stryker

LUCAS® 3
chest compression system, v3.1

Implementation guide

The LUCAS® 3 device, version 3.1 with wireless connectivity to the LIFENET® System, allows for device configuration, post-event reporting and asset management. This Implementation Guide provides a comprehensive step by step instruction on how to configure the LUCAS device assign setup options and define e-mail addresses to receive reports and notifications.

Contents

Set-up and configuration

LIFENET user account

The e-mail address associated with the LUCAS Device Administrator provided with the LUCAS device purchase will receive a user account e-mail from the LIFENET System.

LIFENET® System **stryker**

Your LIFENET System user account has been created.

Please logon to the LIFENET System website using the credentials listed below to configure your profile.
https://www.lifenetsystems.com

Logon Name: user

Password: password

- Click the link in the e-mail to get started. At first login you will change your password.

Note: If you cannot locate this e-mail, search your inbox or junk/trash folders for "LIFENET System: Your account was created".

Note: If your facility or agency already has an existing LIFENET Account proceed to next section "Defining LUCAS device setup options".

Defining LUCAS device setup options

Your LUCAS device is delivered with factory default settings*. If you do NOT want to change any of the factory default settings of your LUCAS device, proceed to section "Configuring the LUCAS device for Wi-Fi".

If you want to change the default settings, this should be done only under the direction of a physician who is knowledgeable in CPR and familiar with CPR literature.*

- On your LIFENET account home page, click on "Setup Options".

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(UTC-04:00) United States / New York

::: Home ::: Assets ::: My Network ::: System ::: Account ::: My Settings ::: Downloads ::: Help ::: Log Off

Test - SAS General Hospital

::: **Device Software and Setup Options**

Create and manage sets of LIFEPAK device setup options. Tip: Click the icons in the Actions column to perform the desired action.

Create Setup Options   Search Print

| Name ▲	Device Model	Software Version	Valid	Software Usage	Status	Actions
Angel LP15 Settings 1	LIFEPAK 15	LIFEPAK 15 - 3313494-011 V15-7	✓	Setup Options Management	⚠ Assign to devices	🔍 ⚙ ▨ ? ▤ ✕
Angels Lucas Profile	LUCAS 3	LUCAS 3 - 3.1	✓	Setup Options Management	⚠ Assign to devices	🔍 ⚙ ▨ ? ▤ ✕

Note: If you cannot see "LUCAS 3 - 3.1 - Default Profile", your LIFENET account has not been updated for LUCAS capabilities. Please contact your local sales representative.

- On the right side under "Actions", click on the symbol for "Edit Setup Options".

Actions

Edit Setup Options

*LUCAS factory default settings are consistent with 2015 AHA and ERC guidelines for CPR. Please refer to the LUCAS 3, v3.1 Instructions for Use 101034-00, chapter 9, for a complete description. Use the "LUCAS 3, v3.1 Defining setup options GDR 3336793" guide for an overview and to help define the setup options. Both materials are available at https://www.strykeremergencycare.com/learn-and-train/product-resources/.

- Follow on-screen steps to change your LUCAS device Setup Options using the drop down menus.
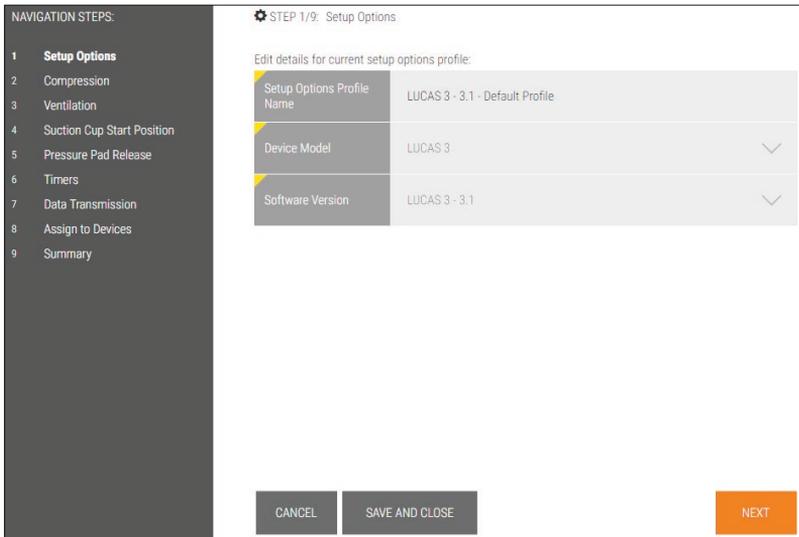
Note: The LUCAS device is delivered with factory default settings and the existing name for this setup options profile is "LUCAS 3 – 3.1 – Default Profile". You can change the setup options profile name in navigation step 1 (see above image).

- Hover over the fields for additional information.

Note: LUCAS factory default settings are in bold.
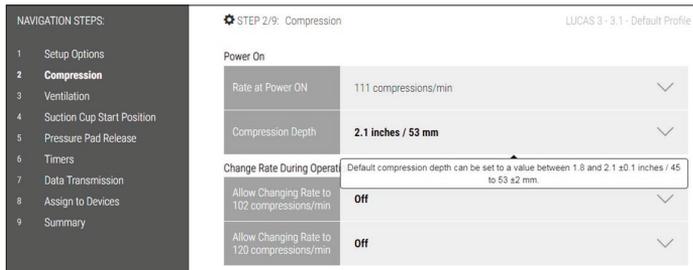
- You may need to scroll the drop down menu to see all setup options.

- If you have not yet registered any LUCAS 3, v3.1 device on your LIFENET account the navigation step 8 "Assign to Devices" will be empty. Skip this step, and continue to step 9 "Summary". Review your setups, then check the box "Assign as default profile to new devices" if you want to make these settings default for all new LUCAS devices that are registered to your account. This means the created Setup Options profile will automatically be applied to all newly enrolled LUCAS 3 devices.

- If you have already registered LUCAS device(s) on your LIFENET account, they will appear in a list in step 8 "Assign to Devices". Check which devices you want the new setup options to be applied to, and continue to step 9 "Summary". Review your setups, then check the box "Assign as default profile to new devices" if you want to make these settings default for all new LUCAS devices that are registered to your account. This means the created Setup Options profile will automatically be applied to all newly enrolled LUCAS 3 devices.

- You may print out the summary of your device Setup Options for reference.
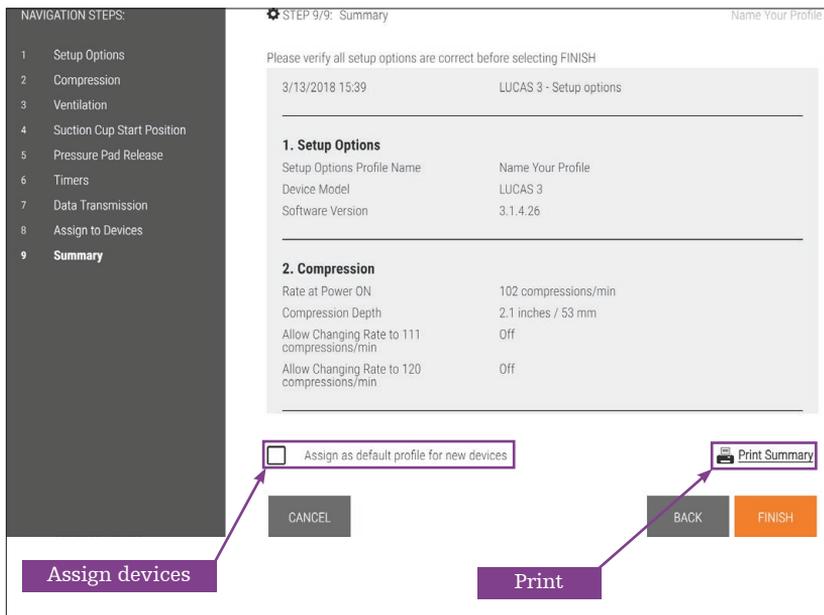
Configuring the LUCAS device for Wi-Fi

The LUCAS device has Bluetooth turned on as the factory default. A few steps are required to configure and enable LUCAS Wi-Fi.

