# Suitcase
# SmartStruxure Lite Solution
## Commissioning Instructions



Schneider Electric — **Building management**

**HVAC control**
> Fan coil, roof top, heat pump & IAQ
> Optional humidity & motion sensors
> BACnet MS/TP, Modbus, ZigBee Pro

Room 1705
Occupied
Indoor °C
**23.5°**
24.0
Humidity 45% | Outdoor 18°C

**Light control**
> Basic & advanced
> Light harvesting
> Blind control

**Occupancy**
> Motion detection
> Door & window contacts

Room

Life Is On
by Schneider Electric™

**SmartStruxure Lite solution**
> Enhancing comfort and productivity
> Increasing energy efficiency
> Improving operational efficiency

**PMS**
Property Management System

**Building Insights**
a Cloud-based solution

**SmartStruxure solution**
powered by
StruxureWare Building Operation

**SmartStruxure Lite solution**
powered by
StruxureWare Building Expert

**Control**
> ZigBee Pro
> EnOcean
> Modbus
> Analog and binary I/O

**Networking**
> ZigBee Pro
> IP/Ethernet
> CANbus

**MPM**
with
Building Expert

**Integration**
> EWS
> BACnet IP
> oBIX

**Power management**
> Meters & current transformers
> Circuit-breakers

Schneider Electric

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## SUITCASE - SMARTSTRUXURE LITE SOLUTION

Congratulations on acquiring your SmartStruxure Lite solution suitcase.

In addition to this document, videos are available on The Exchange under:
**Product Offering > SmartStruxure Lite > Sales Support Library > Videos**
- Video: SSLite suitcase - Commissioning
- Video: SSLite suitcase - Sales demonstration

### Demonstration Product

This suitcase is a demonstration product to be used for demos in
trade shows and in meetings with partners, specifying engineers
and end-customers.

### Suitcase Contents

Your suitcase contains:
- Fully connected and mounted:
    1. Wi-Fi router (under the green panel).
    2. MPM-UN with ZigBee Pro and EnOcean.
    3. SE8350 with VCM8000V5045P ZigBee Pro module.
    4. SED-WDS-P.
    5. EnOcean light switch.
    6. EnOcean light relay.
    7. LED strip.
- Power cable.
- Universal plug adapter (868MHz model only).
- Ethernet cable.
- USB to micro-USB cable.
- Commissioning instructions guide (this document).
- Two extra batteries* for the SED-WDS-P.
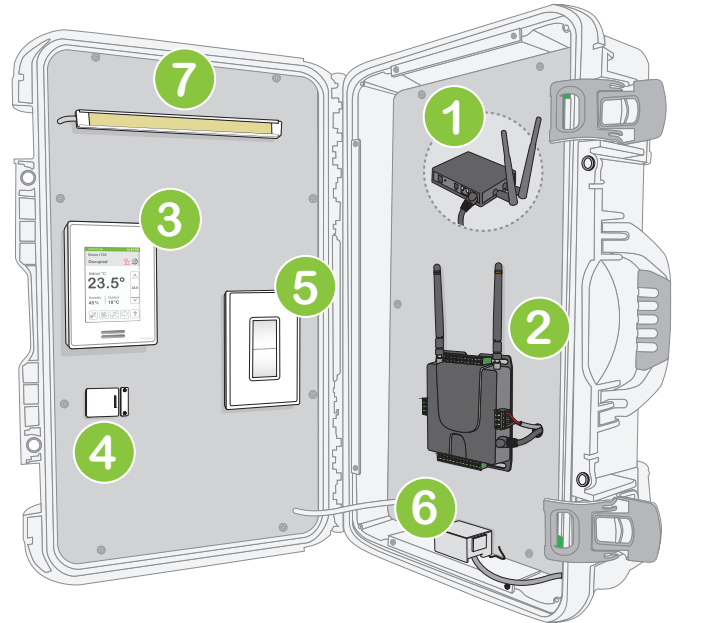
*Power cable*

*Universal plug adapter 868MHz model only*

*Ethernet cable*

*USB to micro-USB cable*

*Two extra CR2032 3V batteries* *for the SED-WDS-P*

*Commissioning instructions guide (this document)*

**\* SED-WDS-P:** *Since the suitcase will be unpowered when not in use, the SE8000 will be off, which means the SED-WDS-P will be looking for its network, without finding the SE8000. This can create premature depletion of the battery, and therefore, extra batteries are included. If the contact switch becomes unpaired, you may consider performing the pairing procedure to bind the contact switch to the SE8000 again.*

### What the User must Perform

To be able to demo the suitcase, you first have to commission it. Commissioning will create a network between the MPM and all other devices, as well as upload a fully programmed database to Building Expert. Without commissioning, the suitcase is not ready for use.

You can perform the commissioning by following this guide or the "SSLite Suitcase - Commissioning" video on The Exchange.

**CAUTION: Using Multiple Suitcases at the same time**
If two or more commissioned suitcases are powered up at the same time, their ZigBee Pro network settings will be in conflict. To use multiple suitcases at the same time, you must navigate to the ZBC1 object in Building Expert and make sure that each suitcase uses a different PAN ID, Channel, and Extended ID. The changes in the ZigBee Pro network settings must also be applied to the SE8000 (refer to page 7).

## DOWNLOADS

This section shows necessary assets to download to commission the Suitcase.

