Agilent CrossLab CS PC Connection

User Manual

Notices

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CAUTION

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Introduction

Overview

This manual provides instructions on several common tasks involving Agilent CrossLab CS devices. These tasks include downloading a digital Certificate of Calibration (CoC), updating the firmware of a CrossLab CS device, and connecting a CrossLab CS device to the Red Cargo web platform.

For more information about Agilent CrossLab CS devices, please refer to their respective operating instructions.

For system assistance, or to offer suggestions, contact the Agilent Technologies, Inc. Support at **redcargo.support@agilent.com**.

System requirements

- To access the Red Cargo web platform, Agilent recommends the latest available version of the Internet Explorer web browser.
- For the Red Cargo software to communicate with the CrossLab CS device through USB connectivity, Windows 10, 32-bit or 64-bit, is required.
- To view the Certificates of Calibration that are downloaded from the Red Cargo website, Adobe Reader is required.
- To stream data from a CrossLab CS device to a computer, third party terminal emulation software, such as PuTTY or HyperTerminal, is required.

Red Cargo Online Access

Register or update a Red Cargo Account

Register a Red Cargo account to access more features related to the instrument, such as performing a firmware upgrade.

Once a Red Cargo account is registered, the username or email address may be updated as needed.

NOTE

For a Red Cargo account to be approved, a valid email address must be provided.

To register a new account or update an existing account

1 Use a web browser to open **https://redcargo.azurewebsites.net/**

2 To open the **Access product features** page, click on the **CrossLab CS customer** icon.

3 Enter the **Product Model Number**, **Product Serial Number** and **Product Key** of the cartridge, and click **Validate**. (See **To download the CoC and CoC Addendum** on page 19).

4 Enter the user's **First Name**, **Last Name**, and **Email Address**. A valid email address is required to receive notification of the account approval status. Click **Register** (See **Figure 1** on page 6)

5 When the account is approved, an email will be sent to the user-provided email address.

6 To update the ownership information of a cartridge already associated with a Red Cargo account, enter the cartridge's serial number with a new name and email address, then click **Update**. (See **Figure 1** on page 6).

7 If an account update is required, enter the new **First Name**, **Last Name**, and **Email Address** and click **Register**.

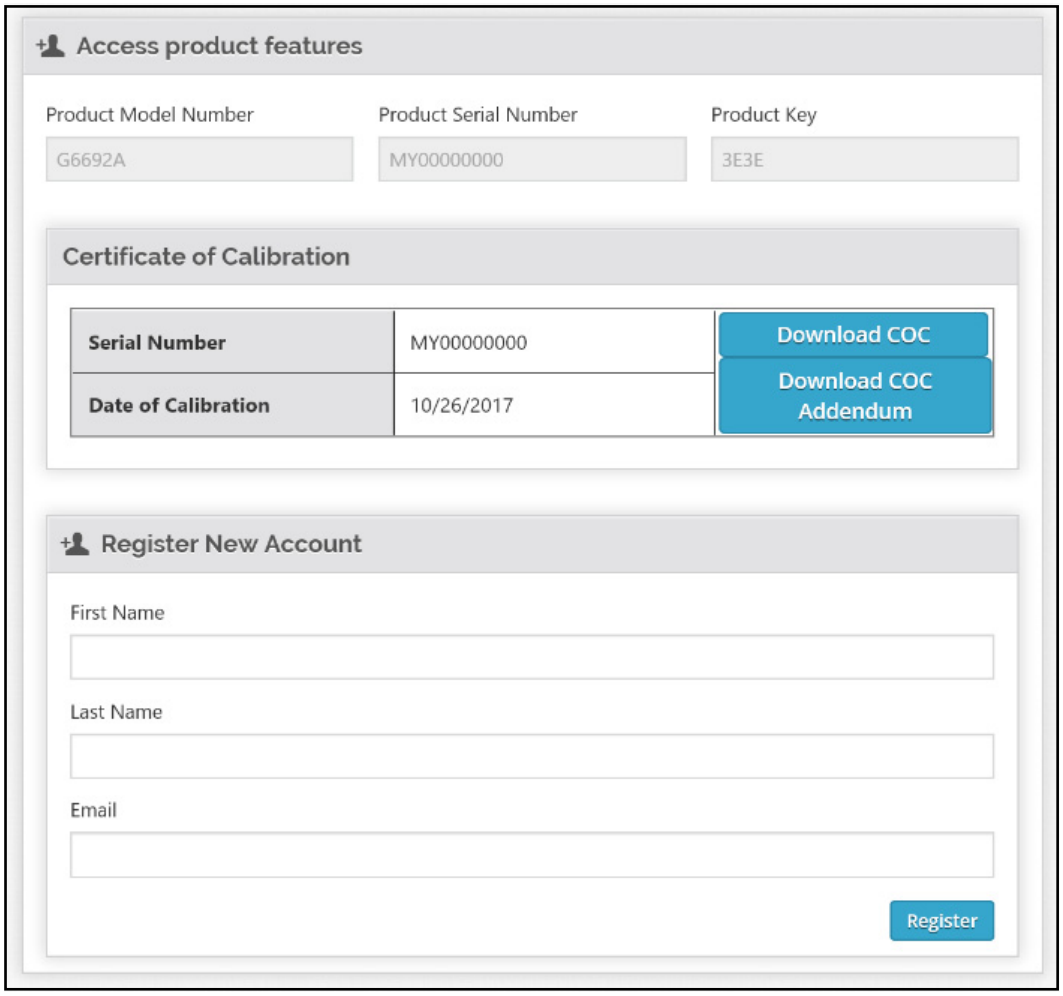


Figure 1. The **Access product features** page.

Sign into to your Red Cargo Account

1 Using a web browser, go to **https://redcargo.azurewebsites.net**.

2 Click **Start Connect** (see Figure 2).

3 Enter your **Username** and **Password**.

4 Click **Sign In**.

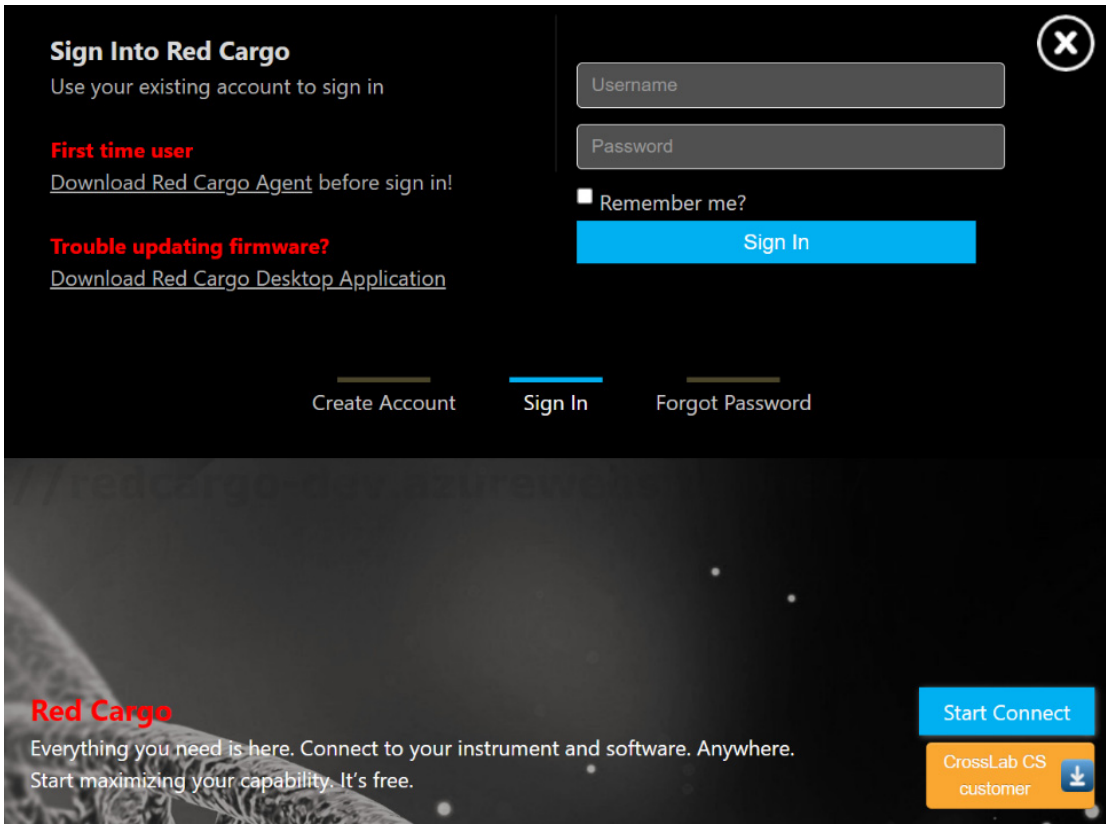


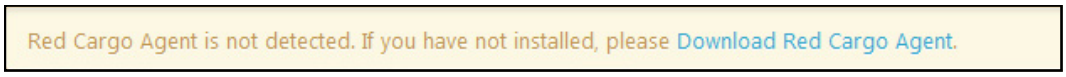
Figure 2. The Red Cargo sign in window.

Install the Red Cargo Agent and USB Driver

To use the CrossLab CS device with the online features provided by Red Cargo, the Red Cargo Agent and the USB Driver must be downloaded and installed. The USB Driver allows a PC to connect to the CrossLab CS device and the Red Cargo Agent allows the driver to communicate with the web based interface.