To configure the LUCAS device/s for Wi-Fi you will need to have the following:

Your LUCAS 3 v3.1 device/s

Your local Wi-Fi information
- SSID (Wi-Fi name)
- Encryption type (WEP, WPA2)
- The Key (password)

Technical specifications:

LIFENET Device Setup Tool requirements
- Must use WPA or WPA2 Wi-Fi security protocols
- Must use TKIP or AES Wi-Fi encryption
- Must use Personal (PSK) or Enterprise (EAP-TLS, TTLS or PEAPv0/EAP-MSCHAPv2) authentication
- Supports 2.4 GHz Wi-Fi networks only
- Supports hidden networks

Workstation/PC requirements
- Bluetooth 2.0+EDR compatible module using Microsoft® stack
- Windows® 7 or 10, 64-bit editions
- .NET Framework version 6.4.2 (installed automatically by Wi-Fi Configuration Tool)
- Outbound port 443 open for TCP/IP communication to our server

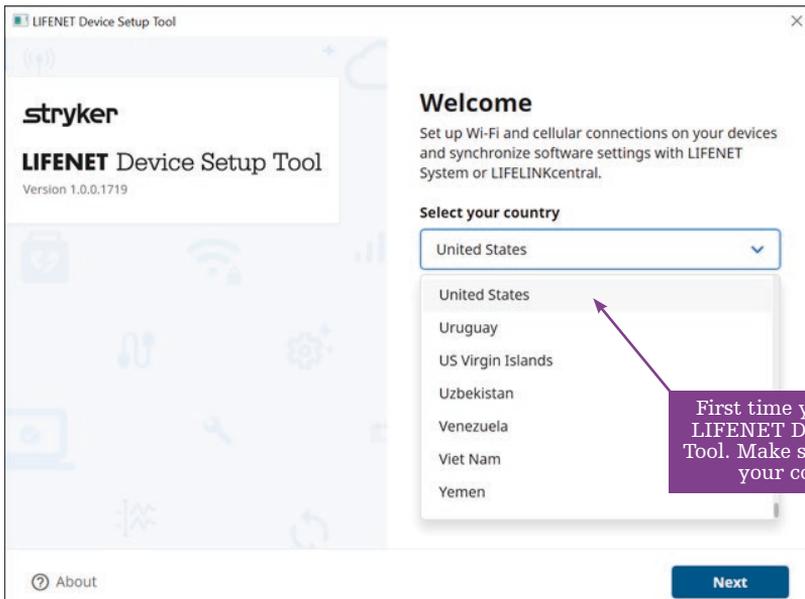- On your LIFENET home screen go to "Download Software".
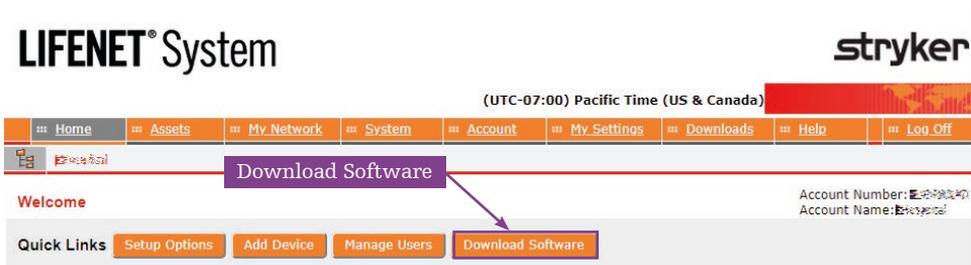
- Click on "Download" next to the LIFENET Device Setup Tool.
- Open and "Run" the LIFENET Device Setup Tool.

- Use the same credentials that you use to log into your LIFENET account. This is the LIFENET account on which your LUCAS device(s) will be registered and connect to.


Note: If you have several LIFENET accounts – make sure to log in with the credentials for the relevant LUCAS LIFENET account.

Note: You can only register each individual LUCAS device on one LIFENET account. LUCAS can only check in on one LIFENET account. If you have registered LUCAS on the incorrect account, delete your LUCAS device from this account (see section "Assigning new setup options" for how to delete a LUCAS device from your account).
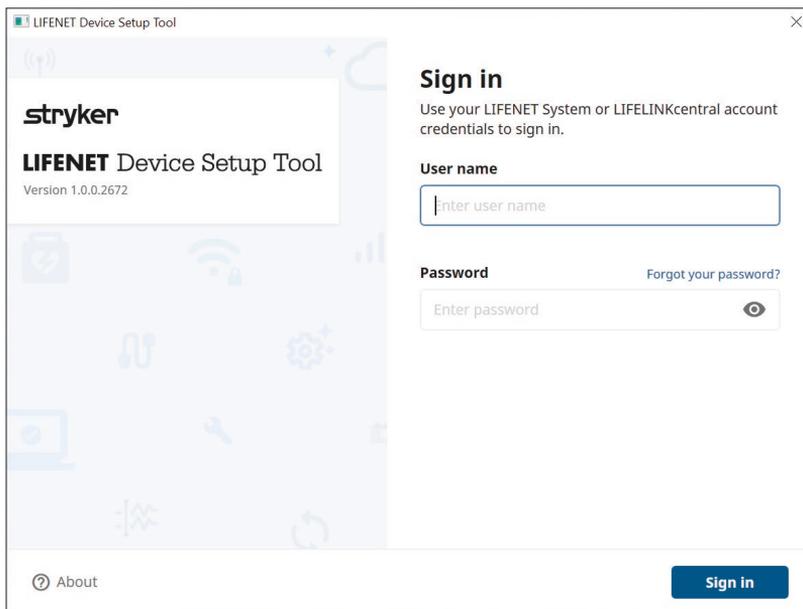
- Follow the instructions on the screen to connect LUCAS to a PC using Bluetooth.
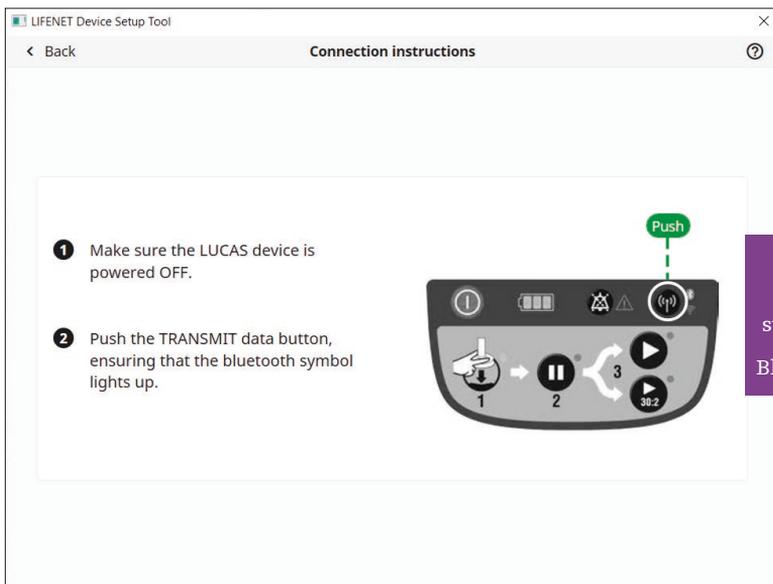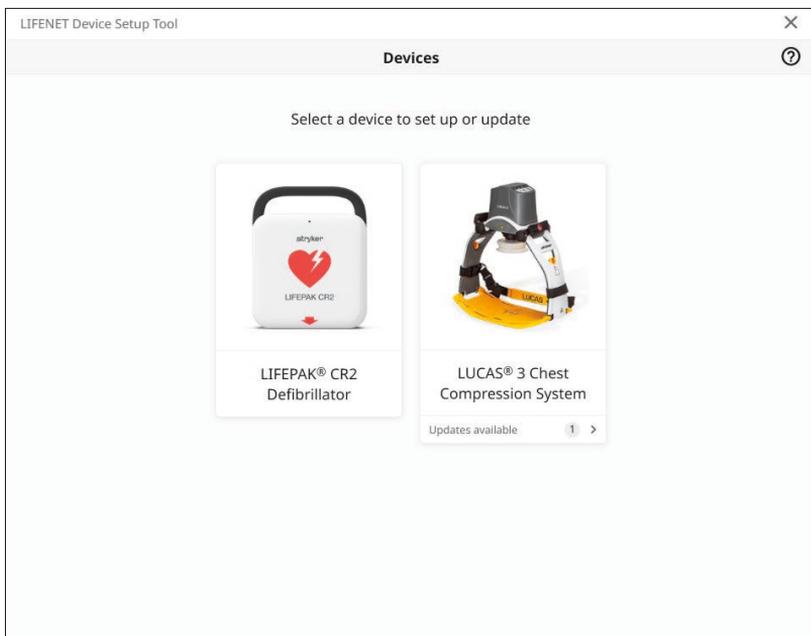
The Bluetooth LED on the LUCAS user interface should start blinking (means it is searching for Bluetooth connection).