### Download Suitcase Files from The Exchange

1. Navigate to https://ecobuilding.schneider-electric.com.
2. Mouse over **Product Offering** and click on **SmartStruxure Lite**.
3. Open the **+ Sales Support Library** and click on **Demo Tools**.
4. Download and unzip **Suitcase - Commissioning - SmartStruxure Lite Solution - Demo Tool.**
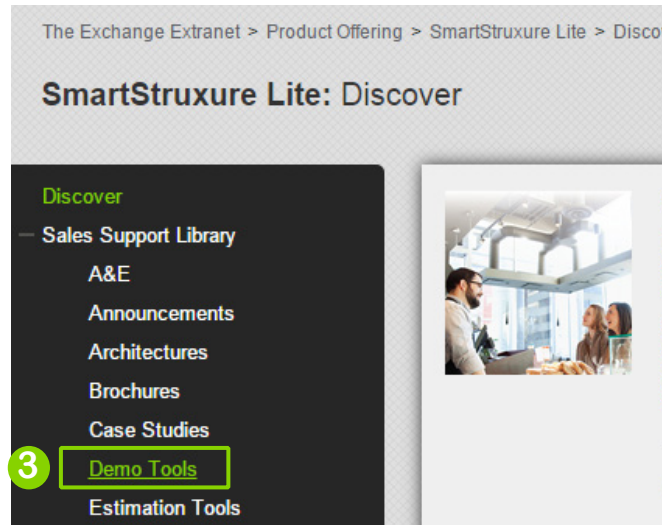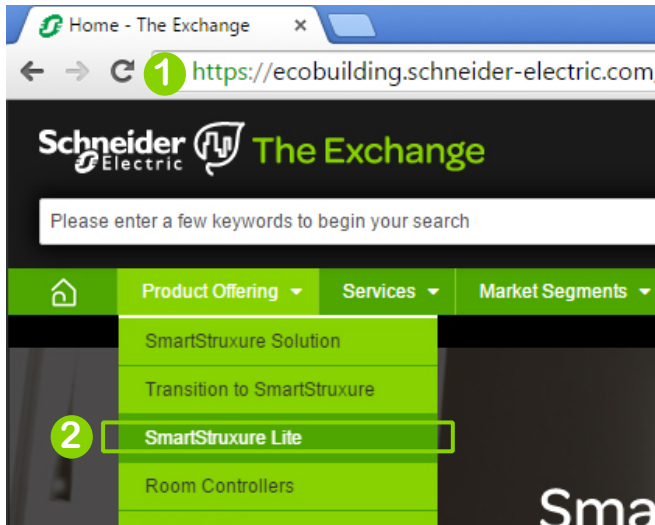


### Download Uploader SE8000 Tool from The Exchange

1. If you do not already have it on your computer, download the Uploader SE8000 tool.
2. Mouse over **Product Offering** and click on **Room Controllers**.
3. Open the **+ Software and Firmware** menu, and click on **Engineering Tools**.
4. Download **SE8000 Series Room Controller - Uploader Tool - Installation Sheet**.
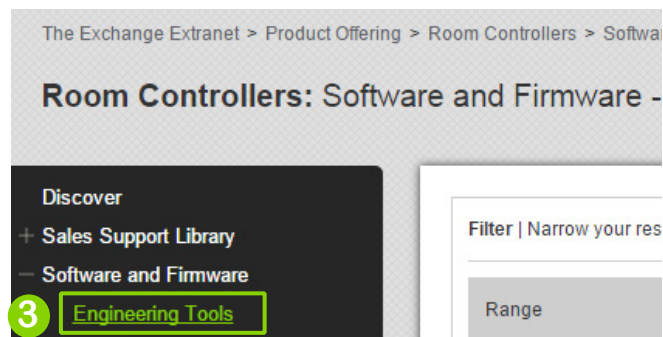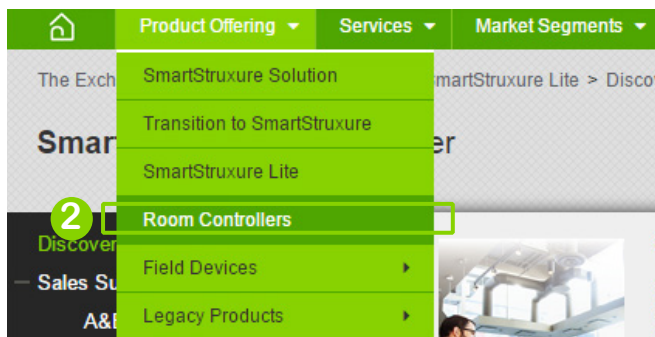


### Go Offline

You have now downloaded all necessary assets for the SSLite Suitcase setup. Disconnect from the Internet and any Wi-Fi network you are connected to avoid networking issues during the rest of the setup.

## COMPUTER SETUP FOR ROUTER

### Computer Network Configuration

Below are the settings required to setup the Router in the suitcase. They will be used once, and will be changed afterwards.

1. From the **Control Panel** menu on your computer, open **Network Connections** (Windows XP) or **Network and Sharing Center** (Windows 7).
2. Click on **Change adapter settings** in the left pane.
3. Right-click on **Local Area Connection** and choose **Properties**.
4. Select **Internet Protocol Version 4 (TCP/IPv4)** and choose **Properties**.
5. Select the **Use the following IP address** option and enter the following parameters:
   a. IP address: 192.168.10.10
   b. Subnet mask: 255.0.0.0
6. Click **OK**.
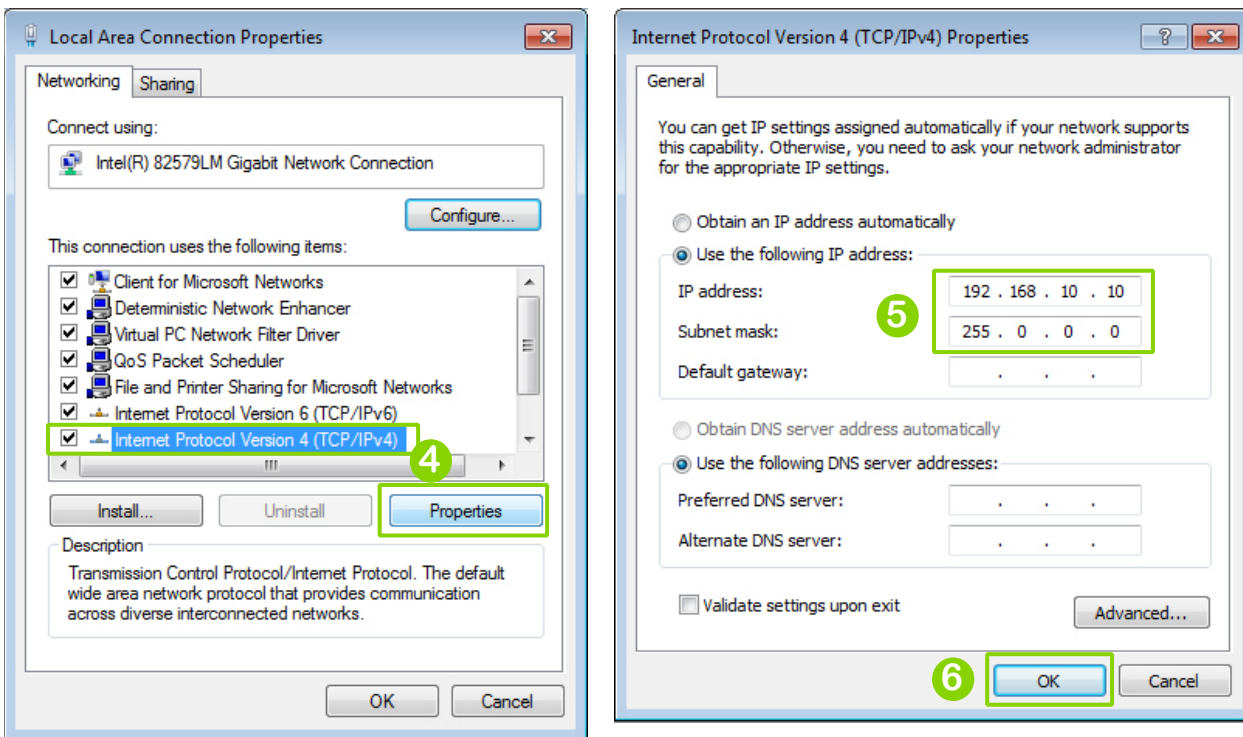


