

Title:

VCCX Step By Step Software Setup Through On-Site Configuration

Table of Contents

Overview	1
Hardware Requirements.....	1
USB Link 2 Hardware Preparation Before Site Visit	2
USB Link Dipswitch Settings.....	2
Software Installation Preparation Before Site Visit	2
Prism 2 Software Installation	2
USB Link 2 Driver Installation.....	3
VCCX Connection To Unit While On-Site	7
Hardware Orientation Setup.....	7
Preparing Prism 2 To Connect To The VCCX	8
Uploading Hex Files (If Instructed To Update By Flo)	11
Updating Parameters Of The VCCX.....	12
Addressing The VCCX Controller	16

Overview

This document will outline how to prepare the USB Link 2 and your Windows 10 laptop to connect to a FLō unit that has a VCCX in it as well as how to configure the VCCX while on-site. If you need assistance with setting up Prism2 or USB Link 2, call FLō Tech Support at 1-888-598-1198 Opt. 1.

Hardware Requirements

Below are the pieces of hardware needed for the VCCX set up.

1. Laptop with Windows 10
2. Pinned Connector cable (see figure 1)
3. USB Link 2 (see figure 2)
4. USB connector from Laptop to USB-Link2 (see figure 3)



Figure 1: Pinned Connector



Figure 2: USB Link 2



Figure 3: USB Connector To Laptop

Title:

VCCX Step By Step Software Setup Through On-Site Configuration

USB Link 2 Hardware Preparation Before Site Visit

The following is guidance on how to set the orientation of the dipswitch settings for VCCX communication.

USB Link Dipswitch Settings

Make sure to set the USB Link dipswitch settings to the following (see figure 4):

1. COMM CONFIG = STAND ALONE
2. COMM SPEED = HIGH



Figure 4: USB Link Dipswitch Settings

NOTE: Dip switches are internal to the USB, a small flathead might be needed to adjust the switch.

Software Installation Preparation Before Site Visit

The following programs must be installed on your laptop before you are able to connect to the VCCX.

- Prism 2 – Provided By FLō Energy Solutions in start-up package OneDrive folder, do not download Prism 2 from AAON’s website.
- USB Link Driver Software – Download from AAON’s website, path provided in USB Link setup section below.

IMPORTANT: Prism 2 must be installed before you install the USB Link Driver Software.

Prism 2 Software Installation

FLō will provide you with the Prism 2 installation file (Prismll.exe) in the start-up package OneDrive folder. Follow the steps below to install the Prism 2 software:

1. Copy Prismll.exe from the FLō provided start-up package OneDrive folder to the location of your choice on your Windows 10 laptop.

NOTE: FLō recommends creating a folder on your desktop called “FLO PRISM”, and save the Prismll.exe there. (See figure 5).

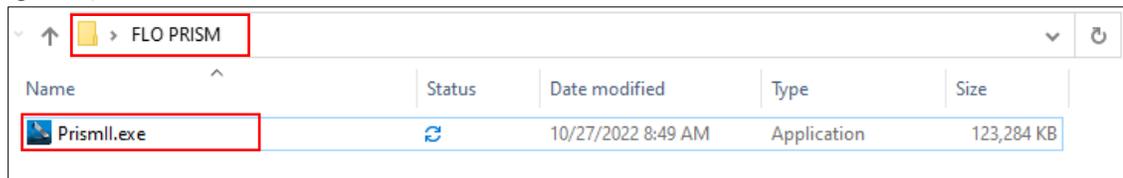


Figure 5: FLō PRISM Folder On Desktop

Title:

VCCX Step By Step Software Setup Through On-Site Configuration

1. Open the Prismll.exe file, installation will be complete when a “Configuration” folder and “History” folder are created in the same location where you placed Prismll.exe (see figure 6).

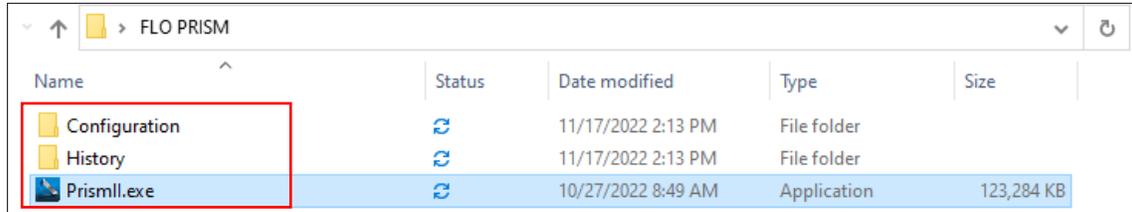


Figure 6: Prism Files Extracted

2. Prism2 software will automatically launch on your laptop (see figure 7).

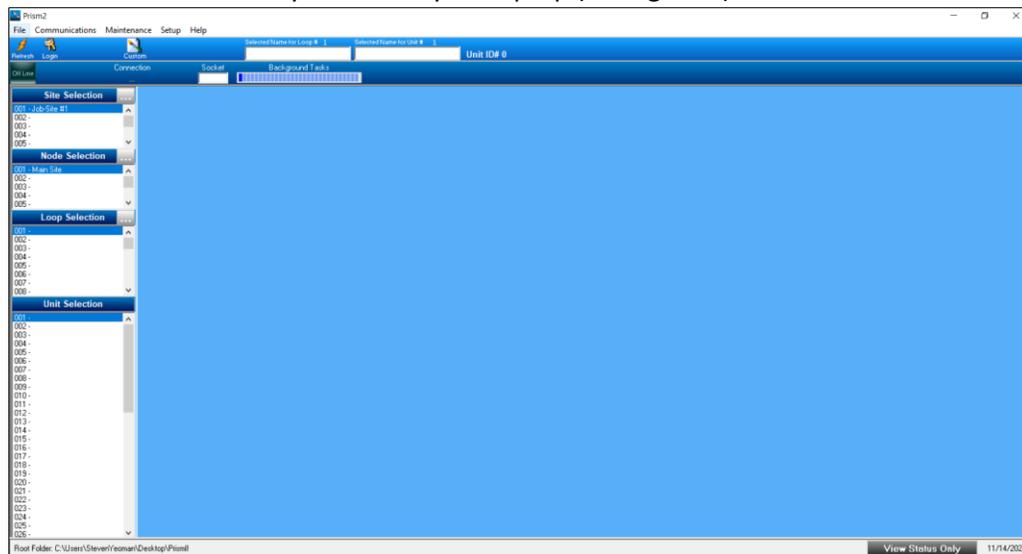


Figure 7: Prism Initial Launch Screen

USB Link 2 Driver Installation

1. Go to <https://www.aon.com/aon-controls-technical-support>
2. Scroll down to the USB Drivers section and select **USB Driver Files** to start the download (see figure 8).

