

SpaceLogic™ Room Controllers

Uploader Tool Installation Guide

For SE8000 and SXWTRCn500

Software version 4.0

The image displays the 'Room Controller Uploader' software interface, which is used for configuring and uploading files to the room controllers. The interface is divided into several sections:

- Room Controllers:** Shows a list of controllers, with 'SER8350' selected. It displays details such as Platform (20), Model (SER8350 (155)), Firmware version (2.5.1-0-0276ce3e), and Bootloader version.
- Upload Files:** Allows for uploading various files including Firmware, Firmware Package, Fgnts, Bootloader, Lua, and Zigbee VCM. It also includes options for Custom Standby Image and Custom Lua File.
- Wi-Fi:** Configures the Wi-Fi network, including SSID, Password, IP Configuration (DHCP or Static), BACnet/IP settings, and Date/Time.
- Save/Restore From File:** Provides options to save or restore configurations from a file.

Below the software interface, two physical room controller devices are shown. The left device displays the following information:

- 2019.08.19 12:54 PM
- Occupied
- Indoor °C: 23.5°
- Humidity: 45%
- Outdoor °C: 18°C
- Buttons: EN, ?

The right device displays the following information:

- Room 1422 East
- Occupied Heating
- Temperature: 23.5°
- Max 25.0°
- Min 23.5°
- Mode: Auto
- Fan: Low

Contents

1	Introduction.....	3
2	Download Uploader Tool and Firmware	3
3	Connect to Room Controller	3
4	Installation.....	5
4.1	Settings.....	6
5	Room Controller Upload	6
5.1	Select Room Controller.....	7
5.2	Select Firmware.....	7
5.3	Custom Standby Image.....	8
5.4	Custom Lua File.....	8
5.5	Start Upload	8
6	Save/Restore From File	9
6.1	Save Room Controller Settings	9
6.2	Restore Room Controller Settings.....	9
7	Wi-Fi Upload	10
7.1	Wi-Fi Module Authentication	10
7.2	Typical Procedure.....	11
7.3	Save Wi-Fi Module Settings	11
7.4	Restore Wi-Fi Module Settings.....	11

1 Introduction

The Uploader Tool allows a user to perform the following with SpaceLogic™ SE8000 Room Controllers or SXWTRCn500 Touch Room Controllers (TRC):

- Upgrade Room Controller firmware including fonts and bootloader
- Upload Zigbee firmware (SE8000 requires firmware 2.0.0 and VCM8000 20 onward)
- Upload custom standby image files for display when in standby mode
- Upload custom Lua script files to perform custom applications
- Save and restore room controller settings (SE8000 requires firmware 2.0.1 onward)
- Configure Wi-Fi settings on SE8000 Room Controllers with VCM8002 plug-in Wi-Fi Module (requires firmware 2.5.1 and VCM8002 1.4 onward)

NOTE: The Wi-Fi Upload section is not enabled for SXWTRCn500 Room Controllers. Wi-Fi settings are configured via the TRC Network screen.

2 Download Uploader Tool and Firmware

1. Go to <https://ecoxpert.se.com> and download the following zip files:

- SE8000 Room Controller - Uploader Tool
- Firmware - SE8000 Room Controller (SE8350, SE8650, SER8350, SEZ8250)
- Firmware - SXWTRCn500 Touch Room Controller