## SUITCASE PREPARATION

### Standing up, Power up, and Ethernet Connection

1. Place the suitcase nearby PC in the upright position.
2. Use the included power cord and the appropriate adapter to plug the suitcase (exterior bottom left) in an outlet of 120V or 240V.
3. Use the included Ethernet cable to connect your computer to the Ethernet port (exterior top left).
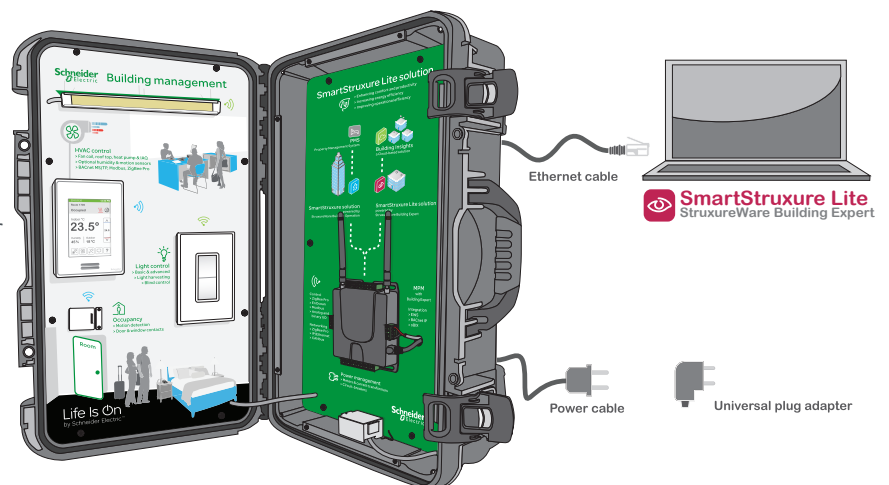
## ROUTER SETUP

### Router Settings

1. Access the suitcase's Router by opening a browser window and entering the address **192.168.10.1**.
2. Press **Cancel** if a pop-up requests to use Setup Wizard.
3. Enter the username and password shown on the right.
4. In the left pane select **Wireless tab.**
5. Change the **SSID** to "SSLite Suitcase" (this name will be available from your computer's Wireless Network Connection menu). Click **Apply**.
6. Navigate to the Security subtab and enter the Passphrase "suitcase" (or a passphrase of your choice).

(!) This Passphrase becomes the password for the Wi-Fi network of the suitcase. If you chose a different passphrase, write it here:

_____

Click **Apply**.

7. In the left menu, select **Main** tab.
8. In **LAN & DHCP Server**, do the following:
   a. Set Router IP address to **10.50.80.1**.
   b. Set Subnet Mask to **255.0.0.0**.
9. Click **Apply**. The router takes up to 75 seconds to reboot.

(!) 10.50.80.1 is now the Router's address if you want to access it again to modify Router settings (not recommended).

③ Router
Username & Password

**TRENDNET**

Main
④ Wireless
• Basic
• Security
• Advanced
• Wi-Fi Protected Setup

Basic

Wireless ⦿ Enabled ◯ Disabled
⑤ SSID SSLite Suitcase
Auto Channel ☑

Wireless
• Basic
⑥ • Security
• Advanced
• Wi-Fi Protected Setup

Status

Routing

Access

Security

Authentication Type WPA2 ▼
PSK / EAP ⦿ PSK ◯ EAP
Cipher Type ◯ TKIP ◯ AES ⦿ Auto
Passphrase ••••••••
Confirmed Passphrase ••••••••

Cancel    Apply

⑦ Main
• LAN & DHCP Server
• WAN
• Password
• Time
• Dynamic DNS
• IPv6

LAN & DHCP Server

Host Name TEW-731BR
⑧ IP Address 10.50.80.1
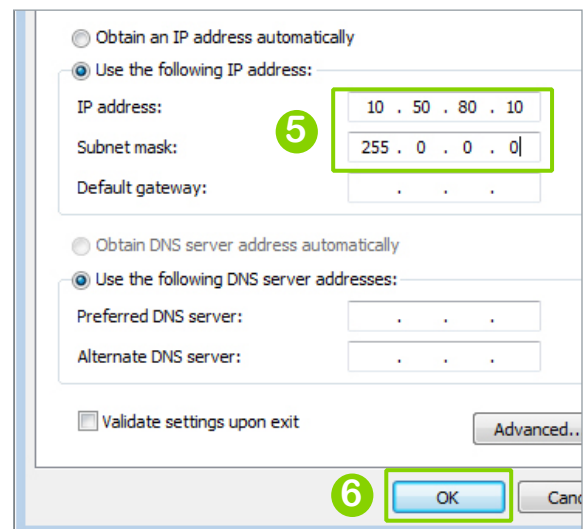Subnet Mask 255.0.0.0

## COMPUTER SETUP FOR BUILDING EXPERT

### Computer Network Configuration

(!) These are the settings required to access Building Expert when connected with an Ethernet cable. Wireless connection to the Router does not require changing any computer settings.

