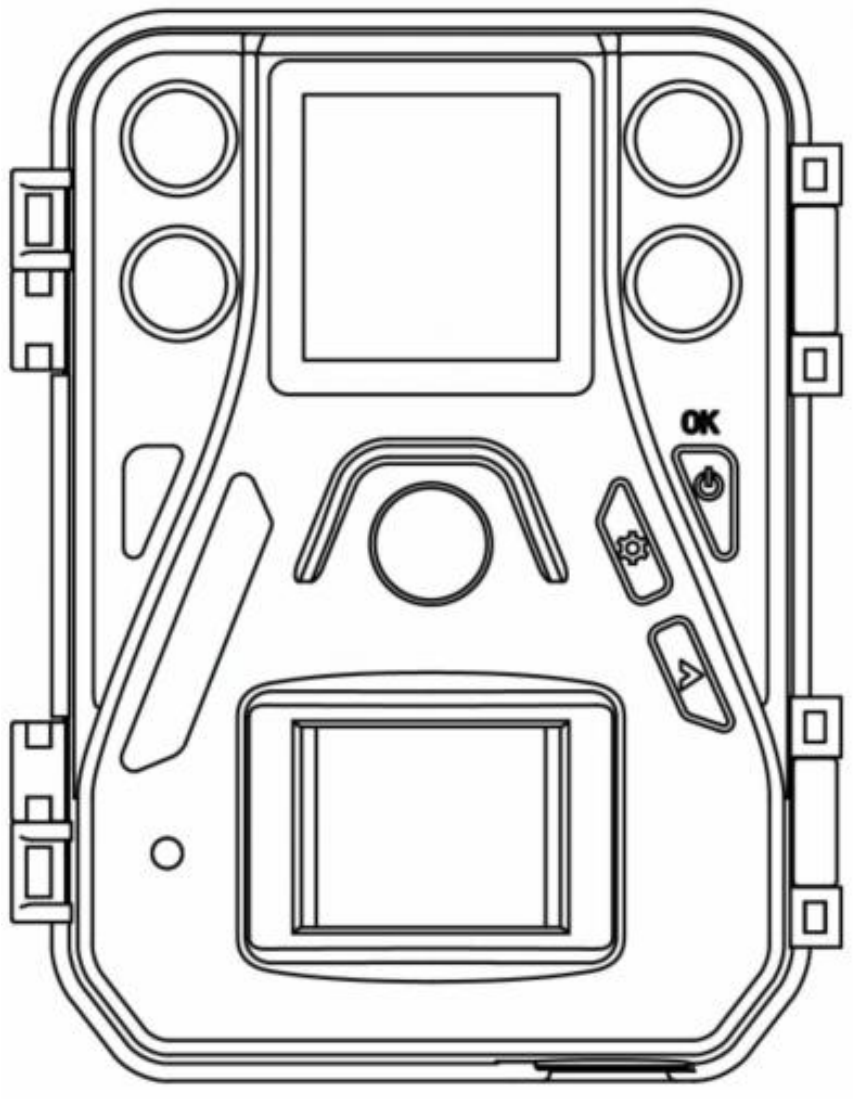
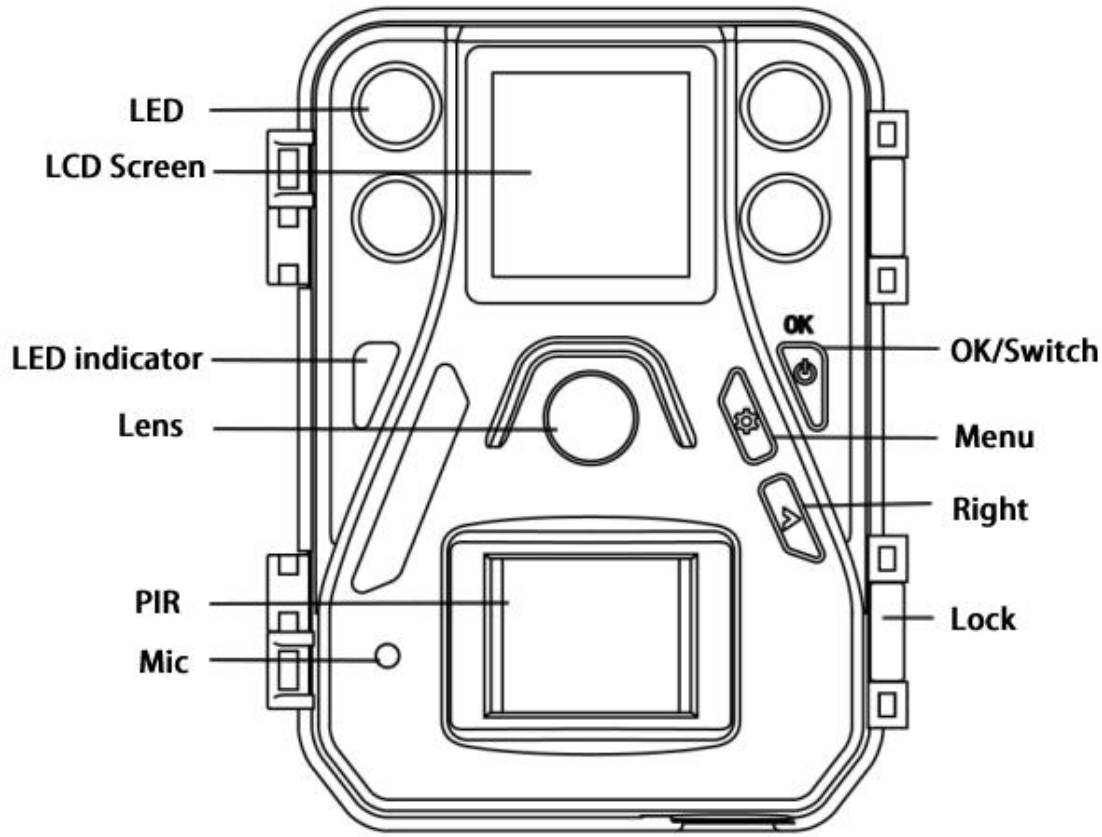
Infrared Digital Scouting Camera
User Manual
SG520-Plus

