

Add contractor logo here

Add distributor logo here



Support:

Contractor Phone # **Insert Info**
 Distributor Phone # **Insert Info**
 Verasys Tech Support (866) 663-6105
 be-verasysupport@jci.com

Warranty: 3 Year Limited Warranty

<https://www.johnsoncontrols.com/-/media/jci/be/united-states/legal/warranty/files/jci-3y-warranty-final-11202018.pdf?la=en&hash=DD21C45A73770C636ED6088662E78EB0ACD02FC9>

Drawings:

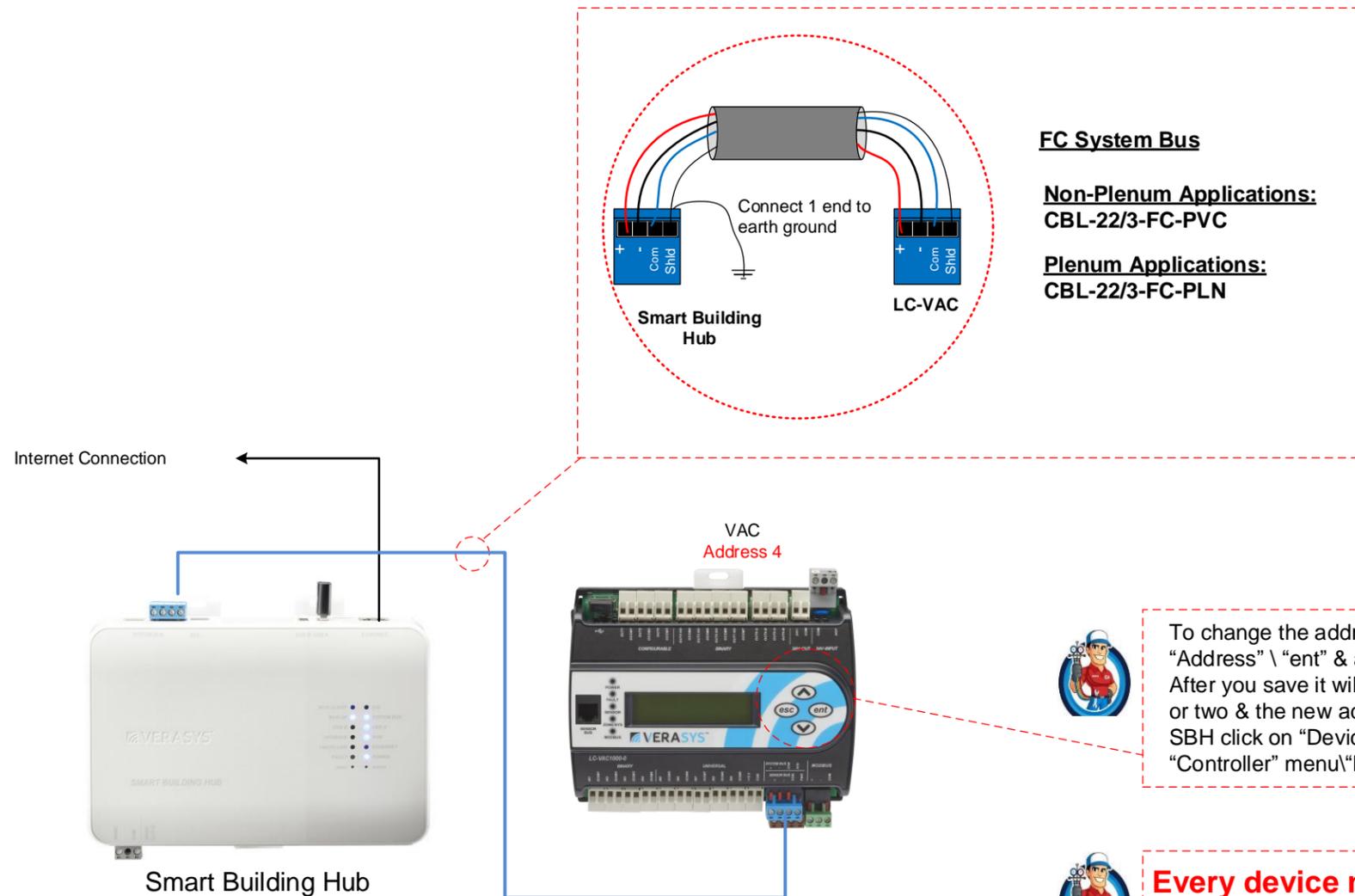
- 1 Cover
- 2 Riser Diagram
- 3 VAC Detail
- 4 Smart Building Hub Detail
- 5 Smart Building Hub Quick Start
- 6 Smart Building Hub Internet
- 7 Smart Building Hub Alerts\Alarms

