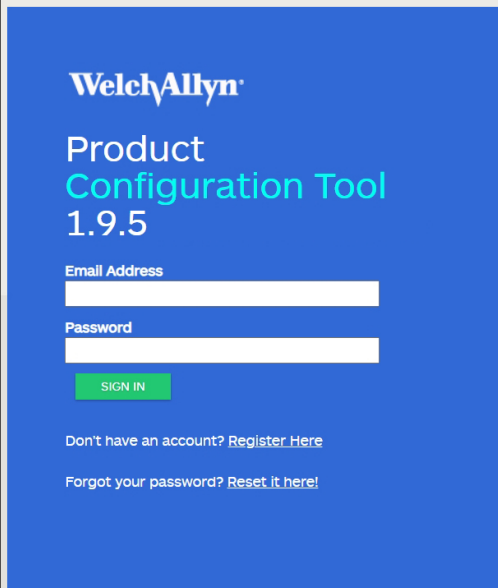




Welch Allyn

Product Configuration Tool

Software version 1.9.5



The image shows the login interface for the Welch Allyn Product Configuration Tool. The left side features a blue background with the Welch Allyn logo, the product name, version number, and login fields. The right side contains three photographs of healthcare professionals using medical equipment.

WelchAllyn

**Product
Configuration Tool
1.9.5**

Email Address

Password

SIGN IN

Don't have an account? [Register Here](#)

Forgot your password? [Reset it here!](#)

User guide

Baxter, Connex, Connex 360, SureBP and Welch Allyn are trademarks of Baxter International Inc. or its subsidiaries.

Bluetooth is a trademark of Bluetooth SIG, Inc.

Masimo and RRP are trademarks of Masimo Corporation.

Wi-Fi is a trademark of Wi-Fi Alliance.

Any other trademarks, product names or brand images appearing herein are the property of their respective owners.

For information about any product, contact Baxter Technical Support: [Technical Support](#).

Welch Allyn patents: hillrom.com/patents.

This manual applies to the Welch Allyn Product Configuration Tool  901197.

 80023800B

Revision date: 2025-08



Welch Allyn, Inc.
4341 State Street Road
Skaneateles Falls, NY 13153 USA

Made in United States of America

baxter.com

Baxter

Contents

Symbols and definitions	1
Documentation symbols	1
Miscellaneous symbols	1
Introduction	3
About this User guide	3
Primary intended users	3
System requirements	3
Screen elements	4
Logout time	6
Registering the Configuration Tool	7
Log in to the Configuration Tool	9
Change password in the Configuration Tool	9
Change email address for your account	10
Features of the Configuration Tool	13
Overview of List Configurations	15
Create a new Connex 360 monitor configuration	17
Set up a new Connex 360 monitor configuration	17
Begin new configuration	17
Select Data Management	31
Custom scoring (early warning scores) on the Connex 360 monitor	36
Select Set Manual Parameters and Modifiers tab	40
Set up the Electronic Medical Record (EMR)	43
Set date and time	44
Connect to a network	44
Set up radio settings	46
Select General Device Settings for USB and remote services	47
Select General Device Settings for power, language, software	49
Create a new Connex Spot Monitor configuration	53

Create a new configuration for Physician's Office or Clinic	53
Create a new configuration for a Hospital setting	58
Select Custom Units	68
Select Custom Patient Populations	69
Configure the Interval Profile	71
Configure the Office Profile	73
Configure the Spot Profile	74
Set Manual Parameters	75
Custom scoring (Early Warning Scores) on the Connex Spot Monitor	77
Set Alarms	83
Data Management	88
Select Custom General Device Settings	92
 Create a new Connex Vital Signs Monitor configuration	 95
Select Custom Scoring Setup for Connex Vital Signs Monitor	96
Select Custom Parameters and Modifiers	99
 Licensed features	 103
Create a new configuration for the Bluetooth Low Energy (BLE) features	103
Create a new configuration for RRp sensor licensing features	104
 Configure a CA Root certificate	 107
 Device configuration and setup	 111
Configuration overview	111

Symbols and definitions

For information on the origin of these symbols, see the Welch Allyn symbols glossary: bax.to/docs-wa-symbols.

Documentation symbols

	WARNING	The warning statements in this manual identify conditions or practice that could lead to illness, injury, or death. Warning statements appear with a gray background in a black and white document.
	CAUTION	The caution statements in this manual identify conditions or practices that could result in damage to the equipment or other property, or loss of data.
		Follow instructions for use (IFU) -- mandatory action. A copy of the IFU is available on this website. A printed copy of the IFU can be ordered from Baxter for delivery within 7 calendar days.

Miscellaneous symbols

	Manufacturer		Reorder number
	Global Trade Item Number		Batch code
	Prescription device		Model number

Introduction

About this User guide

This User guide is intended to help users interact with the **Welch Allyn** Product Configuration Tool by describing its capabilities and operation. Before using the Configuration Tool, read this manual. You can use the Configuration Tool with the following devices:

- **Welch Allyn Connex 360** Vital Signs Monitor
- Welch Allyn **Connex Spot** Monitor (CSM)
- **Connex Vital Signs Monitor 6000 Series** (Connex VSM) for configuring custom scoring and manual parameters only

Primary intended users

Primary intended users of the Configuration Tool include biomedical personnel, systems integrators, and both Baxter and third-party service personnel. Secondary intended users include medically qualified, trained healthcare professionals.

System requirements

Web browser

- **Microsoft Edge** (Version 112.0 or later)
- **Google Chrome** (latest version) for **Windows**
- **Firefox** (Version 112.0.2 or later)
- **IOS Safari** (Version 16.2 or later)

High-speed Internet connection

Broad-band Internet connection (minimum download speed 1.5 Mbps)

IT Network Security

Computers used to connect to the Configuration Tool should be set up and maintained following IEC 80001 or similar IT Network security practices. These include:

- physical security of the computer and any connected peripherals to prevent theft, tampering, unauthorized use, or unintended disclosure of private data shown on the computer screen.
- individual user authentication using strong passwords and, if possible, some form of multifactor authentication.
- idle-session timeouts with either screen locking or automatic logout.
- user access rights/permissions limited to those required for the user's assigned role.
- timely installation of all computer and operating system vendor's security patches and updates.
- anti-virus, anti-malware, and intrusion detection/prevention software from a trusted vendor installed and regularly updated.
- periodic system backups, with regular testing of system recovery procedures.
- secure network connection, either wired or wireless. Wired network connections should be physically secured and/or protected by 802.1X network access control and/or IPsec. Wireless network connections

should use WPA2-PSK or WPA2- Enterprise security with strong user name and password or X.509 certificate-based authentication.

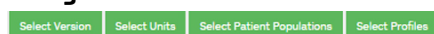
Customers should only download configuration files directly from the secure Configuration Tool website.



WARNING Product security hazard. Protect your passwords and physical access to computers and servers with the **Connex 360** Monitor, **Connex Spot** Monitor, or **Connex** Vital Signs Monitor. Follow local and facility-wide practices and regulations intended to protect patient data. Unauthorized access can lead to loss of data confidentiality, corruption of data, device unavailability, and attempts to retrieve customer network credentials from the device.

Screen elements

Navigation tabs



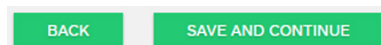
Click the navigation tab to move to the next section on the screen. (For example, click **Select Units** to move to that section. Tabs in green or yellow are active.)

For the **Connex 360** monitor, the fourth tab is Select Interval and Average.



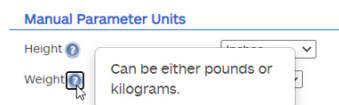
Click the navigation tab to move to the next section on the screen. (For example, if you click **Select Profiles** for a **Connex Spot** Monitor or **Select Interval and Average** for a **Connex 360** device, that tab appears red. A red tab indicates that the section is not complete and not active yet.)

Navigation buttons



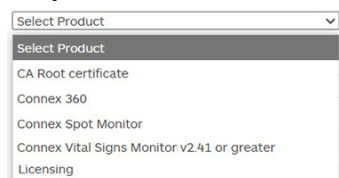
Click global navigation buttons. (For example, click **BACK** or **SAVE AND CONTINUE**, to move to the previous or next screen.)

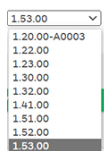
Help button



Click **?** for on-screen context-sensitive help. (Click the button to see additional information presented on the screen.)

Drop down lists





Select an item from a drop-down list. (Choices are pre-populated and the maximum number of choices appear in each list. Scroll through the list and click the choice to select it. When selected, the choice is indicated with a highlight.)

Add a program

Program Name:

Number of Intervals:

Interval 1(min):

Frequency 1:

Select an item from a drop-down list. (Choices are pre-populated and the maximum number of choices appear in each list. For the screen example shown for Add a program, the maximum number of intervals is 5.)

Field entries

Provide a user friendly name for your configuration.

Displays the characters you enter. The field name appears above this field. Refer to the on screen help for character limitations for entry fields. Example message: A valid Program Name is required. It must be 1-32 characters in length. Input text fields in the sensitive areas of the Configuration Tool are protected from script execution.

Radio buttons



Click a radio button to choose one of the options presented on the screen. When selected, the choice is indicated with the circle filled in.

Selection boxes

Profile Types

☒ Intervals

☐ Office

☒ Spot

Click a selection box to choose one or more options presented on the screen.

Lock button



Incomplete configuration. Download locked.

Sliders



Click a parameter slider to change a parameter value presented on the screen and on a device configuration file (once loaded onto the device). Use the slider to set the numeric value for the parameter. (In this example, 75 is the default value. The minimum value is 1 and the maximum value is 240 on the scale.)

Logout time

After a period of inactivity of approximately 20 minutes, the Configuration Tool automatically logs out the user. Log back in to the Configuration Tool to continue working in the tool.



NOTE You may need to edit a configuration file if the last transaction was not saved before log out.

Registering the Configuration Tool



NOTE *New users:* Click **Register Here**. *Existing users:* Enter your email address and password in the Email Address and Password fields of the Configuration Tool and then click **SIGN IN**.

1. Use a web browser to navigate to the Configuration Tool at: <https://config.welchallyn.com/configurator/>.

WelchAllyn®

Product Configuration Tool 1.9.5

Email Address

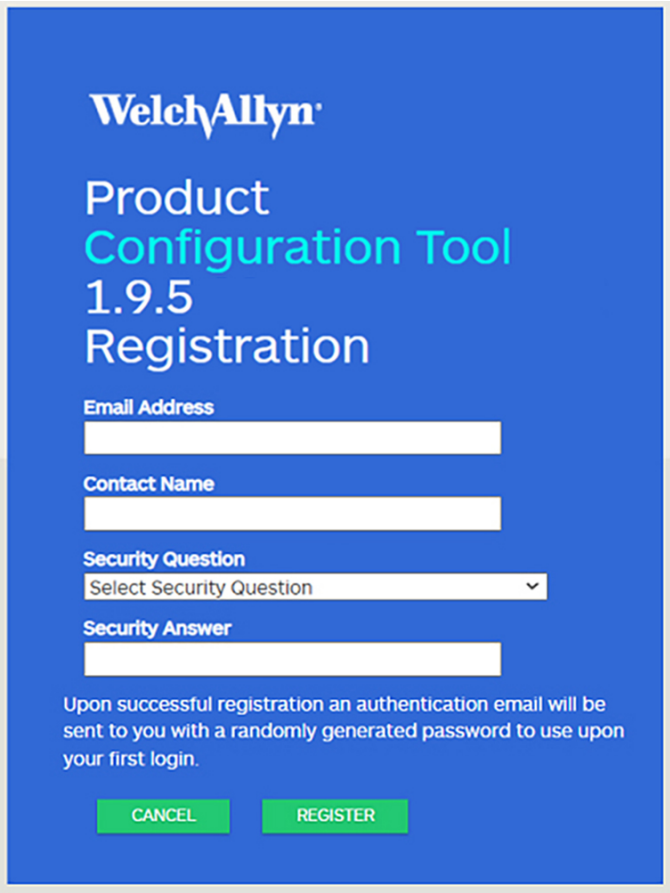
Password

SIGN IN

Don't have an account? [Register Here](#)

Forgot your password? [Reset it here!](#)

2. If you do not have an account set up yet, click **Register Here** and complete the fields on the Registration screen.



The image shows a registration screen for the WelchAllyn Product Configuration Tool 1.9.5. The screen has a blue background with white text. At the top, the WelchAllyn logo is displayed. Below it, the title 'Product Configuration Tool 1.9.5 Registration' is shown. The registration form includes four fields: 'Email Address', 'Contact Name', 'Security Question' (a dropdown menu with 'Select Security Question' as the placeholder), and 'Security Answer'. Below the fields, a message states: 'Upon successful registration an authentication email will be sent to you with a randomly generated password to use upon your first login.' At the bottom, there are two green buttons: 'CANCEL' and 'REGISTER'.

New users: Enter your email address and password in the Email Address, Contact Name fields, and then select a Security Question from the drop-down menu. Type your answer into the Security Answer field. When done, click **REGISTER**. The website will return you to the sign in page once the registration is complete. The email address must be valid. An email will be sent to the Email Address with instructions to login using a temporary password and to change your password.

Existing users: Enter your email address and password in the Email Address and Password fields of the Configuration Tool and then click **SIGN IN**. If you do not know, or have forgotten your password, click **Reset it here!**. From the Forgot Password screen, enter your email address and then click **CONTINUE**. From the Forgot Password screen, answer the security question that you chose during registration. Enter a new password and confirm the password and then click **SUBMIT**.

3. To change your password, click **Change Password**. The Change Password screen appears. Enter your: Current Password, New Password, and then Confirm New Password. When done, click **SUBMIT**.

Log in to the Configuration Tool

1. Log in to the Configuration Tool at config.welchallyn.com/configurator/.



NOTE New users: Click **Register Here**.

2. Enter your email address and password and click **SIGN IN**.

The My Configurations screen appears.

Change password in the Configuration Tool



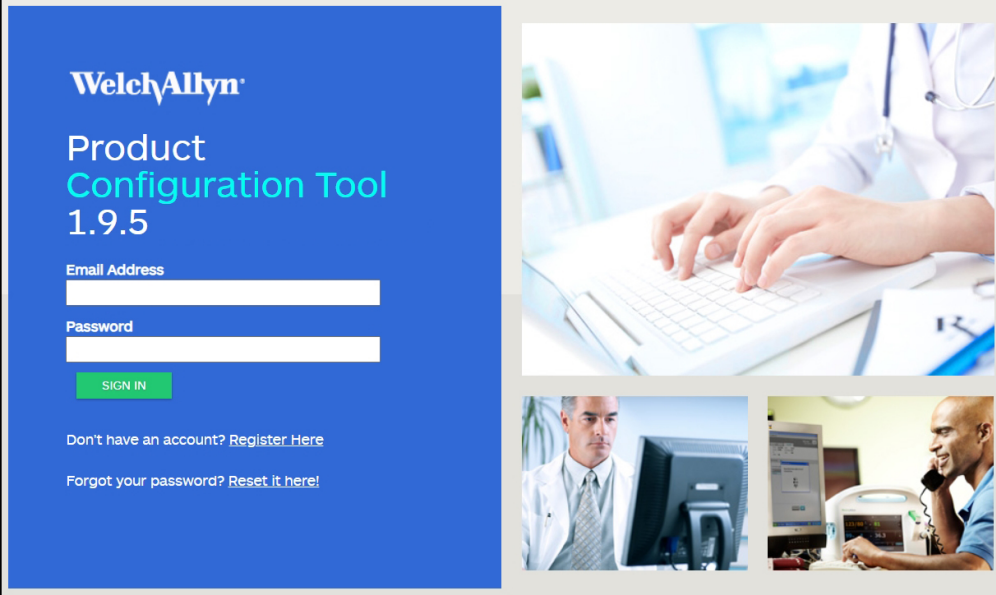
NOTE Passwords need to contain:

- a minimum of 8 characters

Registering the Configuration Tool

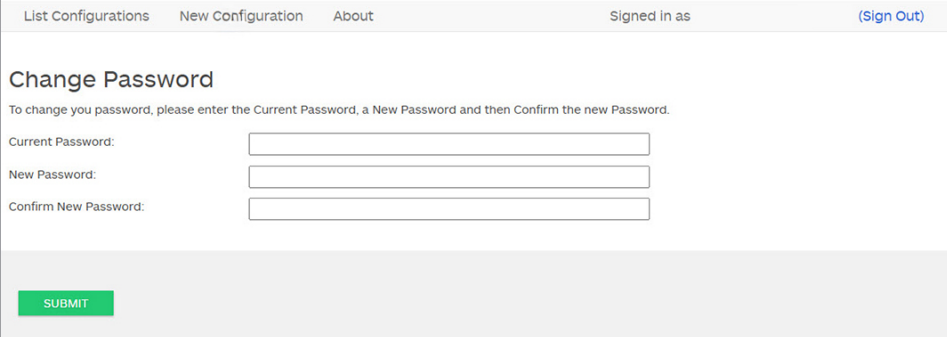
- a maximum of 20 characters
- at least 1 special character (examples include: @!#\$%)
- at least 1 numeric character
- at least 1 lower case letter
- at least 1 upper case letter

1. Log in to the Configuration Tool at config.welchallyn.com/configurator/.

The image shows the login interface for the WelchAllyn Product Configuration Tool 1.9.5. On the left, a blue sidebar contains the WelchAllyn logo, the product name, and fields for Email Address and Password. Below these fields is a green 'SIGN IN' button and links for 'Don't have an account? Register Here' and 'Forgot your password? Reset it here!'. On the right, there is a large image of a person's hands typing on a keyboard, and two smaller images below it showing a man in a lab coat and a man on a phone.

2. To change your password, click **Change Password**.

The Change Password screen appears.

The image shows the 'Change Password' screen within the Configuration Tool. At the top, there are navigation links: 'List Configurations', 'New Configuration', 'About', 'Signed in as', and a '(Sign Out)' link. The main heading is 'Change Password'. Below it, a message states: 'To change your password, please enter the Current Password, a New Password and then Confirm the new Password.' There are three input fields labeled 'Current Password:', 'New Password:', and 'Confirm New Password:'. At the bottom, there is a green 'SUBMIT' button.

3. Enter your: Current Password, New Password, and then Confirm New Password.
4. When done, click **SUBMIT**.

Change email address for your account

You can change the email address that is associated with your Configuration Tool account.

1. Log into your Configuration Tool account using your old email address and password.
2. After you log in, click **Update Profile** at the bottom of the My Configurations screen.

3. In the Update Profile Information screen, enter your Current Password, New Email Address, and Confirm New Email Address. Click **SUBMIT**.

Update Profile Information

To change your email, please enter your Current Password, a New Email Address and then Confirm the new Email Address. Please note that this account will no longer be available after the change has occurred. You will also receive an email with your temporary password after the change has been completed.

Current Password:

New Email Address:

Confirm New Email Address:

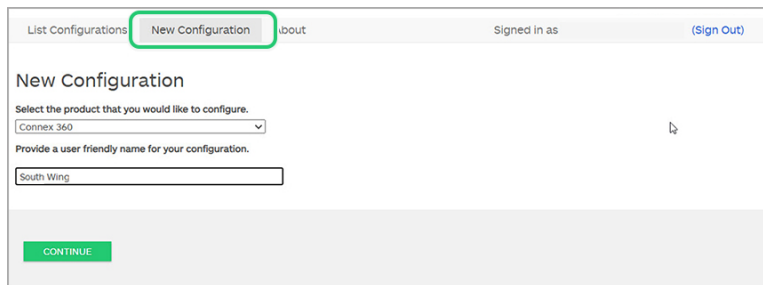
SUBMIT

Log out of the Configuration Tool and log back in using your new email address.

Features of the Configuration Tool

The following features are available in the Configuration Tool:

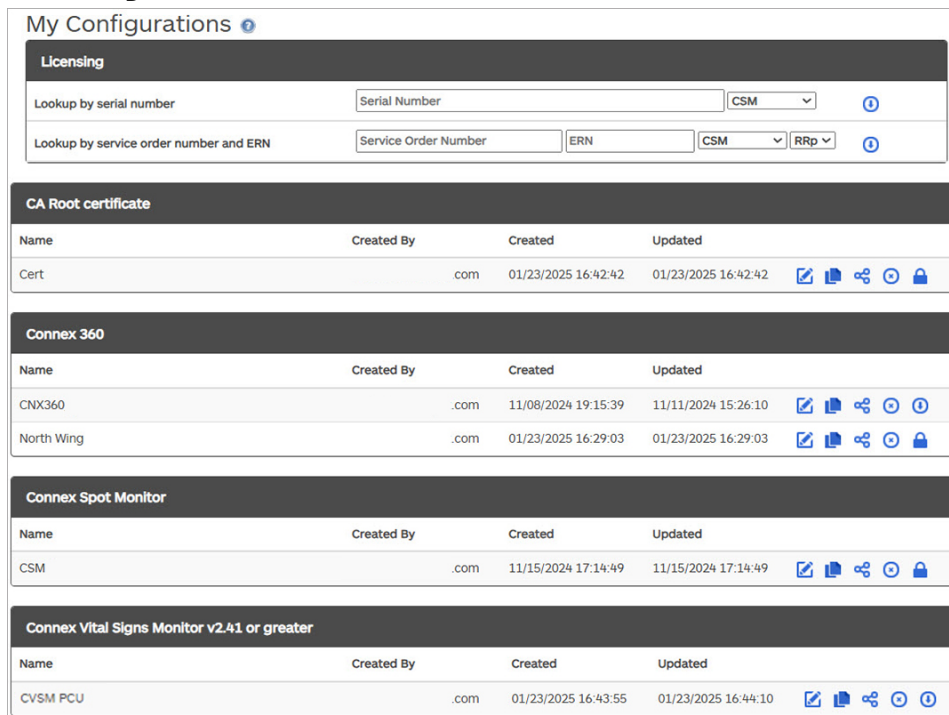
New Configuration



You can configure the following products:

- CA Root certificate
- **Connex 360**
- **Connex Spot** Monitor
- **Connex Vital Signs** Monitor v2.41 or greater
- Licensing (for **Connex Spot** Monitor)
- **Connex 360** - Licensing

List Configurations



My Configurations			
Licensing			
Lookup by serial number	Serial Number	CSM	
Lookup by service order number and ERN	Service Order Number	ERN	CSM RRp
CA Root certificate			
Name	Created By	Created	Updated
Cert	.com	01/23/2025 16:42:42	01/23/2025 16:42:42
Connex 360			
Name	Created By	Created	Updated
CNX360	.com	11/08/2024 19:15:39	11/11/2024 15:26:10
North Wing	.com	01/23/2025 16:29:03	01/23/2025 16:29:03
Connex Spot Monitor			
Name	Created By	Created	Updated
CSM	.com	11/15/2024 17:14:49	11/15/2024 17:14:49
Connex Vital Signs Monitor v2.41 or greater			
Name	Created By	Created	Updated
CVSM PCU	.com	01/23/2025 16:43:55	01/23/2025 16:44:10

Look up Licensing by serial number or sales order number.

Use the buttons on the right side to do the following tasks:

Features of the Configuration Tool

- Edit a configuration file.
- Copy a configuration file.
- Share a configuration file.
- Delete a configuration file.
- Download a configuration file.

About tab

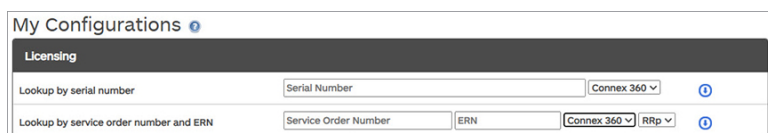
Click the **About** tab (to the right of the New Configuration tab) to see the Configuration Tool labels, such as the product name and the manufacturer. For more information, see "Symbols and definitions".

Overview of List Configurations

To view device configurations from the My Configurations screen, click **List Configurations**. If there are no configurations for new users, a message displays below the Licensing section.

Licensing section

The Licensing section appears first on the My Configurations screen even if you do not have user configurations.



If you want to retrieve a license for **Bluetooth®** Low Energy (BLE) or the **RRp** sensor, or create a configuration for a licensed feature, see "Licensed features" for the steps. These configurations appear in the License section below the look-up fields.



NOTE The **Connex 360** monitor supports only the **RRp** sensor license. The **Connex 360** monitor does not support **Bluetooth** or **Bluetooth** Low Energy (BLE). **Connex Spot** Monitor supports the **RRp** sensor and BLE licenses.

Configurations for devices

The device configurations that have already been completed appear for existing users. The configurations are grouped by device type.

Connex Spot Monitor				
Name	Created By	Created	Updated	
BLE_Pair_Once Copy	.co...	11/18/2020 17:13:03	11/18/2020 17:17:06	    
Medical Center	.com	11/19/2020 20:12:37	11/19/2020 20:16:27	    
North Wing	.com	11/17/2020 23:02:38	11/18/2020 02:01:20	    

The buttons on the right side allow you to:

- Click  to edit a configuration file.
- Click  to copy a configuration file.
- Click  to share a configuration file.
- Click  to delete a configuration file.
- Click  to download a configuration file.



NOTE If  (lock) appears instead of  (download), the configuration is incomplete and the download is locked.

Create a new **Connex 360** monitor configuration

Set up a new **Connex 360** monitor configuration

The configuration tool customizes the **Connex 360** monitor to your facility preferences. Only the Hospital configuration is available for the **Connex 360** monitor.

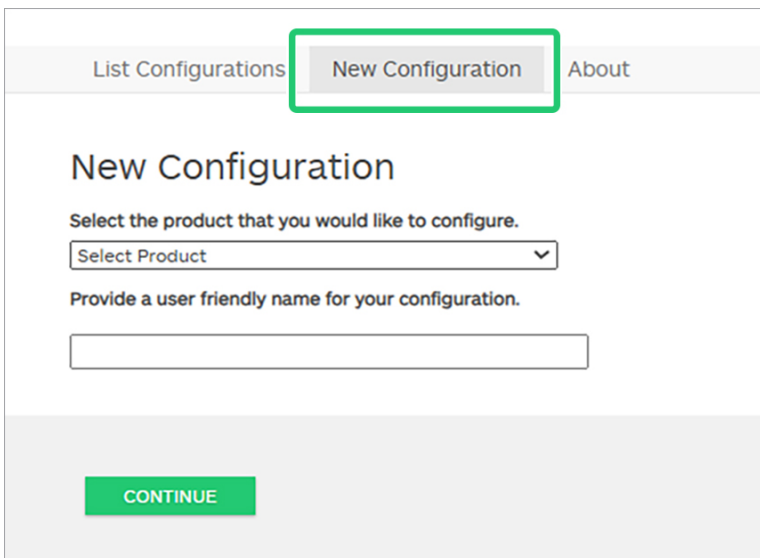
Use this tool to:

- set up default configurations.
- set up the device for **Wi-Fi**® technology, or other connectivity such as Ethernet.
- set up and define functionality like Early Warning Scores (EWS) protocols or prescriptive workflow settings.

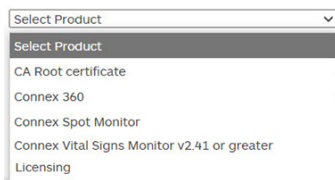
As the Configuration Tool is updated, the screen moves to the Progress Summary screen. Partially complete sections appear yellow and new sections appear red. When all the sections appear green, the configuration file can be downloaded or shared.

Begin new configuration

1. From the main screen, click the **New Configuration** tab.

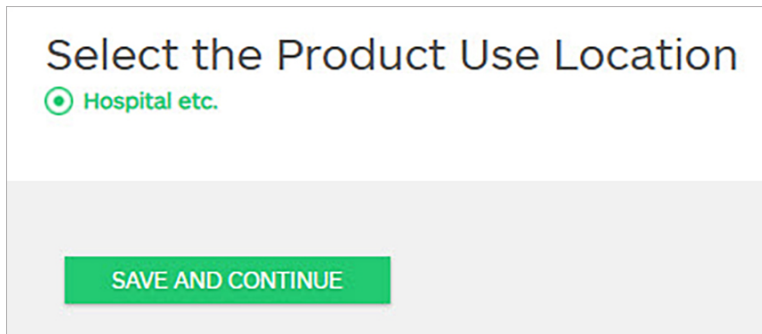


2. Use the drop-down menu to select the **Connex 360** monitor. Provide a name for the configuration by typing in the field and click **CONTINUE**.