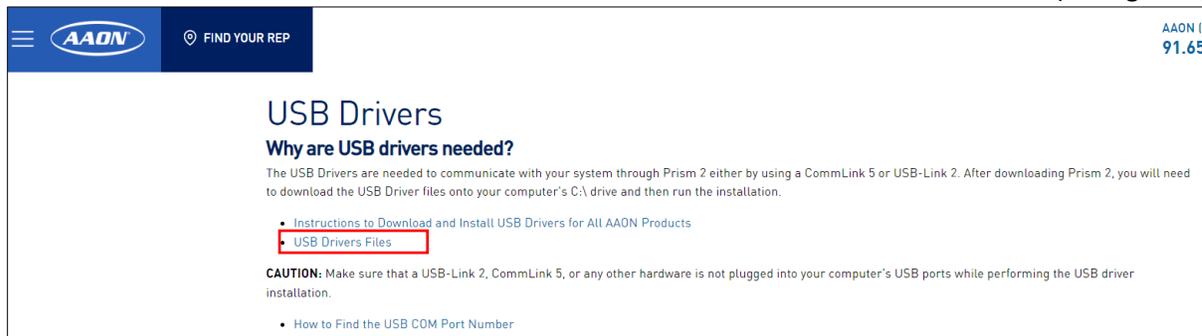


Figure 8: USB Link 2 Driver Software Download Location

3. A Pop-up screen should show the Exe files otherwise the files should be easily located in the download folder on your PC (see figure 9).

Title:

VCCX Step By Step Software Setup Through On-Site Configuration

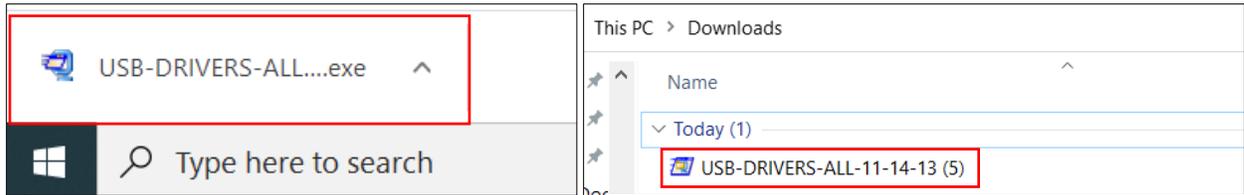


Figure 9: Examples of locating USB-DRIVERS-ALL (USB Link 2 Driver file)

4. Unzip the file, use “Browse” to unzip the files in a place where you will be able to find them in the next step (see figure 10).

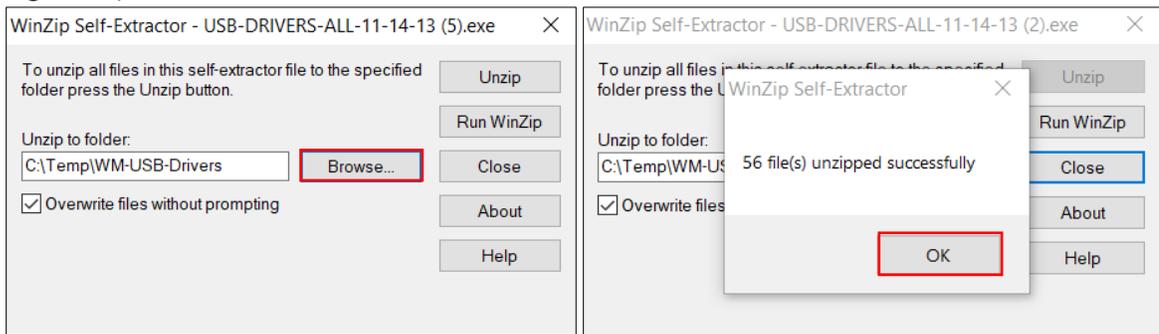


Figure 10: Unzipping USB Link 2 Driver Software

5. Once the files have been extracted to an accessible folder. There should be three folders generated (see figure 11).

USBLinkNewSS0073-CommLink5-PTLinkII-AllWin-OS	11/11/2022 12:16 PM	File folder
USBLinkOld-RemoteLinkII-CommLinkIII_IV-Win98_Win_2000-Win_XP-OS	11/11/2022 12:16 PM	File folder
USBLinkOld-RemoteLinkII-CommLinkIII_IV-Win_Vista-Win_7-OS	11/11/2022 12:16 PM	File folder

Figure 11: Extracted USB Link 2 Driver Folders

6. Open the folder titled **USBLINKNewSS0073** (see figure 12).

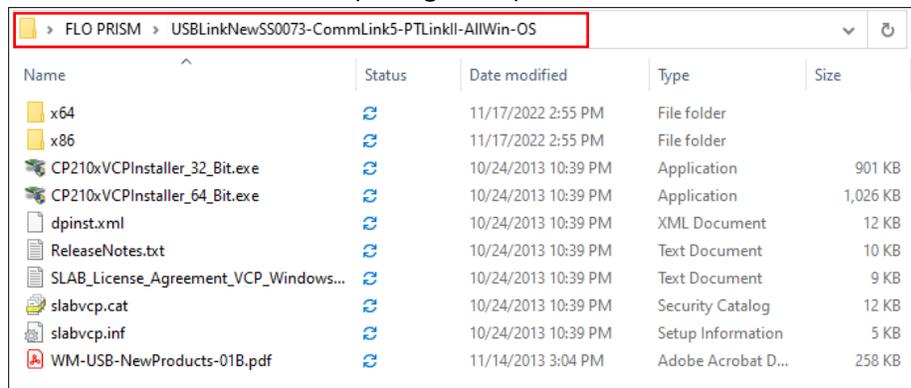


Figure 12: USB Link 2 Driver Folder

7. You will need to know if your laptop is 64-bit or 32-bit, if you know which version your computer is, skip to step 10, if you are unsure, continue with step 8.
8. Search “About your PC” in the Windows 10 search bar.

