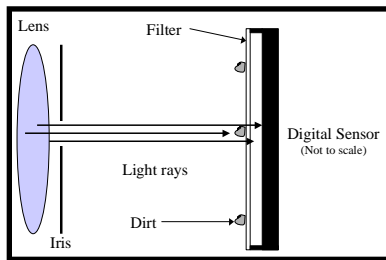




## Instructions for [www.nrdFireFly.com](http://www.nrdFireFly.com) for NILMDTS Image Use:

NRD has provided a special discount code for any NILMDTS members who wish to purchase a FireFly Digital Sensor Cleaner. To use your NILMDTS Promo Code, go to [www.nrdFireFly.com](http://www.nrdFireFly.com) and use Code **NILMDTS** to receive a 15% discount on your order.

All photographers know that dust, pollen, and other types of dirt can stick to the surface of the image sensor filter, creating a shadow on the image sensor array, degrading the image quality (see diagram below).



A common image sensor pixel is about 6 microns wide, while typical dust, pollen, lint, and dirt particles can be larger than 20 microns wide. This explains why, under the right conditions, it's easy to see undesirable shadows (spots) in your images.

A common reason for stuff sticking to a surface is the presence of electrostatic charges. Although electrostatic charges can develop on the image sensor filter in many different ways, the effect is almost always the same. The electrostatic charges will attract and hold onto undesirable stuff, i.e. dust, pollen, lint, and dirt particles that come under the influence of its electric field.

Your camera's image sensor filter can possess both positive (+) and negative (-) electrostatic charges, so it is important that the method used to clean it is capable of neutralizing both types of charges. Unless you neutralize all the electrostatic charges present, undesirable stuff can be held to the surface like a magnet or will quickly be re-attracted when you are finished with your cleaning procedure.

While there are many methods available to a photographer to clean the image sensor filter, only the FireFly provides a convenient, safe, and effective method to neutralize electrostatic charges on components of the mirror box, shutter chamber, and image sensor filter, clearing them of undesirable stuff without contact.

The FireFly utilizes a nine-volt battery, and safely multiplies the battery's voltage to a point where corona discharge will occur. The corona discharge field "ionizes" the air passing through the body of the FireFly, producing and delivering both positive (+) and negative (-) air ions to the outlet air stream. This assures that static charges on the surfaces of the mirror box, shutter

chamber, and image sensor filter are neutralized, allowing dust and other particulate matter to be blown off by the air stream delivered at the outlet nozzle.

How does this compare to other cleaning methods?

- The wet method – requires touching, which could scratch the surface being cleaned. Even though the pad or swab used in this method may be perfectly clean before touching the surface, some types of dirt or dust that are present on the surface will be hard enough to leave a scratch after being moved during the cleaning process. Often, this method creates streaks, and can leave behind an electrostatic charge that will attract more undesirable stuff. Typically, this method also requires the use of chemicals that can't be carried aboard a commercial aircraft.
- Anti-static brushes – require touching, which could scratch the surface being cleaned. Brushes must be properly cleaned before each use or they will transfer undesirable stuff to the surface you are attempting to clean. Even though the brush may be perfectly clean before touching the surface, some types of dirt or dust that are present on the surface will be hard enough to leave a scratch after being moved during the cleaning process.
- Air blowers – can move a lot of undesirable stuff around. Some of it may move away from areas where it will create issues, and some of it may move into areas that carry an electrostatic charge, creating issues. This method does not neutralize electrostatic charges, and may not remove particulate that is being held in place by these charges. Unfiltered air can transfer rubber particulate from inside the bulb, or undesirable stuff from the ambient air that is sucked into its inlet port.

**Note: While the FireFly utilizes a bulb type air blower, it also incorporates an inline changeable 20-micron filter, avoiding the problem described above.**

The FireFly was designed and is manufactured by a company with over thirty years of experience making static control equipment for use in many sensitive applications, including high-tech electronics manufacturing industries. It provides a safe, effective, and convenient, non-contact method to remove dust, pollen, and other types of dirt from components of the mirror box, shutter chamber, and image sensor filter of a DSLR camera. When compared to other methods, the FireFly is the clear choice for today's professionals.