Bushnell®

TRAILSCOUT™

Models: 119700/119830

Models: 119930/119901

LIT. #: 98-0744/03-06

Congratulations on your purchase of the Bushnell® Digital Trail Scout™ Camera! This trail camera is designed to record the activity of wildlife game in the outdoors with its still image and movie modes and weatherproof, rugged construction. This instruction manual is designed to maximize your understanding of how the camera operates.

Bushnell Digital Trail Scout Features (All Models)

One of the most revolutionary advances in scouting technology to date, the Bushnell Digital Trail Scout delivers. Boasting one of the most user friendly interfaces in the industry, this trail camera has a positive toggle switch system that instantly tells you what your camera setting are—without fumbling with a confusing software interface! The built-in security system has four levels of security. Every Trail Scout comes complete with padlock, cable lock, tree bracket for screw attachment, and software password that locks out would-be thieves. The high resolution digital camera delivers crisp views of game in your area and stamps each image with date, time, and name. Along with regular image mode, there is a movie mode for 15 second movie clips. The camera will function during day, night, or all 24 hours and sense game out to 90 feet. The oversized incandescent flash will reach out to 30 feet for nighttime images. Image delay settings include 30 seconds, 1 minute and 2 minutes. The innovative backlit LCD makes set up a breeze in the field. The Trail Scout is weatherproof and rugged.

119700—Digital Trail Scout 2.1MP

Great images and scouting technology at a great value. This camera will sense deer and other game as far out as 90 feet with its passive infrared sensor. Low-battery indicator lights when battery life drops below 25%. Motion LED lights when activity is detected by the sensor in regular imaging mode and during setup mode for aiming. Weatherproof. Comes complete with aircraft aluminum security cable, padlock, and tree bracket. Textured "bark-like" surface for maximum concealment.

119830—Digital Trail Scout 3.0MP

All the features of the Trail Scout 2.1MP, but featuring superior image resolution. This camera also senses deer as far out as 90 feet with its passive infrared sensor.

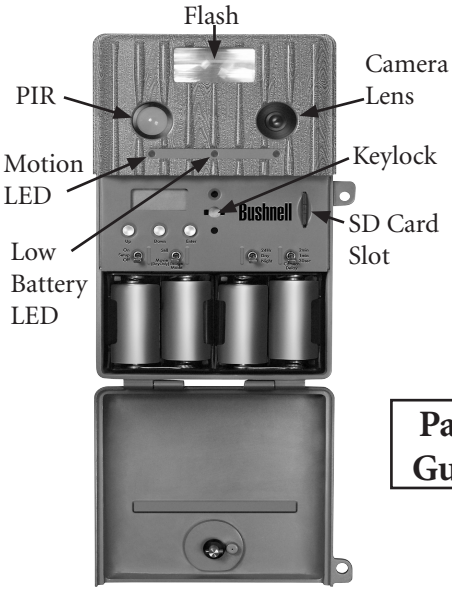
119930/119901—Digital Trail Scout 3.0MP with Night Vision

With all the features of the 3.0MP Trail Scout plus Night Vision and laser aiming , this is the top of the line digital trail camera. This is the only game camera on the market to combine both incandescent camera flash and digital night vision technology. Choose your setting for regular camera flash or stealth-like LED IR illumination. Infrared LED lamps enables you to discretely image game in the night without a visible flash. There is no need to worry about your flash giving away your position in popular, busy hunting areas. This camera comes complete with laser aiming device for easy set up in the woods.

