



# Digital SLR Camera Maintenance Kit



## GUIDANCE

### INTRODUCTION

This kit is designed to help with the maintenance of a modern digital single lens reflex camera (DSLR).

The kit comprises 10 items.

All the products supplied must be used in accordance with the instructions supplied. Please read the guide carefully as it provides some general guidelines along with some hints and tips. Please read and understand the instructions before using any of the products.

**Dust-Aid Platinum - Dry Sensor Cleaning Kit**  
**Replacement Strips - For Dust-Aid Platinum**  
**Ultra-Soft DSLR Swab - For Wet Sensor cleaning**  
**Ultra-Clean Fluid - For Sensor & Lens Cleaning**  
**Dust-Cloth MF - For Lens Cleaning**  
**Kinetric Static Wisk - For Lens Cleaning**  
**Silicone Jumbo Blower - For Lens and Sensor Cleaning**  
**Microfibre Cleaning Cloth - For Cleaning the Camera Body**  
**Sensor Loupe - For inspecting the sensor**  
**EVA Case - For storing the components.**

After using the products supplied in this kit, please dispose of the components responsibly. You may obtain replacement packs from [www.cameraclean.co.uk](http://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. Before cleaning, ensure you are confident in your ability to access the sensor for cleaning purposes. Use the camera manufacturer's 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.



#### 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 THE SENSOR

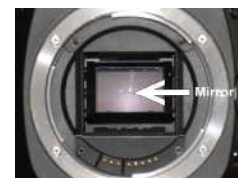
- (1) Ensure your camera battery is fully charged before cleaning the sensor.
- (2) Use the inspection loupe to check for dirt and dust. You can also take a test photograph and view it on a display screen to assess contamination. A blue sky shot or white paper sheet works well. Set the aperture to F22 to ensure maximum depth of field, as this will show the contamination more clearly. It's important to know how dirty the sensor is before starting so that you can monitor progress as you clean.
- (3) Perform a dry clean with the Dust-Aid Platinum. Please refer to the instructions supplied. If necessary, use the Sensor Loupe in cleaning mode to aid vision.
- (4) Check the sensor again, either with the loupe or a further test image to assess progress. The Dust-Aid Platinum will remove any dry dust particles. Any contamination that remains must be considered 'stuck' to the sensor and will need to be wet-cleaned off with the swabs and fluid. It is important to always use the Dust-Aid Platinum to remove dry dust prior to performing a wet clean. By removing any potentially aggressive dust particles with the Platinum pad, you ensure that nothing sharp remains on the sensor surface that could cause a problem when using a swab. Always perform a dry clean prior to a wet clean. Generally, by performing a dry clean regularly, the need to wet clean is reduced as dust is being removed before it has a chance to 'stick'

### WHEN TO CLEAN

Since dirt and dust is always present in the atmosphere, the sensor will become contaminated from time to time. Contamination also depends upon the various environments in which the camera is used. In practice it is not possible to keep the sensor 100% clean for 100% of the time. Use the camera's self-cleaning mechanism (if fitted) regularly. Only clean the sensor when the contamination becomes unacceptable. This will minimise the use of cleaning materials. Pay attention to general camera hygiene. Keep the body of the camera clean and the lenses, especially the rear elements. A clean camera will lead to a cleaner sensor over time. Take care when changing lenses, especially when outside or in windy conditions. Hold the camera body face down as you change the lens to minimise any wind borne dust entry into the body.

### CLEANING THE MIRROR

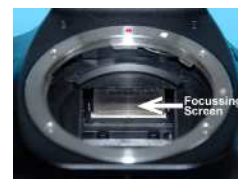
Unlike a conventional mirror, the mirror in a DSLR is semi-silvered to allow some light to pass through to the sensors at the bottom of the mirror box. Scratching the mirror should be avoided, as this may compromise the operation of the sensors.



Some dust on the mirror is not usually a cause for concern. Of course this dust may fall off the mirror and make its way onto the sensor where it will affect images. Too much dust build up may also affect the sensors and possibly dim the view through the viewfinder. You could try blowing the dust away, but again use a blower with caution as a blower doesn't clean dust, it just moves it somewhere else. Probably the safest way is to moisten a cleaning swab with Ultra-Clean and gently wipe the dust away.

### CLEANING THE FOCUSING SCREEN

If dust is visible when looking through the viewfinder, the contamination is likely to be on the focusing screen. This is the white plastic screen situated above the mirror. Care must be exercised when cleaning the screen as it is easily scratched. Sometimes the dust migrates behind the screen. If this happens, we recommend that the camera is taken to a professional repair firm so that the screen can be removed, cleaned and re-fitted.



You can try to blow the dust off with the silicone blower. Bear in mind that a blower only moves dust. If the inside of the camera is dusty you may end up making the situation worse. It may be preferable to use a cleaning swab moistened with Ultra-Clean. Bend the tip 90 degrees so that the swab can reach all parts of the screen. Use absolute minimal pressure to avoid scratching the surface.

