MegaCam 800 Camera

Installation and User Instructions

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Introduction

The high sensitivity cooled CCD MegaCam 800 Camera is designed for use with UVP's BioSpectrum® Imaging Systems. The instruction manual covers assembly of the camera and lens to the BioSpectrum darkroom and installation of software.

Refer to the BioSpectrum Manual for additional system information and the VisionWorksLS Software PDF Manual on the Support CD or Help Files embedded in the software for more information.

Applications the MegaCam 800Camera is designed for:
- Luminescence detection
- Chemiluminescent samples including westerns, northerns, southerns and in vivo/in vitro samples
- Autoradiograph films
- Fluorescent and colorimetric gels, colony and microtitre plates, dot blots, membrane arrays

Components

Camera Kit

The camera kit includes a motorized lens. Refer to the packing slip or installation components list for a complete list of parts.

- MegaCam 800 Camera
- Cables
- Power supply for the camera
- Motorized lens
- Brackets/screws for each lens
- Back Focus Rings (Note: Back focus rings may not be required for your camera. If no rings are needed there will not be any rings shipped with your order.)
- Additional components as described in the packing slip/components list

The MegaCam 800 Camera specifications include:

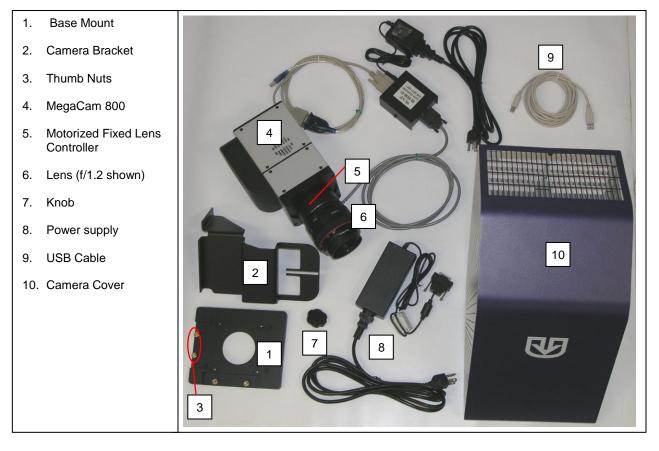| Camera Specifications	MegaCam 800
Type	80mm x 13.5mm full frame CCD
Resolution	3326 x 2504
Pixel Size	5.4µm x 5.4µm
Full Well Capacity	25,000 electrons
Bit Depth	16-bit
Readout Noise	10 electrons (typical)
Quantum Efficiency	(62% @ peak) 400nm 40%; 500nm 58%; 600nm 58%
Cooling	-50˚ C from ambient
Binning	Yes
PC Interface	USB
Lens Mount	T-Mount
Lens	50mm f /1.2 or 30mm f/1.4 or 28mm f/1.8 or
Lens Controller	Control box AC power USB cable USB driver

Installation

The camera is controlled by VisionWorksLS software. Refer to your darkroom manual for additional system information and the VisionWorksLS Software Manual (pdf file on the VisionWorksLS CD) or Help Files for software information.

MegaCam 800 Camera Kit with Motorized Fixed Lens

Installing on the BioSpectrum Imaging System

The photograph shows parts required for assembly of the camera kit with the automated/motorized fixed lens onto the BioSpectrum Imaging System.
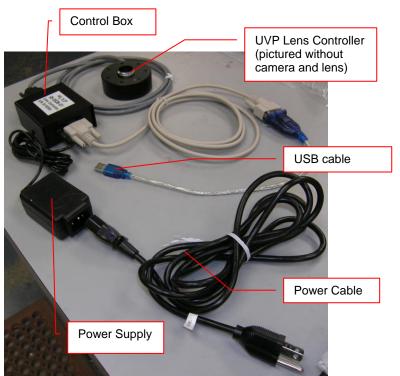
NOTE: Some components are preassembled at the UVP factory.