Create a new **Connex 360** monitor configuration

3. Hospital is preselected as the Product Use Location.



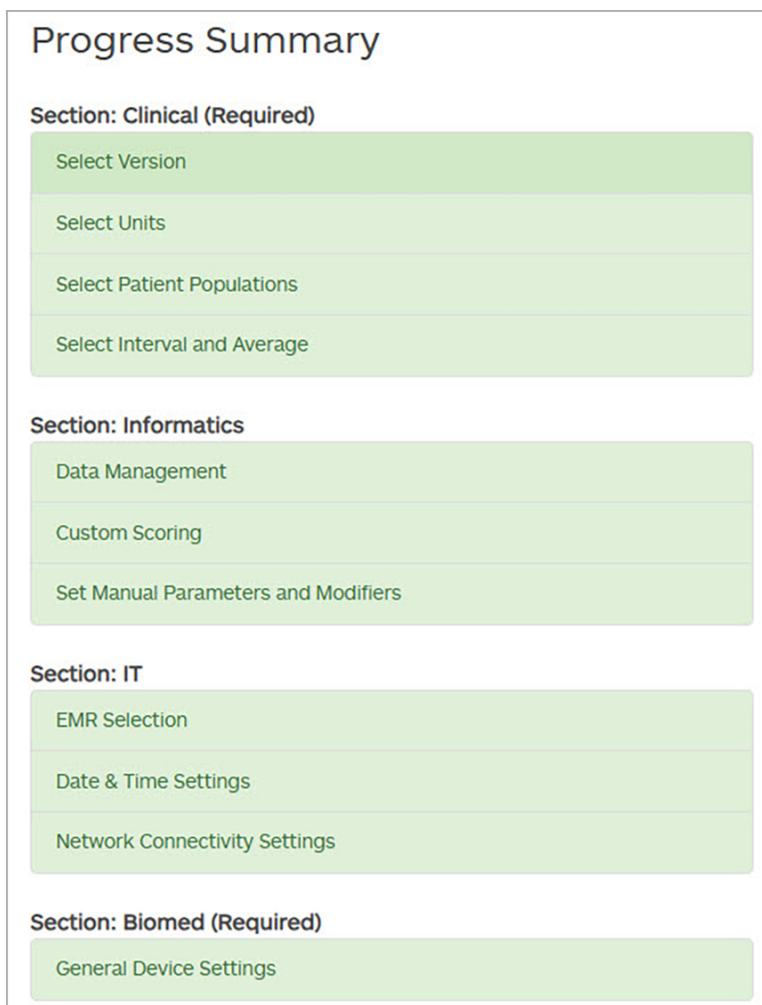
Select the Product Use Location

☒ Hospital etc.

SAVE AND CONTINUE

4. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the Progress Summary view updates to show completed sections in green. Incomplete sections are yellow and not yet started sections are red. When all sections are green, you can download the configuration file.



Progress Summary

Section: Clinical (Required)

- Select Version
- Select Units
- Select Patient Populations
- Select Interval and Average

Section: Informatics

- Data Management
- Custom Scoring
- Set Manual Parameters and Modifiers

Section: IT

- EMR Selection
- Date & Time Settings
- Network Connectivity Settings

Section: Biomed (Required)

- General Device Settings

Select version

1. On the Progress Summary screen, click **Select Version**.

2. Use the drop-down menu to select a software version.
The default selection is the latest software version available.

The screenshot shows the 'Select Version' step of a configuration tool. At the top, the configuration name is 'Hospital South Wing'. There are four tabs: 'Select Version' (active), 'Select Units', 'Select Patient Populations', and 'Select Interval and Average'. A 'Summary' button and a 'Clinical (Required)' button are also present. The main area is titled 'Select Version' and contains the instruction 'Choose the software version of the Connex 360 device you would like to configure.' Below this is a dropdown menu labeled 'Select a version:' with '1.1' selected. At the bottom are 'BACK' and 'SAVE AND CONTINUE' buttons.

3. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Select Units tab.

Select units

1. Click the radio button to select the desired unit system.

The screenshot shows the 'Select Units' step of the configuration tool. The configuration name remains 'Hospital South Wing'. The tabs are 'Select Version', 'Select Units' (active), 'Select Patient Populations', and 'Select Interval and Average'. The 'Summary' and 'Clinical (Required)' buttons are still visible. The main area is titled 'Select Units' and contains the instruction 'Choose a unit system or choose "Custom" to set-up a combination of different systems.' Below this are three radio buttons: 'English' (selected), 'Metric', and 'Custom'. At the bottom are 'BACK' and 'SAVE AND CONTINUE' buttons.

Choose a unit system or select the **Custom** radio button to set up a combination of different systems. Choices include: English, Metric, and Custom. The default choice is English.

Create a new **Connex 360** monitor configuration

2. Optional: Choose **Custom** to set up a combination of different systems.

Customize Unit Selection

NIBP

Units mmHg ▾

Primary Display Systolic / Diastolic (MAP) ▾

Temperature

Units Fahrenheit ▾

Display Temp Conversion Yes ▾

Default Temp Site Oral ▾

Configure a Braun Pro 6000 No ▾

Manual Parameter Units

Height Inches ▾

Weight Pounds ▾

DONE

- a. For Non-Invasive Blood Pressure (NIBP), use the drop-down menu to choose **mmHg** or **kPa**. For Primary Display, use the drop-down menu to choose **Systolic/Diastolic with Mean Arterial Pressure (MAP)**, **MAP (Systolic/Diastolic)**, or **Systolic/Diastolic**.
- b. For Temperature, use the drop-down menu to choose **Celsius** or **Fahrenheit**. For Display Temp Conversion, use the drop-down menu to choose **Yes** or **No**. For Default Temp Site, use the drop-down menu to choose **Oral**, **Pediatric Axillary**, **Adult Axillary**, or **Last Site**.



NOTE Braun PRO 6000 is unavailable on **Connex 360** monitors.

- c. For Height, use the drop-down menu to choose **Centimeters** or **Inches**. For Weight, use the drop-down menu to choose **Kilograms** or **Pounds**.
- d. Click **DONE**.
3. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Select Patient Populations tab.

Select patient populations

1. Choose the patient type that will be used most frequently with the device. Radio button choices include: Adult (default), Pediatric, Neonatal, and Custom. Customize patient populations to set the BP algorithm.

The screenshot shows a configuration window titled 'Select Patient Populations'. At the top, it displays 'Configuration Name: Hospital South Wing' and a 'Save' button. Below this is a navigation bar with four buttons: 'Select Version' (green), 'Select Units' (green), 'Select Patient Populations' (orange, currently active), and 'Select Interval and Average' (red). The main content area has the title 'Select Patient Populations' with a help icon. Below the title is the instruction: 'Choose the patient type that will be used most frequently with the device.' There are four radio button options: 'Adult' (selected with a green dot), 'Pediatric', 'Neonatal', and 'Custom'. At the bottom of the window are two green buttons: 'BACK' and 'SAVE AND CONTINUE'.

2. Optional: For Default Patient Type, use the drop-down menu to choose **Adult** in Customize Patient Populations. The default settings are: Algorithm = **SureBP** and Tube Type = **Two Tubes**.

The screenshot shows a configuration window titled 'Customize Patient Populations'. It contains three settings, each with a help icon: 'Default Patient Type' with a dropdown menu showing 'Adult', 'Algorithm' with a dropdown menu showing 'SureBP', and 'Tube Type' with a text field showing 'Two Tubes'. At the bottom right of the window is a green button labeled 'DONE'.

Create a new **Connex 360** monitor configuration

- a. If you select the **StepBP** algorithm, use the slider or arrow keys on your computer keyboard to change the default values for the adult, pediatric, or neonatal cuff inflation target.

For StepBP, the adult cuff inflation target default is set to 160 mmHg. The pediatric cuff inflation target default is set to 140 mmHg. The neonatal cuff inflation target default is set to 90 mmHg.

The screenshot shows the 'Customize Patient Populations' interface. At the top, there are three dropdown menus: 'Default Patient Type' set to 'Adult', 'Algorithm' set to 'StepBP', and 'Tube Type' set to 'Two Tubes'. Below these are three horizontal sliders for cuff inflation targets. The 'Adult Cuff Inflation Target (mmHg)' slider ranges from 80 to 280, with a black triangle marker at 160. The 'Pediatric Cuff Inflation Target (mmHg)' slider ranges from 80 to 280, with a black triangle marker at 140. The 'Neonatal Cuff Inflation Target (mmHg)' slider ranges from 50 to 130, with a black triangle marker at 90. A green 'DONE' button is located at the bottom right of the configuration area.

3. Optional: For Default Patient Type, use the drop-down menu to choose **Pediatric**. The default settings are: Algorithm = **SureBP** and Tube Type = **Two Tubes**.

The screenshot shows the 'Customize Patient Populations' interface. At the top, there are three dropdown menus: 'Default Patient Type' set to 'Pediatric', 'Algorithm' set to 'SureBP', and 'Tube Type' set to 'Two Tubes'. Below these are three horizontal sliders for cuff inflation targets. The 'Adult Cuff Inflation Target (mmHg)' slider ranges from 80 to 280, with a black triangle marker at 160. The 'Pediatric Cuff Inflation Target (mmHg)' slider ranges from 80 to 280, with a black triangle marker at 140. The 'Neonatal Cuff Inflation Target (mmHg)' slider ranges from 50 to 130, with a black triangle marker at 90. A green 'DONE' button is located at the bottom right of the configuration area.

- a. If you select the **StepBP** algorithm, use the slider or arrow keys on your computer keyboard to change the default values for the adult, pediatric, or neonatal cuff inflation target. For StepBP, the adult cuff inflation target default is set to 160 mmHg. The pediatric cuff inflation target default is set to 140 mmHg. The neonatal cuff inflation target default is set to 90 mmHg.

- Optional: For Default Patient Type, use the drop-down menu to choose **Neonatal**. The default settings are: Algorithm = **StepBP** and Tube Type = **One Tube**.

Customize Patient Populations

Default Patient Type Neonatal

Algorithm StepBP

Tube Type One Tube

Adult Cuff Inflation Target (mmHg) 80 280 160

Pediatric Cuff Inflation Target (mmHg) 80 280 140

Neonatal Cuff Inflation Target (mmHg) 50 130 90

DONE

- Use the slider or arrow keys on your computer keyboard to change the default values for the adult, pediatric, or neonatal cuff inflation target. For StepBP, the adult cuff inflation target default is set to 160 mmHg. The pediatric cuff inflation target default is set to 140 mmHg. The neonatal cuff inflation target default is set to 90 mmHg.
- Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Intervals and Average tab.

Set interval time

In the Interval and Average tab, you can configure intervals, set alarm limits, and configure programs.

- Click the numeric slider to modify the auto interval time. Other choices on this screen include modifying the intervals mode, interval parameters, setting the audio for silent send, and adding an intervals program.

Configuration Name: Hospital South Wing

Summary Clinical (Required)

Select Version Select Units Select Patient Populations Select Interval and Average

Configure the Interval Program

Configure auto interval settings or create custom interval programs.

Default Auto Interval Time (minutes): 1 240 15

Default Intervals Mode: Automatic

Default Interval Parameters: NIBP

Silence Send Successful Audio: No

Program Name	Total Monitoring Time
Add a program	

BACK **SAVE AND CONTINUE**

Create a new **Connex 360** monitor configuration

- Default Interval Time has a slider for setting the interval time in minutes.
 - Default Intervals Mode includes drop-down choices for **Automatic** (default), **STAT**, **Program**, and **Averaging**.
 - Default Interval Parameters includes choices for **NIBP** (default), **SpO2**, or both.
 - Silence Send Successful Audio includes choices for **Yes** or **No** (default).
2. Click **Add a program** if you want to add a custom interval program. Choices are available for the program name, the number of intervals, the interval time, and the interval frequency. Click **DONE** to save.

Add a program

Program Name:

Number of Intervals:

Interval 1(min): 120

Frequency 1: 25

Interval 2(min): 120

Frequency 2: 25

Interval 3(min): 120

Frequency 3: 25

3. Optional: To edit the intervals program, click (edit).
4. Optional: To delete the averaging program, click (delete).
5. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Set Alarms section.

Set alarms

Configure the general alarm settings.

1. Select the desired settings from the drop-down lists. Use the sliders to set the alarm limits for NIBP, SpO2, Pulse Rate, Temperature, or Respiration Alarms.

Set Alarms

Configure general alarm settings as well as alarm settings for NIBP, SpO2, Pulse Rate, and Temperature.

Allow user to disable alarms:

Allow user to turn off general audio:

Minimum alarm volume:

Default alarm volume:

Nurse call threshold:

Audio pause time:

Allow low priority alarm:

Allow very low priority alarm:

- Allow user to disable alarms includes choices for **Yes** (default) or **No**.
- Allow user to turn off general audio includes choices for **Yes** or **No** (default).
- Minimum alarm volume includes choices for **Low** (default), **Medium**, or **High**.
- Default alarm volume includes choices for **Low**, **Medium** (default), or **High**.
- Nurse call threshold includes choices for **Very low priority**, **Low priority**, **Medium priority** (default), or **High priority**.
- Audio pause time includes choices for **Disabling**, **90 seconds**, **2 min** (default), **2 min 30 seconds**, **3 minutes**, **5 minutes**, **10 minutes**, or **15 minutes**.
- Allow low priority alarm includes choices for **Yes** (default) or **No**.
- Allow very low priority alarm includes choices for **Yes** (default) or **No**.

This screen also includes sliders to set the alarm limits for NIBP, SpO2, Pulse Rate, Temperature, or Respiration Alarms. Choose the lower and upper alarm limits for each reading and for each patient type.

2. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Configure the Averaging Program screen.

NIBP alarms [mmHg]

Configure alarm settings for NIBP.

1. Configure the general alarm settings.
2. Optional: To change NIBP alarms, use the sliders, or use the arrow keys on your computer keyboard, to set the lower and upper limit values. See the next steps for specific values for each alarm and how to enable the alarm limits.

NIBP Alarms (mmHg)

Patient Type	Alarm Type	Enable SYS/DIA	Lower Limit	Upper Limit
Adult	Systolic Limits	☒	28	258
	Diastolic Limits	☒	20	235
	MAP Limits	☐	20	255
Pediatric	Systolic Limits	☒	30	160
	Diastolic Limits	☒	15	130
	MAP Limits	☐	15	140
Neonatal	Systolic Limits	☒	25	120
	Diastolic Limits	☒	10	105
	MAP Limits	☐	10	110

The default settings are:

- For adults: Enable SYS/DIA, Adult Systolic Limits **75:220**, Adult Diastolic Limits **35:110**, and Adult MAP Limits **50:120** is disabled.
 - For pediatric: Enable SYS/DIA, Pediatric Systolic Limits **75:145**, Pediatric Diastolic Limits **35:100**, and Pediatric MAP Limits **50:110** is disabled.
 - For neonatal: Enable SYS/DIA, Neonatal Systolic Limits **50:100**, Neonatal Diastolic Limits **30:70**, and Neonatal MAP Limits **35:80** is disabled.
3. Optional: To change NIBP alarms, use the sliders, or computer arrow keys, to set the values for Adult Systolic Limits. Values range from 28 to 258.
 4. Optional: To change NIBP alarms, use the sliders, or computer arrow keys, to set the values for Adult Diastolic Limits. Values range from 20 to 235.

- Optional: To change NIBP alarms, check the **Enable** box and then use the sliders, or computer arrow keys, to set the value for Adult MAP Limits. Values range from 20 to 255.
- Optional: To change NIBP alarms, use the sliders, or computer arrow keys, to set the value for Pediatric Systolic Limits. Values range from 30 to 160.
- Optional: To change NIBP alarms, use the sliders, or computer arrow keys, to set the value for Pediatric Diastolic Limits. Values range from 15 to 130.
- Optional: To change NIBP alarms, check the **Enable** box and then use the sliders, or computer arrow keys, to set the value for Pediatric MAP Limits. Values range from 15 to 140.
- Optional: To change NIBP alarms, use the sliders, or computer arrow keys, to set the values for Neonatal Systolic Limits. Values range from 25 to 120.
- Optional: To change NIBP alarms, use the sliders, or computer arrow keys, to set the values for Neonatal Diastolic Limits. Values range from 10 to 105.
- Optional: To change NIBP alarms, check the **Enable** box and then use the sliders, or computer arrow keys, to set the values for Neonatal MAP Limits. Values range from 10 to 110.
- Click **SAVE AND CONTINUE**.

SpO2 alarms [percent]

Configure alarm settings for SpO2.

- Configure the general alarm settings.
- Use the drop-down menu to select the SpO2 Type. Choices include Masimo (default) or Nellcor.
- Select the SpO2 Alarm Delay Condition setting. Choices include: **10 seconds** (default), **0**, **15**, **30 seconds**, or **SatSec**.
For SatSec settings, choices include: **25** (default), **0**, **10**, **50**, or **100**.
- Select the SpO2 WaveForm Speed setting. Choices include **25 mm/s** (default), **12.5**, or **50** mm/s.
- Select the SpO2 Response Mode setting. Choices include **Normal** (default) or **Fast**.
- Optional: To change SpO2 alarms, use the sliders, or use the arrow keys on your computer keyboard, to set the lower and upper limit values. See the next steps for specific values for each alarm.

SPO2 Alarms (Percent)

SPO2 Type: Masimo

SPO2 Alarm Delay Condition: 10 Seconds

SPO2 WaveForm Speed: 25 mm/s

SPO2 Response Mode: Normal

Adult Alarm Limits: ☒ Enable 50 90:100 100

Pediatric Alarm Limits: ☒ Enable 50 90:100 100

Neonatal Alarm Limits: ☒ Enable 50 90:100 100

The default settings are Enable Adult Alarm Limits **90:100**, Pediatric Alarm Limits **90:100**, and Neonatal Alarm Limits **90:100**.

- Optional: To change SpO2 alarms, use the sliders, or computer arrow keys, to set the values for Adult Alarm Limits. Values range from 50 to 100.
- Optional: To change SpO2 alarms, use the sliders, or computer arrow keys, to set the values for Pediatric Alarm Limits. Values range from 50 to 100.
- Optional: To change SpO2 alarms, use the sliders, or computer arrow keys, to set the values for Neonatal Alarm Limits. Values range from 50 to 100.

10. Optional: To disable SpO2 alarms, click within the checkbox next to each limit to disable the alarm limit.



NOTE When an alarm limit is disabled in the Configuration Tool, the limits are grayed out and Enable turns from green to gray.

SPO2 Alarms (Percent)

SPO2 Type: Masimo

SPO2 Alarm Delay Condition: 10 Seconds

SPO2 WaveForm Speed: 25 mm/s

SPO2 Response Mode: Normal

Adult Alarm Limits: ☐ Enable 50 90:100 100

Pediatric Alarm Limits: ☐ Enable 50 90:100 100

Neonatal Alarm Limits: ☐ Enable 50 90:100 100

11. Click **SAVE AND CONTINUE**.

Pulse Rate alarms [beats per minute]

Configure alarm settings for Pulse Rate.

1. Configure the general alarm settings.
2. Select the Pulse Rate Alarm Delay setting. Choices include 3, 10 (default), 15, or 30 seconds.
3. Optional: To change Pulse Rate Alarms, use the sliders, or use the arrow keys on your computer keyboard, to set the lower and upper limit values. See the next steps for specific values for each alarm.

Pulse Rate Alarms (Beats per Minute)

Pulse Alarm Delay Condition: 10 Seconds

Adult Alarm Limits: ☒ Enable 25 50:120 300

Pediatric Alarm Limits: ☒ Enable 25 50:150 300

Neonatal Alarm Limits: ☒ Enable 25 100:200 300

The default settings are Enable Adult Alarm Limits **50:120**, Pediatric Alarm Limits **50:150**, and Neonatal Alarm Limits **100:200**.

4. Optional: To change Pulse Rate Alarm Limits, use the sliders, or computer arrow keys, to set the values for Adult Alarm Limits. Values range from 25 to 300.
5. Optional: To change Pulse Rate Alarm Limits, use the sliders, or computer arrow keys, to set the values for Pediatric Alarm Limits. Values range from 25 to 300.
6. Optional: To change Pulse Rate Alarm Limits, use the sliders, or computer arrow keys, to set the values for Neonatal Alarm Limits. Values range from 25 to 300.
7. Optional: To disable Pulse Rate Alarm Limits, click within the checkbox next to each limit to disable the alarm limit.



NOTE When an alarm limit is disabled in the Configuration Tool, the limits are grayed out and Enable turns from green to gray.

8. Click **SAVE AND CONTINUE**.

Temperature alarms [Fahrenheit]

Configure alarm settings for temperature (Fahrenheit).

The Temperature Alarms (Fahrenheit) are disabled by default. The default settings are Disable Adult Alarm Limits **94:101**, Pediatric Alarm Limits **94:101**, and Neonatal Alarm Limits **94:101**.

1. Configure the general alarm settings.
2. Optional: To change the Temperature Alarm Limits, click the **Enable** checkbox for each setting. Use the sliders, or use the arrow keys on your computer keyboard, to set the lower and upper limit values. See the next steps for specific values for each alarm limits.

Temperature Alarms (Fahrenheit)

Alarm Type	Enable	Lower Limit	Upper Limit
Adult Alarm Limits:	☐	85.1	110
Pediatric Alarm Limits:	☐	85.1	110
Neonatal Alarm Limits:	☐	85.1	110

- a. Optional: Set the values for Adult Alarm Limits. Values range from 85.1 to 110.
 - b. Optional: Set the values for Pediatric Alarm Limits. Values range from 85.1 to 110.
 - c. Optional: Set the values for Neonatal Alarm Limits. Values range from 85.1 to 110.
3. Click **SAVE AND CONTINUE**.

Temperature alarms [Celsius]

Configure alarm settings for temperature (Celsius).

The Temperature Alarms (Celsius) are disabled by default. The default settings are Disable Adult Alarm Limits **34:7 : 38.3**, Pediatric Alarm Limits **34:7 : 38.3**, and Neonatal Alarm Limits **34:7 : 38.3**.

1. Configure the general alarm settings.
2. Optional: To change the Temperature Alarm Limits, click the **Enable** checkbox for each setting. Use the sliders, or use the arrow keys on your computer keyboard, to set the lower and upper limit values. If the Units selected are set to Metric, the Temperature Alarms appear in Celsius. See the next steps for specific values for each alarm limits.

Temperature Alarms (Celsius)

Alarm Type	Enable	Lower Limit	Upper Limit
Adult Alarm Limits:	☐	29.5	43.3
Pediatric Alarm Limits:	☐	29.5	43.3
Neonatal Alarm Limits:	☐	29.5	43.3

- a. Optional: Set the values for Adult Alarm Limits. Values range from 29.5 to 43.3.
 - b. Use the sliders, or computer arrow keys, to set the values for Pediatric Alarm Limits. Values range from 29.5 to 43.3.
 - c. Use the sliders, or computer arrow keys, to set the values for Neonatal Alarm Limits. Values range from 29.5 to 43.3.
3. Click **SAVE AND CONTINUE**.

Respiration alarms

Configure alarm settings for Respiration Rate.

The ability to configure respiration alarms depends on the RR parameter. If the RR parameter is set to **Yes**, then you can configure Respiration alarms. If the RR parameter is set to **No**, then you cannot configure Respiration alarms.

1. Configure the general alarm settings.
2. Optional: To change Respiration Alarms, use the sliders, or use the arrow keys on your computer keyboard, to set the lower and upper limit values. See the next steps for specific values for each alarm and how to enable the alarm limits.

The default settings are Enable RR Parameter = **Yes**, RRp Alarm Delay Condition **10 seconds**, Adult Alarm Limits **6:30**, Pediatric Alarm Limits **6:30**, and Neonatal Alarm Limits **12:80**.

The screenshot shows the 'Respiration Alarms' configuration window. At the top, 'Enable RR Parameter' is set to 'Yes' and 'RRp Alarm Delay Condition' is set to '10 Seconds'. Below, three alarm limit sections are shown: 'Adult Alarm Limits', 'Pediatric Alarm Limits', and 'Neonatal Alarm Limits'. Each section has a green checkmark in the 'Enable' box, a slider with a blue bar, and numerical values. For Adult and Pediatric limits, the values are 5 and 69, with a '6:30' label above the slider. For Neonatal limits, the values are 1 and 98, with a '12:80' label above the slider.

3. Select the **RRp Alarm Delay Condition** setting. Choices are 0, 10 (default), 15, and 30 seconds.



NOTE RRp Alarm Delay Condition is activated only if the **Connex 360** monitor is configured with Masimo SpO2 with the **RRp** license activated.

For more information on acquiring a Masimo **RRp** license, see the **Connex 360 Service Manual**. **Connex 360** monitors that are sold with the Masimo **RRp** license already activated *do not* require activation in the Configuration Tool.

4. Optional: To change Respiration Alarm Limits, use the sliders to set the values for Adult Alarm Limits. Values range from 5 to 69.
5. Optional: To change Respiration Alarm Limits, use the sliders to set the values for Pediatric Alarm Limits. Values range from 5 to 69.
6. Optional: To change Respiration Alarm Limits, use the sliders to set the values for Neonatal Alarm Limits. Values range from 1 to 98.



NOTE When an alarm limit is disabled in the Configuration Tool, the limits are grayed out and Enable turns from green to gray.

This screenshot is identical to the previous one, but with the 'Enable' checkboxes for 'Adult Alarm Limits', 'Pediatric Alarm Limits', and 'Neonatal Alarm Limits' all turned gray and unchecked. The sliders and numerical values remain the same.

For more information about setting **RRp** alarms, click **?** for on-screen context-sensitive help.

Configure the averaging program

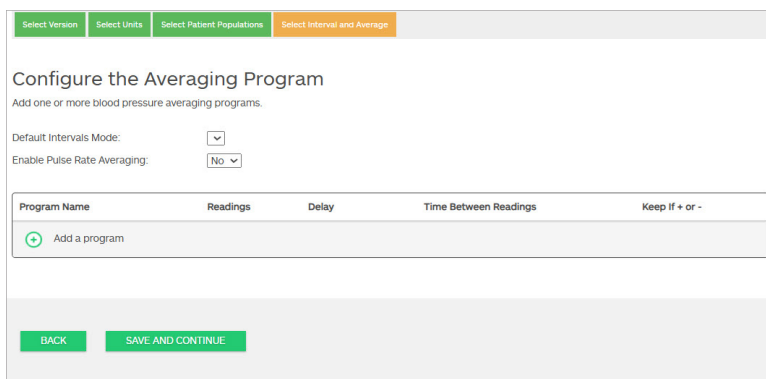
The averaging program allows you add up to four blood pressure averaging programs.

Create a new **Connex 360** monitor configuration

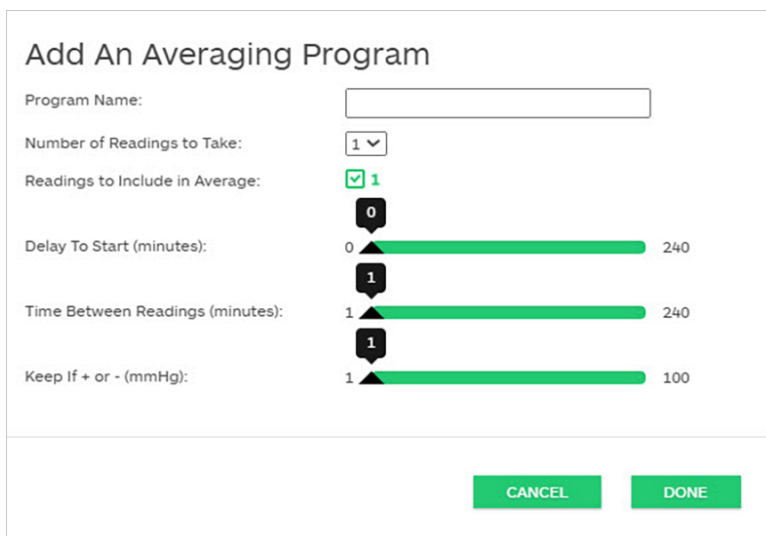
- Create up to 6 readings.
- Set delays before starting readings.
- Set length of time in between readings.

Default Intervals Mode is blank until you add an averaging program. See step 3.

1. Select **Enable Pulse Rate Averaging**. Choices are **Yes** or **No** (default).



2. Click **Add a program** to customize the blood pressure averaging program.



- a. Enter the Program Name.
 - b. Choose Number of Readings to Take. The default is 1 and the range is 1 to 6 readings.
 - c. Select the number of Readings to Include in the Average. The default is 1 and the range is 1 to 6 programs.
 - d. Use the slider to set Delay to Start (minutes). The default is 0 and the range is 0 to 240.
 - e. Use the slider to set Time Between Readings (minutes). The default is 1 and the range is 1 to 240.
 - f. Use the slider to set Keep If + or = (mmHg). The default is 1 and the range is 1 to 100.
 - g. Click **DONE** when complete. Then you are returned to the Configure Averaging Program screen.
3. After you add the averaging programs, select the Default Intervals Mode to choose the averaging program to use.
 4. Optional: To edit the averaging program, click  (edit).
 5. Optional: To delete the averaging program, click  (delete).
 6. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Progress Summary screen. The next section to configure is Informatics (Data Management).

Select Data Management

At the Progress Summary screen, review the completed sections, now marked in green.

