



VisibleDust

DRY CLEANING MANUAL

- Operating an Arctic Butterfly®
- Dry Cleaning best practices
- Arctic Butterfly® Maintenance
- Limited Warranty
- Exclusions & Limitations

For Models:

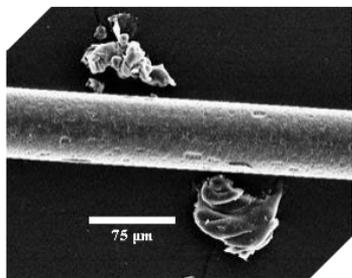
- Arctic Butterfly® 724
- Arctic Butterfly® SL700
- Arctic Butterfly® SD800 PRO



Congratulations on your purchase of the renowned VisibleDust Sensor Brush™ technology. This guide has been designed to help you dry clean your camera's sensor in a step-by-step process. You'll find simple instructions and a Frequently Asked Questions section for your convenience. We recommend that you read through this manual thoroughly before proceeding to clean your sensor.

Use Sensor Loupe™ & eliminate the F22 test!

Prior to cleaning your sensor, VisibleDust strongly recommends using Sensor Loupe™ (sold separately) for contamination inspection. With Sensor Loupe™ you can easily spot dust on your sensor, saving you time from unnecessary cleaning.



Two particles hugging the fibers of the Sensor Brush™ filaments.

Product models this guide covers:

- Arctic Butterfly® 724
- Arctic Butterfly® SL700
- Arctic Butterfly® SD800 PRO

Information outlined in this guide:

- Dry cleaning your sensor with an Arctic Butterfly®
- Maintaining your Arctic Butterfly®
- Dry cleaning best practices
- Limited Warranty, Exclusions & Limitations

DRY CLEANING

STEP 1 - REMOVE CAP & SPIN

Remove the protective cap of the Arctic Butterfly® model by twisting the cap and pulling it off. Turn the Arctic Butterfly® on and allow it to spin for 5–10 seconds. The bristles should fan out to a flat 180°.

1a



1b

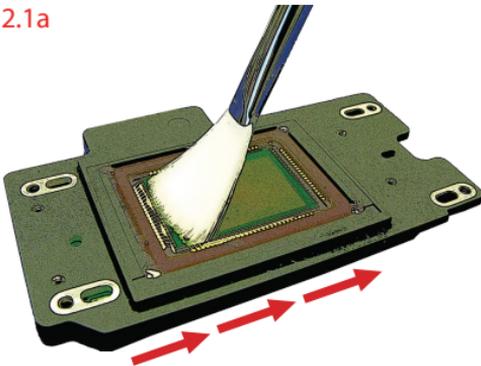


STEP 2 - CLEAN SENSOR SURFACE

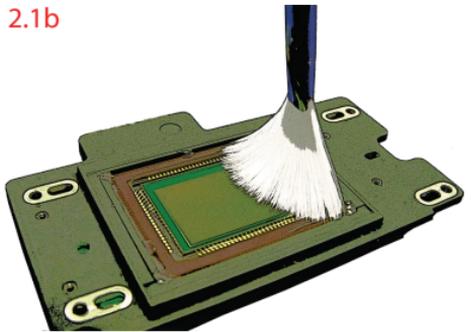
Method A

Refer to your camera's user manual to properly expose the sensor chip. Take caution not to touch the chamber walls while cleaning, entering and exiting. Gently clean across the sensor surface with one uniform pass, allowing dry dust particles to be statically attracted to the bristles.

2.1a



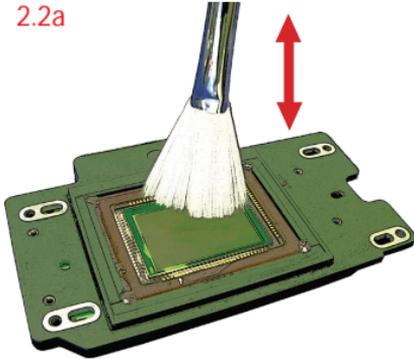
2.1b



Method B

Small specks and spots of dry dust require only a light dabbing procedure. Instead of cleaning end-to-end, lightly tap the bristles on dust specks to remove them.

2.2a



2.2b



STEP 3 - CHARGE & DISLODGE

Charge the bristles and dislodge any dry dust particles from the Arctic Butterfly® by turning it on **OUTSIDE AND AWAY FROM** the camera. Check your sensor for dust particles with Sensor Loupe™ (sold separately) and repeat steps 1–3 if needed.



Spin the Arctic Butterfly® (Charge & Dislodge) outside and away from the camera after EACH brush stroke.

DRY CLEANING BEST PRACTICES

The Arctic Butterfly® is a tool for safely removing dust particles from the sensor's surface. Some cameras contain oily chambers or sensor chip perimeters; avoid contact with your chamber while cleaning your sensor. Contaminants on the brush head could affect performance. For stains, smears, smudges, camera oils and lubricants, look to VisibleDust's travel safe wet cleaning solutions.