Disclosure:

The following drawings & parts quote is our best interpretation of the parts needed based on the information given for this specific project. It is your (the contractor's) responsibility to verify that the parts quoted meet the requirements (ex. quantities needed, parts required) and specifications of the project being quoted. If additional or different parts are needed in order to complete the project or meet the specification; please reach out to the distributor listed on your quote to address the issues before using this quote to bid to your customer. **ADDITIONAL OR DIFFERENT PARTS MAY RESULT IN A PRICE DIFFERENCE.**

Drawing Title									
Cover									
	REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY	APPROVED		
	Sales Engineer	Project Manager	Application Engineer	By Steve Nichols	DATE 9-13-2022	BY	DATE		
Project Title	Branch Information			CONTRACT NUMBER					
Exhaust Fan						DRAWING NUMBER			
						1			

System Riser



FC System Bus

Non-Plenum Applications:
CBL-22/3-FC-PVC

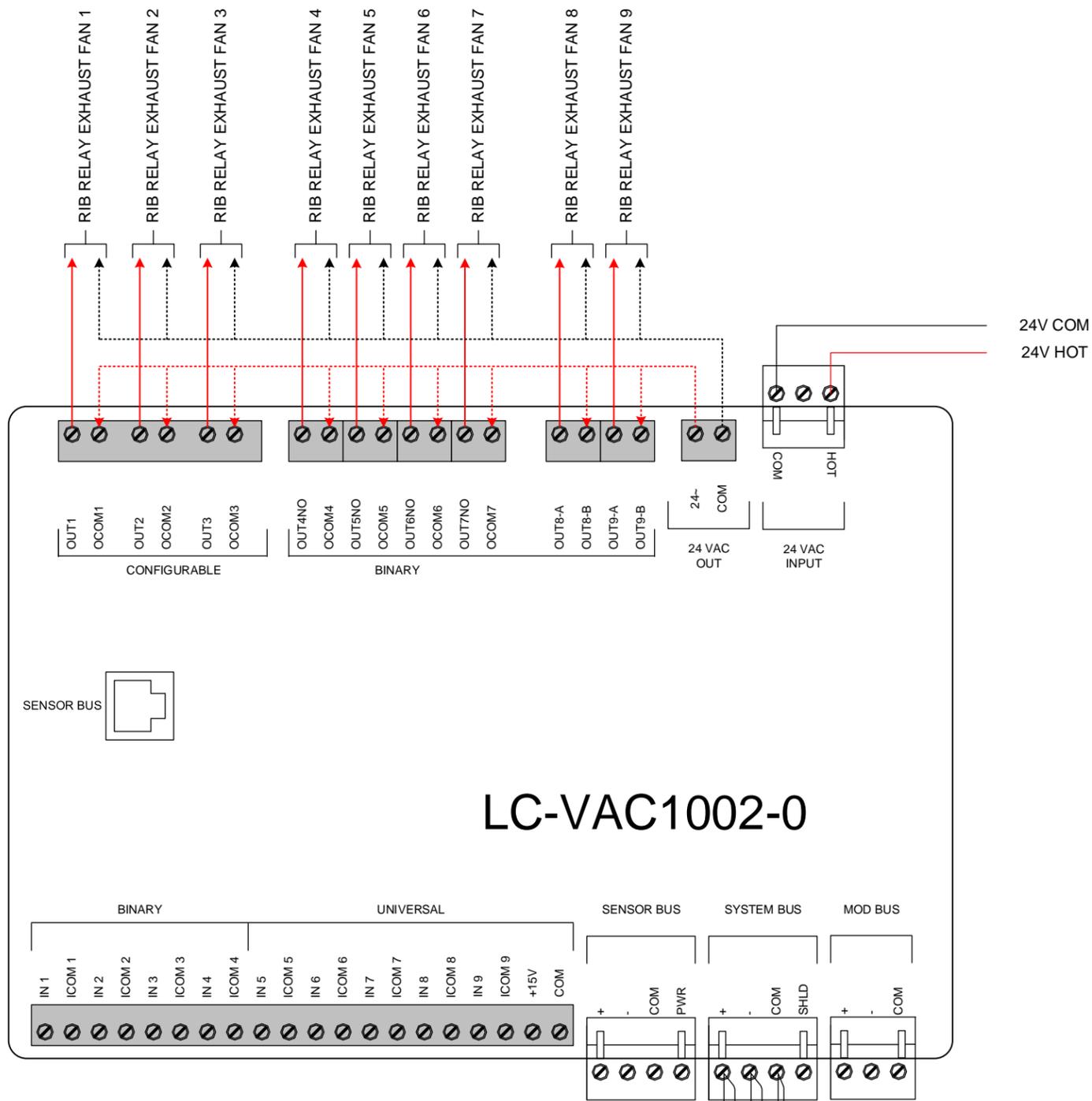
Plenum Applications:
CBL-22/3-FC-PLN

To change the address: ("ent" \ "V" \ "Controller" \ "V" \ "Network" \ "V" \ "Address" \ "ent" & after it flashes \ "A" \ "ent" if you don't press "ent" it will not save. After you save it will appear to go back to it's original address but give it a minute or two & the new address will update. **Or you can update address on the SBH.** On SBH click on "Devices" find your VAC controller & click on it then click on the "Controller" menu\ "Network Setup" \ "Address" & update address.

