Ambush®

Cuddeback Digital

Faster trigger speed!

Operating Manual

Ambush® - Ambush® IR - Ambush® Black Flash®

FREE

Extended Warranty
with online registration!

Extend the warranty on your Ambush series camera to 18 months by registering your purchase at *www.cuddeback.com*.

Click "*Support*" then "*Product Registration*". Activation required within 2 weeks of registration.

About batteries

A. Cuddeback recommends Rayovac®, Duracell®, and Energizer® alkaline batteries only. Lesser batteries may not perform as required, especially in cold temperatures.

   I. Change all batteries at the same time. Never mix old and new batteries.

   II. Do not mix standard, alkaline, or rechargeable batteries.

   III. Remove all batteries when the camera will not be used for an extended period of time.

Please get the latest camera firmware

Before using this camera we recommend you visit *www.cuddeback.com* to get the latest firmware. Latest firmware can improve camera performance.

Trophy Room® manages your images, and now your Cuddeback® camera, too!

1) **NEW** – includes camera troubleshooting and support tools.

2) **NEW** - hunting and scouting tips; articles from our pro staff.

3) **Plus:** 1-click image copy from SD card to your PC. Fast Guard Duty image viewing. Image organization, enhancement, and classification. Complete moon & sun data for each image.

Make viewing and managing your Cuddeback® images easy with Trophy Room® – Cuddeback's free PC program

Trophy Room data screen example

Sun Rise:	07:25:00 AM		
Sun Set:	04:34:00 PM		
Moon Phase:	Waning Gibbous		
Moon Rise:	No moonrise		
Moon Set:	12:23:00 PM		
			21
Moon Up Time:	13:20	Moon Down Time:	10:40
Sun Up Time:	09:08	Sun Down Time:	14:52

Free download at www.cuddeback.com

See page 20 for more details

Ambush® IR model shown

CuddeSafe® Protects your Cuddeback® Ambush® camera from bears, thieves and the elements!

- *Fits Cuddeback Ambush® scouting cameras*
- *Heavy-duty, bear-proof metal design*
- *Easy to install (lag-bolts to tree); accepts a padlock*
- *Makes for easier card checking/battery replacement*

Care and treatment

A. **Don't abuse your camera**. Treat it like the sophisticated piece of electronics that it is.

   I. Treat it gently – do not abuse or drop

   II. Keep SD card dry and never insert wet SD cards into the camera

   III. Avoid letting water enter the camera

   IV. Remove batteries at the end of the season

Ambush® camera Operating Instructions

What You Need

1) One or more Secure Digital (SD) cards. (See Appendix A for recommendations).

2) Eight-AA batteries (we recommend Rayovac® or Duracell® brand batteries).

3) When Ambush® is working it displays an electronic "worm" on the LCD. This worm scrolls around the LCD to indicate that you must not remove the SD card, must not turn the rotary knob, or must not press any button. Please be patient and wait for the worm to go away before removing the SD card.
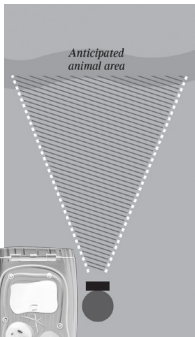
"worm"

Zone Control

Cuddeback's patent pending Zone Control allows you to select wide angle view or Centered Subject view. Position the shutter as appropriate for your needs. Be aware that wide view mode can generate more blank images as deer move at the edges of the view.
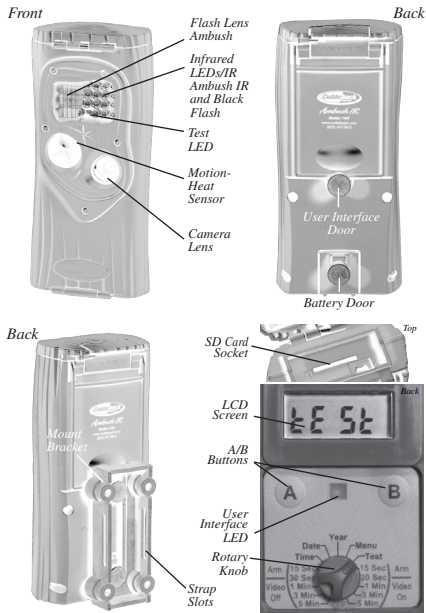
Zone Control
Wide Angle Setting