1. From the **Control Panel** menu on your computer, open **Network Connections** (Windows XP) or **Network and Sharing Center** (Windows 7).
2. Click on **Change adapter settings** in the left pane.
3. Right-click on **Local Area Connection** and choose **Properties**.
4. Select **Internet Protocol Version 4 (TCP/IPv4)** and choose **Properties**.
5. Select the **Use the following IP address** option and enter the following parameters:
   a. IP address: **10.50.80.10**
   b. Subnet mask: **255.0.0.0**
6. Click **OK**.

◯ Obtain an IP address automatically
⦿ Use the following IP address:
IP address:        10 . 50 . 80 . 10
Subnet mask:       255 . 0 . 0 . 0
Default gateway:       .   .
⑤

◯ Obtain DNS server address automatically
⦿ Use the following DNS server addresses:
Preferred DNS server:       .   .
Alternate DNS server:       .   .

☐ Validate settings upon exit        Advanced..

⑥   OK    Canc

## BUILDING EXPERT DATABASE UPLOAD

Use the files you have downloaded at the beginning of this commissioning guide.

1. In address bar of your browser, enter **10.50.80.3/test.html**
2. The username is "admin", the password is "admin".
3. Under **File Upload,** browse to the previously downloaded Database folder and select **Suitcaseconfig.db**.
4. In **Remote Path** field, enter "config.db".
5. Click **Submit Query**.
6. Wait for {"success": true} to show before you proceed.
7. In Browser, click the back button to return to the previous page.
8. Under **File Upload,** browse to the previously downloaded Database folder and select **Suitcasedefault.db**.
9. In **Remote Path** field of **File Upload** window, enter "default.db".
10. Click **Submit Query.**
11. Wait for {"success": true} to show before you proceed.
12. The MPM will reboot automatically.
    Wait until the reboot is complete. It can take up to 5 minutes to reboot. You will notice the rebooting is complete when:
    - The green LED lights for 5 seconds, then blinks, then lights for 5 seconds, then blinks, etc.
    - The blue LED stays on.
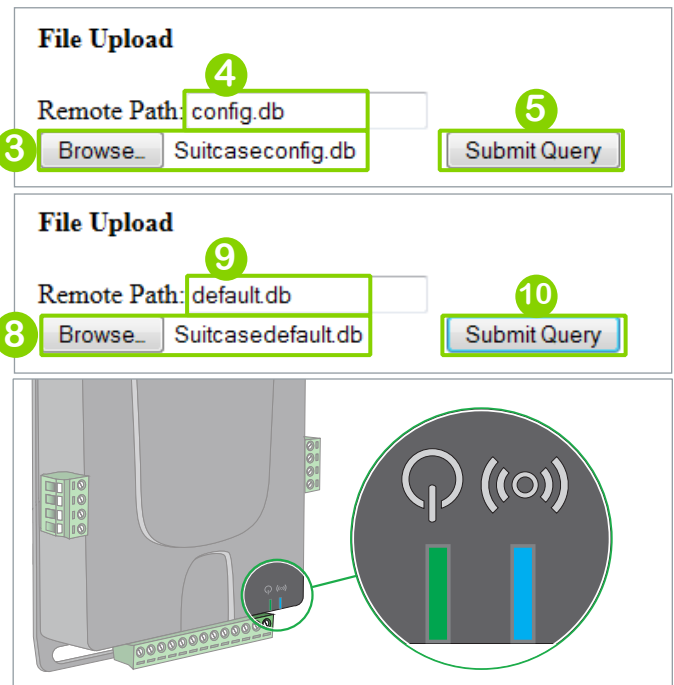
## BUILDING EXPERT CONFIGURATION

Now that the MPM has rebooted, log into **Building Expert**.

1. In the address bar of the browser, enter **10.50.80.3**
   a. Username: "admin"
   b. Password: "admin123"

You may have to enter this information twice due to the security pop-up in the **Building Expert** login screen.

### CFG1 Controller Configuration

2. Navigate to object **CFG1**.
3. Adjust time and date in the **Date Configuration** box.
4. Set **Save period** to "Never".
5. Click **Save**.

### Save Database

6. In the **Explorer** tab, click **Save to database flash** in the upper button bar.
7. Wait until saving is complete.
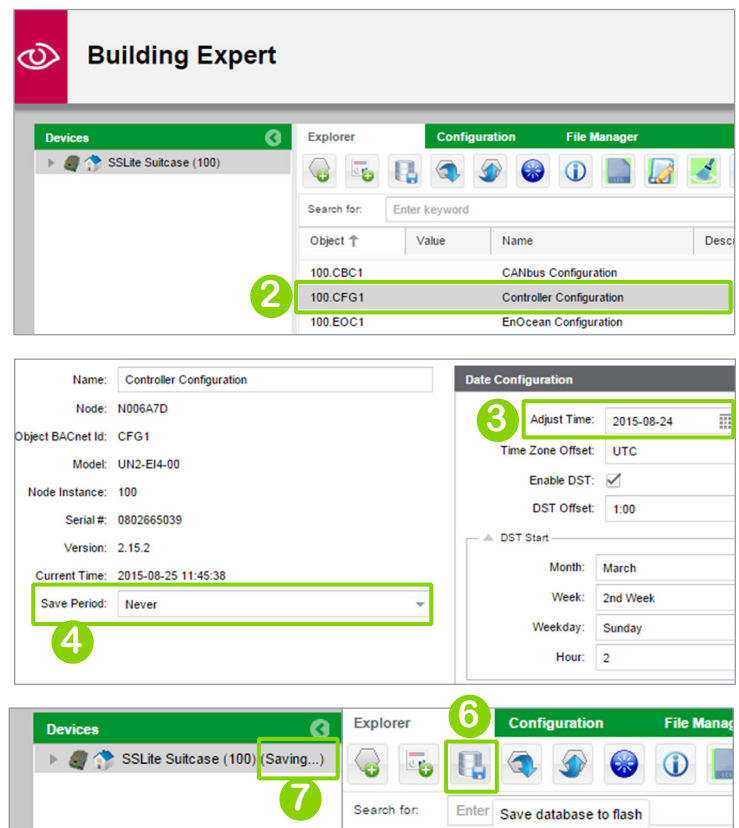
# SE8000 INTEGRATION

