

# Molecular Imager® Gel Doc™ XR and ChemiDoc™ XRS Systems Installation Guide

## Setting Up Your Molecular Imager Gel Doc XR or ChemiDoc XRS System

### Install Filter

From the inside of the darkroom, gently thread the filter into the filter slider mount located on the inside of the camera opening at the top.



### Attach Camera Bracket

1. The brackets are shipped inside the Gel Doc XR or ChemiDoc XRS darkroom. Carefully remove them.



Gel Doc bracket (A) and gasket (B)



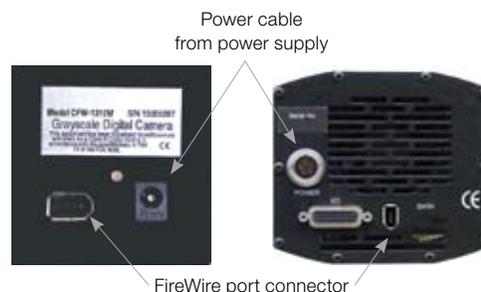
ChemiDoc gasket (A) and bracket (B)

2. Attach the appropriate bracket to the camera by hand-tightening the screw into the front of the camera. Do not overtighten because it may be necessary to make minor adjustments later.
3. Place the round foam gasket on the top of the cabinet with the foam side facing up.

### Attach FireWire and Power Supply Cables

Attach the FireWire and power supply cables to the top of the camera. Do not plug the FireWire cable into the computer or the power supply cable into the wall yet.

Note: The ChemiDoc XRS power supply cable has a red dot that will face the front of the camera when it is lined up properly.



### Install the Camera

1. Place the camera lens through the gasket, and stand the camera upright on the cabinet as shown. Hint: The camera will need to acquire image optimization files the first time that Quantity One® 1-D analysis software is run. It is best to leave the lens cap on the camera while those files are acquired.
2. Hand-tighten the screw to attach the camera bracket to the hood.



3. Adjust the screw that attaches the camera to the bracket and the screw that attaches the bracket to the hood until the camera stands upright and appears to be centered. You can check the horizontal alignment of the camera by looking at the side of the instrument and the vertical alignment by looking up at the filter holder inside the hood.

**Horizontal alignment**



ChemiDoc XRS assembly



Gel Doc XR assembly

**Vertical alignment**



Center lens in the opening of the hood (as viewed from inside the hood)

**Connect the Cables**

Note: DO NOT plug the FireWire cable into the computer at this time.

Connect all of the cables to the camera, the hood, and the computer. Each system will have the following connections:

**Camera**

1. Power supply
2. FireWire cable

**Universal hood**

1. Serial cable
2. Motorized zoom lens (MZL) cable (from camera lens)
3. Power cable

**Computer**

1. Serial cable from universal hood II to COM 1 port (PC)
2. Serial cable from universal hood II to USB via USB adaptor (Mac)



**Locate the FireWire Connection on the Computer**



**PC:**

Some PCs may require the addition of a PCI FireWire (IEEE 1394) adaptor card.

1. Make sure that the computer is powered off and the power cord is disconnected from the PC while installing the FireWire adaptor card.
2. Power on the computer.
3. The Windows 2000 and Windows XP operating systems will recognize the card and automatically install the appropriate driver for it.

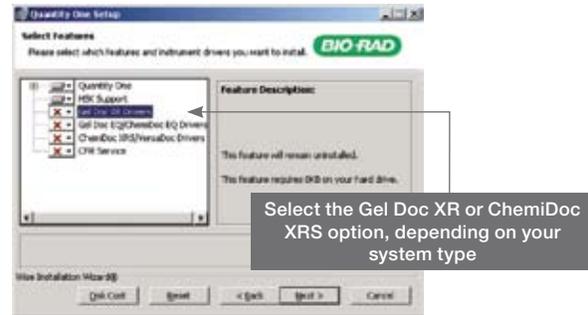
**Mac:**

Current Mac systems have onboard FireWire ports.