Anticipated animal area

Zone Control
Center Subject Setting

Anticipated animal area
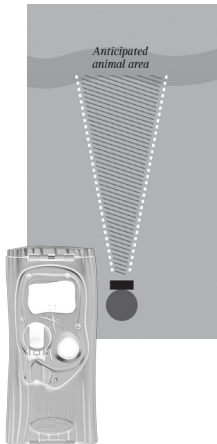
Step 1 – Familiarize yourself with the Ambush®

Take a moment to familiarize yourself with Ambush® camera's parts.

Front

- Flash Lens Ambush
- Infrared LEDs/IR Ambush IR and Black Flash
- Test LED
- Motion-Heat Sensor
- Camera Lens

Back

- User Interface Door
- Battery Door

Back

- Mount Bracket
- Strap Slots

- SD Card Socket
- *Top*
- LCD Screen
- *Back*
- A/B Buttons
- User Interface LED
- Rotary Knob

Date, Time, Year, Menu, Test, Arm, Video, Off, Arm, Video, On
15 Sec, 30 Sec, 1 Min, 3 Min, 5 Min

4

5

Step 2 – Installing Batteries and SD Card

1) Turn the rotary knob to the *OFF* position.

2) Loosen the battery thumb screw and open the battery compartment door. Install 8-AA alkaline or 8-AA lithium batteries. Lithium batteries will provide longer battery life and better night IR images. Make sure to observe correct polarity. Close the door and tighten the thumb screw completely.

3) A series of numbers displayed. These are the Ambush® camera's hardware and software version numbers.

4) Wait until the LCD display goes blank and the green and red LEDs are off.

5) Install your SD card. Be sure to observe the correct polarity with clipped corner on the card to the right.

Battery Install   *SD Card Install*

Bottom View

Step 3 – Setting up the Ambush®

1) Turn the rotary knob to *Time* position, press A and B to set. Time is AM/PM format.

2) Turn the rotary knob to *Date* position, press A and B to set.

3) Turn the rotary knob to *Year* position, press A and B to set.

4) Later you will read **Step 8 – More Features** for information on the MENU positions.

Step 4 – Attaching Ambush® to a Tree

1) We recommend you first try your Ambush® camera at home.

2) For optimum detection of deer-sized animals we recommend mounting Ambush® about 30 to 36 inches off the ground (this is about waist high to slightly higher).

3) For best image quality, install Ambush® about 10 to 15 feet from where animals are expected. Ambush® will detect animals at distances from directly in front of the camera to about 25 feet. Note that detection distance varies greatly with air temperature, animal size, and the speed the animal is moving.

4) Ambush® features our Genius Mounting System. This system allows you to attach the bracket to a tree and then slide Ambush® on and off the bracket as needed.

5) Once the tree bracket is attached to the tree, make sure both thumb screws on the back of Ambush® are tightened completely. Then slide Ambush® onto the bracket.

6) It is best to remove any vegetation and obstructions from Ambush's field-of-view that may interfere with the Ambush® sensor or camera.

7) Aim/align Ambush® to make sure it is pointed where you expect the animals to be. Aim Ambush® level with the ground to maximize detection range and performance. You can use the Ambush® test feature (explained next) to help you determine the detection area.

8) Cuddeback® has optional mounting methods available, such as tilt-brackets, bear-resistant boxes, and mounting posts. See your retailer or visit www.cuddeback.com for details.

Step 5 – Checking the Ambush® Detection Zone

1) Turn the rotary knob to the *Test* position. Close the cover and tighten the thumb screw. Put Ambush® back onto the tree bracket. (Note: there is a more convenient method to enable test mode, see **Step 7 - Checking your Ambush® for details)**.

2) Walk back and forth in front of Ambush®. The red LED will illuminate when Ambush's sensor has detected you. Using this method you can accurately position your Ambush® series as desired.

