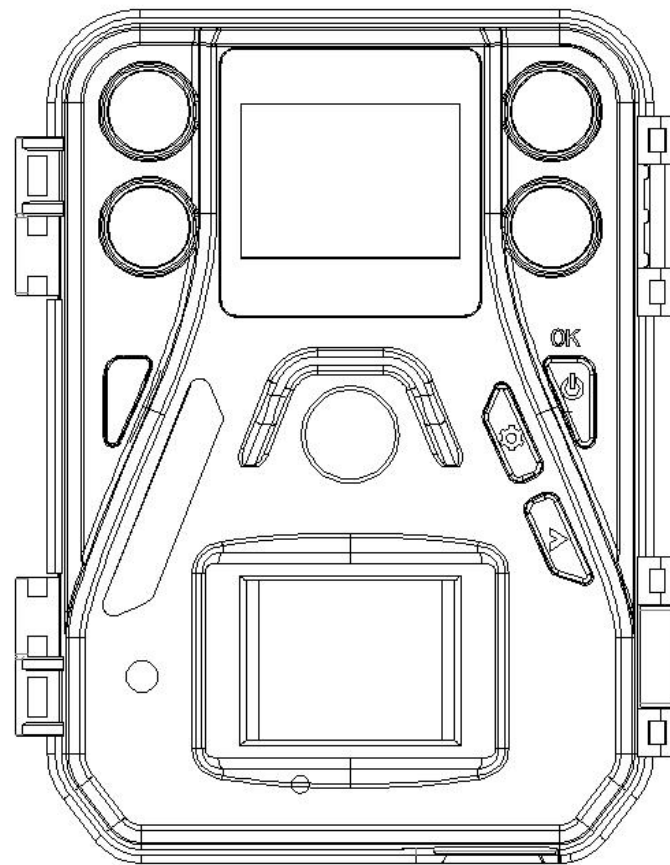


*User Manual*



**BG320/ BG320-BW**



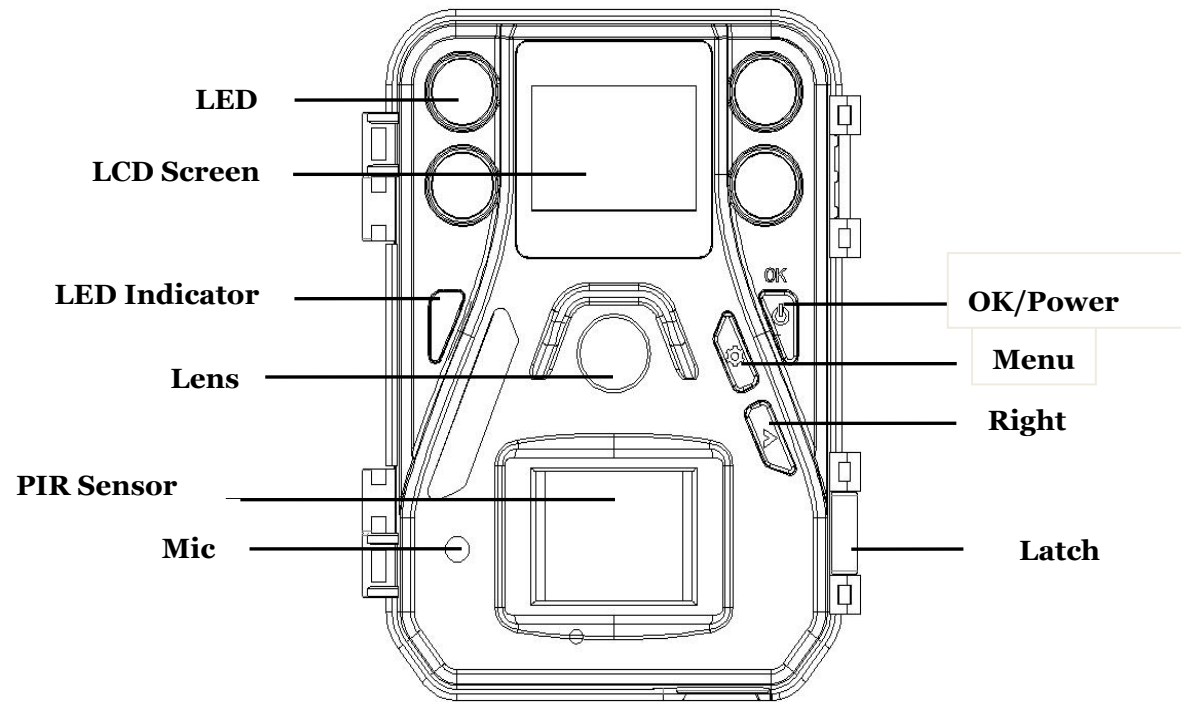


# Content

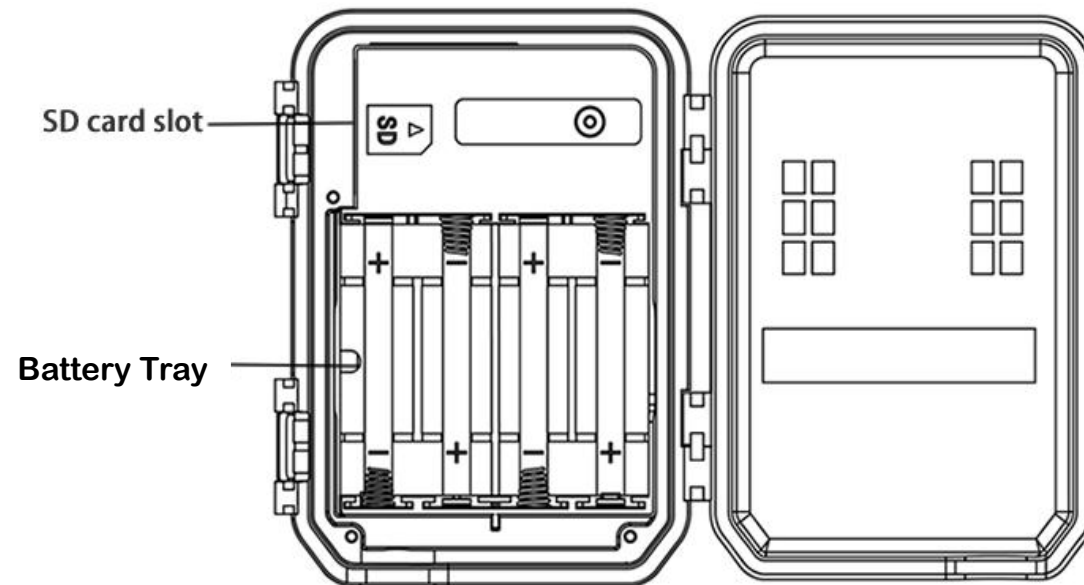
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# 1.0 Getting Started

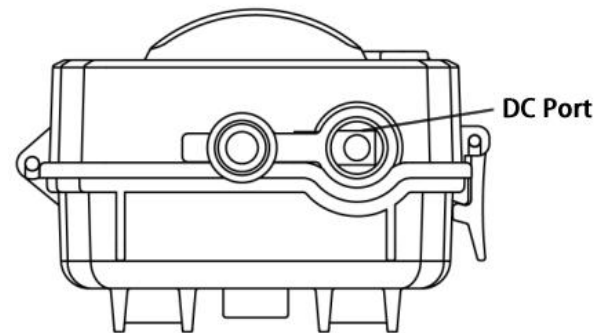
## Front View



## Bottom View



## Inside View



## General Description

This digital infrared camera contains a highly sensitive Passive Infrared (PIR) motion sensor, which is triggered by movement of animals or humans within its field of view. Upon activation, the camera automatically captures high definition pictures or records video clips, according to customer presets or default settings. The unit is resistant against water and snow and is offered in two different models:

**BG320** : A digital trail camera with four 940nm low-glow IR LED lights. It takes black and white pictures and videos during the day and night.

**BG320-BW**: The most cost-effective and smallest birding camera, this camera is equipped with built-in color white LED light, able to take crisp color pictures and videos in both day and night.