To install the Red Cargo Agent and USB Driver:

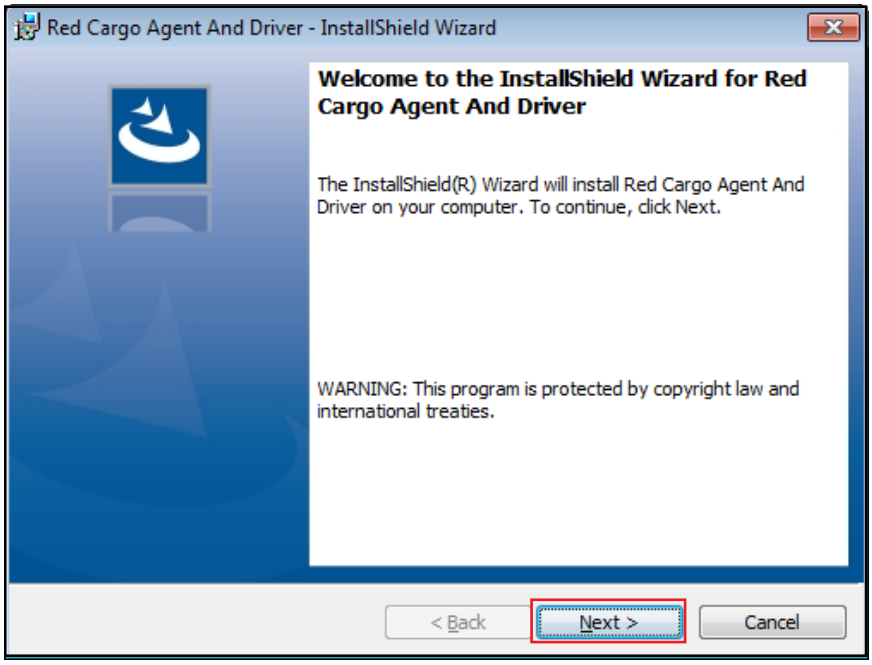
1 Sign into your Red Cargo account, (see **Sign into to your Red Cargo Account**). If the Red Cargo Agent and Driver have not been installed, or if either is out of date, the information bar will display a prompt to download the agent.



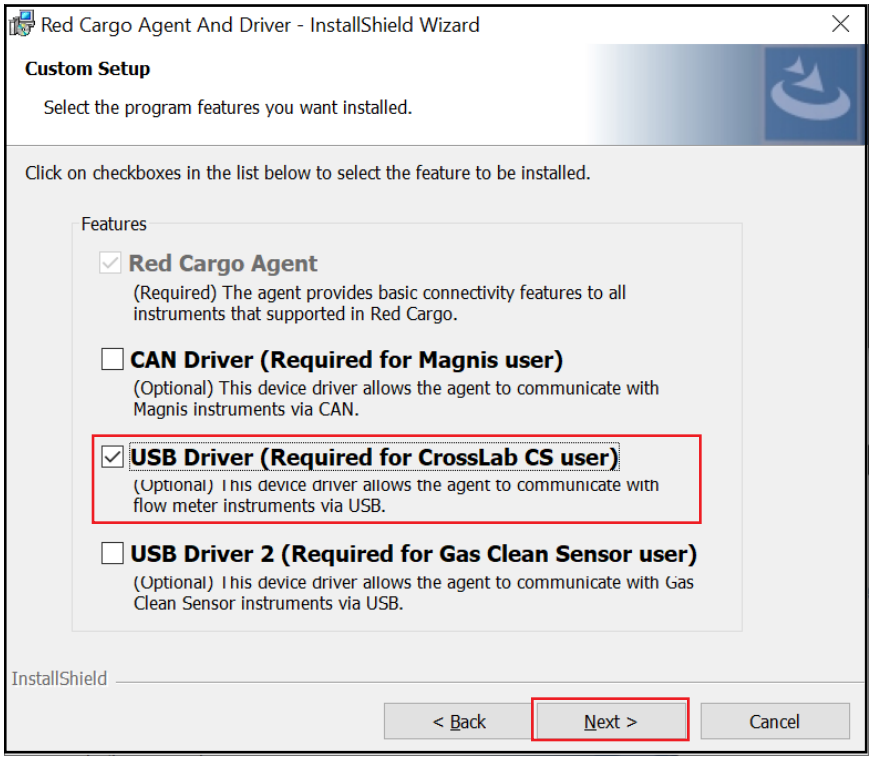
2 If a download prompt does not appear, the agent can be downloaded directly from **https://redcargocloud.blob.core.windows.net/public/Red%20Cargo%20Agent%20and%20Driver%20Setup.exe**.

3 Run **Red Cargo Agent and Driver Setup.exe**.

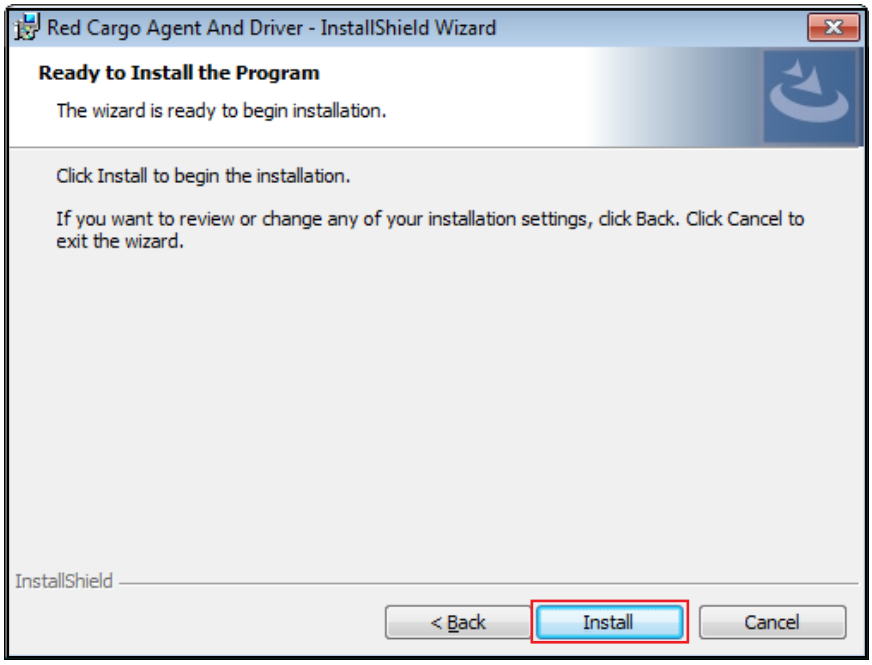
4 From the **Welcome** page, click **Next** to proceed with the installation. (To terminate the installation, click **Cancel**. Installation can be canceled at any point in the process.)



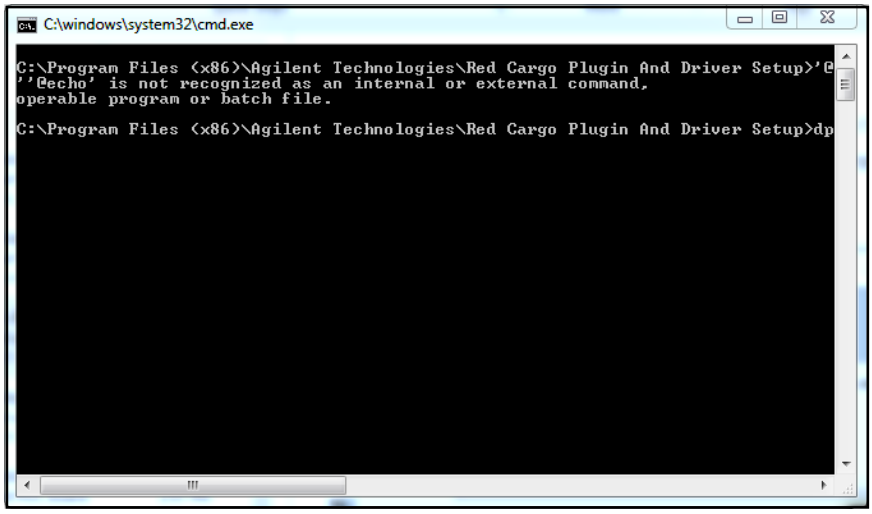
5 In the **Custom Setup** page, select **USB Driver (Required for CrossLab CS user)**, and click **Next**.



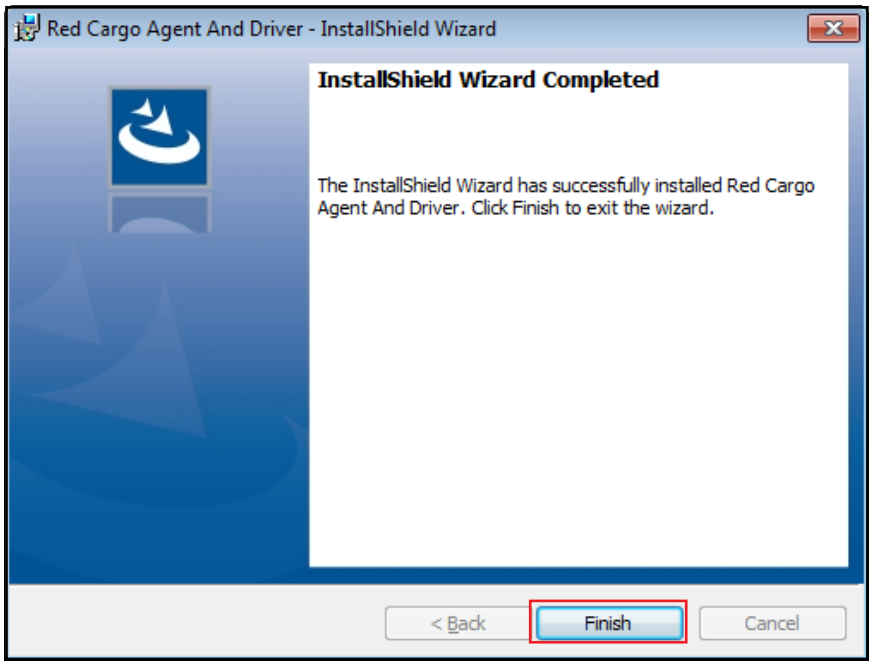
6 Click **Install**.