Every device needs to have a unique address. Duplicate addresses on the bus will cause controllers to disappear

Verasys Bill of Materials					
System	Function	JCI Part No	Description	Qty	
Network	Smart Building Hub	LC-SBH200-0S	Verasys Smart Building Hub	1	
Network	Communication Wire	CBL-22/3-FC-PLN	System/Zone Bus Cable 22-3C Shielded Plenum Wire	1	
I/O Module	IOM Device	LC-VAC1002-0	Verasys Input Output Configurable Controller, NOTE! 4 Binary Input	1	
I/O Module	IOM Transformer	Y65T42-0	Transformer 120/208/240 to 24V XFR 40VA	1	
I/O Module	IOM Device	RIBUIC	24v Relay	5	

Drawing Title									
Riser Diagram									
Project Title		3rd Party RTU		VERASYS™		CONTRACT NUMBER		DRAWING NUMBER	
								3	



LC-VAC1002-0

(MS/TP) FROM LAST DEVICE
 (MS/TP) TO NEXT DEVICE
 SEE RISER FOR SYSTEM BUS WIRING

2 Add New Schedule

SCHEDULES
ADD SCHEDULE

Choose a device... **3**

Facility: Exhaust Fan 1

Devices: Exhaust Fan 1

Alarms: Enabled Disabled

Schedules **1**

Data Share: Multistate **4**

Interlocks: Occupied/Unoccupied **5**

Settings Admin

Generic IOM-17 [Binary Output 2] 1-Off 2-On

Generic IOM-17 [Binary Output 3] 1-Off 2-On

Generic IOM-17 [Binary Output 4] 1-Off 2-On

Generic IOM-17 [Binary Output 5] 1-Off 2-On

Generic IOM-17 [Binary Output 6] 1-Off 2-On

Schedule Status: Enabled Disabled

Schedule Data Type: Multistate **4**

Schedule Type: Occupied/Unoccupied **5**

1-Occupied
2-Unoccupied

Scheduled Objects
Select scheduled objects to be controlled by this schedule.

Currently, there are no objects controlled by this schedule.