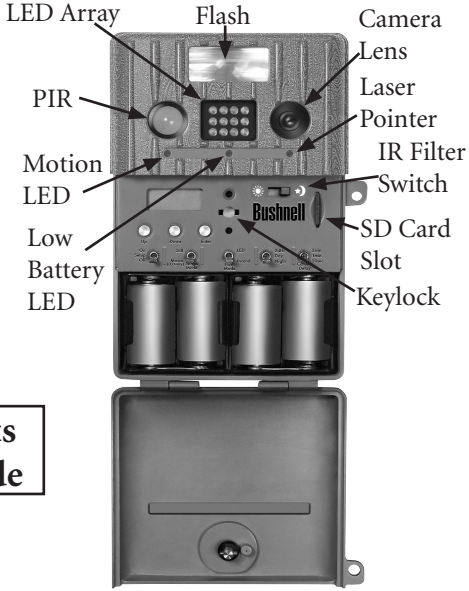
DIGITAL TRAIL SCOUT SPECIFICATIONS

Image Sensor	1/2” CMOS, 2.1 million pixels (119700) or 3.0 million pixels (119830/119930/119901)
Lens	F/3.5, effective focal length 42mm. Sight range: 45 degrees
Flash	High power electronic Incandescent Flash or Infrared LED array. Range: 30 ft.
PIR Sensor	Low noise, high sensitivity passive infrared sensor. Range: 90 ft.
Motion LED Indicator	Yes
Display	Backlit LCD, 2 rows x 8 characters. Auto-off: 3 min. 2-digit event and image display.
File Format	Still image JPG (2.1 or 3.0 megapixels). Movie images AVI 320x240 pixel per frame. DCF ver. 1.0 file management.
Exposure	Auto
White Balance	Auto
Power Supply	4 x “D” cell batteries. Low battery indicator at 25% remaining power.
Battery Life	Approximately 30 days (dependant on temperature, camera activity and flash usage)
User Password	Yes, available range: 0000 to 9999
Other (***119930/119901 only***)	Remote control, Laser pointer, IR LED array for night vision infrared imaging

119700/119830

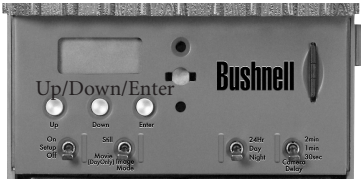


119930/119901



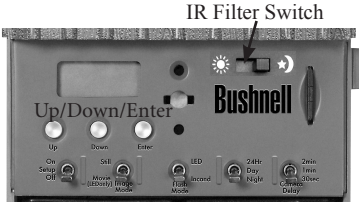
Parts Guide

Switch and Setup Description



K1 K2 K3 K4

119700/119830 Control Panel



K1 K2 K3 K4 K5

119930/119901 Control Panel

	Switch Position/Setting		
Switch #/Function	**UP**	**CENTER**	**DOWN**
K1 (Operating Mode)	On	Setup	Off
K2 (Image Mode)	Still	-	Movie
K3 (Day/Night Mode)	24 Hour	Day (6AM-6PM)	Night (6PM-6AM)
K4 (Camera Delay)	2 minutes	1 minute	30 seconds

	Switch Position/Setting		
Switch #/Function	**UP**	**CENTER**	**DOWN**
K1 (Operating Mode)	On	Setup	Off
K2 (Image Mode)	Still	-	Movie
K3 (Lighting Mode)	LED	-	Incand.
K4 (Day/Night Mode)	24 Hour	Day (6AM-6PM)	Night (6PM-6AM)
K5 (Camera Delay)	2 minutes	1 minute	30 seconds

NOTE (Models 119930/119901 Only) : THE LASER POINTER IS ACTIVATED IN THE SET- UP MODE. DO NOT PERMIT THE LASER POINTER TO BE DIRECTED TOWARD ANYONE'S EYES TO AVOID POTENTIAL EYE INJURY.

Before beginning the setup, insert 4 "D" size alkaline batteries as indicated inside the battery compartment.

1. K1 - Mode Switch (ON/ SETUP/ OFF) :

a) Power ON (UP position): Set K1 to ON position, The LCD display will show "BUSHNELL" for about 2 seconds.

EVENT nn
IMAGE nn

The LCD will rotate through the DATE\TIME\EVENT&IMAGE displays when pressing the Up and Down keys.

b) SETUP Mode [move switch K1 from UP (ON) position to center position]:
Press Up or Down buttons to scroll through choices of DATE, TIME, NAME and PASSWORD to modify or set these functions.

(1) SET DATE: When the LCD shows the date, press the ENTER key to modify the date.

Set Date
09/18/04

Press Up or Down button to select 1-12 then press the ENTER button to confirm the two digit month. The cursor will then move to the day.
Press Up or Down button to select 1-31 then press ENTER to confirm the two digit day. Then the cursor will move to the year.
Press Up or Down button to select 0-99,then press ENTER to confirm the two digit year. From Set Date, press the Down button to set the time.