A command prompt window will appear, and the USB driver will be installed. The command prompt window will close once the installation of the USB driver is complete.



7 Once the installation is complete, click **Finish**.



8 Refresh the browser after installation of the Red Cargo Agent.

Connect a CrossLab CS device to Red Cargo

The Red Cargo Web Interface allows the instrument's firmware to be updated.

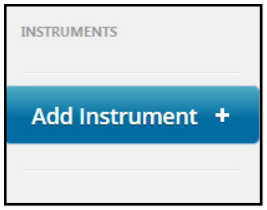
Add an instrument to Red Cargo

1 Connect the CrossLab CS device using the USB cable.

2 Power on the CrossLab CS device.

3 Sign into your Red Cargo account. (See **Sign into to your Red Cargo Account** on page 7).

4 Click **Add Instrument** in the **Instrumentss** column.



The **Add instrument** window will appear on the left side of the page.

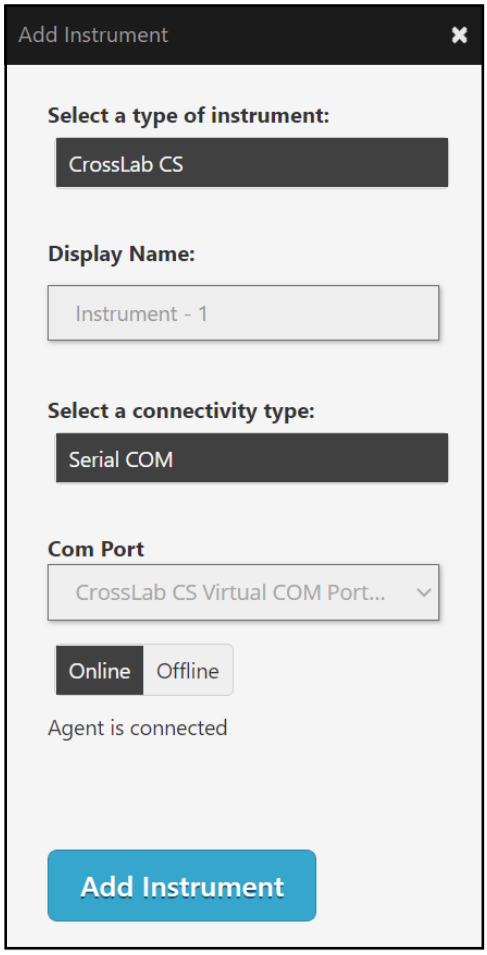
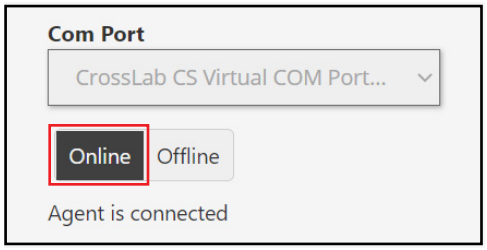


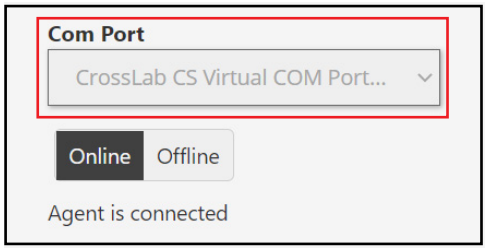
Figure 3. The **Add instrument** window.

5 A CrossLab CS device can be given a nickname by entering a name into the **Display Name** field of the **Add Instrument** window (shown in Figure 3). This is useful for managing more than one device.

6 Click **Online**. (See Figure 3 for and expanded view of the **Add Instrument** window).



7 Select the **CrossLab CS Virtual COM Port** option from the **Com Port** drop down menu. (See **Figure 3** for and expanded view of the **Add Instrument** window).



8 Click **Add Instrument**. (See **Figure 3** for and expanded view of the **Add Instrument** window).

View instrument status

The status panel appears in the Red Cargo web client when a CrossLab CS device is connected. The panel displays the following attributes (See **Figure 4**):

- Instrument Status
- COM Port
- Model
- Serial Number
- Firmware Version

Figure 4. CrossLab CS device status panel.

View Cartridge Info

The **Cartridge Info** feature provides the cartridge's details when the CrossLab CS device is connected. The **Cartridge Info** displays the following attributes (see Figure 5):

- Model Number
- Serial Number
- Cartridge Type
- Turn On Date (See Table 1)
- Expired Date (See Table 1)

Table 1 Cartridge Info indication guide

Cartridge Type	Turn On Date	Expired Date
ADM Flow Meter Cartridge	Refers to the cartridge activation date.	Refers to the cartridge due date.
Leak Detector Cartridge	Refers to the filter new date.	Refers to the filter due date.

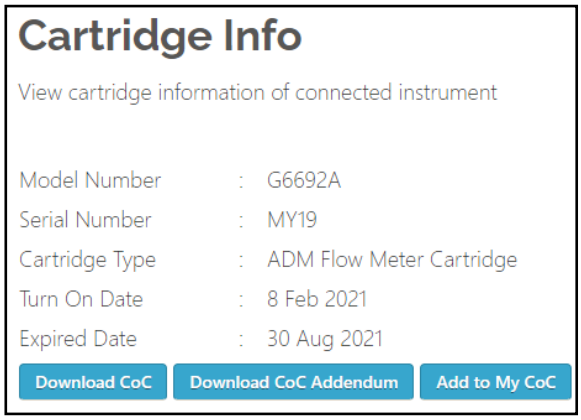


Figure 5. CrossLab CS **Cartridge Info** Page.

In **Cartridge Info**, you can download CoC and CoC Addendum for the ADM Flow Meter cartridge.

1 To download CoC, click the **Download CoC** button.

2 To download CoC Addendum, click the **Download CoC Addendum** button.

3 To register the cartridge to a current account, click the **Add to My CoC** button. If the cartridge is registered successfully, an information bar will be displayed.

NOTE

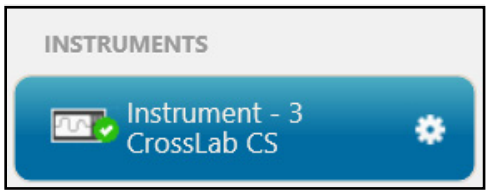
The Download CoC and CoC Addendum feature is only available for ADM Flow Meter Cartridges.

Edit instrument settings

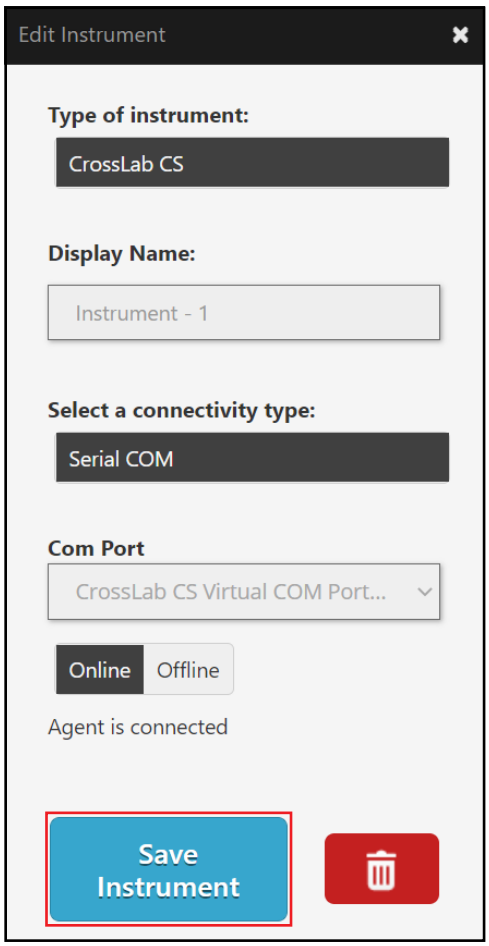
To change an instrument's COM Port and Display Name:

1 Select the instrument to be edited from the list in the **Instruments** column.

2 Hover over the selected instrument in the **Instruments** column, then click on the ***cogwheel icon***.



3 Fill out the fields in the **Edit Instrument** dialog, and click **Save Instrument**.

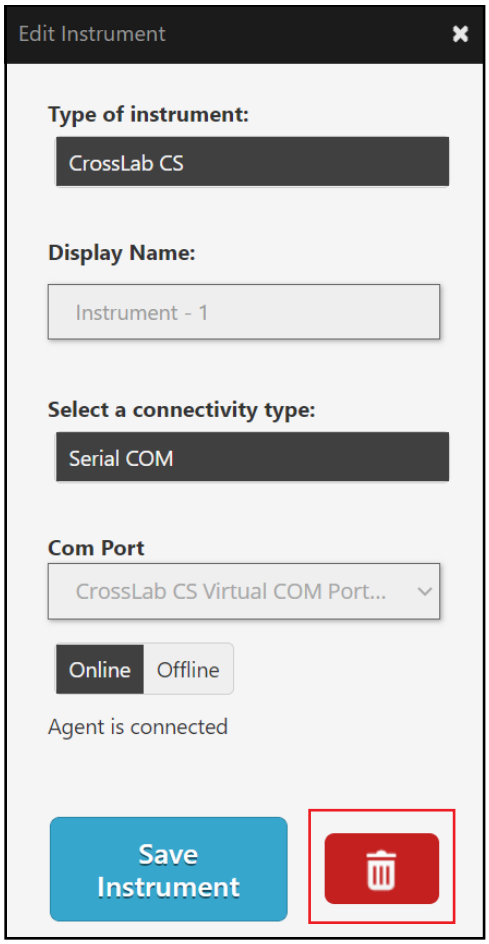


Delete an instrument

CAUTION

Once an instrument is deleted, all data associated with it cannot be recovered.