2. Right click the zip files then select Extract All

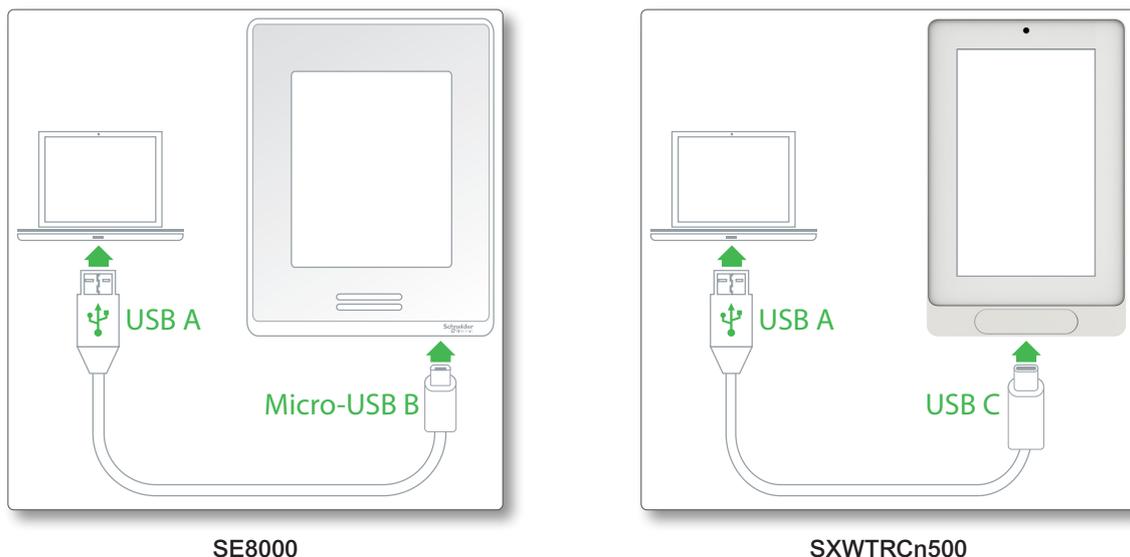
3. Open the extracted folders and locate the required files:

- Uploader Tool app installer package: SE.Uploader.UI_4.0.nn.n_x64.msix
- SE8000 Firmware: firm8000_n.n.n-xxx.fm8
- SXWTRCn500 Firmware: TRC_Release_n.n.n-xxx.fm8

3 Connect to Room Controller

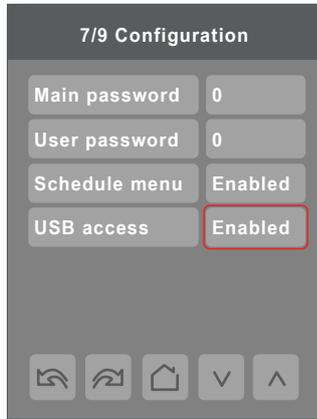
Connect the computer to the Room Controller using the USB 'A' to Micro-USB 'B' cable for the SE8000 Room Controller and the USB 'A' to USB 'C' cable for the SXWTRCn500 Room Controller. To ensure proper connectivity, the correct USB cable must be used.

Multiple Room Controllers can be connected to the computer at the same time. Use the available USB ports on the computer or attach a USB hub to increase the number of connections.



For the SE8000 Room Controller, make sure that USB access is enabled via the Room Controller Configuration screen. USB access is enabled by default on new Room Controllers.

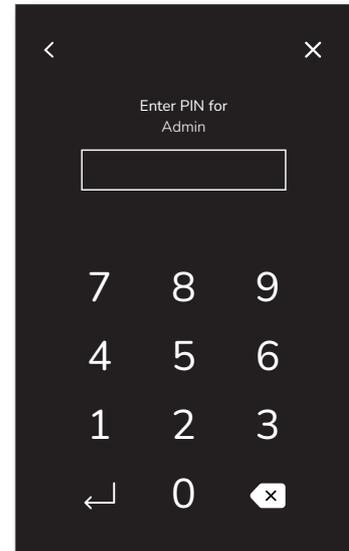
For the SXWTRCn500 Room Controller, log in as administrator to enable USB access. Enter the setup screen, select user Admin and enter the PIN for Admin. The default Admin PIN is 1234.



SE8000



SXWTRCn500



NOTICE

UNAUTHORIZED ACCESS

When commissioning is complete, it is recommended to minimize access points on the Room Controller:

SE8000:

- Disable USB access via the Configuration screen or Commissioning via USB on the Admin tab of the Configuration Web Page
- Enable main password to lock the setup screens
- Enable user password to lock the main screen adjustments (optional)
- Lock the display screen (optional)
- Use strong and unique Wi-Fi Module admin password

SXWTRCn500:

- Refer to Appendix B: Cybersecurity Checklist in the SXWTRCn500 Operating Guide

Failure to follow these instructions may lead to unauthorized users accessing the Wi-Fi Module or the Room Controller.

