BirdCam
User's Guide

For Models:
WSCA03 - Audubon BirdCam
WSCA02 - BirdCam 2.0 w/ Flash

WINGSCAPES™

Phone: 888.811.WING (9464)

Fax: 205.408.6157

Email: customerservice@wingscapes.com

Web: www.wingscapes.com/support

Address: Wingscapes
           150 Industrial Road
           Alabaster, AL 35007

Find Us Online

Photogallery: wingscapes.com/photogallery

YouTube: youtube.com/wingscapes

Blog: wingscapes.typepad.com/wingscapes

Facebook: facebook.com/Wingscapes

Twitter: @wingscapes (or tweet with hashtags #birdcam
                  or #plantcam)

WINGSCAPES®

Table of Contents

Welcome

Using technology to automatically detect wild birds is a science that requires some artfulness on the part of the user. Wingscapes has designed the BirdCam to be simple for beginning users, but also to be flexible enough to work in a variety of conditions.

The easiest way to get started is to...get started. Refer to the "Quick Start Guide" in the following pages and begin experimenting with a simple setup. (We think the best way to get started is to simply set the BirdCam on the ground — with bird seed scattered 2 to 4 feet in front of it.)

Weather, bird species, feeder type, feeder placement, and other factors all influence BirdCam performance. Custom settings allow you to optimize the BirdCam for a variety of conditions. Finding the correct combination of settings and BirdCam placement for a given situation may require some experimentation and practice. At any time, you can reset the BirdCam to its factory default settings in the SETUP menu.

Please take a moment to familiarize yourself with this guide and the basics of operating the BirdCam. If at any time you need assistance or have questions about the BirdCam's operation, please visit the support section of our website (www.wingscapes.com) or contact us via e-mail or phone.

Quick Start Guide

The following steps outline the quickest way to begin using your BirdCam. We recommend that you scan the remainder of this user's guide before using your new BirdCam.

1. Remove BirdCam from packaging.

2. Remove rear battery compartment door and insert four new D-cell batteries.

3. Mount the BirdCam so that it is aimed where a bird will land (preferably within 4 feet). (Refer to the chapter on Mounting the BirdCam for suggestions.)

4. Using the included tape measure, adjust the focus ring to match the distance between the BirdCam and the target.

5. Move the BirdCam's power switch to the ON position.

6. Close the door and secure the latches of the BirdCam.

What Happens Then?
The BirdCam will be in the MODE menu. After a 30-second countdown, the BirdCam enters AUTO mode using the factory default, EASY-PHOTO settings. After another 30-second countdown, the BirdCam will watch for and photograph birds until either the memory is depleted or the batteries are drained.

Getting to Know the BirdCam

The following sections will help you familiarize yourself with the Wingscapes BirdCam.
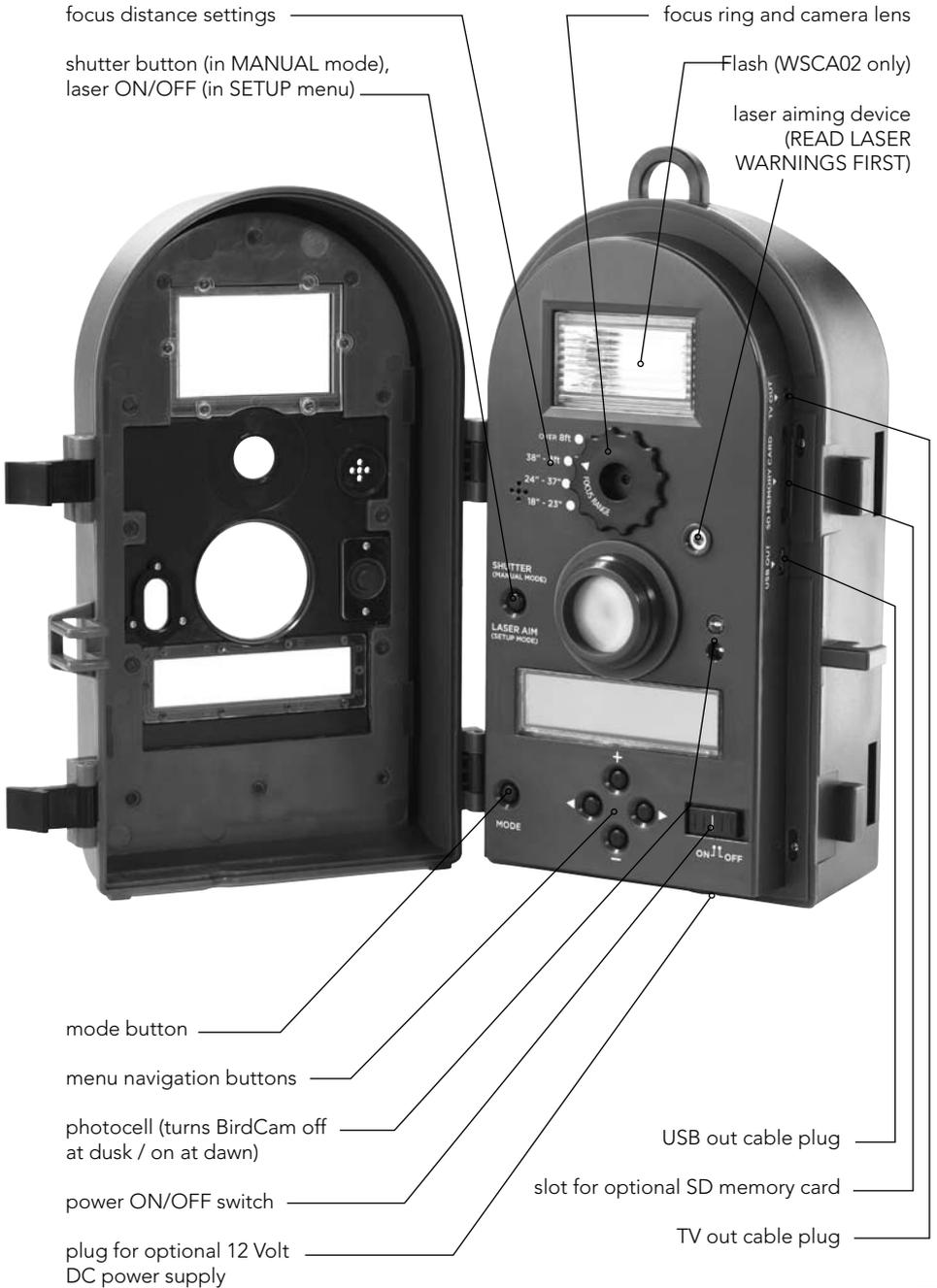
What's in the Box
- BirdCam
- Stretch cords for mounting (2)
- USB cable for downloading photos and videos to a computer
- TV Out cable for viewing photos and videos on a TV
- User's Guide
- Warranty Registration Card
- Tape measure for setting focus