## SE8000 ZigBee Network

1. On the SE8000 in the suitcase, press and hold the top middle part of the display for 3 seconds to enter **Setup**.
2. Tap **Network**.
3. Tap **COM address**. Using the arrow buttons **∧∨**, enter a unique **COM address** value such as '1'.
   Press and hold **∧** to go faster. This value will help you identify the Room Controller during the binding process.
4. Tap **ZigBee PAN ID**. Using the arrow buttons **∧∨**, enter a value of 1 (which is identical to the **ZBC1 PAN ID** field in **Building Expert**).
5. Tap **ZigBee** channel. Using the arrow buttons **∧∨**, enter the number 15 (which is identical to the **ZBC1 Channel** field in **Building Expert**)
6. Verify **ZigBee status** shows **Joined**. This may take a few seconds.
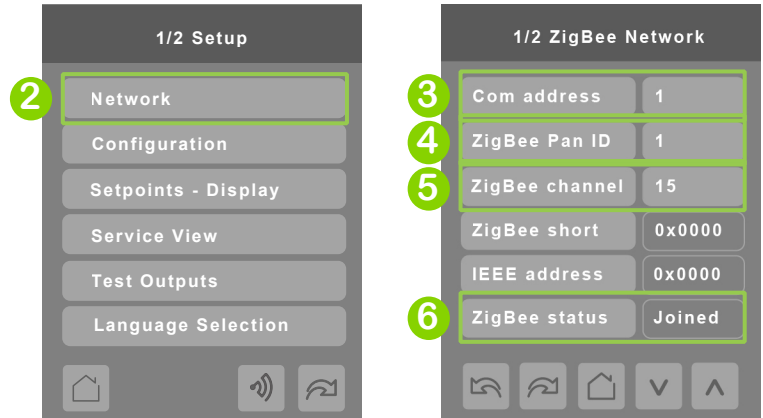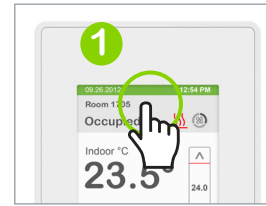
⚠ If you want to use different ZigBee PAN ID and Channel settings because there are other ZigBee networks in the area, or to comply to local standards, make sure your modified settings are identical in both the SE8000 and in Building Expert.

## Using Building Expert to Bind Room Controller

1. In the **Devices** pane, select **SE8350U Room Controller**.
2. In the **Explorer** tab, navigate to **ZigBee Room Controller Configuration** (**ZVC1**) object.
3. Click the **Bind** button. The **Select SE8350 device** window pops-up, and searched for the SE8000 in the suitcase.
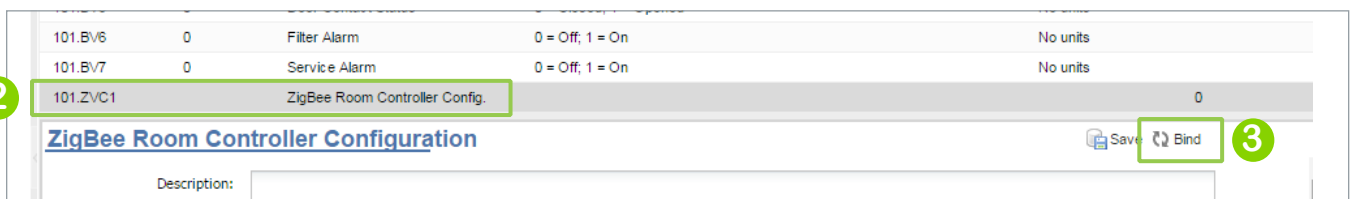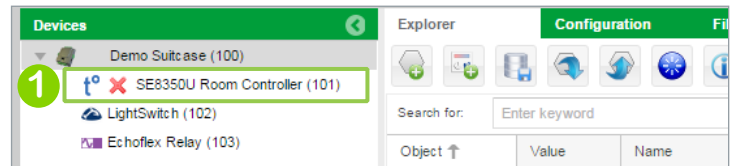
4. From the list of devices found, select the SE8000 with the **COM address** 1 (or other COM address you previously selected in the SE8000's ZigBee Network menu).
5. Click the **Bind device** button.
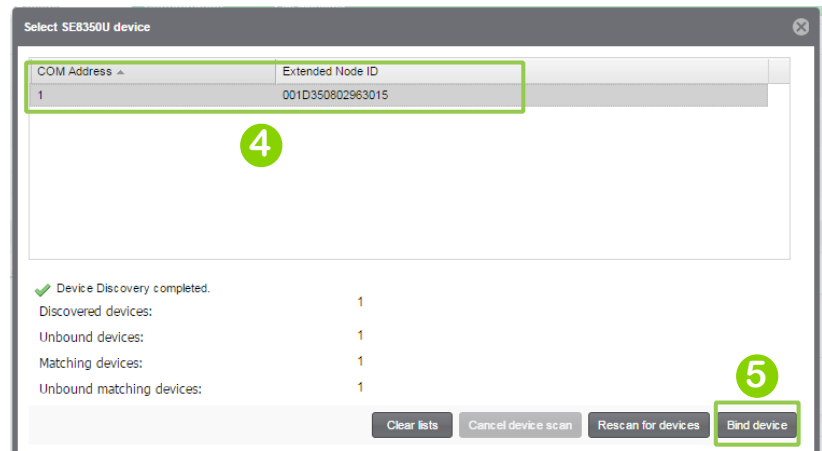
6. Still in the **ZVC1** object, ensure the status is **Online**. If so, your SE8000 is now fully integrated into Building Expert.
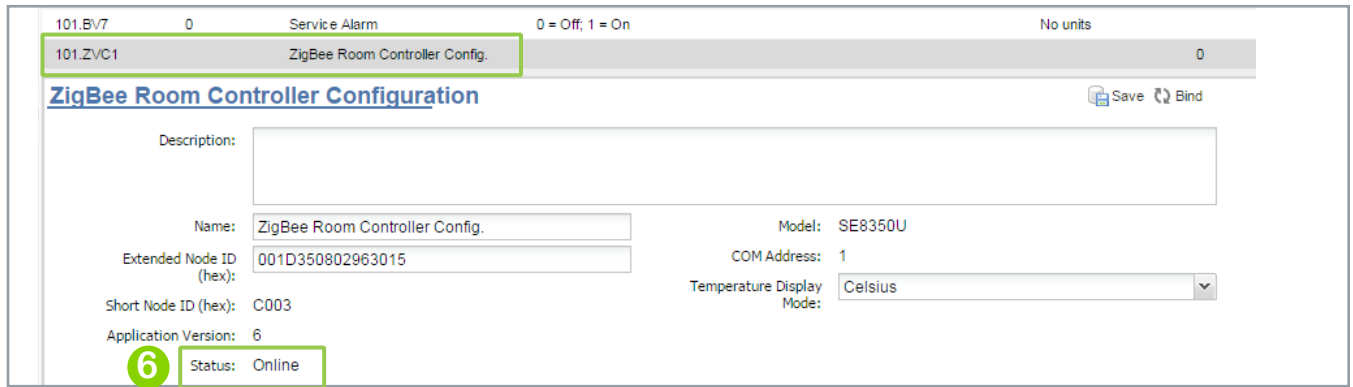