## **Additional Product Features:**

- High quality 10MP and 720p video.
- 73 ft. detection and 60 ft. lighting range
- Quick trigger time: <1.2s
- Trigger delay interval: 0s-1h
- Supports up to 32GB SD card
- 1.33" LCD display

## **2.0 Camera Operations**

### **2.1 Batteries / Power Supply**

The camera is powered by four or eight AA batteries - High-density, high-performance alkaline, rechargeable Alkaline or NiMH batteries are recommended.

A DC 6-Volt, 2 Amp external power supply adapter can also be used to power the camera (not included).

Please take caution when installing batteries to match the shown polarity on the battery tray.

### **2.2 SD Card Information**

**Insert the SD card into the camera before turning on the camera**

This camera supports up to a 32GB capacity SD card and has no built-in internal memory. The camera will not function without the SD card properly inserted into the camera.

**Make sure the SD card is in the unlocked position before inserting the SD card into the camera**

The camera will operate normally with a locked SD card inserted, but the card will not be able to store captured images or videos taken by the camera.

**Do not remove the SD card while the camera is on**  
By removing the SD card while the camera is on risks damaging the internal components of the camera.

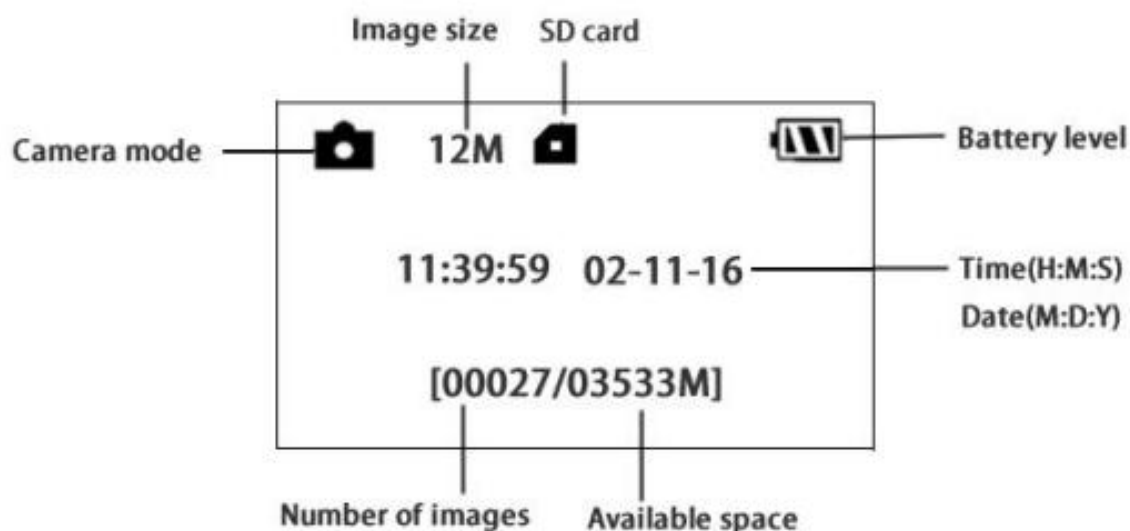
**If you experience any problems with an inserted SD card**

Try reformatting the SD card utilizing the camera's main settings option.

## 2.3 Camera Modes

### Powering the Unit on

To switch the camera on, press and hold down the OK/POWER button. Once the screen illuminates, you may release the OK/POWER button and the following information should appear on the 1.33" LCD screen.





If the camera is left unattended for 20 seconds, the camera switches to “Hunting Mode”, which is the normal operation for the camera to react to motion and capture photos/videos. Before entering “Hunting Mode”, the front (red) LED light will continuously blink for approximately 10 seconds and then turn off – This a transitional delay for you to lock and mount the camera before the PIR sensor becomes active and starts taking pictures/videos.

### **To “Wake Up” the camera**

To “wake up” the camera when it is in “Hunting Mode”, press the “OK” key.

### **Manual Image / Video Capturing**

When the camera LCD display is active, Press the RIGHT key to manually capture photos or record a video and again to stop the video.

### **To turn off the camera**

Press and hold down the OK/POWER button 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 long periods.

## **2.4 Additional Notes**

Avoid varying temperature and motion disturbances in front of the camera, such as falling leaves, air-conditioner outlets, and other sources that may easily sway and move to prevent false triggering.