Getting to Know the BirdCam

camera lens

loop for aiming

shutter button
(in MANUAL mode)

Flash (WSCA02 only)

cutaways for
attaching
stretch-cords

security hasp
for padlock
(not included)

latches

infrared sensor

display

photocell (turns BirdCam
off at dusk / on at dawn)

focus distance settings

focus ring and camera lens

shutter button (in MANUAL mode),
laser ON/OFF (in SETUP menu)

Flash (WSCA02 only)

laser aiming device
(READ LASER
WARNINGS FIRST)

OVER 8ft
38" -
24" - 37"
18" - 23"

FOCUS RANGE

SHUTTER
(MANUAL MODE)

LASER AIM
(SETUP MODE)

+
◄ ►
−

MODE

ON OFF

mode button

menu navigation buttons

photocell (turns BirdCam off
at dusk / on at dawn)

USB out cable plug

slot for optional SD memory card

power ON/OFF switch

TV out cable plug

plug for optional 12 Volt
DC power supply

Wingscapes BirdCam Specifications

Operational Modes	AUTO, MANUAL, or TIMELASPE (WSCA02 only)
Housing	Weather-resistant and lockable
LCD Status Display	Operating Mode, Photos/Video taken, Photos/Videos remaining, Battery strength, BirdCam status
Camera Resolution	5.0 Megapixel (WSCA03); 8.0 Megapixel (WSCA02)
Built-in Memory	32 MB
Memory Card	Up to 4 GB SD card (optional)
Format	JPEG (Photos), AVI (Videos)
Image Output	USB OUT, TV OUT, SD Card (optional)
Auto/Timelapse Delay	Variable: No Delay - Daily
Multiple Shots / Event	1-10
Lens	multi-element glass, fixed aperture f/2.8
Lens Field of View	52 degrees (roughly equivalent to a 46mm focal length in film camera)
Shutter Speed	1/8 - 1/400
Focus	18 inches - infinity
Infrared Sensor	Passive
Max. Detection Distance	8' for birds, 32' for humans
Detection Field of View	22 degrees
Weight	with batteries – 2 lbs. 8.4 oz without batteries – 1 lb. 4 oz
Power Supply	4 D-cell Batteries
Duty Cycle	4 weeks average
Laser Aim	Class II (READ WARNINGS)
Size	9" H x 3 5/8" D x 5 1/2" W
Optional Accessories	BirdCam Mounting Arm, Solar Panel, AC Power adaptor

Memory Capacity & Storage

Your BirdCam has two types of memory:

1. **Internal memory (32 MB)**
   When the BirdCam is used without an SD memory card, images are automatically stored in the BirdCam's internal memory. The images stored in internal memory are only accessible when the BirdCam is connected to a computer or TV.

2. **Optional SD Memory Card (sizes up to 4 GB)**
   When the BirdCam is used with an optional SD memory card, images are automatically stored on the SD memory card. The images stored on the SD card are accessible when the BirdCam is connected to a computer or TV, or by using an optional SD card reader.

IMPORTANT NOTES ABOUT SD MEMORY CARDS:

a. Always turn the unit off when inserting or removing an SD card to avoid damage and ensure that the BirdCam properly updates the memory information.

b. When an SD card is inserted in the BirdCam, any photos stored in the BirdCam's internal memory become inaccessible, but are not lost. When the SD card is removed, images in the internal memory become accessible again.

c. Number of pictures or videos stored is determined by the card capacity with a maximum of 9,999 files.

d. For error messages related to SD card problems, see trouble-shooting section.

