

Quantum™ HD Unity Software Upgrade Procedure

[READ THOROUGHLY](#)

NOTE: Instructions apply to Q5 and Q6 processor boards unless otherwise indicated.

Updating the Operating Software on a Quantum HD Unity is easy and free. Use the following steps to download the update and upload it to your Quantum HD Unity controller(s). Some enhancements may require additional hardware.

Use the URL below to navigate to the Quantum HD Unity product page on the Frick Controls website.

<https://frickcontrols.com/quantum-hd-unity-q6>

Once on the Quantum HD Unity Controller page as seen below, the software upgrade procedure, software release notes and the current version upgrade file will be present.

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Quantum HD Unity - Q6

Unify your entire refrigeration system with Quantum HD Unity control technology! Check out the [Quantum HD Unity Compressor](#) (PDF) brochure for more information.

Resources

- [Quantum HD Unity Software Upgrade Procedure](#) (PDF)
- [Quantum HD Unity Networking Procedure](#) (PDF)
- [End User License Agreement](#)

(Important: Please verify that the downloaded upgrade matches the panels hardware!)

Unity Compressor Upgrade

- [Quantum HD Unity Software Ver. 12.21 - Compressor - Release Notes](#) (PDF)
- [Quantum HD Unity Ver. 12.21 - Compressor Upgrade File](#)

Unity AcuAir Upgrade

- [Quantum HD Unity Software Ver. 12.11 - AcuAir Release Notes](#) (PDF)
- [Quantum HD Unity Ver. 12.11 - AcuAir Upgrade File](#)

Unity Condenser/Vessel Upgrade

- [Quantum HD Unity Software Ver. 12.10 - Condenser/Vessel Release Notes](#) (PDF)
- [Quantum HD Unity Ver. 12.10 - Condenser/Vessel Upgrade File](#)

Unity Evaporator Upgrade

- [Quantum HD Unity Software Ver. 12.10 - Evaporator Release Notes](#) (PDF)
- [Quantum HD Unity Ver. 12.10 - Evaporator Upgrade File](#)

Unity Engine Room Upgrade

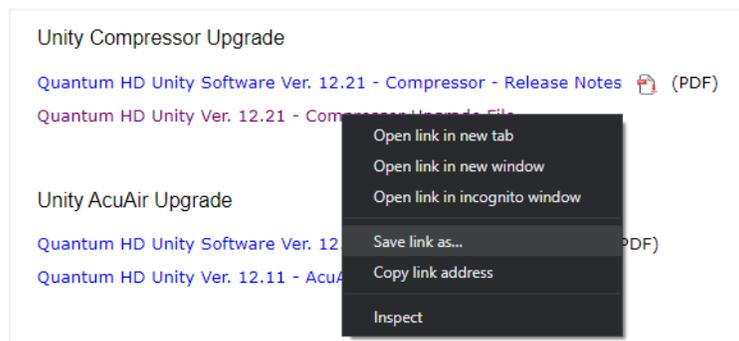
- [Quantum HD Unity Software Ver. 12.10 - Engine Room - Release Notes](#) (PDF)
- [Quantum HD Unity Ver. 12.10 - Engine Room Upgrade File](#)

Unity Interface Panel Upgrade

- [Quantum HD Unity Software Ver. 12.10 - Unity Interface Panel - Release Notes](#) (PDF)
- [Quantum HD Unity Ver. 12.10 - Unity Interface Panel Upgrade File](#)

Connect a USB flash drive (thumb drive) to your computer's USB port. The upgrade procedure and software release notes are PDF files. Simply right click each link and select "Save Link As" or "Save Target As" (depending on your browser) to save them to your computer. You will need this Software Upgrade Procedure while performing the upgrade. Either print the document or view the PDF file on your mobile device.

The upgrade file is not viewable. You must save the update file to a USB flash drive. To save the upgrade file to a USB device, right click and select "Save Link As" or "Save Target As" (depending on your browser) to save them to your computer as shown below.



Select **Save** and select a location for the upgrade file at the top level directory, or root directory, on your USB device. Saving the upgrade file to a subfolder will not allow the Quantum HD Unity controller to locate the file during the upgrade process.

