SD Cards

**Models:** Attack, Attack IR, Ambush, Ambush IR

**Compatibility**

We make every attempt to design Cuddeback cameras to operate with all brands, sizes, and speed of SD cards. However, there is such a variety of SD cards available it is impossible to assure that all cards will function properly (just like all products, there is best, good, ok, and junk quality SD cards on the market). We assure our cameras work with the most popular brands and sizes. We have verified that our cameras work with PNY brand (available at Wal-Mart), SanDisk (available most places), and the cards available at our largest retailers. We also tested Transcend, Kingston, Lexar, and many other cards and all of them have worked with Cuddeback series camera. However, with so many brands of cards in the market it still is possible that there might be some that will not function with our products. If your camera appears to not function correctly it is always good practice to try the camera without an SD card and then with a different SD card.

**Inserting a SD Card**

SD cards are designed to be inserted into a camera, PC, or viewer only one way. There is a keying mechanism inside the SD card socket that prevents installing the SD incorrectly. You will feel resistance if the card is inserted incorrectly. Stop if you feel resistance and reverse the card and try again. If you force an improperly orientated SD card the socket will break.

**What Size SD Card to Buy**

We don’t recommend buying the biggest card you can find. You may be better off buying smaller cards of the size you need. For example, you may never use all the space on a 8 GB card and if card gets damaged you are out more money than if you had a 2 GB card fail.

When selecting card size you should consider the following:

1) **How often will you be checking the camera?** If you check your camera weekly you can get by with a smaller card. However, if you only check your camera once per month or less you may want to consider a bigger card.

2) **How much activity is likely to occur?** For example, a trail or scrape will have considerably less activity then a feeder.
3) **Are you going to use the video mode?** The typical video will use as much card space as 4 images. In other words, 1 video equals 4 images. If you use video you will need a bigger card.

4) **Is the camera an IR model and will you use videos?** A flash camera does not take night time video, while an IR camera does. If you are using an IR camera in video mode you will need a bigger card then if you use a flash camera in video mode.

5) **What camera delay do you prefer?** On a feeder many people use a long camera delay, say 5 minutes, to limit the number of images taken. However, some people prefer to use a short delay on a feeder to maximize how many images they get. This is a personal preference and you can choose whatever you like as long as you size your card accordingly.

6) **Are you using Guard Duty?** If so, you need at least a 4GB card and an 8 or 16 GB may be required. Guard Duty uses about 2.5 GB of card space per week.

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### This table shows approximately how many images and videos that will fit on a SD card

<table>
<thead>
<tr>
<th>Card &amp; Video Mode</th>
<th>Flash Camera</th>
<th>IR Cameras</th>
<th>Cameras w/ Guard Duty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card Size</td>
<td>Images</td>
<td>Videos*</td>
<td>Images</td>
</tr>
<tr>
<td>2 GB</td>
<td>Off</td>
<td>2000</td>
<td>0</td>
</tr>
<tr>
<td>2 GB</td>
<td>On</td>
<td>1000</td>
<td>250</td>
</tr>
<tr>
<td>4 GB</td>
<td>Off</td>
<td>4000</td>
<td>0</td>
</tr>
<tr>
<td>4 GB</td>
<td>On</td>
<td>2000</td>
<td>500</td>
</tr>
<tr>
<td>8 GB</td>
<td>Off</td>
<td>8000</td>
<td>0</td>
</tr>
<tr>
<td>8 GB</td>
<td>On</td>
<td>4000</td>
<td>1000</td>
</tr>
<tr>
<td>16 GB</td>
<td>Off</td>
<td>16,000</td>
<td>0</td>
</tr>
<tr>
<td>16 GB</td>
<td>On</td>
<td>8,000</td>
<td>500</td>
</tr>
</tbody>
</table>

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

**With the IR cameras 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 fill sizes will be different.

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**Our recommendations on card size**

A 2GB or 4GB is generally sufficient for most users and most applications. If you are using Guard Duty you need to size the card as shown in the table above. Additionally, when buying cards you should consider that two 4GB cards can be more versatile than one 8GB card. Cost is about the same, but if a
card fails you are only out half your cost, and having 2 cards makes it easy to do card swapping if needed.

**Reliability**

SD cards are amazing devices. A typical 2 GB card will have tens of billions of transistors inside. But, SD cards are not fail-proof and are delicate. We recommend being careful with them:

1) *When not in use keep the cards in the plastic snap case or other enclosure.* You can get an SD wallet at many retailers for safe card storage when you are afield. Or a simple metal candy tin (Altoids® mint tins) works well for safe storage. And in a pinch, a zip-closed plastic bag is better than nothing.

2) *Do not put a SD card in your jean pocket unless it is in a suitable enclosure.* Bending the card can break them. You jacket pocket or day pack is a much better place for SD cards.

3) *Do not let the card get wet.* If water does get on your card wipe the water off before storing or inserting into your camera, viewer, or PC. Never store cards that are wet or damp. Let them air dry before storage.

**Problems**

SD cards do fail. A defective card may be hard to diagnose and can cause your camera to function improperly. Here are some example problems that are the result of a defective SD card:

1) *The camera will not save images or videos to the SD card. This problem can manifest itself in other ways.*
   a. *The camera does not take a picture when you walk up to it.* You may think the camera is defective when in fact the SD card is damaged and unable to store images.
   b. *Camera works sometimes but not other times.* SD card operation can be intermittent - it may work for a while and fail latter on. This is usually caused by the gold contacts wearing out. When this happens the card needs to be replaced.

2) *SD card won’t clear or format with the camera or PC.*

3) *Your PC or viewer has difficulty reading the card.* We have seen instances where an SD card will function in one product but not a different one. Or the PC can read some files but not others. When this happens try formatting the cards as explained in the section *Repairing a SD Card.*

If you think your SD card is defective we recommend you first try to repair it (see next section). If that does not resolve the issues it is time to discard that card for a new one.

**Repairing a SD Card**

If the SD card does not appear to work you can try these things to repair the card:

1) *CLr the card on your Cuddeback camera*
   a. *Insert SD card into the camera*
   b. *Rotate knob to MENU*
c. Press A until CLR is displayed

d. Press and hold B

e. The worm will appear and when finished formatting the free space on the card will appear. If it does not, or you get an EC (error code), then format the card on your PC as explained in step 2 next.

2) Format the card on your PC

a. CAUTION: If you are not sure how to format a SD card on your PC we recommend you seek help from a friend or professional. If you were to select the wrong device you could erase your entire hard drive.

b. Insert the SD card into your PC.

c. Click MY COMPUTER icon (click START then COMPUTER or MY COMPUTER)

d. A table of all drives and devices will appear.

e. Right click the SD device (make absolutely sure you select the SD card. If you are not sure DO NOT DO THIS).

f. Select the Format item in the list and follow instructions.

g. If the card does not format correctly you should discard the card.

3) If both of the steps fail then the card is defective and needs to be replaced.

4) If the card does format and the camera still does not function when this card is installed try a new card.