show issues, please contact our customer service.

Battery life is shorter than expected

1. Battery life will vary with operating temperature and the number of images taken over time. Typically, the came will be able to capture several thousand images before the batteries die.
2. Check to make sure you have used new alkaline batteries.
3. Make sure that the power switch was turned to the ON position and not he TEST modes.

Camera won't take images

Please make sure that the SD card is not full. If the card is full, the camera will stop taking images.
Check the batteries to make sure they are new alkaline.
Make sure that the camera power switch is in the ON position and not the OFF or TEST modes.
If the SD card has its write protect switch in the lock position the camera will not take images.
If you have used an SD card in another device before, you might want to try formatting the card.

Camera won´t power up

1. Make sure that you have installed at least a full set of 4 batteries in correct position.
2. Make sure that the batteries are installed correctly, observing proper polarity.
3. After moving the switch from OFF to TEST or ON, make sure that the switch is correctly in position to ensure the proper mode.
4. Do not move the switch directly from ON to TEST, always move the switch all the way down to OFF first, then back up to TEST.

Still no Photo and/or Video Quality Problems

1. Night photos or videos appear too dark
    1. Check the battery indicator icon to see if batter power is full. The flash will stop operating near the end of the battery life.
    2. You will get the best results when the subject is within the ideal flash range, no farther than 20m.
    3. Please note that when the Capture Number parameters is set higher than "1 Photo". Or with very short interval settings, some images may appear darker than other ones due to the quick response and rapid retriggering of the camera, allowing less time for the flash to full recharge before flashing again.

2. Daytime photos or videos appear too dark

Make sure that the camera is not aimed at the sun or other light sources during the day.

3. Night photos or videos appear too bright

Subjescts may appear too bright at closer distances.

4. Daytime photos or videos appear too bright

Make sure that the camera is not aimed at the sun or other light sources during the day.

5. Photos with streaked subject
    1. In some cases with low lighting conditions and fast moving subjects, the 12MP or 16MP resolution settings may not perform as well as the 8MP setting.
    2. If you have multiple images where fast moving subjects produce streaks on the photo, try the 8MP setting instead.

6. Short video clips-not recording to the length set
    1. Check to make sure that the SD card is not full.
    2. Make sure that the camera has good batteries in it. Near the end of the battery life, the may choose to record shorter video clips to conserve power.

Date/Time Stamp not appearing on images

Make sure that the Time Stamp parameter is set to ´On´.

PIR Sensor LED Flashes/Doesn´t Flash
    1. When the camera is in the TEST mode, a special LED on the front of the camera will flash when it senses motion. This is for setup purposes only and it will help the user aim the camera.
    2. During use, the LED will not flash when the camera takes an image. This is to help keep the camera hidden from game.

Camera won´t retain settings

Make sure that you have been saving changes to any parameter settings that you made while in Setup mode, by pressing OK after changing the setting.

Moisture or Ants inside Camera

- To ensure humidity or rain is kept out of the camera, secure the DC In plug firmly in place.
- Ants can be attracted by low level electronic vibrations, and enter through any gaps between the exterior and interior of the camera. Make sure the DC In pluh is securely attached.

CAMERA SPECIFICATIONS

Image sensor	8MP CMOS sensor
Photo resolution	16MP: 4608x3456 12MP:4000x3000;8MP:3264x2448; 5MP:2592x1944;3MP:2048X1536;
Video resolution	1920X1080/25fps 1280x720/30fps 720x480/30fps;640x480/30fps; 320x240/30fps
File format	JPG/AVI
Lens	f=3.09; F/NO=2.0; FOV=108; Auto IR filter
Display	2.4 " TFTLCD
External memory	TF card up to 32GB
Internal memory	8Mx16 SDRAM
Range of IR flash	20m
Triggering distance	20m (Below 77°F/25°C at the Normal Level)
Detection angle of sensors	120°
PIR Sensitivity	High/Normal/Low

Temperature compenstation	Yes
Prep PIR Sensing Angle	On/Off;120°
Triggering time	0.5 second(When using the 4G SD card); Pre boot 0.2 Second
Trigger Interval	5sec. -60min,Programmable
Shooting Numbers	1--3
Effectiveness	Daytime:1m-infintive;Night time: 3m-25m
Video Length	3-60sec;1-10min Programmable
Camera+Video	First take picture then Video
Time Stamp	On/Off; Include serial No., Temperature and moon phase
Time Lapse	On/Off; Time Lapse Programmable
Periodic shot	Time Laps 5 Second ~ 1 Hours
Password	4-Digit Numbers
Build-in Microphone	Yes

Build in Speaker	Yes
Auto-distinguish images	Color images in daytime/black and white night images
Automatic screen saver	
TV-out	Yes
PC Interface	Mini USB2.0
Power supply	8xAAexternal 6V power supply, at least 2A
Power adapter	6V/1.5A
Battery life	More than 30k photos in daytime, and more than 12K photos in night
Standby time	Approx. 12 months
Spray-water protected	Yes (IP protection class56)
Storage Temperature	-20°C to +60°C
Dimensions	Approx.136*90*76mm

CUSTOMER SERVICE AND WARRANTY

Warranty

Up to 1 year limited warranty

Your product is warranted to be free of defects in materials and workmanship for 1 year after the date of purchase. This warranty does not cover damages caused by misuse, improper handling, and installation. In the event warranty service is needed, please contact us
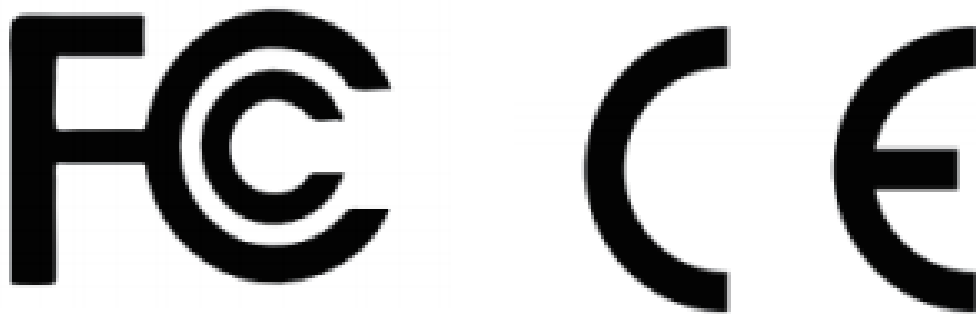

FCC statement

This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in residental installation. This equipment generates uses and can radiate radio frequency energy and if nor installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radioor television reception, which can be determined by turning the equipment off and on, the more of the following measures:

Reorient or relocate receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into a outlet on a circuit different from that to witch the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

Disclaimers

We hare no representations or warranties, either expressed or implied, by or concerning any content or these written materials or software, or for damages resulting from the use of the information contained therein. We reserve the right to alter the features and contents of this publication, hardware or software without obligation or advance notice. Warranty does not extend to any accessories with the camera.

We are not responsible if you use the trail camera for illegal purposes.

We shall not be obligated to perform preventive maintenance, installation, reinstallation, or maintenance. The illustrations in this manual are for instructional purposes only and may not represent actual product exactly.