**Install Quantity One Software**

**PC:**

1. Insert the software CD and follow the default installation instructions on your screen.
2. To install the appropriate camera drivers, select the following on your screen:

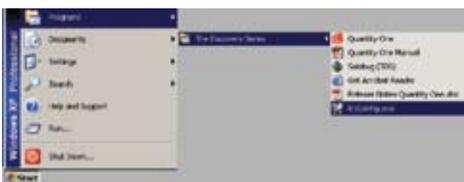


3. Follow the default installation routine to complete the installation of the software.
4. After installation is complete, plug the FireWire cable from the camera into the PC. Ensure that the power supply for the camera has power connected to it. Additionally, on the ChemiDoc XRS, make sure that the power switch is turned on.

5. The Windows 2000 and XP operating systems will detect the new device. For the ChemiDoc XRS, you will need to guide Windows through the driver installation.

**Windows 2000:** A list of compatible devices will be shown. Select ChemiDoc XRS and select Next.

Note: For Windows 2000 installations, it is also necessary to run RSConfig from the program files menu. Make sure that the camera is powered on and that the FireWire cable is connected to the computer. Run RSConfig from the Quantity One program menu and select OK.



**Windows XP:** Do not connect to the Internet; instead select “Automatically search for the best driver”. Select Next, and Windows XP will automatically install the driver.

**Mac:**

1. Insert The Discovery Series™ software CD into the CD-ROM drive of the Mac. The CD will show up on the desktop as an icon.
2. Double-click on the CD icon to open the window:



3. Click on the installer for your application, and follow the prompts to the following installation wizard:



4. From the drop-down menu, select “Custom Install”.



5. Select the driver you want to install. If you have not yet installed the Quantity One application, select that as well.
6. When you have made your selections, click Install to complete the installation.
7. After installation is complete, plug the FireWire cable from the camera into the Mac. Ensure that the power supply for the camera has power connected to it. Additionally, on the ChemiDoc XRS, make sure that the power switch is turned on.

**Launch the Software**

Double-click on the Quantity One icon located on your desktop or in the program directory.

**Acquire Image Optimization Files**

The first time that you run the software, you will need to acquire image optimization files.

1. Select Gel Doc XR or ChemiDoc XRS under the File menu.
2. Follow the instructions provided on the screen to enable proper functioning of the system. This will take approximately 2 minutes for each system.

Note: It is necessary to remove the lens cap after these files have been acquired.

**Perform a Test Run**

1. Place the focusing target into the darkroom.
2. Turn on the epi-white lights.
3. Verify functionality of the iris, zoom, and focus controls using the control panel in the software or on the side of the darkroom.
4. You are now connected to your Bio-Rad imaging system. Follow the onscreen steps through a complete acquisition routine.

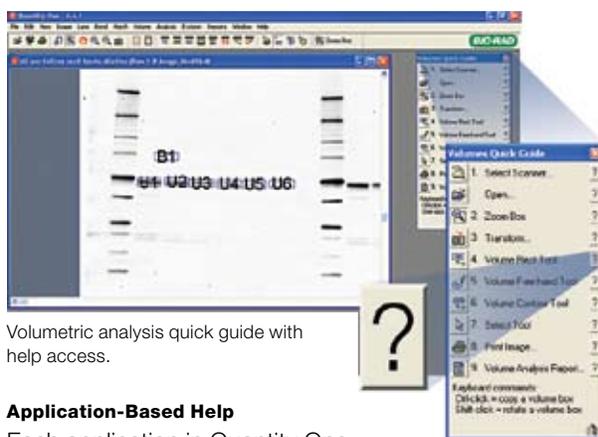
# Information and Support

## Instruction Manuals

Refer to the instrument and software instruction manuals to further familiarize yourself with the setup and use of your instrument and software. If your original hardware manual and Quantity One software CD cannot be located, you can download this information from [www.bio-rad.com](http://www.bio-rad.com)