Select Objects **7**

Weekly Exceptions **6** +Add

Day	Time	Status	Actions
Monday	8:30 AM	Occupied	✎ ✕
	5:30 PM	Unoccupied	✎ ✕
Tuesday	8:30 AM	Occupied	✎ ✕
	5:30 PM	Unoccupied	✎ ✕
Wednesday	8:30 AM	Occupied	✎ ✕
	5:30 PM	Unoccupied	✎ ✕
Thursday	8:30 AM	Occupied	✎ ✕
	5:30 PM	Unoccupied	✎ ✕
Friday	8:30 AM	Occupied	✎ ✕
	5:30 PM	Unoccupied	✎ ✕
Saturday	No Schedule		
Sunday	No Schedule		

Cancel Save **8**

©2021 Johnson Controls International Plc. All rights reserved. <https://icps.com>
 Patents: <https://icps.com>
 SW Version: 4.1.0.37
 OS Version: 20181004182348
 Dictionary Version: 8.0.0.3797

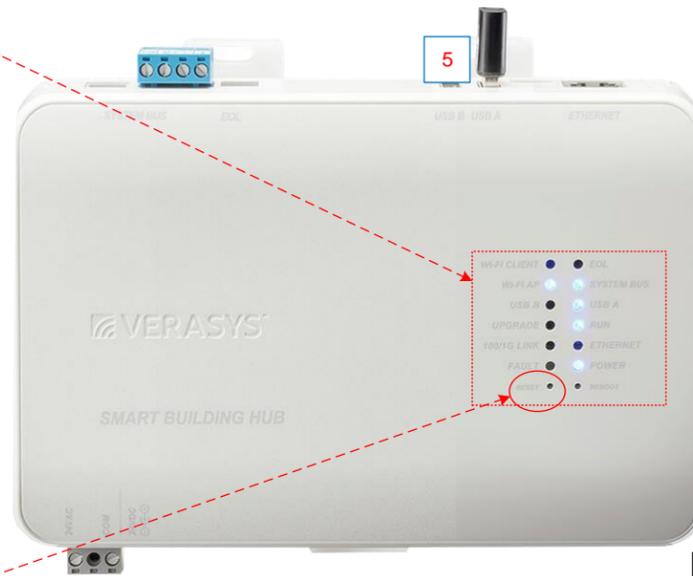
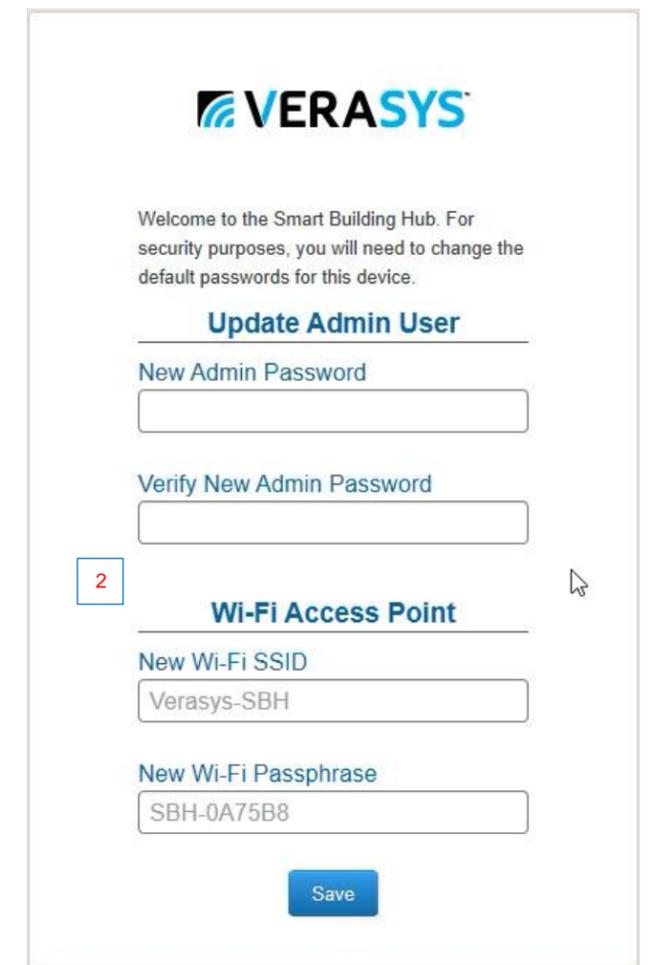
ORE Up SOCKET Up