- In the **Edit Instrument** panel, click on the ***recycle bin*** icon.



Retrieve the Certificate of Calibration and Certificate of Calibration Addendum

This section describes the retrieval process for the Certificate of Calibration (CoC) and the Certificate of Calibration Addendum (CoC Addendum).

NOTE

This section is applicable to Flow Meter only.

Each ADM Flow Meter cartridge comes with a Certificate of Calibration (CoC) and Certificate of Calibration Addendum (CoC Addendum) which are generated when the cartridge is manufactured. These certificates give details about the instruments that were used to calibrate the cartridge and provides a verification table showing the flow readings obtained in the factory compared to Agilent's flow standard. If the CoC and CoC Addendum are lost, or a digital copy is required, they can be downloaded using Agilent's Red Cargo Web Interface.

To retrieve the CoC Addendum of the ADM Flow Meter cartridge, an initial connection of the ADM Flow Meter to Red Cargo website must be established. After the initial connection is made, subsequent retrieval of CoC and CoC Addendum *does not require* reconnection to the Red Cargo website. (See **Connect a CrossLab CS device to Red Cargo** on page 11).

To download the CoC and CoC Addendum, the following cartridge information must be provided:

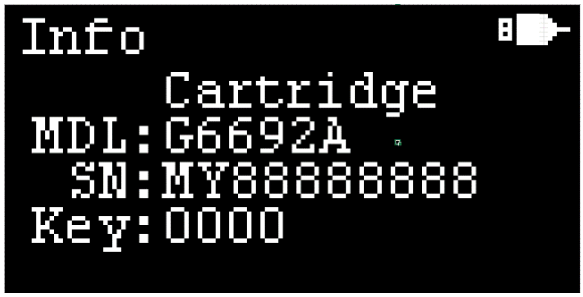
- Model number
- Serial number
- Product key

To view the cartridge information:

1 Turn on your ADM Flow Meter.

2 Press the Mode button until the **Info** mode screen is visible.

3 Press the Enter button until the screen displays the **Cartridge** information. The model number (**MDL**), serial number (**SN**) and product key (**Key**) will be displayed.



Access Red Cargo Server

Access Red Cargo server **https://redcargo.azurewebsites.net/Account/AccessProduct** and look for the CrossLab CS customer icon.

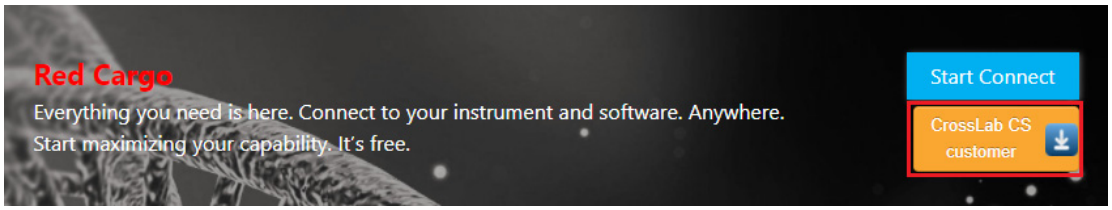
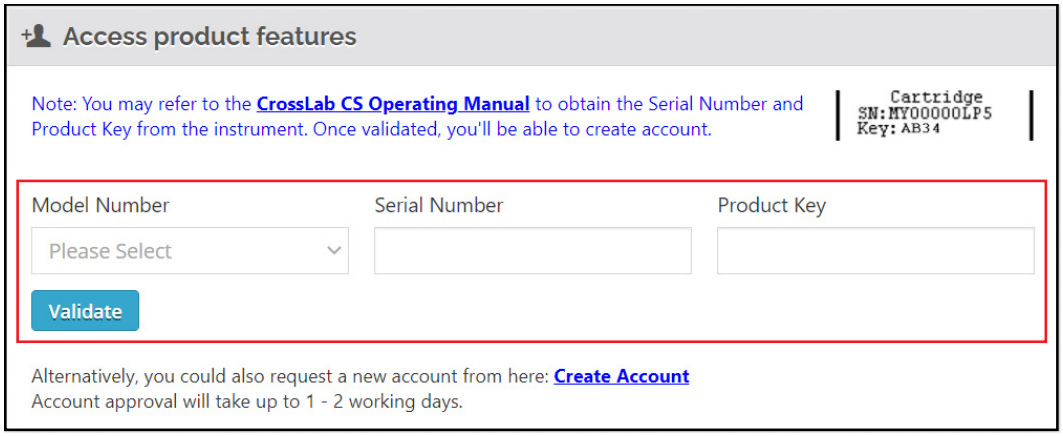


Figure 6. The Red Cargo **CrossLab CS customer** button, highlighted in red.

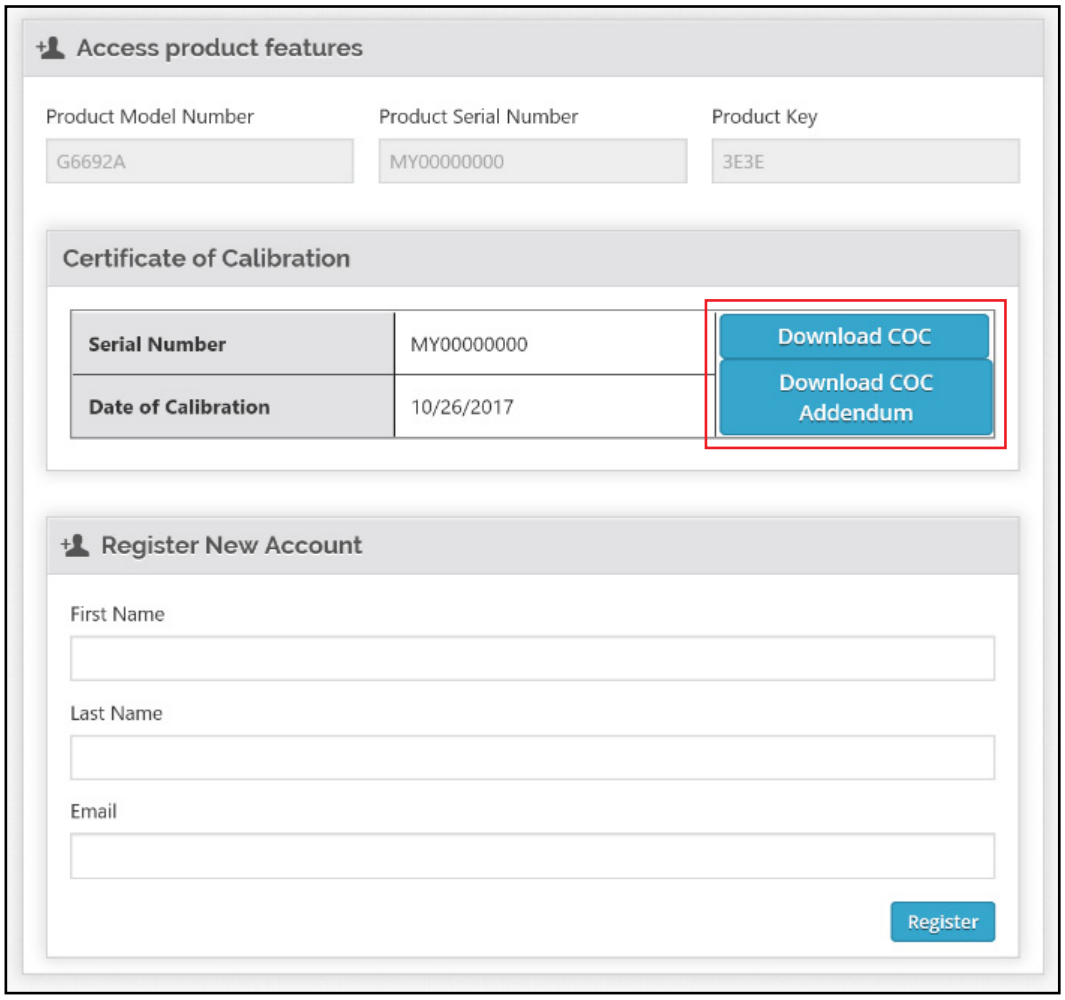
To download the CoC and CoC Addendum

1 Enter the **Model Number**, **Serial Number**, and **Product Key** of the flow meter and click **Validate**.



2 If the **Model Number**, **Serial Number**, and **Product Key** match the cartridge's details, the link to download the CoC and CoC Addendum will be displayed.