Title:

VCCX Step By Step Software Setup Through On-Site Configuration

9. Once selected look into the System Type for the operating system. It will be either 32-bit or 64-bit application. Figure 13 is an example of a 64-bit system.

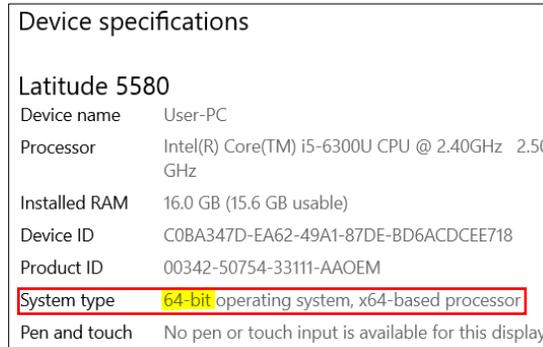


Figure 13: About Your PC, Locating System Type 64 or 32-Bit

10. After you have confirmed that your system is either 64-bit or 32-bit, right click the appropriate installer from the unzipped folder and choose “Run as Administrator” (see figure 14 for 64-bit example).
 - a. CP210xVCPInstaller_32_Bit – Use for 32-bit systems.
 - b. CP210xVCPInstaller_64_Bit – Use for 64-bit systems.

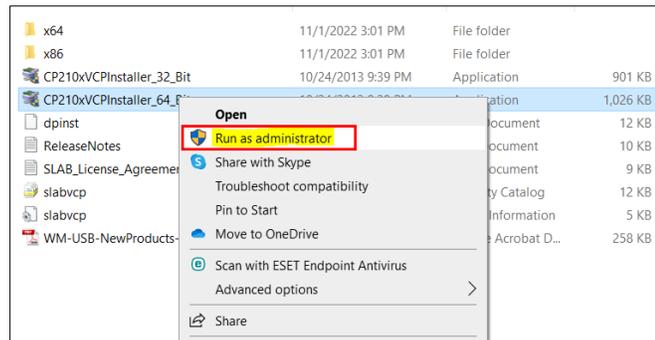


Figure 14: Running The Driver Installer As Administrator

11. The installer will now pop up, press the “Next” button install (see figure 15) and follow the steps below.



Figure 15: USB Link 2 Installer Initiation Screen

Title:

VCCX Step By Step Software Setup Through On-Site Configuration

12. Select “I accept this agreement” then press “Next” (see figure 16).



Figure 16: USB Link 2 License Agreement Screen

13. The driver installation will run, when complete, you will see the screen below. Select “Finish” to end the installation (see figure 17).

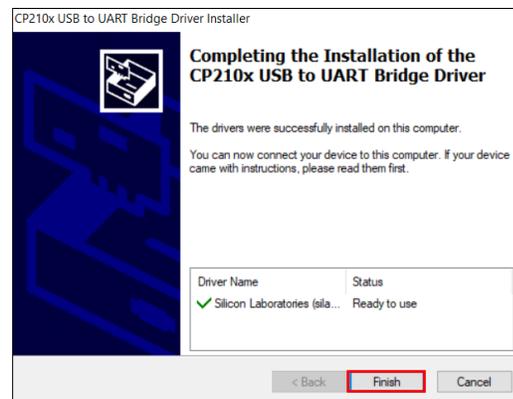


Figure 17: USB Link 2 License Agreement Screen

14. To ensure that the driver installation occurred without issues, plug in your USB Link 2 device to a USB laptop port, open Windows “Device Manager” (use the Windows 10 search function to locate Device Manager). Expand the Ports tab and verify that “Silcon Labs CP210x USB to UART Bridge (COM5)” is listed (see figure 18).

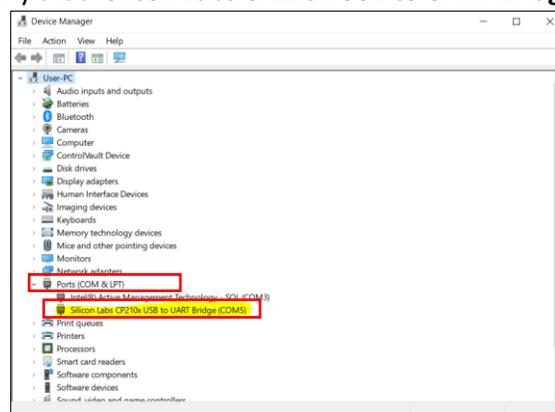


Figure 18: USB Link 2 Driver Installation Verification

Title:

VCCX Step By Step Software Setup Through On-Site Configuration

VCCX Connection To Unit While On-Site

Hardware Orientation Setup

Below shows how to install the cables to the USB Link 2 along with the orientation the plugs needed to ensure proper connection.

1. The pinned connector cable that connects to the VCCX in the unit needs to be oriented in a manner where the indented stud is facing upwards (see figure 19).



Figure 19: VCCX Plug Orientation

2. Make sure that the USB Link 2 side of the pinned connector cable is oriented to allow for the round part to be facing the labeled side of the USB Link 2 (see figure 20) along with the RS-485 following in a similar manner of having the studded part facing upwards (see figure 21).



Figure 20: Pinned Connector Cable Connection to USB Link 2



Figure 21: RS-485 Cable Connection To USB Link 2

Title:

VCCX Step By Step Software Setup Through On-Site Configuration

- Once the plugs are all connected and the USB Link 2 is connected to the USB port on the laptop, the next steps below outline how to connect to the VCCX using Prism 2.

Preparing Prism 2 To Connect To The VCCX

- Open Prism 2 on your laptop and left-click “Login” on the ribbon in Prism 2 (see figure 22).

