



Software/Firmware Update Procedure

Product(s): FreeZone® Freeze Dryers, Stoppering Tray Dryer, Triad, Bulk Tray Dryer, Small Tray Dryer, Heated Product Shelves (models with touch screen display).

Update Description: Lyo-Works 2.0

Before Updating the Software/Firmware

Check to see what version of “Application Software” is currently installed on your Freeze Dryer or Triad.

- On the Freeze Dryer (or Triad) touch screen, go to [\[HELP > ABOUT \]](#)
 - i. Note: For “Application Software: 10671F” the revision letter is “F”
- If the revision letter is “A” to “E”, **YOU MUST FIRST UPDATE THE APP SOFTWARE VIA ETHERNET, continue to page 2.**
- If the revision letter is “F” or higher, you do not need to update the APP Software first. **Go to page 6** for updating via USB port
- If the revision letter is “H” or higher, you do not need to update the APP Software first. You have two options for updating the software:
 - i. **Go to page 6** for updating via USB port
 - ii. **Go to page 8** for updating via “Check for upgrade” button

OS Software: 10670-B

Application Software:10671F

IOB Software: 10644J, 10656J

Catalog Number: 710401030

Labconco (Product Service): 1 (800) 821-5525

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Update

The following libraries were used under the Apache 2.0 License in this project: Android Open Source Project, RXLint, Dagger 2, Lib Super User, Crashlytics, Zip 4j, Timber, RX Kotlin, Joda Time, Debug DB, RX Binding, RX

Update Application Software: Freeze Dryers with Application Software at revision “A” to “E”.

1. All settings, programs and data log files will be migrated to the new software.
2. If you have large data log files, this can add a considerable amount of time to the software update process. The software update time can be significantly reduced if you COPY the data log files from the Freeze Dryer to a USB drive and then DELETE the data log files from the Freeze Dryer.

To COPY data log files to a USB flash drive:

- Insert USB flash drive into USB port on left side of Freeze Dryer
- Go to the **[DATA LOGGING]** screen
- Touch the desired file name to select an individual data log file
- Touch the **[COPY]** button

To DELETE data log files from the Freeze Dryer:



- Go to the **[DATA LOGGING]** screen
- Touch the desired file name to select an individual data log file
- Touch the **[DELETE]** button
- Confirm **[DELETE]**

3. Go to labconco.com/resources/software-apps and download the latest Lyo-Works software upgrade file(s) to your computer. **Note: The computer used to upload files to the Freeze Dryer must be connected to the same Local Area Network (LAN) as the Freeze Dryer. To update software by directly connecting a computer to the Freeze Dryer ethernet port, reference Instructions #1066800.**

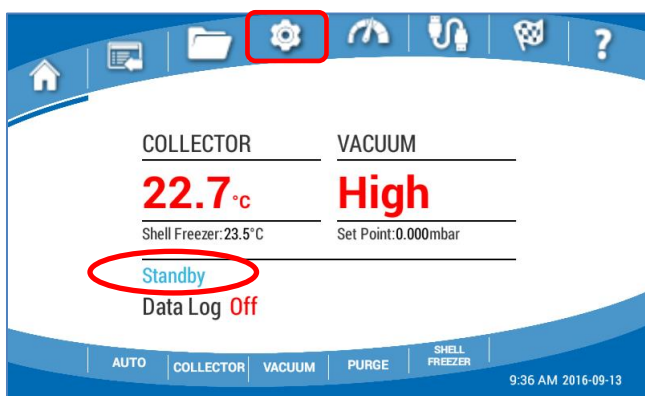
<i>For all FREEZE DRYER models download the two files below:</i>			
Step	File Name	Where Used	Upload to Freeze Dryer via
i.	FDAPP_v0R_09_25_2024.LLC	Lyo-Works OS Software (Freeze Dryers)	Ethernet Port
ii.	FD_BND_XX_vR.LCC	Lyo-Works Bundle File (All Systems)	USB port

For all TRIAD models download the two files below:			
Step	File Name	Where Used	Upload to Freeze Dryer via
i.	FDAPP_v1R_09_25_2024.LLC	Lyo-Works OS Software (Triad)	Ethernet Port
ii.	FD_BND_XX_vR.LCC	Lyo-Works Bundle File (All Systems)	USB port