For mounting directions, please refer to the manual section titled "Using The Trail Scout" .

Set Time
06: 30 PM

(2) SET TIME: When the LCD shows the time, press the ENTER key to modify the time.Press Up or Down button to select 1-12, then press ENTER to confirm the two digit hour. Then the cursor will move to the minute.Press Up or Down button to select 0-59, then press ENTER to confirm the two digit minute. From SET TIME, press the Down button to set the name.

MY NAME
555_1234

(3) SET NAME: When the LCD shows current name, press ENTER key to modify the name display. Press Up or Down button to select one character from "A" to "Z", "0" to "9", "_" , then Press ENTER to confirm, the cursor will move to next character. There are 2 lines of 8 characters each for your use. From Set Name, press the Down button to change the password.

Password
Set

Password
Yes

New Pswd
0 0 0 0

(4) SET PASSWORD: When the LCD shows [Password Set], press the ENTER key to set the password. The LCD will show [Password Yes]. To change the password, press Enter.
If you do not want to set a password, you can press the Up or Down key to select NO.

If you selected YES, the LCD shows [New Pswd]. Press the Up or Down key to select the first password digit of 0-9. Press ENTER to confirm, the cursor will move to the next digit to the right. Repeat the process using UP, Down and Enter keys to enter your four digit password. Press ENTER to confirm.

Password None

If you do not want to set a password when the LCD shows (PW YES) , you can press the U/D button to select No, After pressing the ENTER, the LCD display shows (PW NO), and no password will be set.

When you are finished with SETUP, change K1 to the ON (UP) position and the unit will be operating after a 2 minute delay.

(5) SET DAY TIME: (NOTE: This setting applies to use of Trail Scout in DAY or NIGHT mode only. 24Hr mode will ignore DAY TIME setting.)

Day Time 07 -- 18

When the LCD shows (Day Time), press ENTER key to set the DAY TIME range. The LCD will show and underscore under the first 2 digits in the DAY TIME mode. Press the up or down keys to set time of 24 hour clock for the specific DAY TIME start time desired. Press ENTER to set the DAY TIME start time.

Then, underscore will move to the second 2 digits in the DAY TIME mode. Press the up or down keys to set time of 24 hour clock for the specific DAY TIME end time desired. Press ENTER to set the DAY TIME end time.

Now your DAY TIME is defined.

Example: 07—18 would allow camera to image between 7am to 6pm.

c) Power OFF: Set K1 to “Off”, the Trail Scout will be OFF.

Setup Guide (cont.)

2. K2 – Image Mode Switch (STILL / MOVIE):

Set K2 to either of these settings:

(UP) STILL Photo Mode: Image resolution is 2.1MP (119700/119830), or 3.0MP (119930/119901) and photos are stored in JPG format.

(DOWN) MOVIE Mode: The camera can record a 15 second movie, the file format is AVI.

NOTE: The use of MOVIE Mode must be during daytime with models 119700/119830 . You can not record movies at night. However, MOVIE mode with the models 119930/119901 CAN be used at night when the camera is in the IR-LED mode.

(Models 119930/119901 only)

3. K3 - Lighting Mode Switch (LED / Incand):

The Game camera has two modes for illumination in darkness:

(a) LED Mode (Infrared LED lamp array):

When you use IR-LED light mode to take still picture at night, you must slide the FILTER SWITCH to the NIGHT (moon icon) position-this removes the internal infrared blocking filter. The IR-LED (infrared) light is invisible to the naked eye, but will provide illumination for the camera, use it when you do not want to alert the subject. This mode can also be used for night time movie capture. If you want to use the camera in 24-hour mode with IR-LED light at night, you may keep the filter switch in the NIGHT position-however, your daytime photos will have a black & white appearance as infrared energy is not being blocked by the filter inside the lens.

(b) Incand Mode: (Normal flash tube)

You can use Incandescent mode to take full color still pictures at night. Keep the FILTER SWITCH in the DAY (sun icon) position for best results and normal color.

If you want to record movies using the MOVIE mode, you can not use Incand mode—you must set K3 to LED Mode.

4. K3 (*Models 119700/119830*) – (24Hr / DAY/ NIGHT) MODE:
K4 (*Models 119930/119901*)– (24Hr / DAY / NIGHT) MODE:

The Trail Scout has three working times:

(a) **24Hr**: The Trail camera is working all day . When the PIR is sensed the unit will take an image and record an EVENT.