To adequately capture the full image of the tracked game, the camera should be placed high above the ground, respective to the object size of the game. Generally, one to two meters are optimal.

## 3.0 Camera Settings

To view the camera settings menu, Press OK to “wake up” the camera or when the screen is active, press MENU to enter into the menu settings. Use the RIGHT key to select the different options, press OK to save the setting and press MENU to exit the camera settings menu.

| <b>Main Menu</b>   | <b>Description</b>   |
|--------------------|--|
| <b>Language</b>    | Choose language you need. It supports three languages:English, Suomi, Deutsch<br><b>Default</b> :English   |
| <b>Camera Mode</b> | There are three camera modes:<br><b>Photo:</b> to take the photo<br><b>Video:</b> to capture video<br><b>Pic+Video:</b> to take a picture with a video clip. This mode disables the photo burst function.<br><b>Default:</b> Photo |
| <b>Set Clock</b>   | Set camera date and time. You can change the date and time of the device by setting this parameter when necessary, e.g., after every battery change. The date format is month/day/year, the time format is hour:minute:second.     |
| <b>Photo Size</b>  | Choose the image size: 3MP, 6MP or 10MP<br><b>Default:</b> 6MP   |

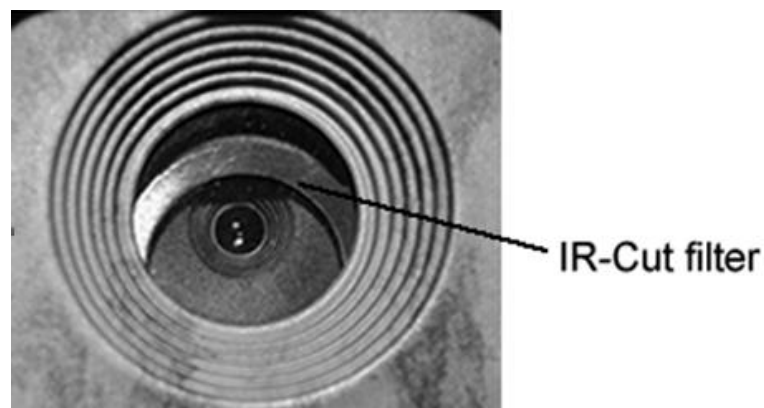
|                    |   |
|--------------------|---|
| <b>Photo Burst</b> | Choose the continuous shooting numbers after each triggering: 1 Photo, 3 Photo<br><b>Default:</b> 1 Photo |
| <b>Video Size</b>  | Choose the video size: 1280x720 or 640x480.<br><b>Default:</b> 1280x720                                   |

| <b>Advanced Menu</b> | <b>Description</b>  |
|----------------------|---|
| <b>Video Length</b>  | Choose duration of recording video. It has three values: 10 sec, 30 sec and 60 sec<br><b>Default:</b> 10 seconds  |
| <b>Time Lapse</b>    | The camera can capture images or videos at a preset time interval regardless of motion detection. The default setting is OFF. Changing this setting to a non-zero value turns on Time Lapse mode and the camera will take photos at the set interval time.<br><b>If PIR Trigger/Sensitivity and Time Lapse options are BOTH OFF, the camera will not capture any photos or videos.</b><br><b>Default:</b> OFF |
| <b>PIR Trigger</b>   | 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 also for warmer, humid temperatures or   |

|                     |   |
|---------------------|---|
|                     | <p>climates. Use LOW sensitivity for areas that have a lot of interference. The sensitivity of the PIR is effected by temperature. Higher temperatures leads to lower sensitivity. <b>If PIR Trigger/Sensitivity and Time Lapse options are BOTH OFF, the camera will not capture any photos or videos.</b></p> <p><b>Default:</b> Normal</p> |
| <b>PIR Interval</b> | <p>This setting indicates how long the PIR sensor will be disabled after each camera triggering. During this time th PIR sensor will not react to any detected motion.</p> <p><b>Default:</b> 10 seconds</p>  |
| <b>Format SD</b>    | <p>All information on the SD card will be deleted. Make sure that you have made a backup of important data already on the SD card.</p>  |
| <b>Version</b>      | <p>Version information.</p>   |
| <b>Default Set</b>  | <p>Restore all settings to default values</p>   |