Memory Capacity & Storage continued

Memory Capacity for Audubon BirdCam (Model WSCA03)		
Resolution	Internal Memory 32 MB	Optional SD Memory Card (capacity shown for 2 GB)
Photo – Low 640 x 480	242	9,999
Photo – Medium 1328 x 996	61	3,789
Photo – High 2048 x 1536	24	1,480
Video Clip (10 sec.) 640 x 480	7	430

Estimates. Actual capacity will vary based on image properties.

Memory Capacity for BirdCam 2.0 (Model WSCA02)		
Resolution	Internal Memory 32 MB	Optional SD Memory Card (capacity shown for 2 GB)
Photo – Low 640 x 480	100	6,750
Photo – Medium 1328 x 996	30	1,800
Photo – High 2048 x 1536	15	750
Video Clip (10 sec.) 640 x 480	7	430

Estimates. Actual capacity will vary based on image properties.

Battery

The BirdCam runs on four D-cell batteries. When inserting fresh D-cell batteries, ensure that polarity (+/-) is correct. Battery life is approximately 4 weeks, depending on outside temperature and BirdCam usage. If longer run times are required you can use an optional external 12Volt power source.

When the BirdCam is active, the amount of remaining battery capacity is displayed as a percentage. When display reads B20% (or lower), replace batteries.
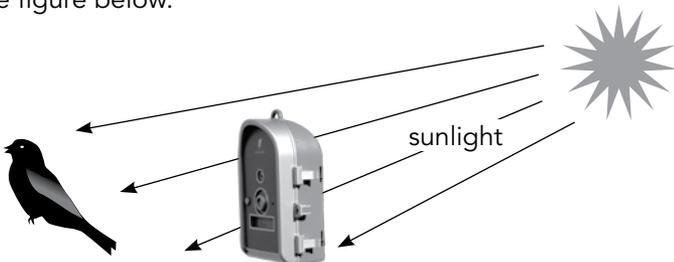

Remaining battery capacity

Photocell

The BirdCam is equipped with a light-sensitive, photo-cell which constantly measures available light. In very low light, the photo-cell forces the BirdCam into NIGHT mode. This conserves battery power when there is not enough light to take pictures. When the light level increases, the photo-cell will 'wake-up' the BirdCam, which will resume operations according to current settings. Exception: on the WSCA02 model, you can turn the FLASH setting to AUTO in the SETUP menu. Configured in this way, the BirdCam will not sleep in low light, but will use the flash.

Mounting the BirdCam

The BirdCam has been designed to offer a balance of mounting flexibility and ease of setup. There are several easy ways to mount the BirdCam. With some ingenuity, you should be able to aim the BirdCam almost anywhere a bird will land.

Important Mounting Considerations:
- The BirdCam needs sufficient daylight to function. It will not operate properly in a dark situation (e.g. – inside a nest box).
- When mounted, the BirdCam should not move (e.g. – do not 'hang' the BirdCam).
- Position the BirdCam so there is no obstruction – like branches or leaves – between the BirdCam and its target.
- Remember, unlike bird feeders, the BirdCam does NOT need to be mounted where you can see it. It watches birds when (and where) you cannot.
- Think about image composition. Frame your shot. Position the BirdCam so the background is appealing.
- Consider the sun's position. Images will look better if the BirdCam is positioned between the sun and the target. See figure below.

sunlight

About the Laser Aiming Device

The BirdCam's laser aiming device will help aim the BirdCam accurately. When turned ON, the laser projects a red dot where the center of the image will be.

IMPORTANT: Looking into the laser may be hazardous to the eyes. Do not stare into the beam or aim at other people. Read the warning label on BirdCam before operating the laser.

To operate the laser aiming device:

1. With the BirdCam door open, use the MODE button to display <ENTER SETUP> and press ▷ to enter the SETUP menu.
2. With the BirdCam pointed toward its target (and away from people), press the LASER AIM button. This will activate the laser aim while you adjust the positioning on the BirdCam.
3. To turn off the laser and re-enter SETUP mode, press the LASER AIM button again. If the laser is not turned off manually, it will time-out after 90 seconds.

Scenario #1 – Birds on the Ground

Perhaps the easiest way to set up the BirdCam is to simply position it securely on the ground and place some bird food in front of the BirdCam. This is an excellent way to get close-up photos and videos of many birds that do not regularly visit feeders.

Scenario #2 – Mount with Included Stretch Cords

The two included stretch cords can be used to attach the BirdCam to a tree or large post. To do this, simply hook the cords to the recessed cutaways on the back of the BirdCam. This is the best way to target a feeder hanging from a tree limb.

Scenario #3 – Mount with Standard Camera Tripod

The bottom of the BirdCam features a standard female tripod thread (size: $\frac{1}{4}$ – 20). This enables the BirdCam to work with the vast majority of standard camera tripods. Camera tripods offer great stability and adjustability, so they are a great option to use with the BirdCam. (Note: Most tripods are NOT weatherproof.)

Shooting through Glass Windows
A tripod is a great option for users who want to setup the BirdCam indoors, aimed out of a window. However, the BirdCam's infrared sensor *can not detect bird activity through a pane of glass*. If you plan to set up the BirdCam this way, use the TIMELAPSE mode to take photos or videos at a specified interval. This can result in more empty images, especially if feeder traffic is light.

Scenario #4 – Using the BirdCam Mounting Arm (optional accessory)

Wingscapes has designed an accessory bracket that makes it easy to mount a BirdCam on any round feeder pole with a diameter of ½" to 1½".