(b) **DAY:** The Trail camera is only working in daytime (from 6:00 AM to 6:00 PM), When the PIR (Passive InfraRed) is sensed the unit will take image and record EVENT. If the PIR is sensed out of day time, only an EVENT is recorded, an image is not taken.

(c) **NIGHT**: The Trail camera is only working at night (from 6:00 PM to 6:00 AM), When the PIR (Passive InfraRed) is sensed the unit will take image and record EVENT. If the PIR is sensed out of night time, only an EVENT is recorded, an image is not taken.

5. K4 (*Models 119700/119830*)– (30s/1Min/2Min) CAMERA DELAY MODE
K5 (*Models 119930/119901*) – (30s/1Min/2Min) CAMERA DELAY MODE:

There are three modes for taking delayed pictures: 30 Sec, 1 Min and 2 Min.
The unit will record EVENTS while CAMERA is in DELAY MODE each time the PIR senses motion.

(a) 30s: After the first picture, a second picture will be taken 30 seconds later.
(b) 1Min: After the first picture, a second picture will be taken 1 minute later.
(c) 2Min: After the first picture, a second picture will be taken 2 minutes later.

GLOSSARY

PIR—Passive Infrared Sensor. Senses motion like typical security motion detector. Requires Infrared Energy in addition to motion to trip sensor to assure detection of live animals.

Event—Any time that the PIR senses motion it counts it as an event. Events are recorded to the SD card in a text file. Events are recorded continuously during operation.

Image—A digital picture recorded on the SD Card when motion is sensed. Images are taken at the desired delay between images.

Image Delay—Delay between images taken by camera. This is user-set based on wildlife activity in area.

IR LED Array—Infrared LED Night Vision feature. Emits a burst of infrared light which is invisible to the human eye. Especially useful for night photos when a visible flash is undesirable. (Featured on Models 119930/119901 only)

Camera Flash—Incandescent Flash (standard flash tube) used for night or low light photography. Typically oversized to achieve greater flash range for hitting game out further.

SD Card—Memory card used to store images and events inside the trail camera. 32MB card included.

Battery Life—Time that camera will function in the field. Dependent on temperature, number of images and number of flashes during that time.

Setup—Methods required for setting date/time and camera imaging settings.

Security (4 methods)—One of the most important requirements of any trail camera. Bushnell units have 4 levels—padlock, tree bracket, cable lock, and software password.

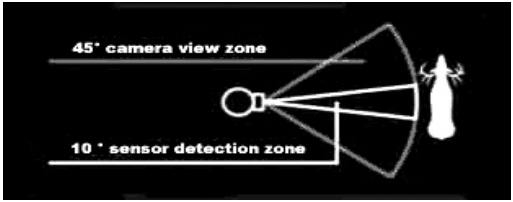
1. SD CARD SLOT

The unit has a standard SD Card slot. You must push the SD Card in with the SD Card label facing the Bushnell logo into the SD card slot. Pushing it again will release the SD card, and then you can remove the SD card from the SD card slot. Insertion or removal of SD card is only recommended when the unit is in the “OFF” position.

2. PIR SENSOR

The sensor that triggers the trail camera is Passive InfraRed, or PIR. Infrared energy is essentially heat energy. The PIR detector operates by sensing a change in the infrared level in its detection zone. This zone is a cone in the center 10 degrees of the camera’s field of view. The camera establishes an average long-term infrared level. When this level increased suddenly the PIR detector signals the camera to record a picture and/or an event. Because of this effect, the PIR detector will be more sensitive at night, when the average temperature is lower.

In the Setup mode, you can use PIR sensor to determine the detection zone .When the PIR is sensed, the PIR Sense Indicator will light. The camera’s field of view is a 45 degree cone, centered on the PIR detection zone.



Other Setup Notes (cont.)

3. LASER POINTER ***(Models 119930/119901 Only)***

The 119930/119901 Trail Scout camera has a Laser pointer. When you mount the unit on a tree or any other fixed surface and cannot sight from behind the Game Camera, you can use the Laser Pointer to align the unit.