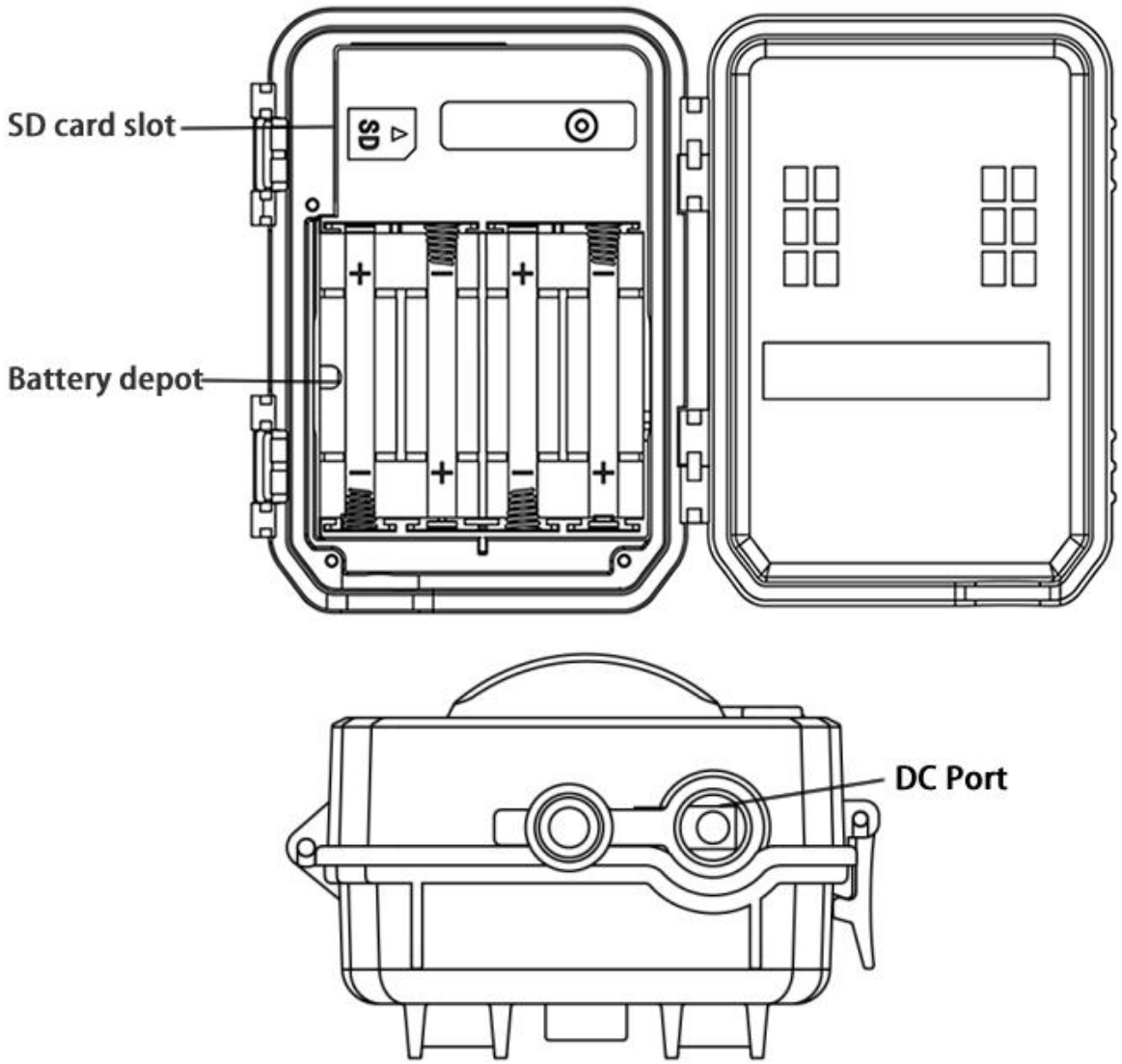


Content

1 Instruction

1.1 Camera Body Interface





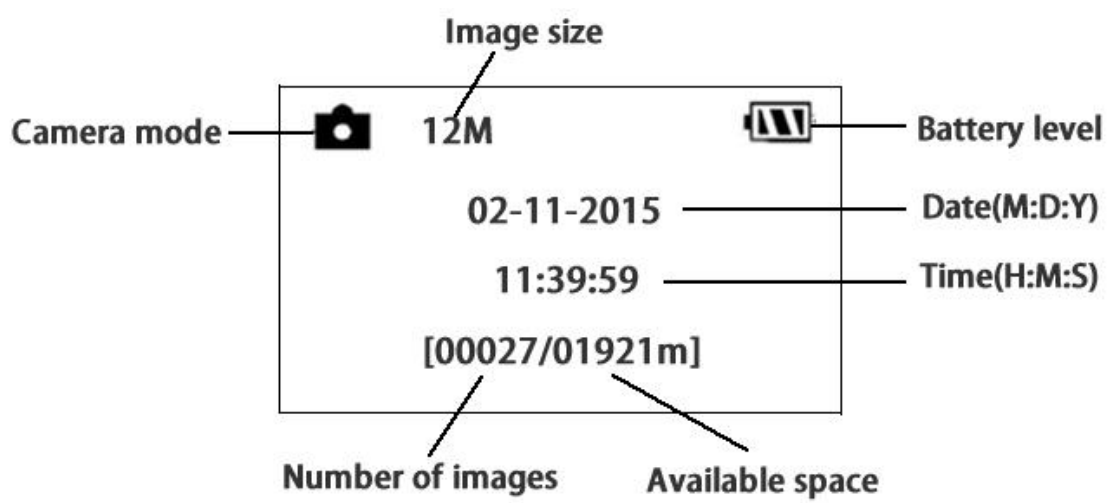
1.2 General Description

This camera is a digital infrared surveillance camera, triggered by any movement of animals or humans monitored by a high sensitive Passive Infrared (PIR) motion sensor, and then automatically captures high quality pictures or records video clips according to default settings or preset customer settings.
It takes color pictures or videos with white LED,or B&W pictures or videos with 940nm LED at night.
It is resistant against water and snow. The camera can