- After a moment you should see the serial number of your LUCAS 3, v3.1 device appearing on your LIFENET Device Setup Tool (next page).

- Select the serial number of the LUCAS device you want to **connect**.
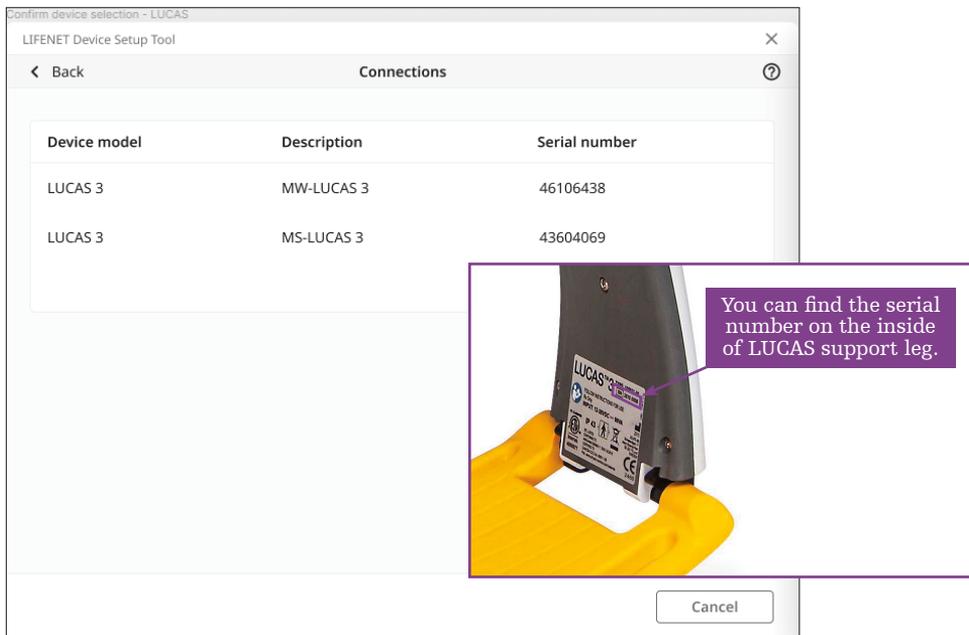

Troubleshooting

If no LUCAS device/s is/are detected;

1. Ensure that the Bluetooth LED on LUCAS user interface is blinking, if not, go back to previous step to initiate the LUCAS Bluetooth connection.
2. Make sure your PC Bluetooth is ON and discoverable.
3. Make sure you are using the Microsoft Bluetooth enumerator and you have the latest installed.
4. If the above doesn't work, try with a Bluetooth USB dongle.
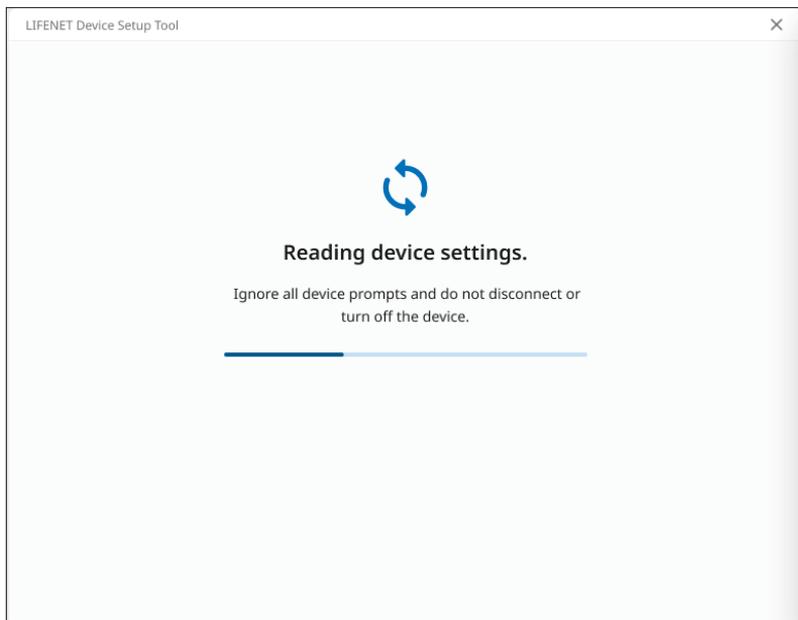
- If you are connecting a device that has not yet been registered with your LIFENET account, you will need to register it now.
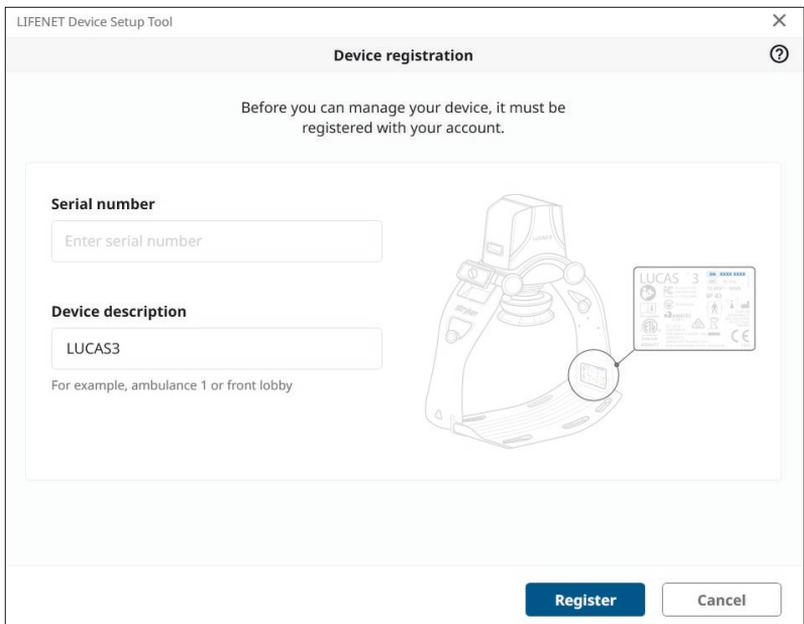

When you have established Bluetooth connection between your PC and the LUCAS device you are able to give the LUCAS device a description (i.e. Medic 10 or ED 5). This description must be no longer than 32 characters.