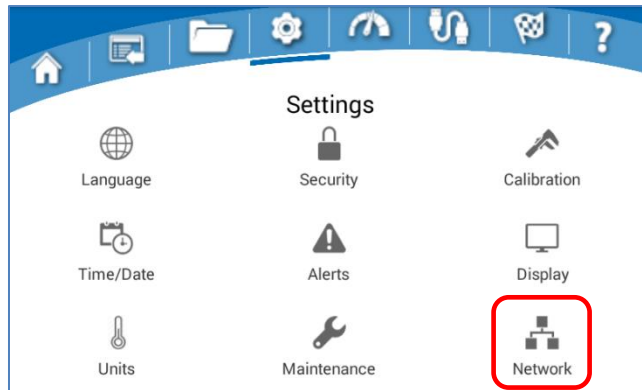
Example for upgrading a FREEZE DRYER:

- i. FDAPP_v0R_09_25_2024.LLC  FDAPP 1st (via Ethernet port)
- ii. FD_BND_XX_vR.LCC  FD_BND 2nd (via USB port)

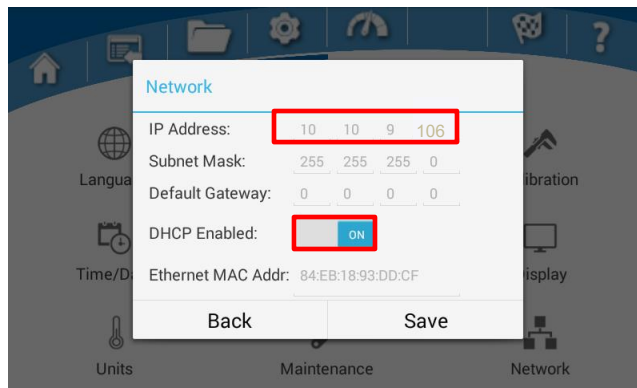
4. Use an Ethernet cable to connect the Freeze Dryer to your Local Area Network (LAN).
5. Make sure the Freeze Dryer is in “Standby” mode, where all functions are turned off.
6. Obtain the Freeze Dryer IP address by checking the **[NETWORK]** screen on the Freeze Dryer.
 - Touch the **[SETTINGS]** icon on the menu bar at the top of the display.



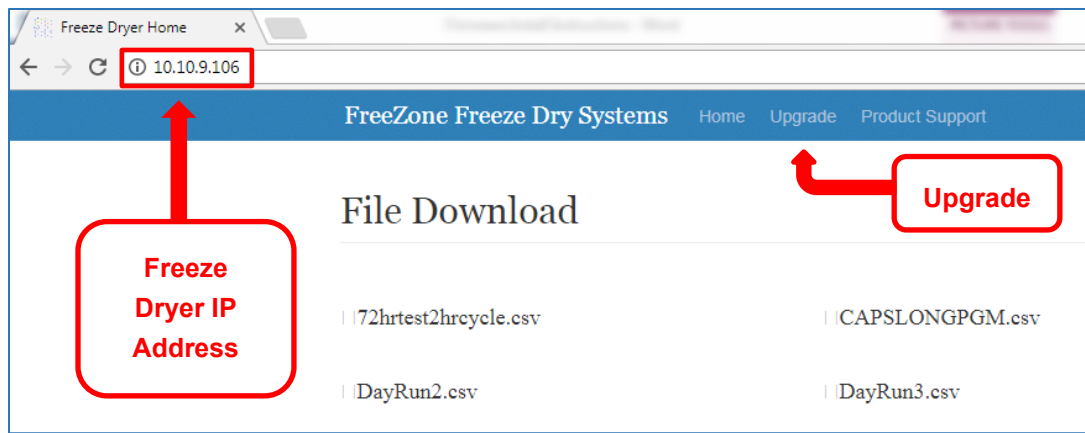
- Touch the **[NETWORK]** icon on the Settings screen.



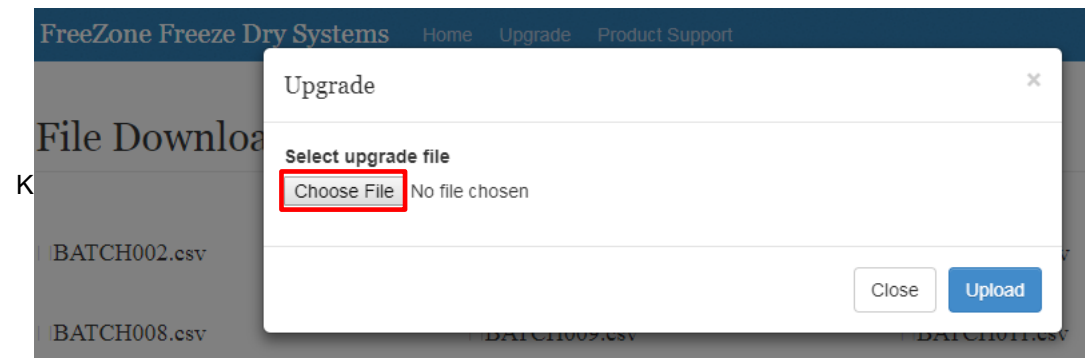
- Make sure the “DHCP Enabled” button is ON
- The Freeze Dryer IP address will be shown on the top line of the **[NETWORK]** screen.
(Note: If the IP address contains X's such as 192 168 XXX XXX, then the Freeze Dryer is not communicating with a Local Area Network).