### Save Database

1. In the **Explorer** tab, click **Save to database flash** in the upper button bar.
2. Wait until saving is complete.
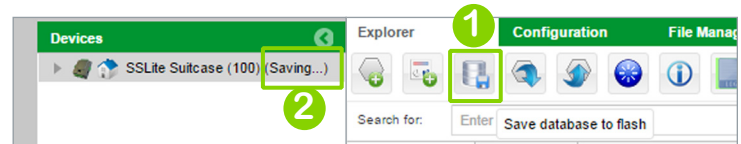


## ZIGBEE PRO CONTACT SWITCH INTEGRATION

1. On the SE8000 in the suitcase, press and hold the top middle part of the display for 3 seconds to enter **Setup**. Tap on the ⟿ button to go to the 2nd page.
2. Tap on **Wireless Ecosystem**. You automatically land on the **1/10 Zone** menu.
3. The **Permit Join** should be set to **On**.

   **Important**: If you exit this menu before pairing of the sensor is complete, you must wait 30- 60 seconds before attempting to enter the **Wireless Ecosystem** menus. It is best to perform this integration without interruption.

4. Take the larger piece of the ZigBee Pro contact switch that is in the suitcase.
5. Open the lid of the sensor and remove the plastic film to fully install the battery.
6. Press on the learn button 10 times. Then close the lid and place the sensor back on the velcro.
7. Pairing is complete when the status of **Paired** shows **Yes**.
8. Set the **Set function to** parameter to **Door** or **Window** setting.



Learn button 6
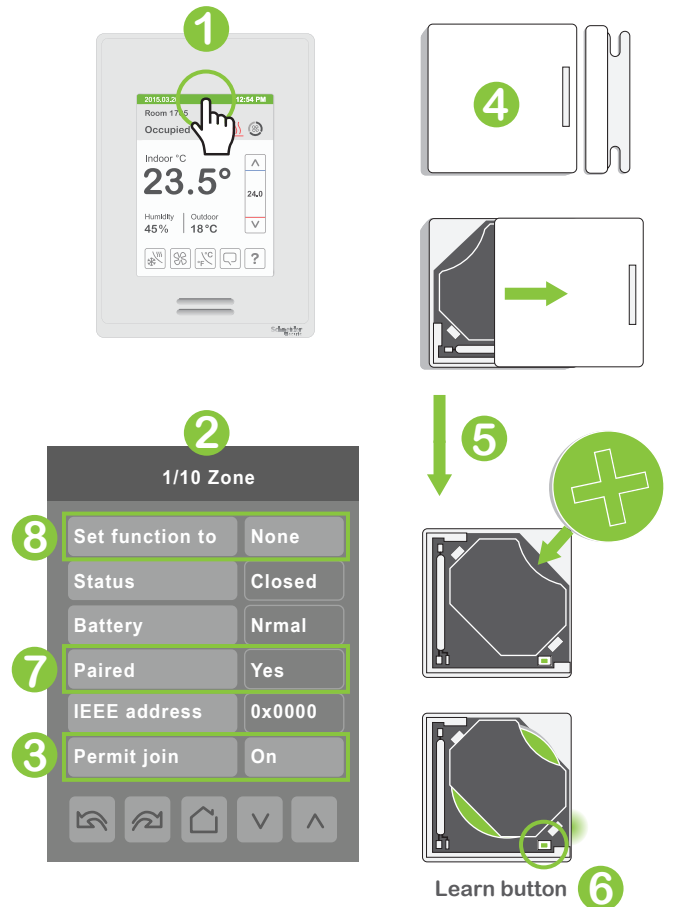
## SE8000 SCRIPT AND STANDBY IMAGE UPLOAD