- To download the CoC, click **Download CoC**.
- To download the CoC Addendum, click **Download CoC Addendum**.



NOTE

The COC and COC Addendum downloads are in PDF format. The user must have Adobe Reader installed on their browser in order to view the documents.

The COC and COC Addendum download feature is only available for the ADM flow meter Cartridges.

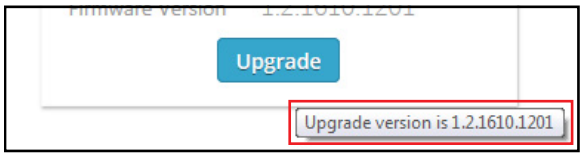
Firmware Upgrade

You can upgrade the firmware on the CrossLab CS devices through Red Cargo Web interface or Red Cargo Desktop Application.

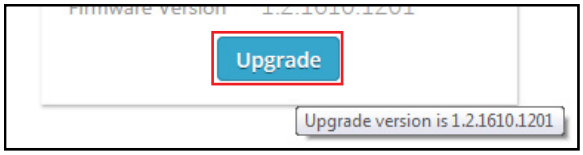
Red Cargo Web

1 Connect your CrossLab CS device to the Red Cargo website. (Refer to section **Connect a CrossLab CS device to Red Cargo** on page 11).

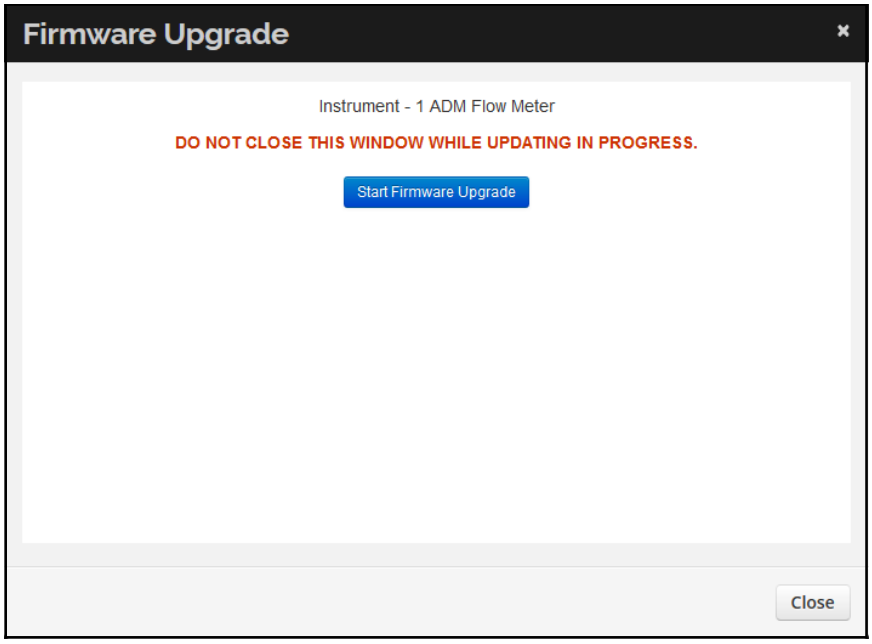
2 Click **Status** under the **Features** list. If a newer firmware version is available, an **Upgrade** button will be displayed. To check the **Upgrade version**, hover the cursor over the **Upgrade** button as shown below.



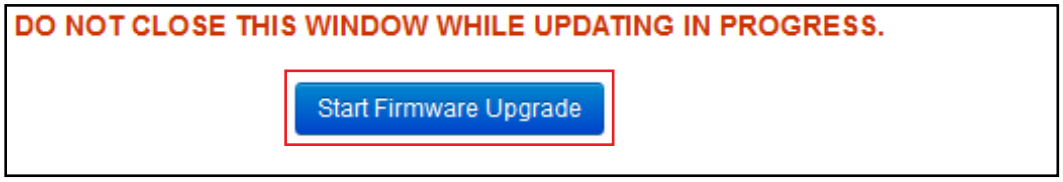
3 Click **Upgrade**.



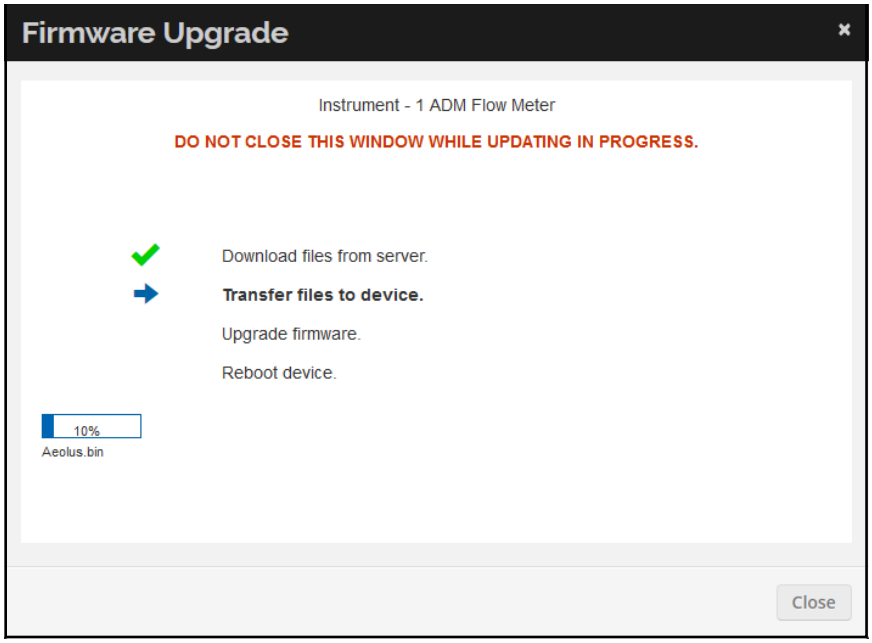
The following dialog box will be shown.



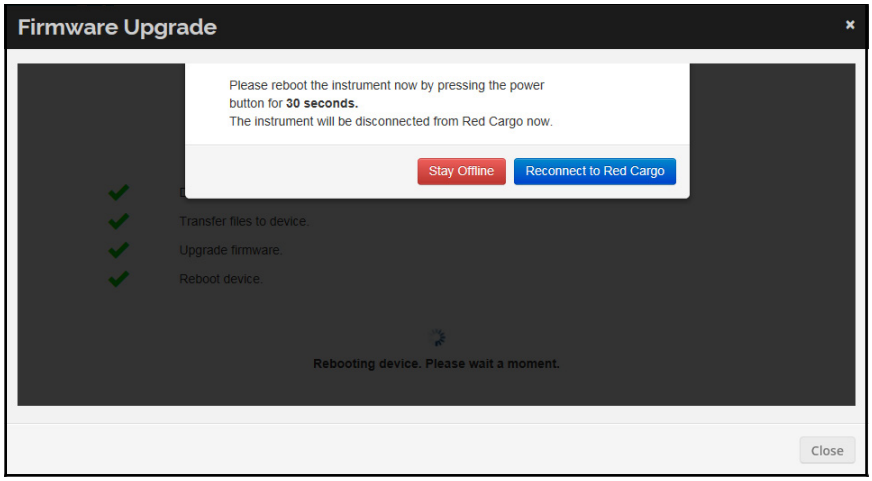
4 Click **Start Firmware Upgrade** to initiate the firmware update.



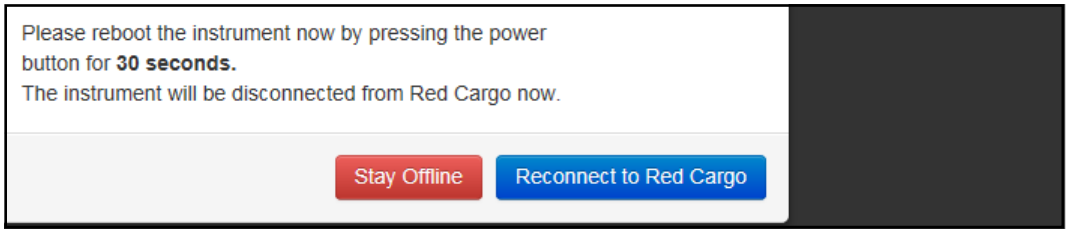
5 The firmware upgrade process can take several minutes. To avoid any interruption of the upgrade process, ensure that the **Firmware Upgrade** window (shown below) and web browser remain open until the upgrade is complete.



6 When the following message is displayed, press and hold the **Power** button for 30 seconds to reboot the instrument.



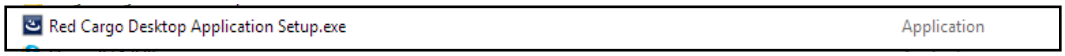
7 To close the dialog box, select **Stay Offline** or **Reconnect to Red Cargo**.