4 Installation

NOTICE

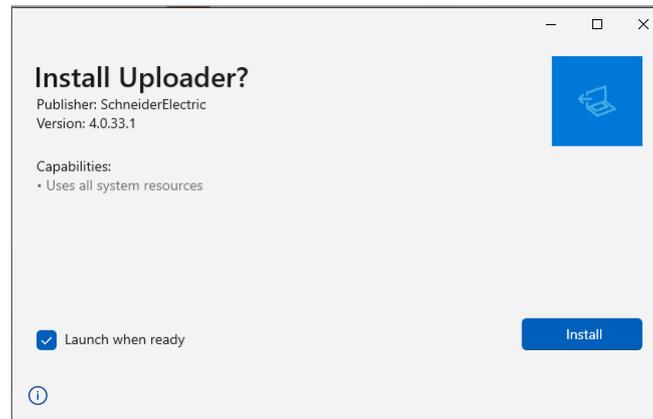
INSTALLATION ERROR MESSAGES

If you get certificate verification or user permission error messages, then administrator access is required to install the app and serial port driver. If your system account has administrator permissions, right click on the installer then select Run as administrator. Otherwise, try the following:

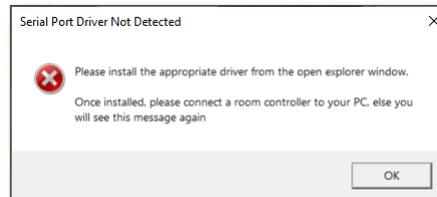
- For a company issued computer, ask your IT Administrator to install the app and driver for you
- Antivirus software may have to be disabled during driver installation
- Use a personal (non-company) computer. Make sure your Microsoft account has administrator access

Administrator access is required to install the app and serial port driver.

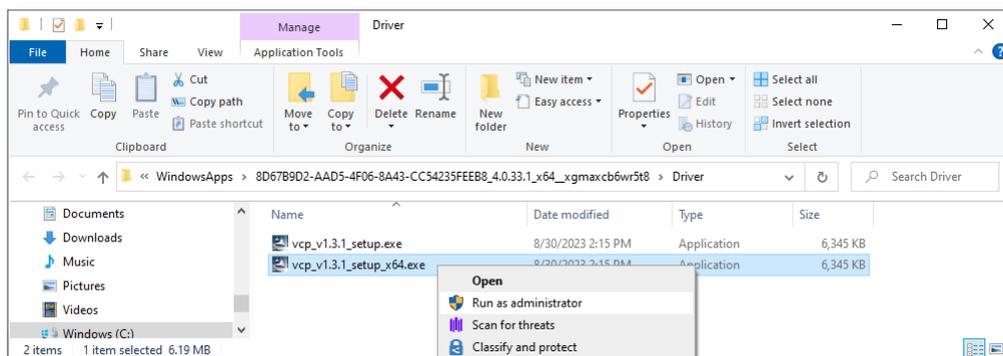
1. Open the msix file then click the Install button.



2. If the serial port driver is not installed on your computer, a pop-up error message will appear. Click OK to install the driver.



3. In the file explorer window, right click on the x64.exe file and Run as Administrator.

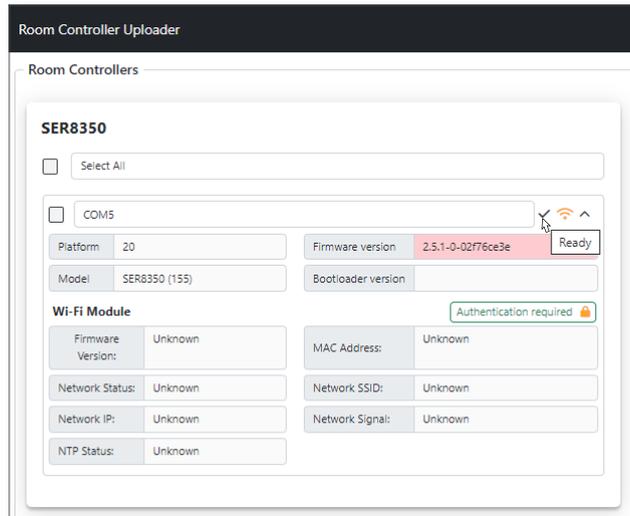


NOTE: If you get a user permission error message, then copy the .exe file to your documents folder, right click on the copied x64.exe file and run as administrator.

