



Professional Digital SLR Camera Cleaning Kit

Instructions for use



INTRODUCTION

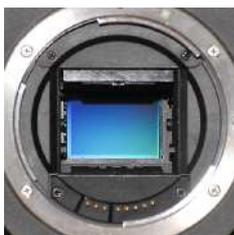
This kit contains eight products. All the products supplied must be used in accordance with these instructions. Please read and understand these instructions before using any of the products.

- Microfibre Cleaning Cloth (Magic Cloth)*
- Silicone Jumbo Blower*
- Kinetronics StaticWisk® Cleaning Brush*
- Anti-Static Cleaning Cloth*
- Speckgrabber™ Cleaning Tool*
- Eclipse or E2 Cleaning Fluid - Used for cleaning lenses and Digital SLR sensors - both CCD and CMOS types.*
- Pec*Pads - Lint free wipes for cleaning lenses*
- Sensor Swabs - Clean room manufactured tools for cleaning digital SLR camera sensors (CCD and CMOS types).*

After using the products supplied in this kit, please dispose of the components responsibly. You may obtain replacement packs from www.cameraclean.co.uk or your local retailer.

Cleaning Digital SLR Sensors

The imaging sensor is generally the most expensive component in the camera. Please use extreme caution when cleaning it. Loose dust can be removed from the sensor using the blower supplied. Sticky marks may be removed using Sensor Swabs and Eclipse/E2 solution. Always remove loose dust prior to using a Sensor Swab to reduce the risk of dragging a dust particle across the sensor surface. Remember, Clean dust first - sticky marks second. If possible, take reference images before and after cleaning to monitor progress.



MICROFIBRE CLEANING CLOTH

Manufactured from ultra fine 0.1 denier microfibre, for optimum softness and density, the magic cloth absorbs dirt, grease and moisture more effectively than chamois leather. It can be used for cleaning all types of lenses. Hand wash regularly in warm water.

SILICONE JUMBO BLOWER

Use this to blow away loose dust particles from the sensor surface before cleaning the sensor with Sensor Swabs and Eclipse/E2. Open the shutter for sensor cleaning taking careful note of the warning in the red box (overleaf). Hold the camera, lens mount pointing down. Point the nozzle into the lens throat and make several strong puffs on the blower to dislodge the dust. Don't let the nozzle touch any part of the camera.

Caution:

Before use, please test. Squeeze the bulb firmly several times, to ensure that any particles inside the bulb are ejected. Note that this product does not remove debris, it simply moves it to another location. When cleaning sensitive areas, consider where the debris will be blown too during use, and whether a debris removal tool might be more suitable. Store blower in bag supplied, when not in use.

KINETRONICS STATICWISK® CLEANING BRUSH

The Kinetronics StaticWisk® hand held anti-static brush can be used for cleaning lenses, films, scanners, cameras, plastics, acrylics, glass, monitors, instruments and technical equipment.

The unique blend of soft natural hairs and conductive synthetic fibers plus the conductive nature of the construction result in effective static dissipation. Dust and lint are whisked away

When not in use, keep inside the supplied case to avoid contamination. Do not touch the bristles with your fingers, as this may transfer oils and grease to the brush. The brush can be cleaned by first vacuuming the bristles, followed by washing in a mild detergent, let the brush dry thoroughly before reusing.

ANTI-STATIC CLEANING CLOTH

This is a general purpose cleaning cloth. It's special anti-static coating makes it ideal for cleaning camera and lens bodies. Note: This cloth is not recommended for cleaning lens surfaces or digital camera sensors.

SPECKGRABBER™

SpeckGRABBER™ is a unique tool designed to remove individual contaminant particles from delicate and sensitive surfaces without danger of damaging or causing additional contamination.



