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# Gallagher

## SMB USA Door Kit

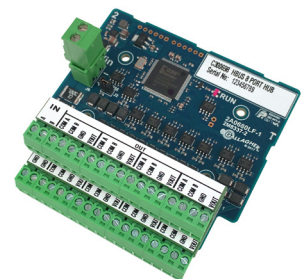
### Installation Note

Gallagher SMB 4 Door Kit: C500331

Gallagher SMB 6 Door Kit: C500332

Gallagher SMB 8 Door Kit: C500333

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## Introduction

Thank you for choosing Gallagher.

The Gallagher SMB security solution has been designed to meet the security needs for small to medium businesses. It is a fully integrated cloud-based security system that offers intruder alarm, access control, monitoring and user management all within one mobile app.

## Base kit contents

Check the cabinet contains the following items:

- 1 x Gallagher SMB Controller (C500100)
- 2 x Gallagher HBUS 8In 4Out Board (C300680)
- 1 x LSP 150W PSU (C305747)
- 1 x LSP D8 Power Distribution Module (C305743)
- 1 x LSP B100 Secondary Voltage Module (C305740)
- 1 x Metal Mounting Plate with ducting
- 1 x Door earth wire
- 1 x Wiring loom and associated internal cable assembly

All hardware items with an associated part number can be ordered as replacement parts.

Check the plastic bag contains the following items:

- 2 x Cabinet keys
- 32 x 4k7 ohm resistors
- 1 x White sticker (for rear optical tamper)

### SMB 4 Door Kit

- 1 x SMB Base Kit - USA (C500305)
- 1 x SMB USA Assembly Kit
- 1 x SMB HBUS 8 Port Hub (C300698)
- 4 x SMB T15 MultiTech Reader, Black (C300480)

### SMB 6 Door Kit

- 1 x SMB Base Kit - USA (C500305)
- 1 x SMB USA Assembly Kit
- 1 x SMB HBUS 8 Port Hub (C300698)
- 1 x SMB Half Footprint Mounting Plate (C200002)
- 6 x SMB T15 MultiTech Reader, Black (C300480)

### SMB 8 Door Kit

- 1 x SMB Base Kit - USA (C500305)
- 1 x Cabinet UL (C200100)
- 1 x SMB USA Assembly Kit
- 1 x SMB HBUS 8In 4Out Board (C300684)
- 1 x SMB HBUS 8 Port Hub (C300698)
- 1 x SMB Full Footprint Mounting Plate (C200001)
- 8 x SMB T15 MultiTech Reader, Black (C300480)

To meet UL2610 Central Station Monitoring requirements that installation must have a standby time of 4 hours minimum.

Note: The 7Ah 12V standby batteries and power lead are not provided.

To know how long your batteries will support your cabinet, calculate the following:

$(\text{combined battery capacity}^*) \div (\text{total current draw in amps}^{**}) = (\text{battery life in hours})$

\*To find the combined battery capacity, add the Ah values of all your batteries.

\*\*To find the total current draw, add the current draw of the individual units in your cabinet.

Refer to the end of this installation note and separate hardware installation notes for current draw values.