### Using the Uploader SE8000 tool

For this part, you need the Uploader SE8000 tool installed on your computer. If it is not installed, use the files you have downloaded earlier to install it.
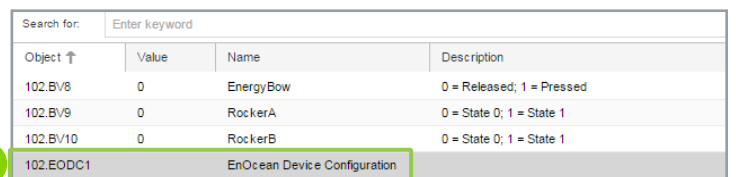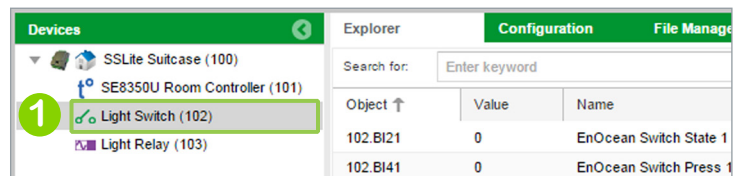
1. Run the Uploader SE8000 tool.
2. Using the USB to micro USB cable found in your suitcase, connect the SE8000 to your computer.
3. In the top right corner of the Uploader SE8000 window, the status must show **Ready**.
4. Tick the **Lua script** box and browse for the "**SE8350-Script_SSLite_Suitcase.lua**" file found in the **SE8000** folder of the suitcase files you have downloaded earlier.
5. Tick the **Standby image** box and browse for the "**Standby-Image_SSLite_Suitcase.bmp**" file found in the same folder.
6. Click on the **Export** button.
7. The SE8000 will reboot. This will take about 5 seconds. Right after the reboot, you should be able to see the custom Standby image on the SE8000's display.
8. Press and hold the top middle part of the display for 3 seconds to enter **Setup**. Tap on the ⤴ button to go to the 2nd page.
9. Tap on **Lua**. You automatically land on the **1/3 Lua** menu. There, the script should be visible right away. If the page is empty, start again from step 3.
10. With the script successfully uploaded, you can now control the LED of the suitcase from the SE8000, by pressing on the 💡 button at the bottom right of the user interface.
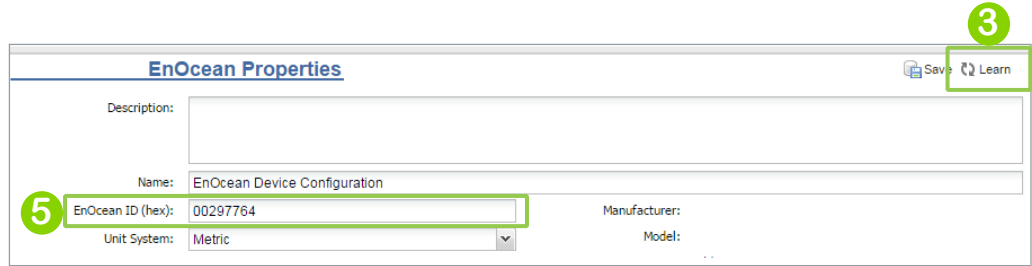


**USB to micro-USB cable**
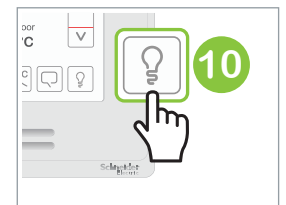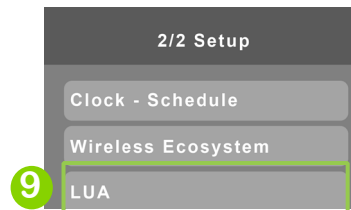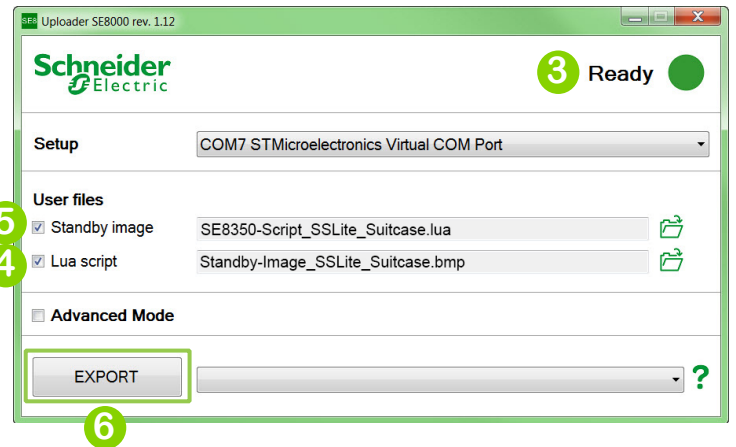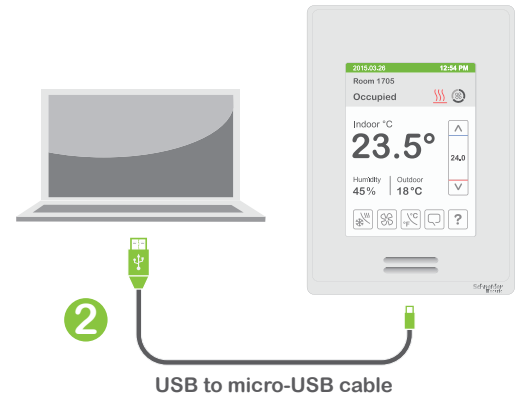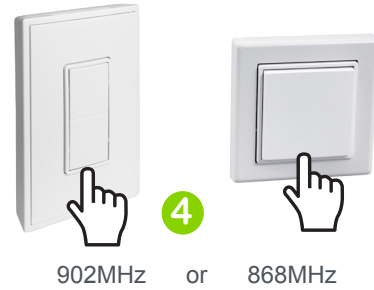




## LIGHT SWITCH AND LIGHT RELAY INTEGRATION

### EnOcean Light Switch

1. In the **Devices** pane of **Building Expert**, click on **Light Switch**.
2. Navigate to the **EODC1** object.
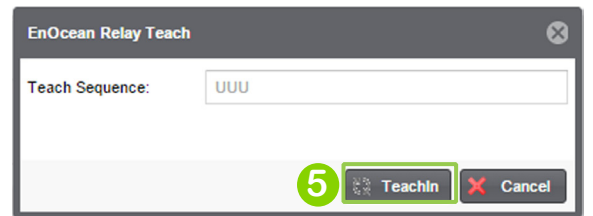
8. In **Building Expert**, activate the virtual rocker switch to confirm successful learning of relay. The state of the relay will also change from 0 to 1.
9. If not successful, repeat steps 3 to 7 until successful.

