DSLR Sensor Cleaning
What is it, do I need to worry about it, and how should I clean my sensor?

Whether you recently got your first DSLR camera or you've owned a DSLR for years, sensor cleaning and maintenance is sometimes the last thing that we think about when it comes to deciding on which camera accessories we need, and how to handle camera care. Until, that is, we start seeing those annoying specs show up on our images and wonder where they came from and how to get rid of them.

Because your DSLR image sensor is electronically charged, even the newest CCD and CMOS sensors tend to attract debris from static electricity. If you're very careful when you change lenses and have a coated sensor that reduces static charge, your sensor may stay clean much longer than someone who frequently changes lenses outdoors, however inevitably even the most careful photographer will end up with debris on their sensor.

What does that mean for you? Specs of debris that sit on your sensor surface will usually show up in your images as black or grey spots, which translates into your great shot of the Grand Canyon looking like a dust storm blew past as you were capturing the shot, or your beautiful bride ending up with dust specs scattered across her face that need to be edited out.

What is Sensor Cleaning?

Sensor cleaning can be done automatically by a built-in cleaner that's a function of your camera, or manually by removing your lens and putting your camera into manual sensor cleaning mode through your menu buttons. While built-in sensor cleaning functions are nice to have, you may find yourself needing a more thorough cleaning from time to time to remove stubborn particles that continually end up back on your sensor surface and show up in your images. There are several tools that are made specifically to address the different types of debris that can end up on your sensor's surface.

First, Determine if Your Sensor Needs to be Cleaned

In the past you would need to set your camera's F-stop to a specific number, shoot a blank sheet of white paper or a blight blue sky, then magnify the image on your computer screen to view your sensor and identify debris. Today, there are a handful of different inspection devices that make it quick and easy to look at a magnified and

illuminated view of your sensor's surface and determine if cleaning is necessary in a matter of seconds.

The Delkin SensorScope was the first DSLR sensor inspection device introduced in 2008, and still holds the original patent for inventing DSLR sensor inspection. The universal design drops onto any DSLR's lens mount and provides a magnified and illuminated in-focus view of your sensor's surface so that you can determine if debris exists. Sensor inspection is recommended before every shoot, and in a dry enclosed room without a lot of air circulation.

Once you take a look at your sensor's surface, you can determine if a cleaning is really necessary or not. If your sensor looks clean of debris, simply power your camera down (this will release the mirror lock-up) and reattach your lens, and you are good to go! If your sensor does need a cleaning, there are tools that will address the various types of common debris and help you eliminate them quickly and easily.

Removing Loose, Dry Particles

Dust, lint, and tiny particles are the most common types of debris to end up on your sensor surface. They could be introduced during a lens change outside, or even in an enclosed room that has air circulation running. Since these particles are commonly abrasive, it is important to remove them first, before you move onto any type of wipe or solution. Delkin makes a SensorVac that's included in their complete SensorScope System kit that uses vacuum suction to safely remove loose specs on your sensor's surface, and features a small LED light that helps you see exactly what you're doing while you're in your camera's sensor chamber.

Removing Sticky or Adhered On Smudges & Contaminant

Since your mirror is a big mechanical component that needs to be properly lubricated to take pictures, sometimes the extra lubricant can end up on your sensor's surface. This is usually oil based, and can sometimes be tricky to remove. Other types of "sticky" debris that can end up on your sensor's surface can be pollen, condensation from humid shooting environments or big temperature changes, and saliva (yep, we've seen it happen!). In these cases, you need a wet chemical compound to break

that adhesion and wipe the contaminant away. Delkin has developed size-specific SensorSafe Wands and SensorSolution to address wet contaminants and safely remove them from your sensor's surface. These are included as a part of the SensorScope System, as well as the Refill Kits that are size specific and match your specific sensor size.

The Surface is Clean, but Did You Check Your Edges?
You've swiped your sensor's surface with the SensorSafe Wands and the surface looks clean, so now it's time to check your edges! A quick look with the SensorScope will show you if there's any remaining debris along the sensor's edges that needs to be removed, and Delkin's SensorPen by LensPen is made specifically to do the job. A few quick twists of the cap will ready your SensorPen for cleaning, and the triangulated tip is designed to reach those hard-to-get-to edges and provide a final polish.

Congratulations, You're Ready to Shoot!
One final look with your SensorScope to make sure that your sensor is clean, and you're ready to power your DSLR down (this will release the mirror lock-up), reattach your lens, and head out to your shoot.

Delkin Devices invented the first DSLR sensor inspection device and continues to hold the patents on DSLR sensor inspection. They offer the SensorScope inspection device separately, or as a part of a complete kit that includes everything you need to safely and quickly inspect and clean your DSLR image sensor. Refill kits are also available that provide additional SensorSafe Wands, SensorSolution, and a SensorPen.

SensorScope System
SensorScope Inspection Device
Refill Kit for Small Frame 16mm Sensors
Refill Kit for Medium Frame 20mm Sensors
Refill Kit for Large Frame 24mm Sensors