Step 6 – Arming the Ambush®

You can program the Ambush® to record still images, or still images AND videos. Turn the rotary knob to either the *Video Off* setting or the *Video On* setting as desired. The settings represent the amount of time Ambush® will wait before it is armed and ready to take another image. This delay time prevents multiple images of the same animal. Here is our recommendation for the various *Armed* settings:

a. Under 30 seconds – game trails

b. 1 and 3 minutes – scrapes, food plots or feeders

When first armed, Ambush® will display the indicated delay for 5 seconds and then begin counting down from 30 to 0. When the counter reaches 0, Ambush® will arm and be ready to record images. When Ambush® detects a subject, and takes a picture, a *"worm"* will be displayed and the LED will flash red and green – do not remove

the SD card until the LED is OFF. After the image is saved to the SD card, the LCD will display the delay setting and begin counting down. Once the counter reaches 0, Ambush® is ready to record the next image.

Step 7 – Checking Ambush®

When you check Ambush® it is *not* necessary to turn the rotary knob. Instead, press the A or B button to temporarily suspend *Armed* mode and view pertinent information, such as the number of images on the SD card and battery level. Each time you press the A or B button new information will be displayed. Here is the sequence of information that is displayed each time the A or B button is pressed.

1) Images on SD card. Note the ARMED, DWELL, and IMAGES icons are displayed.

2) Free Space on SD card in MB. Note that ARMED and DWELL icons are displayed.

3) Battery Level as a percentage. For example, **bt:99** means there is 99% battery power left.

4) Time

5) Date

6) Year

7) *Test* indicates Ambush® is in Test mode and will illuminate the red Test LED when activity is sensed.

8) Pressing A or B again will Arm the camera and the current delay setting will be displayed.

You can leave Ambush® in any of the states 1 thru 7 and Ambush® will automatically re-arm in about five minutes. This allows you to close the cover and leave the area without triggering an image.

Step 8 – More Features

Menu Position
Turn the rotary knob to the MENU position to perform various activities. Press A to advance to the next menu item, press B to activate the displayed menu action.

1) **Battery Level** – the battery level is displayed in the format **bt:99**, which is a percentage of remaining battery power. Press the A button to advance to the next menu item.

2) **CLr** (Clear SD card) – This menu allows you to clear all images and content on the SD card. Press and hold B to clear the card. The *worm* will appear and the LEDs will flash RED. When finished, the LCD will display the amount of space on the SD card in MBs. Press A to advance to the next menu item.

3) **Pic** – Lets you take a test picture. Press B to take a picture. Press A to advance to the next menu item.

4) **Ambush®: FLSH** - This menu allows you to test Ambush's flash. Press B to charge the flash circuit. The LCD will begin counting down from 30. After the 30 second count down the LED will flash green to indicate that the flash is charged. Press B again to fire the flash (CAUTION - light output from the flash is very bright!).

Ambush® IR/Black Flash: LEd (Ambush® IR/Black Flash LEDs) – This menu allows you to test Ambush's IR LEDs and measure the battery strength. Press B to test Ambush's infrared LEDs. The LEDs will be driven from 33% maximum power to 99% maximum power. The test will stop when the batteries do not have sufficient power to drive the LEDs or at 99%. If the batteries are depleted, FAIL will be displayed. If the reading is below 99% you may want to change the batteries to maximize the illumination range.

5) **StAt** (Statistical Data) – Press B to display Activation Date, Armed Days, and Image Counter. Activation Date is the first day you used the camera. Armed Days is how many days the camera has been used. Image Counter is the total number of images taken with the camera.

6) **LOAd** – Lets you to install new firmware. We may update the Ambush® firmware to improve its performance. If a firmware update is required you will need to download a firmware file from our website. Instructions will be provided with the firmware. Please see www.cuddeback.com for details. We recommend you check our website for updates at the beginning of your scouting season.

7) **Firmware Version** – 4 numbers will be displayed, such as 0200. This is the firmware version. Turn the rotary knob to a new setting or press A to return to the battery level display.