Drawing Title									
VAC Detail									
Project Title		Exhaust Fan		Branch Information		CONTRACT NUMBER		DRAWING NUMBER	
								3	

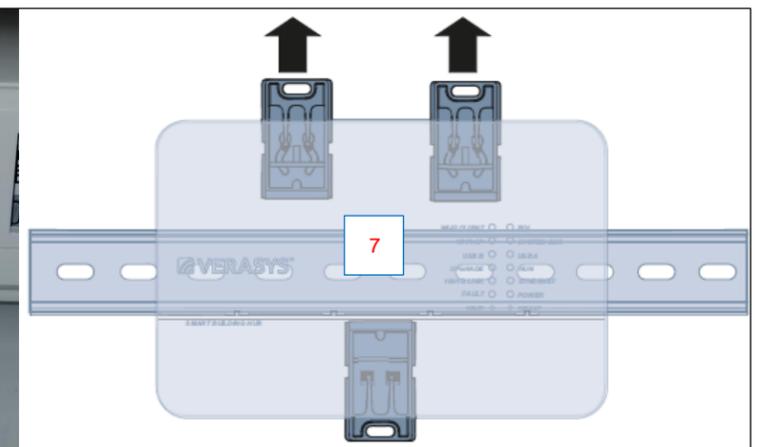


Smart Building Hub Information

LED Name	Color	Normal	Descriptions/Other Conditions
Power	Blue or Purple	On steady	Off = No power On Purple = Power is supplied by primary voltage On Blue = OS booted and power is supplied by primary voltage
Fault	Red	Off	Off = No faults/normal operation On steady = Missing hardware, missing software, operating system has not yet been initialized, or reset is in progress Slow flicker then fast flicker = Reset button is being pressed Medium flicker (2 blinks per second) = Startup sequence Fast flicker (5 blinks per second) = Fault
Ethernet	Blue	Flicker with activity	Off = Receiving data On steady = Transmitting data Flicker = Data transmission
100/1G Link	Blue	On steady	Off = no network connection On steady = network is connected
Run	Blue	On steady	Off = No power or waiting for processes to start On steady = OS and all monitored processes have started and the device is ready to use
Upgrade	Blue	On steady	Off = No upgrade in progress On steady = upgrade in progress
USB A	Blue	On when a device is connected	Off = No device is connected On steady = a device is connected
USB B	Blue	On when a device is connected	Off = No device is connected On steady = A device is connected
System Bus	Blue	Flicker with activity	Off = Not receiving data On steady = Transmitting data Flicker = Data transmission
Wi-Fi AP	Yellow	Flicker with activity	Off = No Wi-Fi adapter connected On steady = A device is connected to the Wi-Fi Network of the SBH Flicker = Wifi adapter is connected but no devices are connected
EOL	Yellow	On if the device is the end of the line Off if it is in the middle of the bus	Off = EOL not switched on On steady = EOL is switched on
W-Fi Client	Yellow	Not Used	Not Used - This will be used at a future date



Reset Function	Reset Operation ¹
Reset the Wi-Fi and Ethernet Settings	<ol style="list-style-type: none"> 1. Press and hold the RESET button for two seconds. The FAULT LED displays slow flicker behavior. 2. Release the RESET button within three seconds. The FAULT LED continues slow flicker behavior. 3. Within five seconds, press the RESET button again, and then immediately release it to confirm that you want to reset Wi-Fi and Ethernet settings. If you do not press the reset button to confirm within five seconds, the reset operation is canceled. <p>Result: You have reset the Wi-Fi SSID and passphrase and Ethernet settings to factory defaults. The LEDs stop flickering for two seconds, then the LEDs return to normal operation, based on the current state of the device.</p>
Reset to Factory Defaults²	<ol style="list-style-type: none"> 1. Press and hold the RESET button for six seconds. After two seconds, the FAULT LED displays slow flicker behavior. This changes to fast flicker behavior after an additional four seconds of holding the RESET button. 2. Release the RESET button within three seconds of seeing fast flicker behavior. The FAULT LED continues fast flicker behavior. 3. Within five seconds, press the RESET button again, and then immediately release it to confirm that you want to reset to factory defaults. If you do not press the RESET button to confirm within five seconds, the reset operation is canceled. <p>Result: You have reset all unit settings to factory defaults. The LEDs stop flashing for two seconds, then the LEDs return to normal operation, based on the current state of the device.</p>