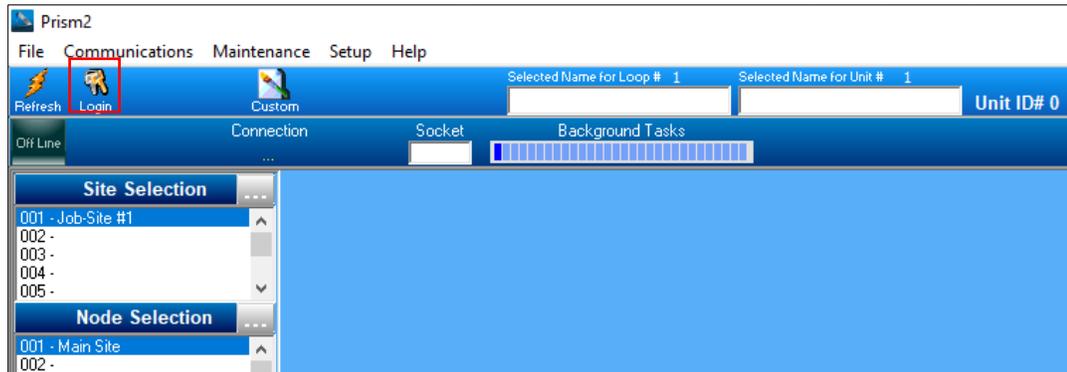


Figure 22: Logging into Prism

- A pop-up window will occur asking you to enter the user name and password (see figure 23), then left-click “Login”.



Figure 23: Login Access Pop Up

- Once you are logged in, the bottom right corner of Prism 2 will change from **View Status Only** to **Administrator Access** and the ribbon will now show the “Job-Site” option (see figure 24).

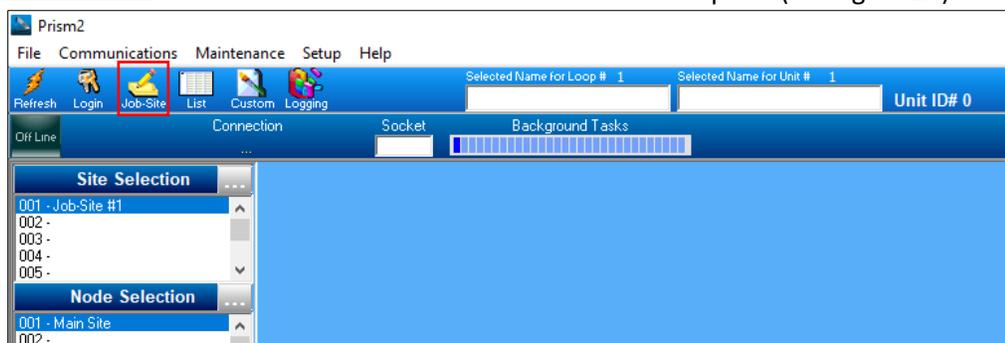


Figure 24: Verifying That You’ve Successfully Logged Into Prism 2

- Left-click the “Job-Site” on the ribbon, a pop-up window for the job-site will occur.

Title:

VCCX Step By Step Software Setup Through On-Site Configuration

5. Set the following on the job-site screen (see figure 25):
 - a. Select the “Serial Port” from the dropdown menu that matches the port in Device Manager that the Silicon Labs driver has been assigned to (see figure 26). In this guide, COM5 is used.
 - b. Set “Type Of CommLink” to **CommLink 5 or USB Link II**.
 - c. Set “Network Configuration” to **Single Loop / USB Link**.

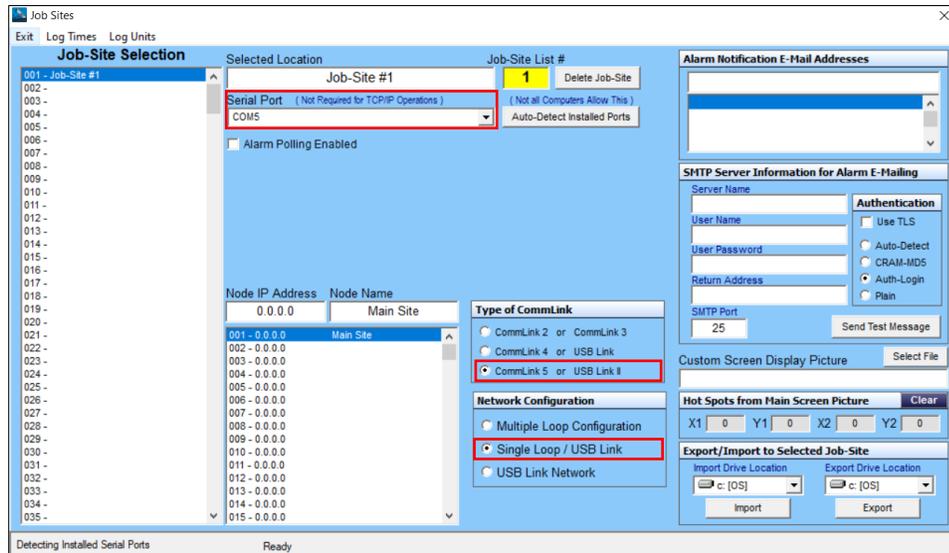


Figure 25: Job Site Screen Configuration

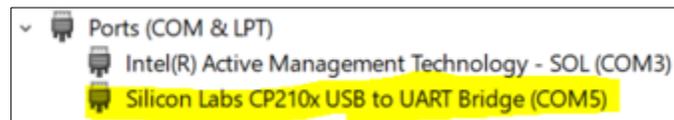


Figure 26: Device Manager Ports

6. Once the Serial Port, Type of CommLink, and Network Configurations are setup, hit the X button on the top right corner to close the job-site window.
7. Prism2 will now be ready to connect with the VCCX. Left-click the Off Line button and it should change to On Line (see figure 26).