4. In the Device Driver Installation Wizard, click the Next buttons then click Finish.



5. The Uploader Tool will open showing Ready status with the serial port connected.



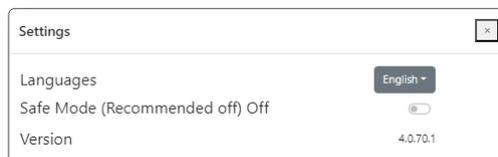
NOTE: You will get the same Serial Port Driver Not Detected error message shown in step 2 if a Room Controller is not connected to a USB port before the serial port driver installation. Connect the Room Controller to a USB port then click the OK button and the Uploader Tool will open as shown in step 5.

4.1 Settings

To open the settings menu, click the settings button in the top right corner.

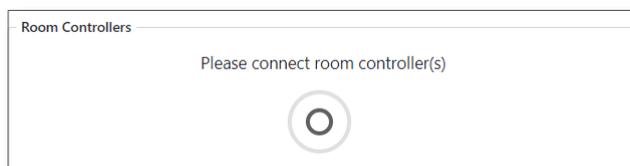
The Room Controller settings will be shown as follows:

- Languages: In the drop down list select the preferred language English, French or Spanish
- Safe Mode: It is recommended to keep safe mode off
- Version: Room Controller Uploader Tool software version



5 Room Controller Upload

If a Room Controller is not connected to a USB port or USB access is disabled on the Room Controller, then a “please connect room controller(s)” notification will be displayed in the Room Controllers section. Enable USB access then reconnect the Room controller to the USB port.

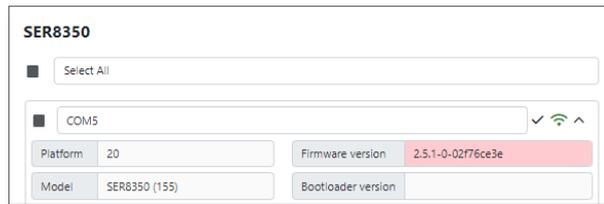


5.1 Select Room Controller

In the Room Controllers section, click the select button next to the Room Controller's serial port Id (COM5 in example below) or click the Select All button to upload to all Room Controllers of the same type.

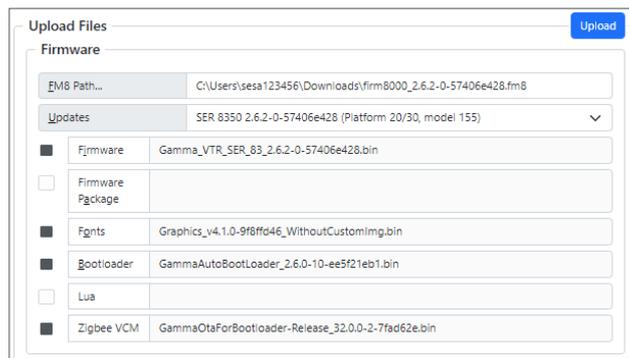
The Room Controller status will be shown as follows:

- Incompatible status: indicates that the selected firmware is not compatible with the Room Controller type
- Ready status: indicates when the Uploader Tool is ready to upload new files to a connected Room Controller
- Wi-Fi status: Red = No Wi-Fi detected, Yellow = Wi-Fi present but not authenticated, Green = Wi-Fi present and authenticated
- Firmware version: Red = Firmware not updated to selected version in the Upload Files section, Green = Firmware is up to date



5.2 Select Firmware

In the Room Controller Upload section, click on FM8 Path... and select the downloaded .fm8 file, then select the required update from the Updates list. The available updates are dependent on the model of the Room Controller connected. For the SE8000, select the Firmware, Fonts, Bootloader and Zigbee VCM buttons . For the SXWTRCn500, select the Firmware Package and Bootloader buttons . It is recommended to select all available buttons to ensure that all of the latest packages are uploaded to the Room Controller.