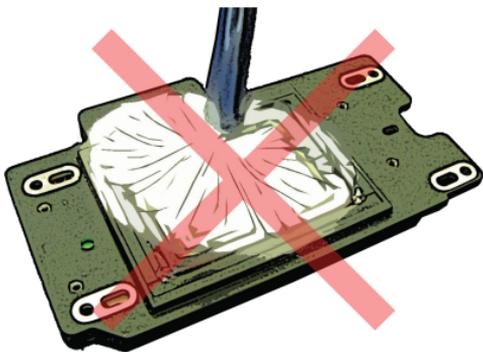
DO:

- Not activate the Arctic Butterfly® while cleaning the sensor (Figure 14.a).
- Not apply excessive pressure while cleaning (Figure 14.b).
- Not contaminate the bristles with oils, liquids or your fingers.
- Not clean with a contaminated brush head.
- Not activate the Arctic Butterfly® while the protective cap is still attached.

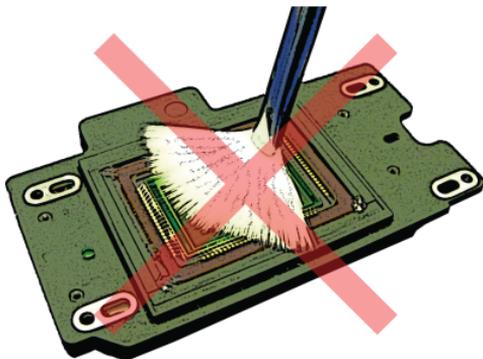
ALWAYS:

- stow the Arctic Butterfly® in its case with the cap on when not in use.
- remove the batteries when traveling on an airplane.
- clean your brush head after every 10–15 uses or as needed.
- activate the Arctic Butterfly® in between cleaning strokes, outside the camera.

14.a



14.b



ARCTIC BUTTERFLY® MAINTENANCE

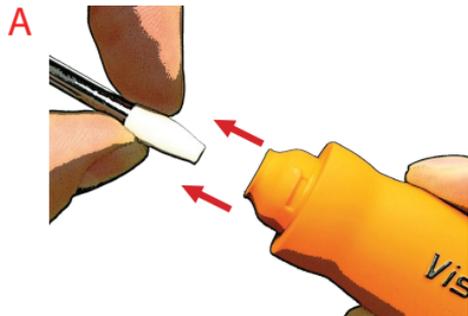
Cleaning

You should clean your Arctic Butterfly® **brush head** and **cap** after every 10–15 uses or as soon as any contamination occurs. Should your brush head bristles fray or bend out of shape, you may dip the brush head in warm water (50°C or 122°F) for 10 seconds to straighten the bristles. Do not use hot or boiling water to clean the brush head, as this will permanently damage the bristles. Do not touch the bristles with your fingers.

Contamination from oils or liquids will hinder the performance of the Arctic Butterfly®. Should your brush head become contaminated, VisibleDust's Sensor Brush Wash™ (sold separately) can clean the fibers of any impurities. In the absence of Sensor Brush Wash™, pure isopropyl alcohol (99%) is also an acceptable solvent. Do not use methanol!

Switching Brush Heads

Only the Arctic Butterfly® models 724 and SD800 Pro have detachable brush heads that are interchangeable. To remove those brush heads, pull them off at the white adapter base. You can then attach either the HDF brush head or the SD800 Pro adapter to mount the 1.6x, 1.3x, 1.0x or the new Angle 45 brush. To prevent loud vibrations, wobbling or reduced spin speed, be sure to firmly attach the adapter/brush head.



Pull at the white base



Firmly attach brush head

FREQUENTLY ASKED QUESTIONS - DRY

Q: How safe is the Arctic Butterfly® on my sensor?

A: Very safe. The brush head fibers are soft enough not to scratch the sensor and will not dissipate their positive charge onto the sensor. When used incorrectly or for purposes other than the original intent, damage may occur.

Q: How does the Arctic Butterfly® clean my sensor?

A: The permanently charged fibers attract dry dust particles that come near them.

Q: How do an Arctic Butterfly® and Nylon brush differ?

A: VisibleDust incorporates SCF (Super-Charged Fiber) technology to attract dry dust. Our bristles undergo a patent pending procedure to become ionized and permanently charged. Nylon brushes are not suitable for removing dust and therefore not recommended. Only VisibleDusts patented Sensor Brush™ technology is qualified to remove dry dust through enhanced SCF electric attraction.

Q: Is the Arctic Butterfly® all I need to clean my sensor?

A: 95% of the time you will require an Arctic Butterfly® for removing dry dust. Minor stains, smears and oils require wet cleaning to be removed. Look to VisibleDusts travel safe, wet cleaning solutions for stubborn dust, stains, smears and oils.

Q: How do I clean my brush head if it becomes contaminated?

A: Please review the Maintenance section of this manual for proper information.

Q: How many cleanings is the Arctic Butterfly® good for?