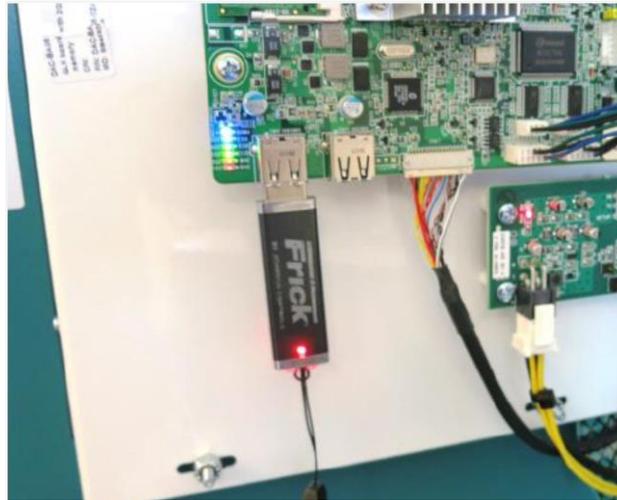
Once the download is complete, you may see a confirmation message like the one shown below. Close the download window and properly remove the USB device from the computer.



Once you have downloaded the upgrade to a USB device, it can be used to update an infinite number of Quantum HD Unity controllers with the same product and processor board (ex. multiple Compressor controllers with Q6 processor boards).

Upgrading Quantum HD Unity Software

With the Quantum HD Unity already powered up, insert the USB device with the upgrade file into one of the USB ports on the processor board shown below.



NOTE: On a Q5 processor board, do not power up the Quantum HD Unity controller with a USB flash drive plugged in. Doing so will divert the booting process to the USB device. This will result in the boot stopping and the following message being displayed.

```
Verifying DMI Pool Data .....  
Disk I/O error  
Replace the disk, and then press any key
```

If you experience this message when booting, power down the controller and check to see if a USB flash drive is plugged into the Q5 processor board. If so, remove the USB flash drive and power up the controller to continue with the upgrade process.

Saving Setpoints and Upgrading Software

Before performing the Quantum HD Unity software upgrade, you first need to save the setpoints of the Quantum HD Unity control being upgraded. The upgrade will reset all settings to the default values. After the upgrade is completed, you will restore the original setpoints from the saved file for that Quantum HD Unity controller.

Save Setpoints – With the Quantum HD Unity powered up and a USB device plugged into the processor board, log into the **Service** user level. Press the **Menu** button at the top of the screen, select **Service**, then select the **Software** tab at the top of the screen as shown below.

The screenshot shows the 'Software' tab selected in the top navigation bar. The main content area is titled 'Software' and contains three sections: 'Locally Saved Setpoints' (an empty list), 'Save Setpoints', and 'Setpoint Maintenance'. The 'Save Setpoints' section has a text input field for 'Setpoints Name' (highlighted in yellow), a dropdown menu for 'Save Location' (set to 'Locally', also highlighted in yellow), and a 'Save' button (highlighted in yellow). The 'Setpoint Maintenance' section contains a warning message: 'In Order To Restore Setpoints, This Application Has To Be Exited. All of the control software will be shut down as well. After this application closes the Restore application will start.' Below this message are two buttons: 'Setpoint Maintenance' and 'Upgrade Software'. The 'EULA Management' section at the bottom has a 'Remove EULA History' button (highlighted in yellow).

- To save a setpoint file it must first be named as shown below. Touch the **Setpoints Name** field to activate the on-screen keyboard. Enter the desired name and press **Enter**.

This close-up shows the 'Save Setpoints' form. The 'Setpoints Name' field contains the text 'SoftwareUpdate'. The 'Save Location' dropdown menu is set to 'Locally'. The 'Save' button is highlighted in yellow.

- The setpoints can be saved either **Locally** to the flashcard on the processor board (default), or to a **USB Flash Drive (Thumb Drive)** that is inserted into one of the USB ports of the processor board. Select the **Save Location** field to choose the location to which the setpoints will be saved.

This close-up shows the 'Save Location' dropdown menu. The current selection is 'Locally'. The dropdown list is open, showing 'Locally' (highlighted in blue) and 'USB Thumb Drive' as the next option.