Click **Data Management** to select how clinicians will sign on and to configure the **Active Directory**. You can define additional modifications to clinician and patient authentication and how the authenticated data will be displayed on the device.

1. Select how you would like clinicians to sign on.

The default setting is not to send readings to an EMR. If your facility uses an EMR, click the radio button to select **Yes, by answering a few simple questions**, **Single Sign On**, or **Custom**.

- a. Click the radio button to select **No** (default) if your facility does not use an EMR.
This option requires the clinician to manually log in.
- b. Optional: Use the radio button to select **Yes, by answering a few simple questions**.

- a. Set up the Clinician ID and Patient ID settings. These settings allow a clinician to scan their ID and to enter the patient's ID to send vitals to your EMR. Use the drop-down menus to answer the following questions:
 - a. Select **Do you want to require a Clinician to scan or enter their ID in order to send vitals to your EMR?** Choices are **No** (default) and **Yes**.
 - b. Select **Do you want to require a Clinician to scan or enter the Patient's ID in order to send vitals to your EMR?** Choices are **No** (default) and **Yes**.

If you selected **Yes**, additional fields display:

- a. Select **Do you want the device to prevent sending vitals records to the EMR until the Clinician's ID has been verified?** Choices are **No** (default) and **Yes**.
- b. Select **Do you want to further validate the Clinician's ID by requiring them to enter a password?** Choices are **Yes** or **No** (default).
- c. Select **Do you want the device to prevent sending vitals records to the EMR until the Patient's ID has been verified by the EMR?** Choices are **Yes** or **No** (default).



NOTE Changes made in data management CAN BE overridden by certain EMR selections in later screens.

Create a new **Connex 360** monitor configuration

- b. Click **DONE** when complete.
 - c. Optional: Use the radio button to select **Single Sign On**.
For more information, see "Configure Single Sign On settings."
 - d. Optional: Use the radio button to select **Custom**.
For more information, see "Configure Custom Data Management settings."
2. You also can configure **Active Directory** settings if you have selected Yes, by answering a few simple questions, Single Sign On, or Custom.
For more information, see "Configure **Active Directory**."
3. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Custom Scoring tab.

Configure Single Sign On settings

You can configure the Data Management settings for Single Sign On.

Single Sign On Data Management Settings

Single Sign On Settings

Clinician ID Required for save:	Yes
Retrieve Clinician information from EMR:	Yes
Require password with Clinician ID:	Yes
Clinician ID match required for save:	Yes

Clinician ID Settings

Clinician ID display format:	ID
Clear Clinician information on manual save:	No
Show Clinician log in screen:	No

Patient ID Settings

Patient name format:	Full Name
Search EMR by Patient ID:	No
Patient ID required for save:	No
Clear Patient information on manual save:	Yes
Patient ID match required for save:	No

DONE

Single Sign On has several drop-down choices:

- Single Sign On settings:
 - Clinician ID Required for save is set to **Yes**.
 - Retrieve Clinician information from EMR is set to **Yes**.
 - Require password with Clinician ID is set to **Yes**.
 - Clinician ID match required for save is set to **Yes**.
- Clinician ID settings:
 - Clinician ID display format includes choices for **abbreviated**, **name**, **ID** (default), or **symbol**.
 - Clear Clinician information on manual save includes choices **Yes** or **No** (default).

- Show Clinician log in screen includes choices **Yes** or **No** (default).
- Patient ID settings:
 - Patient name format includes choices **Full name** (default) or **Abbreviation**.
 - Search EMR by Patient ID includes choices **Yes** or **No** (default).
 - Patient ID required for save includes choices **Yes** or **No** (default).
 - Clear Patient information on manual save includes choices **Yes** (default) or **No**.
 - Patient ID match required for save includes choices **Yes** or **No** (default).
- 1. Select the Single Sign On settings.
- 2. Click **DONE**.
This step returns you to the Data Management screen.
- 3. Optional: Configure the **Active Directory** settings.

Configure Custom Data Management settings

You can configure custom Data Management settings.

Custom Data Management Settings

Clinician ID Settings

Clinician ID display format: ID ▾

Clinician ID Required for save: Yes ▾

Clear Clinician information on manual save: No ▾

Retrieve Clinician information from EMR: Yes ▾

Require password with Clinician ID: Yes ▾

Clinician ID match required for save: Yes ▾

Show Clinician log in screen: No ▾

Patient ID Settings

Patient name format: Full Name ▾

Search EMR by Patient ID: No ▾

Patient ID required for save: No ▾

Clear Patient information on manual save: Yes ▾

Patient ID match required for save: No ▾

DONE

Custom Data Management settings has several drop-down choices:

- Clinician ID Settings
 - Clinician ID display format includes choices for **abbreviated**, **name**, **ID** (default), or **symbol**.
 - Clinician ID required for save includes choices **Yes** (default) or **No**.
 - Clear Clinician information on manual save includes choices **Yes** or **No** (default).
 - Retrieve Clinician information from EMR includes choices **Yes** (default) or **No**.
 - Require password with Clinician ID includes choices **Yes** (default) or **No**.
 - Clinician ID match required for save includes choices **Yes** (default) or **No**.
 - Show Clinician log in screen includes choices **Yes** or **No** (default).
- Patient ID Settings

Create a new **Connex 360** monitor configuration

- Patient name format includes choices **Full name** (default) or **Abbreviation**.
- Search EMR by Patient ID includes choices **Yes** or **No** (default).
- Patient ID required to save includes choices **Yes** or **No** (default).
- Clear Patient information on manual save includes choices **Yes** (default) or **No**.
- Patient ID match required for save includes choices **Yes** or **No** (default).

1. Select the Custom Data Management settings.

2. Click **DONE**.

This step returns you to the Data Management screen.

3. Optional: Configure the **Active Directory** settings.

Configure **Active Directory**

You can configure the **Active Directory** settings if you selected Yes, by answering a few simple questions, Single Sign On, or Custom on the Data Management screen.

You can manage CA certificates in the Data Management screen. These selections affect the Network Connectivity Settings and General Device Settings screens.

1. If you want to configure **Active Directory**, set the Active Directory option to **Yes**.

Enable Active Directory is set to **Yes**. The default is **No**.

The screenshot shows the 'Data Management' screen with the following configuration options:

- Select "Yes", "Single Sign On" or "Custom" to enable sending readings to the EMR.**
 - ☐ No
 - ☐ Yes, by answering a few simple questions.
 - ☒ **Single Sign On**
 - ☐ Custom
- Enable Active Directory:** Yes (dropdown menu)
- Active Directory DNS Name:** (text input field)
- Active Directory User Name:** (text input field)
- Active Directory Password:** Active Directory Password is not set
 - ☒ **Keep unset**
 - ☐ Set to (text input field)
- Active Directory Clinician Identifier:** User Name (dropdown menu)
- Active Directory Group:** (text input field)
- Active Directory Search Subtree:** (text input field)
- Active Directory Certificates:** ☒ **Use Manufacturer Default Certificates** ☐ Upload Certificates
 - Manufacturer Default Active Directory CA Certificates are applied.

At the bottom, there are two buttons: **BACK** and **SAVE AND CONTINUE**.

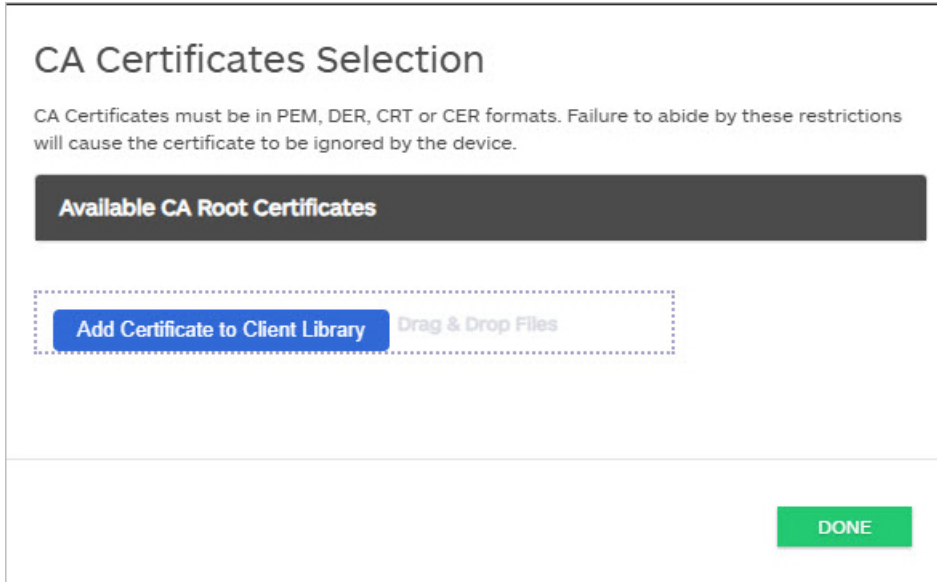
- Type the **Active Directory** domain name into the DNS Name field.
- Type the **Active Directory** user name.
- Either leave the **Active Directory** password unset (default) or select the radio button to set the password.



NOTE The **Active Directory** password should not include special characters &, <, >, or and.

- Select the Active Directory Clinician Identifier. Choices include **User Name** (default), **Account Name**, or **Employee ID**.
- Type the **Active Directory** group name.
- Type the **Active Directory** search subtree.
- Select the **Active Directory** certificate type. The default is **Use Manufacturer Default Certificates**.

- h. Optional: If you select the **Upload Certificates** radio button, the CA Certificate Selection screen displays. The CA certificate must be in PEM, DER, CRT, or CER format (ex: cacert.pem). Failure to abide by these restrictions causes the device to ignore the certificate. For more information about using and uploading certificates, see "Configure a CA Root certificate."



The screenshot shows the 'CA Certificates Selection' screen. At the top, it says 'CA Certificates must be in PEM, DER, CRT or CER formats. Failure to abide by these restrictions will cause the certificate to be ignored by the device.' Below this is a dark grey bar labeled 'Available CA Root Certificates'. Underneath is a dashed box containing a blue button labeled 'Add Certificate to Client Library' and the text 'Drag & Drop Files'. At the bottom right of the screen is a green button labeled 'DONE'.

- a. Click **Add Certificate to Client Library** and upload the certificates from your computer.
 - b. Click **DONE**. Then the list of uploaded certificates displays on the screen.
2. Click **SAVE AND CONTINUE**.
- As the Configuration Tool is updated, the screen moves to the Custom Scoring tab.
- You can optionally delete an uploaded CA certificate. For more information, see "Delete a CA certificate."

Delete a CA certificate

You can upload and delete CA certificates from the following screens:

- Data Management
- Network Connectivity Settings
- General Device Settings (**Connex 360** monitor only)

If you need to delete an uploaded CA certificate, follow these steps:

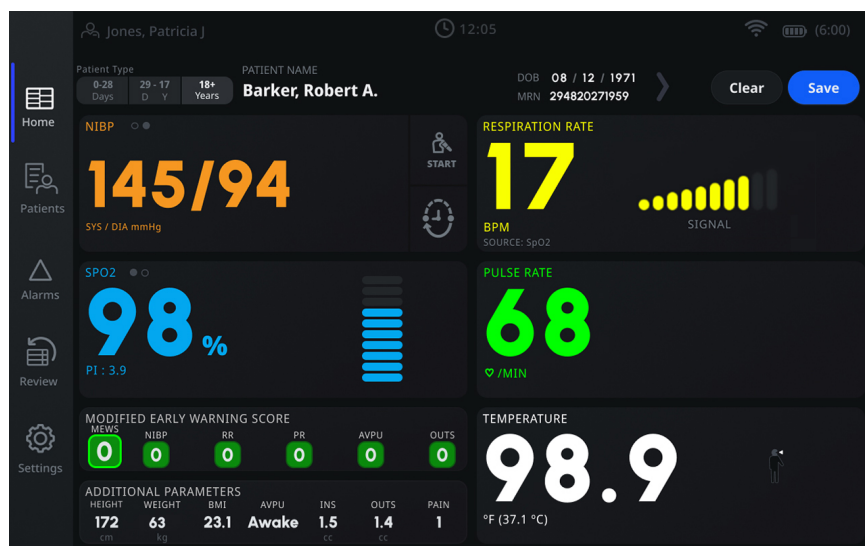
1. Optional: If you want to delete a CA certificate, click the  (delete) button next to it.
An informational message on the screen explains that the certificate is removed from the library, and the Network Connectivity Settings tab turns yellow in the Progress Summary view.
2. Open the Network Connectivity Settings tab and click the informational message to clear it. Although the Progress Summary view turns green, if you try to download the configuration file, you get an error.
3. Verify that the list of uploaded certificates matches in the Data Management, Network Connectivity Settings and General Device Settings screens. The list of uploaded certificates needs to match on all three screens before you can download the configuration file.

Verify that you can download the configuration file. For more information, see "Download a configuration file to install on another device."

Custom scoring (early warning scores) on the **Connex 360** monitor

You define custom scoring through the Configuration Tool. The order in which the custom score parameters are entered in the Configuration Tool is the order in which they appear in the Modified Early Warning Score section on the **Connex 360** monitor.

Custom scoring enables you to configure specific parameters that calculate scores for patient monitoring. These scores generate messages regarding the patient status, based on the parameters chosen. These messages are provided only as reminders.



Set up custom scoring on the **Connex 360** monitor

This section describes how to set up Bedside Protocols that can be replicated on a **Connex 360** monitor. You can preselect from a list of clinical protocols. All scoring protocols are customizable to meet user requirements.

You may add up to 6 scoring systems. Select a predefined Scoring System template, enter a unique name, and add the scoring system. Your scoring system will be added to the bottom of the page. You may then edit or delete your scoring system.

1. Click the **Custom Scoring** tab and choose your preferences for custom scoring.

Custom Scoring Setup

Enable custom scoring?

Do you want age ranges associated with scoring protocols for pre-selection based on patient age?

Do you want to view a condensed total score page as your default?

Please enter the authentication code:

- Enable custom scoring includes choices **Yes** (default) or **No**.

- Do you want age ranges associated with scoring protocols for pre-selection based on patient age includes choices for **Yes** or **No** (default).
 - Do you want to view a condensed total score page as your default includes choices **Yes** or **No** (default).
2. Click the Please enter the authentication code field and enter a valid code in the format of [YY]Connex360[MM] with the current year and month.



NOTE The Authentication code field appears the first time you select the Custom Scoring tab.

3. Click **SAVE AND CONTINUE**.

If you selected **No** for Enable custom scoring, the screen moves to the Set Manual Parameters and Modifiers tab.

If you selected **Yes** for Enable custom scoring, the Custom Scoring Selection screen displays.

4. Select a Scoring System template. Choices include:

- Bedside PEWS 3 to <12 months
- Bedside PEWS 1 to 4 years
- Bedside PEWS 5 to <12 years
- Bedside PEWS >=12 years
- Braden
- BTF SAGO
- BTF ED
- BTF SPOC <3 months
- BTF SPOC 3 to 12 months
- BTF SPOC 1 to 4 years
- BTF SPOC 5 to 11 years
- BTF SPOC 12 years
- Falls Risk Assessment Tool
- Glasgow Coma Scale
- Modified Early Obstetric Warning
- Modified Early Warning Score
- MEWS for General Surgical Ward
- Morse Fall Score
- National Early Warning Score
- National Early Warning Score 2
- NEWS2 Scale 1
- NEWS2 Scale 2
- Norton
- Pediatric Early Warning Score
- Rapid Emergency Medicine Score
- Triage Early Warning System
- Walsall
- Blank Scoring System

5. Enter a name for the Scoring System by clicking the Enter a Name for the Scoring System field and typing a name for the scoring system as you want it to appear on the device.

6. When finished, click **ADD THIS SCORING SYSTEM**.

After a successful addition, the following message appears: The Scoring System has been successfully added.

Create a new **Connex 360** monitor configuration

Custom Scoring Selection

You may add up to 6 Scoring Systems. To do so, please select a predefined Scoring System template, enter a unique Name, and click the button labeled ADD THIS SCORING SYSTEM. Your Scoring System will be added to the bottom of the page. You may then Edit or Delete your Scoring System.

Select a Scoring System template:

Enter a Name for the Scoring System:

ADD THIS SCORING SYSTEM

BACK **SAVE AND CONTINUE**

The name for the scoring system also appears at the bottom of the Custom Scoring Selection screen. This example is for *Bedside PEWS 5 to <12 years*.

Name: bedside kids

Label: Bedside PEWS 5 to <12 years

Score Labels

- Pulse Rate
- Systolic Blood Pressure
- Capillary Refill Time
- Respiration Rate
- Respiratory Effort
- PTCO2
- Oxygen Therapy

Severity Ranks

White	Normal
Yellow	Low
Orange	Medium
Red	Severe

BACK **SAVE AND CONTINUE**



NOTE The Custom Scoring Selection can be used as is or modified to meet facility requirements. Each scoring system has different score labels and severity ranks.



NOTE The name of the custom Scoring System defines how the scoring protocol will appear on the device. The HIS ID information for the EMR can be applied here too. Configure the capability for Single Parameter Scoring by itself or as part of an Aggregate Score.

This example is for *Braden test*.

Name: Braden test

Label: Braden

Score Labels

- Sensory Perception
- Moisture
- Activity
- Mobility
- Nutrition
- Friction and Shear

Severity Ranks

White	Normal
Yellow	Low
Orange	Medium
Red	High

BACK **SAVE AND CONTINUE**

- Optional: If you want to delete the Scoring System, click  (delete).
- Optional: If you want to edit the scoring system, click  (edit).
For the detailed steps, see "Edit a Scoring System."
- Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Set Custom Parameters and Modifiers tab.

Edit a Scoring System

You can edit a Scoring System.

- Optional: To edit the scoring system, click  (edit). Click within the fields to enter changes or use the drop-down menu to change the Configure Aggregate Score or Single Parameter Triggers.

Edit Scoring System

You may edit the Scoring System information contained on this page.

Name:

BP12

Label:

Bedside PEWS >=12 years

Abbreviation:

BPWS

HIS ID:

89999

Configure Aggregate Score:

Yes

Single Parameter Triggers:

Yes

CANCEL

CONTINUE

- Click **CONTINUE**.
- To continue to edit the Scoring System, configure the minimum or maximum age ranges (in months).

Edit Scoring System

Configure the age ranges.

Clinical Parameter: Age in months

Parameter Type: Integer

Min (# months)	Max (# months)	
144	215	
160	240	
 Add Range Row		

- Optional: To add a range row , click  (add). To delete a range row, click  (delete).
- Optional: To continue editing the Scoring System, check or uncheck the Enable settings. All the ranks are enabled by default.

Edit Scoring System

You may enable or disable the predefined Rank assignments. You can edit individual Rank values by clicking the edit icons.

Enable	Rank	Value	Color	
☒	Normal		White	
☒	Low		Yellow	
☒	Medium		Orange	
☐	High			
☒	Severe		Red	

- Click  (edit) to change the rank information.



NOTE You can make the following edits to the rank information:

- Modify the color of the severity rankings based on protocol.
- Omit or add rankings based on protocol.
- Edit the message in the Edit Rank Information message box.

The message must be a continuous paragraph in the message box. Do not hit Enter on the keyboard or type \n to bring the text to the next line, or you might get an error when completing the configuration file.

Create a new **Connex 360** monitor configuration

7. Optional: To continue editing the Scoring System, click  (edit) to change the values.

Edit Scoring System

You may edit or delete an particular Parameter Score by clicking on the icons in the Scores row. You may also add additional Parameter Scores based on the Parameters in the provided list. Up to 12 Parameter Scores are allowed. To continue, all Parameter Scores must be marked as Complete.

Score Name	Score Label	Clinical Parameter	Filter By	Complete
Pulse RateScore1	Pulse Rate	Pulse Rate	Yes	 
NIBP-SystolicScore2	Systolic Blood Pressure	Systolic Blood Pressure	Yes	 
Capillary Refill TimeScore3	Capillary Refill Time	Capillary Refill Time	Yes	 
Respiration RateScore4	Respiration Rate	Respiration Rate	Yes	 
Respiratory EffortScore5	Respiratory Effort	Respiratory Effort	Yes	 
PTCO2Score6	PTCO2	PTCO2	Yes	 
Oxygen TherapyScore7	Oxygen Therapy	Oxygen Therapy	Yes	 

Add a Score based on an existing Parameter or Modifier.
 Activity 

BACK **CONTINUE**

TIP If you want to disassociate a parameter from the score, click  (delete).

If you want to add a new parameter associated with the score, either select an existing one from the drop-down list, or create a custom parameter in the Set Manual Parameters and Modifiers tab.

8. Click **CONTINUE**.

You are returned to the Custom Scoring Selection screen.

9. Click **SAVE AND CONTINUE**.

Select Set Manual Parameters and Modifiers tab

Configure the manual and custom parameters and modifiers settings. Custom is the only option. You can add a modifier to add custom data entry fields. By default, Prevent Skip Required Modifiers is set to **No**.

If you set up custom scoring for a Bedside protocol, the custom parameters and modifiers display on the Set Manual Parameters and Modifiers screen.

Configuration Name: Hospital South Wing

SummaryClinical (Required)InformaticsITBiomed (Required)

Data ManagementCustom ScoringSet Manual Parameters and Modifiers

Set Manual Parameters and Modifiers

Set Manual Parameters

Select or hide the devices standard manual entries.

 Custom

Custom Parameters and Modifiers

Add custom data entry fields.

Name	Label	Required	Type	Modifiers	Unit	Size
 Add Modifier						

Prevent Skip Required Modifiers No

BACK **SAVE AND CONTINUE**

- Optional: See "Set Manual Parameters" for how to override the parameters for NIBP, temperature, SpO2, pulse rate, and respiration rate.
- Optional: See "Select Custom Parameters and Modifiers" for additional details on customizing these parameters and modifiers.

Set Manual Parameters

Review or modify the manual parameters.

1. If you want to review or modify the manual parameters, double-click the **Custom** radio button and the Set Manual Parameters screen pops up.

Set Manual Parameters

Show pain in home screen: No ▼

Show respiration in home screen: No ▼

Show height in home screen: No ▼

Show weight in home screen: No ▼

Show BMI in home screen: No ▼

Override NIBP: Yes ▼

Override Temperature: Yes ▼

Override SpO2: Yes ▼

Override Pulse Rate: Yes ▼

Override Respiration Rate: Yes ▼

CANCEL DONE

Set Manual Parameters:

- Show pain in home screen includes choices for **Yes** or **No** (default).
 - Show respiration in home screen includes choices for **Yes** or **No** (default).
 - Show height in home screen includes choices for **Yes** or **No** (default).
 - Show weight in home screen includes choices for **Yes** or **No** (default).
 - Show BMI in home screen includes choices for **Yes** or **No** (default).
 - Override NIBP includes choices for **Yes** (default) or **No**.
 - Override Temperature includes choices for **Yes** (default) or **No**.
 - Override SpO2 includes choices for **Yes** (default) or **No**.
 - Override Pulse Rate includes choices for **Yes** (default) or **No**.
 - Override Respiration Rate includes choices for **Yes** (default) or **No**.
2. Click **SAVE AND CONTINUE**.

Set custom parameters and modifiers

You can set, add, or delete custom parameters and modifiers.



NOTE Every parameter or modifier that you enter in the list goes to the top of the list. If you want the parameter or modifier to appear in a specific order on your device, enter the list in **REVERSE** order (with the one you want at the bottom of the list being first, and the one you want at the top of the list being last). Then the list will look correct. When the list is complete, click **SAVE**. Do not modify the list again, because modifying an existing list reloads it in reverse order after you click **SAVE**. If you must edit a list, delete all the entries and start from scratch again.

Create a new **Connex 360** monitor configuration

1. Optional: Click  to add a modifier.

Add Modifier

Name

Label

Abbreviation

Required

Modifies

Type

Minimum Value

Maximum Value

Unit

HIS ID

Unit HIS ID

Yes ▾

None ▾

Integer ▾

CANCEL

SAVE

Complete the requested information for adding a custom modifier:

- Type a name for the modifier that will appear in the Set Manual and Custom Parameters table.
- Type a label for the modifier that will appear on the **Connex 360** monitor screen.
- Type an abbreviation for the modifier.
- Use the drop-down menu to select whether the modifier is required. Required includes choices **Yes** (default) or **No**.
- Use the drop-down menu to select whether the modifier modifies: **NIBP**, **SpO2**, **Temperature**, **Pulse Rate**, **Respiration Rate**, or **None** (default).
- Use the drop-down menu to select the type of modifier: **Integer** (default), **Decimal**, **Alphanumeric**, or **List**.
 - If you selected Decimal, enter the Decimal Precision (**1 decimal** or **2 decimals**).
 - If you selected List, you can add list items. Enter the Name, Label, Abbreviation, and Item HIS ID.

In this example, the Verbal Response modifier is being added to the list.

Add Modifier

Name

Label

Abbreviation

Required

Modifies

Type

Verbal Response

Verbal Response

VRBL

Yes ▾

None ▾

List ▾

Add List Items

Name	Label	Abbreviation	Item HIS ID
No response2	No response	NONE	
Incomprehensible	Incomprehensible	INCM	
Inappropriate	Inappropriate	INAP	
Confused2	Confused	CNFS	
Oriented1	Oriented	ORNT	

HIS ID

CANCEL

SAVE

- Optional: Click  to add another list item.
- Type a minimum value. (Values must be within -32768 and 32767 and be an integer. The Minimum Value must be less than the Maximum Value.)
- Type a maximum value. (Values must be within -32768 and 32767.)

- j. Type a unit.
- k. Type a HIS ID.
- l. Type a unit HIS ID.
- m. When finished, click **SAVE**.

The new modifier displays in the Custom Parameters and Modifiers section of the Set Manual Parameters and Modifiers screen.

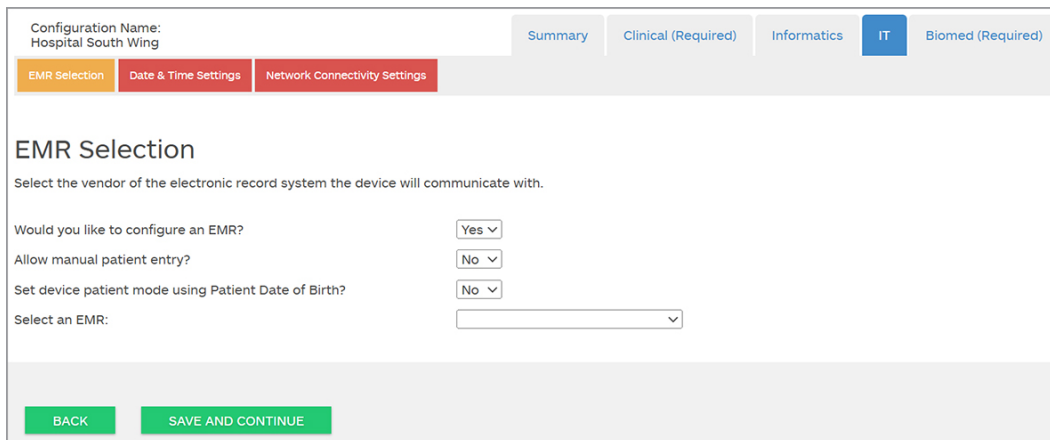
2. Optional: To continue editing the new modifier, click  (edit). Make the necessary changes and click **SAVE**. The new modifier appears at the top of the list.
3. Optional: To delete the new modifier, click  (delete). Click **DELETE**.
4. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the EMR Selection tab.

Set up the Electronic Medical Record (EMR)

Configure the EMR settings.

1. If your facility is using an Electronic Medical Records (EMR) system, select the EMR vendor and other preferences:



Configuration Name: Hospital South Wing

Summary Clinical (Required) Informatics **IT** Biomed (Required)

EMR Selection Date & Time Settings Network Connectivity Settings

EMR Selection

Select the vendor of the electronic record system the device will communicate with.

Would you like to configure an EMR?

Allow manual patient entry?

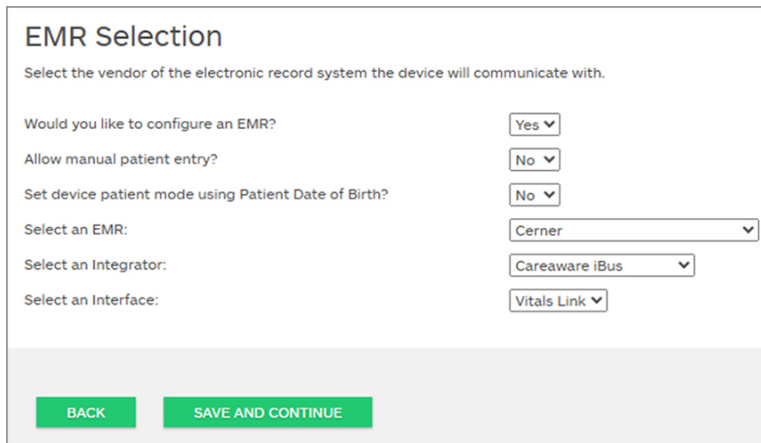
Set device patient mode using Patient Date of Birth?

