



## UHF Firmware Upgrade Guide

Software Release 16.12

Zurich  
Instruments

### Software Release 16.12 for the UHF Lock-in Amplifier

Zurich Instruments software release 16.12 consists of both software that runs on your PC and software (firmware) that runs on the UHFLI Lock-in Amplifier itself. In order for the PC software in Release 16.12 to operate correctly it is also necessary to update the UHFLI's firmware. This step only has to be performed once. The aim of this guide is to explain how to upgrade the UHFLI's firmware.

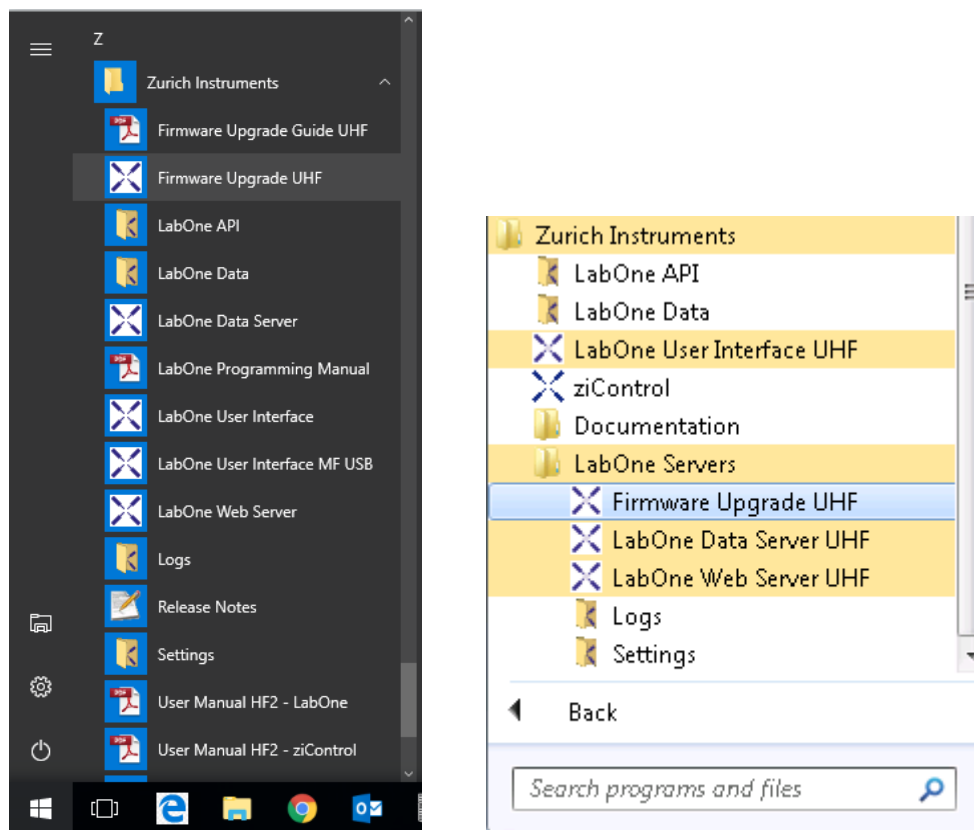
### Preparation

In order to upgrade the UHF's firmware, you must first take the following steps:

1. [Download](#) and install the appropriate version (32bit/64bit) of LabOne 16.12 on your PC. Administrator rights are necessary for the installation. Please see the UHF User Manual.
2. Either start the UHFLI Lock-in Amplifier or, if it was already running, switch off and restart the UHFLI Lock-in Amplifier.
3. Connect the UHF to the PC with the LabOne 16.12 installation via USB cable.

### Starting the UHF Firmware Upgrade Utility

The UHF Firmware Upgrade Utility is the program used to perform a UHF firmware upgrade, it's a GUI (Graphical User Interface) included in a standard 16.12 LabOne installation.



**Figure 1: Starting the Firmware Upgrade Utility via the Windows 10 Start Menu (left) or the Windows 7 Start Menu (right).**

In order to start the Firmware Upgrade Utility (Windows 7):

1. Click the Windows Icon in order to open the Start Menu
2. Click on the entry “All Programs” and navigate to and click on the “Zurich Instruments” folder
3. Under the “Servers” folder click on the entry “Firmware upgrade UHF”. This launches the Firmware Upgrade Utility.

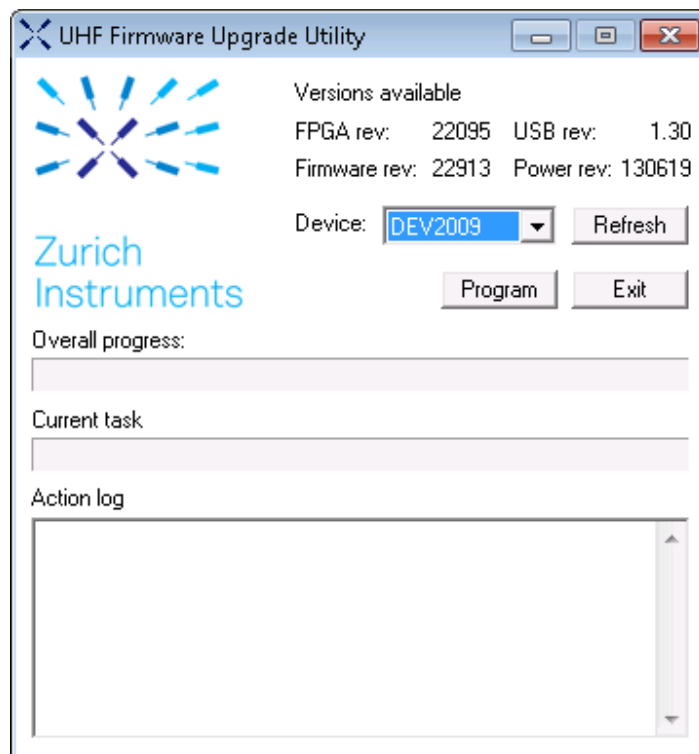
In order to start the Firmware Upgrade Utility (Windows 10)

1. Click the Windows Icon in order to open the Start Menu
2. In the list of Apps, navigate to and click on the “Zurich Instruments” folder
3. Click on the entry “Firmware upgrade UHF”. This launches the Firmware Upgrade Utility.