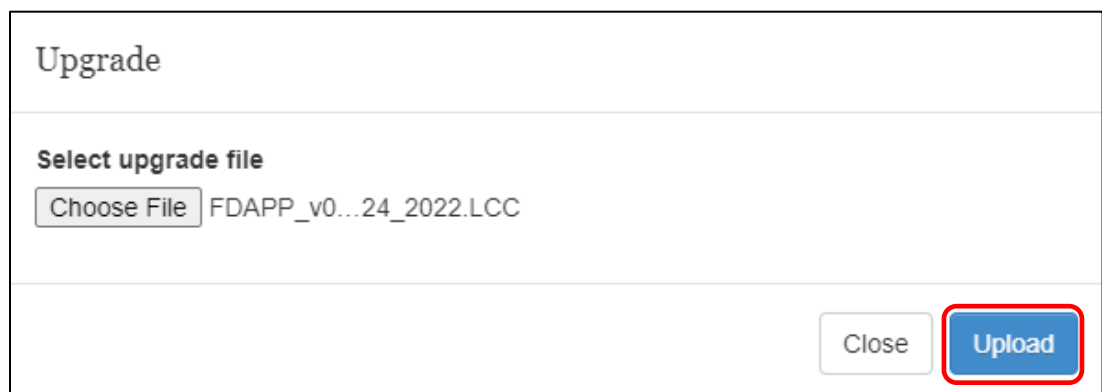
7. Open an internet browser of your choice and type the **Freeze Dryer IP address with periods (dots) between each number (example = 10.10.9.106)** in the address bar and press **Enter**. A web page similar to the image below should open.



8. Select **Upgrade** in the blue menu bar at the top of the page. The “Upgrade” window will open.
9. Select **Choose File** (may say **Browse** for some web browsers) to open a ‘Windows Explorer’ window. Navigate to the file location (on your computer) where the software files were stored in Step 1.



10. Select the **FDAPP_v0R_09_25_2024.LLC** file then Select **Open**
 - For Triad models select **FDAPP_v1R_09_25_2024.LLC**
11. Select the **Upload** button.



12. Your OS Software has now been updated. Please continue to the next section for instructions on how to install the **FD_BND_XX_vR.LCC** file via USB Port.

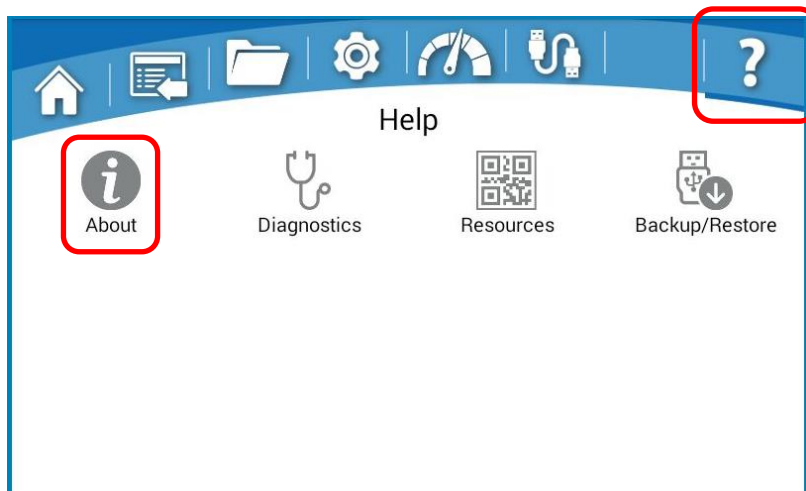
Software Update Procedure for Freeze Dryer (or Triad) with Application Software at revision “F” or higher (via USB port)

1. Go to labconco.com/resources/software-apps and download the latest Lyo-Works Bundle File (**FD_BND_XX_vR.LCC**) to your computer and copy the file to a USB (flash) drive.