The device description can also be edited within your profile in LIFENET under "Assets / edit asset" later on.
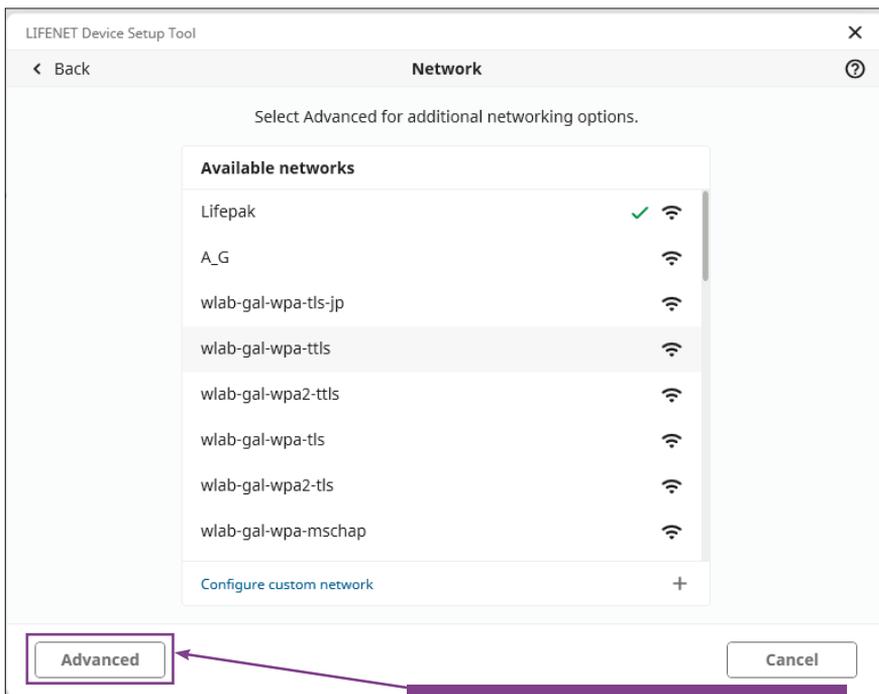
Once you've entered the serial number and the device description, select Register.
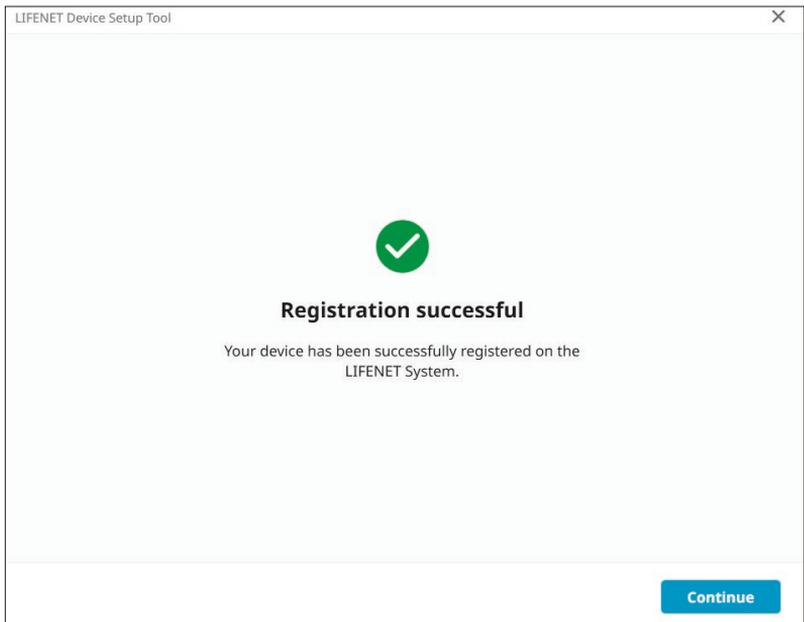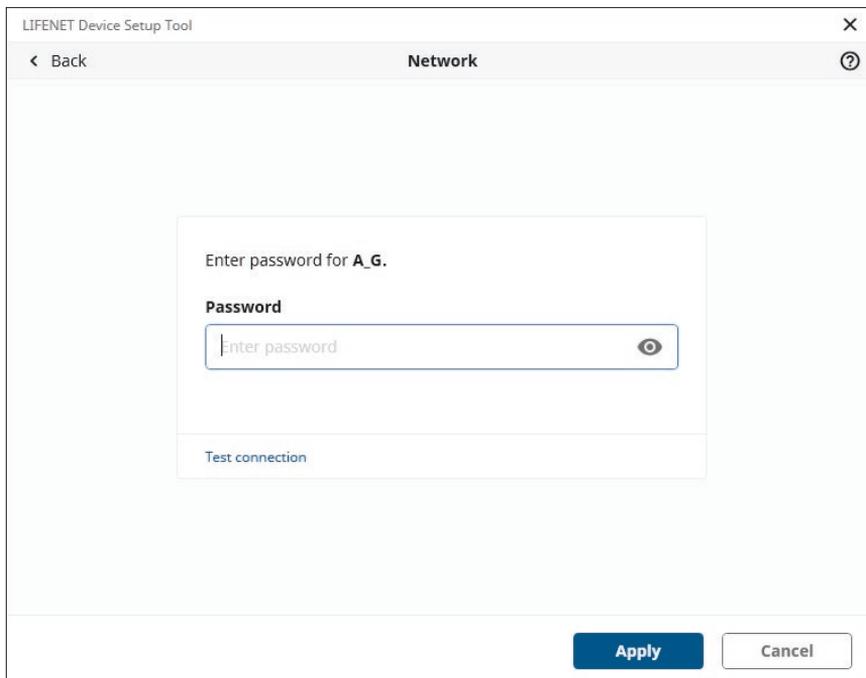
- Select "Set up Wi-Fi"
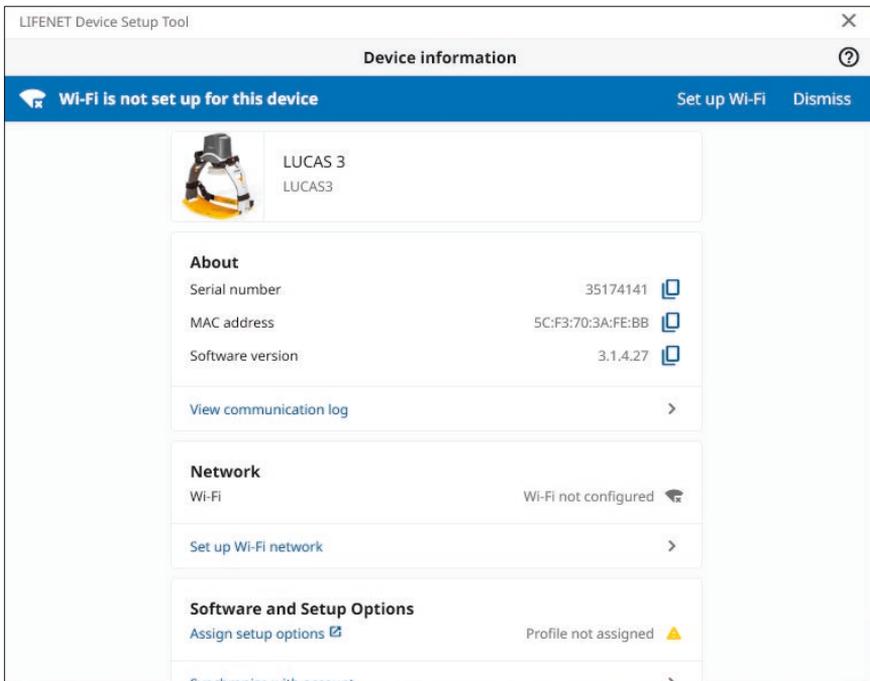
- Choose a network

Advanced Setup; this is used for customers who need to set up enterprise security, hidden SSID or when adding multiple Wi-Fi connections.