The SpeckGRABBER™ is non-conductive, and can be used on active CCDs allowing the technician to monitor the decontamination process. The SpeckGRABBER™ can be used on disk drive heads, optical sensors such a CCD arrays, mirrors and lenses, SpeckGRABBER™ will pick-up finger oils and dust and should be cleaned prior to each use. Use some Eclipse solution and let dry thoroughly. Practice cleaning and use carefully before applying to a camera's sensitive imaging sensor. Repeated cleaning will not degrade the adhesive qualities of the tip.



ECLIPSE /E2 OPTIC CLEANING SYSTEM

ECLIPSE lens cleaner is the highest purity lens cleaner available. It dries as quickly as it can be applied, leaving absolutely no residue. Eclipse can be used to clean non-coated sensors. E2 is designed for use on all sensor types. Please refer to www.cameraclean.co.uk for a camera compatibility list.

For lens cleaning, dispense several drops onto a clean, folded PEC*PAD and lightly wipe surface in a single circular direction. Refold pad to expose a clean side and re-wipe as necessary. If streaks remain, use a clean pad each time. Other lens tissues may not work as well, and some experimentation may be required.

Additional supplies of Eclipse and E2 are sold in 59 ml. (2 fl. oz.) bottle with dropper applicator.

ECLIPSE is the recommended optical glass cleaner for Tokina Hoya Kenko USA, the US distributor for Hoya filters and Tokina lenses

Caution.

Eclipse is highly flammable. Contains Methanol. The product burns with no visible flame. Keep away from heat, flame, sparks and ignition sources. Do not get in eyes. Irritation may occur. Wash eyes thoroughly with plenty of fresh water. Harmful if swallowed. Induce vomiting. Avoid breathing vapour. May cause headache or nausea. Use only in a well ventilated area. For more information refer to MSDS.

PEC*PADS

PEC*PADs are the ideal photo wipes for those who hate photowipes! Until PEC*PADs came along, photowipes fell apart, left lint and scratched emulsions. PEC*PADs are extremely strong, lint-free and so soft and pure (99.999%) it is almost impossible to scratch an emulsion with them. PEC*PADs are so soft they can be safely used to clean most types of sensitive surfaces : scanners, CD's, mirrors, lenses, telescopes etc. When PEC*PADs are used with Eclipse they are ideally suited for cleaning camera lenses

Caution

PEC*PAD is not recommended for cleaning Digital SLR Camera sensors. It is not the same material used in the Sensor Swabs. Photographic Solutions does not approve or warranty the sensor or any camera part from any damage caused by using non approved products.

Please turn over to read the detailed instructions for using Sensor Swabs

SENSOR SWABS

Sensor Swabs are clean room manufactured cleaning tools designed to clean the delicate CCD or CMOS sensor inside a Digital Single Lens Reflex (DSLR) Cameras. Unlike compact digital cameras, DSLR cameras feature removable lenses. In normal everyday use, removing the lens allows dirt and dust to enter the camera, some of which will eventually settle onto the sensor. The result is unsightly spots on images, typically seen against light backgrounds such as skies.

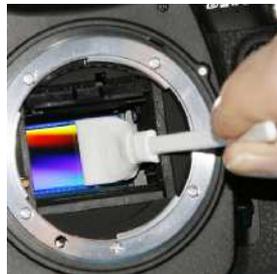
You can easily check whether the camera sensor needs cleaning by taking a photograph of a clean light background using a small aperture (typically F16 and above). View the image on a computer monitor and if possible, perform a levels command. Any contamination will then be revealed.

IMPORTANT

To perform a cleaning procedure, it is necessary to open the shutter on the camera to gain access to the sensor. It is essential that you are fully aware of how to open the shutter and keep the shutter open while cleaning the sensor. If the shutter closes while cleaning is taking place the camera will be damaged. Please refer to the camera manufacturer's instructions on how to open the shutter for cleaning purposes. If you are not 100% confident in this process, please return your camera to the manufacturer for sensor cleaning.