For more information about this accessory, contact your local Wingscapes dealer or visit www.wingscapes.com

MODE Menu

This Mode menu allows you to move between the BirdCam's three operating modes (AUTO, MANUAL, and TIMELAPSE*) and the SETUP menu.

Enter the MODE menu:
At any time, press MODE to enter the MODE menu.
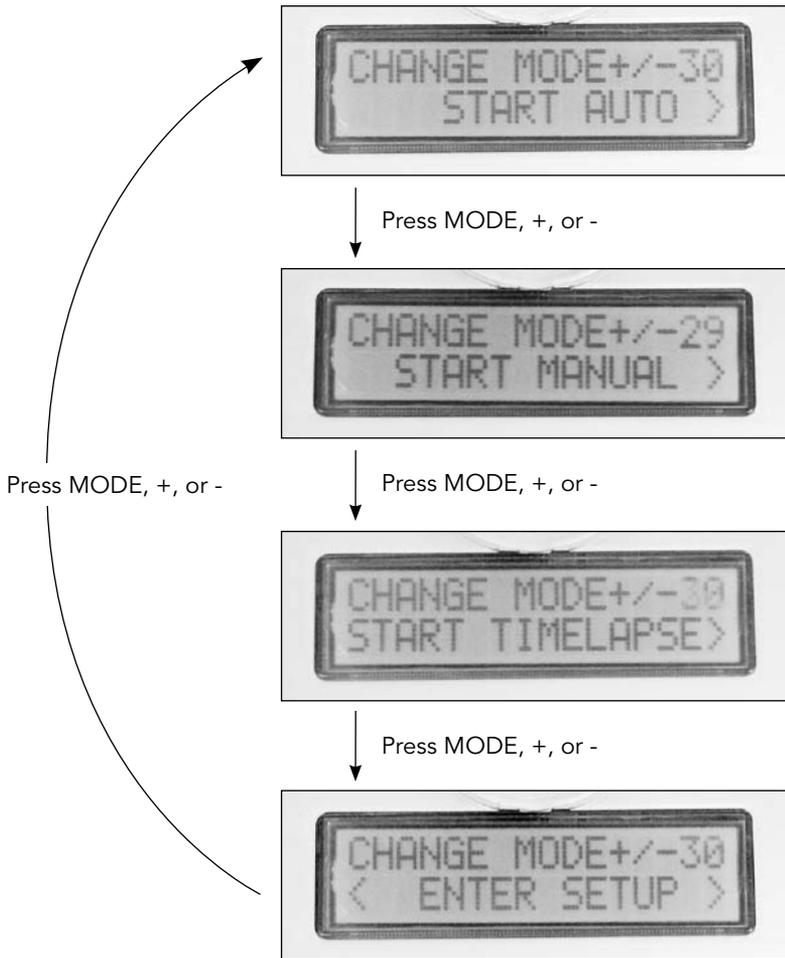
Navigate the MODE menu:
To navigate between the three operating modes (AUTO, MANUAL, and TIMELAPSE*) and the SETUP menu, press either the MODE, +, or - button.

Enter your selection:
From the Mode menu, you can press the ▷ button to activate a selection.

NOTE: In the MODE menu, if no button is pressed within 30 seconds, the BirdCam will enter whichever selection is displayed.

Mode Menu

CHANGE MODE+/-30
START AUTO >

Press MODE, +, or -

CHANGE MODE+/-29
START MANUAL >

Press MODE, +, or -

Press MODE, +, or -

CHANGE MODE+/-30
START TIMELAPSE>

Press MODE, +, or -

CHANGE MODE+/-30
< ENTER SETUP >

At any of the above screens, press > to enter your selection.

SETUP Menu

The SETUP offers a range of settings which allow you to customize how the BirdCam operates. You can control the number of images taken, infrared sensitivity, photo resolution, and other options that will optimize the BirdCam in different conditions.

REMEMBER: At any time, you can reset the BirdCam to its default, factory settings by scrolling to RESET TO EASY? in the SETUP menu and selecting EASY - PHOTO.

Using the SETUP Menu

Enter the SETUP menu:
From the MODE menu, press the +, -, or MODE button until the display reads: < ENTER SETUP >. Press either ◁ or ▷ to enter the SETUP menu.

SETUP Menu

Navigate through the settings:
To navigate between the different settings, use the ◁ and ▷ buttons.

Change values of a setting:
To change the values in a given setting, use the + and − buttons.

Save your selection:
Once you have selected a certain value in a setting, pressing either the ◁ or ▷ button will save that value.

Exit the SETUP menu:
Press the MODE button at any time to exit the SETUP menu and return to the MODE menu.

NOTE: If the BirdCam is left in this mode without activity for more than 4 minutes it automatically goes to AUTO mode (which is initiated by the 30 second countdown)

SETUP Menu – Settings and Values Explained

RESET TO EASY?
This setting allows you to reset ALL settings to the factory default. Three values are available in the RESET TO EASY? setting:

NO – Select to leave the SETUP menu settings alone.

EASY PHOTO – Select this value to reset all SETUP menu settings to the default values (as they were when the BirdCam left the factory). These settings will be suitable for the average user. For a chart showing the EASY PHOTO default values, see the table below.