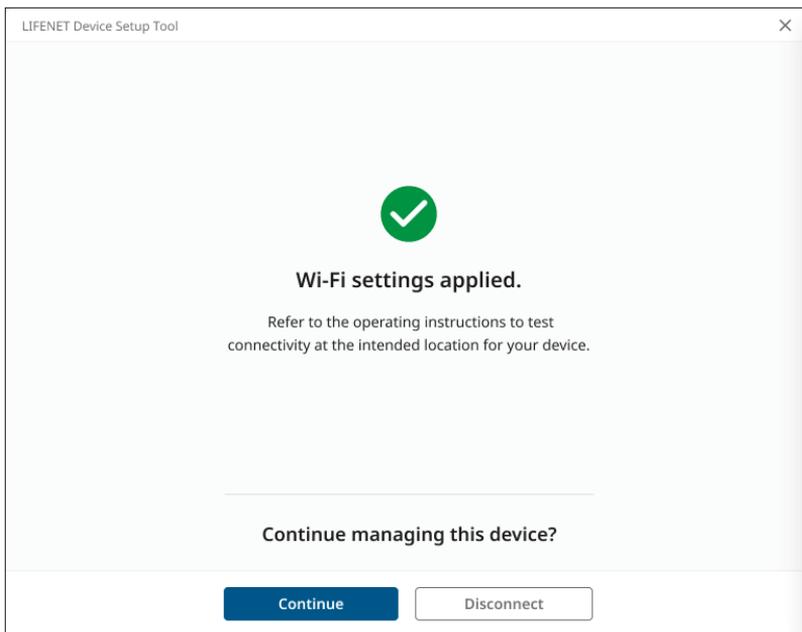**Note:** Device supports up to 6 Wi-Fi connections.

- In this case "A_G" was selected
- Fill in "Password"

- Click "Test Connection" before you go to "Apply". By doing this you are testing the network connection is functioning.
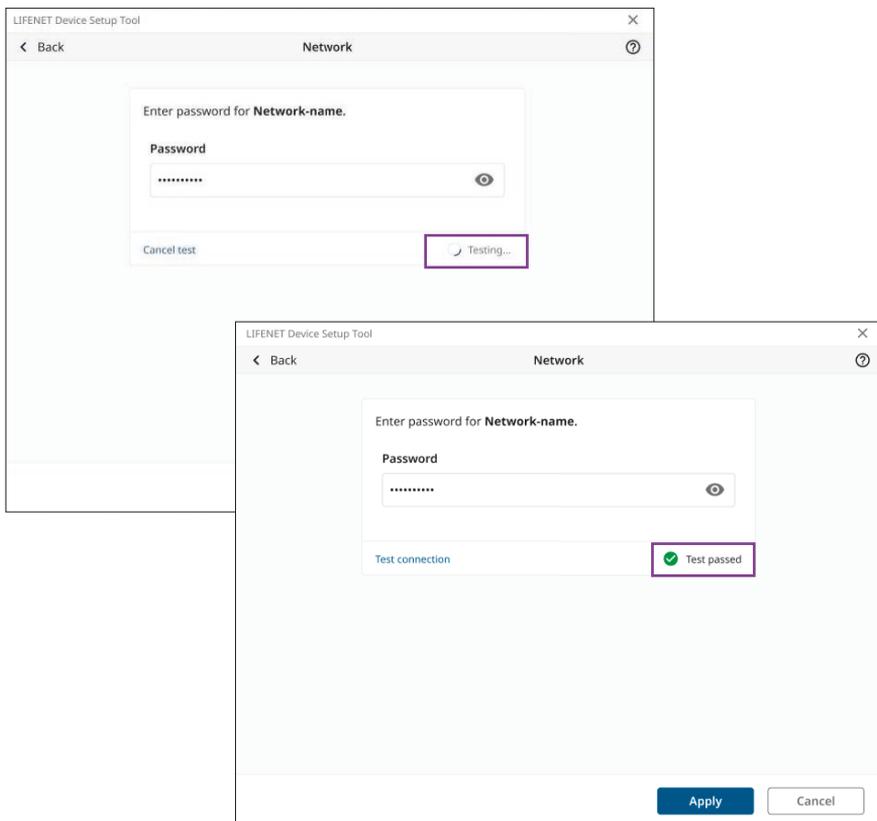
- After confirming the successful test, click "Apply"

Now you have set up your LUCAS 3 device for a Wi-Fi network. If you want to continue managing this device, click Continue. If you want to configure another LUCAS 3 device for Wi-Fi, click Disconnect and then Manage another on the next screen.
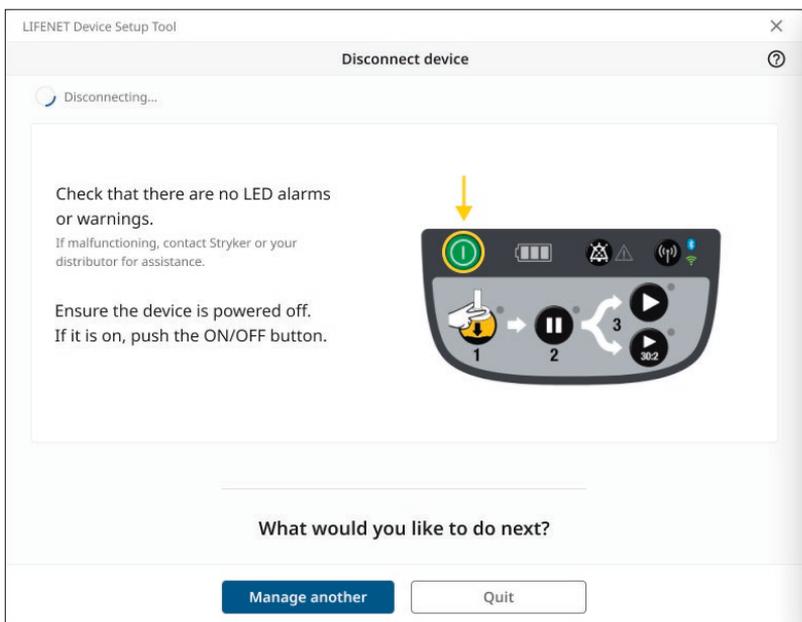
Note: You need to run the LIFENET Device Setup Tool for each LUCAS 3, v3.1 device you want to configure to Wi-Fi.

Important: By finishing the LIFENET Device Setup Tool, you have now established a Wi-Fi connection with LIFENET and the LUCAS device but you have not yet exchanged any device or setup data between LIFENET and LUCAS (i.e. "checked in" LUCAS to LIFENET).