Setting Ambush® Parameters

Some Ambush® features can be changed by the user. Ambush® can also be programmed to become a time lapse camera. *(Note - In the text that follows the underlined items are default settings. For most users these settings are not required and you can leave PO set to 0).*

Step 0: Enable or disable parameters OR select Time Lapse Operation

First you must enable parameters. This is done by:

1. Rotate knob to MENU
2. Press A until P0:0 is displayed. P0 indicates *Parameter Zero,* which is the parameter on/off control.
3. When P0:0 is displayed, press the B key to select from these 3 options:

    P0:0 = parameters are OFF and set to defaults (recommended for most users)

    P0:1 = parameters are ON and can be changed as desired

    P0:tL = time lapse mode. Attack is put into time lapse mode as explained later.

Step 1: Press the A key to display P1 (strobe flash power)
P1 controls the Ambush® flash power. *(This setting is ignored on the Ambush® IR/Black Flash and will be displayed as P1:--)*

The available settings are selected by pressing the B key:

P1:1 = 10 foot flash range (best setting for indoor use)

P1:2 = 20 foot flash range

P1:3 = 30 foot flash range (best setting for general use)

P1:4 = 40+ foot flash range (best setting for fields)

Step 2: Press the A key to display P2 (video length)
P2 controls the Ambush® video length.

The available settings are selected by pressing the B key:

P2:1 = 10 second video

P2:2 = 20 second video

P2:3 = 30 second video

Step 3: Press the A key to display P3 (video operating time)
P3 controls the Ambush® video operating time
(This setting is ignored on the Ambush® and will be displayed as P3:--)

The available settings are selected by pressing the B key:

P3:1 = record videos only at night

P3:2 = record videos only during the day

P3:3 = record videos during day & night

Step 4: Press the A key to display P4 (operating time)
P4 controls the time Ambush® will take pictures.

The available settings are selected by pressing the B key:

P4:1 = operate only at night

P4:2 = operate only during the day

P4:3 = operate during day & night

Step 5: Press the A key to display P5 (quality)
P5 controls the Ambush® image and video quality.

The available settings are selected by pressing the B key:

P5:1 = standard resolution 5MP (small file) images/video

P5:2 = high quality 5MP (large file) images/video

Note – image quality is improved by optimizing the JPG and VIDEO compression algorithm. Images will be clearer when zooming, but file size is significantly increased. Most users will not benefit from this feature, which is mainly intended for research professionals that require the best image quality possible.

Step 6: Press the A key to display P6 (camera ID)
P6 is a camera identification number that is printed onto the image. Use the B key to set a value from 0 thru 99. If 0 is selected the ID number will not be printed.

Step 7: Press the A key to display P7 (FAP Mode)
P7 enables or disables a super fast camera delay, called Fast-as-Possible, or FAP. When P7 is on, the camera will rearm immediately after the image or video is saved to the SD card. This can result in a camera delay in the 1 to 2 second range. When P7 is on, the 5 second camera delay position becomes FAP. The remaining dial positions are not affected. **Note – using FAP mode can result in blank images.**

Press B to enable or disable FAP:

P7:0 = FAP mode disabled

P7:1 = FAP mode enabled

Time Lapse / Guard Duty Mode (P0= tL)

Time Lapse/Guard Duty mode is enabled when Parameter 0 is set to tL. When P0 is set to tL the rotary dial enables time lapse or Guard Duty.

Guard Duty

Guard Duty allows you to continuously monitor a field or other location by continuously taking pictures at a selected interval of 1 to 5 images per minute.

- To enable Guard Duty set P0 to tL and set the rotary dial to one of the left (video off) positions. Settings are 1 to 5 images per minute (60 sec, 30 sec, 20 sec, 15 sec, 12 sec).

- Guard Duty will only take images during daylight;

- At night, Ambush® will function as a normal taking pictures when animals are detected. The camera delay will be set to 15 seconds.

- Guard Duty images are 1.3 MP and are saved in the folder DCIM\200CUDDY.

- Guard Duty will record thousands of images per day. We recommend 8GB SD cards or bigger (see Appendix A)

- Battery life using Guard Duty will be less than in other modes. Perhaps as low as 1 week if 5 images a minute is selected. Using fewer images per minute will extend operating time.

- We recommend you use our Trophy Room PC program to view Guard Duty images. Available for free at www.cuddeback.com

Time Lapse Mode

Time Lapse mode records images 24 hours a day at a preset interval from 1 hour to 24 hours).