## Save Database and Play PG1

1. In the **Explorer** tab, click **Save to database flash**. Wait until completion.
2. In the **Explorer** tab of **Building Expert**, navigate to **PG1** and press **Play** to re-start the Lua Program.
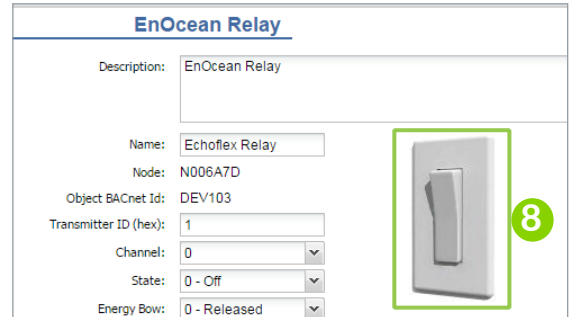


## BUILDING EXPERT IMAGE UPLOAD

### Images used in the Building Expert Map Sections

1. In **Building Expert**, click on the **File Manager** tab.
2. Click the **Upload File** button and browse the **SSLite Suitcase** folder into the **Floor plans** sub-folder.
3. Upload all images (one-by-one) from the **Floorplans** sub-folder.
4. Refresh **Building Expert.** Then from the **Monitoring** tab verify the floor plan images are visible in the Section maps.
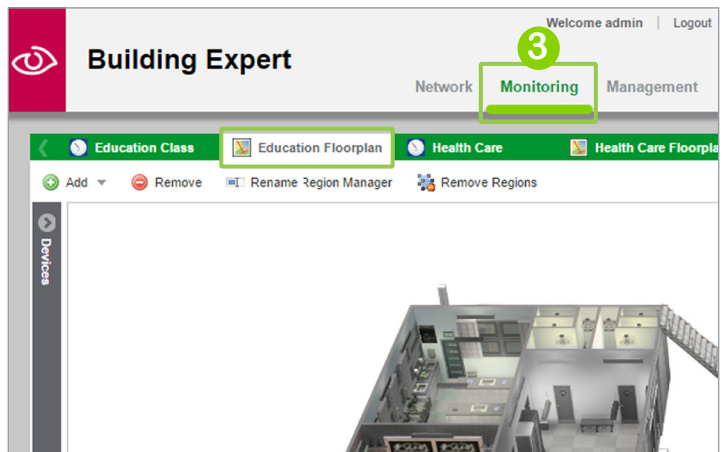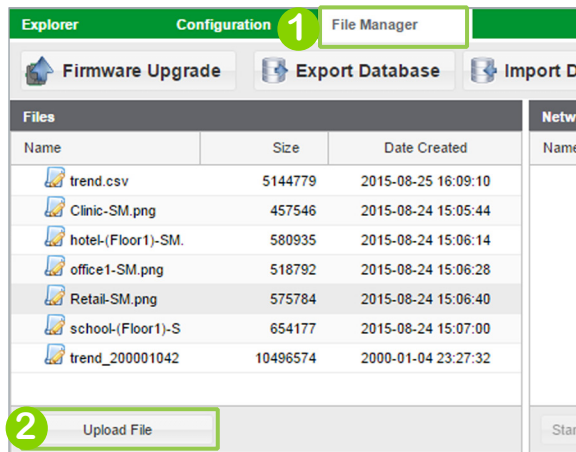


## Save Database

In the **Explorer** tab, click **Save to database flash** again and wait until completion. The suitcase is now fully commissioned!

## BACKUP PROCEDURES

Now that your commissioning is complete, it is recommended to back-up your Building Expert database files.

### Export default.db MPM-UN File

1. In your browser, type 10.50.80.3/root/**default.db**.
2. **Save** to local hard drive.
3. Rename file to "**Suitcasedefault.db**".

### Export config.db MPM-UN File

1. In your browser, type 10.50.80.3/root/**config.db.**
2. **Save** to local hard drive.
3. Rename file to "**Suitcaseconfig.db**".

# Quick Access to Building Expert

With your suitcase fully commissioned, here are the two methods to log back into the Building Expert demo of your suitcase.
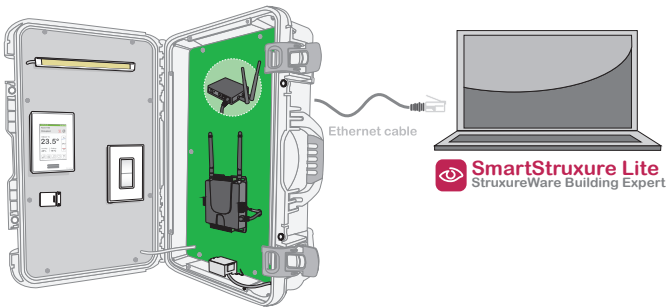
## ETHERNET CABLE TO PC

This method requires that you change your PC's network settings (see page 5 "COMPUTER SETUP FOR BUILDING EXPERT"). **Network and Sharing Center > Change adapter settings > Local Area Connection > Properties > TCP/IPv4 > Properties**:

- IP address: 10.50.80.10
- Subnet mask: 255.0.0.0

## WI-FI CONNECTION TO PC

No changes are required to your PC's network settings. The wireless network's name is "SSLite Suitcase". The passphrase is "suitcase", unless you have chosen a different one (see page 5 "ROUTER SETUP" for more information).

- Wireless network name: "SSLite Suitcase"
- Passphrase: "suitcase"

### 10.50.80.3

Then, open a browser window and enter URL **10.50.80.3**. It will take you to the Building Expert login page. Unless you have modified it, the user name and password are:

- Building Expert username: "admin"
- Building Expert password: "admin123"

# Technical Support

For any issues with SmartStruxure Solution or SmartStruxure Lite, contact Schneider Electric Technical Support according to your region.

## AMERICAS

- +1-(978)-975-9508: Andover, MA, USA, 8:30am - 5:00pm (EST)
- +1-(800)-830-1274: Carrollton, TX, USA, 8:00am - 5:00pm (CST)
- +1-(888)-444-1311: Rockford, IL, USA, 8:00am - 5:00pm (CST)

## EUROPE

- +44-1628-741-147: London, England, UK, 8:00am - 4:30pm (GMT)
- +46-40-38-69-00: Malmö, Sweden, 8:00am - 4:15pm (CET/CEST)

## ASIA PACIFIC

Contact Technical Support at https://ecobuilding.schneider-electric.com/support.