You will see your LUCAS device registered in your LIFENET account under the Asset menu, but there is no LUCAS data or setup information yet.
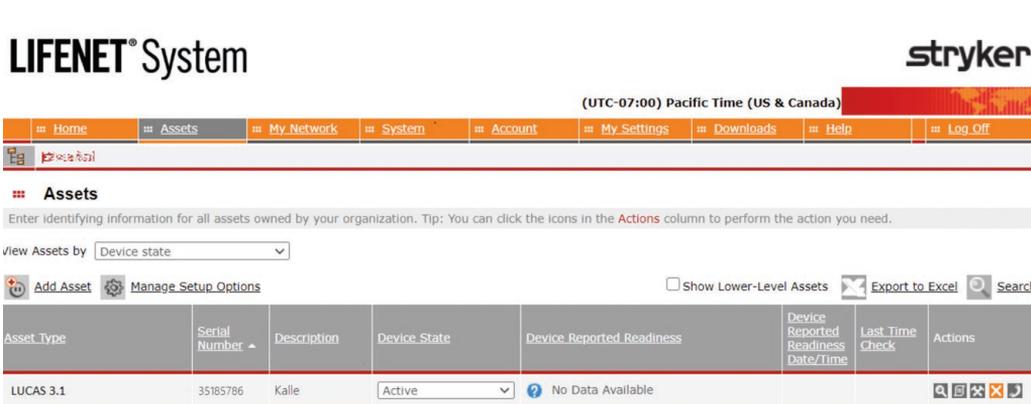

Checking in LUCAS to LIFENET

After Wi-Fi configuration the LUCAS device needs to be checked into LIFENET to be able to receive setup options profile, transmit device status data and post-event reports.

To check in and synchronize the device, do the following:

1. The LUCAS device is powered OFF.
2. Press the TRANSMIT key on LUCAS. The LUCAS Bluetooth LED will blink for about 2 minutes and then the Wi-Fi LED will start to blink. Transmission will take at least 2-3 minutes, but may take longer.
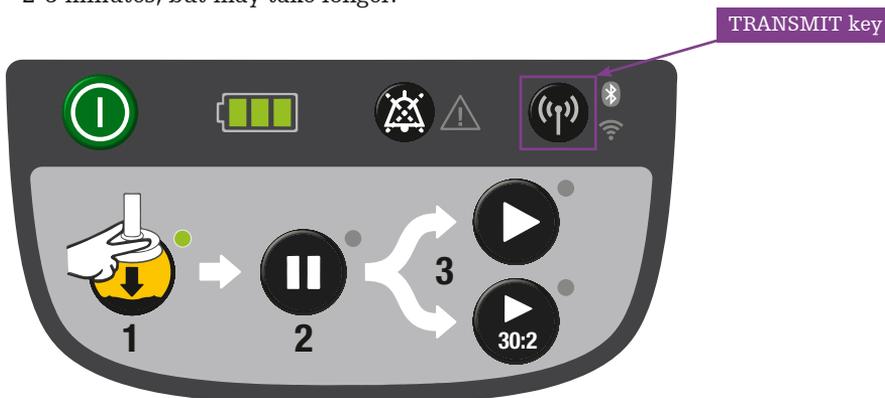
Note: If there are many cases – i.e. Post-event reports – the device will transmit data for maximum 30 minutes, then the device will stop transmission. In this case you may have to press TRANSMIT again to continue to send all use data. When the LEDs for Bluetooth and Wi-Fi go dark, the LUCAS device has sent and received all data to LIFENET account

To verify that the LUCAS device has checked in to LIFENET, refresh your LIFENET Asset page. You will see the "Device Reported Readiness" status is "Ready"

Assigning new setup options

If you defined the LUCAS device setup options in your LIFENET account prior to the Wi-Fi configuration (directions within section "Defining LUCAS device setup options") and the "Assign as default profile for new devices" box was checked:

- All LUCAS devices that are registered and have checked in to this account will get the default profile automatically.

If no setup options profile was created prior to Wi-Fi configuration, or if the box for "Assign to as default profile to new devices" was not checked, do following to create a new setup options profile:

1. Follow, "Defining LUCAS device setup options" in this Guide.
2. Select the LUCAS device/s you want to apply this setup profile to (registered LUCAS devices will be visible in navigation step 8 "Assign to Devices").

3. Check in your LUCAS device to receive its new setup options profile.

   1. Make sure the LUCAS device is powered OFF.

   2. Press TRANSMIT key on the LUCAS device.

   3. The LUCAS device will check in to LIFENET Asset via Wi-Fi and get the assigned setup options profile.

      • Bluetooth LED will blink for 2 minutes, then the Wi-Fi green LED will blink during connection and transmission to Wi-Fi. This may take a couple of minutes depending on how many cases are being transmitted. Setup options are prioritized to be transmitted before case data.

When the LEDs stops blinking the LUCAS device will have the new assigned setup options profile.

Note: The Bluetooth and Wi-Fi turns off automatically when the LUCAS device has checked in to LIFENET Asset and received/sent all data, if the transmission of all data is completed within less than 30 minutes. The device will turn off transmission automatically after 30 minutes, so you may need to press the TRANSMIT key again to allow for many cases to be transmitted.

Double check on your LIFENET account that the LUCAS device has received the assigned setup options profile

   • If you have LIFENET open, refresh the page.

   • Click on "Assets/Assets" to see the LUCAS devices registered on your account.

   • On this account there are two LUCAS devices synchronized, one that requires synchronization and one device that requires enrollment.
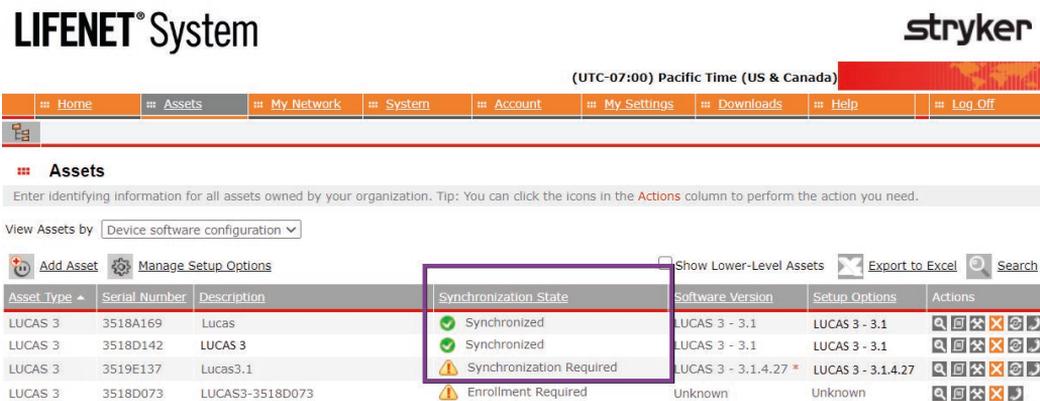
   • For asset details, click on the magnifying glass. Here you'll find basic info about the device, the assigned setup options profile etc.

   • To delete a LUCAS device registered as an asset on your LIFENET Asset account, click on the.

Managing set up and software via Bluetooth

LIFENET Device Agent (LDA) is designed to help you manage software and setup options within your LUCAS device via Bluetooth. The LDA is a software program part of the LIFENET System's Asset Management functionality. It is installed on a local computer and used to transfer software and setup options from the LIFENET System to the LUCAS device.

The primary way to get setup options in the LUCAS device is to setup Wi-Fi and get the setup options over-the-air; however, LDA is the only way to update the software on the LUCAS device and an alternate way to manage setup options.

After initial registration and setup of devices, you can manage software updates and setup options in LIFENET Asset.