A warning symbol will be displayed if the selected firmware does not contain the correct binary package (.bin) for the selected Room Controller.



NOTICE

SE8000 TOUCHSCREEN ISSUES

A new Printed Circuit Board Assembly (PCBA) is used in the latest version of the Room Controller hardware:

- **Firmware 2.6 and newer:** Works with both the old and new hardware
- **Firmware 2.5 and older:** Does not work with the new hardware, making the touchscreen inoperative
- Do not downgrade the firmware on the new hardware. If you have issues with your Room Controller touchscreen, upgrade your device to Firmware 2.6 or newer

Failure to follow these instructions can result in equipment malfunction.

5.3 Custom Standby Image

Choose a custom standby image from the supplied list or upload a bitmap file. Select none for no image.

For the SE8000 Room Controller, the bitmap file must meet the following criteria:

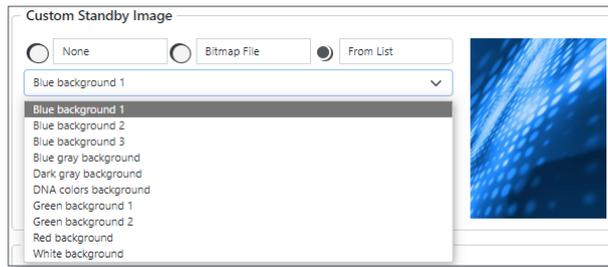
- Image size: 240 x 320 pixels
- File format: 24-bit bitmap (.bmp)

For the SXWTRCn500 Room Controller, the bitmap file must meet the following criteria:

- Image size: 480 x 800 pixels
- File format: 24-bit bitmap (.bmp)

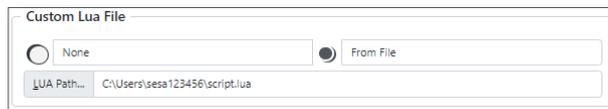
Selecting a bitmap file larger or smaller than the image sizes specified above or with a color depth less than 24 bits will show the following error message:

- Wrong file size message: "Error: Image Size is not nnn x nnn pixels."
- Wrong color depth message: "Error: Color Depth is not 24-bit."



5.4 Custom Lua File

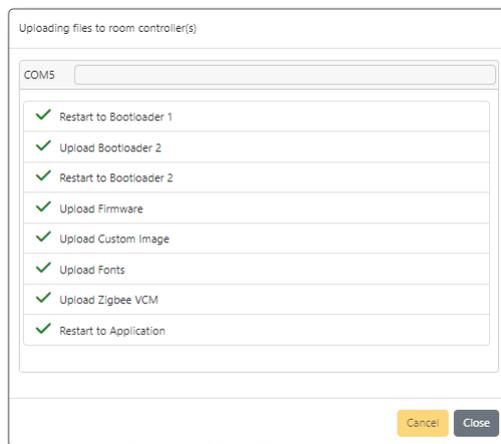
Choose a custom Lua file by clicking the From File button. Select none for no Lua file. All Lua script files must end with .lua to upload successfully.



5.5 Start Upload

Make sure the USB cable is firmly inserted in both the Room Controller and the computer running the Uploader Tool. If the USB cable becomes unplugged during the upload process, the Room Controller files can be corrupted and cause damage to your device. In this condition, it may be necessary to contact Schneider Electric Technical Support for assistance to restore the function of the Room Controller.

1. Click the **Upload** button to upload the files to the Room Controller.
2. The Uploading files to room controller(s) window will open showing the upload progress. Click the Close button to close the window.



3. The Room Controller will reboot when the upgrade is complete.
4. When all updates are completed, disconnect the cable from the Room Controller.

6 Save/Restore From File

The Uploader Tool allows users to back up and restore data between room controllers. This feature helps to reduce commissioning time in large scale installations by allowing the configuration of one room controller to be saved to a file and then restored to other room controllers.