### Using the UHF Firmware Upgrade Utility

**Important:** Do not disconnect the USB cable to the UHFLI or power-cycle the UHFLI whilst performing any of the following steps.

Upon starting the Firmware Upgrade Utility it should detect the device that is connected to the PC via USB. The device ID is displayed next to “Device:”.



**Figure 2: The UHF Firmware Upgrade Utility upon start-up.**

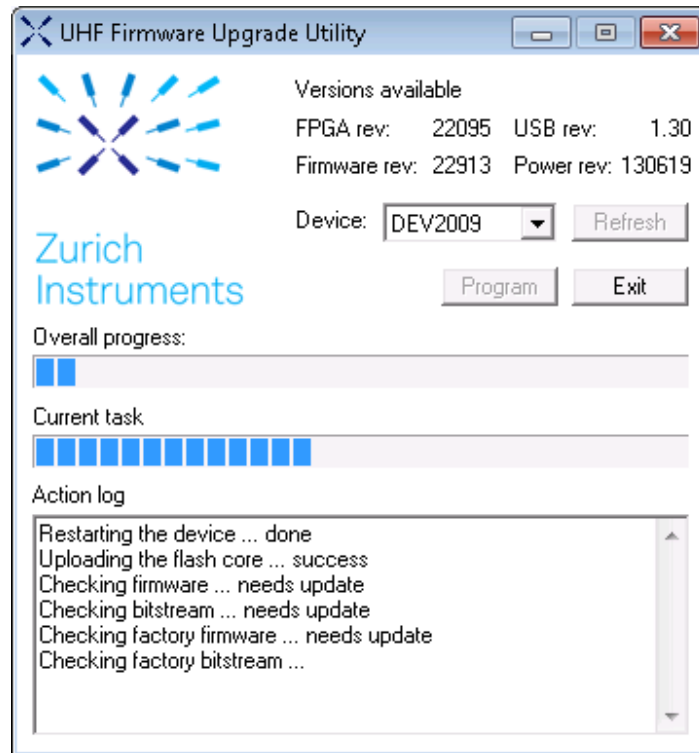
### **Select the device you would like to upgrade**

Select which device you would like to upgrade via the pull-down menu. If no device is listed, please try the following steps:

1. Ensure that the USB cable is properly connected.
2. Try power-cycling the device.
3. Click the “Refresh” button.

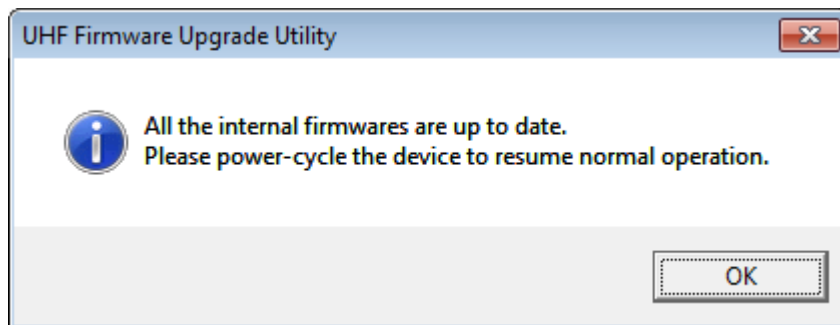
### **Program the firmware of the connected device**

Click the “Program” button to check the version of the current firmware and install the new firmware on the device.

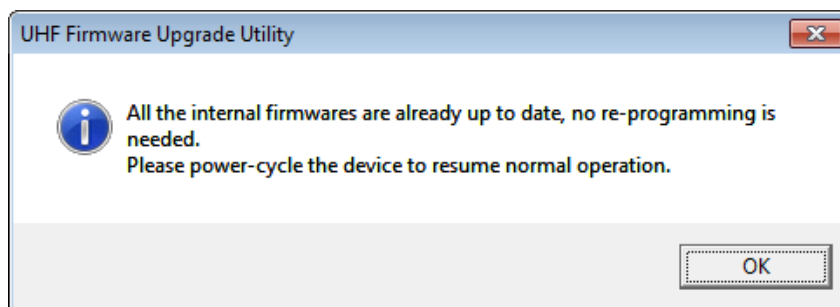


**Figure 3: Verifying the UHF firmware version.**

**Important:** After clicking “Program” and the update is finished it is always necessary to power-cycle the UHF to resume normal operation, even if the firmware was previously up-to-date.



**Figure 4: Pop-up box indicating successful installation of the new firmware.**



**Figure 6: Pop-up box indicating that the firmware was already up-to-date.**

### **Close the UHF Firmware Upgrade Utility**

Click the “Exit” button to close the UHF Firmware Upgrade Utility.

**Support:** If you encounter any issues whilst upgrading the UHFLI firmware, please contact:

[support@zhinst.com](mailto:support@zhinst.com).