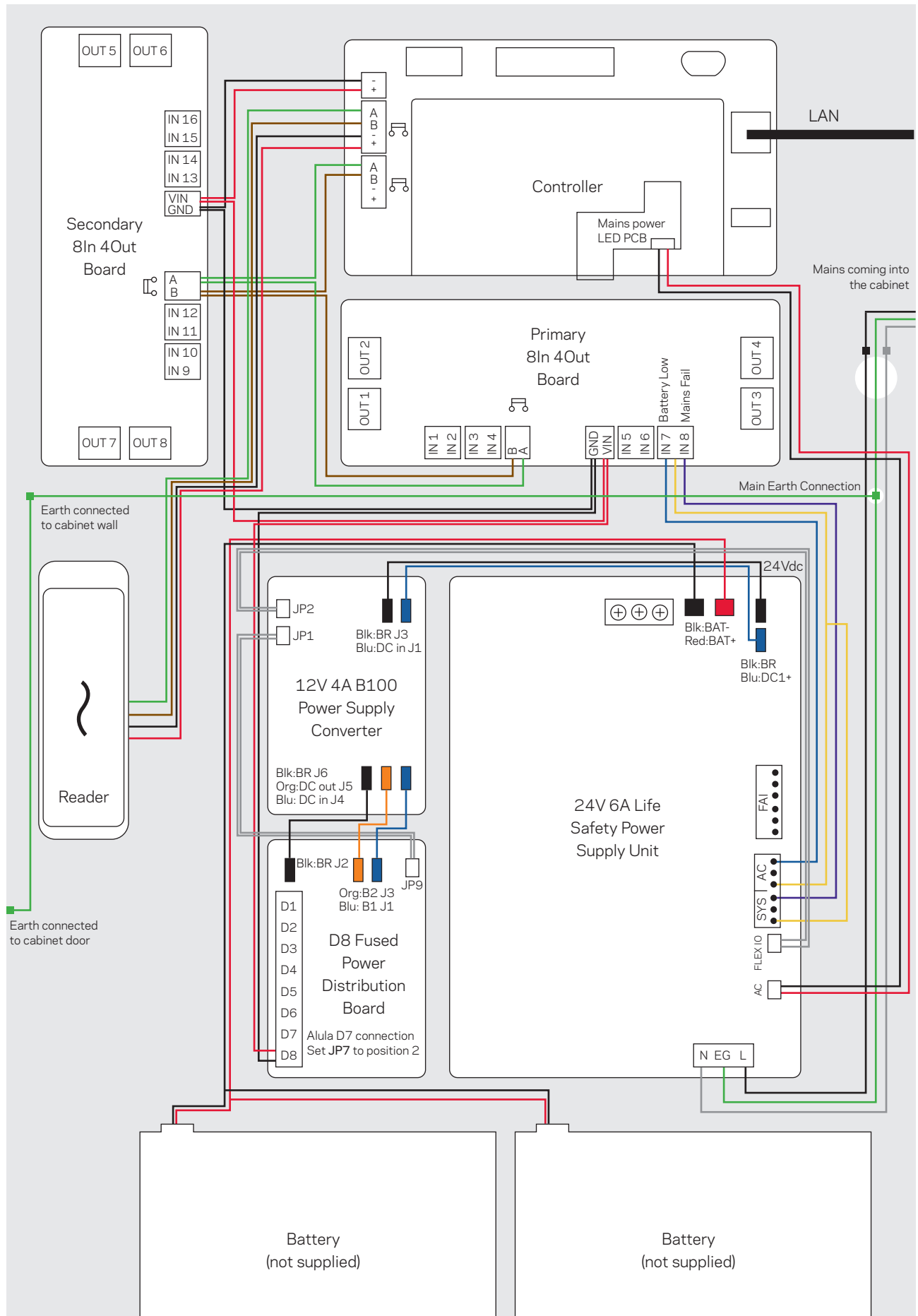
For example:

- Standby time of 4 hours minimum and assuming total load of LSP 150 Power Supply – 6A
- 4 hours \* 6A = 24Ah required
- Number of batteries depends on size of batteries used:

| Battery size | Batteries required |
|--------------|--------------------|
| 7AH          | 4 batteries        |
| 12AH         | 4 batteries        |
| 24AH         | 2 batteries        |