NOTE: LASER LIGHT IS POTENTIALLY DANGEROUS TO THE EYES.
THE LASER POINTER IS ACTIVATED IN THE SET-UP MODE.
DO NOT PERMIT THE LASER POINTER TO BE DIRECTED TOWARD ANYONE'S EYES TO AVOID POTENTIAL EYE INJURY.

4. REMOTE CONTROLLER ***(Models 119930/119901 Only)***

The Model 119930/119901 Trail Scout camera has a remote controller attachment with two functions.
Search: If you cannot locate the camera, you can press the SEARCH button,
When the Trail Scout receives the signal the unit's camera will fire the flash to help you locate it.
Snap: If you want to take a picture by remote control (without PIR activation), press the SNAP button.

5. USING A SINGLE REMOTE WITH MULTIPLE CAMERAS (Resetting A Camera's Remote Code)
Your Trail Scout camera is set at the factory to only recognize the code transmitted by the remote unit that it comes with. If you have multiple cameras, you can use one remote with all of them (instead of carrying around mulitple remotes, trying to mark them so you know which remote for which camera, etc.) The cameras that were not packed with the remote you wish to use will need to "learn" its code (have their code reset to match the code transmitted by the remote) by following this procedure for each "extra" camera:

1. Move toggle switch K1 to ON position, then move it to the SETUP position. The LCD will display "Set Date _____"
2. Press and hold the UP and DOWN button at the same time for 2 seconds, then let go. The LCD will display "LEARN"
3. Point the remote you want to use at the Trail Scout, press and hold down the SNAP button until the red light on the remote goes out, then release. Repeat this 3 more times.
4. Wait 15 seconds, press and hold down the SEARCH button until the red light on the remote goes out, then release.
5. Press and hold down the SNAP button until the red light goes out on the remote, then release. This will complete the remote setup, reprogramming the camera to respond to the remote's code.
6. Turn unit OFF, then back ON. Wait 1 minute and test the remote.
7. If the remote does not work, please repeat steps 1 thru 6.

6. DAY/NIGHT IR FILTER SWITCH ***(Models 119930/119901 Only)***

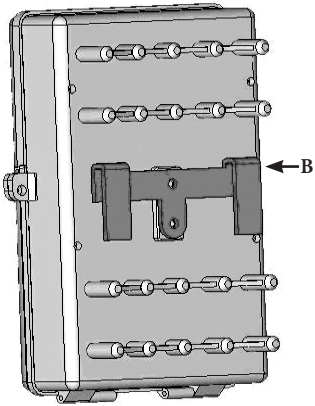
The Model 119930/119901 Trail Scout camera has a slide switch (above the Bushnell logo) to add or remove a filter within the camera's lens system, which blocks invisible infrared light energy when inserted. With the switch in the DAY position (sun icon), the filter is inserted so that infrared light cannot reach the CMOS photo sensor. This means photos taken by daylight or with the icandescent (standard) flash tube at night will have a normal, full color appearance. Do not use the DAY filter setting with the IR LED lamps selected as a light source at night, as it will block the infrared light emitted by the LEDs, resulting in very dark photos. When you plan to use the IR LED for night photos, be sure the filter switch is in the NIGHT (moon icon) position so that the IR blocking filter is removed. Note that if the filter switch is not returned to the DAY setting for normal daylight photos, the camera will still work, and you will be able to see and recognize animals or people that are photographed, however, the photos will not have the full range of normal colors because some infrared light is always present in sunlight, and will not be blocked with the switch set to "NIGHT". Refer to the following table for recommeded settings of the filter switch.

Light Source	**Light Mode Switch**	**IR Filter Switch**	**Exposure**	**Color**	**Recommended**
Sun	n/a	Day	normal	full color	Yes
Sun	n/a	Night	usually normal	limited color	OK to use
Standard Flash	Incand.	Day	normal	full color	Yes
Standard Flash	Incand.	Night	usually normal	limited color	OK to use
IR LED Lamps	LED	Day	dark	limited color	NO
IR LED Lamps	LED	Night	normal	limited color	Yes

1. MOUNTING:

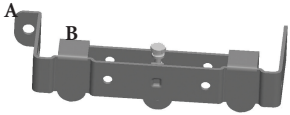
Mount the trail camera on the tree as shown below.