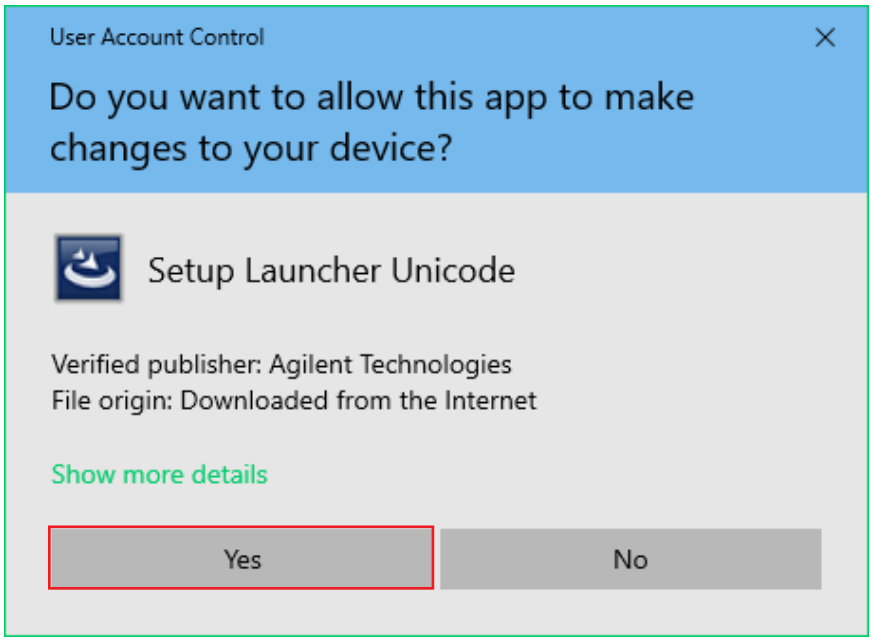
Red Cargo Desktop Application

Getting Started with the Red Cargo Desktop Application

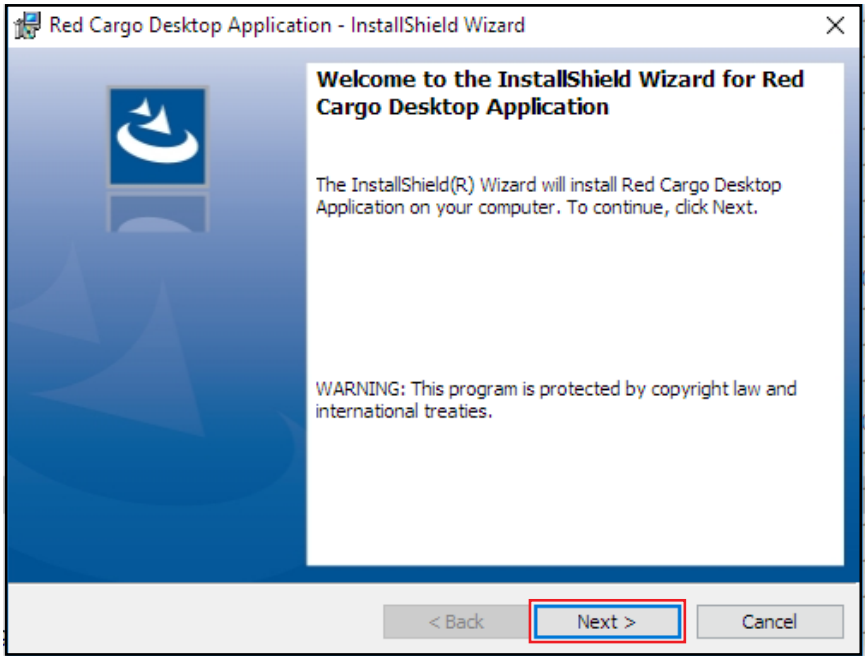
1 Download and save the **Red Cargo Application Setup.exe** (by following the link).
The **Red Cargo Desktop Application** installer file is shown below.



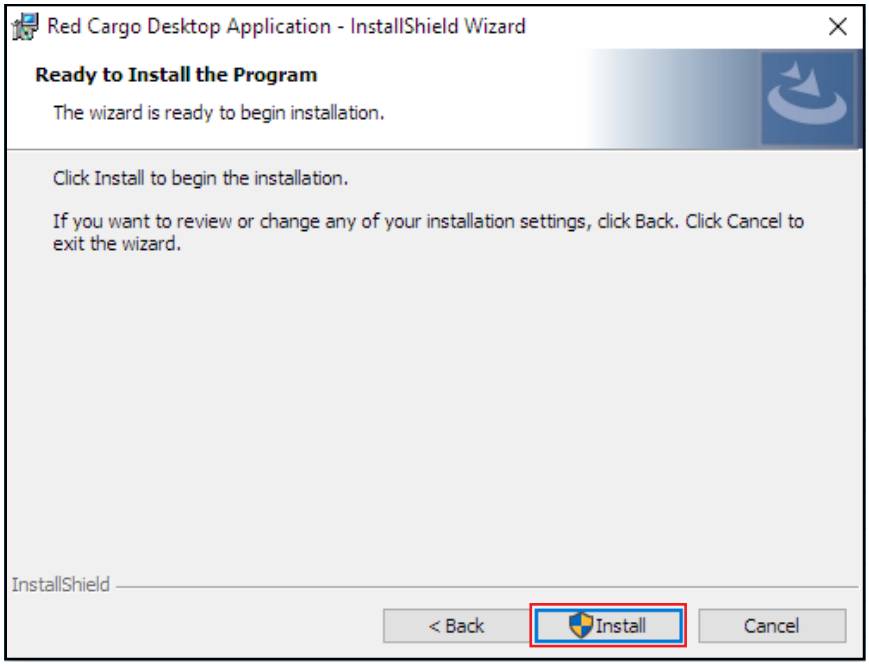
2 Install the **Red Cargo Desktop Application** as an **Administrator**. In the **User Account Control**, click **Yes** to allow installation of the application and drivers.



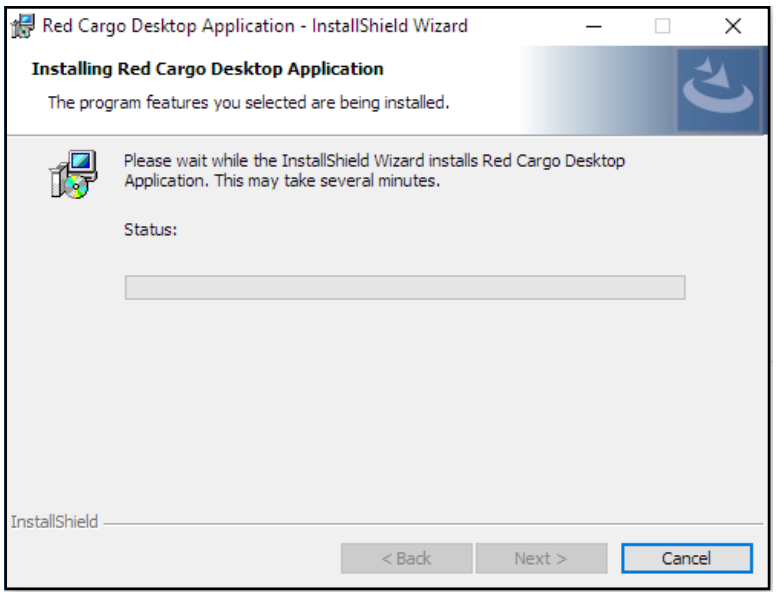
3 In the **Red Cargo Desktop Application - InstallShield Wizard** window, Select **Next**.



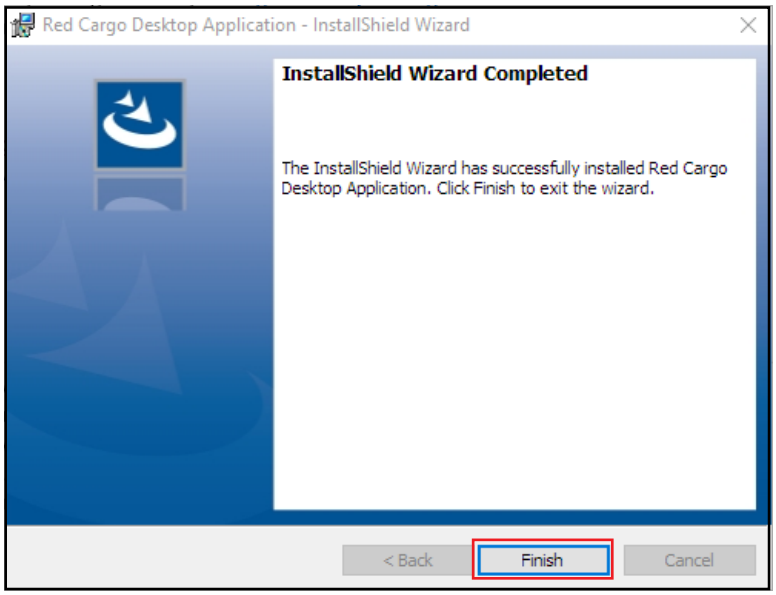
4 To confirm installation, click **Install**.



5 Wait for the application and drivers to install. A status bar will be displayed with the option to cancel installation.

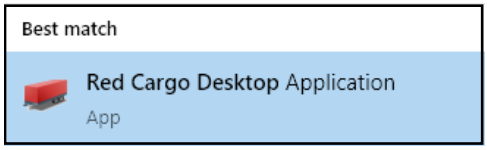


6 To close the **InstallShield wizard**, click **Finish**. The **Red Cargo Desktop Application Installation** is now complete.