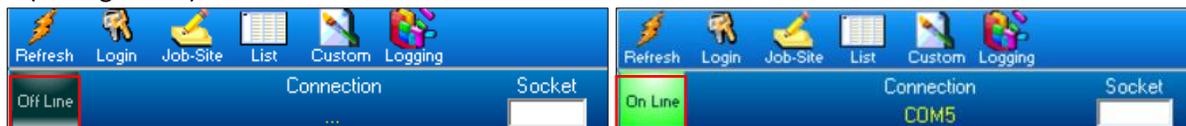


Figure 27: Verifying that you are now Online

8. To verify if the unit is ready for connection, left-click “Communications”, then left-click “Search For Units” (see figure 28).

Title:

VCCX Step By Step Software Setup Through On-Site Configuration

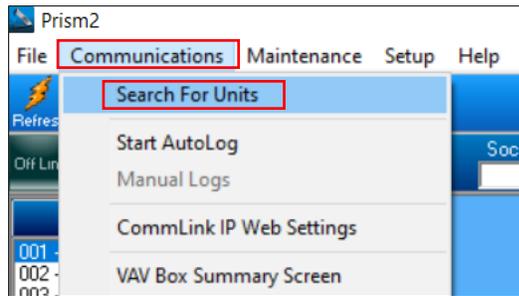


Figure 28: Starting The Search For Units

- A screen will pop up titled “Search For Units”, select “Start Search” (see figure 29).

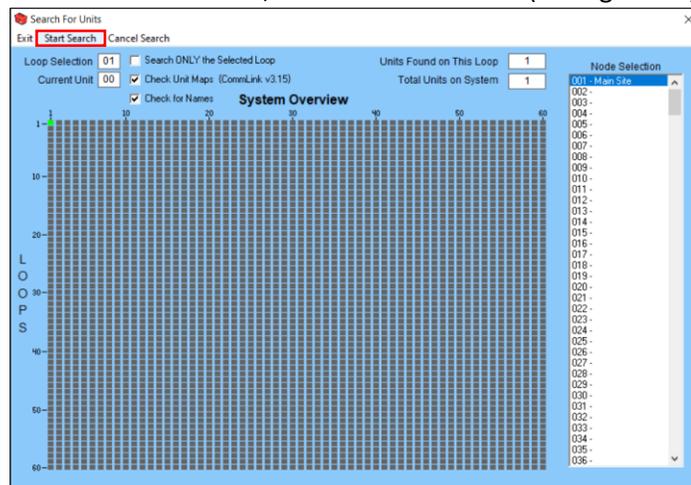


Figure 29: Initiating The Search

- Now that you have started the search, the first 1 by 1 square in the top left of the grid should display a small green box (see figure 30). If you do not have the green 1 by 1 square, cancel the search by hitting the X in the top right and call Flō Tech Support at 888-598-1198 option 1 for further assistance.

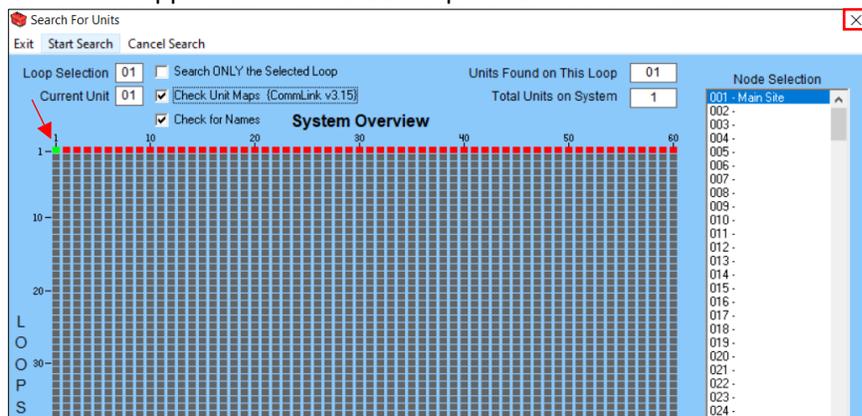


Figure 30: Confirming Unit Connection

- If you see the green square in the first 1 by 1 square, hit the X button at the top of the “Search For Units” to return to the display menu. Another pop up will occur asking if you want to “save the search results”, left-click “Yes” (see figure 31).

Title:

VCCX Step By Step Software Setup Through On-Site Configuration

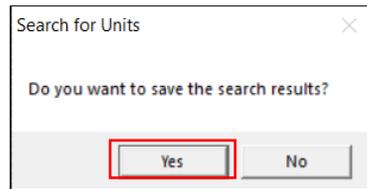


Figure 31: Saving Search Results

Uploading Hex Files (If Instructed To Update By Flo)

1. Left-click “Communications”, then left-click “Flash Selected Controller”, and select “Main Controllers” (see figure 32).

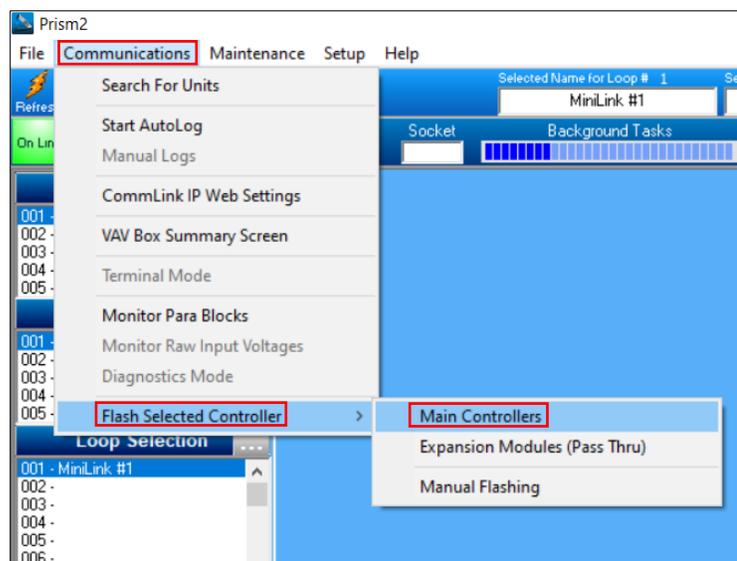


Figure 32: Accessing The Main Controller Flash Module

2. Select the “Manual File Select” from Step #2 (see figure 33). This will open a file search window. Locate the .hex file that Flō has provided you and left-click the “Open” button. You should now see the full file name and folder path listed in the large text box in step 2 (see figure 34).