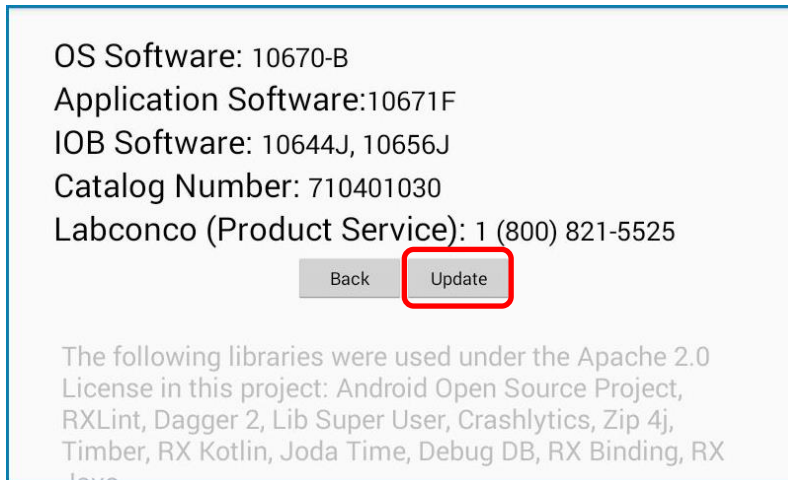


The flash drive must be properly formatted as **FAT32**. If it is not, the update process will not proceed, and you will receive a pop-up instructing you that the drive is not properly formatted. If this occurs, you must reformat the flash drive using a PC or laptop to FAT32. For Windows users, you must select “**FAT32**” when formatting the flash drive, and not “**FAT32 (default)**”. Flash drive should be blank with the files not in a folder.

- This file contains all the information necessary to automatically update the Freeze Dryer (or Triad) and any accessory that is connected to the Freeze Dryer via communication cable.
2. Insert the USB drive in the USB port on the left side of the Freeze Dryer.
 3. On the Freeze Dryer touch screen, go to **[HELP > ABOUT]**

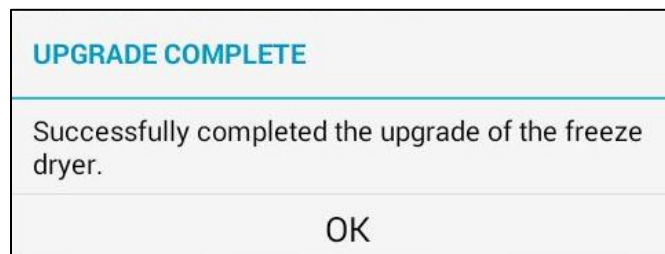
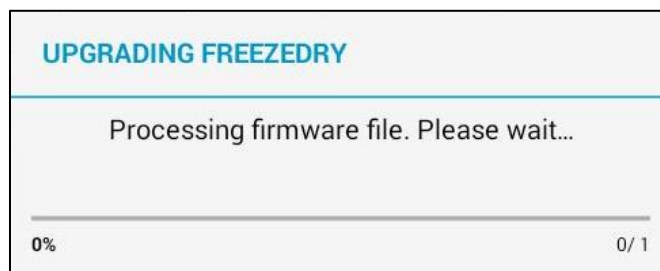
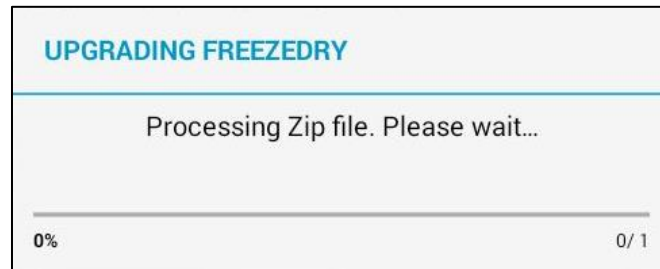


