

Avoid Flash Media Problems and Preserve Your Images



Flash Media

Introduction

Back when I shot with 35mm SLR cameras, I was very careful about how I stored film. Any new film that I did not plan to use in the near future was stored in canisters in my refrigerator. I was careful to rotate all of my film and use it as soon as possible. I placed newly shot film back into plastic canisters and stored them in a cool, dry location until I could process it. In most cases, I took the film to my lab for processing shortly after the photo session. With the convenience of digital photography, it is easy to get complacent and forget that flash media can be just as fragile as film.

I decided to write this guide after losing nearly half the images on one of my eight gigabyte compact flash cards (that comes to hundreds of lost shots). Fortunately for me, the card contained images of some non-essential landscapes that I took earlier that day rather than images from a portrait session or wedding. Losing images from a major portrait session or wedding would be a colossal nightmare. This experience freaked me out and made me think about how I handle my compact flash cards and whether or not I could have avoided losing the images. In this guide, I am going to outline a few ways to increase the life of compact flash media and how to avoid losing those precious shots.

Can Flash Media Be Too Big?

Let's start with size. Currently compact flash cards range up to

16-32 gigabytes at the high end. At first glance, a digital photographer's mouth may water at the sheer size. That is an incredible amount of space. Despite the massive storage that cards of that size provide, I encourage you to consider opting for smaller sized cards. Whether a compact flash card is lost, stolen or damaged, shooting across several cards will insulate you from losing all the images from a major shoot. Personally I shoot with quite a few two and eight gigabyte cards. If I lose a card, it is not going to be a huge financial burden to replace and there is a good chance that I will still have *some* images from the photo session (assuming I used several cards). Bigger isn't always better.



Safe Handling Practices

Always turn off your camera before inserting or removing flash cards. Most DSLR cameras offer a blinking light to indicate whether or not the

card is being accessed by the camera. Never attempt to remove a card while your camera is still writing to it.

Flash media, whether compact flash cards, secure digital cards, or thumb drives, are sensitive to electricity or electrostatic discharges (ESD). This is sometimes easy to forget since flash media has been designed to be convenient to carry and store. Flash cards can be easily damaged by static electricity. A digital forensics friend of mine tells me that they always make sure that they are grounded before handing flash cards back and forth between each other.

Static electricity -that you can feel- is usually over 3000 volts! Static electricity -that you can see- can be as high as 20,000 volts! It only takes around 30 volts (or less) to damage electronics and corrupt files on a flash card. Before handling flash cards, consider grounding yourself. This can be done very simply by touching something metal (to discharge any built up static electricity) prior to handling the card. It may sound overly cautious to go through the

trouble of grounding yourself, but if the images on the card matter it is a worthwhile inconvenience to build into your regular routine.

Always store flash cards in storage wallets or plastic containers - especially cards that contain images that have not been downloaded yet. I had a terrible habit of just dropping used compact flash cards into my pants pocket and loading up a new one. Can you ever image doing that with film? This might have been one of the contributing factors in my compact flash card having corrupt images. Built up static electricity from being jostled around in your clothing can easily damage cards.

Take it Slow

Avoid quickly hitting the playback button on your camera immediately after taking a photograph. At least one camera manufacturer suggests that this could corrupt files on the card. Wait a few seconds after the image has been completely written before viewing the shot. It is also tempting to delete individual shots (e.g. out of focus or improperly exposed images) to save space. Not only could you accidentally delete the entire card, but there is a possibility of corrupting some of

the already written files. Almost everywhere I looked to research this guide (and nearly everyone I spoke to) agreed that you should avoid deleting individual images. In fact, it is better to format the entire card through your camera's menu system after you are sure that the images have been safely transferred onto your computer (and backed up!). This ensures that the card gets wiped clean before the next use. The delete option simply tells that camera to ignore the image.

More on Formatting

While on the subject of formatting, keep in mind that it is never recommended that you format camera flash cards using a computer. Stick to formatting flash cards within the camera to stay out of trouble. Also remember to format newly purchased flash cards with your camera before you start using them. This will ensure that the file allocation table (FAT) is setup properly for your camera.

Card Reader or In-Camera Transfer?

