

AMPLIFICATION

CFX Connect Real-Time PCR Detection System with CFX Manager Software Installation

Quick Guide

Unpacking the Instruments

The CFX Connect Optical Reaction Module and the CFX Connect Thermal Cycler Chassis are shipped separately. Unpack each item carefully. The included power cable, USB cable, and CFX Manager Software are required for installation. The CFX Connect Optical Reaction Module can be used only with a CFX Connect Thermal Cycler.

Important: Carefully read the safety information and instrument operating specifications provided in the CFX Connect Real-Time PCR Detection System Instruction Manual (#10021653) before using the system.

Setting Up the CFX Connect Real-Time PCR Detection System

Install the CFX Connect System on a clean, dry, level surface with sufficient cool airflow to run properly.

To insert the CFX Connect Reaction Module into the reaction module bay of the CFX Connect Chassis:

1. Place the CFX Connect Chassis in a suitable location with the locking bar down.
2. Remove the instructions overlay from the CFX Connect Chassis. Lift the CFX Connect Module using the handle indents above the side air vents (Figure 1).
3. Position the CFX Connect Module in the reaction module bay of the CFX Connect Chassis, leaving about 2 cm of space in the front.
4. Reach around the thermal cycler and pull up the locking bar (Figure 2) until it is flush with the sides of the module bay. This action moves the reaction module forward, locking it into place (Figure 3).
5. Use the supplied power cord to plug the chassis into an appropriate electrical outlet.
6. Turn on the CFX Connect System using the power switch on the back of the chassis.

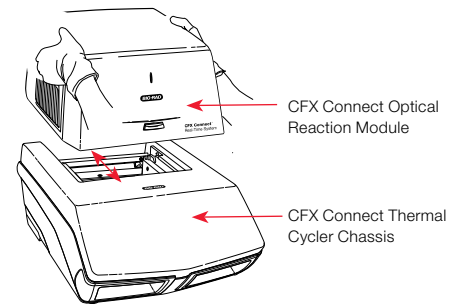


Fig. 1. Lifting the CFX Connect Optical Reaction Module onto the CFX Connect Thermal Cycler Chassis.

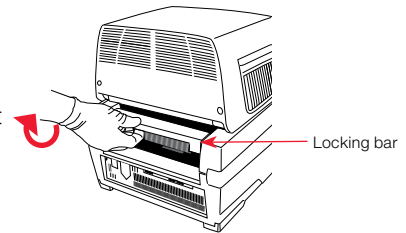


Fig. 2. Locking the CFX Connect Module into place.

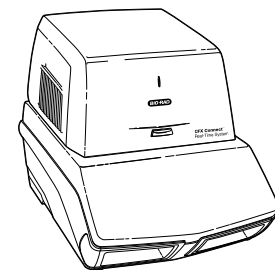


Fig. 3. The CFX Connect Module positioned on the CFX Connect Chassis.

Operating under Software Control

Removing the Red Shipping Screw

The CFX Connect Optical Reaction Module is shipped with a red shipping screw in the inner lid in the hole corresponding to well A1 (Figure 4). This shipping screw must be removed before operating the CFX Connect System. To remove the shipping screw:

1. Right click **CFX Connect** in the Detected Instrument(s) pane, then select **Properties** (Figure 5).
2. Click the **Shipping Screw** tab and follow the instructions (Figure 6).

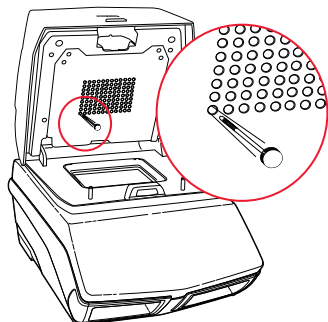


Fig. 4. Red shipping screw included with the CFX Connect Optical Reaction Module.

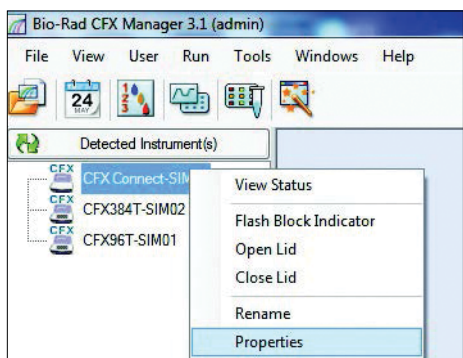


Fig. 5. Navigating in the Detected Instrument(s) pane window.

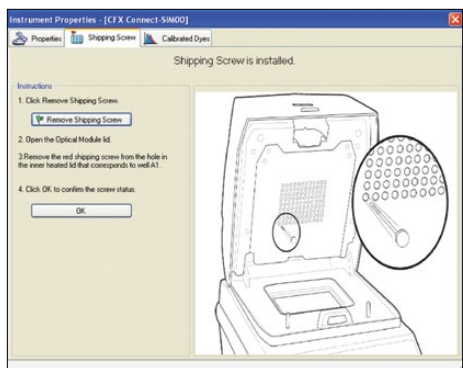


Fig. 6. Shipping screw tab.