Select an EMR:

- Would you like to configure an EMR includes choices **Yes** (default) or **No**.
- Allow manual patient entry? includes choices **Yes** or **No** (default).
- Set device patient mode using Patient Date of Birth includes choices **Yes** or **No** (default).
- Select an EMR includes choices: **Allscripts Sunrise 6.1 and higher, Cerner, I will customize my selection, Epic, McKesson Horizon, McKesson Paragon, Medhost (HMS), Meditech 6.X, Meditech Client/Server, Meditech Magic, Siemens Invision, Siemens Sorian, VA - Vista/CPRS.**

Create a new **Connex 360** monitor configuration

2. If prompted, select an Integrator and select an Interface from the drop-down menus.



The EMR Selection screen is titled "EMR Selection" and includes the instruction "Select the vendor of the electronic record system the device will communicate with." It contains several configuration options, each with a dropdown menu:

- "Would you like to configure an EMR?" with a dropdown set to "Yes".
- "Allow manual patient entry?" with a dropdown set to "No".
- "Set device patient mode using Patient Date of Birth?" with a dropdown set to "No".
- "Select an EMR:" with a dropdown set to "Cerner".
- "Select an Integrator:" with a dropdown set to "Careaware iBus".
- "Select an Interface:" with a dropdown set to "Vitals Link".

At the bottom of the screen are two green buttons: "BACK" and "SAVE AND CONTINUE".

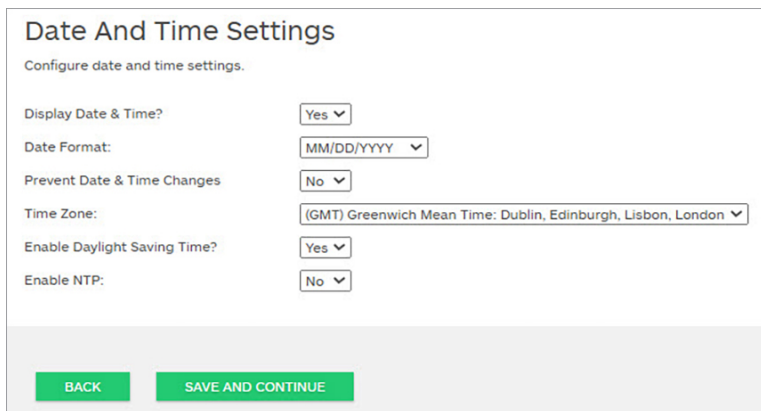
3. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Date and Time Settings section, and the Progress Summary shows completed sections in green.

Set date and time

Configure the date and time preferences.

1. Click the **Date & Time** tab in the IT section to configure the date and time preferences.



The Date And Time Settings screen is titled "Date And Time Settings" and includes the instruction "Configure date and time settings." It contains several configuration options, each with a dropdown menu:

- "Display Date & Time?" with a dropdown set to "Yes".
- "Date Format:" with a dropdown set to "MM/DD/YYYY".
- "Prevent Date & Time Changes" with a dropdown set to "No".
- "Time Zone:" with a dropdown set to "(GMT) Greenwich Mean Time: Dublin, Edinburgh, Lisbon, London".
- "Enable Daylight Saving Time?" with a dropdown set to "Yes".
- "Enable NTP:" with a dropdown set to "No".

At the bottom of the screen are two green buttons: "BACK" and "SAVE AND CONTINUE".

- Display Date & Time includes choices **Yes** (default) or **No**.
 - Date format includes choices **MM/DD/YYYY** (default), **YYYY-MM-DD**, **DD/MM/YYYY**, **DD.MM.YYYY**, **DD/MMM/YYYY**.
 - Prevent Date & Time Changes includes choices **Yes** or **No** (default).
 - Use the drop-down menu to select the Time Zone.
 - Enable Daylight Saving Time includes choices **Yes** (default) or **No**.
 - Enable NTP (Network Time Protocol server) includes choices **Yes** or **No** (default).
2. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Network Connectivity Settings tab.

Connect to a network

Configure your settings that the **Connex 360** monitor requires to communicate on the network.

1. Use the drop-down lists to configure your network settings:

- Please select an EMR connection type is set to **Network** by default.
- Enable HL7 includes choices **Yes** (default) or **No**. When **No** is selected, WACP protocol will be used instead of HL7.
- Please set a network connectivity method. It is set to **Host IP** by default.



NOTE The **Host IP** value can be the IP address or DNS address entry.

- Enable Wi-Fi 802.11 includes choices **Yes** (default) or **No**. If the device operates on a **Wi-Fi** network, set Enable Wi-Fi 802.11 to **Yes**.
- Enable data encryption includes choices **Yes** (default) or **No**.
- Enable Server Authentication includes choices **Yes** (default) or **No**.
- Select Client Certificate includes choices:
 - **No Client Certificate Offered**
 - **Long-term Manufacture Issued Cert** (default)
 - **Client Provided Certificate 3**
 - **Client Provided Certificate 4**
 - **Client Provided Certificate 5**
- EMR Server Certificate includes radio button selections for **Use Manufacturer Default Certificates** or **Upload Certificates**.

2. Optional: If you select the Upload Certificates radio button, the CA Certificate Selection screen displays. The CA certificate must be in PEM, DER, CRT, or CER format (ex: cacert.pem). Failure to abide by these restrictions causes the device to ignore the certificate. For more information about using and uploading certificates, see "Configure a CA Root certificate."

- Click **Add Certificate to Library** and upload the certificates from your computer.
- Click **DONE**. Then the list of uploaded certificates displays on the screen.

You can optionally delete an uploaded CA certificate. For more information, see "Delete a CA certificate."

3. Optional: The HL7 Settings are completed by default. Enter a new Host IP and Host Port, if desired.

If you set HL7 Settings to **No**, the **HL7** entry fields change to Host IP and Host Port.

4. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Radio Settings section.

Set up radio settings

Configure the radio settings for the **Connex 360** monitor.

1. Use the drop-down lists and radio buttons to configure the radio settings to communicate with the wireless network.



NOTE The ESSID and EAP passwords should not include special characters &, <, >, or and.

- Enable radio alarms includes choices Yes (default) or No.
- ESSID is set to Keep by default. If you set **ESSID** to **Replace with**, enter a unique name for the wireless network.
- Radio mode includes choices for Auto (default), 2.4 GHz, or 5 GHz.
- Enable Dynamic Frequency includes choices Yes (default) or No.
- **Wi-Fi** Power Save Poll Mode includes choices Yes (default) or No.
- Authentication/Encryption includes many choices. WPA2-Personal is the default. Use the drop-down list to customize.



NOTE For example, if you select **WPA2-Enterprise** for **Authentication/Encryption**, several new fields display:

- Roam Type includes choices OKC\PMK (default) or 802.11r.
- Roam Mode includes choices default, disable, optional, or required.
- Enter the identity in the **EAP identity** field.
- EAP type is set to NONE by default. Use the drop-down list to select a different EAP type, such as PEAP-MSCHAPv2. Additional fields, such as the EAP Password, might display, depending on which **EAP type** you select.
- Authentication Server Type includes choices username (default) or anonymous.
- Pre-shared Key is set to Keep by default. If you set **Pre-shared Key** to **Replace with**, enter the replacement key name.
- Enable FIPS includes choices Yes or No (default).
- Hidden SID includes choices Yes or No (default).

2. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the General Device Settings tab.

Select General Device Settings for USB and remote services

Set up the general device settings for Universal Serial Bus (USB) and Remote Services for the **Connex 360** monitor.

The **Custom** radio button is pre-selected.

The screenshot shows the 'General Device Setting' configuration page. At the top, there's a configuration name 'Hospital South Wing' and tabs for 'Summary', 'Clinical (Required)', 'Informatics', 'IT', and 'Biomed (Required)'. The 'General Device Settings' tab is active. Below the title, it says 'Select "Custom" to modify default power, language, and other general settings.' and the 'Custom' radio button is selected. There's a link to 'Select an optional splash screen image.' Below that is the 'Universal Serial Bus (USB) Settings' section with a 'USB Ports Enable' dropdown set to 'No'. The 'Remote Service' section contains fields for Region, Country, State, City, Enterprise, Organization, Facility, Location Unit, Device Calibration Frequency (set to 12 months), Service Mode (set to Disabled), and On premises URL. At the bottom is the 'Admin Settings' section with an 'Admin Access Code' field.

1. Click **Select an optional splash screen image** and follow the on screen instructions to upload a custom splash screen image onto the device. To create your facility's custom splash screen image, the image must be in the **Windows BMP** format file. It must be 1280 pixels wide by 800 pixels tall and have 24 bits of color using 3 bytes per pixel. The image must not contain color space information. Failure to abide by these restrictions will cause the device to ignore the image.
2. In the Universal Serial Bus (USB) Settings section, set **USB Ports Enable**. Choices include No (default) or Yes.
3. Set the **Remote Service** settings, commonly referred to as Remote Management. Important: This organization hierarchy will determine where the devices with this configuration file will be located within the Remote Management platform.
 - Select the region name from the list.
 - Select the country name from the list.
 - Type the state name.
 - Type the city name.
 - Type the enterprise name.
 - Type the organization name.
 - Type the facility name.
 - Type the location unit.
 - Select the **Device Calibration Frequency**. Choices include 12 months (default). You can select a range of 1 month to 36 months.

- Select the **Service Mode**. Choices include Disabled (default), Cloud, or Onpremises.



NOTE The enterprise, region, organization, and facility govern how the devices are grouped in the Remote Management solution. If you change these parameters, it will create a new grouping that you will need to link to your Remote Management account. These fields are case sensitive and space sensitive. For more information on how devices are grouped, see the **SmartCare** Remote Management *Instructions for Use*. For more information on Remote Management, contact your sales representative or go to the <https://www.baxter.com/our-services> website.

- If you set **Service Mode** to **Cloud** or **Onpremises**, additional fields appear where you can select the following:

The screenshot shows a configuration form with the following fields and options:

- Service Mode:** A dropdown menu set to "Cloud".
- Service Certificates:** A dropdown menu set to "Long-Term Manufacture Issued Cert".
- Remote Service Certificates:** Two radio buttons: "Use Manufacturer Default Certificates" (selected) and "Upload Certificates".
- Manufacturer Default Remote Service CA Certificates are applied.** A text label.
- Call Home Frequency (minutes):** A slider range from 5 to 240, with a current value of 15.
- Onpremises URL:** An empty text input field.

1. Select the **Service Certificates** setting to define which Client Certificates will be used. The default is Long-Term Manufacture Certificates. Choices include Long-Term Manufacture Certificates (default) or three available slots for client-provided certificates.
2. Under Remote Service Certificates, select the **Upload Certificates** radio button if you want to add your own CA certificates for the device.

The CA certificate must be in PEM, DER, CRT, or CER format (ex: cacert.pem). Failure to abide by these restrictions causes the device to ignore the certificate. For more information about using and uploading certificates, see "Configure **Active Directory**" and "Configure a CA Root certificate."
3. Select the **Call Home Frequency**. Choices include a default of 15. The range is 5 to 240. For more information, see the **Connex 360 Service Manual**.
4. If you have selected the **Cloud** Service Mode, the device will automatically connect to the default Remote Service server hosted on the cloud.

If you have chosen the **Onpremises** Service Mode, you will be able to specify a custom Remote Service server. To do this, enter the URL of your Remote Service server in the designated Onpremises URL field. Do not include "https://" when typing in URL.



NOTE You can optionally delete an uploaded CA certificate. For more information, see "Delete a CA certificate." If you are on a custom tenant, use the **Onpremises** option and contact your Baxter representative to obtain your custom URL.

4. Required: Enter the **Admin Access Code**.



NOTE The following are the access code password requirements:

- The password length must be between 8 and 32 characters.
- The password must contain at least one uppercase and one lowercase letter.
- The password must contain at least one number.
- The password must contain one of the following symbols: ' - ! " # \$ % & () * , . / : ; ? @ [] ^ _ ` { | } ~ + < = >

5. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Progress Summary view. When all the sections appear green, the configuration file can be downloaded or shared.

If you want to modify the power, language, and software update settings, see "Select General Device Settings for power, language, software."

Select General Device Settings for power, language, software

You can customize the general device settings for the display, power, language, and software upgrades on the **Connex 360** monitor.

1. Click the **Custom** radio button on the **General Device Settings** tab.

The General Device Settings screen for the display, power, language, and software appears.

General Device Settings

Display Settings

Display Brightness:

8

Allow User To Lock Screen:

No

Enable PHI Safe Mode From Lock Screen:

Yes

Touch Screen Lock-out Interval (minutes):

2

Allow Auto Sleep Mode:

Yes

Sleep Mode Timeout (minutes):

2

Allow Auto Shutdown:

Yes

Auto Shutdown Timeout (minutes):

15

Allow Service Lockout:

Yes

Service Lockout:

10

Other

Power Line Frequency (Hz):

60

Device Location ID:

Device Location:

Display Device Location:

Yes

Language

Please select your language:

English

Software Upgrades

Software upgrade mode:

☒ Automatic upgrade
 ☐ Manual upgrade

For Custom General Device Settings, the default settings are:

Create a new **Connex 360** monitor configuration

- Display Brightness = 8
 - Allow User to Lock Screen = No
 - Enable PHI Safe Mode From Lock Screen = Yes
 - Touch Screen Lock-out Interval (minutes) = 2
 - Allow Auto Sleep Mode = Yes
 - Sleep Mode Timeout (minutes) = 2
 - Allow Auto Shutdown = Yes
 - Auto Shutdown Timeout (minutes) = 15
 - Allow Service Lockout = Yes
 - Service Lockout (minutes) = 10
 - Power Line Frequency (Hz) = 60
 - Device Location ID = blank
 - Device Location = blank
 - Display Device Location = Yes
 - Language = English
 - Software Upgrade Mode = Automatic upgrade
2. Optional: To change the default value for **Display Brightness**, use the slider to set the value. Values range from 1 to 10.
 3. Optional: To change the default value for **Allow User To Lock Screen**, use the drop-down menu to select **Yes** or **No**.
 4. Optional: To change the default value for **Enable PHI Safe Mode From Lock Screen**, use the drop-down menu to select **Yes** or **No**.
 5. Optional: To change the default value for **Touch Screen Lock-out Interval (minutes)**, use the slider to set the value. Values range from 1 to 30.
 6. Optional: To change the default value for **Allow Auto Sleep Mode**, use the drop-down menu to select **Yes** or **No**.
 7. Optional: To change the default value for **Sleep Mode Timeout (minutes)**, use the slider to set the value. Values range from 1 to 30.
 8. Optional: To change the default value for **Allow Auto Shutdown**, use the drop-down menu to select **Yes** or **No**.
 9. Optional: To change the default value for **Auto Shutdown Timeout (minutes)**, use the slider to set the value. Values range from 1 to 30.
 10. Optional: To change the default value for **Allow Service Lockout**, use the drop-down menu to select **Yes** or **No**.
 11. Optional: To change the default value for **Service Lockout**, use the slider to set the value. Values range from 1 to 10.
 12. Optional: To change the default value for **Power Line Frequency (Hz)**, use the drop-down menu to select 50 or 60.
 13. Optional: To add a **Device Location ID** to the device, type in an ID. The Device Location ID field is the same as the EMR Location field on the **Connex 360** user interface.
 14. Optional: To add a **Device Location** to the device, type in an user-friendly location name.
 15. Optional: To display the **Device Location** on the device, use the drop-down menu to select **Yes** or **No**.
 16. Optional: To change the default language on the device, use the drop-down menu to select the desired language. Choices are English or French.
 17. Optional: To set the device to perform a software update when a new software version is available and deployed remotely, select either the **Automatic upgrade** or **Manual upgrade** radio button.
If you selected **Manual upgrade**, select either **Upon reboot** or **Upon acceptance** for when the software upgrade occurs.

18. When finished, click **DONE**.

19. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Progress Summary view. When all the sections appear green, the configuration file can be downloaded or shared.

Create a new **Connex 360** monitor configuration

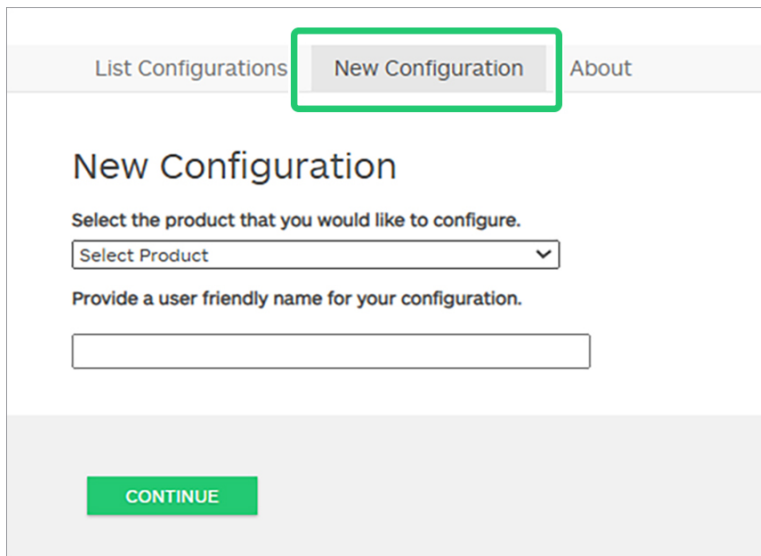
Create a new **Connex Spot** Monitor configuration

Create a new configuration for Physician's Office or Clinic

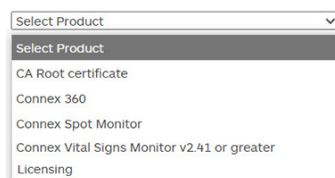
As a new configuration is completed, the configuration:

- determines default profiles.
- determines whether the device will be set up for **Wi-Fi** technology, **Bluetooth** technology, **Bluetooth** Low Energy (BLE), or other connectivity such as Ethernet or USB.
- opens or limits functionality like Early Warning Scores (EWS) protocols or prescriptive workflow settings.

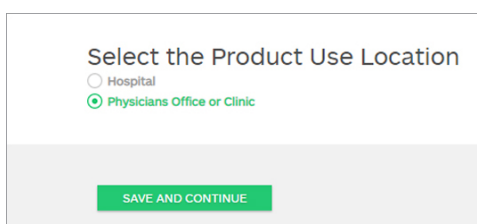
1. From the main screen, click the **New Configuration** tab.



2. Use the drop-down menu to select the Connex Spot Monitor product. Provide a name for the configuration by typing in the field and click **CONTINUE**.

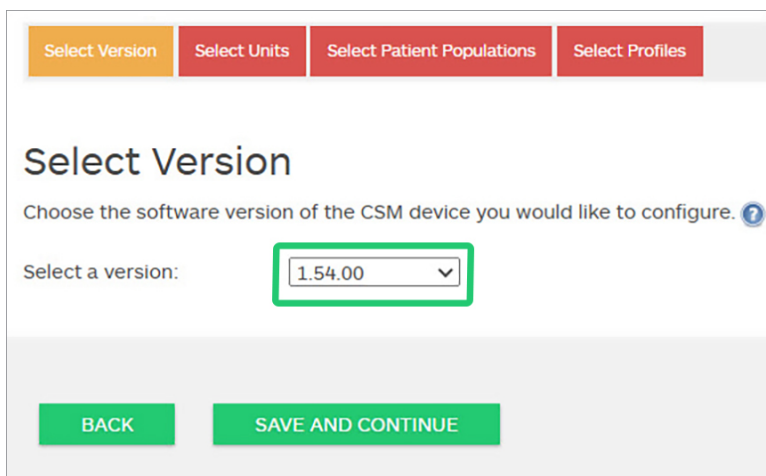


3. Select the Physicians Office or Clinic Product Use Location. (Choices include: **Hospital** and **Physicians Office or Clinic**.)



Create a new **Connex Spot** Monitor configuration

4. Click **SAVE AND CONTINUE**.
5. Click **Select Version**.
6. Use the drop-down menu to select a software version.



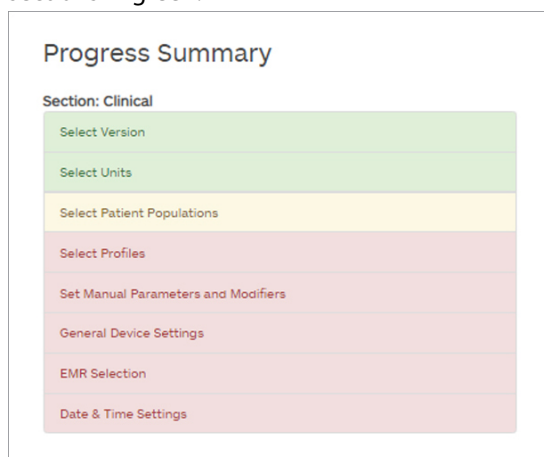
The screenshot shows the 'Select Version' screen. At the top, there are four tabs: 'Select Version' (highlighted in orange), 'Select Units' (red), 'Select Patient Populations' (red), and 'Select Profiles' (red). Below the tabs, the title 'Select Version' is displayed. A subtitle reads: 'Choose the software version of the CSM device you would like to configure.' followed by a help icon. Below this, there is a label 'Select a version:' and a dropdown menu showing '1.54.00' with a green border around it. At the bottom, there are two green buttons: 'BACK' and 'SAVE AND CONTINUE'.

The default selection is the latest software version available (1.54.00).

7. Click **SAVE AND CONTINUE**.



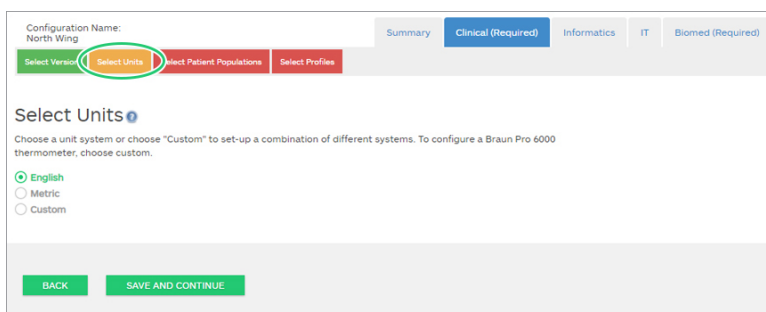
NOTE As the Configuration Tool is updated, the Progress Summary view updates to show completed sections in green.



The screenshot shows the 'Progress Summary' screen. The title 'Progress Summary' is at the top. Below it, there is a section titled 'Section: Clinical'. This section contains a list of steps: 'Select Version', 'Select Units', 'Select Patient Populations', 'Select Profiles', 'Set Manual Parameters and Modifiers', 'General Device Settings', 'EMR Selection', and 'Date & Time Settings'. The 'Select Version' and 'Select Units' steps are highlighted in green, indicating they are completed. The other steps are highlighted in yellow or red, indicating they are not yet completed.

As the Configuration Tool is updated, the screen moves to the Select Units tab.

8. Click the radio button to select the units.



The screenshot shows the 'Select Units' screen. At the top, there are five tabs: 'Summary' (grey), 'Clinical (Required)' (blue), 'Informatics' (grey), 'IT' (grey), and 'Biomed (Required)' (grey). Below the tabs, there are four sub-tabs: 'Select Version' (green), 'Select Units' (highlighted in orange), 'Select Patient Populations' (red), and 'Select Profiles' (red). Below the sub-tabs, the title 'Select Units' is displayed. A subtitle reads: 'Choose a unit system or choose "Custom" to set-up a combination of different systems. To configure a Braun Pro 6000 thermometer, choose custom.' Below this, there are three radio buttons: 'English' (selected), 'Metric', and 'Custom'. At the bottom, there are two green buttons: 'BACK' and 'SAVE AND CONTINUE'.

Choose a unit system or select **Custom** to set up a combination of different systems. To configure a PRO 6000 thermometer, select **Custom**. Choices include: **English**, Metric, and Custom. The default choice is English.

9. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Select Patient Populations tab.

10. Click the radio button for the patient type in Select Patient Populations. Choose the patient type that will be used most frequently with the device. Choices include: Adult, Pediatric, Neonatal, and Custom. The default choice is Adult.

Select Patient Populations

Choose the patient type that will be used most frequently with the device.

☒ Adult

☐ Pediatric

☐ Neonatal

☐ Custom

BACK

SAVE AND CONTINUE

11. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Select Profiles tab.

12. Click the checkbox next to the Profile type to select the clinical profile. If the Product Use Location selected is Physicians Office or Clinic, the default selection for Profile type is set to Office for the Primary Profile. (If the Product Use Location selected is Hospital, the default selection for Profile type is set to Spot for the Primary Profile with Intervals enabled. The three choices for Profile type include: Intervals, Office, and Spot.)

Select Profiles

Select and rename one or more clinical profiles. Enabling a profile allows a user to select it for use on the device.

Profile Types	Primary Profile	Custom Profile Name
☐ Intervals	☐	
☒ Office	☒	
☐ Spot	☐	

BACK

SAVE AND CONTINUE

- Use Office to enable Blood Pressure Averaging and **Bluetooth** connectivity.
 - Use Intervals to enable alarms and timed NIBP and SpO2, or just one or the other.
 - Use Spot to enable spot check vitals without alarms.
- a. Click the radio button in the Primary Profile column across from the Profile Types to select that profile as the Primary Profile.
- b. Optional: Add a Custom Profile Name to any or all of the profiles by typing into the Custom Profile Name field.

Select Profiles

Select and rename one or more clinical profiles. Enabling a profile allows a user to select it for use on the device.

Profile Types	Primary Profile	Custom Profile Name
☒ Intervals	☐	Intervals I
☒ Office	☐	Custom Office
☒ Spot	☒	Spot Profile North Wing

BACK

SAVE AND CONTINUE

Create a new **Connex Spot** Monitor configuration

- c. See "Configure the Office Profile" for additional details about creating blood pressure averaging programs.

13. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Set Manual Parameters and Modifiers tab.

14. Configure the Manual Parameters and Modifiers settings.

Configuration Name: North Wing

Summary Clinical (Required) **Informatics** IT Biomed (Required)

Data Management Custom Score **Set Manual Parameters and Modifiers**

Set Manual Parameters and Modifiers

Set Manual Parameters

Select or hide the devices standard manual entries.

☒ Default
☐ Custom

Custom Parameters and Modifiers

Add custom data entry fields.

Name	Label	Required	Type	Modifies	Unit	Size
+ Add Modifier						

Prevent Skip Required Modifiers No

The default settings are: Select or hide the devices standard manual entries = Default, Prevent Skip Required Modifiers = No. See the "Select Custom Parameters and Modifiers" for additional details on customizing the manual parameters.

15. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the General Device Settings tab.

16. Click the radio button next to one of the choices to select that choice: Mobile, Wall Mounted, or Custom.

General Device Setting

Select "Custom" to modify default power, language, and other general settings.

☒ Mobile
☐ Wall Mounted
☐ Custom

Select an optional splash screen image.

Bluetooth Low Energy (BLE) Settings

Turn on BLE by default? (license required) No

Virtual Network Computing (VNC) Settings

Allow VNC connection? No

Universal Serial Bus (USB) Settings

USB Ports Enable Yes

Admin Settings

Admin Access Code (required 6 digits):

BACK **SAVE AND CONTINUE**

- a. Optional: Select **Custom** to modify default power, language, and other general settings. The default selection is Mobile. Choices include: Mobile, Wall Mounted, and Custom. See: "(Optional) Select Custom General Device Settings" for additional instructions to modify the General Device Settings.
- b. Optional: Click **Select an optional splash screen image** and follow the on screen instructions to upload a custom splash screen image onto the device. To create your facility's custom splash screen image, the image must be in the **Windows BMP** file format. It must be 800 pixels wide by 480 pixels tall and have 24 bits of color using 3 bytes per pixel. The image must not contain color space information. Failure to abide by these restrictions will cause the device to ignore the image.
- c. Optional: Enable Bluetooth Low Energy (BLE), Virtual Network Computing (VNC) settings, and Universal Serial Bus (USB) settings. Use the drop-down menu to change any the default settings. The default settings for Bluetooth Low Energy (BLE) are: Turn on BLE by default? (license required) = **No**. The default

setting for Virtual Network Computing (VNC) Settings is: Allow VNC connection? = **No**. The default setting for Universal Serial Bus (USB) is: USB Ports Enable = **Yes**.

- d. Select an Admin Access Code that is exactly 6 digits long.

17. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the EMR Selection tab.

18. If your facility is using an Electronic Medical Records (EMR) system, select the EMR settings. Use the drop-down menu to answer **Yes** or **No** in the Would you like to configure an EMR? field.