Transfer images from your flash card to your computer using a decent quality card reader. I have seen card readers as cheap as \$5 USD. If your photographs matter to you at all, invest in a brand name card reader. Also avoid transferring images with your camera. This is fraught with potential problems;

the main one being that your camera battery may go dead during the transfer process. Since flash media does wear out and have a lifespan, remember to remove the flash card shortly after transferring your photographs. It is easy to jump right into processing your shots and forget that your flash card (that might be worth several hundred dollars) is still receiving power and being accessed by your computer unnecessarily. Remove the flash card as soon as possible to avoid unnecessary wear and tear. This also ensures that you are not processing the images on your flash card and instead processing the ones transferred to your hard drive (believe me, this is very important!).

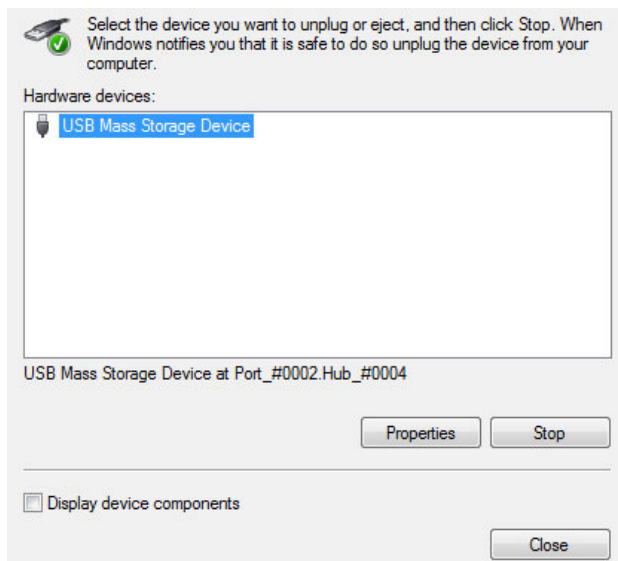


Photograph courtesy of Lexar

The Step-by-Step

Here are a few steps to consider adding to your routine to avoid problems:

- Check to ensure that your camera is turned off and that it has been adequately charged
- Ground yourself by touching something metal to discharge any static electricity.
- Make sure the flash card is dry, clean and free of defects before placing it into your camera. This includes making sure that there are no bent pins and that the access ports are not clogged with any foreign material. Gently insert the flash card into your camera.
- Turn your camera on and hit the playback button. *I attempt to playback any images that might be on a newly inserted flash card to ensure that I am not trying use a card that has recently shot images on it.*
- Format the card (if necessary).
- Shoot a test image and play it back. This is a great time to shoot a grey card to use later in processing.
- Now you are ready to start taking photographs. Have fun!
- Turn off the camera when you are finished taking photographs for the day.
- Ground yourself again.
- Gently remove the flash card and place it into a card wallet or plastic storage case.
- Store the flash card in a safe place until you can transfer the images (e.g. camera bag pocket).
- Insert the flash card into a card reader once you are at your computer and are ready to transfer the images.
- Transfer the images from the flash card to your computer using the software of your choice.
- Back the images up to a secondary hard drive (this is optional but very important). Most imaging software has an automatic backup feature built in to streamline the process.
- Properly remove the flash card from your card reader. Windows users should be using the "Remove Hardware" function.



You may have noticed that I did not point out that you should format the card as one of the last steps. I don't format my flash cards right away so that I have a temporary third copy in case the images were improperly transferred. I typically format my cards right before I go out to shoot again. Feel free to modify these steps to fit your own style. The key is to get into a habit of handling your camera and flash media safely to avoid problems.

Access Problems

If you do run into problems accessing the images on a flash card or notice corrupt files, stop using the card immediately. Whatever you do, don't format or delete images off the card. Recovery software may be able to retrieve the images for you. In my own case, the images that I lost were totally corrupt and I was unable to retrieve them. That being said, I was able to help recover images for a friend after she accidentally deleted the card. Recovery software can be hit and miss. Most of the recovery software that comes bundled with flash cards are consumer

grade and provide spotty performance. You may need to purchase something heavier duty to get the job done. Even then you may not be able to retrieve all of the lost images.

Conclusion

Who would have thought that there was so much to know about flash media!? I wrote much more about this than I originally thought I would; however it is important information if you are a serious digital photographer. Develop good habits now and avoid problems later. Have fun!

Good luck!

About the Author

Currently Steve Paxton lives with his wife and two children in the Seattle area. Steve has been a photographer for nearly fifteen years and has spent most of that time shooting with a variety of Canon 35mm cameras. His experience ranges from wedding and portrait work to crime scene photography; although he particularly enjoys the solitude of shooting landscapes.

Steve always welcomes comments and feedback on his work. You can leave a comment on his website at www.paxtonprints.com or send him an email at stevepaxton@paxtonprints.com.