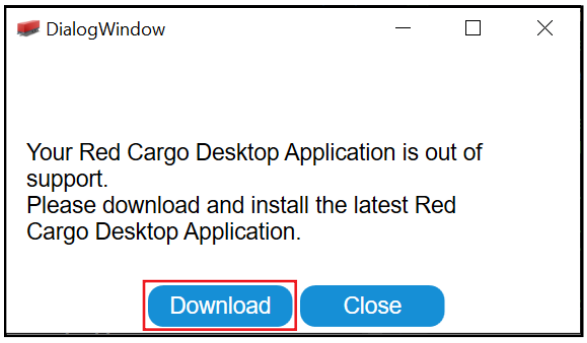


Application Out of Support

1 Ensure your PC is connected to the Internet. Launch the **Red Cargo Desktop Application**.



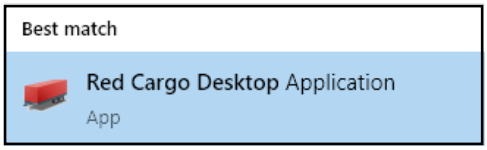
2 If the Red Cargo Desktop Application version installed on your computer is out of support, the following **DialogWindow** will appear when the Red Cargo Desktop Application is launched. To download the latest Red Cargo Desktop Application, click the **Download** button.



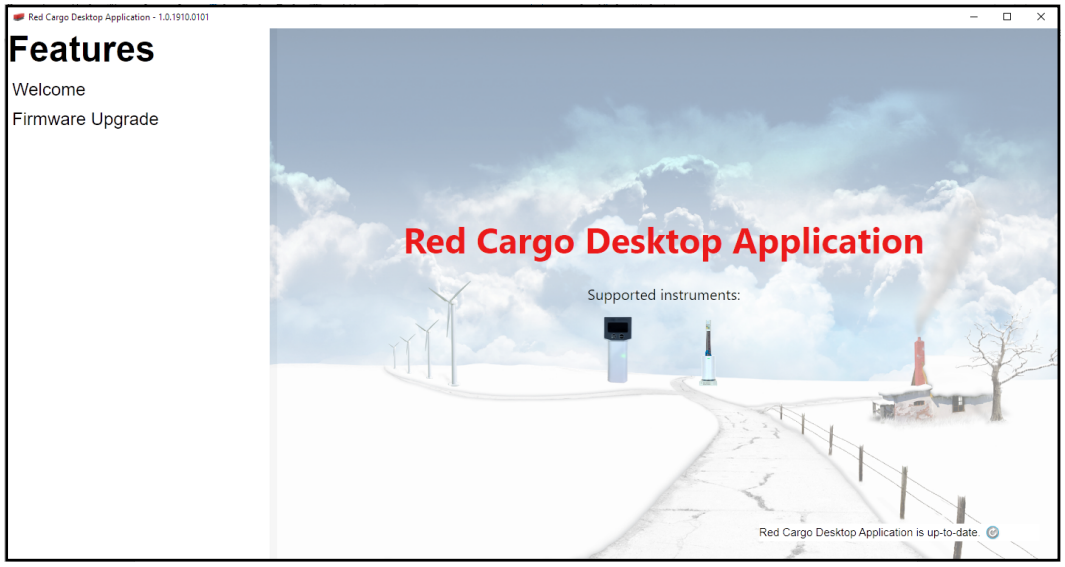
3 After the download is completed, install the latest Red Cargo Desktop Application.

Check Application Version

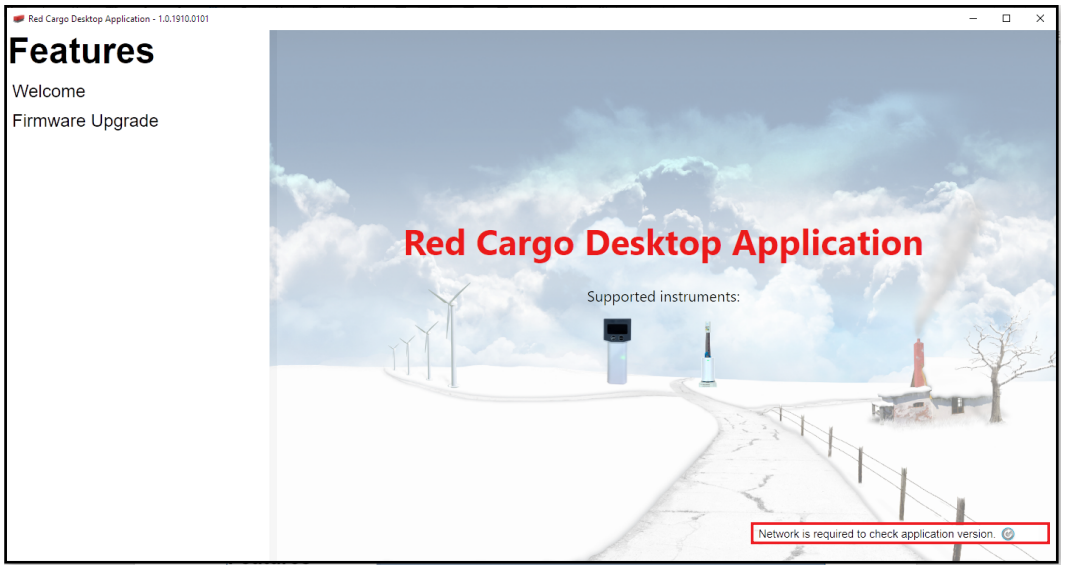
1 Launch the Red Cargo Desktop Application. Search for the **Red Cargo Desktop Application**.



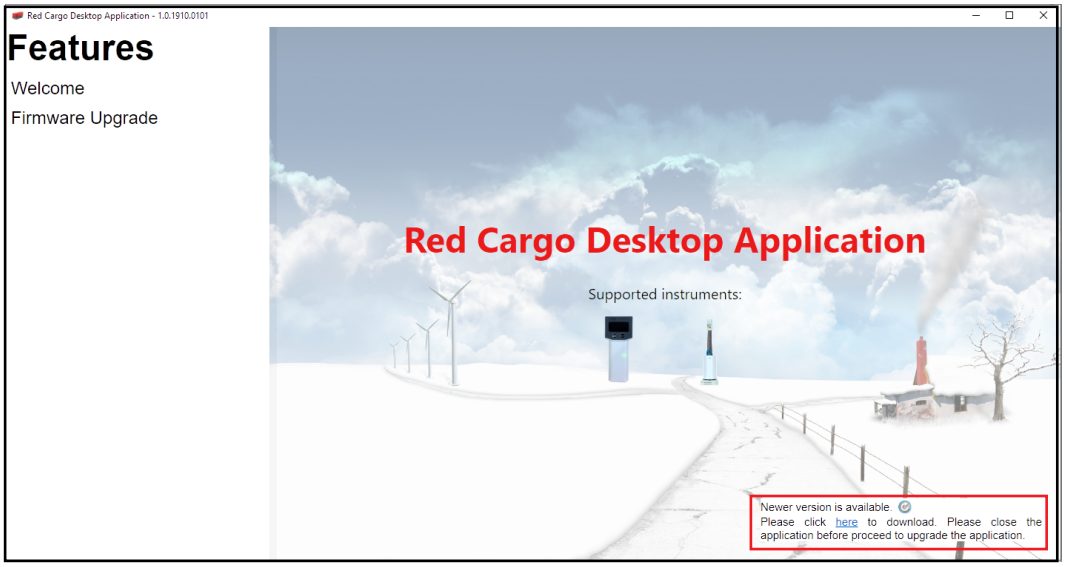
The Red Cargo Desktop Application **Welcome** page will be displayed.



2 Ensure that the computer is connected to the Internet. If there is no connection, the **No network connection** message will appear in the lower right corner.



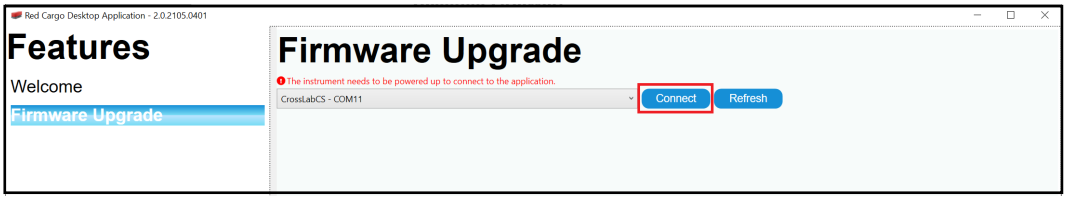
3 Click to check for updates. If an update is available, a **Newer version available** message will appear in the lower right corner.