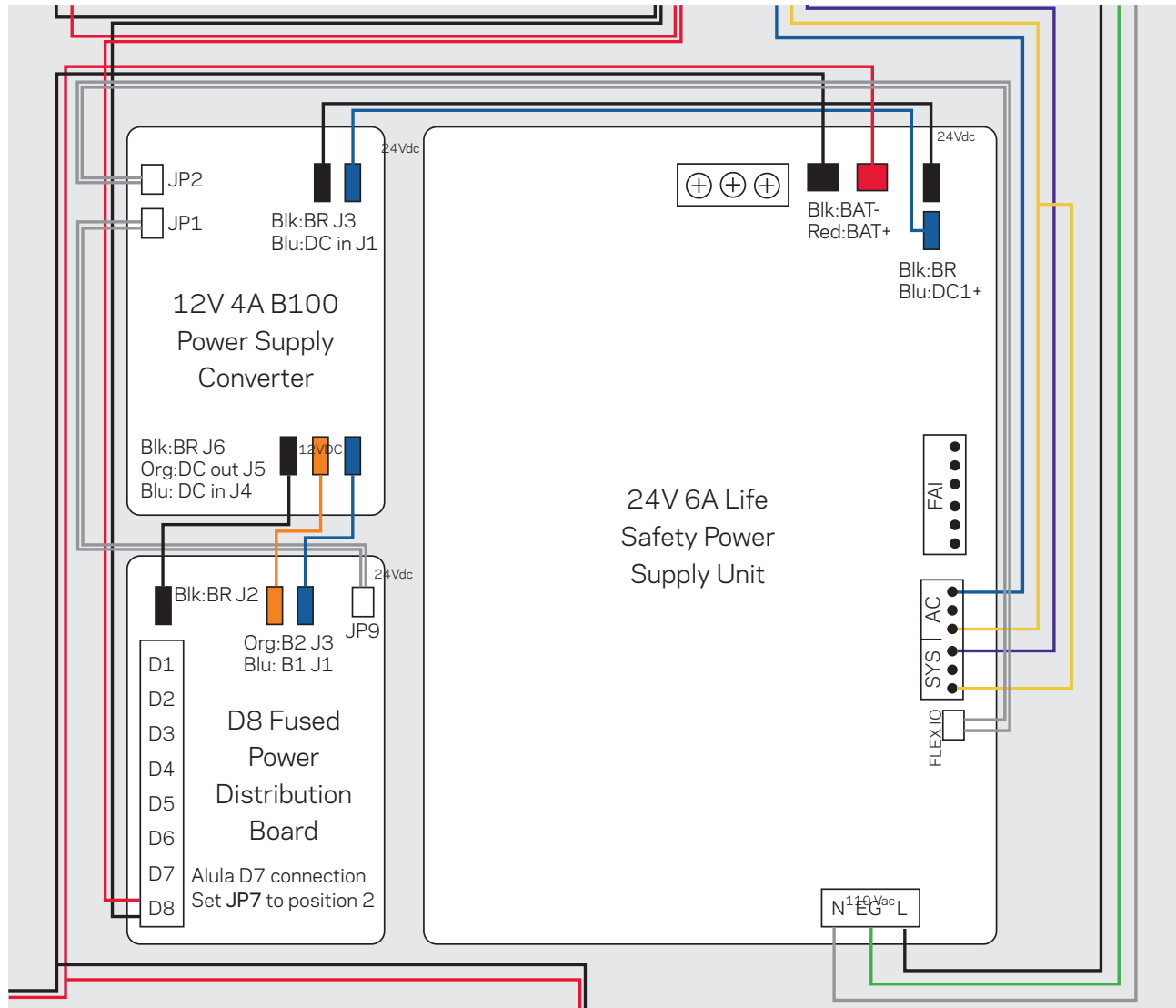
If the batteries required do not fit in the cabinet a UL compliant enclosure such as LSP E2-2BS1 and E4-3BS1 can be used.

The hardware within the base kit is pre-wired to support the site's default software configuration.



## Power Supply and battery connections

- N - Grey = neutral
- L -Black = Hot / Live - 110Vac
- EG - Green = Ground / Earth - 110Vac
- From D8 Distribution board D8 to primary 8In 4Out board and SMB Controller 12.4Vdc