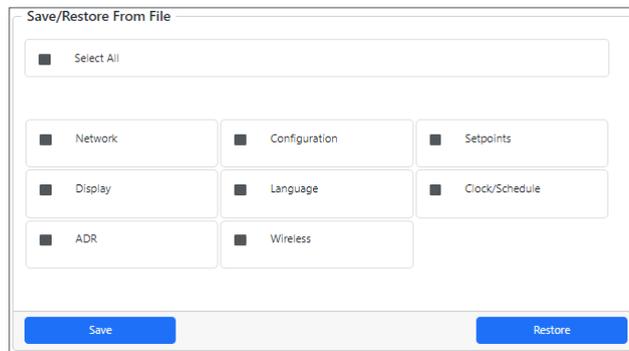
You can save and restore the following categories of settings:

- ADR
- Clock/Schedule
- Configuration
- Display
- Language
- Network
- Setpoints
- Wireless Alarms Configuration

NOTE: A configuration file may only be restored to a room controller of the same model and the same or newer firmware.

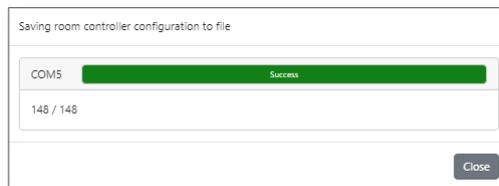
NOTE: For the SE8000 Room Controller, the Save and Restore feature requires firmware 2.0.1 or newer.

NOTE: Configuration values specific to the installation of an individual device, such as temperature calibration and wireless networking settings, are not included in the backup file.



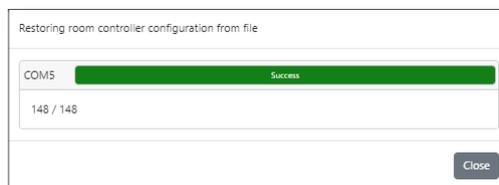
6.1 Save Room Controller Settings

1. Select All categories or pick the ones you wish to save.
2. Click the  button.
3. Select the desired directory, enter a name in the File name box (the file will be saved in the .fmb backup file type), then click the Save button.
4. The Saving room controller configuration to file window will open showing the download progress. Click the Close button to close the window.



6.2 Restore Room Controller Settings

1. Select All categories or pick the ones you wish to restore.
2. Click the  button.
3. Select the .fmb backup file, then click the Open button.
4. The Restoring room controller configuration from file window will open showing the upload progress. Click the Close button to close the window.



7 Wi-Fi Upload

For sites where multiple Room Controllers need to be commissioned, the Uploader Tool provides a simple, fast and repeatable method to connect the SE8000 Room Controllers with Wi-Fi Module (VCM8002) to the building Wi-Fi network and enable the most common features. This helps to reduce commissioning time as it is not necessary to connect to the Access Point of each Wi-Fi Module. Advanced features can then be commissioned via the Configuration Web Pages across the building Wi-Fi network.

NOTE: The Wi-Fi Upload section is not enabled for SXWTRCn500 Room Controllers. Wi-Fi settings are configured via the TRC Network screen.

In most cases, the only settings that require incremental changes are the IP Address and the BACnet/IP Instance Number.

Click the  buttons to automatically increment these settings.

The Wi-Fi Module configuration can be saved to a backup file and then restored to other Room Controllers. Multiple configurations can be saved if there are large changes to the default settings.

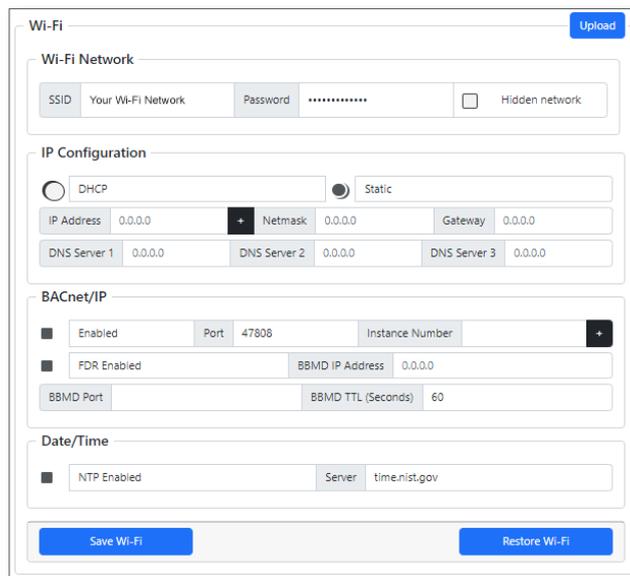
NOTE: The Wi-Fi Module backup file can be restored to any of the four Room Controller model types.