4. Select **[Update]**



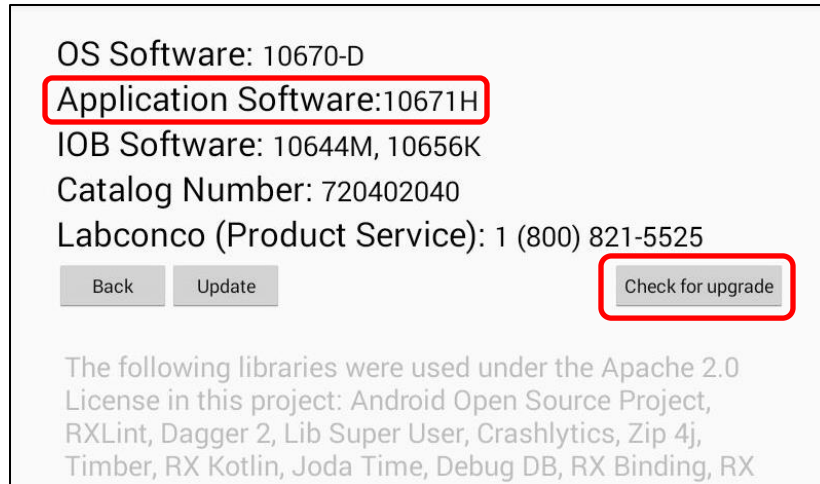
5. Select the **FD_BND_XX_vR.LCC** file

6. You should see the following series of messages as the process completes.

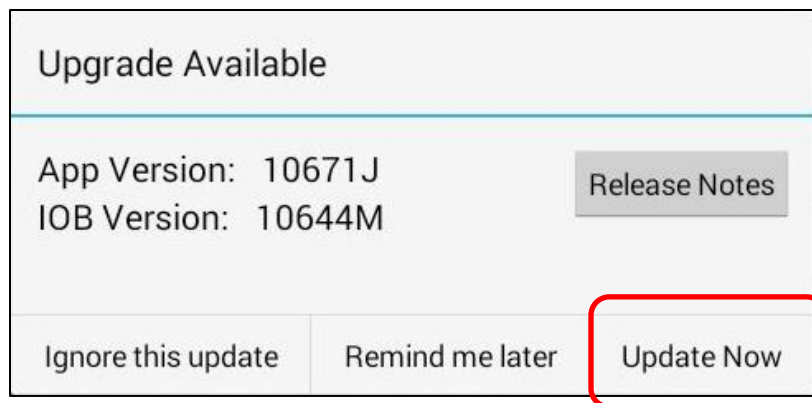


Software Update Procedure for Freeze Dryer (or Triad) with Application Software at revision “H” or higher (via “Check for upgrade” button)

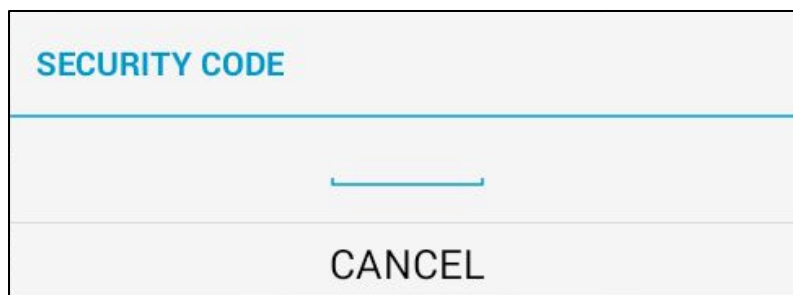
1. If your Application Software is revision “H” or higher, there will be a **[Check for upgrade]** button on the **[HELP > ABOUT]** screen. Select **[Check for upgrade]**.



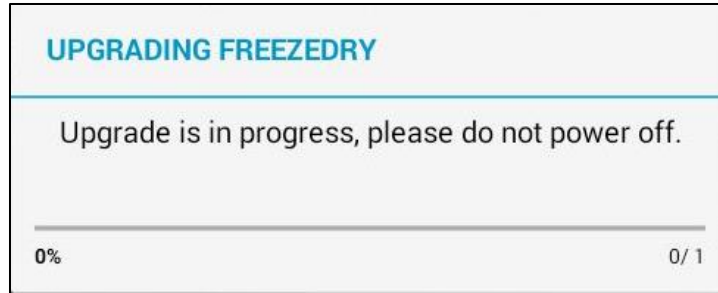
2. Select **[Update Now]**



3. Enter 4-digit security code



4. Do NOT power unit off while the software is updating.



Verifying Completion of Software/Firmware

1. Touch the **[HELP]** icon **?** on the menu bar at the top of the display.
2. Touch the **[ABOUT]** button and verify the version letter at the end of each **Software Part #** matches the version letter shown in the table below.

Description on ABOUT Screen	Software Part #	Device Type
Application Software	10671 R	Freeze Dryer / Triad
IOB Software	10644 P	Freeze Dryer / Triad
Accessory Software	10644 N	Stoppering Tray Dryer
Accessory Software	10656 L	Bulk Tray Dryer, Small Tray Dryer, Heated Product Shelves

3. After completing all software updates unplug the power cord to the Freeze Dryer (or Triad) and any attached accessory (i.e. Stoppering Tray Dryer, Bulk Tray Dryer, Small Tray Dryer or Heated Product Shelves) and then reconnect the power cord(s) to ensure a proper restart of the Operating System.