Installing CFX Manager Software

A computer with the Windows XP, Windows 7, Windows 8, or Windows 10 Operating System is required to run the software and to operate the CFX Connect System. Minimum computer specifications are listed in the instruction manual (#10021653). The software must be installed on the computer by a user with administrative privileges. To install CFX Manager Software:

1. Disconnect any real-time instruments from the computer.
2. Insert the CFX Manager Software CD into the computer's CD drive. The software launch page should appear automatically.
3. On the software launch page, accept the License Agreement and click Install. Follow the instructions on the screen to install the software (Figure 7).

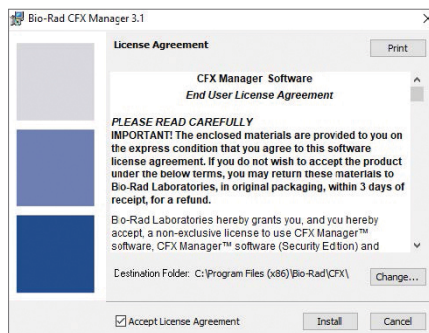



Fig. 7. CFX Manager Software launch page.

4. If the software launch page does not appear automatically, then open Windows Explorer or File Explorer. Navigate to and open **(CD drive):\Bio-Rad CFX**. Open and follow the instructions in the Readme.txt file.
5. When the installation completes, safely remove the software CD from the computer's CD drive.

 After installation, to open the CFX Manager Software double-click the shortcut icon located on the Windows desktop.

Updating the Software and Instrument

With the instrument powered off, plug the supplied USB cable into the USB B port (Figure 8) on the back of the CFX Connect Chassis and into a USB 2.0 A port in the computer. Make sure that the computer is connected to the Internet.

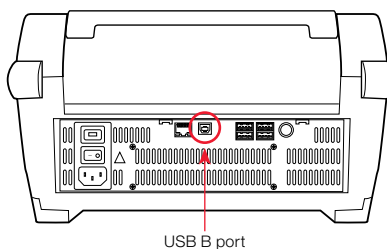


Fig. 8. USB B port on the back of the CFX Connect Chassis.

To update the software and instrument:

1. Open CFX Manager Software. CFX Manager automatically connects to the last instrument it was connected to before the software update.
2. If an update is available, a dialog box will prompt you to update the software and instrument. Click **Update** (Figure 9).

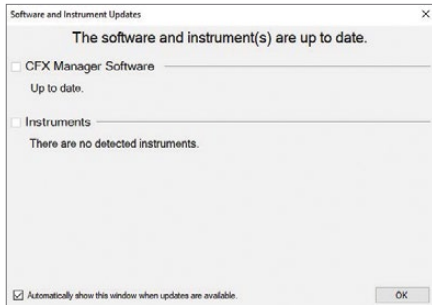


Fig. 9. Update dialog box.

Note: The update process can take 20 minutes. Do not shut down the computer or the connected instrument during the update.

Creating, Starting, and Analyzing a Run

The Run Setup window provides quick access to the files and settings needed to set up and start a run. To open the Run Setup window, follow one of these options:

- In the Startup Wizard window, under the Run Setup tab, click **User-defined** or **PrimePCR**
- On the main window toolbar, click **User-defined Run Setup** or **PrimePCR Run Setup** (Figure 10)

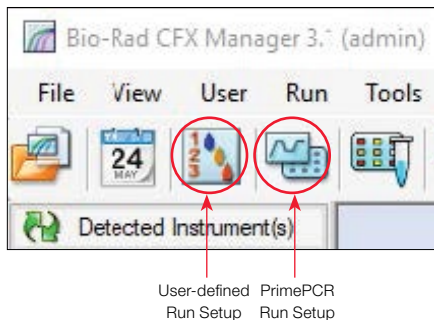


Fig. 10. Main window toolbar.

- On the main window menu bar, click **File > New > User-defined Run** or **PrimePCR Run**

The Run Setup window includes three tabs (Figure 11):

- Click **Protocol** to select an existing protocol to run or edit or to create a new protocol in the Protocol Editor window
- Click **Plate** to select an existing plate to run or edit or to create a new plate in the Plate Editor window
- Click **Start Run** to check run settings, select one or more instrument blocks, and begin a run

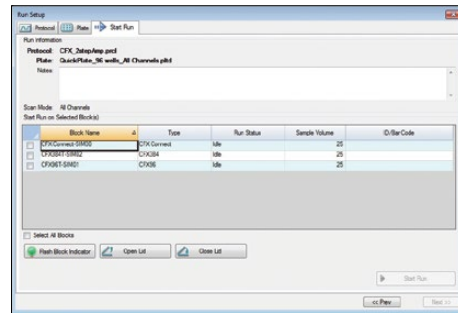


Fig. 11. Run Setup window, including the Protocol, Plate, and Start Run tabs.

Note: For PrimePCR runs, the PrimePCR protocol and a default plate layout will be selected based on the instrument selected in the Run Setup screen. The PrimePCR protocol includes a melt step by default. To reduce total run time, select Protocol and uncheck the melt step box.

CFX Manager automatically processes real-time PCR data at the end of each run and opens the Data Analysis window. The data file can be analyzed or saved to the folder of your choice, and it can be emailed from the software. Refer to the system instruction manual (#10021653) for detailed information about run setup and data analysis.

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