A: The Arctic Butterfly® is good for up to 10,000 cleanings and based on the average cost, that is less than 1¢ per cleaning.

Q: Should the Arctic Butterfly® vibrate or buzz while activated?

A: Small vibrations are acceptable; however, if you're experiencing loud buzzing or if the brush head is wobbling, the cause may be a loose brush head rubbing against the casing. Attach the brush head firmly enough for the wobbling or vibrations to stop.

ABOUT VISIBLEDUST

VisibleDust is a Canadian Company that uses its knowledge of and research into biochip technology to advance the science of removing dust from the surface of delicate objects such as digital SLR sensors. Attracting protein and DNA to the glass-like surface of a biochip for attachment requires special preparation of that surface; because dust has many characteristics in common with DNA, our DSLR sensor cleaning products are able to utilize the same technology to remove dust.

VisibleDust revolutionized the sensor cleaning industry by introducing the world's first Sensor Brush™. Utilizing a patent pending procedure, Sensor Brush™ is capable of attracting dry dust with enhanced static-electric charges. Since then our research and development have introduced cutting-edge products that include the renowned Arctic Butterfly®, our travel-safe cleaning solutions and swabs.

VisibleDust's system is considered to be the safest, most economical and most efficient choice on the market for cleaning your sensor. We are proud to put our biochip knowledge to the test by bringing you scientifically proven products. Backed by our customer service team and high standards, VisibleDust always gives you our best, from our labs to your camera bag.

Website

www.visibledust.com
www.sensorcleaning.com

EXCLUSIONS AND LIMITATIONS

This Limited Warranty applies only to the Arctic Butterfly® - 724, Arctic Butterfly® - SL700 and Arctic Butterfly® - SD800 Pro product manufactured by or for VD that can be identified by the "VisibleDust" trademark, trade name, or logo affixed to it. This Limited Warranty does not apply to any non-VD product, even if packaged or sold with the Arctic Butterfly® product. Non-VD manufactures, suppliers, or publishers may provide a separate warranty for their own products packaged with the Arctic Butterfly® product.

VD is not liable for any damage to or loss of use of the Digital Single Lens Reflex ("DSLR") camera being cleaned with the Arctic Butterfly® product, or any non-VD product or part not covered by this warranty. Replacement and/or repair of said DSLR is not covered or compensated for under this Limited Warranty.

This warranty does not apply: (a) to damage caused by accident, abuse, misuse, misapplication, or non-VD products; (b) to damage caused by service performed by anyone other than VD; (c) to a product or a part that has been modified without the written permission of VD.

TO THE MAXIMUM EXTENT PERMITTED BY LAW, THIS WARRANTY AND THE REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED. VD SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IF VD CANNOT LAWFULLY DISCLAIM OR EXCLUDE IMPLIED WARRANTIES UNDER APPLICABLE LAW, THEN TO THE EXTENT POSSIBLE ANY CLAIMS UNDER SUCH IMPLIED WARRANTIES SHALL EXPIRE ON EXPIRATION OF THE WARRANTY PERIOD. No VD reseller, agent, or employee is authorized to make any modifications, extension, or addition to this warranty.

TO THE MAXIMUM EXTENT PERMITTED BY LAW, VD IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY, INCLUDING ANY COSTS OF REPLACING ANY DIGITAL SINGLE LENS REFLEX ("DSLR") USED WITH THE VD PRODUCT. FOR CONSUMERS WHO HAVE THE BENEFIT OF CONSUMER PROTECTION LAWS OR REGULATIONS IN THEIR COUNTRY OF PURCHASE OR, IF DIFFERENT, THEIR COUNTRY OF RESIDENCE, THE BENEFITS CONFERRED BY THIS WARRANTY ARE IN ADDITION TO ALL RIGHTS AND REMEDIES CONVEYED BY SUCH CONSUMER PROTECTION LAWS AND REGULATIONS. TO THE EXTENT THAT LIABILITY IS LIMITED, AT ITS SOLE OPTION TO REPLACEMENT OR REPAIR OF THE PRODUCT.

PRODUCT WARRANTY

VisibleDust, warranty obligations for Arctic Butterfly® - 724, Arctic Butterfly® - SL700 and Arctic Butterfly® - SD800 Pro is limited to the terms set forth below:

VisibleDust ("VD") warrants the Arctic Butterfly® rotary unit, brush head and protective cap against defects in materials and workmanship for a period of one (1) year from the date of original purchase ("Warranty Period")

If a defect arises and a valid claim is received by VD within the Warranty Period, as its option, VD will (1) repair the product as no charge, using new or refurbished replacement parts, (2) exchange the product with a product that is new or which has been manufactured from new or serviceable used parts and is at least functionally equivalent to the original product, or (3) refund the purchase price of the product.

If a defect arises and a valid claim is received by VD after the first thirty (30) days of the Warranty Period, a shipping and handling charge will apply to any repair or exchange of the product undertaken by VD.