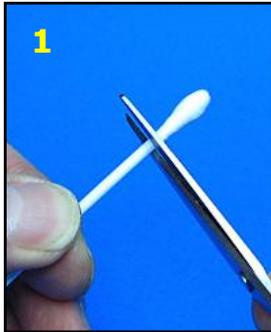
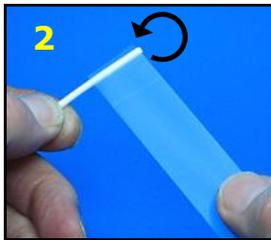


Fluff, fibers, shavings, and dust accumulated and stick to the anti-reflective material applied inside the mirror chamber on most cameras. These particles have a habit of ending up on the Image Sensor and on the viewfinder focusing screen. Here are details on how to make a small safe tool cleaning tool using either a Cotton Bud or a used CCD Cleaning Swab.

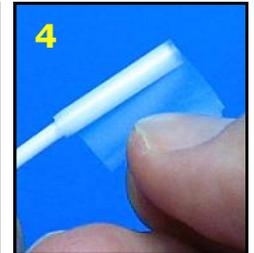
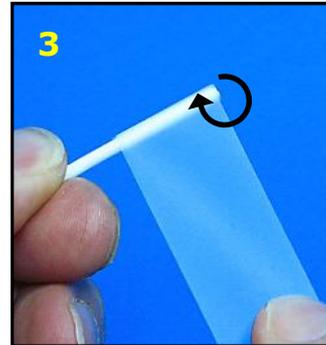


The Cotton Bud tool:

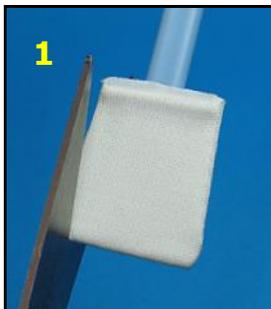
1) Cut the tip off one end of a cotton bud.
 2) Tear off a 10-12cm length of sticky tape and roll about **half** the length around the end of the bare stick.



3) At this point **reverse** the rolling of the stick and wind the rest of the tape around it with **sticky side outwards** (pictures 3 and 4).



4) You will end up with a 'sticky roll' (picture 5). Now simply 'roll' the walls and bottom of the mirror chamber with the tool and let the sticky tape pick off fluff, fibres and particles.



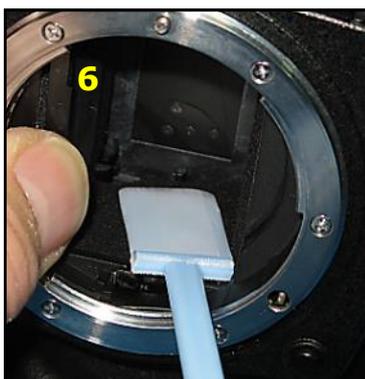
The CCD Swab Tool:

A similar tool, but with a wider surface area, can be made from a **used Sensor Cleaning Swab**.

1) Cut each side off squarely and remove the old microfibre material (pics 1 and 2).
 2) Stick a length of adhesive tape to the paddle end, then wind it around the paddle with the sticky side outwards as in pics 3 and 4.



3) You now have a flat surfaced 'fluff removing tool' which makes for a quicker cleaning process and slightly better reach than the stick.



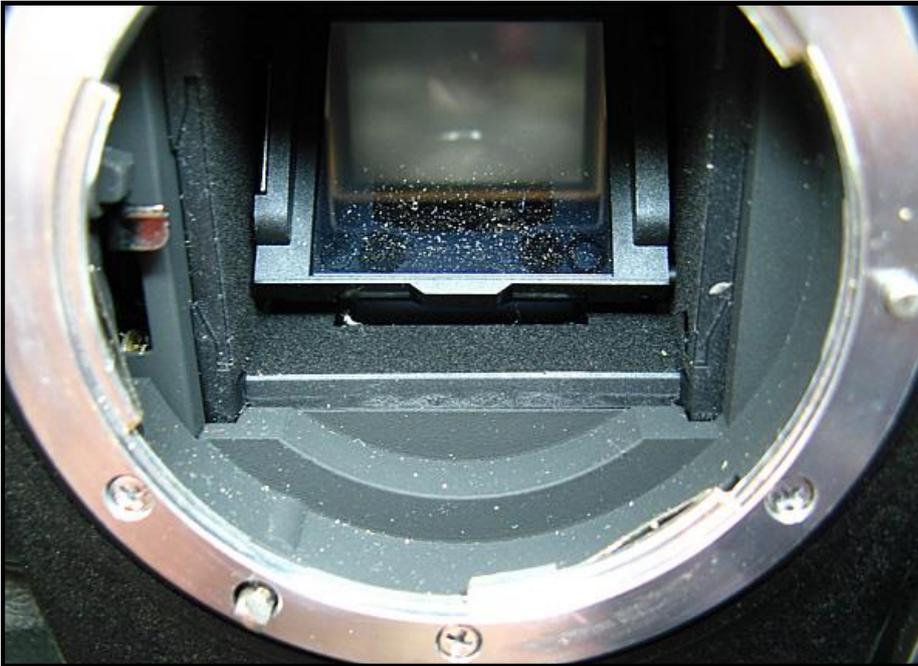
Comments:

Mirror chamber cleaning is the last cleaning step before cleaning of the image sensor. All other external cleaning should be done first.

Gently lift and hold the mirror up with a finger while cleaning. The tool will pick up lots of stuff and you may need to replace the tape a few times.

Take care NOT to touch the shutter, focusing screen or mirror.

Serious contamination, such as in the extreme case shown on the picture below, requires special care and diligence when cleaning. Not only was the mirror chamber severely contaminated with dust and fibres, but also with fine metal shavings seen here in the front. If the bayonet fittings on the camera and on the lens are not cleaned and lubricated, the constant rubbing from tight fitting lenses will eventually produce lots of fine metal shaving.



You definitely do not want these bits get into the mechanism or onto the sensor!

But if it happens, as in this case, what is the best line of attack?

As mentioned on page 1, **the exterior** of the camera body must be thoroughly cleaned **before** you get to the mirror chamber.

Leaving a lens or a body cap on the camera body while the exterior is being cleaned will help prevent unnecessary internal contamination.

When you are satisfied that the exterior is clean you can now attack the mirror chamber.



Hold the camera with the lens opening downwards and shake out anything that will come out that way. The use of a fine haired brush will help dislodge and clear other bits. Finally use your air puffer and gently puff out any remaining loose bits while holding the lens opening downwards.

When the chamber is as clean as you can get it with the above methods, you finish off the cleaning process using one of the adhesive tools described on page 1. You will be surprised how much debris will stick to the adhesive.

The rear of the lens (the bayonet mount fitting) should also be well cleaned and here a pointed tip cotton bud, moistened with contact cleaner and lubricant, such a DeoxIT.

The mirror is best cleaned with one of the Mini Swabs and perhaps a drop of lens cleaning fluid (more details are supplied with the Mini Swabs). You could use the soft end of a cotton bud, but because the mirror has a very soft surface it is easily scratched. The mini swabs have a microfibre hood and the best option for mirrors and small lens surfaces.