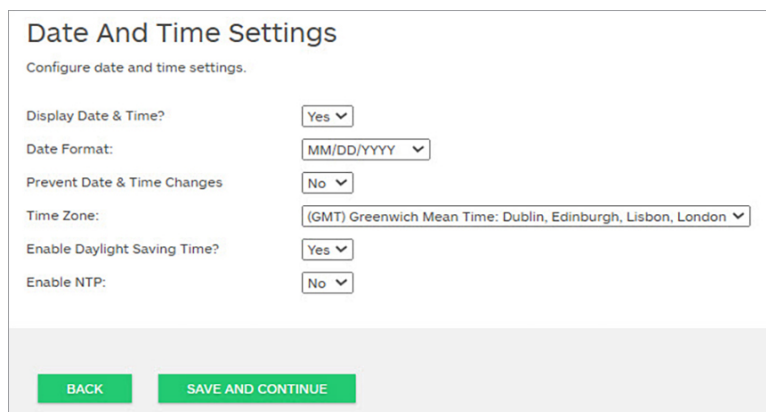
The default settings for the EMR Selection are: Would you like to configure an EMR? = **Yes**. Select an EMR = blank. Select the Connection Type = blank.

- a. If Yes is selected, use the drop-down menu to select your EMR. Choices include: **Allscripts Professional, Allscripts Touchworks, Amazing Charts, Aprima, Athena Health, Cerner, Epic, GE Centricity, Greenway, McKesson Practice Choice, McKesson Practice Partner, Medent, Meditab, Next Gen, Practice Fusion, Vitera (Greenway, Success EHS, e-MDs, and eClinicalWorks.**
- b. If prompted, select an Integrator and select an Interface from the drop-down menus.

- c. Use the drop-down menu to select the Connection Type: **Bluetooth** or **USB**.
- d. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves from the EMR Selection section to the Date and Time Settings section and the view is updated to show completed sections in green.

Create a new **Connex Spot** Monitor configuration

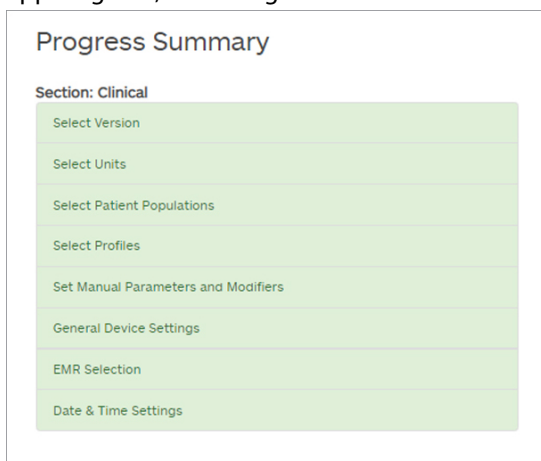


19. Click **Date And Time Settings** to continue.

- Use the drop-down menu to select **Display Date & Time**. The default settings for Display Date & Time = **Yes**.
- Use the drop-down menu to select Date Format. Choices include: **MM/DD/YYYY** (default), **YYYY/MM/DD**, **DD/YYYY/MM**, or **DD.MM.YYYY**.
- Use the drop-down menu to select Prevent Date & Time Changes. The default setting = **No**.
- Use the drop-down menu to select Time Zone.
- Use the drop-down menu to select Enable Daylight Savings Time?. The default setting = **Yes**.
- Use the drop-down menu to select Enable NTP?. The default setting = **No**.

20. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to Configuration complete. When all the sections appear green, the configuration file can be downloaded or shared.

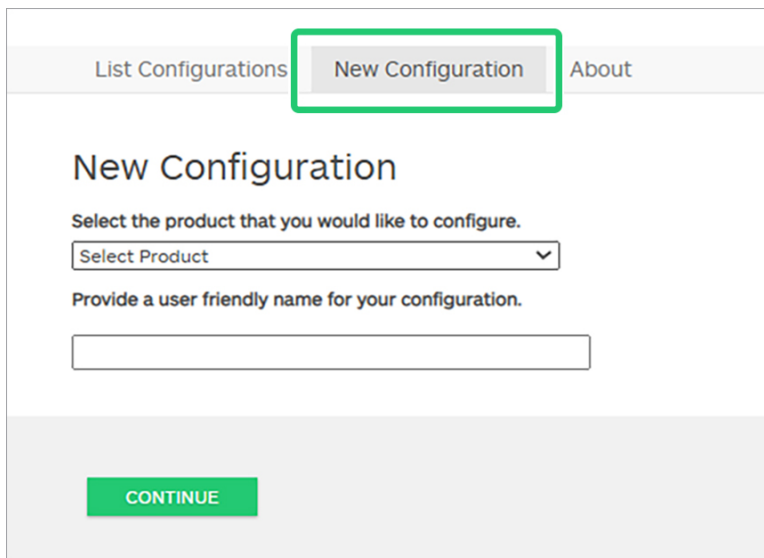


Create a new configuration for a Hospital setting

As a new configuration is completed, the configuration:

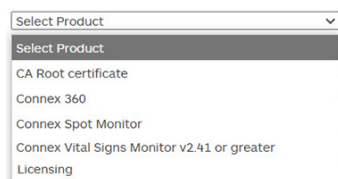
- determines default profiles.
- determines whether the device will be set up for **Wi-Fi** technology, **Bluetooth** technology, **Bluetooth** Low Energy (BLE), or other connectivity such as Ethernet or USB.
- opens or limits functionality like Early Warning Scores (EWS) protocols or prescriptive workflow settings.

1. From the main screen, click the **New Configuration** tab.



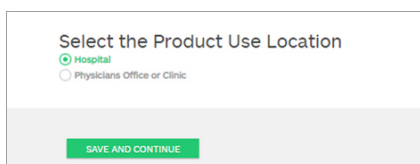
The screenshot shows the 'New Configuration' tab selected in a navigation bar. Below the navigation bar, the title 'New Configuration' is displayed. A prompt asks the user to 'Select the product that you would like to configure.' with a dropdown menu labeled 'Select Product'. Below this, another prompt asks the user to 'Provide a user friendly name for your configuration.' with a text input field. At the bottom of the form is a green 'CONTINUE' button.

2. Use the drop-down menu to select the Connex Spot Monitor product. Provide a name for the configuration by typing in the field and click **CONTINUE**.



The screenshot shows the 'Select Product' dropdown menu open. The menu lists several options: 'Select Product', 'CA Root certificate', 'Connex 360', 'Connex Spot Monitor', 'Connex Vital Signs Monitor v2.41 or greater', and 'Licensing'. The 'Connex Spot Monitor' option is highlighted.

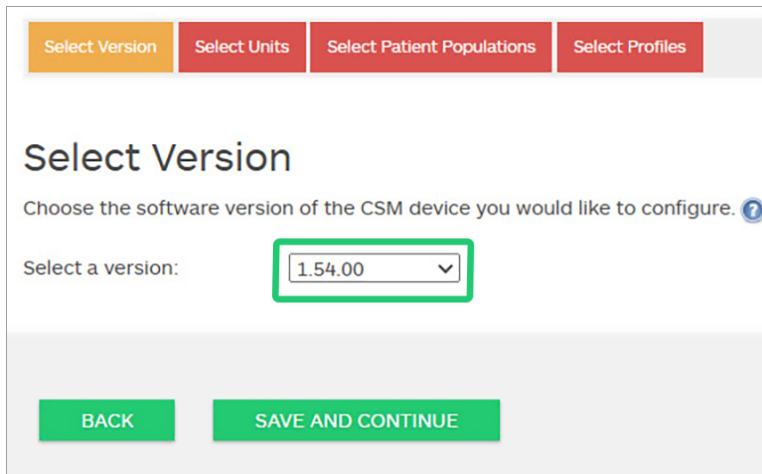
3. Select the **Hospital** Product Use Location. (Choices include: Hospital or Physicians Office or Clinic.) See: "Create a new configuration for Physician's Office or Clinic" for instructions on setting up a device for a Physician's Office or Clinic.



The screenshot shows the 'Select the Product Use Location' form. It has two radio button options: 'Hospital' (which is selected) and 'Physicians Office or Clinic'. At the bottom of the form is a green 'SAVE AND CONTINUE' button.

4. Click **SAVE AND CONTINUE**.
5. Click **Select Version**.

6. Use the drop-down menu to select a software version.

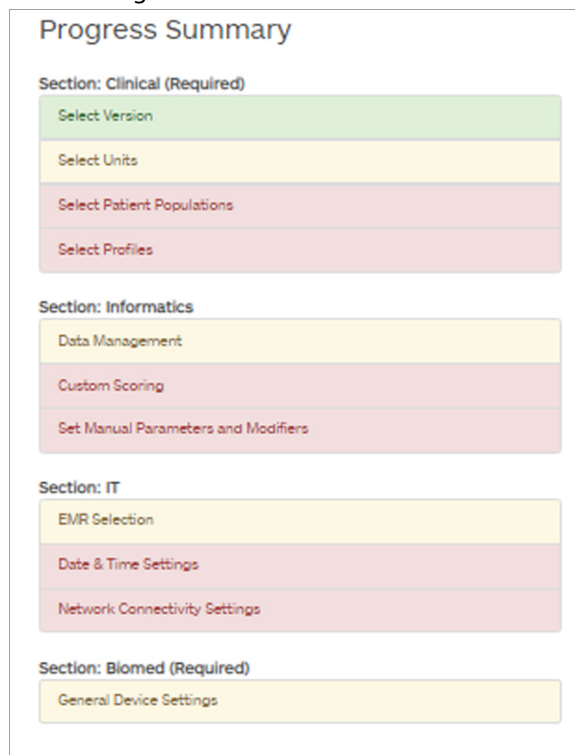


The default selection is the latest software version available (1.54.00).

7. Click **SAVE AND CONTINUE**.



NOTE As the Configuration Tool is updated, the Progress Summary view updates to show completed sections in green.



As the Configuration Tool is updated, the screen moves to the Select Units tab.

8. Click the radio button to select the units.

Choose a unit system or select Custom to set up a combination of different systems. To configure a PRO 6000 thermometer, select **Custom**. Choices include: English, Metric, and Custom. The default choice is English.

9. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Select Patient Populations tab.

10. Click the radio button for the patient type in Select Patient Populations. Choose the patient type that will be used most frequently with the device. Choices include: Adult, Pediatric, Neonatal, and Custom. The default choice is Adult.

11. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Select Profiles tab.

12. Click the checkbox next to the Profile type to select the clinical profile. The three choices for profile types include: Intervals, Office, and Spot. The default selection for Profile type is set to Spot for the Primary Profile with Intervals enabled. (The example shown is for the Office profile.)

Profile Types	Primary Profile	Custom Profile Name
☐ Intervals	☐	
☒ Office	☒	
☐ Spot	☐	

- Use **Intervals** to enable alarms and timed NIBP and SpO2, or just one or the other.
 - Use **Office** to enable Blood Pressure Averaging and **Bluetooth** connectivity.
 - Use **Spot** to enable spot check vitals without alarms.
- a. Click the radio button in the Primary Profile column across from the Profile Types to select that profile as the Primary Profile.

Create a new **Connex Spot** Monitor configuration

- b. Optional: Add a Custom Profile Name to any or all of the profiles by typing into the Custom Profile Name field.

Select Profiles

Select and rename one or more clinical profiles. Enabling a profile allows a user to select it for use on the device.

Profile Types	Primary Profile	Custom Profile Name
☒ Intervals	☐	Intervals I
☒ Office	☐	Custom Office
☒ Spot	☒	Spot Profile North Wing

BACK

SAVE AND CONTINUE

- c. See "Configure the Interval Profile" for additional details about configuring Auto Intervals settings or to create Custom intervals programs.



NOTE To accept the default settings for the Intervals profile, click **SAVE AND CONTINUE**.

- d. If the Intervals profile was previously selected, follow the instructions in the "Configure the Interval Profile" section to complete that profile.



NOTE To accept the default settings for Configure the Interval Profile click **SAVE AND CONTINUE**.

If the Intervals profile was previously selected, configure the general alarm settings. See "Set Alarms" for additional details to configure general alarm settings as well as alarm settings for NIBP, SpO2, Pulse Rate, Respiration Rate, and Temperature.



NOTE To accept the default settings for Set Alarms click **SAVE AND CONTINUE**.

- e. See "Configure the Office Profile" for additional details about creating blood pressure averaging programs.

13. Click **SAVE AND CONTINUE**.

14. Click **Data Management** to continue.

Configuration Name:
North Wing

SummaryClinical (Required)Informatics

Data ManagementCustom ScoringSet Manual Parameters and Modifiers

Data Management

Select "Yes", "Single Sign On" or "Custom" to enable sending readings to the EMR.

☒ No

☐ Yes, by answering a few simple questions.

☐ Single Sign On.

☐ Custom

BACKSAVE AND CONTINUE

- a. The default setting is set to not send readings to an EMR. To change the default setting, use the radio button to select Yes, by answering a few simple questions, Single Sign On, or Custom to enable sending readings to the EMR. See the "Data Management" section for further details.
- b. Click **SAVE AND CONTINUE**.

- c. Optional: Select a Custom Scoring Setup. For: Enable custom scoring? Use the drop-down menu to select **Yes** or **No**. The default choice = **No**. For further information about enabling Custom Scoring, see the section "Select Custom Scoring Setup (**Connex Spot** Monitor)".



NOTE An authentication code is required.

- d. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Set Manual Parameters and Modifiers tab.

15. Configure the manual parameters and modifiers settings.

The default settings are: Select or hide the devices standard manual entries = Default, Prevent Skip Required Modifiers = No. See the "Select Custom Parameters and Modifiers" for additional details on customizing the manual parameters.

16. Click **SAVE AND CONTINUE**.

17. Click the **EMR Selection** tab to continue.

The first time you configure an EMR, the EMR Selection screen looks like this.

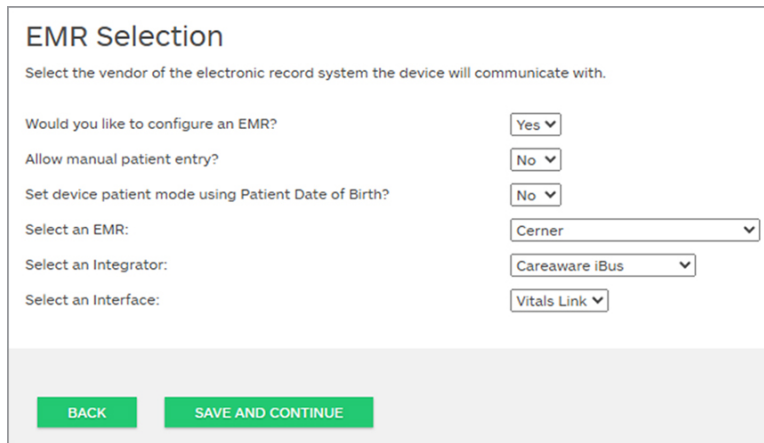
18. If your facility is using an Electronic Medical Records (EMR) system, select the EMR settings. Use the drop-down menu to answer **Yes** or **No** in the Would you like to configure an EMR? field.

The default settings for the EMR Selection are: Would you like to configure an EMR? = Yes. Allow manual patient entry? = Yes. Set device patient mode using Patient Date of Birth? = **No**. Select an EMR = blank.

- a. If **Yes** is selected, use the drop-down menu to select your EMR. Choices include: **Allscripts Sunrise 6.1 and higher, Cerner, I will customize my selection, EPIC, McKesson Horizon, McKesson Paragon, Medhost (HMS), Meditech 6.X, Meditech Client/Server, Meditech Magic, Siemens Invision, Siemen's Sorian, VA - VistA/CPRS.**

If you have previously configured an EMR and want to change the settings, the EMR Selection screen looks like this.

- b. If prompted, select an Integrator and select an Interface from the drop-down menus.



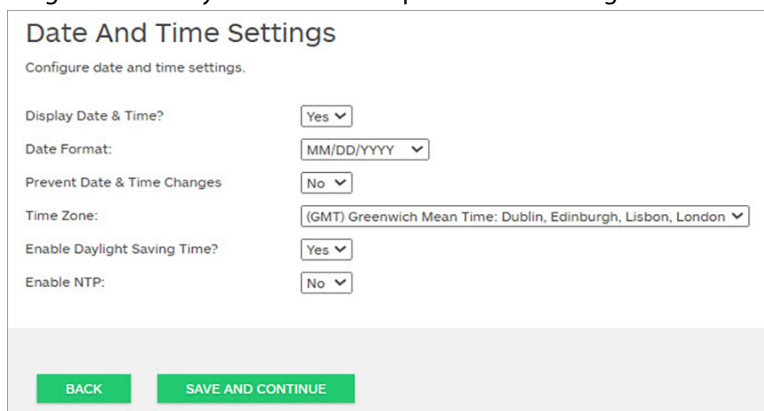
The EMR Selection screen is titled "EMR Selection" and includes the instruction "Select the vendor of the electronic record system the device will communicate with." It contains five configuration options, each with a dropdown menu:

- Would you like to configure an EMR?: Yes
- Allow manual patient entry?: No
- Set device patient mode using Patient Date of Birth?: No
- Select an EMR: Cerner
- Select an Integrator: Careaware iBus
- Select an Interface: Vitals Link

At the bottom of the screen are two green buttons: "BACK" and "SAVE AND CONTINUE".

- c. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Date and Time Settings section and the Progress Summary view shows completed sections in green.



The Date And Time Settings screen is titled "Date And Time Settings" and includes the instruction "Configure date and time settings." It contains six configuration options, each with a dropdown menu:

- Display Date & Time?: Yes
- Date Format: MM/DD/YYYY
- Prevent Date & Time Changes: No
- Time Zone: (GMT) Greenwich Mean Time: Dublin, Edinburgh, Lisbon, London
- Enable Daylight Saving Time?: Yes
- Enable NTP: No

At the bottom of the screen are two green buttons: "BACK" and "SAVE AND CONTINUE".

19. Click **Date & Time Settings** to continue.

- Use the drop-down menu to select Display Date & Time. The default settings for Display Date & Time = **Yes**.
- Use the drop-down menu to select Date Format. Choices include: **MM/DD/YYYY** (default), **YYYY/MM/DD**, **DD/YYYY/MM**, or **DD.MM.YYYY**.
- Use the drop-down menu to select **Prevent Date & Time Changes**. The default setting = **No**.
- Use the drop-down menu to select the Time Zone.
- Use the drop-down menu to select Enable Daylight Savings Time?. The default setting = **Yes**.
- Use the drop-down menu to select Enable NTP?. The default setting = **No**.

20. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Network Connectivity Settings tab.

Enter the settings that the device requires to communicate on the network. If the device operates on a **Wi-Fi** network, set Enable Wi-Fi 802.11? to **Yes**.

Default settings include:

- Please select an EMR connection type is set to **Network** by default. Choices include **USB** and **Defer to Later**.
- Enable **HL7** includes choices **Yes** or **No** (default).
- Please select a network connectivity method is set to **DNS** by default. Choices include **DHCP**, **Host IP**, and **NRS**.



NOTE The connectivity method affects the input options.

- Enable **WI-FI** 802.11 includes choices **Yes** (default) or **No**.
- Enable data encryption includes choices **Yes** or **No** (default).
- Enable Server Authentication includes choices **Yes** or **No** (default).
- Enable Client Authentication includes choices **Yes** or **No** (default).
- Enable service host encryption includes choices **Yes** or **No** (default).

If you click Select an optional CA Root certificate, the CA Root Certificate Selection screen displays.



NOTE The CA Root certificate must be in PEM or DER formats (ex: cacert.pem). Failure to abide by these restrictions will cause the device to ignore the certificate.

Click **Add Certificate to Library** and upload a previously created PEM or DER format file. Click **DONE**.

For DNS Settings, there are 2 fields.

DNS Name: Click within the DNS Name: field and enter a DNS name.

DNS Port is set to 7711 by default. Enter a new DNS Port number, if desired.



NOTE If you select the **DHCP**, **Host IP** and **Service Host**, or **NRS** settings, the fields change.

21. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Radio Settings tab.

Radio Settings

Configure the devices radio to communicate on the wireless network.

Enable Radio Alarms:

Yes

ESSID:

ESSID is not set

☒ Set to

Radio Mode:

a/b/g/n

Enable Dynamic Frequency:

Yes

Wifi Power Save Poll Mode:

Max

Authentication/Encryption:

WPA2-Personal

Pre-shared Key:

Pre-shared Key is set to default

☒ Keep

☐ Replace with

Roam Type:

OKC

Enable FIPS:

No

BACK

SAVE AND CONTINUE

Configure the device's radio to communicate on the wireless network. Use the drop-down menu to change any of the default settings.



NOTE The ESSID and EAP passwords should not include special characters &, <, >, or and.

- Enable radio alarms includes choices **Yes** (default) or **No**.
- ESSID is not set by default. If you set ESSID, the radio options change to Replace with. Enter a unique name for the wireless network.
- Radio mode includes choices for **a/b/g/n** (default), **a/b/g**, **a/n**, **a only**, or **b/g/n**.
- Enable Dynamic Frequency includes choices **Yes** (default) or **No**.
- **WI-FI** Power Save Poll Mode includes choices **Max** (default) or **Fast**.
- Authentication/Encryption includes choices **WPA2-Personal** (default) or **WPA2-Enterprise**.



NOTE If you select **WPA2-Enterprise** for Authentication/Encryption, several new fields display:

- Enable Server Validation includes choices **Yes** (default) or **No**.
- Enter the identity in the EAP identity field.
- EAP Password is not set by default. Click the **Set** radio button to enter a password.
- EAP type is set to **PEAP-MSCHAPv2** by default. Use the drop-down list to select a different EAP type. Additional fields might display, depending on which EAP type you select.
- Authentication Server Type includes choices **username** (default) or **anonymous**.
- Pre-shared Key is set to Keep by default. If you set Pre-shared Key, the radio options change to Replace with and Replace with default. Enter the replacement key name.
- Roam Type is set to **OKC** (default). Other choices include **PMK Caching** or **CCKM**.
- Enable FIPS includes choices **Yes** or **No** (default).

22. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the General Device Settings tab.

23. Click **General Device Settings**.

General Device Setting

Select "Custom" to modify default power, language, and other general settings.

☒ Mobile
☐ Wall Mounted
☐ Custom

[Select an optional splash screen image.](#)

Bluetooth Low Energy (BLE) Settings

Turn on BLE by default? (license required) No ▾

Virtual Network Computing (VNC) Settings

Allow VNC connection? No ▾

Universal Serial Bus (USB) Settings

USB Ports Enable Yes ▾

Admin Settings

Admin Access Code (required 6 digits):

- a. Optional: Select **Custom** to modify default power, language, and other general settings. The default selection is Mobile. Choices include: Mobile, Wall Mounted, and Custom. See "Select Custom General Device Settings" for additional instructions to modify the general device settings.
- b. Optional: Click **Select an optional splash screen image** and follow the on screen instructions to upload a custom splash screen Image onto the device. To create your facility's custom splash screen image, the image must be in the **Windows BMP** format file. It must be must be 800 pixels wide by 480 pixels tall and have 24 bits of color using 3 bytes per pixel. The image must not contain color space information. Failure to abide by these restrictions will cause the device to ignore the image.
- c. Optional: Use the drop-down menu to change any of the default settings.
- d. Required: Admin Settings. Select an Admin Access Code that is exactly 6 digits long.

The default settings for Bluetooth Low Energy (BLE) are: Turn on BLE by default? (license required) = **No**. The default setting for Virtual Network Computing (VNC) Settings is: Allow VNC connection? = **No**. The default setting for Universal Serial Bus (USB) is Ports Enable = **Yes**.

24. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Progress Summary view. When all the sections appear green, the configuration file can be downloaded or shared.

Progress Summary

Section: Clinical (Required)

- Select Version
- Select Units
- Select Patient Populations
- Select Profiles

Section: Informatics

- Data Management
- Custom Scoring
- Set Manual Parameters and Modifiers

Section: IT

- EMR Selection
- Date & Time Settings
- Network Connectivity Settings

Section: Biomed (Required)

- General Device Settings

Select Custom Units

1. Select the device units. Click **Select Units**.
2. Click the radio button next to Custom to select the custom units.

Customize Unit Selection

NIBP

Units: mmHg

Primary Display: Systolic / Diastolic (MAP)

Temperature

Units: Celsius

Display Temp Conversion: Yes

Default Temp Site: Oral

Configure a Braun Pro 6000: No

Manual Parameter Units

Height: Centimeters

Weight: Kilograms

Choose **Custom** to set up a combination of different systems or to configure a PRO 6000 thermometer.

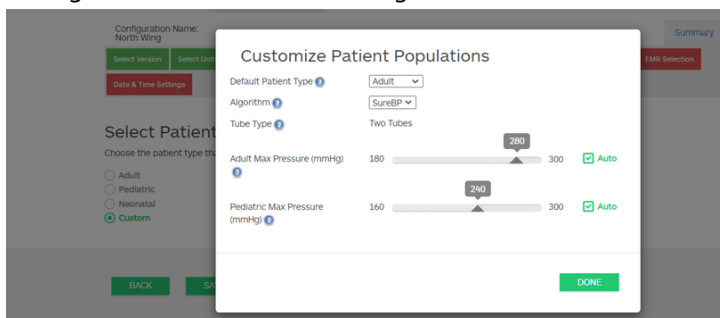
3. For Non-Invasive Blood Pressure (NIBP) Units, use the drop-down menu to choose **mmHg** or **kPa**. For Primary Display, use the drop-down menu to choose **Systolic/Diastolic with Mean Arterial Pressure (MAP)**, **MAP (Systolic/Diastolic)**, or **Systolic/Diastolic**.
4. For Temperature Units, use the drop-down menu to choose **Celsius** or **Fahrenheit**. For Display Temp Conversion, use the drop-down menu to choose **Yes** or **No**. For Default Temp Site, use the drop-down menu to choose **Oral**, **Pediatric Axillary**, **Adult Axillary**, or **Last Site**. For Configure a **BRAUN PRO 6000**, use the drop-down menu to choose **Yes** or **No**.
5. For Manual Parameter Units Height, use the drop-down menu to choose **Centimeters** or **Inches**. For Manual Parameter Units Weight, use the drop-down menu to choose **Kilograms** or **Pounds**.
6. When finished, click **DONE**.

- Click **SAVE AND CONTINUE**.

Select Custom Patient Populations

- Select the default patient type in Select Patient Populations.
- Click the Custom radio button to select the custom patient type. Choices include: **Adult**, **Pediatric**, **Neonatal**, or **Custom**.

The default settings are: Default Patient Type = **Adult**, Algorithm = **SureBP**, and Tube Type = **Two Tubes**. The adult maximum cuff pressure is set to 280 mmHg and the pediatric maximum cuff pressure is set to 240 mmHg with the default Auto settings.



- Optional: For Default Patient Type, use the drop-down menu to choose **Pediatric** in Customize Patient Populations. The default settings are: Algorithm = **SureBP** and Tube Type = **Two Tubes**. The adult maximum cuff pressure is set to 280 mmHg and the pediatric maximum cuff pressure is set to 240 mmHg with the default Auto settings. The adult cuff inflation target is set to 160 mmHg. The pediatric cuff inflation target is set to 140 mmHg. The neonatal cuff inflation target is set to 90 mmHg.

- To change the default values for the adult maximum cuff pressure or the pediatric maximum cuff pressure, deselect the Auto checkbox and use the slider, or use the arrow keys on your computer keyboard, to set the value.

- b. To change the default values for the adult, pediatric, or neonatal cuff inflation target use the slider, or use the arrow keys on your computer keyboard, to set the value.

Customize Patient Populations

Default Patient Type ? Pediatric

Algorithm ? StepBP

Tube Type ? Two Tubes

Adult Max Pressure (mmHg) ? 180 250 300 ☐ Auto

Pediatric Max Pressure (mmHg) ? 160 222 300 ☐ Auto

Adult Cuff Inflation Target (mmHg) ? 80 141 280

Pediatric Cuff Inflation Target (mmHg) ? 80 114 280

Neonatal Cuff Inflation Target (mmHg) ? 50 81 130

DONE

- c. For Customize Patient Populations, Pediatric Default Patient Type, you can change the default settings from the **StepBP** to **SureBP** algorithm, and change the default settings for Tube Type from **Two Tubes** to **One Tube**. For the **SureBP** algorithm, the default Tube Type remains **Two Tubes** and the maximum cuff pressures remain at 280 mmHg for adult and 240 mmHg for pediatric with the default Auto settings.

