

## Tips for Handling Memory Cards

### A selection of articles about memory card issues

If you are new to digital cameras, the digital camera memory cards are the most important parts of any digital camera, without which they may not work at all. So if you are handling a digital camera or planning a purchase, you must know more about the memory cards used in these cameras. A memory card should be treated as temporary storage for your photos and remember to periodically back up your photos to a CD or DVD. Use only high quality memory cards (try to avoid re-branded memory cards).

A memory card is not like a hard drive. So, something many new digital camera owners find counter-intuitive is that **bigger is not always better** with a memory card. The actual response speed of your digital camera can depend greatly on the memory card it is using. The speed that your camera writes new pictures to the memory card is partially dependant on the transfer speed of the digital camera but is also dependant on factors in the memory card itself. Digital cameras that have "buffers" can take the data into a faster type of memory and then transfer the data from there to the slower "flash memory" which provides the main storage of almost all memory cards.

Also, it is better to spread your risk by carrying several memory cards. If one card is lost or damaged, you have not lost everything.

### **Be careful when deleting images**

When you delete an image from the memory card, the flash memory is "reconfigured" because of special issues having to do with how this memory stores data. Normally this is an issue that you don't have to worry about at all. However, if you have a very large memory card and delete an image, you may experience a several minute delay while "house cleaning" is performed on the memory card.

Because of this, do not delete images while you are taking pictures. Instead wait until you are at home, your hotel or in the car before reviewing your pictures and deleting the ones you don't want, preferably **after** you have backed up your memory card. Smaller cards take less time for this "house cleaning" so many experienced digital camera owners will choose to have more than one medium sized memory card instead of one very large one. You may be better off to transfer everything to the computer and review the photos on the much larger screen.

Now the question arises - how many memory cards are enough? As a safety precaution, you must have at least two memory cards available for use. That is, if you are using it in a normal and average fashion. Most professional photographers choose to carry about four to six memory cards. This helps them shoot smoothly and constantly. If they run out of memory, they just take the loaded card out and insert the fresh one. Pros are also in the habit of transferring images to a computer or portable hard drive right away - experience with a lost photo shoot will teach you to be wary. If you use the video feature on your digital camera, it may help to have a separate card for this purpose.

Because you choose to have at least two memory cards at all times you are protecting yourself against memory card malfunction, you can work with one and keep the other in reserve for emergency. Having at least one extra memory card for your digital camera will also ensure that you have the backup protection needed if you run out of space on your first card.

The next important issue is how to take proper care of these memory cards. The memory cards may seem like some small and fragile piece of technology, but they are actually fairly sturdy. The flash memory is encased in a stiff plastic shell which can withstand normal wear and handling. At one end of the memory card is either a set of little holes or copper strips. These are the sensitive part of the card. Any voltage source or a large jolt of static could corrupt the memory and probably cause permanent damage to the card.

When the card is not in your camera, keep it stored in a protective case or in your camera case. Putting it in your pocket could cause a short (from your keys perhaps) or dirty the electrical contacts. There have been instances where the users have misbehaved greatly with them and the memory cards have yet survived and continued to function correctly. But, this does not mean that one should not care for them.

Author: Dave Saunders, Source: <http://www.spydertraffic.com/article.download.php/652> (edited)

### **Memory Card Corruption**

A corrupted memory card has damaged data that prevents it from performing properly. If a card becomes unreadable, you may not be able to access photos on it. Memory card corruption often results from human error. Awareness of the main causes can help prevent card corruption from occurring. It is advisable to stop using a card as soon as you suspect a problem.

Causes of memory card corruption may include:

- Turning off a camera before an image is completely written to the memory card.
- Removing the memory card from a camera while an image is being written to the card.
- Taking photos when camera batteries are low or batteries conking out as files are being transferred directly from the camera to a computer. Note: always make sure you have fully charged batteries before transferring images.
- Removing the card from a memory card reader while files are still being transferred to a computer.
- Removing the card from a card reader while folders and files from the card are open on a computer.
- Opening, deleting, renaming or moving files on the card while its contents are open on a computer.
- Using a memory card which has not been formatted in the camera. Use the delete/erase function when needed, however a card should be regularly formatted.
- Formatting a card in a computer instead of the camera.
- Inserting a second memory card into a card reader before closing and removing the first when viewing images on the card from a computer.
- Taking photos too rapidly so the camera can not complete writing one image before starting the next.
- Continually shooting and deleting, shooting and deleting images when the card is full.
- Letting a memory card get too full before downloading the images to a computer or storage device. Cards that are too full may overwrite the card headers.
- Using a memory card from one camera in a different camera without formatting it in the new camera first.

Source: <http://www.digicamhelp.com/accessories/memory-cards/memory-card-corruption.php>

Other causes of memory card malfunction may include: static discharge, power disruption during read/write, physical damage such as dropping the card, improper insertion or removal (or the classic "my dog ate my memory card").

Using a camera memory card as a memory device similar to a USB flash drive is not recommended. The camera, or other card reader, may not be able to "see" the card properly, especially if there are non-image files on the memory card. The camera may also have difficulty with images that have been altered outside the camera and re-saved to the card.

### **Tips for handling flash memory**

It is very likely that at some point you will encounter problems with memory cards. Here are some tips to minimize the panic.

Memory card not detected: ok, so somewhere between the camera and the flash card, they stopped talking to each other. Stop taking pictures. As a matter of fact turn off the camera, take out the memory card. Take it to a data recovery specialist (sometimes available through the local camera store), get a free diagnostic, find out what the problem really is.

Didn't like that picture? Delete it - no wait! Editing photos on the camera is a handy feature but that little LCD screen doesn't always give you enough detail. Wait until you download the photos to your computer before you make quick judgments on whether you took a good photo or a bad one. Because if you delete it from your camera by accident, you will be visiting a data recovery company in the near future.

"It is now safe to disconnect your memory device" In a rush to pull out that memory card? Why? You could corrupt the card even render it useless for future shots. Flash cards are very sensitive to electrical shocks and (surprise!) USB is powered by electricity. So give it a few extra SECONDS, and properly disconnect those memory cards. Also remember to turn off your camera before removing the memory card.

2 cards are better than one. Got a fancy 8GB flash card? Great, but what happens if, on that once in a lifetime vacation, it stops working? Take a few flash memory cards with you just in case. Trust me - it's worth the trouble to carry a spare and do back them up.

My pictures are all corrupted... Flash memory gets worn out. After multiple writes and deletes there's pieces of leftover bits still floating around. It's a good idea to perform a full format of the card every so often. It clears the memory on the card for re-use. Use your camera to format the card. Sometimes the flash memory card requires a certain file structure to properly record images.

I think I can squeeze 1 more photo in before the blinking battery light goes - off. Keep your batteries charged. Not only will you be able to take a few extra pictures, but you also won't miss any because of a low battery.

Source: <http://savemydata.blogspot.com/2007/11/tips-for-handling-flash-memory.html>