1. Screw bracket A to the tree.
2. Bolt bracket B on the back of the trail camera.
3. Match bracket B up to bracket A.
4. Then, hang bracket B over bracket A.
5. Finally, insert the padlock and lock when setup is completed.



For extra security, you can use the included cable to wrap aroun

1. Insert the end with the large lug into bracket A.
2. Then, feed the other end of the cable around the tree and back bracket.
3. Tighten the adjustable locking bolt to hold the cable tightly in

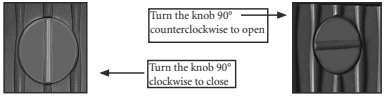


2. Power ON and Setup switch summary:

Turn the knob 90°counterclockwise and open the front cover.
Set the K1 to ON position,
Input correct Password. Default password is “0000”.

(Note: If the password is entered incorrectly 3 times, the unit will be powered off automatically. If you want to power ON again you must set K1 back to OFF and then set K1 to ON)

The LCD will display current IMAGE&EVENT counter.
You can press the Up or Down key to see the DATE, TIME, NAME.
If you want to modify DATE, TIME, NAME or password, set K1 to SETUP.
(See instructions)
After finishing SETUP, set K1 back to ON position
The unit will delay 2 minutes before functioning to allow you to clear out of your area.
The functions of K2, K3, and K4 can be set in the SETUP or ON Mode.
After finishing SETUP, close the front cover and turn the knob to 90°clockwise.
Finally, secure the Trail Scout with a padlock.



OPERATING NOTES

a. The LCD showing “RESUME” means the system is active.
b. The LCD showing “ENTER SUSPEND” means the system is going to suspend.
c. After setting K1 to ON, the system will begin working after a 2 minute delay. If there is no activity sensed in three minutes, the system will go to SUSPEND. When the PIR senses activity, the camera will be activated immediately.
d. Changing batteries within 20 seconds will avoid the need to reset the date and time.

TWO-YEAR LIMITED WARRANTY

Your Bushnell® product is warranted to be free of defects in materials and workmanship for two years after the date of purchase. In the event of a defect under this warranty, we will, at our option, repair or replace the product, provided that you return the product postage prepaid. This warranty does not cover damages caused by misuse, improper handling, installation, or maintenance provided by someone other than a Bushnell Authorized Service Department.

Any return made under this warranty must be accompanied by the items listed below:

1) A check/money order in the amount of $10.00 to cover the cost of postage and handling
2) Name and address for product return
3) An explanation of the defect
4) Proof of Date Purchased
5) Product should be well packed in a sturdy outside shipping carton, to prevent damage in transit, with return postage prepaid to the address listed below:

IN U.S.A. Send To:
Bushnell Outdoor Products
Attn.: Repairs
8500 Marshall Drive
Lenexa, Kansas 66214

IN CANADA Send To:
Bushnell Outdoor Products
Attn.: Repairs
25A East Pearce Street, Unit 1
Richmond Hill, Ontario L4B 2M9

For products purchased outside the United States or Canada please contact your local dealer for applicable warranty information. In Europe you may also contact Bushnell at:

BUSHNELL Performance Optics Gmbh
European Service Centre
MORSESTRASSE 4
D- 50769 KÖLN
GERMANY
Tél: +49 (0) 221 709 939 3
Fax: +49 (0) 221 709 939 8

This warranty gives you specific legal rights.
You may have other rights which vary from country to country.
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FCC Note:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not 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 radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

· Reorient or relocate the receiving antenna.
· Increase the separation between the equipment and receiver.
· Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
· Consult the dealer or an experienced radio/TV technician for help.

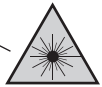
Shielded interface cable must be used with the equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

Specifications and designs are subject to change without any notice or obligation on the part of the manufacturer.

CE

LASER APERTURE

LASER ON IN SET UP MODE



LASER RADIATION
AVOID DIRECT EYE EXPOSURE
CLASS 3R LASER PRODUCT
MAX. OUTPUT 5mW, 650nm
BS EN 60825-1:2001

LASER POINTER ACTIVE IN SET UP MODE FOR AIMING OF TRAIL CAMERA.

WARNING!
AVOID HAZARDOUS LASER RADIATION!

Bushnell OUTDOOR TECHNOLOGY

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