NOTE: If you intend to connect the module to a hidden Wi-Fi network (SSID Broadcast is disabled), it must be done before making the connection. Once the module is connected, the network configuration must not be changed, or the module may lose connection or fail to reconnect after power is cycled to the device or router. If you do change the network configuration, the module should be disconnected from the network and reconnected again.

The Wi-Fi Module settings that can be configured by the Uploader Tool are as follows:

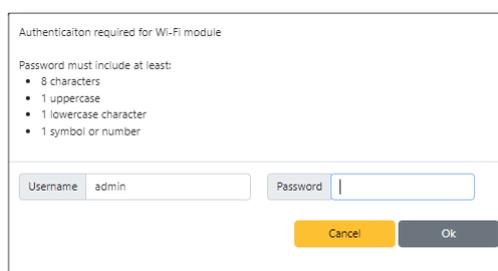
- First admin password change
- Wi-Fi Network connection (SSID)
- IP Configuration (DHCP or Static)
- BACnet/IP enable and configuration
- Date/Time enable and select NTP server

NOTE: The Wi-Fi Module configuration requires Room Controller firmware version 2.5.1 or newer and VCM8002 Wi-Fi Module firmware version 1.4 or newer.



7.1 Wi-Fi Module Authentication

In the Room Controllers section, click the  button, enter the Wi-Fi Module admin password, then click the Ok button. If the Wi-Fi Module admin account is being accessed for the first time, the default admin password will be changed to the new password entered in the authentication. This new password will also be used to access the Configuration Web Page.



The Wi-Fi status will show green , the authentication button will show **Authenticated** , and the Wi-Fi Module information will be displayed.

Wi-Fi Module		Authenticated 	
Firmware Version:	1.4.0 B42	MAC Address:	48:70:1e:5f:91:c0
Network Status:	ready	Network SSID:	Your Wi-Fi Network
Network IP:	192.168.1.102	Network Signal:	excellent
NTP Status:	disabled		

For more information on how to connect to the Wi-Fi Module, refer to:

- Wi-Fi Card - Installation and Quickstart Guide
- Wi-Fi Card Module - FAQ

7.2 Typical Procedure

1. In the Room Controllers section, select the Room Controller .
2. In the Wi-Fi Upload section, enter the Wi-Fi Module settings into the text boxes as required, or load the settings from a .fmb file by clicking the **Restore Wi-Fi** button. The Wi-Fi settings will persist when the Uploader Tool is closed and then opened.
3. Increment the settings as required then click the **Upload** button to upload the settings to the Room Controller. The Saving Wi-Fi configuration window will open showing the upload progress. Click the Close button to close the window.

Saving Wi-Fi configuration

COMS	Completed	
------	-----------	---

Cancel
Close

4. Click the **Authentication required**  button, enter the admin password then click the Ok button to update the Wi-Fi Module information. It should be connected to your Wi-Fi network with a ready network status.
5. You can now access the Configuration Web Page to complete the Wi-Fi Module configuration, or you can do it later if required. Enter the Network IP address into the web browser's address bar and use the admin user and password to log in to the Configuration Web Page.
6. When configuration is done, disable USB access via the Configuration screen or Commissioning via USB on the Admin tab of the Configuration Web Page.

7.3 Save Wi-Fi Module Settings

1. Enter the Wi-Fi Module settings into the text boxes as required.
2. Click the **Save Wi-Fi** button.
3. Select the desired directory, enter a name in the File name box (the file will be saved in the .fmb Wi-Fi file type), then click the Save button.

NOTE: Passwords are not saved in the .fmb file.

7.4 Restore Wi-Fi Module Settings

1. Click the **Restore Wi-Fi** button.
2. Select the .fmb Wi-Fi file, then click Open.
3. The Wi-Fi Module settings will be uploaded into the Wi-Fi Upload section.

www.se.com/buildings

Life Is On