Customize Patient Populations

Default Patient Type ? Pediatric

Algorithm ? SureBP

Tube Type ? Two Tubes

Adult Max Pressure (mmHg) ? 180 280 300 ☒ Auto

Pediatric Max Pressure (mmHg) ? 160 240 300 ☒ Auto

DONE

- To change the default values for the adult maximum cuff pressure or the pediatric maximum cuff pressure, deselect the Auto checkbox and use the slider, or use the arrow keys on your computer keyboard, to set the value.
 - To change the default values for **StepBP**, Tube Type, use the drop-down menu to select **One Tube**.
4. Optional: For Customize Patient Populations, Default Patient Type, use the drop-down menu to choose **Neonatal**. The default settings are: Default Patient Type = **Neonatal**, Algorithm = **StepBP**, and Tube Type = **One Tube**. The adult maximum cuff pressure is set to 280 mmHg and the pediatric maximum cuff pressure

is set to 240 mmHg with the default Auto settings. The adult cuff inflation target is set to 160 mmHg. The pediatric cuff inflation target is set to 140 mmHg. The neonatal cuff inflation target is set to 90 mmHg.

Customize Patient Populations

Default Patient Type ? Neonatal

Algorithm ? StepBP

Tube Type ? One Tube

Adult Max Pressure (mmHg) ? 180 280 300 ☒ Auto

Pediatric Max Pressure (mmHg) ? 160 240 300 ☒ Auto

Adult Cuff Inflation Target (mmHg) ? 80 160 280

Pediatric Cuff Inflation Target (mmHg) ? 80 140 280

Neonatal Cuff Inflation Target (mmHg) ? 50 90 130

DONE

- a. To change the default values for the adult maximum cuff pressure or the pediatric maximum cuff pressure, deselect the Auto settings and use the slider, or use the arrow keys on your computer keyboard, to set the value.
 - b. To change the default values for the adult, pediatric, or neonatal cuff inflation target use the slider, or use the arrow keys on your computer keyboard, to set the value.
5. When finished, click **DONE**.
 6. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Select Profiles tab.

Configure the Interval Profile

The Interval Profile allows you to choose which interval profile appears as the default on the device. You can configure auto interval settings or create custom interval programs.

- Create up to 5 unique programs.
- Create specific intervals.
- Program 6 remains available for customization on the device.

1. Configure the Interval Profile.

Create a new **Connex Spot** Monitor configuration

Configure the Interval Profile
Configure auto interval settings or create custom interval programs.

Default Auto Interval Time (minutes): 1 240

Default Intervals Mode: Automatic

Default Interval Parameters: NIBP

Silence Send Successful Audio: No

Program Name	Total Monitoring Time
Add a program	

BACK SAVE AND CONTINUE

The default settings are: Default Auto Interval Time (minutes) = **15**, Default Intervals Mode = **Automatic**, Default Interval Parameters = **NIBP**, and Silence Send Successful Audio = **No**.

- Optional: To change the Default Auto Interval Time, use the slider, or use the arrow keys on your computer keyboard, to set the value. Values range from 1 minute to 240 minutes.
- Optional: To change the Default Intervals Mode, use the drop-down menu to select **Automatic** or **STAT**.
- Optional: To change the Default Interval Parameters, use the drop-down menu to select **NIBP**, **SpO2**, or **Both**.
- Optional: To change the Silence Send Successful Audio, use the drop-down menu to select **No** or **Yes**.
- Optional: Click to add a program.

Add a program

Program Name: North Wing Intervals

Number of Intervals: 3

Interval 1(min): 1 120

Frequency 1: 1 25

Interval 2(min): 1 120

Frequency 2: 1 25

Interval 3(min): 1 120

Frequency 3: 1 25

CANCEL DONE

- Click within the Program Name field and enter the name as you want it to appear on the device.
- Accept the default values or use the slider, or use the arrow keys on your computer keyboard, to set the value for Intervals. Values range from 1 minute to 120 minutes.

- c. Accept the default values or use the slider, or use the arrow keys on your computer keyboard, to set the value for Frequency. Values range from 1 to 25.
 - Use the drop-down menu to set the number of Intervals from 1 to 5.
 - Set each Frequency. Values range from 1 to 25.
7. When finished, click **DONE**.
 8. As programs are added, the Total monitoring time appears and the edit and delete buttons are available for modifications.

Program Name	Total Monitoring Time	
North Wing Intervals	88 minutes	 
 Add a program		

9. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Set Manual Parameters and Modifiers tab.

Configure the Office Profile

The Office Profile allows you to add one or more blood pressure averaging programs.

- Create up to 6 readings.
- Set delays before starting readings.
- Set length of time in between readings.

1. Configure the Office Profile.

Configure the Office Profile

Add one or more blood pressure averaging programs.

Default Intervals Mode:

Enable Pulse Rate Averaging:

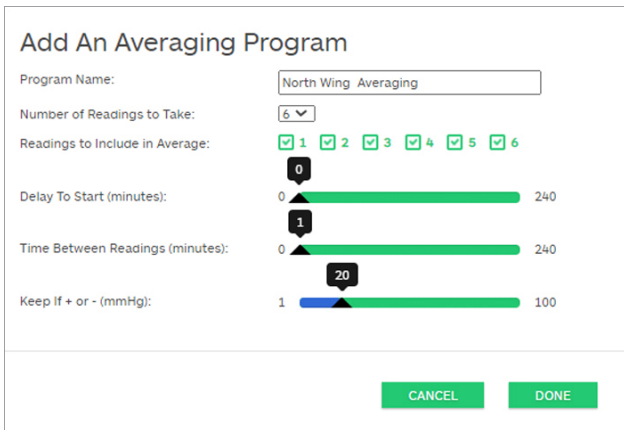
Program Name	Readings	Delay	Time Between Readings	Keep If + or -
 Add a program				

BACK
SAVE AND CONTINUE

The default settings are: Default Intervals Mode = blank and Enable Pulse Rate Averaging = **No**.

2. Optional: To change the Enable Pulse Rate Averaging, use the drop-down menu to select **Yes** or **No**.

- Optional: Click  to add a program. The default settings are: Number of Readings to take = 1, Readings to Include in Average = 1, Delay To Start (minutes) = 0, Time Between Readings (minutes) = 1, and Keep If + or - (mmHg) = 20.



Add An Averaging Program

Program Name:

Number of Readings to Take:

Readings to Include in Average: ☒ 1 ☒ 2 ☒ 3 ☒ 4 ☒ 5 ☒ 6

Delay To Start (minutes):

Time Between Readings (minutes):

Keep If + or - (mmHg):

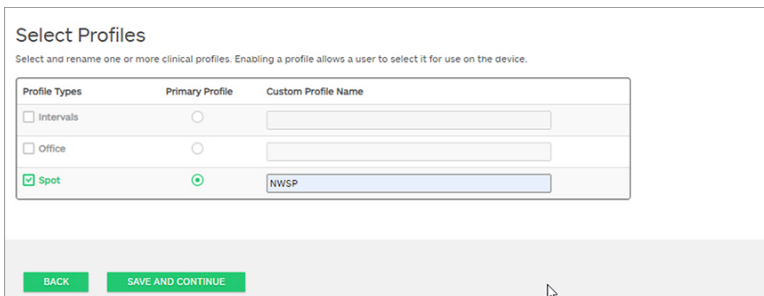
- Click within the Program Name field and enter the name as you want it to appear on the device.
 - Accept the default values or use the slider, or use the arrow keys on your computer keyboard, to set the value for Delay To Start (minutes). Values range from 0 minute to 240 minutes.
 - Accept the default values or use the slider, or use the arrow keys on your computer keyboard, to set the value for Time Between Readings (minutes). Values range from 1 minute to 240 minutes.
 - Accept the Keep If reading if the reading falls within + or - 20 mmHg of the default value, or use the slider, or use the arrow keys on your computer keyboard, to change the value and keep the readings if the mmHg value is + or - of the newly set value. For example: Keep if + or - 13 (mmHg). Values range from 1 mmHg to 100 mmHg.
- When finished, click **DONE**.
 - As programs are added, the Delay and Time Between Readings appear and the edit and delete buttons are available for modifications.

Program Name	Readings	Delay	Time Between Readings	Keep If + or -	
North Wing Averaging	☒	0 minutes	1 minutes	20 mmHg	 
 Add a program					

- Click **SAVE AND CONTINUE**.
As the Configuration Tool is updated, the screen moves to the Set Manual Parameters and Modifiers tab.

Configure the Spot Profile

- Configure the Spot Profile.



Select Profiles

Select and rename one or more clinical profiles. Enabling a profile allows a user to select it for use on the device.

Profile Types	Primary Profile	Custom Profile Name
☐ Intervals	☐	
☐ Office	☐	
☒ Spot	☒	NWSP

- Optional: Click in the Custom Profile Name field and enter the name as you want it to appear on the device.

3. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Set Manual Parameters and Modifiers tab.

Set Manual Parameters

Select or hide the manual parameters.

1. Configure the manual parameters and modifiers settings.

Configuration Name: North Wing

Summary Clinical (Required) **Informatics** IT Biomed (Required)

Data Management Custom Scoring **Set Manual Parameters and Modifiers**

Set Manual Parameters and Modifiers

Set Manual Parameters

Select or hide the devices standard manual entries.

☒ Default
☐ Custom

Custom Parameters and Modifiers

Add custom data entry fields.

Name	Label	Required	Type	Modifies	Unit	Size
+ Add Modifier						

Prevent Skip Required Modifiers No

The default settings are: Select or hide the devices standard manual entries = Default radio button, Prevent Skip Required Modifiers = No.

2. Optional: See the "Select Custom Parameters and Modifiers" for additional details on customizing the Manual Parameters.
3. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the EMR Selection tab.

Select custom parameters and modifiers

You can select, add, or delete custom parameters and modifiers.

Click the **Set Manual Parameters and Modifiers** tab.

1. Use the radio button to select **Default** or **Custom** Parameters and Modifiers.

Configuration Name: North Wing

Summary Clinical (Required) **Informatics** IT Biomed (Required)

Data Management Custom Scoring **Set Manual Parameters and Modifiers**

Set Manual Parameters and Modifiers

Set Manual Parameters

Select or hide the devices standard manual entries.

☒ Default
☐ Custom

Custom Parameters and Modifiers

Add custom data entry fields.

Name	Label	Required	Type	Modifies	Unit	Size
Capillary Refill Time	Capillary Refill Time	No	Integer	None	s	1 Part of Score
Respiratory Effort	Respiratory Effort	No	List	None		2 Part of Score
PTCO2	PTCO2	No	Integer	None	percent	1 Part of Score
Oxygen Therapy	Oxygen Therapy	No	Integer	None	L/min	1 Part of Score

[+ Add Modifier](#)

Prevent Skip Required Modifiers No

[BACK](#) [SAVE AND CONTINUE](#)

If you set up custom scoring for a Bedside protocol, the custom parameters and modifiers display on the Set Manual Parameters and Modifiers screen. Prevent Skip Required Modifiers is set to **No** (default).



NOTE In this example, the custom parameters come from the "Bedside PEWS 3 to <12 months" protocol in the Custom Scoring Selection section.

- Optional: Select the **Custom** radio button to change the manual parameters.

Set Manual Parameters

Show pain in home screen: No ▼

Show respiration in home screen: No ▼

Show height in home screen: No ▼

Show weight in home screen: No ▼

Show BMI in home screen: No ▼

Override NIBP: Yes ▼

Override Temperature: Yes ▼

Override SpO2: Yes ▼

Override Pulse Rate: Yes ▼

Override Respiration Rate: Yes ▼

CANCEL DONE

- Optional: To change Show pain in home screen, use the drop-down menu to select **No** (default), **Yes**, or **Hide**.
- Optional: To change Show respiration in home screen, use the drop-down menu to select **No** (default), **Yes**, or **Hide**.
- Optional: To change Show height in home screen, use the drop-down menu to select **No**, **Yes** (default), or **Hide**.
- Optional: To change Show weight in home screen, use the drop-down menu to select **No**, **Yes** (default), or **Hide**.
- Optional: To change Show BMI in home screen, use the drop-down menu to select **No**, **Yes** (default), or **Hide**.
- Optional: To change Override NIBP, use the drop-down menu to select **Yes** (default) or **No**.
- Optional: To change Override Temperature, use the drop-down menu to select **Yes** (default) or **No**.
- Optional: To change Override SpO2, use the drop-down menu to select **Yes** or **No** (default).
- Optional: To change Override Pulse Rate, use the drop-down menu to select **Yes** or **No** (default).
- Optional: To change Override Respiration Rate, use the drop-down menu to select **Yes** or **No** (default).
- Click **DONE**.

- Optional: Click  to add a modifier.

Add Modifier

Name:

Label:

Abbreviation:

Required: Yes ▼

Modifies: None ▼

Type: Integer ▼

Minimum Value:

Maximum Value:

Unit:

HIS ID:

Unit HIS ID:

CANCEL SAVE



NOTE Every parameter or modifier that you enter in the list goes to the top of the list. If you want the parameter or modifier to appear in a specific order on your device, enter the list in REVERSE order

(with the one you want at the bottom of the list being first, and the one you want at the top of the list being last). Then the list will look correct. When the list is complete, click **SAVE**. Do not modify the list again, because modifying an existing list reloads it in reverse order after you click SAVE. If you must edit a list, delete all the entries and start from scratch again.

- a. Click in the Name field and type in a name for the modifier.
- b. Click in the Label field and type in a label for the modifier.
- c. Click in the Abbreviation field and type in an abbreviation for the modifier.
- d. Use the drop-down menu to select whether the modifier is required.
- e. Use the drop-down menu to select whether the modifier modifies: **NIBP**, **SpO2**, **Temperature**, **Pulse Rate**, **Respiration Rate**, or **None** (default).
- f. Use the drop-down menu to select the type of modifier: **Integer** (default), **Decimal**, **Alphanumeric**, or **List**.

If **List** is selected, click in the Name field and type in a name, click in the Label field and type in a label, click in the Abbreviation field and type in an abbreviation, click in the HIS ID field and type in a HIS ID.



Click  to add another list item.

- g. Click in the Name field and type in a name for the modifier.
- h. Click in the Minimum Value field and type in a value. (Values must be within -32768 and 32767 and be an integer. The Minimum Value must be less than the Maximum Value.)
- i. Click in the Maximum Value field and type in a value. (Values must be within -32768 and 32767.)
- j. When finished, click **SAVE**.

15. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the EMR Selection tab.

Custom scoring [Early Warning Scores] on the **Connex Spot** Monitor

You define custom scoring through the Configuration Tool. The order in which the custom score parameters are entered in the Configuration Tool is the order in which they appear in the custom scoring on the device.

Custom scoring enables you to configure specific parameters that calculate scores for patient monitoring. These scores generate messages regarding the patient status, based on the parameters chosen. These messages are provided only as reminders.

See the "Install a configuration file" for additional details. This section shows examples of Custom scoring/Early Warning Scores (EWS) after the configuration file is installed on the **Connex Spot** Monitor.

Each Single Parameter Trigger can have its own associated message.

In the following example of a **Connex Spot** Monitor screen, a Single Parameter Score is triggered, but an Aggregate Score is not triggered.

Single Parameter messages shown in the message screen are similar to the Aggregate Score messages.

Create a new **Connex Spot** Monitor configuration

King, Michelle : 2West 03:00 08:23

PATIENT 5930287 TYPE : D.o.B :

NIBP
140/78
SYS/DIA mmHg (MAP)
SOURCE : SureBP

PULSE RATE
55
♥/MIN
SOURCE : SpO2

SpO2
91 %
(PI 19.3)

TEMPERATURE
36.3
°C

Resp 20 LOC Alert I's ml O's ml EWS

Clear Next

Home Patient Review Settings

A list of up to 8 options appear as buttons on the interface:

Location

R Arm L Arm R Leg L Leg

Options 9-19 appear as a drop-down menu on the device:

Position

Lying

Sitting

Labels created in the Configuration Tool for the modifiers determine how the modifier will appear on the device:

Pain 0 *Respiratory Score 12

Abbreviations created in the Configuration Tool for the modifiers determine how the modifier will appear on the device on home screen ribbon:

P RR IO URIN MEWS

bpm ml ml/kg/hr

Configuration Name: North Wing

Summary Clinical (Required) Informatics IT Biomed (Required)

Data Management Custom Scoring Set Manual Parameters and Modifiers

Set Manual Parameters and Modifiers

Set Manual Parameters

Select or hide the devices standard manual entries.

☒ Default ☐ Custom

Custom Parameters and Modifiers

Add custom data entry fields.

Name	Label	Required	Type	Modifiers	Unit	Size	
Capillary Refill Time	Capillary Refill Time	No	Integer	None	s	1	Part of Score
Respiratory Effort	Respiratory Effort	No	List	None		2	Part of Score
PTCO2	PTCO2	No	Integer	None	percent	1	Part of Score
Oxygen Therapy	Oxygen Therapy	No	Integer	None	L/min	1	Part of Score

[Add Modifier](#)

Prevent Skip Required Modifiers

[BACK](#) [SAVE AND CONTINUE](#)

If you wish to edit a parameter that is part of a score, you must first delete the parameter from all scores in the EWS scoring system.

In the newest version of the configuration tool, parameters and modifiers that are not part of the score can be manually re-ordered by using the button on the list.

Planning a Workflow Layout

The **Connex Spot** Monitor screen is divided into 16 customizable cells.

Lists occupy 2 cells.

Integers, decimals, and alphanumerics occupy 1 cell.

Custom cells can cross cells and occupy up to 2 cells, but they must start as far left as possible.

In the example shown, the blue-colored cells are acceptable, however the salmon-colored cells are unacceptable.

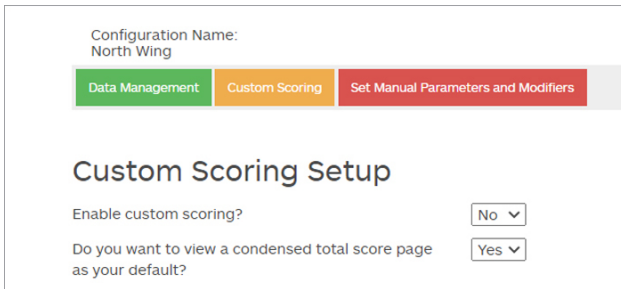
Select Custom Scoring Setup for **Connex Spot** Monitor

This section describes how to set up Bedside Protocols that can be replicated on a **Connex Spot** Monitor device. You can preselect from a list of clinical protocols. All scoring protocols are completely customizable to meet user requirements.

You may add up to 6 scoring systems. Select a predefined Scoring System template, enter a unique name, and click the button labeled ADD THIS SCORING SYSTEM. Your Scoring System will be added to the bottom of the page. You may then edit or delete your scoring system.

Click the **Custom Scoring** tab.

1. Optional: Use the drop-down menu to select **Yes** to enable custom scoring. (The default for Enable custom scoring = **No**).



The screenshot shows a configuration window titled 'Configuration Name: North Wing'. It has three tabs: 'Data Management' (green), 'Custom Scoring' (orange), and 'Set Manual Parameters and Modifiers' (red). The 'Custom Scoring' tab is active. Below the tabs, the title 'Custom Scoring Setup' is displayed. There are two settings: 'Enable custom scoring?' with a dropdown menu set to 'No', and 'Do you want to view a condensed total score page as your default?' with a dropdown menu set to 'Yes'.

2. Optional: To change the default selection for Do you want age ranges associated with scoring protocols for pre-selection based on patient age?, use the drop-down menu to select **Yes** or **No** (default).
3. Optional: To change the default selection for Do you want to view a condensed total score page as your default?, use the drop-down menu to select **Yes** (default) or **No**.
4. Click the Please enter the authentication code field and enter a valid code in the format of [YY]CSM[MM] with the current year and month.



NOTE The Authentication code field appears the first time you select the Custom Scoring tab.

5. Click **SAVE AND CONTINUE**.
6. Select a Scoring System template. Choices include:

- Bedside PEWS <3 months
- Bedside PEWS 3 to <12 months
- Bedside PEWS 1 to 4 years
- Bedside PEWS 5 to <12 years
- Bedside PEWS >=12 years
- Braden
- BTF SAGO
- BTF ED
- BTF SPOC <3 months
- BTF SPOC 3 to 12 months
- BTF SPOC 1 to 4 years
- BTF SPOC 5 to 11 years
- BTF SPOC 12 years
- Falls Risk Assessment Tool
- Glasgow Coma Scale
- Modified Early Obstetric Warning
- Modified Early Warning Score
- MEWS for General Surgical Ward
- Morse Fall Score
- National Early Warning Score
- National Early Warning Score 2
- NEWS2 Scale 1
- NEWS2 Scale 2
- Norton
- Pediatric Early Warning Score
- Rapid Emergency Medicine Score
- Triage Early Warning System

- Walsall
 - Blank Scoring System
- To enter a name for the Scoring System, click the Enter a Name for the Scoring System field and type a name for the scoring system as you want it to appear on the device.
 - When finished, click **ADD THIS SCORING SYSTEM**.

After a successful addition, the following message appears: The Scoring System has been successfully added.

Custom Scoring Selection

- The Scoring System has been successfully added.

You may add up to 6 Scoring Systems. To do so, please select a predefined Scoring System template, enter a unique Name, and click the button labeled ADD THIS SCORING SYSTEM. Your Scoring System will be added to the bottom of the page. You may then Edit or Delete your Scoring System.

Select a Scoring System template: Bedside PEWS >=12 years

Enter a Name for the Scoring System:

ADD THIS SCORING SYSTEM

The name for the scoring system also appears at the bottom of the Custom Scoring Selection screen.

Name: BP12

Label: Bedside PEWS >=12 years

Age Range: 144 to 215 months

Score Labels

- Pulse Rate
- Systolic Blood Pressure
- Capillary Refill Time
- Respiration Rate
- Respiratory Effort
- PTCO2
- Oxygen Therapy

Severity Ranks

White	Normal
Yellow	Low
Orange	Medium
Red	Severe

[Edit](#) [Delete](#)



NOTE The Custom Scoring Selection can be used as is or modified to meet facility requirements. Each scoring system has different score labels and severity ranks.



NOTE The name of the custom Scoring System defines how the scoring protocol will appear on the device. The HIS ID information for the EMR can be applied here too. Configure the capability for Single Parameter Scoring by itself or as part of an Aggregate Score.

- Optional: To delete the Scoring System, click [Delete](#) (delete).
 - Click **SAVE AND CONTINUE**.
 - Optional: If you want to edit the scoring system, click [Edit](#) (edit).
- For the detailed steps, see "Edit a Scoring System."
- Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Set Custom Parameters and Modifiers

Edit a Scoring System

You can edit a Scoring System.

Create a new **Connex Spot** Monitor configuration

1. Optional: To edit the scoring system, click  (edit). Click within the fields to enter changes or use the drop-down menu to change the Configure Aggregate Score or Single Parameter Triggers.

Edit Scoring System

You may edit the Scoring System information contained on this page.

Name:

Label:

Abbreviation:

HIS ID:

Configure Aggregate Score:

Single Parameter Triggers:

2. Click **CONTINUE**.
3. To continue to edit the Scoring System, configure the minimum or maximum age ranges (in months).

Edit Scoring System

Configure the age ranges.

Clinical Parameter: Age in months

Parameter Type: Integer

Min (# months)	Max (# months)	
144	215	
160	240	
 Add Range Row		

4. Optional: To add a range row , click  (add). To delete a range row, click  (delete).
5. Optional: To continue editing the Scoring System, check or uncheck the Enable settings. All the ranks are enabled by default.

Edit Scoring System

You may enable or disable the predefined Rank assignments. You can edit individual Rank values by clicking the edit icons.

Enable	Rank	Value	Color	
☒	Normal		White	
☒	Low		Yellow	
☒	Medium		Orange	
☐	High			
☒	Severe		Red	

6. Click  (edit) to change the rank information.



NOTE You can make the following edits to the rank information:

- Modify the color of the severity rankings based on protocol.
- Omit or add rankings based on protocol.
- Edit the message in the Edit Rank Information message box.

The message must be a continuous paragraph in the message box. Do not hit Enter on the keyboard or type \n to bring the text to the next line, or you might get an error when completing the configuration file.

7. Optional: To continue editing the Scoring System, click  (edit) to change the values.

Edit Scoring System

You may edit or delete an particular Parameter Score by clicking on the icons in the Scores row. You may also add additional Parameter Scores based on the Parameters in the provided list. Up to 12 Parameter Scores are allowed. To continue, all Parameter Scores must be marked as Complete.

Score Name	Score Label	Clinical Parameter	Filter By	Complete
Pulse RateScore1	Pulse Rate	Pulse Rate	Yes	 
NIBP-SystolicScore2	Systolic Blood Pressure	Systolic Blood Pressure	Yes	 
Capillary Refill TimeScore3	Capillary Refill Time	Capillary Refill Time	Yes	 
Respiration RateScore4	Respiration Rate	Respiration Rate	Yes	 
Respiratory EffortScore5	Respiratory Effort	Respiratory Effort	Yes	 
PTCO2Score6	PTCO2	PTCO2	Yes	 
Oxygen TherapyScore7	Oxygen Therapy	Oxygen Therapy	Yes	 

Add a Score based on an existing Parameter or Modifier.

 Activity 

BACK **CONTINUE**

TIP If you want to disassociate a parameter from the score, click  (delete).

If you want to add a new parameter associated with the score, either select an existing one from the drop-down list, or create a custom parameter in the Set Manual Parameters and Modifiers tab.

- Click **CONTINUE**.
You are returned to the Custom Scoring Selection screen.
- Click **SAVE AND CONTINUE**.

Set Alarms

Configure general alarm settings as well as alarm settings for NIBP, SpO2, Pulse Rate, Respiration Rate, and Temperature.

- Configure the general alarm settings.

Set Alarms

Configure general alarm settings as well as alarm settings for NIBP, SpO2, Pulse Rate, and Temperature.

Allow user to disable alarms:

Allow user to turn off general audio:

Default alarm volume:

Minimum alarm volume:

Nurse call threshold:

Audio pause time:

The default settings are: Allow user to disable alarms = **Yes**, Allow user to turn off general audio = **No**, Default alarm volume = **Low**, Minimum alarm volume = **Low**, Nurse call threshold = **Medium Priority**, and Audio pause time = **2 min**.

- Optional: To change Allow user to disable alarms, use the drop-down menu to select **Yes** or **No**.
- Optional: To change Allow user to turn off general audio, use the drop-down menu to select **Yes** or **No**.
- Optional: To change the Default alarm volume, use the drop-down menu to select **Low**, **Medium**, or **High**.
- Optional: .To change the Minimum alarm volume, use the drop-down menu to select **Low**, **Medium**, or **High**.
- Optional: To change the Nurse call threshold, use the drop-down menu to select **Medium Priority**, **Low Priority**, or **High Priority**.
- Optional: To change the **Audio pause time**, use the drop-down menu to select 2 min (minutes), Disable, 2 min 30 sec (seconds), 3 min, 5 min, 10 min, or 15 min.

Refer to the individual parameters for instructions on changing alarm limits.

8. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Set Manual Parameters and Modifiers tab.

NIBP alarms (mmHg)

Configure general alarm settings as well as alarm settings for NIBP.

1. Configure the general alarm settings.
2. Optional: To change NIBP alarms, use the sliders, or use the arrow keys on your computer keyboard, to set the lower and upper values. See the next steps for specific values for each alarm.

Category	Parameter	Enable	Value	Range
Adult	Systolic Limits	☒ Enable SYS/DIA	75:220	28 - 258
	Diastolic Limits	☒ Enable SYS/DIA	35:110	20 - 235
	MAP Limits	☐ Enable	50:120	20 - 255
Pediatric	Systolic Limits	☒ Enable SYS/DIA	75:145	30 - 160
	Diastolic Limits	☒ Enable SYS/DIA	35:100	15 - 130
	MAP Limits	☐ Enable	50:110	15 - 140
Neonatal	Systolic Limits	☒ Enable SYS/DIA	50:100	25 - 120
	Diastolic Limits	☒ Enable SYS/DIA	30:70	10 - 105
	MAP Limits	☐ Enable	35:80	10 - 110

The default settings are:

- Enable SYS/DIA, Adult Systolic Limits **75:220**, Adult Diastolic Limits **35:110**, and Adult MAP Limits **50:120** is disabled.
 - Enable SYS/DIA, Pediatric Systolic Limits **75:145**, Pediatric Diastolic Limits **35:100**, and Pediatric MAP Limits **50:110** is disabled.
 - Enable SYS/DIA, Neonatal Systolic Limits **50:100**, Neonatal Diastolic Limits **30:70**, and Neonatal MAP Limits **35:80** is disabled.
3. Optional: To change NIBP alarms, use the sliders, or computer arrow keys, to set the values for Adult Systolic Limits. Values range from 28 to 258.
 4. Optional: To change NIBP alarms, use the sliders, or computer arrow keys, to set the values for Adult Diastolic Limits. Values range from 20 to 235.
 5. Optional: To change NIBP alarms, check the Enable box and then use the sliders, or computer arrow keys, to set the value for Adult MAP Limits. Values range from 20 to 255.
 6. Optional: To change NIBP alarms, use the sliders, or computer arrow keys, to set the value for Pediatric Systolic Limits. Values range from 30 to 160.
 7. Optional: To change NIBP alarms, use the sliders, or computer arrow keys, to set the value for Pediatric Diastolic Limits. Values range from 15 to 130.
 8. Optional: To change NIBP alarms, check the Enable box and then use the sliders, or computer arrow keys, to set the value for Pediatric MAP Limits. Values range from 15 to 140.
 9. Optional: To change NIBP alarms, use the sliders, or computer arrow keys, to set the values for Neonatal Systolic Limits. Values range from 25 to 120.
 10. Optional: To change NIBP alarms, use the sliders, or computer arrow keys, to set the values for Neonatal Diastolic Limits. Values range from 10 to 105.