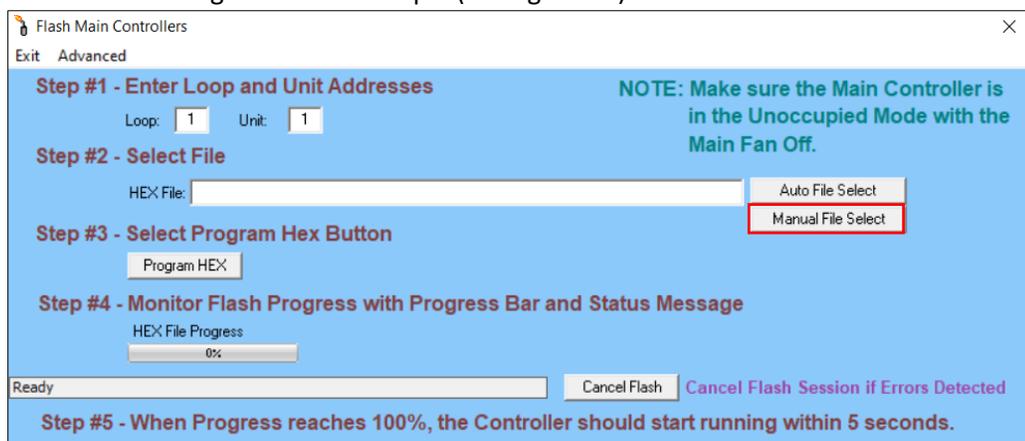


Figure 33: Selecting The .hex File

Title:

VCCX Step By Step Software Setup Through On-Site Configuration



Figure 34: Hex File Selected

- Now left-click the **Program HEX** button in Step #3. The Hex File Progress will begin loading (see figure 35).

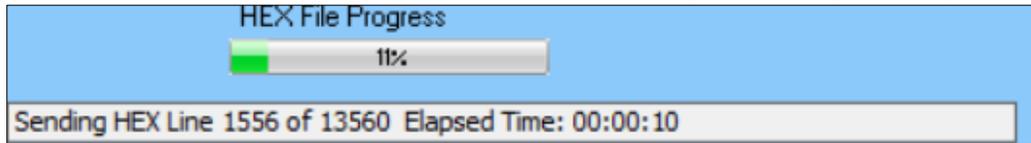


Figure 35: Hex File Progress

- Once the Hex File Progress reaches 100%, the line should say “Completed in ##:##:##”. This displays the estimated time remaining to complete the flash of the VCCX (see figure 36).



Figure 36: Hex File Flash Progress

- Once the flash is completed left click X in the top right corner of the window to close this window.
- To verify that the Hex update took, look at the VCCX controller display to confirm Hex file numbers (see figure 37).

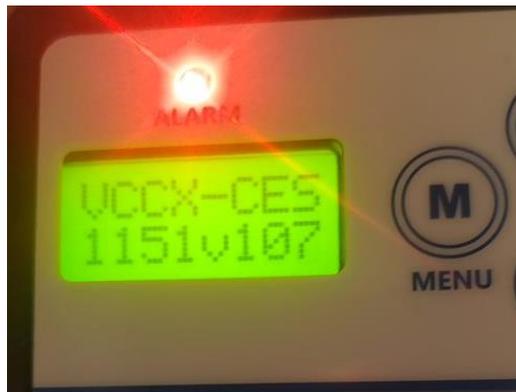


Figure 37: Confirming Hex Update On VCCX Display

Updating Parameters Of The VCCX

- Search for the “VCCX-CES AHU” Controller option on the left-hand side of the main Prism 2 screen under “Unit Selection” (see figure 38). Double left-click it to open the “Standalone” screen.

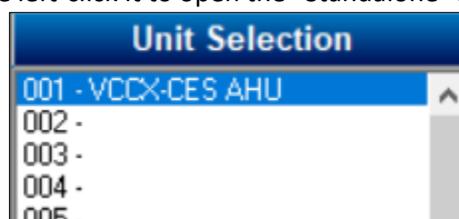


Figure 38: Selecting VCCX-CES AHU

Title:

VCCX Step By Step Software Setup Through On-Site Configuration

2. Select the “Setpoints” on the top left Stand Alone Screen (see figure 39).

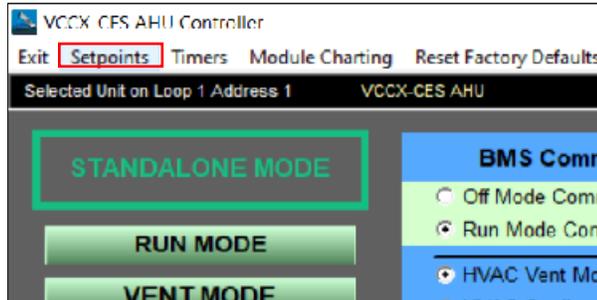


Figure 39: Opening Setpoints

3. Setpoint tab should pop up another window. It will display the following VCCX-CES Controller Setpoints (see figure 40).