Cleaning Procedure (please refer to pics below)

- (1) Check you have the correct size Sensor Swabs for your model camera.
- (2) Prepare a clean, dust-free area with space for the camera, the Sensor Swabs and the Eclipse.
- (3) Remove the lens from the camera and open the shutter according to the manufacturer's directions.
- (4) Cut open a Sensor Swab polythene bag at the handle end. Remove the lid from the Eclipse bottle.
- (5) Remove the swab from the bag and squeeze 2 - 4 drops of Eclipse onto the end of the swab (Pic 1.).
- (6) Insert the swab into the camera and starting at one end of the sensor (Pic 2.) carefully wipe the swab down the length of the sensor in one direction (Pic 3.), until the complete sensor has been wiped (Pic 4.) Then reverse the swab (Pic 5.) and wipe in the opposite direction (Pic 6.) until the swab is back at the starting point (Pic 7.). Note how each swipe uses a fresh side of the swab.
- (7) Carefully remove the swab and close the camera shutter.
- (8) Refit the lens and test.
- (9) Repeat if necessary with a fresh swab. Never reuse a swab.
- (10) Do not press too hard onto the sensor while cleaning. Equally, do not press too gently, or the swab will not clean effectively. The images on the right suggest how hard to press.

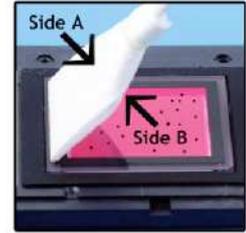


Precautions

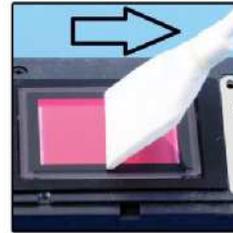
Make sure that you are confident in opening and closing the shutter for the cleaning process. Ensure that contaminating particles cannot fall from your body or clothing into the shutter chamber during the cleaning procedure. Typically, contaminating particles are too small to be seen with the naked eye. Do not over saturate the swab with Eclipse. 2-4 drops is sufficient. The fluid should evaporate almost immediately after swiping. Practice first until you are confident in the procedure.



Pic 1.



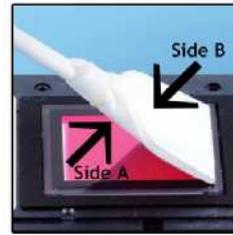
Pic 2.



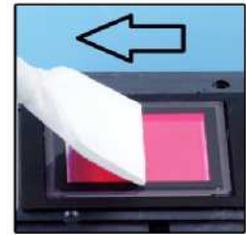
Pic 3.



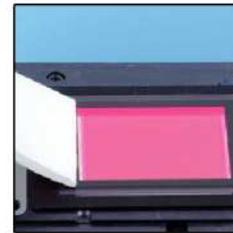
Pic 4.



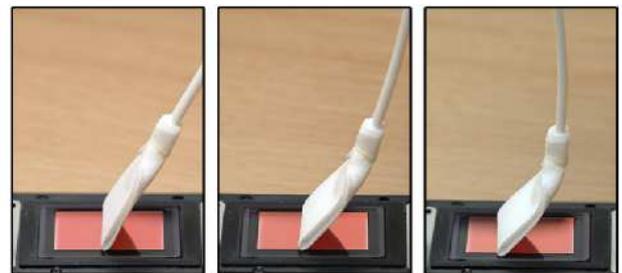
Pic 5.



Pic 6.



Pic 7.



Too Soft

Just Right

Too Hard

Refer to www.photosol.com for further guidance.

CCD Sensor Guarantee

Photographic Solutions, Inc. guarantees that its Sensor Swab and Eclipse products will cause no damage to the CCD or CMOS sensor when used in accordance with the instructions provided by the camera manufacturer and/or Photographic Solutions, Inc. (PS) If it is determined that these products caused physical damage to the sensor, PS will reimburse the camera owner for the full cost of repairs upon presentation to PS of proof of purchase, camera manufacturer's repair invoice and the damaged sensor. *Use of non-approved methods, procedures or products will void this warranty.*