



DataRay Inc. User Guide

WinCamD + BSF series UV Converter

Advancing the Technology
of Laser Beam Analysis

Very Important: Per the User Manual instructions, with *full* Administrator Rights, Install, Open and Close the latest Software before connecting the Camera.

You should have received:

- a) A WinCamD series camera *with or without* a screw-on ND4.0 filter covered by a screw-on target cap.
- b) A separately packaged UV converter with an attached spacer, ***prefocused*** for screwing on to the camera.
- c) User Manual with software CD inside the front cover, 3 m USB 2.0 cable, Camera and or UV converter Calibration Certificate.

First:

- d) Install the software, open and close it, and then install the hardware. Follow the instructions in the User Manual.
- e) Read the manual and learn to use the camera before you attach the UV converter. *This is particularly true if you are working with a pulsed laser, as is often the case for the UV.*

To use the UV converter:

- f) Inspect the UV converter. It has an aperture ring which allows you to vary the irradiance on the camera by a factor of 100:1 by varying the aperture from (typically) f/1.6 to f/16.
- g) Unscrew the ND4.0 filter and screw-on the UV converter. Remove the front cover cap.
- h) Start the software. Read the **PMF =** section on the label on the UV converter. In the **Setup** pull-down menu, choose **Capture Setup Dialog**. In the **USB Capture Setup** menu enter the **PMF** value on the label. (Don't know how to do this? You skipped e) above.)
- i) Measure the power in your beam/energy in order to ensure that it does not approach the 500 mJ/cm² damage threshold.
- j) With the UV converter aperture set to f/4, 'walk' the beam onto the converter from one side. If the camera saturates, and increasing the aperture f/# does not help, then you need to add additional attenuation/sampling before the converter. (A 5% right angle prism sampler is an available accessory. An RA for BSF10, or RA-20 for BSF20.)

Refocusing & PMF adjustment. Lay grid on crystal. *Fine focus:* Loosen 1.5 mm set screw & rotate the body. *Coarse focus & PMF adjustment:* Loosen the three labeled 0.89 mm set screws using the key provided. Additional focus grids & spacer rings are available. [Legacy BSF10C13N has fine adjustment only]

Problems?

Reread this User Guide. Still no luck? Save a *.wcf file (per the instructions in the User Manual) and email it with a description of your problem to support@dataray.com.