## 4.0 Trouble Shooting

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



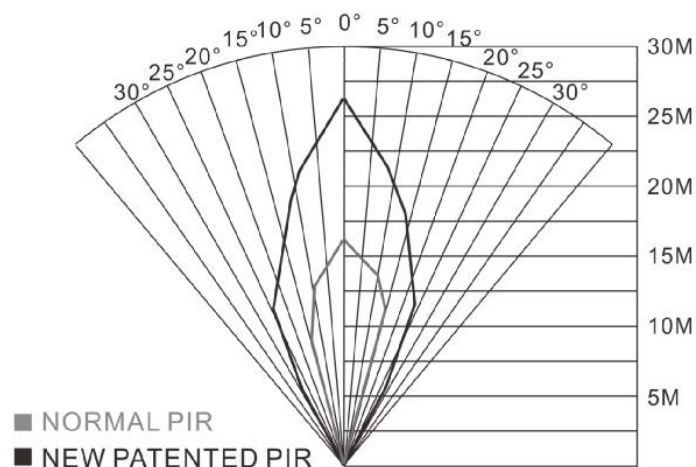
A: The camera is not broken. It's an IR-cut filter. When the camera is powered on, the IR-cut will cover the lens. Only when the camera is powered off, the IR-cut will be at a random place, sometimes covering the lens.

2 、 The display screen is suddenly black.

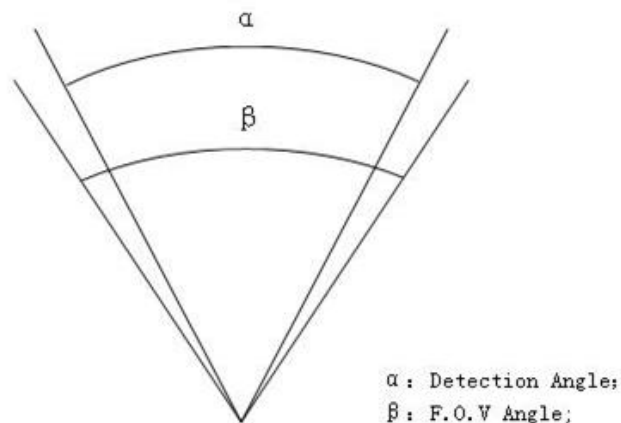
A: The camera may be in “Hunting mode” - Press MENU to wake it up. If there is no response, the camera may be powered off – Please check if the batteries are still good and in place. Once battery power and placement is verified, press and hold down the OK/POWER button until the display turns on, indicating the camera powering up.

## 5.0 PIR Detection Zone

This camera has a new patented PIR design, which allows the detection range to 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 ( $\alpha$ ) is just smaller than the field of view (FOV) angle ( $\beta$ ). The advantage of this design is to reduce empty picture rate and capture most, if not all, objects in motion.



## 6.0 Technical Specifications

|                                  |  |
|----------------------------------|--|
| Image Sensor                     | 3MP CMOS Sensor<br>6MP, 10MP Interpolation |
| Lens                             | F/NO=2.2<br>FOV(Field of View)=53°         |
| PIR detection range              | 73ft                                       |
| Display Screen of Remote Control | 1.33" LCD                                  |
| Memory Card                      | Up to 32 GB                                |
| Video Resolution                 | 1280x720(20fps)<br>640x480(20fps)          |
| PIR Sensitivity                  | Adjustable (High/Normal/Low)               |
| Trigger Time                     | <1.2s                                      |
| Weight                           | 180g(without battery)                      |
| Operation/Storage Tem.           | -20 - +60°C / -30 - +70°C                  |
| Power Supply                     | 4xAA                                       |
| Sound Recording                  | Available                                  |
| Mounting                         | Rope/Belt/Python lock                      |
| Dimensions                       | 107 x76 x40 mm                             |
| Operation Humidity               | 5% - 90%                                   |
| Security Authentication          | FCC, CE, RoHS                              |



## **7.0 Parts List**

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

For more details about our product or software, please visit our website at : <http://www.bolyguard.com/download.html>

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