- 1 Every SBH comes with a Quick Start Guide that gives you the login information
- 2 The first time you login into the SBH it will prompt you to change the default login (**SAVE THIS NEW LOGIN INFO**)
- 3 If you forget or lose the login information follow the info above
- 4 If you don't have the Quick Start Guide & need the default login use the following:
 Verasys-SBH
 SBH-XXXXXX (last 6 digits of your mac address on the back of the SBH-no dashes)
 Admin
 SBH-XXXXXX (last 6 digits of your mac address on the back of the SBH-no dashes)
- 5 The wi-fi dongle can be used in either USB port
- 6 The SBH can be powered by a 24vdc, 50w, Class II power supply or you can use a 24vac, 75va Class II transformer
- 7 The SBH can be mounted on denrail or screwed down using the standoffs

Drawing Title									
SBH Detail									
Project Title		Sales Engineer		Project Manager		Application Engineer		DRAWN	
Exhaust Fan		BY SJN		DATE 9-13-2022		BY		DATE	
Branch Information		CONTRACT NUMBER		DRAWING NUMBER					
VERASYS								4	

Smart Building Hub Quick Start

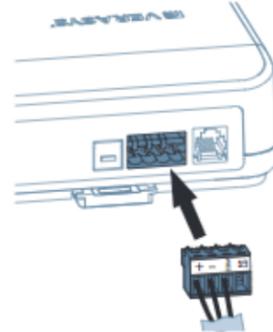
1. Connect the Smart Building Hub to Equipment

The Smart Building Hub (SBH) permanently connects to the Verasys™ system using the 4-terminal System bus port. Wire the system bus communications to the blue, 4-terminal connector and plug it into the port.

Note: If this device is at the end of a line, set the end of the line switch to on.

Note: The RJ-12 jack next to the 4-terminal block can be used as a temporary connection to the System bus using the RJ-12 cable supplied with the SBH.

Figure 1: Connecting the SBH



- Wire your cable to the supplied four-pin adapter as illustrated.
- Plug the Wi-Fi adapter that comes with the SBH into either of the USB ports.
- Connect the RJ45 Ethernet port to the building Ethernet network as instructed by the building IT department. The Ethernet must be plugged into the device if you choose the (optional) Ethernet setup in step 6.
- Connect power to the Smart Building Hub. Once power is supplied to the SBH, the **WiFi AP** LED flashes to indicate that the device is initializing. When the **Fault** LED turns off, the **WiFi AP** LED flashes, and the **RUN** LED is on, you can connect the SBH using the built-in Wifi access point.

Figure 2: SBH LED Map

WI-FI CLIENT	●	EOL
WI-FI AP	●	SYSTEM BUS
USB B	●	USB A
UPGRADE	●	RUN
100/1G LINK	●	ETHERNET
FAULT	●	POWER
RESET	●	REBOOT

2. Connect to the Smart Building Hub Wi-Fi access point

The SBH can be configured over Wi-Fi using a mobile device or laptop.

- In your Wi-Fi enabled device, access the Wi-Fi settings and select the Verasys-SBH access point name.
- Connect to the SBH Wi-Fi network using the supplied credentials from the beginning of this guide.

3. Open a Web Browser

- Navigate to the following URL: www.smartbuildinghub.com, to open the SBH browser interface.

Note: The SBH ships with a private smartbuildinghub.com SSL certificate installed to ensure secure communication with the SBH. However, this certificate does not indicate that it is trusted in a browser. If you wish to install your own certificate, refer to the *Smart Building Hub Network and IT Guidance Technical Bulletin (LIT-12012324)* for more information.