Registering a device with the LIFENET System

To register your device with the LIFENET System and apply setup configurations follow the steps below:

1. From your LIFENET account, install LIFENET Device Setup Tool.

2. Install and run LIFENET Device Setup Tool.
3. Log On with the same credentials from the LIFENET System.
4. Select the LUCAS device from options.
5. Make sure the LUCAS device is powered OFF. Press the TRANSMIT key on the LUCAS device to activate Bluetooth. Select device once populated to connect.
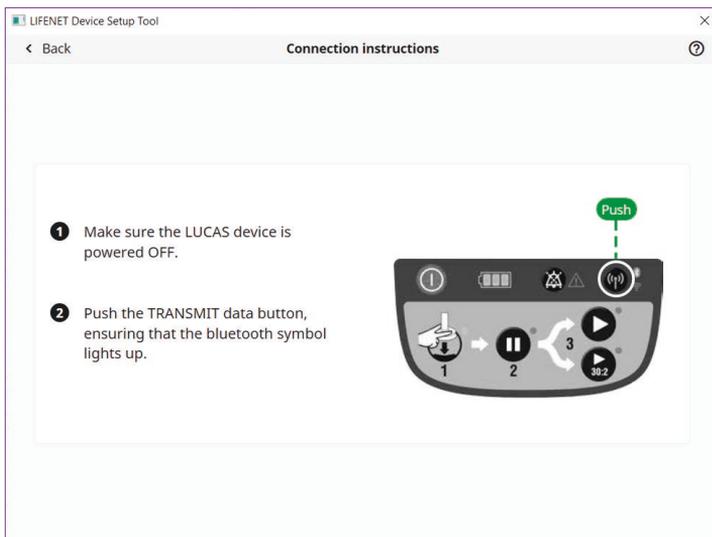
6. Select device.
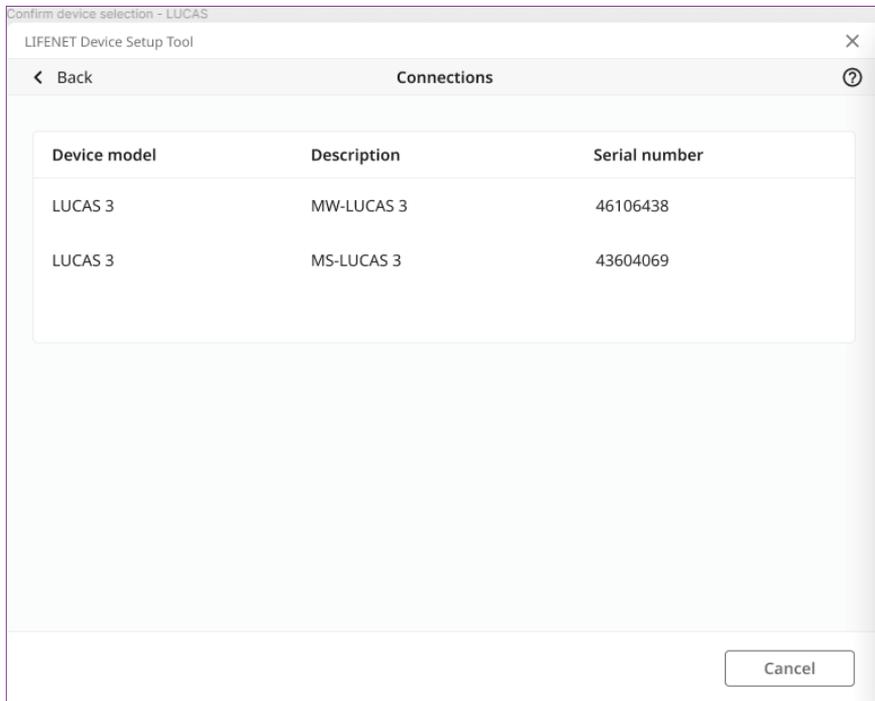

7. Enter device description and device serial number.
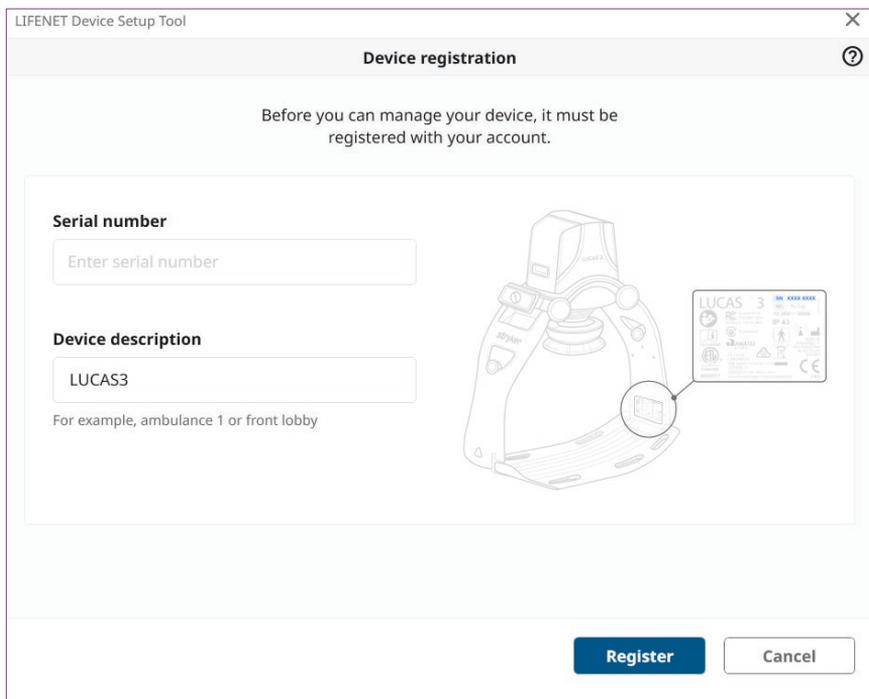
8. Device is now registered to be managed within LIFENET Device Setup Tool.

9. Device will automatically be assigned to the setup options specified within the LIFENET System, instructions under section "Assigning new setup options" in this guide. Select "Synchronize with account" to complete applying setup options to the LUCAS 3 device.

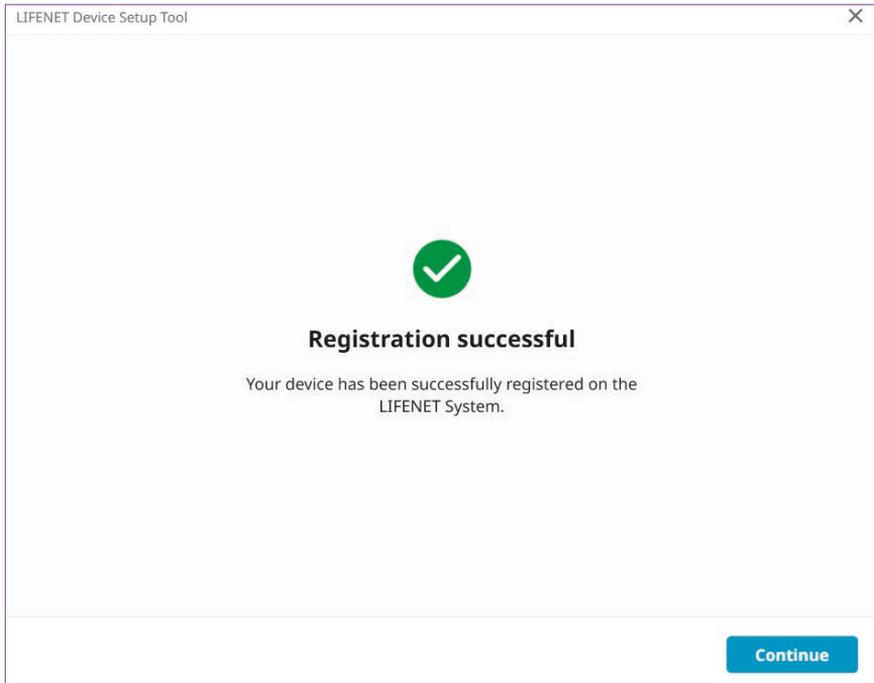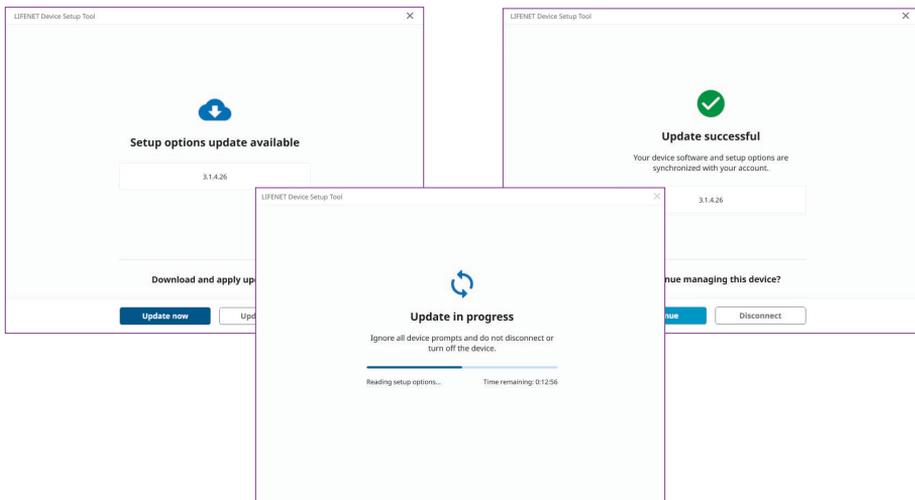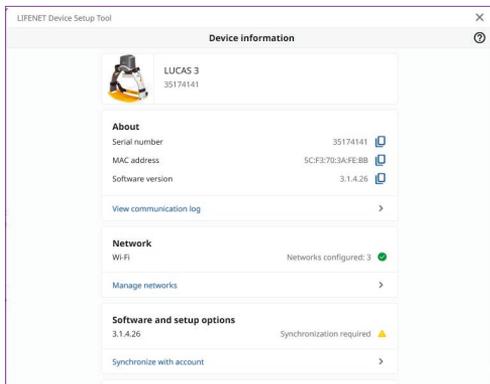# LIFENET Asset notifications