11. Optional: To change NIBP alarms, check the Enable box and then use the sliders , or computer arrow keys, to set the values for Neonatal MAP Limits. Values range from 10 to 110.
12. Click **SAVE AND CONTINUE**.

SpO2 alarms [percent]

Configure general alarm settings as well as alarm settings for SpO2.

1. Configure the general alarm settings.
2. Use the drop-down menu to select the SpO2 Alarm Delay Condition. Choices include: **10 seconds** (default), **Off**, or **SatSec**.
For SatSec settings, choices include: **25** (default) , **0**, **10**, **50**, or **100**.
3. Optional: To change SpO2 alarms, use the sliders, or use the arrow keys on your computer keyboard, to set the lower and upper limit values. See the next steps for specific values for each alarm.

The screenshot shows the 'SPO2 Alarms (Percent)' configuration window. At the top, 'SPO2 Alarm Delay Condition:' is set to '10 Seconds' via a dropdown menu. Below this, there are three rows for 'Adult Alarm Limits:', 'Pediatric Alarm Limits:', and 'Neonatal Alarm Limits:'. Each row has a green 'Enable' checkbox checked, a '50' value on the left, a horizontal slider with a green bar, and a '90:100' range displayed on the right. The sliders are currently positioned to show the 90% to 100% range.

The default settings are Enable Adult Alarm Limits **90:100**, Pediatric Alarm Limits **90:100**, and Neonatal Alarm Limits **90:100**.

4. Optional: To change SpO2 alarms, use the sliders, or computer arrow keys, to set the values for Adult Alarm Limits. Values range from 50 to 100.
5. Optional: To change SpO2 alarms, use the sliders, or computer arrow keys, to set the values for Pediatric Alarm Limits. Values range from 50 to 100.
6. Optional: To change SpO2 alarms, use the sliders, or computer arrow keys, to set the values for Neonatal Alarm Limits. Values range from 50 to 100.
7. Optional: To disable SpO2 alarms, click within the checkbox next to each limit to disable the alarm limit.



NOTE When an alarm limit is disabled in the Configuration Tool, the limits are grayed out and Enable turns from green to gray.

This screenshot shows the same 'SPO2 Alarms (Percent)' configuration window, but with the 'Enable' checkboxes for 'Adult Alarm Limits:', 'Pediatric Alarm Limits:', and 'Neonatal Alarm Limits:' all unchecked and grayed out. The sliders and range displays (90:100) are also grayed out, indicating that the alarm limits are disabled.

8. Click **SAVE AND CONTINUE**.

Pulse Rate alarms [beats per minute]

Configure general alarm settings as well as alarm settings for Pulse Rate.

1. Configure the general alarm settings.
2. Optional: To change Pulse Rate Alarms, use the sliders, or use the arrow keys on your computer keyboard, to set the lower and upper limit values. See the next steps for specific values for each alarm.

Pulse Rate Alarms (Beats per Minute)

Alarm Type	Enable	Lower Limit	Upper Limit
Adult Alarm Limits:	☒	50	120
Pediatric Alarm Limits:	☒	50	150
Neonatal Alarm Limits:	☒	100	200

The default settings are Enable Adult Alarm Limits **50:120**, Pediatric Alarm Limits **50:150**, and Neonatal Alarm Limits **100:200**.

3. Optional: To change Pulse Rate Alarm Limits, use the sliders, or computer arrow keys, to set the values for Adult Alarm Limits. Values range from 25 to 300.
4. Optional: To change Pulse Rate Alarm Limits, use the sliders, or computer arrow keys, to set the values for Pediatric Alarm Limits. Values range from 25 to 300.
5. Optional: To change Pulse Rate Alarm Limits, use the sliders, or computer arrow keys, to set the values for Neonatal Alarm Limits. Values range from 25 to 300.
6. Optional: To disable Pulse Rate Alarm Limits, click within the checkbox next to each limit to disable the alarm limit.



NOTE When an alarm limit is disabled in the Configuration Tool, the limits are grayed out and Enable turns from green to gray.

7. Click **SAVE AND CONTINUE**.

Temperature alarms [Fahrenheit]

Configure alarm settings for temperature (Fahrenheit).

The Temperature Alarms (Fahrenheit) are disabled by default. The default settings are Disable Adult Alarm Limits **94:101**, Pediatric Alarm Limits **94:101**, and Neonatal Alarm Limits **94:101**.

1. Configure the general alarm settings.
2. Optional: To change the Temperature Alarm Limits, click the **Enable** checkbox for each setting. Use the sliders, or use the arrow keys on your computer keyboard, to set the lower and upper limit values. See the next steps for specific values for each alarm limits.

Temperature Alarms (Fahrenheit)

Alarm Type	Enable	Lower Limit	Upper Limit
Adult Alarm Limits:	☐	94	101
Pediatric Alarm Limits:	☐	94	101
Neonatal Alarm Limits:	☐	94	101

- a. Optional: Set the values for Adult Alarm Limits. Values range from 85.1 to 110.
- b. Optional: Set the values for Pediatric Alarm Limits. Values range from 85.1 to 110.
- c. Optional: Set the values for Neonatal Alarm Limits. Values range from 85.1 to 110.
3. Click **SAVE AND CONTINUE**.

Temperature alarms [Celsius]

Configure alarm settings for temperature (Celsius).

The Temperature Alarms (Celsius) are disabled by default. The default settings are Disable Adult Alarm Limits **34:7 : 38.3**, Pediatric Alarm Limits **34:7 : 38.3**, and Neonatal Alarm Limits **34:7 : 38.3**.

1. Configure the general alarm settings.

- Optional: To change the Temperature Alarm Limits, click the **Enable** checkbox for each setting. Use the sliders, or use the arrow keys on your computer keyboard, to set the lower and upper limit values. If the Units selected are set to Metric, the Temperature Alarms appear in Celsius. See the next steps for specific values for each alarm limits.

Temperature Alarms (Celsius)

Alarm Type	Enable	Lower Limit	Upper Limit
Adult Alarm Limits:	☐	29.5	43.3
Pediatric Alarm Limits:	☐	29.5	43.3
Neonatal Alarm Limits:	☐	29.5	43.3

- Optional: Set the values for Adult Alarm Limits. Values range from 29.5 to 43.3.
 - Use the sliders, or computer arrow keys, to set the values for Pediatric Alarm Limits. Values range from 29.5 to 43.3.
 - Use the sliders, or computer arrow keys, to set the values for Neonatal Alarm Limits. Values range from 29.5 to 43.3.
- Click **SAVE AND CONTINUE**.

Respiration alarms

Configure general alarm settings as well as alarm settings for Respiration Rate.

The ability to configure respiration alarms depends on the RR parameter. If the RR parameter is set to **Yes**, then you can configure Respiration alarms. If RR the parameter is set to **No**, then you cannot configure Respiration alarms.

- Configure the general alarm settings.
- Optional: To change Respiration Alarms, use the sliders, or use the arrow keys on your computer keyboard, to set the lower and upper limit values. See the next steps for specific values for each alarm and how to enable the alarm limits.

Respiration Alarms

Alarm Type	Enable RR Parameter	Enable	Lower Limit	Upper Limit
Adult Alarm Limits:	Yes	☒	5	69
Pediatric Alarm Limits:	Yes	☒	5	69
Neonatal Alarm Limits:	Yes	☒	1	98

The default settings are Enable RR Parameter, Adult Alarm Limits **6:30**, Pediatric Alarm Limits **6:30**, and Neonatal Alarm Limits **12:68**.

- Optional: To change Respiration Alarm Limits, use the sliders to set the values for Adult Alarm Limits. Values range from 5 to 69.
- Optional: To change Respiration Alarm Limits, use the sliders to set the values for Pediatric Alarm Limits. Values range from 5 to 69.
- Optional: To change Respiration Alarm Limits, use the sliders to set the values for Neonatal Alarm Limits. Values range from 12 to 98.
- Optional: To disable Respiration Alarm Limits, use the drop-down menu to set the Enable RR Parameter to No.

Respiration Alarms

Alarm Type	Enable RR Parameter
Adult Alarm Limits:	No

Alternatively, click within the checkbox next to each limit to disable the alarm limit.



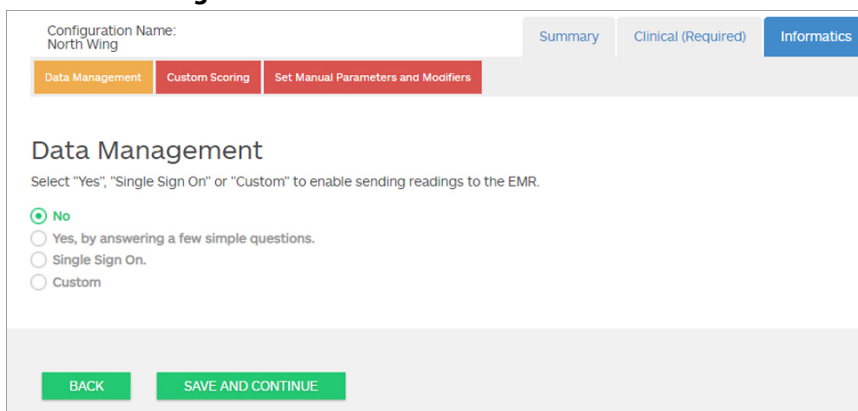
NOTE When an alarm limit is disabled in the Configuration Tool, the limits are grayed out and Enable turns from green to gray.

7. Click **SAVE AND CONTINUE**.

Data Management

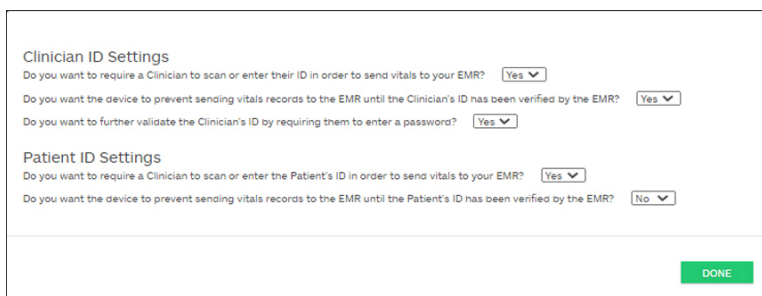
This section is where clinical workflow settings are established. You can define additional modifications to clinician and patient authentication and how the authenticated data will be displayed on the device.

1. Click **Data Management** to continue.



The default setting is set to not send readings to an EMR. To change the default setting, use the radio button to select **Yes, by answering a few simple questions**, **Single Sign On**, or **Custom** to enable sending readings to the EMR.

2. Optional: Use the radio button to select **Yes, by answering a few simple questions**.



- a. Set up the Clinician ID Settings and the Patient ID Settings. These settings allow a clinician to scan their ID and to enter the patient's ID to send vitals to your EMR. Use the drop-down menus to answer the following questions:
 - Do you want to require a Clinician to scan or enter their ID in order to send vitals to your EMR? Choices are **No** (default) and **Yes**.

- Do you want to require a Clinician to scan or enter the Patient's ID in order to send vitals to your EMR? Choices are **No** (default) and **Yes**.

If you selected **Yes**, additional fields display:

- Select Do you want to further validate the Clinician's ID by requiring them to enter a password?. Choices are **Yes** or **No** (default).
- Select Do you want to require a Clinician to scan or enter the Patient's ID in order to send vitals to your EMR?. Choices are **Yes** or **No** (default).
- Select Do you want the device to prevent sending vitals records to the EMR until the Patient's ID has been verified by the EMR?. Choices are **Yes** or **No** (default).



NOTE Changes made in data management CAN BE overridden by certain EMR selections in later screens.

- Click **DONE**.
- Optional: Use the radio button to select **Single Sign On**.



NOTE Single Sign On (SSO) can be configured on the Welch Allyn **Connex Spot** Monitor (CSM) in the Spot and Interval Profiles for CSM devices with firmware version 1.32 and later. SSO can be configured on the CSM in the Office Profile (in addition to Spot and Interval Profiles) for CSM devices with firmware 1.54 and later.

Single Sign On Data Management Settings

Single Sign On Settings

Clinician ID Required for save:	Yes
Retrieve Clinician information from EMR:	Yes
Require password with Clinician ID:	Yes
Clinician ID match required for save:	Yes

Clinician ID Settings

Clinician ID display format:	Abbreviated ▼
Clear Clinician information on manual save:	No ▼
Show Clinician log in screen:	No ▼

Patient ID Settings

Patient name format:	Full Name ▼
Primary Patient ID:	Name ▼
Secondary Patient ID:	ID ▼
Search EMR by Patient ID:	No ▼
Patient ID required for save:	No ▼
Clear Patient information on manual save:	Yes ▼

DONE

Single Sign On Settings: Clinician ID Required for save = **Yes**. Retrieve Clinician information from EMR = **Yes**. Require password with Clinician ID = **Yes**. Clinician ID match required for save = **Yes**.

Clinician ID Settings: Clinician ID display format = **Abbreviated**. Clear Clinician information on manual save = **No**. Show Clinician log in screen = **No**.

Patient ID Settings: Patient name format = **Full Name**. Primary Patient ID = **Name**. Secondary Patient ID = **ID**. Search EMR by Patient ID = **No**. Patient ID required for save = **No**. Clear Patient information on manual save = **Yes**.

- Use the drop-down menu to change the default values.

Create a new **Connex Spot** Monitor configuration

- e. Optional: Use the radio button to select **Custom**.

Custom Data Management Settings

Clinician ID Settings

Clinician ID display format: Abbreviated ▾

Clinician ID Required for save: Yes ▾

Clear Clinician information on manual save: No ▾

Retrieve Clinician information from EMR: Yes ▾

Require password with Clinician ID: Yes ▾

Show Clinician log in screen: No ▾

Patient ID Settings

Patient name format: Full Name ▾

Primary Patient ID: Name ▾

Secondary Patient ID: ID ▾

Search EMR by Patient ID: No ▾

Patient ID required for save: No ▾

Clear Patient information on manual save: Yes ▾

DONE

3. Click **SAVE AND CONTINUE**.

Configure **Active Directory**

You can configure the **Active Directory** settings if you selected Yes, by answering a few simple questions, Single Sign On, or Custom on the Data Management screen.

You can manage CA certificates in the Data Management screen. These selections affect the Network Connectivity Settings screen.

1. If you want to configure **Active Directory**, set the Active Directory option to **Yes**.
Enable Active Directory is set to **Yes**. The default is No.

Data Management

Select "Yes", "Single Sign On" or "Custom" to enable sending readings to the EMR.

☐ No
☐ Yes, by answering a few simple questions.
☒ **Single Sign On.**
☐ Custom

Enable Active Directory Yes ▾
 Active Directory DNS Name:
 Active Directory User Name:
 Active Directory Password: Active Directory Password is not set
☒ **Keep unset**
☐ Set to
 Active Directory Clinician Identifier: User Name ▾
 Active Directory Group:
 Active Directory Search Subtree:
[Select an optional CA Root certificate.](#)

BACK SAVE AND CONTINUE

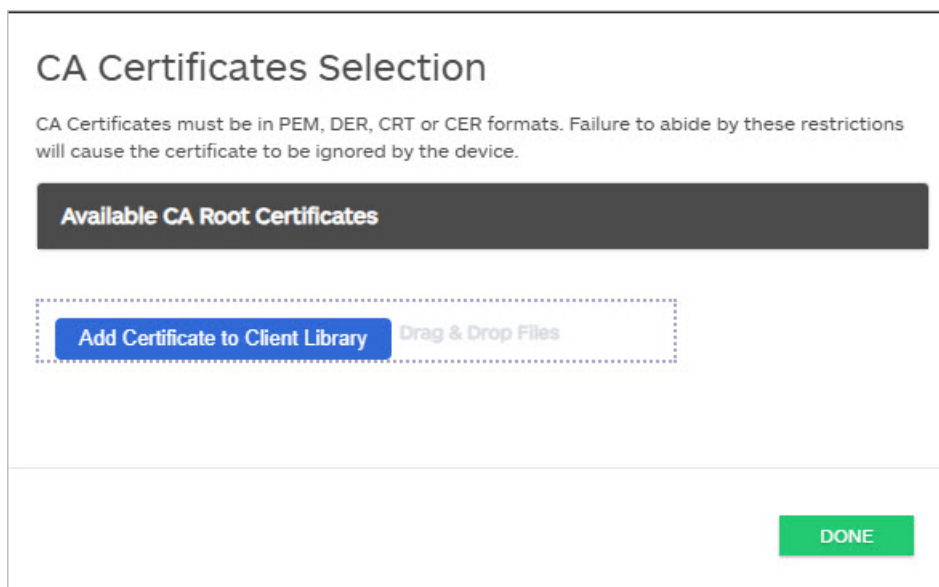
- Type the **Active Directory** DNS name.
- Type the **Active Directory** user name.
- Either leave the **Active Directory** password unset (default) or select the radio button to set the password.



NOTE The **Active Directory** password should not include special characters &, <, >, or and.

- Select the **Active Directory** Clinician Identifier. Choices include **User Name** (default), **Account Name**, or **Employee ID**.
- Type the **Active Directory** group name.
- Type the **Active Directory** search subtree.
- Click **Select an optional CA Root certificate**. The CA Root Certificate Selection screen displays.

The CA certificate must be in PEM, DER, CRT, or CER format (ex: cacert.pem). Failure to abide by these restrictions causes the device to ignore the certificate. For more information about using and uploading certificates, see "Configure a CA Root certificate."



- a. Click **Add Certificate to Client Library** and upload the certificates from your computer.
- b. Click **DONE**. Then the list of uploaded certificates displays on the screen.
2. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Custom Scoring tab.

You can optionally delete an uploaded CA certificate. For more information, see "Delete a CA certificate."

Delete a CA certificate

You can upload and delete CA certificates from the following screens:

- Data Management
- Network Connectivity Settings
- General Device Settings (**Connex 360** monitor only)

If you need to delete an uploaded CA certificate, follow these steps:

1. Optional: If you want to delete a CA certificate, click the  (delete) button next to it.
An informational message on the screen explains that the certificate is removed from the library, and the Network Connectivity Settings tab turns yellow in the Progress Summary view.
2. Open the Network Connectivity Settings tab and click the informational message to clear it. Although the Progress Summary view turns green, if you try to download the configuration file, you get an error.
3. Verify that the list of uploaded certificates matches in the Data Management, Network Connectivity Settings and General Device Settings screens. The list of uploaded certificates needs to match on all three screens before you can download the configuration file.

Verify that you can download the configuration file. For more information, see "Download a configuration file to install on another device."

Select Custom General Device Settings

You can customize the general device settings for the display, power, language, and software upgrades on the **Connex Spot** monitor.

1. Click the **Custom** radio button on the General Device Settings tab. (Choices include: Mobile, Wall Mounted, or Custom).

General Device Settings

Display Settings

Display Brightness: 6

Allow User To Lock Screen: Yes

Enable PHI Safe Mode From Lock Screen: No

Touch Screen Lock-out Interval (minutes): 2

Allow Auto Sleep Mode: Yes

Sleep Mode Timeout (minutes): 2

Allow Auto Shutdown: Yes

Auto Shutdown Timeout (minutes): 20

Other

Power Line Frequency (Hz): 60

Device Location ID:

Device Location:

Display Device Location: Yes

Asset Tag:

Language

Please select your language: English

Software Upgrades

Automatic: Yes

BACK DONE

For Custom General Device Settings, the default settings are:

- Display Brightness = 6
- Allow User To Lock Screen = **Yes**
- Enable PHI Safe Mode From Lock Screen = **No**
- Touch Screen Lock-out Interval (minutes) = 2
- Allow Auto Sleep Mode = **Yes**
- Sleep Mode Timeout (minutes) = 2
- Allow Auto Shutdown = **Yes**
- Auto Shutdown Timeout (minutes) = 20
- Power Line Frequency (Hz) = 60
- Admin Access Code = blank
- Device Location ID = blank
- Device Location = blank
- Asset Tag = blank
- Language = **English**
- Software Upgrades Automatic = **Yes**

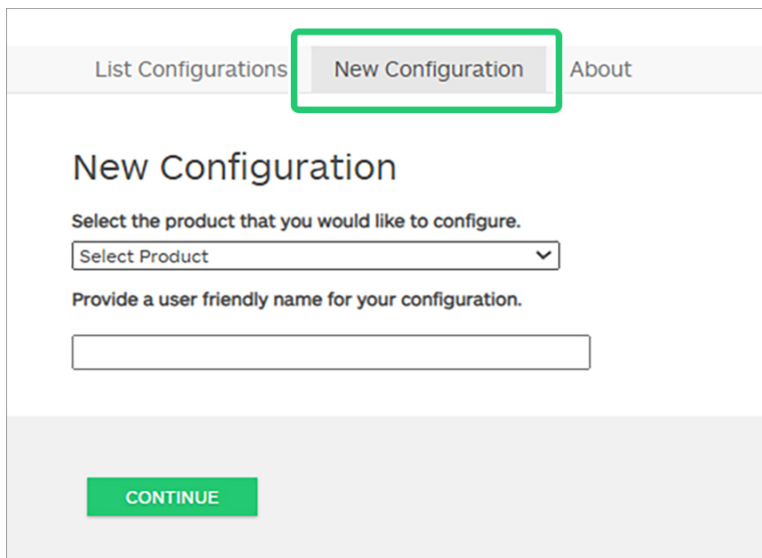
2. Optional: To change the default value for Display Brightness, use the slider to set the value. Values range from 1 to 10.
3. Optional: To change the default value for Allow User To Lock Screen, use the drop-down menu to select **Yes** or **No**.
4. Optional: To change the default value for Enable PHI Safe Mode From Lock Screen, use the drop-down menu to select **Yes** or **No**.
5. Optional: To change the default value for Touch Screen Lock-out Interval (minutes), use the slider to set the value. Values range from 1 to 30.
6. Optional: To change the default value for Allow Auto Sleep Mode, use the drop-down menu to select **Yes** or **No**.
7. Optional: To change the default value for Sleep Mode Timeout (minutes) , use the slider to set the value. Values range from 1 to 30.
8. Optional: To change the default value for Allow Auto Shutdown, use the drop-down menu to select **Yes** or **No**.
9. Optional: To change the default value for Auto Shutdown Timeout (minutes), use the slider to set the value. Values range from 1 to 30.
10. Optional: To change the default value for Power Line Frequency (Hz), use the drop-down menu to select 50 or 60.
11. Optional: To add a Device Location ID to the device, type in an ID.
12. Optional: To add a Device Location to the device, type in an user-friendly location name.
13. Optional: To display the Device Location on the device, use the drop-down menu to select **Yes** or **No**.
14. Optional: To add an Asset Tag to the device, type in an asset tag identifier.
15. Optional: To change the default language on the device, use the drop-down menu to select the desired language. Choices include English, French, German, Swedish, Dutch, Danish, Finnish, Greek, Italian, Norwegian, Spanish, Portuguese, Polish, Simplified Chinese, Thai, or Traditional Chinese.
16. Optional: To set the device to perform a software update when a new software version is available, use the drop-down menu to select **Yes** or **No**.
17. When finished, click **DONE**.
18. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Progress Summary view. When all the sections appear green, the configuration file can be downloaded or shared.

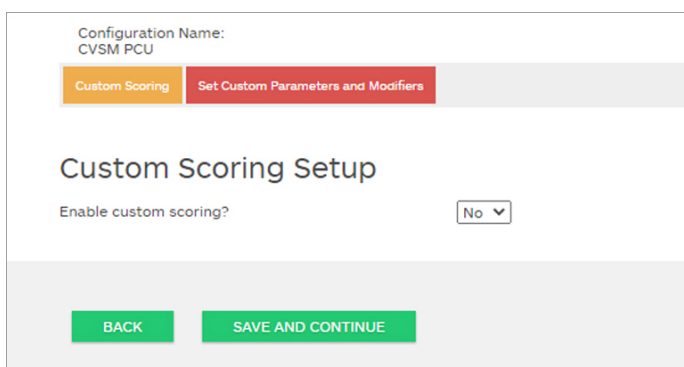
Create a new **Connex** Vital Signs Monitor configuration

This section applies to a **Connex** Vital Signs Monitor with software version 2.41 or greater.

1. From the main screen, click the **New Configuration** tab.



2. Use the drop-down menu to select **Connex Vital Signs Monitor v2.41 or greater**. Provide a name for the configuration and click **CONTINUE**.
3. Select the **Product Use Location: Hospital**.
4. Click **SAVE AND CONTINUE**.
As the Configuration Tool is updated, the screen moves to the Custom Scoring tab. As the Configuration Tool is updated, the Progress Summary view updates to show completed sections in green. The Progress Summary has two sections: Custom Scoring and Set Custom Parameters and Modifiers.
5. Optional: Select **Custom Scoring** and set Enable custom scoring to **Yes**. Choices include: **Yes** or **No** (default).
For additional steps, see "Select Custom Scoring Setup for Connex Vital Signs monitor."



6. Click **SAVE AND CONTINUE**.
As the Configuration Tool is updated, the screen moves to the Set Custom Manual Parameters and Modifiers tab. Configure the manual parameters and modifiers settings. For the steps, see "Select Custom Parameters and Modifiers" in the "Create a new **Connex** Vital Signs Monitor configuration" section.

7. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Progress Summary tab for completion. You can now download the CVSM configuration file. For more information, see "Download a configuration file to install on another device."

Select Custom Scoring Setup for **Connex** Vital Signs Monitor

This section describes how to set up Bedside Protocols that can be replicated on a **Connex** Vital Signs Monitor device. You can preselect from the list of clinical protocols. All scoring protocols are customizable to meet user requirements.

You may add up to 6 scoring systems. Select a predefined Scoring System template, enter a unique name, and add the scoring system. Your scoring system will be added to the bottom of the page. You may then edit or delete your scoring system.

Click the **Custom Scoring** tab and choose your preferences for custom scoring.

1. Optional: Use the drop-down menu to select **Yes** to enable custom scoring. (The default is **No**).

The screenshot shows the 'Custom Scoring Setup' screen. At the top, there's a 'Configuration Name' field with the value 'test'. Below it are two tabs: 'Custom Scoring' (active) and 'Set Custom Parameters and Modifiers'. The main content area has the title 'Custom Scoring Setup'. It contains three questions: 'Enable custom scoring?' with a 'Yes' dropdown menu, 'Do you want age ranges associated with scoring protocols for pre-selection based on patient age?' with a 'Yes' dropdown menu, and 'Please enter the authentication code:' with a text input field. At the bottom, there are two buttons: 'BACK' and 'SAVE AND CONTINUE'.

- Optional: In the Do you want age ranges associated with scoring protocols for pre-selection based on patient age field, use the drop-down menu to select **Yes** or **No** (default).
- Optional: In the Do you want to view a condensed total score page as your default field, use the drop-down menu to select **Yes** (default) or **No**.
- Click the Please enter the authentication code field and enter a valid code in the format of [YY]CVSM[MM] with the current year and month.



NOTE The Authentication code field appears the first time you select the Custom Scoring tab.

5. Click **SAVE AND CONTINUE**.

If you selected **No** for Enable custom scoring, the screen moves to the Set Manual Parameters and Modifiers tab.

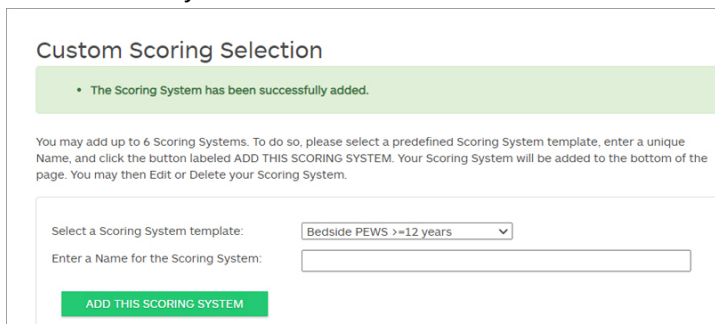
If you selected **Yes** for Enable custom scoring, the Custom Scoring Selection screen displays.