EASY VIDEO – Select this value to reset all SETUP menu settings to the default values, but sets the BirdCam to take video instead of photos. These settings will be suitable for the average user, when videos are preferred. For a chart showing the EASY VIDEO values, see the table below.

EASY PHOTO and EASY VIDEO Settings

Setting	NO	EASY PHOTO	EASY VIDEO
RESET TO EASY?	No	EASY PHOTO	EASY VIDEO
PHOTO OR VIDEO?	saves current setting	Photo	Video
PHOTO QUALITY [1]	saves current setting	Medium	(see note 1)
DELAY	saves current setting	5 min	5 min
#PHOTOS/EVENT [2]	saves current setting	3	-
#VIDEOS/EVENT [2]	saves current setting	-	3
SENSITIVITY	saves current setting	Medium	Medium
IMPRINT INFO?	saves current setting	Yes - Keep	Yes - Keep
ERASE IMAGES?	No	No	No
TEST CAMERA?	No	No	No

1 - PHOTO QUALITY setting does not appear when PHOTO OR VIDEO? is set to VIDEO

2 - #PHOTOS/EVENT becomes #VIDEOS/EVENT when PHOTO OR VIDEO? is set to VIDEO

SETUP Menu

PHOTO OR VIDEO?

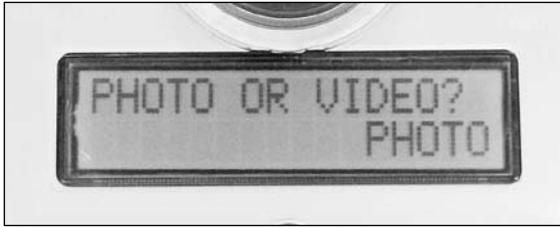Use this setting to control whether the BirdCam takes photos or 10-second videos.

> *PHOTO –* Choose this value to take photos.
> *VIDEO –* Choose this value to take videos.

PHOTO QUALITY

NOTE: This setting does NOT appear when VIDEO is selected in the PHOTO OR VIDEO? setting.

Use this setting to control the resolution of the digital photos taken by the BirdCam.

LOW – Use this value to take low-resolution images. These images consume the least amount of memory, enabling users to take the maximum number of images. They are suitable for viewing on a computer or TV screen, e-mailing, or printing small photos.

MED – This value is the factory default and should be used to take medium-resolution images. These images consume less memory than HIGH resolution photos. They offer more than enough detail for viewing on computer and TV screens and are sufficient for photo prints up to 8"x10".

HIGH – Use this value to take high-resolution images. These images consume more memory, but they offer enough detail for photo prints larger than 8"x10." Some will prefer to reduce these images on a computer before emailing. We recommend using a lager capacity SD card when taking video or high resolution pictures.

Memory Capacity for Audubon BirdCam (Model WSCA03)		
Resolution	Internal Memory 32 MB	Optional SD Memory Card (capacity shown for 2 GB)
Photo – Low 640 x 480	242	9,999
Photo – Medium 1328 x 996	61	3,789
Photo – High 2048 x 1536	24	1,480
Video Clip (10 sec.) 640 x 480	7	430

Estimates. Actual capacity will vary based on image properties.

Memory Capacity for BirdCam 2.0 (Model WSCA02)		
Resolution	Internal Memory 32 MB	Optional SD Memory Card (capacity shown for 2 GB)
Photo – Low 640 x 480	100	6,750
Photo – Medium 1328 x 996	30	1,800
Photo – High 2048 x 1536	15	750
Video Clip (10 sec.) 640 x 480	7	430

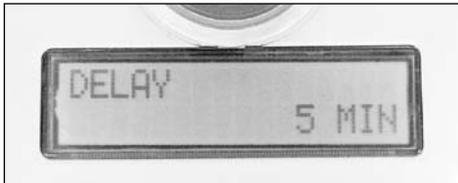*Estimates. Actual capacity will vary based on image properties.*

SETUP Menu

DELAY

The BirdCam uses this setting to avoid taking too many images of one bird, depleting battery power quickly, and/or consuming memory capacity quickly.

In AUTO mode, use this setting to control how often the BirdCam looks for activity. When the BirdCam 'wakes' from a delay in AUTO mode, it will look for animal movement until either movement is detected or the photocell forces it into NIGHT mode.

In TIMELAPSE mode (WSCA02 only), use this setting to adjust the time interval between photos (or videos). When the BirdCam 'wakes' from a delay in TIMELAPSE mode, it will immediately take photos (or videos) and then re-enter a delay.

Notes about DELAY:
- NO DELAY option – This specialized option is intended for advanced users. It will drain batteries faster and possibly result in an increased number of empty images without birds.
- Long delays settings – Long delays (4HR, 6HR, DAILY) may not produce good results when used to photograph birds. These values are most appropriate for TIMELAPSE* photography of weather, plants, or other subjects that change over time. The DAILY value activates the BirdCam 1.5 hours after dawn each morning.
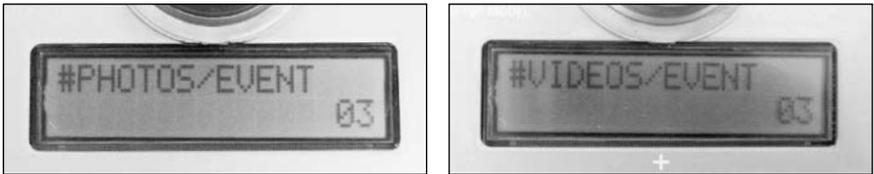
DELAY values:	
NO DELAY	30 MIN
30 SEC	45 MIN
1 MIN	1 HR
2 MIN	4 HR
5 MIN*	6 HR
10 MIN	DAILY
20 MIN	

*5 MIN is the default setting

#PHOTOS/EVENT and #VIDEOS/EVENT

This setting allows you to specify how many photos the BirdCam will take between each delay period (choose between 1 - 10). When the PHOTO OR VIDEO? setting is set to VIDEO, this setting becomes #VIDEOS/EVENT.