LIFENET connectivity allows for great asset insight and management of your LUCAS device.

When connected to Wi-Fi:

- Every time you push the TRANSMIT key on the LUCAS device, when the device is in Power OFF mode and in range of a known Wi-Fi network, battery and device information will be updated in your LIFENET account.

- LIFENET Asset will allow you to view and receive notifications for when your devices need software updates or are in need of service.

- Sign up for e-mail asset notifications under "Account/Notifications" and "General notifications".

LIFENET® System   **stryker**

(UTC-07:00) Pacific Time (US & Canada)

| ::: Home | ::: Assets | ::: My Network | ::: System | ::: Account | ::: My Settings | ::: Downloads | ::: Help | ::: Log Off |

My Notifications   ? Notifications Description

▶ **General Notifications**

Explanation of notifications

Needs Attention

- Includes "Battery Expiring" – 20 uses or 3 months to go

Not Ready

- Includes "Battery Expired" – over 200 uses or 4 years
- Includes "Self Test" – if device failed a self test on startup

Outdated

- Device has not exchanged data with LIFENET in 14 days. Not an indication of malfunction.

Synchronization required

- Device has new software updates that need to be installed.

Post-Event Data Review

LUCAS Post-Event Report via Wi-Fi

After each LUCAS use where a compression was delivered, the LUCAS device can transmit data to LIFENET and create a LUCAS device Post-Event Report. This report can be delivered automatically to any pre-designated email address(es).

- The e-mail contains a LUCAS Post-Event Report in PDF format which includes a LUCAS Device Summary, Time Graph, and Event Log.

You can generate a LUCAS Post-Event e-mail in two ways:

Manual transmission

- With the device in Power OFF mode and in a known Wi-Fi network, press the TRANSMIT key. The LEDs next to the key will blink. Once transmission is complete the device will turn off the transmission.

Note: The LUCAS device will transmit all cases that have not been downloaded, starting with the most recent, and transmitting data for max 30 minutes. If there are many files to transmit or your network is slow you may need to initiate multiple transmissions.
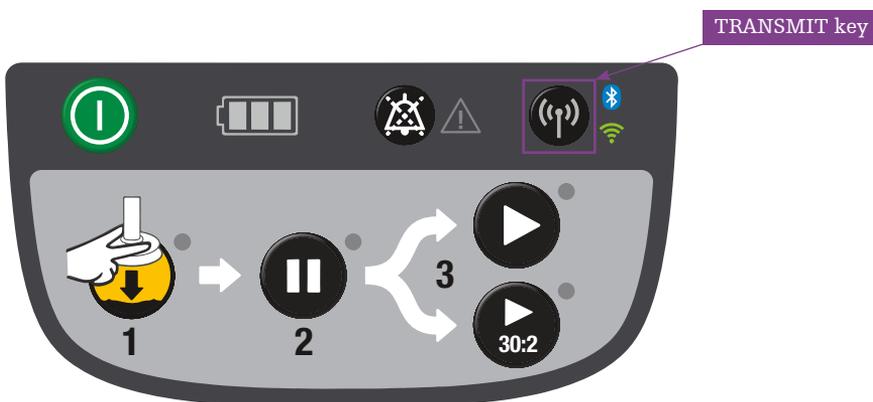
TRANSMIT key

Automatic transmission

- In the Setup Options you can enable "Auto-Transmit at Charging" and the LUCAS device will automatically send device data every time the LUCAS device is connected to the External Power Supply for charging, in power OFF mode, and in range of a known network.

Defining e-mails receiving Post-Event Reports

- Administrators of the LIFENET account are automatically opted-in to receive all the LUCAS Post-Event Reports (manual transmission) at their registered e-mail address.
- To add additional e-mail recipients go to "Account / Users" and then select "Add User". You can create a LUCAS Report User profile and add multiple e-mail addresses to receive the Post-Event Report.

- To activate or deactivate the LUCAS Post-Event Report e-mail, go to "My Settings / My Notifications" and check/uncheck the "LUCAS Summary Report" box under "General Notifications".

LUCAS Post-Event Report via Bluetooth with DT EXPRESS 11 data transfer software

DT EXPRESS software enables you to use Bluetooth to easily download, store, edit and print patient case information from the LUCAS device. By connecting a device to your computer, you can export data for review and storage.

For full instructions on how to download post-event reports with DT EXPRESS please reference the "LUCAS post-event report via Bluetooth, Quick user guide" separate from this document.

LUCAS Post-Event data review in CODE-STAT 11 data review software

CODE-STAT 11 software allows for merging of LUCAS 3, v3.1 device data with the associated LIFEPAK device data file(s) for more comprehensive post-incident review and quality assurance.

You can transfer data from the LUCAS device to post-event review tools using LIFENET System via Wi-Fi or DT EXPRESS data transfer software 11 or higher via Bluetooth.

For instructions how to interpret the LUCAS file and merge with LIFEPAK cases, please refer to the "CODE-STAT 11 Basic Annotation Handbook" and the "CODE-STAT 11 Advanced Annotation Handbook". These documents can be found on the LIFENET System Resource Center tab.

Support Resources

- Please refer to the LUCAS 3 Chest Compression System Instructions for Use (version 3.1) 101034-00 for complete directions for use indications, contraindications, warnings, cautions, and potential adverse events. The Instructions for Use are included with your device or can be obtained at www.stryker.com/emergencycare.
- To plan your setup options, use the LUCAS 3, v3.1 Defining Setup Options Checklist GDR 3336793, available at www.lucas-cpr.com/resources.
- For detailed assistance within your LIFENET account please refer to the "Help" on your account page.
- If you still require help please click on "Contact Stryker" at the bottom of your LIFENET account page.
- For all other inquiries please contact your local Stryker representative.

The LUCAS 3 device is for use as an adjunct to manual CPR when effective manual CPR is not possible (e.g., transport, extended CPR, fatigue, insufficient personnel).

For further information, please contact Stryker at 800 442 1142 (U.S.), 800 668 8323 (Canada) or visit our website at stryker.com

Emergency Care

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