

# LEBANON CAMERA CLUB

## Digital Camera Sensor and Lens Cleaning

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See last slide for Fair  
Use Notice & Disclaimer

# Sensor and Lens Cleaning

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## Lens cleaning

- Hand blower
  - ◆ Best way to remove dust from lenses
  - ◆ Cost: \$5 to \$58 at B&H Photo Video

Note: Some people use compressed air/dust gun/CO2, but that creates a lot of force. If the issue is only dust that much force shouldn't be necessary.



what I use: Zuma Blower \$7  
I have two, one is better than  
the other



top rated on B&H:  
Giottos Rocket Air  
Blaster (large) \$19



built-in filters:  
VisibleDust Zee Pro  
\$41

# Sensor and Lens Cleaning

## Lens cleaning

- **Brush or lens pen**
  - ◆ **For stubborn dust**
    - **Lens pens: brush side and wiping side → be careful not to scratch lens**
  - ◆ **Cost: \$10 to \$40 at B&H Photo Video**

Note: Anti-static brushes used to use radioactive polonium to eliminate static. It wasn't that dangerous, but the use had faded. However they are still available for around \$150



top rated on B&H: Celestron  
LensPen Tool \$14  
I use the Lenspen brand  
(Celestron is a Lenspen re-brand)



highly rated on B&H: Delta 1  
Camel Hair Brush \$26  
"photo standard for 50 years"



Kinetronics StaticWisk  
Brush \$24  
does not use polonium

# Sensor and Lens Cleaning

## Lens cleaning

Note: Un-moistened lens cleaning tissue paper is still sold, but I wouldn't use it.

- Wipe or cleaning solution + cloth
  - ♦ If the blower isn't enough, or oil/fingerprints are on lens
    - ♦ I prefer the pre-moistened wipes, although they can dry out over time
  - ♦ Wipe cost: \$0.14 to \$1.05 each at B&H Photo Video
  - ♦ Solution cost: \$4 to \$21



what I use: Zeiss wipes  
\$5 for 60



top rated on B&H:  
Hoodman Lens Cleanse  
\$10 for 12



well rated on B&H:  
Lumincon Residual Oil  
Remover \$11

# Sensor and Lens Cleaning

## Lens cleaning

Note: You can get microfiber cloths and lens cleaning solution from your optician. The quality may vary. My optician uses Zeiss products.

- **Microfiber cloth**

- ◆ **Lint-free, non-abrasive**

- **Cleaning: shake rigorously by a corner, snap if you can**

- **Hand wash, cold water, a few drops of mild soap (no bleach or softener)**

- ◆ **Cost: \$3 to \$30 at B&H Photo Video**

I find wipes can leave streaks after the alcohol evaporates. I then exhale on the lens which leaves moisture on the surface and use a microfiber cloth to remove it. Works well for me...



what I use: 1980's  
microfiber cloth \$?  
also serves as a  
gray card

top rated on B&H: Nikon Micro Fiber  
Cleaning Cloth \$9  
stores in attached stuff bag

well rated on B&H: Sensei  
Premium Microfiber Lens  
Cloth \$5

# Sensor and Lens Cleaning

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## Sensor cleaning

- Dust check method
  - ◆ Shoot a clear blue sky
    - Use a wide angle lens → 24mm is ideal, 35mm is fine
    - Set focus to infinity
    - Use a small aperture → big f-number,  $f/16$  or  $f/22$

Note: If your camera has in-body stabilization the mechanism used to move the sensor can also shake it to remove dust.

# Sensor and Lens Cleaning

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Note: This is from my Sony A7 II which does have in-body stabilization, and does do a dust-removal shake. I still need a cleaning...

## Sensor cleaning

- Dust check method
  - ◆ Shoot a clear blue sky
    - RAW processing software: contrast = 100, saturation = -100



# Sensor and Lens Cleaning

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## Sensor cleaning

- Hand blower
  - ◆ Initial approach to removing dust from sensors
  - ◆ Cost: \$5 to \$58 at B&H Photo Video

Note: Never use compressed air/dust gun/CO2 to clean a sensor! It's too much force, and some use chemicals which can damage the sensor.



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# Sensor and Lens Cleaning

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## Sensor cleaning

- Sensor brush
  - ◆ If a hand blower isn't enough
    - Only use a brush designed for sensors!

Note: Do not use the same brush for chamber and sensor cleaning. There are also vacuum fans which can suck out the dust in the chamber (not sure if it's needed).



VisibleDust 8mm Sensor/Chamber  
Cleaning Brush \$45



highly rated on B&H: VisibleDust  
Arctic Butterfly 724S \$123  
built-in light, motor 'charges' brush

# Sensor and Lens Cleaning

## Sensor cleaning

- Swabs + cleaning solution
  - ◆ If the sensor brush isn't enough
    - Can leave streaks → experience helps
  - ◆ Cost: \$13/6 (swabs) to \$57 (kit) at B&H Photo Video

Note: VisibleDust has three different solutions for different stains, and two different swabs.



VisibleDust VDust Plus \$44  
for water and oil stains



top rated on B&H:  
Visible Dust swabs  
\$19



highly rated on B&H: Delkin  
Devices Sensor Scope System  
\$57  
contains sensor inspection loupe

# Sensor and Lens Cleaning

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