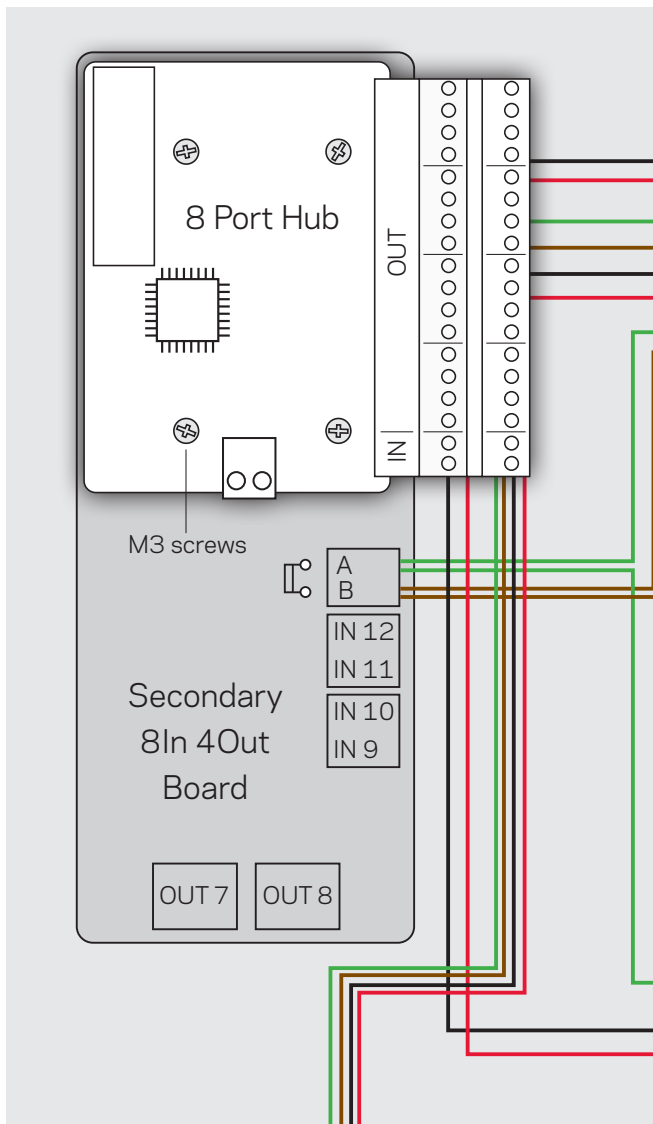


## 8In 4Out Board and 8 Port Hub stacking

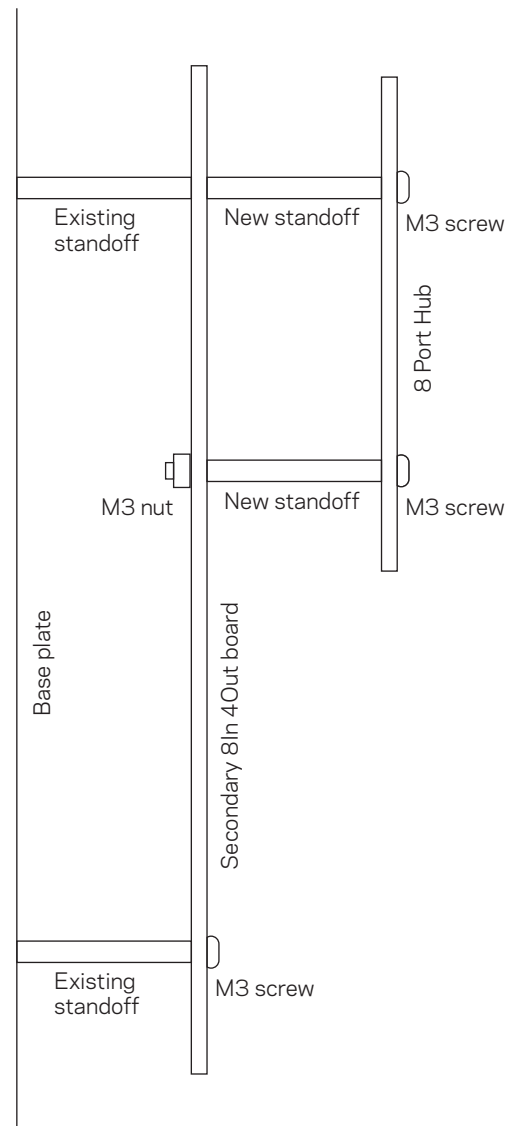
Perform the following steps to attach your 8 Port Hub in the cabinet:

1. Remove the Secondary 8In 4Out board from its standoffs.
2. Apply two male-female nylon standoffs to the quarter footprint of the the Secondary 8In 4Out board. Secure the male ends underneath the board using M3 nylon nuts.
3. Reposition the Secondary 8In 4Out board on its existing standoffs.
4. Apply the male ends of two more male-female nylon standoffs to the board's existing half footprint standoffs. Secure the board's other two existing standoffs using M3 screws.
5. Secure the 8 Port Hub to the board's quarter footprint standoffs using M3 screws.

