## **Imaging and Analysis**



# Getting Started with the ChemiDoc<sup>™</sup> Go Imaging System Quick Guide

### **Set Up the Environment**

The ChemiDoc Go Imaging System with Image Lab Touch Software requires a space of  $38 \times 48 \times 37$  cm (W x D x H) and a clearance of at least 8 cm from the back for ventilating the instrument and accessing the AC power cord. The imager should be placed on a sturdy, level laboratory bench or table away from excessive heat and moisture. The imager's operating temperature range is 10–28°C. The imager contains a universal power supply supporting a voltage range of 100–240 VAC.

#### Set Up the Imager

The imager ships with a power cable for AC 115/240 VAC outlets. The female end of the cable fits in the power receptacle located at the back of the imager.

1 Locate the AC power receptacle on the back of the imager and connect the power cable to it. Plug the other end of the power cable into an AC outlet and turn the power switch to the **on** position.



For network access, connect an Ethernet LAN network cable to the Ethernet port on the back of the imager. Connect the other end of the cable to an Ethernet network port.

**Note:** When saving an image, specify the path to the network folder where you want to save your image files. Multiple path names can be saved. Each saved path name appears in the dropdown list of destinations upon tapping **Save to Network**.

For BR.io cloud platform access, setup will be available after starting up and logging into the imager for the first time.

3 On the front of the imager, press the system on/off button to turn on the imager. Turning on the imager initializes the camera, computer, and Image Lab Touch Software.



### **First Time Login**

When the imaging system is turned on, Image Lab Touch Software initializes and the Welcome screen appears.

Welcome to Image La	Touch Software			
This page is yours to custon	ize. Press and hold the t	ext you want to change	s	
You can replace the title with with instructions and caution	the name of your labora s specific to your work.	tory or organization. Y	ou can also replace the	ese text paragraph

1 Tap anywhere on the touch screen.

2 Using the onscreen keyboard, tap in a user name and then tap **Create**. The system prompts you to choose whether to be an administrator and displays information to help you decide.



Note: An administrator must log in with a password. If no administrator has been specified, users can log in without a password.

- 3 If you do not want to be an administrator, tap **No**.
- To become an administrator, tap Yes and create a password in the box that appears. When the Administrator Options dialog box appears, select desired options for managing Image Lab Touch user accounts.

5 After choosing your options, tap **Close**. The camera view of the imaging stage appears.

# Set Up and Connect the BR.io Platform

The BR.io cloud platform is a Bio-Rad solution for cloud data management. The BR.io platform can be accessed from a web browser; no software installation is necessary.

- To set up a new BR.io account or access an existing account, type BR.io in the web address bar on a computer or other device with internet access.
- Log in or create a new account.
- Set up your dashboard.
- Link the BR.io cloud platform to your ChemiDoc Go Imaging System.

# **Check the Imager Setup**

Check to ensure the following:

- The imager has been placed on a laboratory workbench surrounded by the required amount of space
- The power switch (back) and the system switch (front) are turned on
- The camera view is visible

### Level the Imager

To work properly and ensure the best imaging, the imager must be situated on a level surface, such as a laboratory bench or table. Level placement prevents samples - especially gel samples from sliding on the sample tray.

To check whether the imager is level:

- Locate the bubble level in the Imager Accessory Kit.
- Power on the instrument.
- Pull the transilluminator handle door to open.
- Place a sample imaging tray on the imaging stage.



- Place the bubble level at the approximate center of the sample tray.
- 6 Close the drawer.
- Tap the camera icon. The image of the bubble appears on the screen.
  - If the entire bubble is visible inside the level's center ring, the imager is level; no adjustments are necessary
  - If the entire bubble is not visible inside the level's center ring, raise or lower the instrument's feet to level it
- Adjust the level by lifting the instrument and rotating the feet as applicable to move the bubble to the center.
  - To raise the instrument, rotate the feet outward
  - To lower the instrument, rotate the feet inward
  - To move the bubble, rotate each foot inward or outward until the bubble appears in the middle of the inner circle of the screen
  - After each time adjusting the feet, open and close the drawer to acquire a new image for viewing the new bubble position
- 9 When the entire bubble is visible inside the center ring, remove the level from the sample tray.

# **Set Up the Printer**

The ChemiDoc Go Imaging System supports the Sony UP-D898MD Printer (sold separately).

To set up the printer:

- 1 Connect the printer's power cord to an electrical outlet.
  - Connect one end of the supplied USB cable to the USB port on the back of the printer.
- 3 Connect the other end of the USB cable to one of the USB ports on the back of the imager.

Warning: Transilluminators are powerful sources of UV radiation, which can cause serious damage to unprotected eyes and skin. The accessory UV Shield for the GelDoc<sup>™</sup> Go Gel Imaging System (catalog #12012164) can be used with the ChemiDoc Go Imaging System and provides some UV protection for the person standing directly in front of the system but does not protect others standing nearby. With the UV shield in place, the system is rated as Risk Group 3 (most hazardous) for actinic UV (200–400 nm) per IEC Standards 62471:2009 "Photobiological safety of lamps and lamp systems."

Before performing band excision, the user and other lab personnel in proximity to the imager must use protective gear including UVprotective safety glasses, a face shield, a lab coat, and gloves to ensure no skin is exposed.

When excising bands while viewing through the UV shield, a typical and reasonable expectation of use is three operations per day per user for 3 min each.

When near the UV transilluminator at a viewing angle not protected by the UV shield at a distance of 20 cm, the measured actinic UV emission is up to 10 W/m<sup>2</sup>, with a permissible exposure time of approximately 3 seconds. Bystanders without protective gear must stand at least 1.5 m from the imager and limit their exposure to no more than 1 hr per day.

# **Image Analysis Software**

Images acquired on the ChemiDoc Go Imaging System can be imported into Image Lab Software and Image Lab Software, Security Edition for image analysis and following quantitation.

Licenses and upgrades for Image Lab Software (available for Windows and Mac operating systems) are included in the purchase price of the instrument. Registered users can log in to their account or register as new users to download a free copy of Image Lab Software from the Bio-Rad website. Image Lab Software and Image Lab Software, Security Edition are also available for purchase on a USB drive. Visit **bio-rad.com/ImageLab** to learn more about the Image Lab family of software.

# Find Out More

Visit **bio-rad.com/ChemiDocGo** to learn more about the instrument and to download the full version of the user guide.

# Visit bio-rad.com/ChemiDocGo for more information.

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The GelDoc Go imaging system uses the Linux operating system, which contains software licensed under the following licenses as well as others:

Lesser Gnu Public License v 2.0, 2.1, 3.0

Apache License 2.0

BSD License

Image Lab Touch software is based in part on the work of the CImg project (http://cimg.eu/). See license for details at www.cecill.info/licences/Licence\_CeCILL-C\_V1-en.html.

Image Lab Touch is based in part on libraries from GCC runtime and the Gnu C library.



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