- To enable Time Lapse set P0 to tL and set the rotary dial to one of the right (video on) positions. Settings are 1, 3, 6, 12 and 24 hours.

- Time lapse will record images 24 hours a day. At night illumination (flash or LEDs) are used.

- Motion sensing is disabled when time lapse is enabled.

To disable Time Lapse Mode set P0 to P0:0 or P0:1.

No Card Mode - Using Ambush® Without an SD Card

When Ambush® is used without an SD card, images are stored in Ambush's internal image memory. Ambush® features an internal memory of about 120 MB. This will allow storage of up to 120 images. Images can be transferred from internal memory to an SD card.

Transfer to SD card: If you use Ambush® without an SD card, follow these steps to transfer the images from the internal memory to an SD card.

1) If Ambush® is not armed, turn the rotary knob to any of the Armed positions.

2) If Ambush® is armed, press A to display the number of images in internal memory.

3) Insert your SD card into Ambush®.

4) Press A. The amount of free space on the SD card will be displayed.

5) Press B to initiate the transfer. Images saved in internal memory will be copied to the SD card. The LCD will display the *worm* on the left, and the percentage of files copied on the right. Please wait while images are being copied.

6) When the LCD displays the battery level, the transfer is complete and all the images on the internal memory have been erased.

7) To stop the transfer before it has finished, press and hold B.

Battery Life and Battery Low Warning

Battery life in Ambush® will vary depending upon battery quality, ambient temperature, the number of images taken, how long Ambush® has been operating, and other factors. Battery life you get may be more or less than these numbers depending on the circumstances.

Ambush® – 5,000 images or 6 months, depending on usage.

Ambush® IR and Ambush® Black Flash – 10,000 images or 6 months, depending on usage.
Note - using video mode greatly reduces battery life.

Replace Ambush® batteries when:

1) The **BLOW** icon appears on the LCD.

2) When batteries are below 10% the battery level will flash until you press the A or B key to continue.

3) When Ambush® does not appear to operate correctly. In some cases the batteries may be too low to turn on the LCD or BLOW icon.

Battery Squeeze

Ambush® will attempt to use every amount of power from the batteries. Ambush® will alter its performance to prevent erroneous operation when battery voltage is very low. Battery Squeeze is enabled when battery voltage is 25% or less. Battery Squeeze will disable videos and extend the camera delay to 1 minute at night and 15 seconds for day. This allows the batteries to recover and will extend operating time. (Note – flash cameras extend the night delay to 2 minutes to provide sufficient time for the flash to charge).

Viewing Images

You will need an external viewing device or computer to view images. First, remove the SD card from the camera. Make sure to only remove the SD card when the *worm* is not visible. Here is a list of some viewing options.
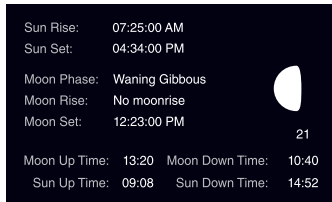
1) You can view the images with an optional viewer or a point-and-shoot camera that is able to read Ambush's images **(Note: not all SD based cameras can view Ambush's images, please test any camera before purchasing)**.

2) Replace the SD card with a fresh SD card and take the original SD card with you to view on your PC or other device.

3) Cuddeback's CuddeView® viewer will allow you to view the images, copy the images to a second SD card and erase the images from the SD card. You can then put the original SD card back into Ambush® series. CuddeView® allows you to transfer images from multiple cameras to a single SD card. Go to www.cuddeback.com for more information on CuddeView®. (Note: CuddeView® may not be able to copy all the images taken in Guard Duty mode. If you are using Guard Duty we recommend you view the images on a computer.)

Use Windows PC to Manage Cuddeback® Images with Trophy Room®

Trophy Room® software makes it easy to manage your Cuddeback® images.

Trophy Room®

1) Automatically copies images from your SD card to your PC and organizes them by year and date.

2) Allows you to rename each folder making it easy to find your images.

3) Displays sun and moon data for each image, including moon phase, moon rise and set, sunrise and set, and moon and sun position in the sky at the time the image was taken.