also be used as a portable digital camera.

1.3 Shooting Information Display

There is a 1.44” LCD display screen with three keys to setup the camera. When the camera is turned on, current settings will be displayed on the screen.



1.4 Saving Images or Videos

The camera uses a standard SD (Secure Digital) memory card to save images (in .jpg format) and videos(in .avi format). SD and SDHC(High Capacity) cards up to 256GB are supported. Before inserting the SD card be sure that the SD card is unlocked.
Note: without SD card inserted, the camera will not work.

1.5 Cautions

★ The camera is supplied by 3 18650 batteries or DC power adapter with output of 6V. Please install batteries according to shown polarity.

★ Please insert the SD card 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.

★ Please do not insert or take out the SD card when camera is working.

★ It is recommended to format the SD card by camera when used for the first time.

★The camera will enter into hunting mode without operation in 60 second, or press “Right” key with 5 second into hunting mode, press “OK” key to wake up the camera.

2 Quick Start Guide

2.1 Power Supply

Use 3 18650 batteries or 6V external power supply to support the camera.
Use high-capacity and high-performance alkaline batteries (recommended), rechargeable Lithium batteries or rechargeable Nimh batteries.

2.2 Insert the SD card

Open the lock, insert SD card into the card slot. Please note that the SD card is on the “write” (not locked) position otherwise the camera will not function correctly. The camera itself has no internal memory for saving images or videos.

2.3 Power On

Before power on, please pay attention to the followings:

1. Avoid temperature and motion disturbances in front of the camera such as big leaf, curtain, air-conditioner, air outlet of the chimney and other heat sources to prevent from false triggering.
2. The height from ground for placing the camera should vary with the object size appropriately. Generally, one to two meters are preferred.

Long press “OK” button to turn on the camera to do settings. The camera will enter into hunting mode without

operation in 20 second. The motion indication LED (red) will blink for about 10s. The 10s is a buffering time before autonomic capturing photos or videos, e.g. for locking and mounting the camera and walking away.

2.4 Custom Settings

Press MENU to enter into menu settings. The camera can be adjusted to manually customize the camera settings which displayed on the LCD screen.
You can press RIGHT key to manually capture photos or record a video and again to stop a video.
Key Notes:
"OK": turn on the camera, save settings and go to next item, playback image or video in preview mode, wake up the camera in hunting mode.
"**MENU**": enter into setup mode, exit.
"**RIGHT**": take photo or video in preview mode, next option.

2.5 Power Off

Long press "OK" to power off the camera. Please note that even in off mode, the camera still consumes a small amount of battery power. Therefore, please remove the batteries if the camera is not in use for a length of time.

3 Item Settings

3.1 Camera Menu

To view the camera settings menu, press “MENU” to enter into setup mode. Use “RIGHT” key to select the different options, press “OK” to save and go to next item and “MENU” to exit.