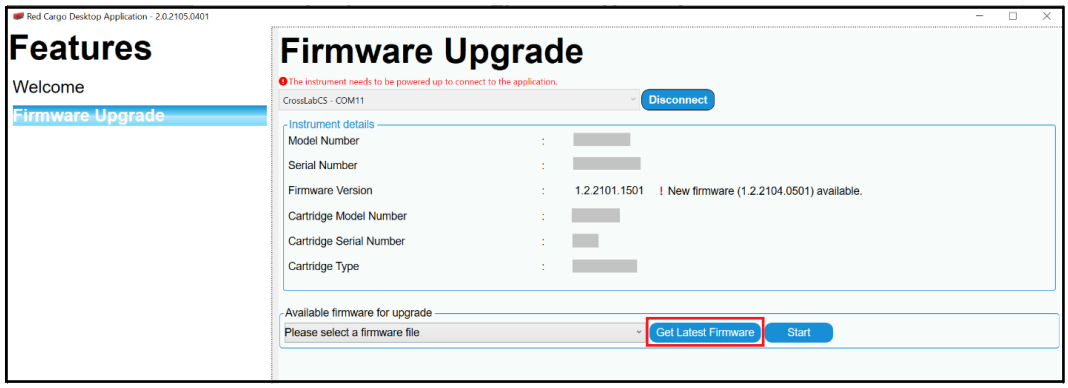
Download Latest Firmware

1 Click the **Firmware Upgrade** tab to proceed.

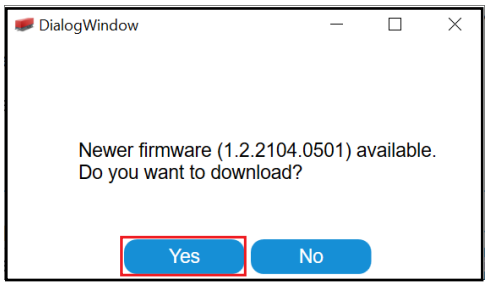
2 Click **Connect** on the **Red Cargo Desktop Application Firmware Upgrade** page to connect to CrossLab CS device COM Port.



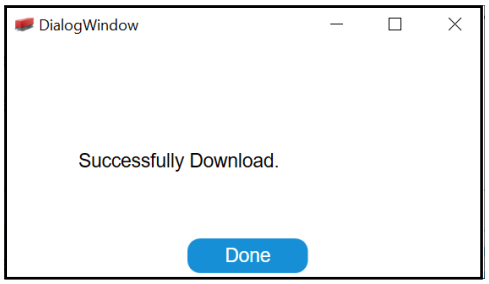
3 Ensure that the PC is connected to Internet. Click **Get Latest Firmware** to proceed.



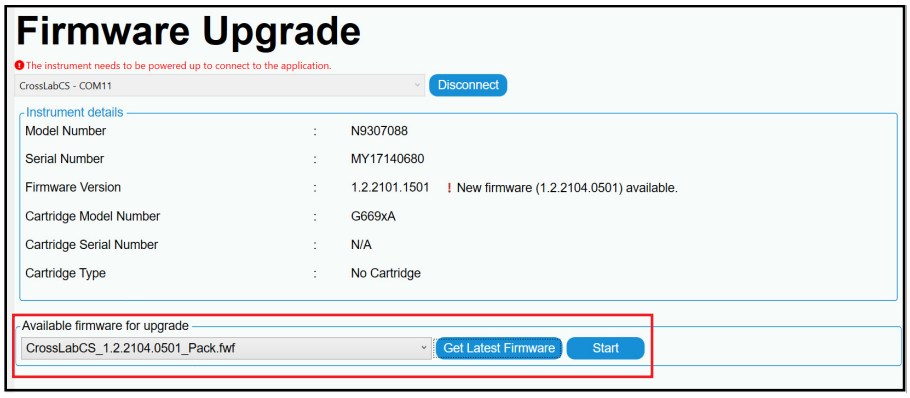
4 Click **Yes** to initiate download of the latest firmware.



5 Click **Done** to proceed.



When the Firmware download is complete, the latest firmware downloaded will appear under the Available firmware upgrade heading.

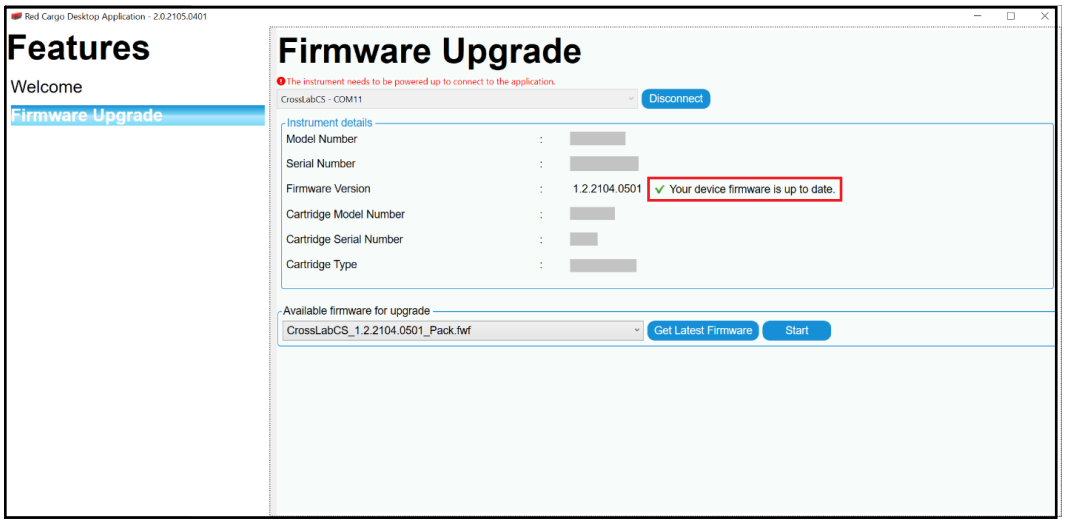


Perform Firmware Upgrade

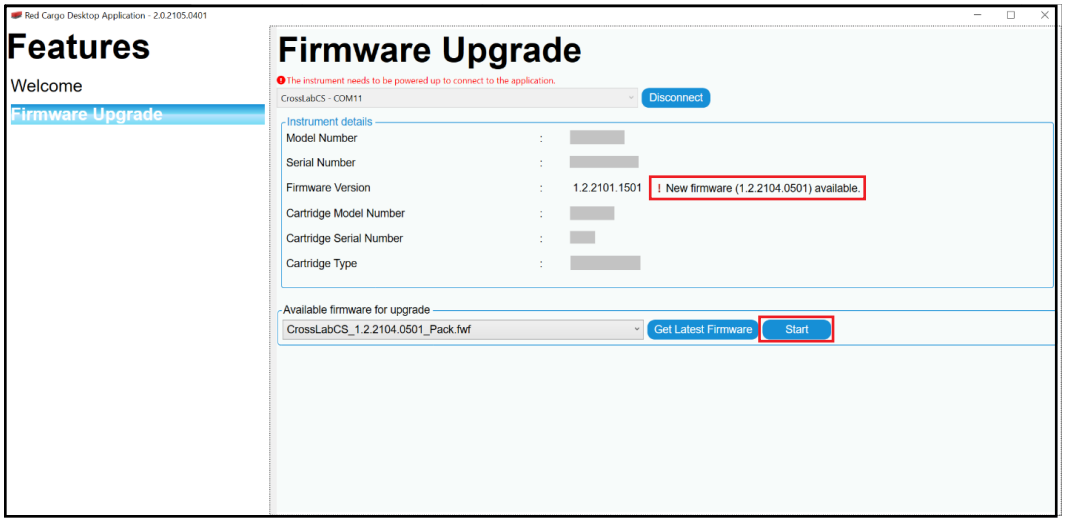
1 Click the **Firmware Upgrade** tab to proceed.

2 Click **Connect** to connect to CrossLab CS device COM Port.

3 Check the firmware version of your CrossLab CS device. If a green check-mark with the message ***"Your device firmware is up to date."*** appears in the **Firmware Version** row, a Firmware upgrade is not necessary. The details of a connected instrument which matches the firmware version in the application is shown below.

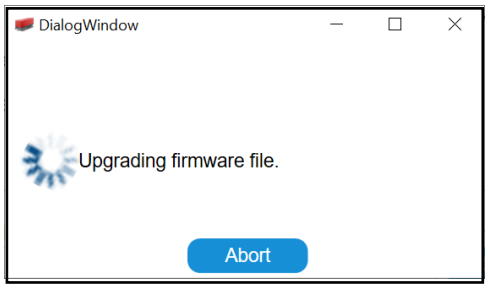


4 If a red exclamation point and the message ***"New firmware (X) available."*** appears, ensure that the latest firmware has been downloaded before clicking **Start**. (See **Download Latest Firmware** on page 28). After the latest firmware is downloaded, click **Start** to start the firmware upgrade. The details of a connected instrument with an out-of-date firmware version is shown below.

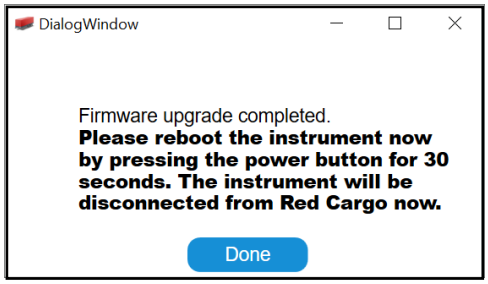


5 In the **DialogWindow**, click the **Start** button to begin the firmware upgrade process.

The **DialogWindow** will confirm the firmware upgrade process. To discontinue upgrading the firmware file, click the **Abort** button.



6 In the **DialogWindow,** click **Done** to proceed. Firmware upgrade is now complete.



Stream the Real-Time Data

The USB driver, installed in **Install the Red Cargo Agent and USB Driver** on page 8, can be used to stream real-time data measurements to a terminal emulation program. Red Cargo does not support data acquisition at this time.

To begin streaming:

1. Install and setup terminal emulation software, such as PuTTY or HyperTerminal. Connect to the same virtual com port used by the CrossLab CS device.
2. Connect the CrossLab CS device using the USB cable.
3. Power on the CrossLab CS device.
4. Run the terminal emulation software.
5. Begin CrossLab CS device operation. The data will automatically stream, and matches the mode shown on the instrument's screen.

Figure 7. Agilent CrossLab CS device USB port.

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