- The same USB flash drive that is being used for the program upgrade can be used to save the setpoints from the controller prior to doing the software upgrade.
- It is recommended that all **Locally** saved setpoint files also be saved to a USB flash drive and stored in a safe, secure location.

Save Setpoints

Setpoints Name: SoftwareUpdate

Save Location: Locally

Save

- Press the **Save** button to save the setpoints to the selected location.
- If the setpoints are saved **Locally**, the file name, date, and time will be listed on the left side of the screen as shown below. Again, it is always recommended to back-up any locally saved setpoints to a USB flash drive.



- Once the setpoints are saved, the Quantum HD Unity software can be updated. Plug the USB flash drive containing the software upgrade file into a USB port on the processor board, then select the **Upgrade Software** button as shown below.

Setpoint Maintenance

In order to restore setpoints, this application has to be exited.

All of the control software will be shutdown as well.

After this application closes the Restore application will start.

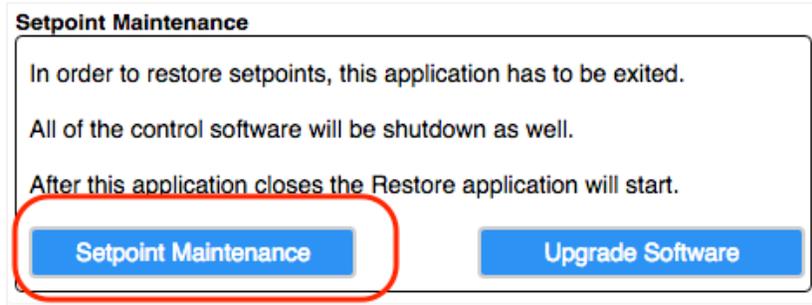
Setpoint Maintenance

Upgrade Software

- After the **Upgrade Software** button is pressed the screen will display **Quantum HD Unity - Upgrading Software**, and then the screen will display **Quantum HD Unity - Loading** as shown below.



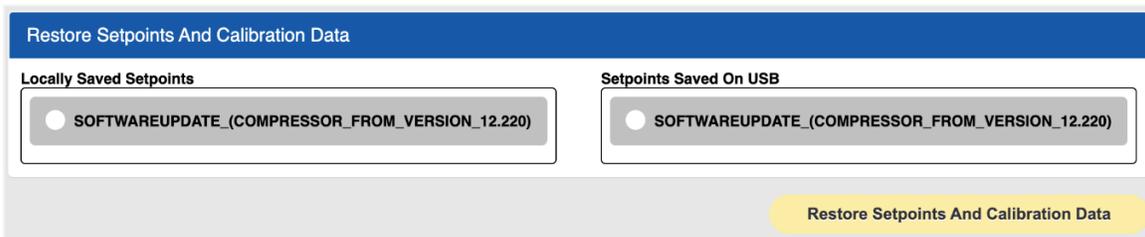
- After several seconds, the Quantum HD Unity home screen will reload and you will be logged out of the Service level. It will be necessary to **Login** to the Service level to restore the saved setpoints and calibration data.
- Once logged in, press the **Menu** button at the top of the screen, select **Service**, then select the **Software** tab at the top of the screen as before. Then select **Setpoint Maintenance** as shown below.



- You will have several options to select from. For the upgrade process, select either the **Restore Setpoints And Calibration Data** or **Restore Setpoints**. Note that the second option does not restore your calibration data. If you choose to not restore calibration data, all analog calibration offsets will be cleared. This will require a calibration to be performed for all analog devices after the upgrade is completed.



- Select the setpoints you saved earlier in the process and then click **Restore Setpoints And Calibration Data** or **Restore Setpoints** (the name of the button depends on the option you choose in the previous step).



- The screen will display **Quantum HD Unity - Restoring Setpoints** as shown below.



The **HD Unity Loading** screen will appear briefly. In several seconds the Quantum HD Unity product home screen will be displayed again. The software upgrade and setpoint restore processes are now complete. You can verify the new software version has been installed by navigating to the **About** screen.

If you experience any issues with this process, contact Frick Service at 717-762-2121 or by emailing FrickService@jci.com. Providing pictures of the controller screen when contacting Frick Service can be very helpful in resolving issues with this process.