



JUST Sensor Cleaning Kit (Starter Pack) Instructions for use



This kit contains three products.
All the products supplied must be used in accordance with these instructions.

- Eclipse Cleaning Fluid - 15 ml sampler
- Sensor Swabs Size 1 - Clean room manufactured tools for cleaning digital SLR camera sensors (CCD and CMOS types).
- Mini-Blower

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.

INTRODUCTION

This kit is designed as a starter kit for the person cleaning a Digital SLR Sensor for the first time.

Digital SLR cameras feature an interchangeable lens system. Removing the lens allows dust to enter the camera where it will eventually fall onto the sensor. In addition, the moving mechanical components within the camera can generate particles which can also fall onto the sensor. Eventually these microscopic particles start to show up on the images, usually as circular 'blobs'. Since dust is ever present in the atmosphere this process of sensor contamination is continuous and cannot be prevented. However it is easily managed by cleaning the sensor occasionally, when the contamination reaches unacceptable levels.

The imaging sensor is generally the most expensive component in the camera. Please use extreme caution when cleaning it. Before cleaning, ensure you are confident in your ability to access the sensor for cleaning purposes. Use the camera manufacturers approved mirror lock-up method for this, which is usually found in the menu system of the camera. Never use 'B' Mode or a long exposure to access the sensor. Always use a freshly charged battery.

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.

To clean the sensor safely, use a three stage process.
Stage 1: Take a test image to assess the level of contamination.
Stage 2: Clean away dry dust with the Mini-Blower
Stage 3: Clean away any persistent contamination with the Sensor Swabs and Eclipse Cleaning Fluid.

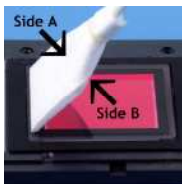
It is important to use the blower first to remove dry dust before swabbing. By removing the dry dust first, you are clearing the sensor of any potentially aggressive (i.e. hard) particles. With no dust left on the sensor, the swab cannot drag a particle along the sensor and potentially cause a scratch. Managing the dry dust regularly and effectively will reduce the need to swab in any case.

STAGE 1

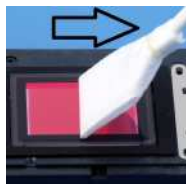
Take a picture of a blue sky or a clean white sheet of paper with the camera set to aperture F22. Check this image on your computer monitor to assess the contamination. If your imaging application supports an automatic image correction feature, you may find this function will show any marks more clearly. Use this test image to decide if your sensor needs a clean. Since contamination is a continuous process, do not clean every time a new mark appears. This will prove expensive in terms of cleaning materials. So, only clean when necessary.



Pic 1.



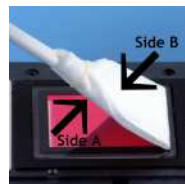
Pic 2.



Pic 3.



Pic 4.



Pic 5.



Pic 6.



Pic 7.

STAGE 2

Use the blower to remove dry dust.

Note: always keep the blower in a polythene bag when not in use to keep it clean. Always make several 'test puffs' in a safe direction before using on your camera. Remove the lens and open the shutter to access the sensor as per your camera manufacturers instructions. Hold the camera with the lens mount facing down. Point the blower nozzle up into the lens mount and make several firm 'puffs' onto the sensor. Ensure the nozzle does not touch the sensor surface. Turn the camera off, refit the lens and take a new test image to assess the effectiveness of the cleaning action. Any remaining contamination will require a wet clean with the Sensor Swabs and Eclipse.

STAGE 3

Wet clean the sensor with Sensor Swabs and Eclipse

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.

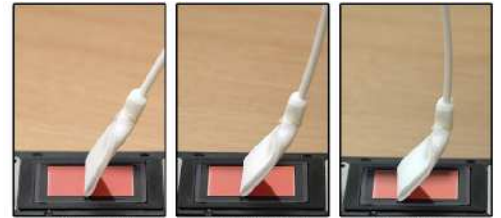
Caution.

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.

Sensor Swab 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) Cut open a Sensor Swab polythene bag at the handle end. Remove the lid from the Eclipse bottle.
- (4) Remove the lens from the camera and open the shutter according to the manufacturers directions.
- (5) Remove the swab from the bag and squeeze 3 - 5 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) Ensure you use the correct pressure when swiping - refer to the image (Pic 8.) below
- (8) Carefully remove the swab and close the camera shutter.
- (9) Refit the lens and take a further test image.
- (10) Repeat if necessary with a fresh swab. Never reuse a swab.



Too Soft Just Right Too Hard
Pic 8.

Refer to www.cameraclean.co.uk or

www.photosol.com

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. 3-5 drops is sufficient. The fluid should evaporate from the sensor almost immediately after swiping. Practice first until you are confident in the procedure.

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.*