Recommendation: If you are getting two many images (or too many empty images), select and lower value for #PHOTOS/EVENT. If you want more images, select a higher value.

More about #PHOTOS/EVENT and #VIDEOS/EVENT:

In AUTO mode, this setting specifies the maximum number of photos (or videos) the BirdCam can take between delay periods. Provided that it detects continuous motion, the BirdCam will take the maximum number of photos and then re-enter a delay period. However, if the BirdCam detects motion and takes at least one photo, but then fails to detect motion for 60 seconds, it will re-enter a delay without taking the maximum number of photos.

In TIMELAPSE mode (model WSCA02 only), when a delay period ends, the BirdCam immediately takes the specified number of photos (or videos) and then re-enters another delay period.

SENSITIVITY

The SENSITIVITY setting controls the infrared sensor. Factors such as weather, bird species, distance to target, and feeder type affect how effective the BirdCam is at detecting bird movement while ignoring feeder movement. The SENSITIVITY setting enables you to compensate for these varying factors.

LOW – This value should be used when you are getting too many images using the MEDIUM value. This may happen when the BirdCam is mounted very close to its target or if many birds are flying behind the feeder without landing.

MEDIUM – This option is the default factory value and should be used in most cases. When you are trying a new mounting location, test results using this MEDIUM value and then adjust to HIGH or LOW accordingly.

HIGH – Use this setting if you think the BirdCam is not triggering often enough with the MEDIUM value selected. This value can be useful when the distance between BirdCam and target is farther than 5 feet or when you are trying to capture smaller birds.

IMPRINT INFO?
This setting allows you to imprint the time and date that a photo was taken, along with a camera name in a databar at the bottom of your photos. The databar does reduce the vertical dimensions of your photo image area slightly. There are three options for this setting.

YES-KEEP – This option is the default factory value and simplifies the SETUP menu. The imprint information that is currently programmed into the BirdCam will appear in a databar at the bottom of your photos. This selection allows you to bypass the time, date, and BirdCam name programming screens.

YES-CHANGE – Select this option and press ▷ to enter the time, date, and BirdCam name programming screens.

To change DATE, TIME, and CAMERA NAME:
1. Press + or - to display YES-CHANGE
2. Press ▷ to enter SETUP DATE/TIME
3. Press + and – to change values for day, month, year, hour, minute, and AM/PM
4. Press ◁ and ▷ to move between day, month, year, hour, minute, and AM/PM
5. From SETUP DATE/TIME screen, press ▷ to enter the CAMERA NAME screen.
6. Press + and – to change characters in a given position in the camera name.
7. Press ◁ and ▷ to move between character positions in the camera name.

NO – This option will not print a databar with time, date, and camera name on the bottom of your photos. This selection allows you to bypass the time, date, and BirdCam name programming screens.

ERASE IMAGES?

This setting allows users to permanently erase all photos and videos stored in the BirdCam's memory.

NO – This option is the default factory value. Selecting this value will have no affect on the BirdCam.

YES – To permanently erase all photos and videos stored in the BirdCam's memory, select YES and press ▷. When DONE is displayed, the memory has been erased.

> *SD Card installed* – This option will only erase the SD card. It will not affect images stored in the BirdCam's internal memory.

> *SD Card NOT installed* – This option will erase the BirdCam's internal memory.

TEST CAMERA?

This option allows you to run a diagnostic test on the BirdCam. It is used to check the BirdCam's functionality and verify that it is working properly. During this test, important subsystems are tested. This setting has two options:

NO – This option is the default factory value. Selecting this value will have no effect on the BirdCam.

YES – Select this option and press ▷ to run a diagnostic test. When you see the message WAVE HAND NOW wave your hand horizontally about 12 inches from the BirdCam's infrared sensor. When you see the message TEST IN PROGRESS, stop waving and wait for results. For an explanation of test results, see the Troubleshooting section.

About the Laser Aiming Device

The BirdCam's laser aiming device will help aim the BirdCam accurately. When turned ON, the laser projects a red dot where the center of the image will be.

IMPORTANT: Looking into the laser may be hazardous to the eyes. Do not stare into beam or aim at other people. Read the warning label on BirdCam before operating laser.

To operate the laser aiming device
1. With the BirdCam door open, use the MODE button to display < ENTER SETUP > and press ▷ to enter the SETUP menu. (RESET TO EASY? will display).
2. With the BirdCam pointed toward its target (and away from people), press the LASER AIM button. This will activate the laser aim while you adjust the positioning on the BirdCam.
3. To turn off the laser and re-enter SETUP mode, press the LASER AIM button again. If the laser is not turned off manually, it will time-out after 90 seconds.