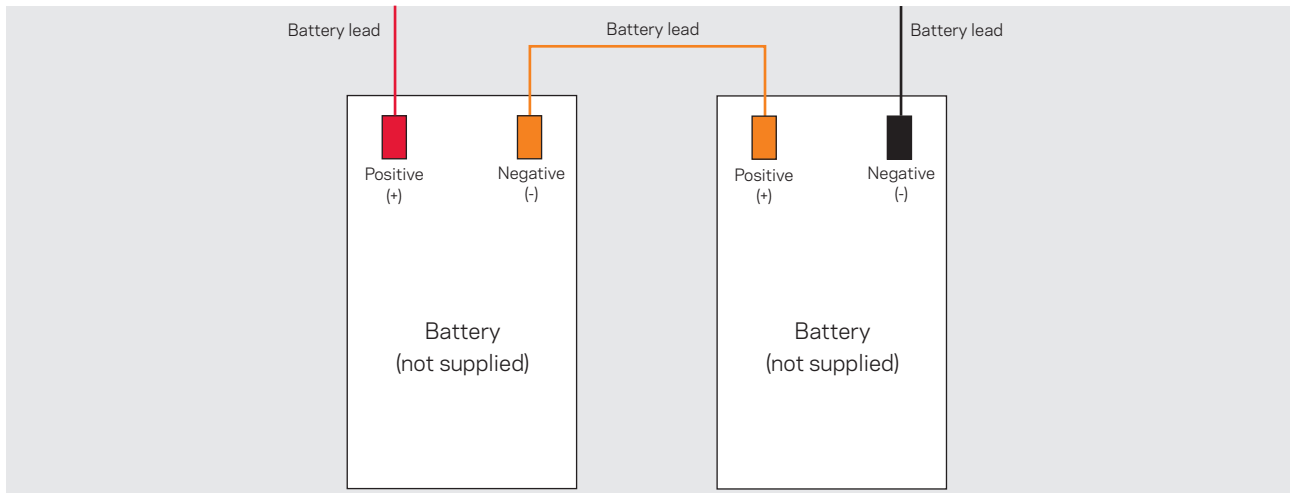
Front view



Side view



To provide 24Vdc battery backup, connect the batteries as shown:



### Additional information

Although the kit is pre-wired, ensure the following to meet UL2610 & UL294 compliance requirements:

- Minimum 1/4 inch wire separation between power limited and not power limited circuits.
- Main coming into the cabinet must be Class 1 wiring in the conduit.
- The cabinet also provides installation space for four 7Ah 12V batteries. Refer to wiring diagram above.
- The AC indicator is located on the front of the cabinet and is connected to the LSP Power Supply. Bonding for grounding must be a minimum of 14AWG.
- Field wiring leads need to be a minimum of 6 inches in length.
- To reduce the risk of fire, replace only with the same type and rating of fuse. E.g. LSP Replaceable Fuses.
- When wiring, proper wire connections shall be made as per the wiring diagram and proper polarity shall be observed. Incorrect connections may damage the unit.



## Installation

The installation of this kit must be carried out by a Gallagher SMB Partner.  
Follow the instructions in this document to install the kit.



ATTENTION: This equipment contains components that can be damaged by electrostatic discharge. Ensure both you and the equipment are earthed before beginning any servicing.

### 1. Install the cabinet

The cabinet is a secure metal enclosure containing the electrical equipment.

#### Before you begin

- **Location**  
The cabinet is designed to be mounted on the wall and should be installed in a secure room that is hidden from casual observers but allows frequent access. The room must provide environmental and extreme temperature protection, AC mains power availability, and security cable availability (for the low voltage connections). It is preferable for optimal work height that the cables exit the wall and enter the cabinet at eye height or just below, (i.e. approximately 1.6m (5.25 ft) from the floor). The solution is considered a permanently connected system and is not intended to be moved once installed.
- **Dimensions**  
Cabinet - Height: 620mm (24.4"). Width: 372mm (14.65"). Depth: 150mm (5.9").  
Mounting holes - 379.5mm (14.94") bottom to middle key holes. 593mm (23.34") bottom to top holes.
- **Earthing**  
The cabinet has an earth wire connected to the cabinet door, cabinet body, power supply unit and the main's supply earth wire. When the gear plate gets taken out of the cabinet to hang the cabinet on the wall for the first time, it is necessary to disconnect the earth wire from the door and from the cabinet body. They must both get reconnected (as well as the mains earth connection) after refitting the gear plate in the cabinet to comply with the local electrical regulations before turning on the mains supply.
- **Tamper detection**  
The controller's front optical detector uses the reflective metal plate (pre-installed on the inside of the cabinet door) to detect a change in light when the cabinet door is opened. The controller's rear optical detector uses the light pipe in the back face of the cabinet, and a rear tamper sticker on the wall to detect a change in light when the cabinet is

removed from the wall.

- Locking the cabinet  
Two cabinet keys are provided to secure the contents of the cabinet.
- Knockouts  
The knockouts in the side panels of the cabinet can be carefully tapped or cut out.