4. Log in to the Smart Building Hub

- Use the default Admin login credentials from the beginning of this guide.
- Read and accept the SBH license agreement.

5. Change Passwords and SSID

The first time you log into the SBH, the **Change Password and Passphrase** web page appears. You must change the Admin password, Wi-Fi passphrase, and the SSID.

IMPORTANT: After you change the Wi-Fi passphrase or SSID, the web server restarts and you must rejoin the SBH Wi-Fi network using the new passphrase. On some mobile devices, you must select and forget the original SBH Wi-Fi network before rejoining the network with the new passphrase. A laptop running Microsoft Windows is a device that behaves this way.

- In the **New Admin Password** field, enter a new password.
- In the **Verify New Admin Password** field, enter the same new password.
- In the **New Wi-Fi SSID** field, enter the new Wi-Fi SSID.
- In the **New Wi-Fi Passphrase** field, enter the new Wi-Fi Passphrase.
- Click the **Save** button.

Navigate to the following URL: www.smartbuildinghub.com, to open the SBH browser interface.

Note: The SBH ships with a private smartbuildinghub.com SSL

certificate installed to ensure secure communication with the SBH. However, this certificate does not indicate that it is trusted in a browser. If you wish to install your own certificate, refer to the *Smart Building Hub Network and IT Guidance Technical Bulletin (LIT-12012324)* for more information.

Navigate to the following URL: www.smartbuildinghub.com, to open the SBH browser interface.

Note: The SBH ships with a private smartbuildinghub.com SSL certificate installed to ensure secure communication with the SBH. However, this certificate does not indicate that it is trusted in a browser. If you wish to install your own certificate, refer to the *Smart Building Hub Network and IT Guidance Technical Bulletin (LIT-12012324)* for more information.

6. Ethernet Setup (Optional)

This step describes how to access the SBH over an Ethernet network.

- In the SBH UI, navigate to **Settings > Ethernet**.
- On the **Ethernet** drop-down list, select **On** to enable the SBH Ethernet port.
- Click the **Save** button.
- Take note of the address in the IP Address field. By default, the SBH is configured to dynamically receive an IP address from your network using DHCP.
Note: If the IP Address does not appear, refresh the screen.
- Enter the IP address from the previous step. You now have access to the SBH over an Ethernet network. Refer to the *Smart Building Hub Network and IT Guidance Technical Bulletin (LIT-12012324)* for more options.

7. Use the Smart Building Hub

Select a device from the equipment list and use the web pages from the SBH to view, commission, and configure devices as needed.

IMPORTANT: Save this guide. It contains your default user name and password information. This information may be needed to reset your Smart Building Hub to factory defaults.

Technical Specifications

Smart Building Hub

Power Consumption	38W maximum
Ambient Temperature Conditions	Operating: 0 to 50°C (32 to 122°F) Operating Survival: -30 to 60°C (-22 to 140°F) Non-Operating: -40 to 70°C (-40 to 158°F)
Ambient Humidity Conditions	Storage: 5 to 95% RH 30°C (86°F) maximum dew point conditions Operating: 10-90% RH, 30°C (86°F) maximum dew point conditions

Drawing Title									
SBH Quick Start									
REFERENCE DRAWING		NO.		REVISION-LOCATION		ECN		DATE	
Sales Engineer		Project Manager		Application Engineer		DRAWN		APPROVED	
				BY: SJN		DATE: 9-13-2022		BY: DATE	
Project Title		Branch Information		CONTRACT NUMBER					
Exhaust Fan		VERASYS™				DRAWING NUMBER		5	

Smart Building Internet Settings

Choose a device... ▼

← Menu

1 Settings

Wi-Fi Access Point

Backup

Restore

Profiles

Clone

2 Ethernet

Load Shedding

Global Shutdown

System Settings

Verasys Enterprise

BACnet Settings

BBMD

SSL

Alarm Notifications

Software Updates

Administration

Custom Logo

SETTINGS
ETHERNET

Ethernet

3 On

Hostname
SBH00108D0A7F56

Domain Name Suffix

Ethernet Mac Address
00:10:8d:0a:7f:56

Auto DHCP

4 Off

IP Address

5 Get From I.T. Group

Subnet Mask

6 Get From I.T. Group

Default Gateway

7 Get From I.T. Group

Auto DNS

Off

Primary DNS Server

8 8.8.8.8

Secondary DNS Server

9 8.8.4.4

Enable Proxy

No

Note: Smart Building Hub must be connected to an external power source for Ethernet to function.