6. Select a Scoring System template. Choices include:

- Bedside PEWS < 3 months
- Bedside PEWS 3 to < 12 months
- Bedside PEWS 1 to 4 years

- Bedside PEWS 5 to < 12 years
 - Bedside PEWS ≥12 years
 - Braden
 - BTF SAGO
 - BTF ED
 - BTF SPOC < 3 months
 - BTF SPOC 3 to 12 months
 - BTF SPOC 1 to 4 years
 - BTF SPOC 5 to 11 years
 - BTF SPOC 12 years
 - Falls Risk Assessment Tool
 - Glasgow Coma Scale
 - Modified Early Obstetric Warning
 - Modified Early Warning Score
 - MEWS for General Surgical Ward
 - Morse Fall Score
 - National Early Warning Score
 - National Early Warning Score 2
 - NEWS2 Scale 1
 - Norton
 - Pediatric Early Warning Score
 - Rapid Emergency Medicine Score
 - Triage Early Warning System
 - Walsall
 - Blank Scoring System
7. Enter a name for the Scoring System by clicking the Enter a Name for the Scoring System field and typing a name for the scoring system as you want it to appear on the device.
 8. When finished, click **ADD THIS SCORING SYSTEM**.

After a successful addition, the following message appears: The scoring System has been successfully added.



Custom Scoring Selection

- The Scoring System has been successfully added.

You may add up to 6 Scoring Systems. To do so, please select a predefined Scoring System template, enter a unique Name, and click the button labeled ADD THIS SCORING SYSTEM. Your Scoring System will be added to the bottom of the page. You may then Edit or Delete your Scoring System.

Select a Scoring System template: Bedside PEWS ≥12 years

Enter a Name for the Scoring System:

ADD THIS SCORING SYSTEM

The name for the scoring system also appears at the bottom of the Custom Scoring Selection screen.

Create a new Connex Vital Signs Monitor configuration

Name: BP12

Label: Bedside PEWS >=12 years

Age Range: 144 to 215 months

Score Labels

- Pulse Rate
- Systolic Blood Pressure
- Capillary Refill Time
- Respiration Rate
- Respiratory Effort
- PTCO2
- Oxygen Therapy

Severity Ranks

White	Normal
Yellow	Low
Orange	Medium
Red	Severe



NOTE The Custom Scoring Selection can be used as is or modified to meet facility requirements. Each scoring system has different score labels and severity ranks.



NOTE The name of the custom scoring system defines how the scoring protocol will appear on the device. The HIS ID information for the EMR can be applied here too. Configure the capability for Single Parameter Scoring by itself or as part of an Aggregate Score.

9. Optional: To edit the scoring system, click (edit). Click within the fields to enter changes or use the drop-down menu to change the Configure Aggregate Score or Single Parameter Triggers.

Edit Scoring System

You may edit the Scoring System information contained on this page.

Name: BP12

Label: Bedside PEWS >=12 years

Abbreviation: BPWS

HIS ID: 89999

Configure Aggregate Score: Yes

Single Parameter Triggers: Yes

CANCEL CONTINUE

10. Optional: To delete the scoring system, click (delete).

11. Click **SAVE AND CONTINUE**.

12. Optional: To add a range row, click (add). To delete a row, click (delete).

13. Click **CONTINUE**.

14. Optional: To continue editing the scoring system, check or uncheck the Enable settings. Default settings include: Rank Normal = Enable, Rank Low = Enable, Rank Medium = Enable, Rank High = Disable, Rank Severe = Enable.

Edit Scoring System

You may enable or disable the predefined Rank assignments. You can edit individual Rank values by clicking the edit icons.

Enable	Rank	Color
☒	Normal	White
☒	Low	Yellow
☐	Medium	
☒	High	Red
☐	Severe	



NOTE Severity rankings color can modified based on protocol.



NOTE Rankings can either be omitted or added based on protocol.

15. Click  (edit) to change the rank information and then click **DONE**.
16. Click **CONTINUE**.
17. Optional: To continue editing the scoring system, click  (edit) to change the values.

Edit Scoring System

You may edit or delete an particular Parameter Score by clicking on the icons in the Scores row. You may also add additional Parameter Scores based on the Parameters in the provided list. Up to 12 Parameter Scores are allowed. To continue, all Parameter Scores must be marked as Complete.

Score Name	Score Label	Clinical Parameter	Complete	
Level of ConsciousnessScore1	Level of Consciousness	Level of Consciousness	Yes	 
Mobility AmbulationScore2	Mobility Ambulation	Mobility Ambulation	Yes	 
Skin ConditionScore3	Skin Condition	Skin Condition	Yes	 
Nutritional StatusScore4	Nutritional Status	Nutritional Status	Yes	 
Bladder IncontinenceScore5	Bladder Incontinence	Bladder Incontinence	Yes	 
Bowel IncontinenceScore6	Bowel Incontinence	Bowel Incontinence	Yes	 
Carer InputScore7	Carer Input	Carer Input	Yes	 
Add a Score based on an existing Parameter or Modifier:  Activity ▼				

QUICK TIP: If you want to disassociate a parameter from the score, click  (delete). If you want to add a new parameter associated to the score either select an existing one from the drop-down list, or create a custom parameter in the next tab.

18. Click **CONTINUE**.
19. Configure the Aggregate Scoring.

Edit Scoring System

Please configure the Aggregate Scoring.

Min [R]	Max [R]	Rank	Message
0	5	Normal ▼	 (Edit)
6	14	Low ▼	 (Edit)
15	31	High ▼	 (Edit)
 Add Range Row			

20. Click **CONTINUE**.
21. Click **SAVE AND CONTINUE**.
22. As the Configuration Tool is updated, the screen moves to the Set Custom Parameters and Modifiers tab.

Select Custom Parameters and Modifiers

Configure the manual parameters and modifiers settings.

Click the **Set Manual Parameters and Modifiers** tab.

Create a new Connex Vital Signs Monitor configuration

1. Use the radio button to select **Default** or **Custom** parameters and modifiers.

Configuration Name: CVSM PCU

Summary Information (Required)

Custom Scoring Set Custom Parameters and Modifiers

Set Custom Parameters and Modifiers

Custom Parameters and Modifiers

Add custom data entry fields.

Name	Label	Required	Type	Modifies	Unit	Size	
Capillary Refill Time	Capillary Refill Time	No	Integer	None	s	1	Part of Score
Mobility Ambulation	Mobility Ambulation	No	List	None		2	Part of Score
Bowel Incontinence	Bowel Incontinence	No	List	None		2	Part of Score
Bladder Incontinence	Bladder Incontinence	No	List	None		2	Part of Score
PTCO2	PTCO2	No	Integer	None	percent	1	Part of Score
Skin Condition	Skin Condition	No	List	None		2	Part of Score
Oxygen Therapy	Oxygen Therapy	No	Integer	None	L/min	1	Part of Score
Level of Consciousness	Level of Consciousness	No	List	None		2	Part of Score
Carer Input	Carer Input	No	List	None		2	Part of Score
Nutritional Status	Nutritional Status	No	List	None		2	Part of Score
Respiratory Effort	Respiratory Effort	No	List	None		2	Part of Score

+ Add Modifier

BACK SAVE AND CONTINUE

2. The default settings are: Capillary Refill Time= **No**, Mobility Ambulation = **No**, Bowel Incontinence = **No**, Bladder Incontinence = **No**, PTCO2 = **No**, Skin Condition = **No**, Oxygen Therapy = **No**, Level of Consciousness = **No**, Carer Input = **No**, Nutritional Status = **No**, Respiratory Effort = **No**.

3. Optional: Click  to add a modifier.

Add Modifier

Name

Label

Abbreviation

Required Yes No

Modifies None

Type Integer

Minimum Value

Maximum Value

Unit

HIS ID

Unit HIS ID

CANCEL SAVE

- a. Click in the Name field and type in a name for the modifier.
- b. Click in the Label field and type in a label for the modifier.
- c. Click in the Abbreviation field and type in an abbreviation for the modifier.
- d. Use the drop-down menu to select whether the modifier is required.
- e. Use the drop-down menu to select whether the modifier modifies: **NIBP**, **SpO2**, **Temperature**, **Pulse Rate**, **Respiration Rate**, or **None**.
- f. Use the drop-down menu to select the type of modifier: **Integer**, **Decimal**, **Alphanumeric**, or **List**.
If List is selected, type in a name, type in a label, type in an abbreviation, and type in a HIS ID.
- g. Optional: Click  to add another list item.
- h. Click in the Name field and type in a name for the modifier.

- i. Click in the Minimum Value field and type in a value. (Values must be within -32768 and 32767 and be an integer. The minimum value must be less than the maximum value.)
 - j. Click in the Maximum Value field and type in a value. (Values must be within -32768 and 32767.)
 - k. When finished, click **SAVE**.
4. Click **SAVE AND CONTINUE**.

As the Configuration Tool is updated, the screen moves to the Progress Summary tab for completion.

Create a new Connex Vital Signs Monitor configuration

Licensed features

Create a new configuration for the **Bluetooth** Low Energy (BLE) features

To configure the **Connex Spot** Monitor, use the Configuration Tool to create a new configuration file and add the Bluetooth Low Energy (BLE) option.

Retrieve a license

In the Licensing section of the My Configurations screen, you can retrieve the license in one of the following ways:

- Enter the serial number from the **Connex Spot** Monitor device label and select **CSM** in the drop-down list.
- Enter the service order number, Equipment record number (ERN), and select **CSM** and the material number for **Bluetooth** Low Energy (BLE) if that feature is purchased and enabled.
- Type in the sales order number and material number, and select **CSM**.



NOTE **Bluetooth** (BLE) is not available for the **Connex 360** monitor.



NOTE The **Connex Spot** Monitor requires software version 1.52, or later, and a **Bluetooth** radio.

Create a new licensing configuration

1. From the main screen, click the **New Configuration** tab.
2. Use the drop-down menu to select the **Licensing** product.

The screenshot shows the 'New Configuration' screen. At the top, there are three tabs: 'List Configurations', 'New Configuration' (which is highlighted with a green box), and 'About'. Below the tabs, the title 'New Configuration' is displayed. Underneath, there is a prompt 'Select the product that you would like to configure.' followed by a dropdown menu showing 'Licensing'. Below the dropdown is a text input field with the label 'Enter the sales order number.'. At the bottom of the form is a green button labeled 'SEARCH'.

3. Enter the sales order number that you received in the Enter the sales order number field and click **SEARCH**.



NOTE You are required to enter the sales order number and all the device serial numbers that you want to activate.

As the Configuration Tool is updated, the Progress Summary view updates to show completed sections in green and the screen moves to the Biomed (Required) tab.

4. Click **BLE Licensing** in the Progress Summary view.

- Click within the Enter serial number field and enter the serial number from the **Connex Spot** Monitor device and then click **LICENSE**.

Configuration Name: 809012345

Summary Biomed (Required)

RRp Licensing (CSM) BLE Licensing (CSM)

BLE Licensing (CSM) - Sales Order #809012345

This order is for 2 licenses, you have 2 licenses remaining.

Enter the serial number

BACK LICENSE

The screen indicates the number of licenses available.

- To install a second license, click within the Enter serial number field again and enter the second serial number from the **Connex Spot** Monitor device and then click **LICENSE**.

Configuration Name: 809012345

Summary Biomed (Required)

RRp Licensing (CSM) BLE Licensing (CSM)

BLE Licensing (CSM) - Sales Order #809012345

This order is for 2 licenses, you have 1 licenses remaining.

Serial Number	Device Type
1001212909	CSM

Enter the serial number

BACK LICENSE

- To view or use licenses, click the **List Configurations** tab. The Licensing section appears at the top of My Configurations.

My Configurations

Licensing

Lookup by serial number: Serial Number CSM

Lookup by service order number and ERN: Service Order Number ERN CSM RRp

Sales Order Number	Device Type	Created By	Created	Updated	
123456	Connex 360		04/23/2025 10:27:29	04/23/2025 10:27:29	✓ ⓘ ⓘ
123456	CSM		04/23/2025 10:28:40	04/23/2025 10:28:40	✓ ⓘ ⓘ

- Click **Download** or enter the device serial number into the Lookup by serial number field to download the configuration file.

The file names are different for the three download options. Examples:

- Serial number: 125020000114
- Service order number: 11140525 ERN: 40009997
- Sales order number: 74151963

- To complete the installation on a device, follow the instructions in the section, "Install a configuration file."

Create a new configuration for **RRp** sensor licensing features

To configure the **Connex Spot** Monitor or **Connex 360** monitor, use the Configuration Tool to create a new configuration file and add the **RRp** sensor licensing option.

Retrieve a license

In the Licensing section of the My Configurations screen, you can retrieve the license in one of the following ways:

- Enter the serial number from the **Connex Spot** Monitor or **Connex 360** device label and select the device type (**Connex 360** or **CSM**).
- Enter the service order number, ERN, select the device type and the material number for Respiration rate (**RRp** sensor) if that feature is purchased and enabled.
- Type in the sales order number and material number, and select the device type.



NOTE The **Connex 360** monitor requires software version 1.1. **RRp** is only available to devices with the Masimo **RRp** license activated. For more information on acquiring a Masimo **RRp** license, see the **Connex 360 Service Manual**. **Connex 360** monitors that are sold with the Masimo **RRp** license already activated *do not* require activation in the Configuration Tool.



NOTE The **Connex Spot** Monitor requires software version 1.51, or later. The **Connex Spot** Monitor also requires the Masimo SpO2 sensor hardware to be installed for the **RRp** sensor parameter. Use the Welch Allyn Service Tool version 1.9, or later, to confirm that the device contains a Masimo SpO2 sensor firmware version of 7.14.6.2, or later. For more information, see the *Connex Spot Monitor Service Manual*.

Create a new licensing configuration

1. From the main screen, click the **New Configuration** tab.
2. For **Connex Spot** Monitor, use the drop-down menu to select the **Licensing** product.
For **Connex 360** Monitor, use the drop-down menu to select the **Connex 360 - Licensing** product.

3. Enter the sales order number that you received in the Enter the sales order number field and click **SEARCH**.



NOTE You are required to enter the sales order number and all of the device serial numbers that you want to activate.

As the Configuration Tool is updated, the Progress Summary view updates to show completed sections in green and the screen moves to the Biomed (Required) tab.

4. Click **RRp Licensing** in the Progress Summary view.
5. Enter the serial number from the **Connex Spot** Monitor or **Connex 360** monitor, and then click **LICENSE**.

Connex Spot Monitor example:

Licensed features

Configuration Name: 8090123

Summary Biomed (Required)

RRp Licensing (CSM) BLE Licensing (CSM)

RRp Licensing (CSM) - Sales Order #8090123

This order is for 2 licenses, you have 2 licenses remaining.

The screen indicates the number of licenses available.

Connex 360 example:

Configuration Name: 8090123

Summary Biomed (Required)

RRp Licensing

RRp Licensing (Connex 360) - Sales Order #8090123

This order is for 2 licenses, you have 2 licenses remaining.

6. To install a second license, enter the second serial number from the **Connex Spot** Monitor or **Connex 360** device, and then click **LICENSE**.
7. To view or use licenses, click the **List Configurations** tab. The Licensing information appears at the top of My Configurations.

My Configurations

Licensing

Lookup by serial number: Serial Number CSM

Lookup by service order number and ERN: Service Order Number ERN CSM RRp

Sales Order Number	Device Type	Created By	Created	Updated	
123456	Connex 360		04/23/2025 10:27:29	04/23/2025 10:27:29	Download Refresh Delete
123456	CSM		04/23/2025 10:28:40	04/23/2025 10:28:40	Download Refresh Delete

8. Click **Download** or enter the device serial number into the **Lookup by serial number** field to download the configuration file.

File name example for **Connex Spot** Monitor: "licenses_keith_abbit_carecenter_com-signed.waconfig"

File name example for **Connex 360** Monitor: "licenses_keith_abbit_carecenter_com-c360.signed"

9. To complete the installation on a device, follow the instructions in the section, "Install a configuration file".

Configure a CA Root certificate

You can load self-signed security certificates onto the **Connex Spot** Monitor to ensure secure communication with an authenticated server on the network.

The CA Root certificate can be in either PEM or DER format and can have extensions: .pem, .der, .crt, or .cer. These certificate files are converted into PEM format during the load process on the device. A CA Root certificate can be either: third-party (GoDaddy, **Symantec**, **Comodo**, **VeriSign**, or DigiCert), or self-signed internal CA certificates.

There are four categories of public host certificates:

- Baxter trusted certificates
- CA certificates for EMR server authentication
- Host certificates for **Active Directory**
- Host certificates for service platform server authentication



NOTE The radio software manages the radio trust store.

The following is a partial list of the public certificates that are preloaded onto the **Connex 360** device:

```
Go_Daddy_Class_2_Certification_Authority.pem
Symantec_Class_3_Public_Primary_Certification_Authority_-_G6.pem
VeriSign_Class_3_Public_Primary_Certification_Authority_-_G4.pem
VeriSign_Class_3_Public_Primary_Certification_Authority_-_G5.pem
Veri_Sign_Class_3_Public_Primary_Certification_Authority_-_G3.pem
COMODO_ECC_Certificate_Authority.pem
COMODO_Certificate_Authority.pem
Symantec_Class_3_Public_Primary_Certification_Authority_-_G4.pem
Go_Daddy_Root_CertificateAuthority_-_G2.pem
COMODO_RSA_Certificate_Authority.pem
VeriSign_Universal_Root_Certification_Authority.pem
```

For the complete list of the public CA certificates, contact Baxter (baxter.com/our-services). Also see the **Active Directory** setup section of the service manual for your device.

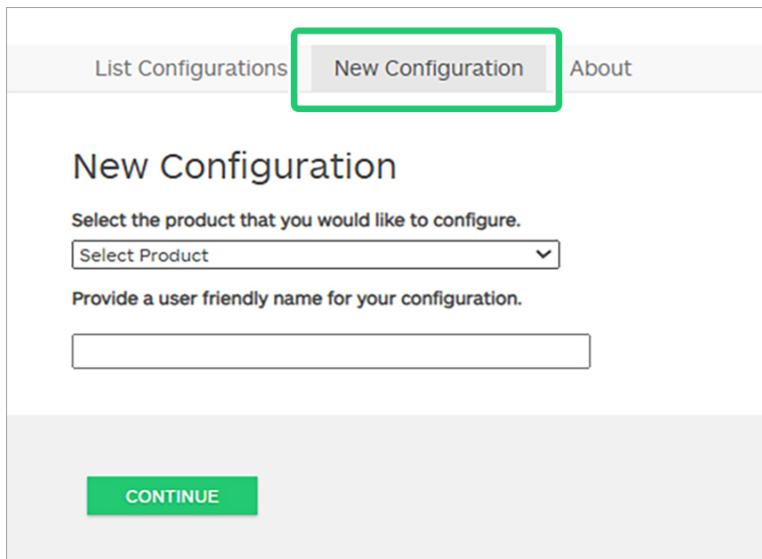
You also can upload your own CA certificates.

To add a certificate from your computer:

1. From the main screen, click the **New Configuration** tab.
2. Use the drop-down menu to select **CA Root certificate**.

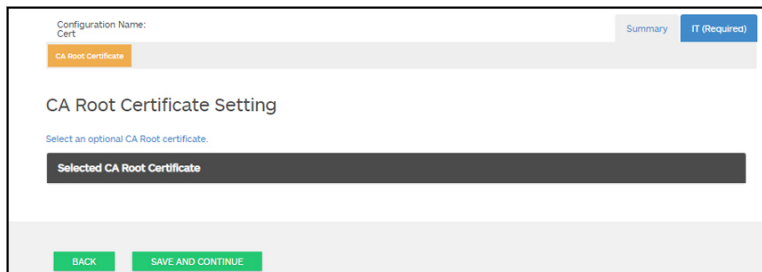
Configure a CA Root certificate

3. Provide a name for the configuration by typing in the field to enter a user-friendly name and then click **CONTINUE**.



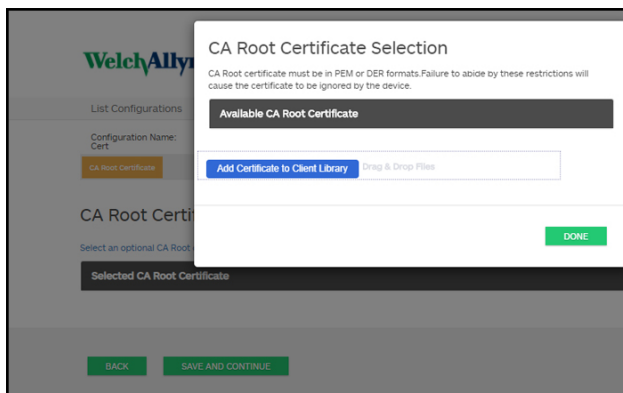
The screenshot shows the 'New Configuration' screen. At the top, there are three tabs: 'List Configurations', 'New Configuration' (highlighted with a green box), and 'About'. Below the tabs, the title 'New Configuration' is displayed. The instructions say 'Select the product that you would like to configure.' followed by a 'Select Product' dropdown menu. Below that, it says 'Provide a user friendly name for your configuration.' followed by a text input field. At the bottom, there is a green 'CONTINUE' button.

4. Select the Product Use Location. (Choices include Hospital or Physicians Office or Clinic.)
5. Click **SAVE AND CONTINUE**.
6. Click **CA Root Certificate** in the Progress Summary view.



The screenshot shows the 'CA Root Certificate Setting' screen. At the top, there are two tabs: 'Summary' and 'CA Root Certificate' (selected). Below the tabs, the title 'CA Root Certificate Setting' is displayed. The instructions say 'Select an optional CA Root certificate.' followed by a 'Selected CA Root Certificate' field. At the bottom, there are two buttons: 'BACK' and 'SAVE AND CONTINUE'.

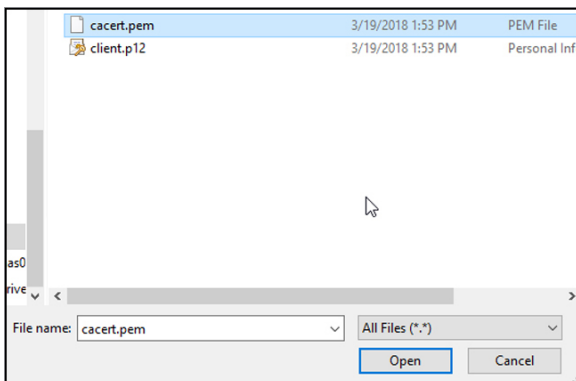
7. Click **Select an optional CA Root Certificate**.



The screenshot shows the 'CA Root Certificate Selection' dialog box. The dialog box has a title 'CA Root Certificate Selection' and a subtitle 'CA Root certificate must be in PEM or DER format. Failure to abide by these restrictions will cause the certificate to be ignored by the device.' Below the subtitle, there is a list of 'Available CA Root Certificate' and a button to 'Add Certificate to Client Library'. At the bottom right, there is a green 'DONE' button.

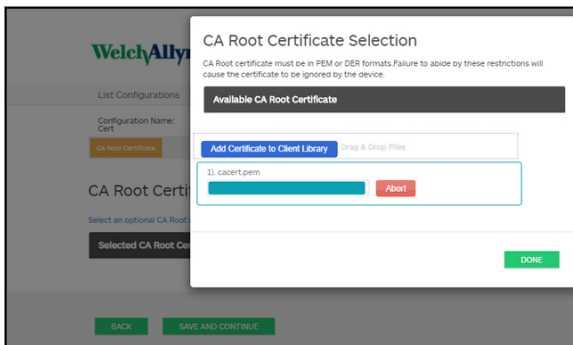
8. Click **Add Certificate to Client Library**.

9. Navigate to the .pem file, or .der file, location using your computer's **Windows** File Explorer window. (The sample screen shows a .pem file type.)



Select the file and click **Open**.

10. Select **DONE**.



11. Click **SAVE AND CONTINUE**.

Device configuration and setup

Configuration overview

You can create a configuration file that specifies preferences for the **Connex Spot** Monitor, **Connex 360** monitor, or **Connex** Vital Signs monitor. When powered on, the monitor recognizes all available options and features and applies the associated configuration file preferences.

If no customized configuration file is loaded onto the device, the device applies factory defaults to all available options.



NOTE The device does not support configuration file names that include parentheses. If these names are present in the file name, the device does not recognize the file. This is a common issue if you've downloaded the same file multiple times from your web browser. For example, the web browser may automatically rename "MyFile.config" to "MyFile.config(2)" if you download it a second time. If this happens, rename the file by deleting the parentheses; then it will appear in the list on the monitor.

The remainder of this section instructs you how to do the following:

- Edit a configuration file.
- Copy a configuration file.
- Share a configuration file.
- Download a configuration file to install on another device.
- Create a new configuration file.
- Install a configuration file.

Edit a configuration file

To edit a saved configuration file, complete the following steps:

1. Access the Configuration Tool at <http://config.welchallyn.com>.
2. Log in with a user name and password.
3. Click **List Configurations** on the navigation bar.
4. Locate the configuration file to be edited in the list, and click the  on the right side of the table to launch the editor.
5. Under Progress Summary, locate the section you want to edit (Clinical, Informatics, IT, or Biomed) and click the specific step you want to edit.
6. Review the selections in each step and modify them as desired.
7. Click **SAVE AND CONTINUE** to accept the changes or **BACK** to return to the previous screen without saving. Clicking SAVE AND CONTINUE automatically moves you to the next step in that section of the Progress Summary. When you reach the last step in a section, clicking SAVE AND CONTINUE returns you to the Progress Summary.
8. Repeat steps 5 through 7 until you complete all desired edits.
9. Click **List Configurations** on the navigation bar to see a new date stamp in the Updated column for your configuration file.

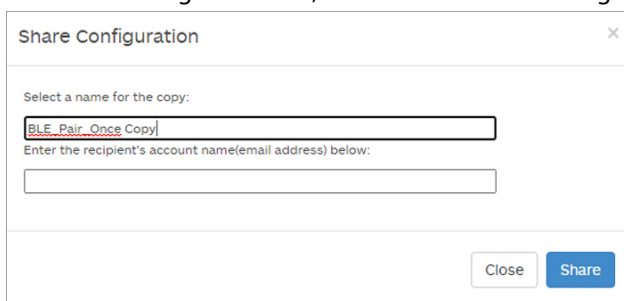
Copy a configuration file

To copy a saved configuration file, complete the following steps:

1. Access the Configuration Tool at <http://config.welchallyn.com>.
2. Log in with a user name and password.
3. Click **List Configurations** on the navigation bar.
4. Locate the configuration file to be copied in the list, and click the  on the right side of the table.
5. Either accept or enter a new name for the copied file in the Copy Configuration dialog, then click **Copy**.
6. View your new configuration file on the List Configurations tab.

Share a configuration file

1. To share a configuration file, click  next to the configuration that you want to share.



Share Configuration

Select a name for the copy:

BLE_Pair_Once Copy

Enter the recipient's account name(email address) below:

Close Share

2. Enter the recipient's account name (typically an email address) into the field: Enter the recipient's account name (email address) below: and optionally rename the file by typing a name for the configuration into the field: Select a name for the copy.
3. Click **Share**.

For the recipient to receive the shared file, they need to have access to the Configuration Tool with their own account. The shared file shows who created the file and the date it was created. Shared files also have the file name with "Copy" at the end of the file name. (See the example: BLE_Pair_Once Copy for a sample of a file received from a sender into your Configuration Tool account.)

Connex Spot Monitor				
Name	Created By	Created	Updated	
BLE_Pair_Once Copy	co...	11/18/2020 17:13:03	11/18/2020 17:17:06	    
Medical Center	.com	11/19/2020 20:12:37	11/19/2020 20:16:27	    
North Wing	com	11/17/2020 23:02:38	11/18/2020 02:01:20	    

To use a file that another user shares with you, the copy must be opened in the Configuration Tool and all the sections in the Progress Summary must appear green.

Download a configuration file to install on another device

To download a saved configuration file, complete the following steps:

From the Configuration Tool

1. Access the Configuration Tool at config.welchallyn.com.
2. Log in with a user name and password.
3. Click **List Configurations** on the navigation bar.
4. Locate the configuration file to be downloaded in the list, and click  (download) on the right side of the table.
The configuration file downloads to the tray on your PC.

5. Using the drop-down menu on the right side of the downloaded file, select **Show in folder**.
Windows Explorer opens the Downloads folder with the most recent download selected.
6. Copy the downloaded configuration file to a USB flash drive.
7. See "Install a configuration file" for instructions to load this configuration on another device.



NOTE If  (lock) appears instead of , it means that the configuration is incomplete and the download is locked. After you complete the configuration, you can download it.

Install a configuration file

To install a configuration file, you must first download the configuration file to a USB flash drive. If you have not done so already, complete the steps in "Download a configuration file to install on another device," then complete the following steps:

1. Insert the flash drive into the device which needs to have the configuration loaded onto it.
A pop-up dialog appears listing the configuration files on your flash drive.
2. Select the desired configuration file and touch **Load**.
3. Repeat this process on as many devices as you wish.

Baxter