## Quantity One Software Help Guide

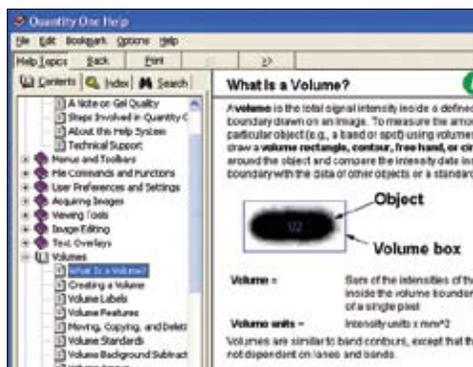
The software help guide will further assist you in the use of Quantity One software. You can easily browse the contents or search the index for help on your favorite applications.



Volumetric analysis quick guide with help access.

## Application-Based Help

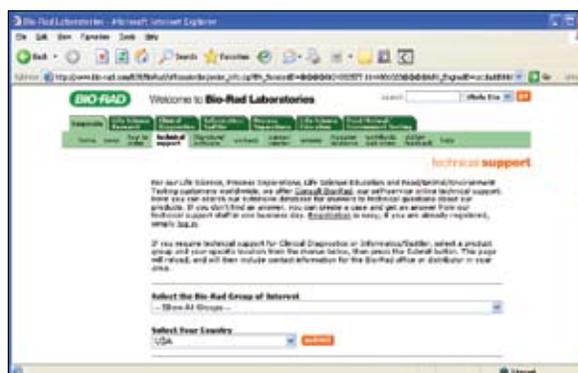
Each application in Quantity One software is accompanied by comprehensive built-in help. By simply clicking on the “?” next to the application in question, you will have access to a thorough explanation that will also link to related information.



Quantity One help can be accessed via quick links and software quick guides.

## Technical Support Contact Information

### Online Support



More than 1,800 frequently asked questions (FAQs) are accessed by logging on at [consult.bio-rad.com](http://consult.bio-rad.com). By registering, you can ask questions and get an e-mail reply.

### E-mail Support

Bio-Rad technical support representatives are available to respond via e-mail to any queries that have not been answered by the other support options listed here. The e-mail address is [lsg\\_techserv\\_us@bio-rad.com](mailto:lsg_techserv_us@bio-rad.com)

### Phone Support

Bio-Rad technical support representatives are available to answer questions by phone. In the U.S., call toll free at 1-800-4BIORAD (1-800-424-6723) between 7 AM and 4 PM Pacific time. Outside the US, contact your local Bio-Rad representative.

FireWire and Mac are trademarks of Apple Inc. Windows and Windows 2000 and XP are trademarks of Microsoft Corporation.



**Bio-Rad  
Laboratories, Inc.**

Life Science  
Group

Web site [www.bio-rad.com](http://www.bio-rad.com) USA 800 4BIORAD Australia 61 02 9914 2800 Austria 01 877 89 01 Belgium 09 385 55 11 Brazil 55 21 3237 9400 Canada 905 712 2771 China 86 21 6426 0808 Czech Republic 420 241 430 532 Denmark 44 52 10 00 Finland 09 804 22 00 France 01 47 95 69 65 Germany 089 318 84 0 Greece 30 210 777 4396 Hong Kong 852 2789 3300 Hungary 36 1 455 8800 India 91 124 4029300 Israel 03 963 6050 Italy 39 02 216091 Japan 03 5811 6270 Korea 82 2 3473 4460 Mexico 52 555 488 7670 The Netherlands 0318 540666 New Zealand 0508 805 500 Norway 23 38 41 30 Poland 48 22 331 99 99 Portugal 351 21 472 7700 Russia 7 495 721 14 04 Singapore 65 6415 3188 South Africa 27 861 246 723 Spain 34 91 590 5200 Sweden 08 555 12700 Switzerland 061 717 95 55 Taiwan 886 2 2578 7189 United Kingdom 020 8328 2000