## Procedure

1. Disconnect the earth wires connected to the cabinet door and left inside of cabinet and remove the door for ease of installation.
2. Remove the backplate from the cabinet by unscrewing the two nuts (centre left-hand side of the I/O board and D8 module) and lift it out.
3. Identify and create the knockouts needed for cables and the antenna.
4. Mark the position of the six mounting holes and rear tamper detector (light pipe) on the cabinet mounting surface.
5. Fix the rear tamper sticker to the mounting surface. The sticker must align with the light pipe located in the back face of the cabinet.
6. Secure the cabinet to the wall, using a minimum of four securing anchors. The cabinet must be tight and flush against the wall. This ensures the distance between the rear tamper sticker and the controller's rear tamper detector is kept to a minimum.
7. Hook the backplate under the bolt heads on the right-hand side and align the two holes with bolts.
8. Secure the backplate back into place with two nuts.
9. Reconnect the earth wires to the door and to the body of the cabinet.
10. An Expansion Kit is available to increase capacity to support more doors, refer to the US Expansion Kit installation details.

## 2. Install readers

The default configuration provides allocation for one reader. It is recommended at least one reader be configured to a site. This allows a user to arm or disarm locally using their smartphone, in the event that the site loses internet connectivity. The smartphone uses Bluetooth to communicate with the reader.

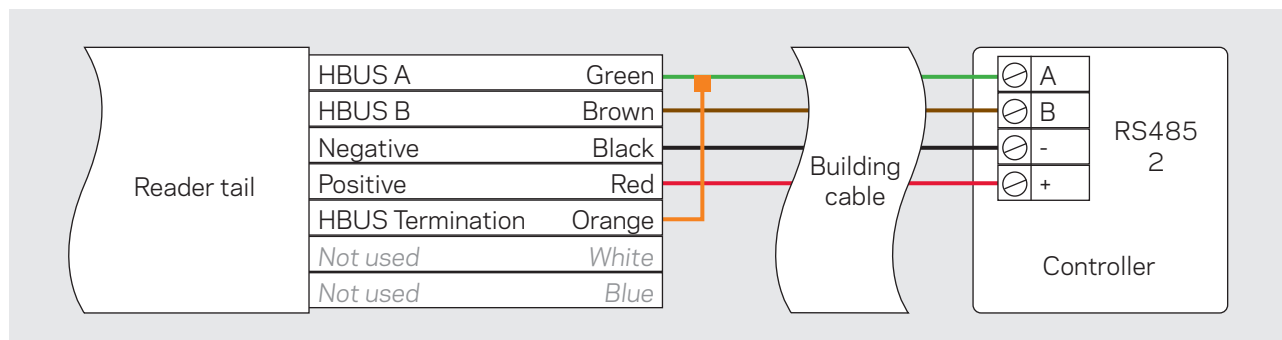
Doors can be configured without a reader, if required.

The HBUS communications protocol allows a single reader to communicate over a distance of up to 500m (1640 ft) from the controller, when using data only in a single CAT5E cable. Cabling should be a minimum size of 0.2mm<sup>2</sup> (24AWG). For wiring diagrams and ratings refer to [Installation Note HBUS 8In 4Out Board and 3E2028 Install Note Gallagher Controller 6000](#).

Connect the reader tail to the building cable. All cabling between HBUS devices should use 'daisy chain' wiring. This allows you to have multiple devices on the same cabling run. The end devices on the HBUS run must be terminated. To terminate a reader, connect the orange wire to the green wire.