### DUST-AID PLATINUM & STRIPS

This tool is used for removing dry dust from the sensor. Refer to the instructions supplied with the kit. Use each cleaning pad once. An additional pack of cleaning strips is supplied. Do not touch the black silicone pad with your fingers as this will contaminate it. If the pad does get contaminated, clean it on a Dust-Cloth MF pad soaked with Ultra-Clean Fluid, then, when dry, on a further Platinum cleaning strip. Always use Dust-Aid Platinum for a dry clean before wet cleaning your camera sensor.

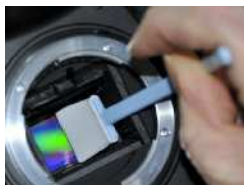


### DUST-AID ULTRA-CLEAN SOLUTION

Ultra-Clean is a low residue, non flammable, non alcohol, fast evaporating cleaning solution. Travel safe, it makes an excellent cleaner for all types of sensors and lenses. Fast evaporation is important as this prevents the liquid seeping into unwanted parts of the camera. Low residue is important to minimise streaking. Ultra-Clean is excellent at removing stuck on marks and light oils from sensor filters.

### ULTRA-SOFT DSLR SWABS

These swabs are clean-room manufactured from an extremely soft micro fibre cloth. More absorbent than a tissue based swab, they are also less likely to drop fibres due to their woven construction. Available in 4 widths to suit all modern sensor sizes.



Use these swabs to clean the sensor, the mirror and the focusing screen.

Always use with Ultra-Clean or equivalent cleaning solution. Never use dry or with water based solutions. Always perform a dry cleaning procedure on a sensor before carrying out a wet clean to remove dry dust particles.

Use each swab once only. Never re-use a swab

### DUST-CLOTH MICROFIBRE WIPES

Dust-Cloth is made from a very soft weave of micro-fibre cloth that has been tested repeatedly not to scratch sensor filters or their coatings. Designed not to produce loose fibres they make excellent lens cleaning cloths. Unlike a large micro fibre cloth, these wipes should be used once only, then discarded, ensuring that dirt and dust is not wiped back onto the surface.

To clean a lens, first ensure that any loose dust is removed with either the silicone blower or the StaticWisk. Remove one MF wipe from the pack and moisten the centre with a few drops of Ultra-Clean. Start at the centre of the lens and rub the cloth gently in a circular motion moving towards the outside of the lens. As you reach the edge of the glass, lift the cloth away from the surface.

Discard the used cloth - or use it to clean the lens mount and the rear parts ( non glass) of the lens. Never re-use a MF cloth to clean the glass parts of a lens. Always ensure that the MF Cloth pack is re-sealed after use to ensure the remaining cloths remain clean. Additional packs of cloth are available separately.

### 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 it 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.

### MICROFIBRE CLEANING CLOTH

Use this cloth to keep the body of the camera clean. Manufactured from ultra fine 0.1 denier micro fibre, for optimum softness and density, the magic cloth absorbs dirt, grease and moisture more effectively than chamois leather. Hand wash regularly in warm water.

### SILICONE JUMBO BLOWER

Use the silicone blower to puff dust from lenses, the viewfinder and if necessary the sensor. Please keep the blower in a sealed polythene bag when not in use, to avoid the possibility of dust particles entering the bulb ( which may then come out onto the next surface being cleaned). Always make one or two test puffs in a safe direction before pointing the blower at the object to be cleaned, just in case there is any dust inside the bulb.



The blower is manufactured from silicone as opposed to rubber, because silicone is a more stable material. Rubber blowers do degrade over time and may then eject sticky particles from the nozzle onto the surface being cleaned.

Many people use blowers to remove dust from their sensors. Ideally use Dust-Aid Platinum instead to remove dust from the sensor as Platinum traps dust and takes it out of the camera. A blower simply moves dust around instead. However for the odd particle, a blower is fine provided the cautions above are observed.

You should only use a manual blower in a camera. Do not use aerosol air dusters inside the camera as these may leak propellant which can cause severe damage. Equally, do not use a compressed air line as these usually have oil particles in the air which can contaminate the camera.

### SENSOR LOUPE

This is a useful device that can be used for checking the sensor for dust. Simply remove the lens from the camera, activate mirror lock-up to reveal the sensor. Place the loupe flat onto the lens mount and turn on the illumination system with the push-button. Look through the top lens to see any contamination. The focal length is set to focus on the sensor anti-aliasing filter that sits on top of the sensor rather than the sensor surface since this is where any dust will accumulate. Check that the underneath of the loupe is clean before use, to prevent any dust falling from the loupe into the camera and onto the sensor.



The loupe can also be used as a visual aid when cleaning the sensor. Attach the telescopic bracket to the camera hot-shoe ( use the supplied adaptor for Sony cameras) and tighten. Fit the loupe into the wired hoop at the top. Now extend the telescopic bracket, pop out the lower lens with the bottom button and turn on the illumination system. After cleaning the sensor, simply push in the lower lens and lower the bracket to place the loupe onto the lens mount to check your results. If necessary, you can pivot the loupe away from the lens mount to gain better access. The loupe uses standard AAA batteries (supplied).