Cancel 10 Save

Get This Info From Customer I.T. Group or I.S.P. Then Write Info Here:

Static IP Address: _____

Subnet Mask: _____

Default Gateway: _____

Primary DNS Server: _____

Secondary DNS Server: _____

Email Host: _____

Email Port: _____

Mail Server User Name: _____

Mail Server Password: _____

VPN Address: _____

VPN User: _____

VPN Password: _____

Setting up Internet Access:

- Reach out to the customers I.T. group & get the following... a "Static IP Address", "Subnet Mask", "Default Gateway", & "Primary & a Secondary DNS Server"
- Log into the SBH, click on "Settings" then "Ethernet" & change "Auto DHCP" to "Off"
- Add the info you got from the IT group into the SBH & make sure there's a network cable plugged into the SBH & the customers internet.
- Turn off your wifi. Open Chrome or Safari & type in the ip address. This should bring you to the Verasys login page...if not you may need to log into the customers VPN. (Call customer I.T. people up for VPN access) & repeat Step 4.

Drawing Title									
Internet Detail									
Project Title		Exhaust Fan		Branch Information		CONTRACT NUMBER		DRAWING NUMBER	
								6	

Smart Building Alerts & Email Settings

Global Shutdown

System Settings

Verasys Enterprise

BACnet Settings

BBMD

SSL

1 Alarm Notifications

Software Updates

13 Administration

Custom Logo

Audit Log

Diagnostics

SETTINGS
ALARM NOTIFICATIONS

Enabled

2 On

Use SSL/TLS

3 Yes

Host
Ex: mail.server.com

4 mail.server.com

Port

5 80

Locale
Notification emails will be sent using this locale

6 English

From Email Address
Notification emails will come from this address

7 This can be any email address

Site Name

8 Best to make this the name of the building

Username

9

Set Password

Cancel Save 10

Test Email Address
Address to send test email to

11 Enter the name of your email to verify it works

12 Send Test Email

Note: To get text & email alerts you need to be connected to the internet & set up a user for each person who needs to get alerts. Follow Steps 1-23

Setting Up Text & Email Alerts:
-Reach out to the customers I.T. group & get the following... a mail server "Host", "Port #"

Setting Up Text & Email Alerts:
-Reach out to the customers I.T. group & get the following... Mail Server "User Name" & "Password"

Adding Text Alerts:

AT&T phone#nodashes@txt.att.net

Verizon phone#nodashes@vtext.com

T-Mobile phone#nodashes@tmomail.net

Sprint phone#nodashes@messaging.sprintpcs.com

Cricket phone#nodashes@mms.cricketwireless.net

Virgin phone#nodashes@vmobl.com

Tracfone phone#nodashes@mmst5.tracfone.com

Metro PCS phone#nodashes@mymetropcs.com

Boost phone#nodashes@myboostmobile.com

If your cell carrier is not displayed go to Google & search for their text address

14 Add New User

ADMINISTRATION
ADD USER

Name

15 Brad Pitt

Username
No spaces

16 Brad

Password
Must contain 8 or more characters, 1 lowercase letter, 1 uppercase letter, 1 number

17

Verify Password

18

Role

19 Admin

Alarm Notification Level

20 Service Priority

Email Address 1

21 bradley.pitt@hollywood.com

Email Address 2

22 8038675309@txt.att.net

Cancel Save 23

Drawing Title									
Alarms & Users									
Project Title		Exhaust Fan		Branch Information		CONTRACT NUMBER		DRAWING NUMBER	
								7	