AUTO Mode

In AUTO mode, the BirdCam uses an infrared sensor to detect bird movement, and then automatically takes either a photo or a video clip (depending on settings chosen in the SETUP menu).

NOTE: A combination of **heat and motion** are required to trigger this infrared sensor. The BirdCam's infrared sensor can not detect bird activity through a pane of glass.

Enter AUTO mode:
From the MODE menu, press the +, -, or MODE button until the display reads: START AUTO >. Press ▷ to enter AUTO mode. The BirdCam will countdown for 30 seconds before watching for birds. (This gives you time to shut the door and walk away.)

Exit AUTO mode:
Press the MODE button at any time to exit AUTO mode and return to the MODE menu.

To see which SETUP menu settings take affect in AUTO mode, see the chart on page 39.

MANUAL Mode

In MANUAL mode, the BirdCam operates like a regular digital camera. When the SHUTTER button is pressed, the BirdCam takes either a photo or a video clip (depending on settings chosen in the SETUP menu).

NOTE: The motion-sensor is NOT active in the MANUAL mode.

Enter MANUAL mode:
From the MODE menu, press the +, -, or MODE button until the display reads: START MANUAL >. Press ▷ to enter MANUAL mode.

Exit MANUAL mode:
Press the MODE button at any time to exit MANUAL mode and return to the MODE menu.

To see which SETUP menu settings take affect in MANUAL mode, see the chart on page 39.

TIMELAPSE Mode
*Model WSCA02 only

In TIMELAPSE mode, the BirdCam takes photos or videos at a specific time interval that you set.

NOTE: The motion-sensor is NOT active in the TIMELAPSE mode.

Enter TIMELAPSE mode:
From the MODE menu, press the +, -, or MODE button until the display reads: START TIMELAPSE >. Press ▷ to enter TIMELAPSE mode. The BirdCam will countdown for 30 seconds before entering TIMELAPSE mode. (This gives you time to shut the door and walk away.)

Exit TIMELAPSE mode:
Press the MODE button at any time to exit TIMELAPSE mode and return to the MODE menu.

To see which SETUP menu settings take affect in TIMELAPSE mode, see the chart on page 39.

Which Settings are Active in which Mode?

Setting	AUTO	MANUAL	TIMELAPSE*
RESET TO EASY?	yes	yes	yes
PHOTO OR VIDEO?	yes	yes	yes
PHOTO QUALITY [1]	yes	yes	yes
DELAY	yes	-	yes
#PHOTOS/EVENT [2]	yes	-	yes
SENSITIVITY	yes	-	-
IMPRINT INFO?	yes	yes	yes
ERASE IMAGES?	-	-	-
TEST CAMERA?	-	-	-

1 - PHOTO QUALITY setting does not appear when PHOTO OR VIDEO? is set to VIDEO

2 - #PHOTOS/EVENT becomes #VIDEOS/EVENT when PHOTO OR VIDEO? is set to VIDEO

Accessing Photos and Videos

View Images on a TV

When connected to a TV, the BirdCam controls can be used to scroll through photos and videos. This method will work using the BirdCam's internal memory or with an optional SD card inserted.

1. Connect the supplied A/V cable to the TV OUT jack on the BirdCam.
2. Connect the opposite end of the supplied A/V cable to a VIDEO IN jack on your TV.
3. Turn the BirdCam ON and enter the SETUP MENU
4. Use the + and - buttons to scroll through photos and videos.

View Images on a Computer — Using Supplied USB Cable

When connected via USB cable, the vast majority of computers will recognize the BirdCam as a new drive. This method will work using the BirdCam's internal memory or with an optional SD card inserted.

1. Turn the BirdCam ON.
2. Connect the smaller end of the supplied USB cable to the USB OUT jack on the BirdCam.
3. Connect the larger end of the supplied USB cable to a USB jack on the computer.
4. On the BirdCam, enter the SETUP menu.
5. Your computer should recognize your BirdCam as a new drive.
   a. WINDOWS (Windows 2000/ME/XP/Vista required): BirdCam memory should appear as a new drive labeled "Removable Disk" under My Computer
   b. MAC: BirdCam memory should appear as new drive in Finder.

Viewing Images on a Computer — Using Optional SD Memory Card and Reader

Using an optional SD memory card not only allows you to expand your BirdCam's memory, but it allows you to leave your BirdCam mounted outdoors while accessing images from the SD memory card.

IMPORTANT: Always turn BirdCam OFF when inserting or removing a memory card. (See other notes regarding SD memory cards under "Memory Capacity & Storage" in section "Getting to Know the BirdCam"

1. Turn BirdCam OFF.
2. Eject SD memory card from BirdCam.
3. Use a memory card reader on your computer to access images. Refer to your card reader's documentation for specific instructions.

Troubleshooting

Contact Us
If you are unable to find answers to your questions in this section, please contact Wingscapes Customer Support:

WINGSCAPES   Phone: 888.811.WING (9464)
150 Industrial Road   Fax: 205.408.6157
Alabaster, AL 35007   customerservice@wingscapes.com
                              www.wingscapes.com/support

Solutions to Common Problems

1. BirdCam **takes too few photos** (or videos) in AUTO mode.
    Suggestions:
    - Check to make sure that the BirdCam is aimed properly and nothing is between your target and the infrared sensor.
    - DECREASE the DELAY setting.
    - INCREASE the #PHOTOS/EVENT setting.
    - INCREASE the SENSITIVITY setting.
    - DECREASE distance between BirdCam and your target.