Main Options	Descriptions
Language	Language options include: English, Czech, German, French, Spanish, Swedish, Finnish, Norsk,Dansk,Italian,Russian. **Default: English**
Camera Mode	There are three camera modes: **Photo:** to take a photo **Video:** to record a video **Picture + Video:** to take a picture with a video clip. This mode disables the photo burst function. **Default: Photo**
Photo Size	Choose the image size: **Default: 4 MP**
Photo Burst	Choose the number of photos taken after the camera is triggered: 1 Photo, 2 Photo, or 3 Photo. *If Pic+Video is selected, Photo burst defaults to 1 photo regardless of the entered value.* **Default**: **1 Photo**
Video Size	Choose the video size: **Default**: **VGA**
Video Length	Choose the duration of the video recording. Valid values extend from 5-60 seconds in 5 second increments. **Default**: **10 seconds**

Picture Type	It takes color pictures or videos with white LED,and B&W pictures or videos with 940nm LED at night. **Default**: **Black&White** ***If the camera with only two 940nm LED,then this menu option is not available.**
Set Clock	Set the date and time of the camera. The date format is day/month/year and the time format is hour: minute: second.
Time Lapse	The camera can capture images or videos at a preset time interval regardless of motion detection. Changing this setting to a non-zero value turns on Time Lapse mode, and the camera will take photos at the set interval time. *If PIR Trigger/Sensitivity and Time Lapse options are BOTH OFF, the camera will not capture any photos or videos*. **Default**: **Off**
PIR Trigger/Sensitivity	This setting is for the sensitivity of the PIR sensor. There are four sensitivity parameters: High, Normal, Low, and Off. It is recommended to use HIGH sensitivity in areas with little environmental interference and warmer, humid climates. Use LOW sensitivity for areas that have a lot of interference. The sensitivity of the PIR is affected by temperature. Higher temperatures lead to lower sensitivity. *If PIR Trigger/Sensitivity and Time Lapse options are BOTH OFF, the camera will not capture any photos or videos*. **Default**: **Normal**
PIR Interval	This setting indicates how long the PIR sensor will be disabled after each camera triggering. During this time the PIR sensor will not react to any detected motion. The PIR Interval can be set between zero seconds to a maximum of 1 hour. **Default: 10 seconds**

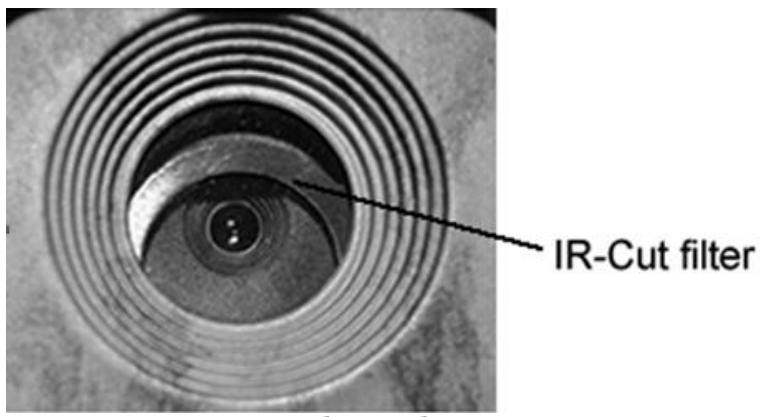
Work Day	Choose the days of the week you want the camera to work. This setting is only available in Hunting Mode. **Default: All**
Work Hour	This parameter defines a certain time in a day when the camera can be triggered, while the device will shut off during non-working hours. The effective value ranges from 00:00 to 23:59. When this parameter is set to Off, the camera works at all times. When the timer switch is ON, the camera works only during the time according to the preset settings. **Default**: **Off**
Recycle Storage	In hunting mode, if the SD card is full, the oldest images or videos will be overwritten by new pictures or videos. This keeps you from having to retrieve your memory card manually. In SETUP mode, this option is disabled. **Default: Off**
Time Stamp	When this function is turned on,the camera can print time and Logo on video. **Default: ON**
Format SD	All information on the SD card will be deleted. Make sure to make a backup of important data already on the SD card.
Default Settings	Restores all settings back to default values.

3.2 Playback Mode

Press “OK” to enter into playback mode, images can be viewed on the LCD screen of camera, but videos can only be played on your computer. For simplicity, operations with PC won’t be introduced here. “OK” and “RIGHT” keys help to choose the previous or next one.