1. Base Mount
2. Camera Bracket
3. Thumb Nuts
4. MegaCam 800
5. Motorized Fixed Lens Controller
6. Lens (f/1.2 shown)
7. Knob
8. Power supply
9. USB Cable
10. Camera Cover

- Set up the darkroom and unplug all components from the power outlet. Refer to the **BioSpectrum Imaging System Manual** for more information.

- The base mount (1) is attached to the top of the BioSpectrum darkroom at the UVP factory. If not, secure the base mount to the darkroom with the long screws (not shown).

- Attach the camera bracket (2) to the base (1) with the thumb nuts (3).

- The camera (4) should be attached to the motorized lens controller (5) and motorized lens (6). Place the camera/lens assembly over the base mount at the top of the darkroom and secure the camera to the bracket (2) with the knob (7).

- Connect the 15-pin camera power supply cord (8) to the camera well at the top of the darkroom.

  Note: Although the picture shows a rectangular power supply, a power cord, and a pinned power connector, just connect the pinned power connector coming from the darkroom to the camera. If upgrading the BioSpectrum from one camera type to the MegaCam 800 camera, all power supply parts will be visible. In this case, the power supply cord must be plugged into a wall outlet.

- Once the software is installed, connect the camera USB (9) cable to the camera and then into an available port on the computer.

- Place the camera cover (10) on the top of BioSpectrum so that it covers the camera.

- Install the VisionWorksLS software to run the camera if not already installed. Refer to the PDF VisionWorksLS software manual on the Support CD or use the Help Files embedded in the software for more information.

- To connect the **motorized lens** (showing the motorized fixed lens in the photograph):

  - Connect the Power Cable to the Power Supply

  - Connect the Power Cable to an electrical outlet

  - Connect the USB cable to an available port on the computer.

Install the Camera drivers

- Open VisionWorks software.

- Connect the camera to a USB port on the computer with the USB cable provided and power connect the power supply to the camera and an appropriate power outlet.

- When the camera is first connected to the computer the "Found New Hardware" wizard will open. Select "Install from a list or specified location (Advanced)" and click the "Next" button.

- Select "Don't Search. I will choose the driver to install." The click the "Next" button.

- Click the "Have Disk…" button and browse to the "C:\Windows\system32\drivers" folder. Open the drivers folder and select "sisousb.inf" for the 800 camera select Open, Ok, Next, Finish.

Note: the installation may cause a warning message saying that the drivers are "not verified by Microsoft". Select "Continue Anyway" and the drivers will be installed correctly.

Note: to verify that the driver has been loaded go to Start > Programs > UVP > Sensovation Device Manager. A new SVDeviceManager window opens. Ensure that the Sensovation HR830 camera appears. Select Save & Exit.

Accessories and Replacement Parts

To order accessories or replacement parts, contact UVP's offices listed under Technical Support.

Technical Support

UVP offers expert technical support on all of our products. If you have any questions about the product's use, operation or repair, please contact our offices at the locations below.

Note: A **Returned Goods Authorization (RGA) number** must be obtained from UVP's Customer Service prior to returning any product.

If you are in North America, South America, East Asia or Australia:	If you are in Europe, Africa, the Middle East or Western Asia:
Call (800) 452-6788 or (909) 946-3197, and ask for **Technical Support** during regular business days, between 7:00 am and 5:00 pm, PST.	**Call +44(0) 1223-420022**, and ask for **Customer Service** during regular business days between 9:00 am and 5:30 pm.
E-mail your message to: info@uvp.com or techsupport@uvp.com	**E-mail** your message to: uvp@uvp.co.uk
Fax Technical Support at (**909) 946-3597**	**Fax** Customer Service at **+44(0) 1223-420561**
Write to: UVP, LLC. 2066 W. 11th Street, Upland, CA 91786 USA	**Write to**: Ultra-Violet Products Ltd. Unit 1, Trinity Hall Farm Estate, Nuffield Road, Cambridge CB4 1TG UK