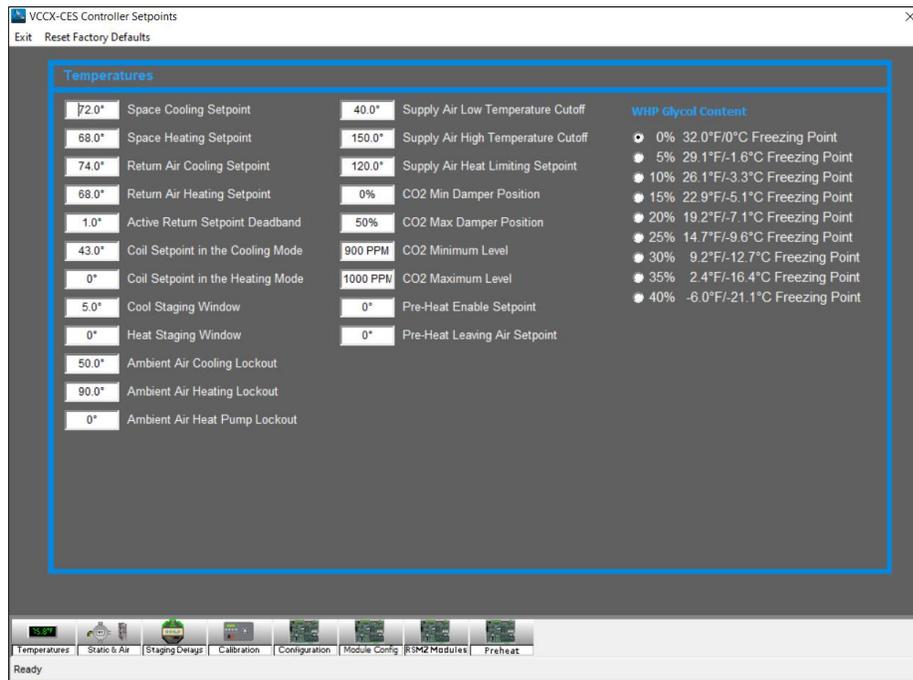


Figure 40: VCCX-CES Controller Setpoints Screen

4. Focus on the options on the bottom of the pop up Setpoints Screen (see figure 41) which divides the VCCX parameters into function categories.



Figure 41: VCCX Setup Function Categories

5. Open the unit specific **VCCX Config** document, which is included in the Flō start-up contractor package. In the Flō provided Parameters Sheet, you will find similar headings for each section displayed in Prism2. Flō requires you to

Title:

VCCX Step By Step Software Setup Through On-Site Configuration

review and adjust the VCCX to Flō’s requirement if the VCCX is not currently setup to match Flō’s required parameters. Figure 42, 43 and 44 show examples different function category screens within the VCCX.

- If you need to change any of the setpoints enter the value and then hit enter. If you do not hit enter, the change will not save.



Figure 42: VCCX Staging Delays Category Example (Do Not Use This Example To Configure Your VCCX)

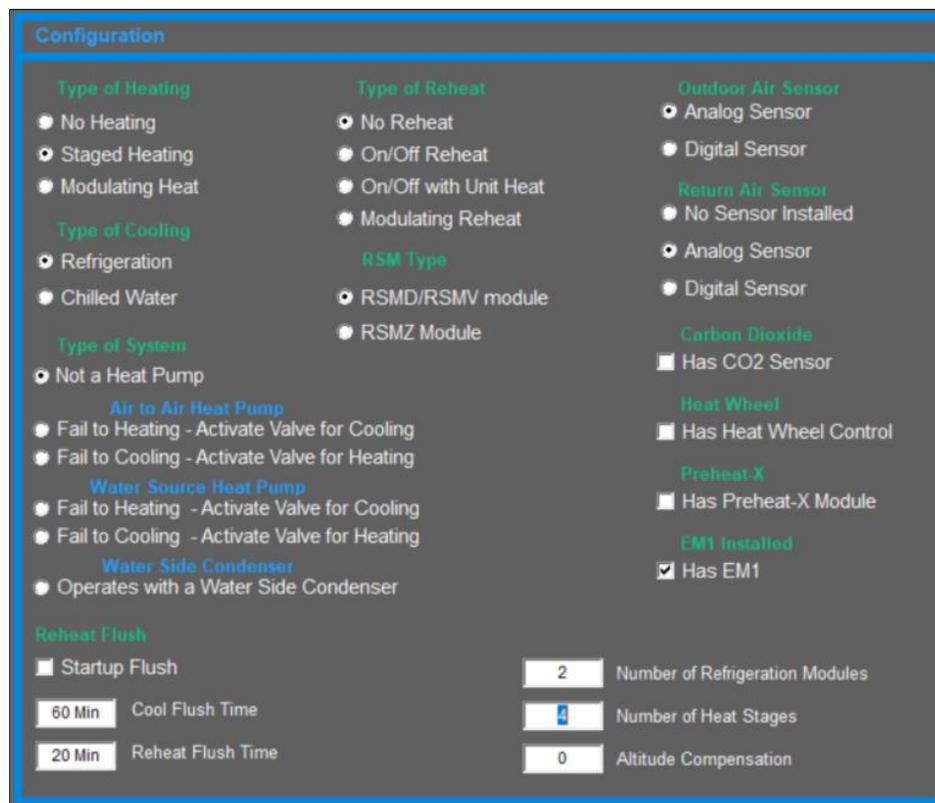


Figure 43: VCCX Configuration Category Example (Do Not Use This Example To Configure Your VCCX)

Title:

VCCX Step By Step Software Setup Through On-Site Configuration

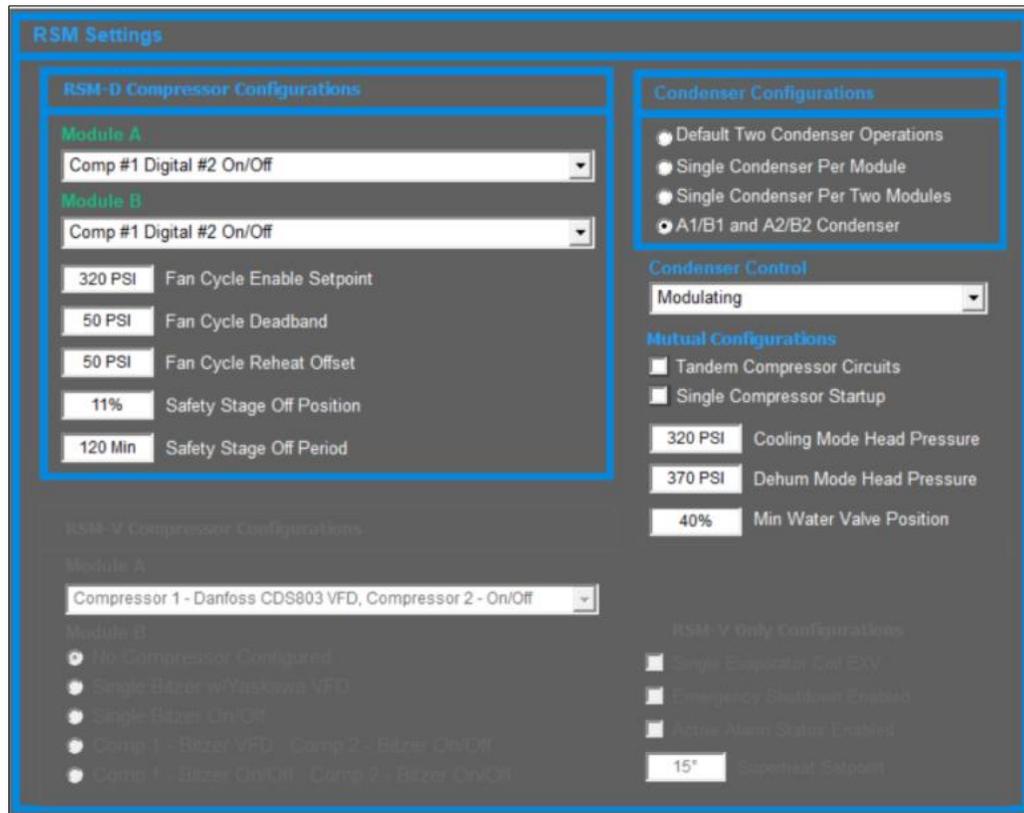


Figure 44: VCCX RSM Settings Category Example (Do Not Use This Example To Configure Your VCCX)

- Once all configurations are verified and updated where necessary, left click the X on the pop out windows and pull the pinned connector cable (see figure 45).



Figure 45: Removing Pinned Connector Cable

Title:

VCCX Step By Step Software Setup Through On-Site Configuration

Addressing The VCCX Controller

1. Use the FLō provided **JOB NAME CITY STATE FLō RTU-## VCCX Parameters Sheet** to for guidance on which values you need to set for the MAC, DEVICE ID and BAUD in the VCCX.
2. On the initial VCCX screen, hit the Menu button and the “Setting” screen should display (see figure 46).



Figure 46: Accessing Settings On VCCX

3. Hit Enter and the Unit ID screen will display. Adjust the Unit ID by hitting the up and down arrows on the display keypad (see figure 47).



Figure 47: Setting The Unit ID On VCCX

4. Hit Enter and the MAC screen will display. Adjust the MAC Address by hitting the up and down arrows on the display keypad (see figure 48).

Title:

VCCX Step By Step Software Setup Through On-Site Configuration

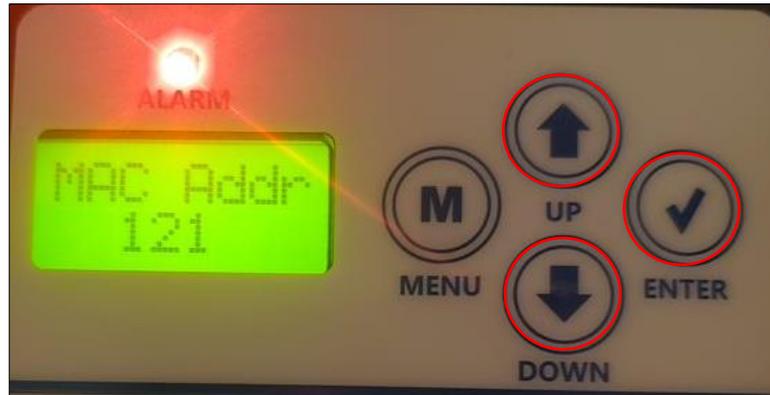


Figure 48: Setting The MAC Address On VCCX

5. Hit Enter and the Device ID screen will display. Adjust the Device ID by hitting the up and down arrows on the display keypad (see figure 49).

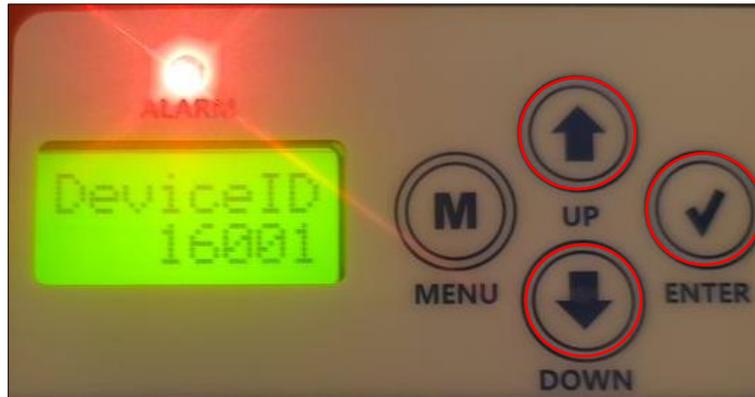


Figure 49: Setting The Device ID On VCCX

6. Hit Enter and the MSTB Baud screen will display. Adjust the MSTP Baud by hitting the up and down arrows on the display keypad (see figure 50).

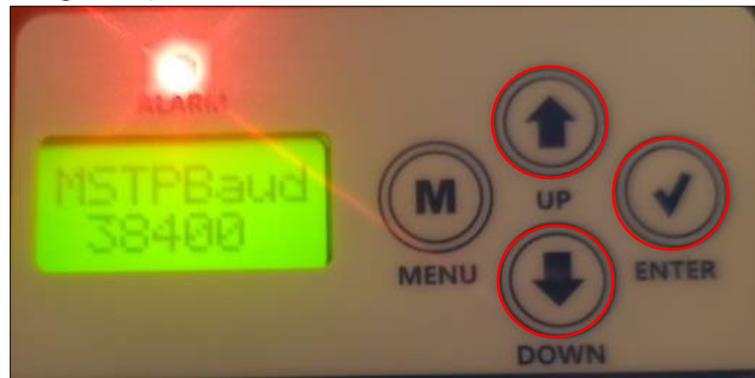


Figure 50: Setting The MSTP Baud On VCCX

Title:

VCCX Step By Step Software Setup Through On-Site Configuration

- Once settings have been verified, hit the menu button until it returns the initial VCCX-CES menu screen (see figure 51).



Figure 51: Returning to the VCCXC Menu Screen

- Once you are back on the menu screen the VCCX should be programmed and ready to function.