2. BirdCam **takes too many photos** (or videos) in AUTO mode.
    Suggestions:
    - DECREASE the #PHOTOS/EVENT setting.
    - INCREASE the DELAY setting.
    - DECREASE the SENSITIVITY setting.

3. BirdCam takes an unusually **high number of empty images** (without birds) in AUTO mode.

Suggestions:

Some empty images are inevitable. Empty images most commonly result from birds flying past the BirdCam without landing or, in rare cases, movement of the feeder itself. If the ratio of empty images to images with birds is unusually high, try the following...

- DECREASE the SENSITIVITY setting.
- DECREASE the #PHOTOS/EVENT setting.
- Position the BirdCam to minimize open area behind the target (eg - aim at feeder against a wall or seed on the ground). This should reduce the number of 'fly-by' triggers.

4. Photos or Videos are **too dark or too light.**

Suggestion:

As with any automatic camera, the BirdCam's image quality depends on many variables, such as the source and intensity of light. During dawn and dusk, it is normal for the BirdCam to take some dark images.

Ideal light conditions are shade or indirect sunlight.

If your images are poorly exposed in all conditions, please contact customer support.

Troubleshooting

Diagnostic Test

Running a diagnostic test is an option in the SETUP menu. It is used to check the BirdCam functionality and verify that it is working properly. During this test, important subsystems are tested.

Run the Diagnostic Test
1. In SETUP menu, press the ◁ or ▷ button until TEST CAMERA? appears.
2. Press the + or – button until YES appears.
3. Press ◁ or ▷ button to activate your selection.
4. When you see the message WAVE HAND NOW wave your hand about 12 inches from the BirdCam's infrared sensor. When you see the message TEST IN PROGRESS stop waving.

Diagnostic Test Messages
After the diagnostic test is complete, a message indicating the status of the BirdCam will display.

If no problems are detected, ALL SYSTEMS OK will display for 5 seconds.

If a problem is detected, a 6-digit error code will display for 10 seconds, indicating the status of the BirdCam system.

Error Code: | X | X | X | X | X |

Battery Test

| 0 | = Battery Passed |
| 1 | = Battery O.V. **or** Battery Low |

IR Sensor Test

| 0 | = IR Sensor Passed |
| 3 | = IR Sensor Failed |

Cam Mod Test

| 0 | = Cam Mod Passed |
| 4 | = Cam Mod Failed |

Clock Test

| 0 | = Clock Passed |
| 9 | = Clock Failed |

Memory Test

0	= Memory OK **or** No SD Card MemOK
5	= Memory Full
6	= SD Card Locked
7	= SD Card Damaged
8	= Comms Error

BirdCam Accessories

For more information about BirdCam Accessories or to find a dealer near you, please contact Wingscapes:

WINGSCAPES
150 Industrial Road
Alabaster, AL 35007

Phone: 888.811.WING (9464)
Fax: 205.408.6157
customerservice@wingscapes.com
www.wingscapes.com/support

BirdCam Mounting Arm
Product # WSBR01
This accessory bracket makes it easy to mount the BirdCam to most standard bird feeder poles.

Warranty

This product has been thoroughly tested and inspected before shipment. It is guaranteed from defects in material and workmanship from the date of purchase for 1 year. Under this limited guarantee, we agree to replace or repair free of charge any part or parts, which have been found to be defective in original material or workmanship. Should you require in-warranty service, call our Customer Support Department. If your problem cannot be addressed over the telephone, we may need you to send us your defective product plus proof of purchase.

Wingscapes Customer Support -

WINGSCAPES
150 Industrial Road
Alabaster, AL 35007

Phone: 888.811.WING (9464)
Fax: 205.408.6157
customerservice@wingscapes.com
www.wingscapes.com/support

Additional Information

The following information relates to the BirdCam's laser aiming device.

Class II Laser Product
Wavelength: 650 nm
Maximum Output: < 1 mW

This product complies with the applicable requirements of 21 CFR 1040.10 and 1040.11

Caution: Looking into the laser beam may be hazardous to the eyes. Do not stare into the beam or direct it toward other people.

Caution: Use of controls or adjustments or performance of procedures other than those specified herein, may result in hazardous radiation exposure.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Additional Information

This product label can be found inside the battery compartment.

<table>
<tr><td>

Customer Service

WINGSCAPES
150 Industrial Road
Alabaster, AL 35007
WWW.WINGSCAPES.COM
1-888-811-WING (9464)

Model Number: WSCA01

Serial Number:

CK70300001

Manufactured by:
Wingscapes, a division of
Plastics Research and
Development Corporation.

This product is covered
by one or more of the
following US patents:
6735387,6768868,
6834162 and other
pending patents.

This product complies
with applicable
requirements of 21 CFR
1040.10 and 1040.11.

No user serviceable
parts inside.

This device complies with
part 15 of the FCC rules.
Operation is subject to
the following two
conditions:
(1) This device may not
cause harmful interference,
and (2) this device must
accept any interference
received, including
interference that may
cause undesired operation.

</td></tr>
</table>

This yellow, laser-warning label can be found inside the door, on the face of the BirdCam.

WINGSCAPES™