4 Trouble Shooting

1 There is something in front of the camera lens. Is the camera broken?



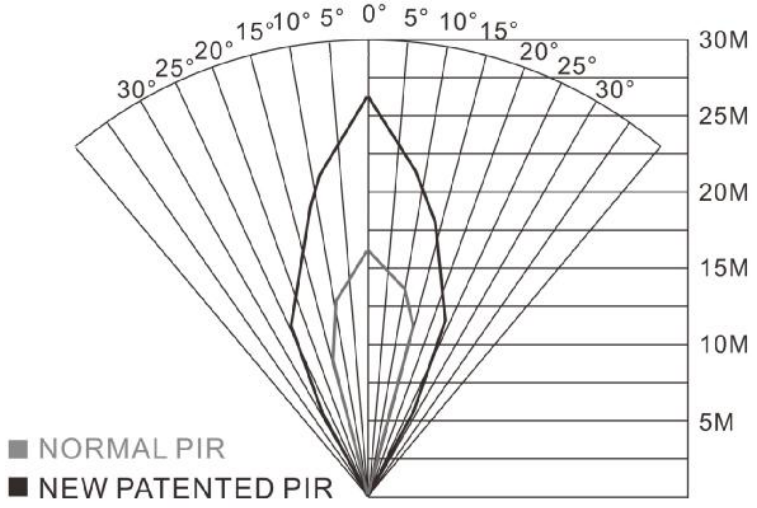
A: The camera is not broken. It's an IR-cut filter. When the camera is powered on, the IR-cut will be reset and cover the lens. Only when the camera is powered off, the IR-cut will be at a random place.

2 The camera is not working anymore.
A: Most likely, no SD card has been inserted in the camera when it is turned on. Please make sure a working SD card has been inserted in the camera before it is turned on.

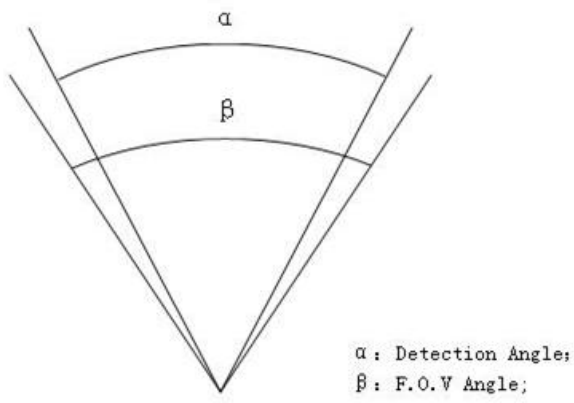
3 The display screen is suddenly black.
A: The camera has entered into hunting mode. Press "OK" to wake it up if you want to continue to setup the camera.

5 PIR Detection Zone

This camera has a new design of PIR and the new PIR is patented. The new patented PIR's detection range can reach to 85ft in good environments. Following picture shows the compared detection zone between normal PIR and the new patented PIR.



The PIR detection angle (α) is just smaller than the field of view (FOV) angle (β). The advantage of this design is to reduce empty picture rate and capture most, if not all, motions.



6 Technical Specifications

Image Sensor	4MP CMOS Sensor
Lens	F/NO=2.2 FOV(Field of View)=55°
PIR detection range	85ft
Display Screen of Remote Control	1.44” LCD
PIR Sensitivity	Adjustable (High/Normal/Low)
Weight	180g(without battery)
Operation/Storage Tem.	-20 - +60°C / -30 - +70°C
Power Supply	3×18650 batteries
Sound Recording	Available
Mounting	Rope/Belt/Python lock
Dimensions	107 x76 x40 mm
Operation Humidity	5% - 90%
Security Authentication	FCC, CE, RoHS

The static electricity test prototype is restarted and needs to be restored manually. According to the static electricity level, it is judged to be level C.

7 Parts List

Part Name	Quantity
Camera	One
Belt	One
User Manual	One
Warranty Card	One

Version 1.0