Sun Rise:	07:25:00 AM	
Sun Set:	04:34:00 PM	
Moon Phase:	Waning Gibbous	
Moon Rise:	No moonrise	
Moon Set:	12:23:00 PM	
		21
Moon Up Time: 13:20	Moon Down Time:	10:40
Sun Up Time: 09:08	Sun Down Time:	14:52

Trophy Room® data screen example

4) Categorizes images as buck, doe, fawn, bear, etc. There are 28 categories to select from. For whitetail deer you can enter point count and give deer a name to allow easy monitoring of trophy animals.

5) Automatically calculates the buck/doe/fawn ratios based upon your images.

6) Includes *CuddeCharts* with which you can analyze your images to determine peak movement patterns based upon sun and moon phase and position.

7) Includes *Crystal Ball*® with which you can use the data you've collected and analyzed with CuddeCharts to predict future activity. Think of this as the traditional moon tables, only tailored to you.

8) Allows you to rapidly view Cuddeback® images taken in Guard Duty mode.

9) Is **FREE** and works with all Cuddeback® cameras. You can download it at www.cuddeback.com.

Appendix A

SD Card Requirements

SD cards are sized in GB (Gigabytes); the bigger the number the more images that can be saved on the card. Ambush® will work with card sizes from 1 GB to 32 GB. See table on page 22.

We have extensively tested Ambush® with most major brands of SD cards, however, low quality cards are available that may not operate in Ambush®. We recommend using SanDisk® brand cards which are readily available at stores that sell cameras. You can also order cards directly from Cuddeback®. See www.cuddeback.com for information.

This table shows approximately how many images and videos fit on a SD card:

Card & Video Mode		Ambush (flash)		Ambush IR & Ambush Black Flash		Ambush Series (all 3 models)
Card Size	Video	Images	Videos*	Images	Videos**	Guard Duty Mode On
2 GB	Off	1000	0	2000	0	5 days
2 GB	On	200	200	400	400	n/a
4 GB	Off	2000	0	4000	0	10 days
4 GB	On	400	400	800	800	n/a
8 GB	Off	4000	0	8000	0	20 days
8 GB	On	800	800	1600	1600	n/a
16 GB	Off	8000	0	16000	0	40 days
16 GB	On	1600	1600	3200	3200	n/a

*Assumes that 75% of images are at night when the videos are not recorded.

**With the Ambush IR every image will also record a video.

For this chart we assume each JPG is 1MB and each video is 4MB. Your actual JPG and video file sizes will be different.

Assumes a 12 hour day with 3600 images taken per day. Video mode is always disabled in Guard Duty mode. For this chart we assume each Guard Duty image is 100KB.

Genius Mount™
Post Mount
Patents Pending

For use with all Cuddeback® scouting cameras

Put your Cuddeback virtually anywhere! No tree needed!

Set-up is simple as 1, 2, 3…

Perfect for placing cameras in fields, food plots, swamps or where trees aren't quite right.

1 *Insert Post Mount into firm ground.*

2 *Insert 2 thumb screws into bracket*

3 *Adjust camera angle and tighten*

Genius Mount™
Pan & Tilt Mount
Patents Pending

For use with all Cuddeback® scouting cameras

Pan & tilt

Aim your camera in virtually any direction – up, down or all around!

Insert 2 thumb screws into bracket

GeniusMount — Tilt Mount

Patents Pending

For use with all Cuddeback® scouting cameras

Slide on/off

Tilt adjust

Put a Genius Tilt Mount bracket in all your favorite hunting spots!

GeniusMount — Combo Kit

Patents Pending

Genius Combo Kit – includes 2 mounts!

- Pan & Tilt Mount
- Tilt Mount
- Lock Clip
- Universal Plate (works with all cameras)
- Mounting Screws

Genius Pan & Tilt Mount

Genius Tilt Mount

Visit Cuddeback.com
and enter your best photos
and videos in the monthly
Cuddeback photo contest.

Vote for your favorite
photo and
video.

Enter as often as you like.

You could win a free Cuddeback!

DON'T GET BLANKED!

www.cuddeback.com

Cuddeback Digital

More deer, fewer blanks!