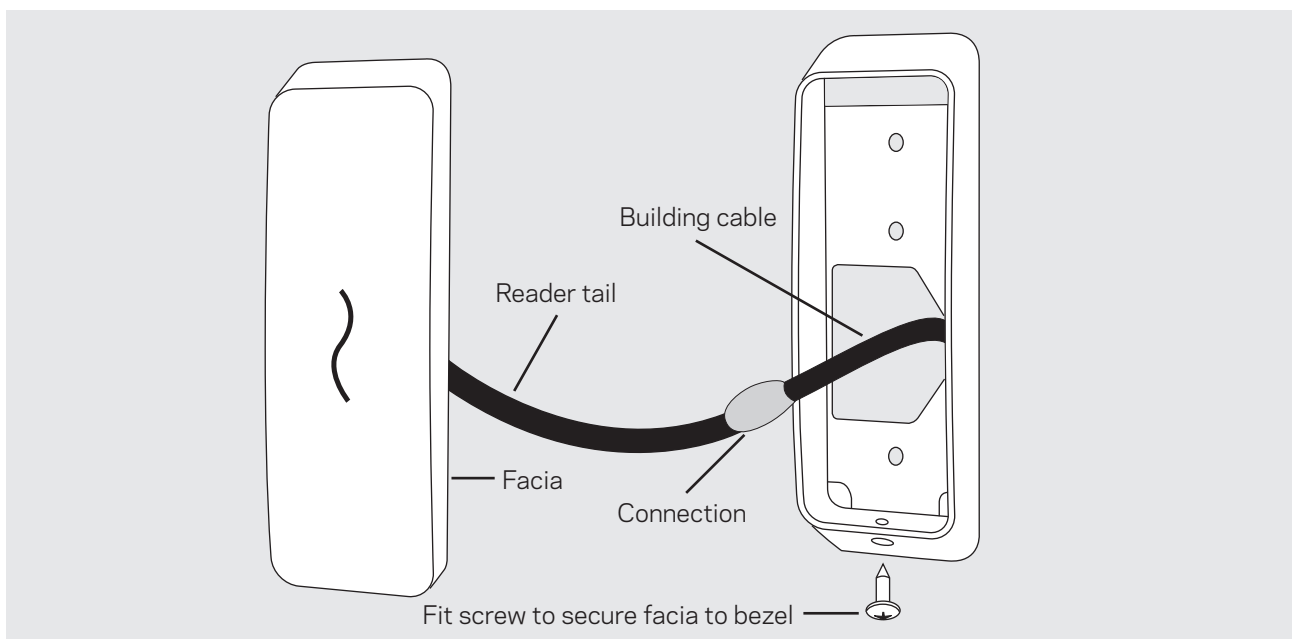
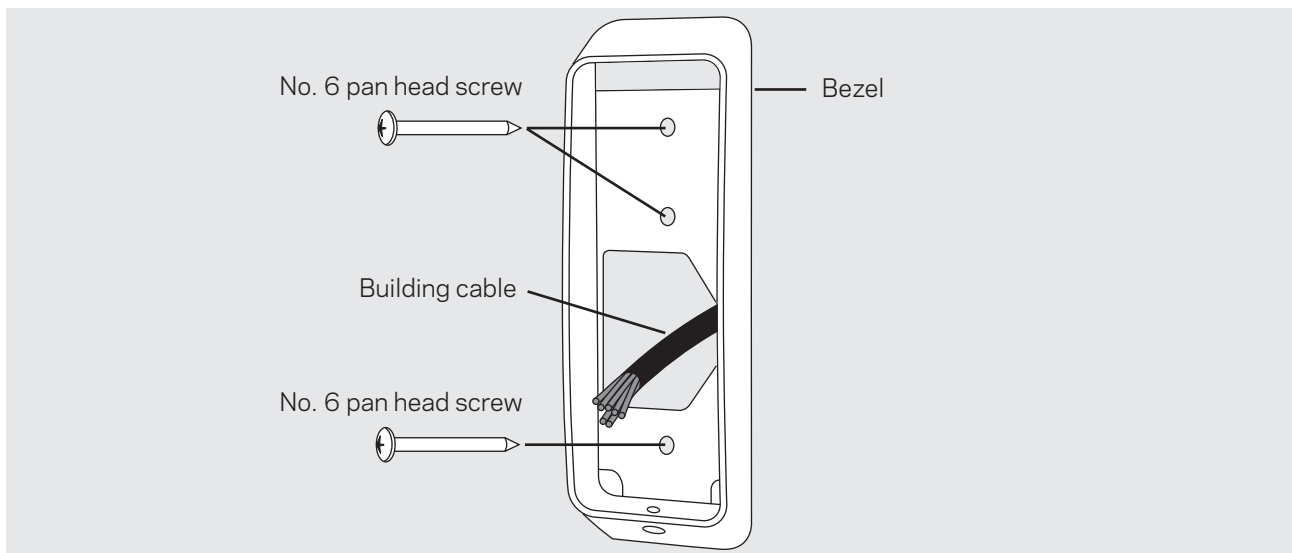
Should you require multiple doors, the HBUS 8 Port Hub (C300698) can be utilized. This hub supports the star wiring of eight HBUS devices to the hub's eight ports.

Note: you will still need to provide power to the door.



The reader is designed to be mounted on any solid flat surface. However, installation on metal surfaces, particularly those with a large surface area will reduce read range. The extent to which the range is reduced will depend upon the type of metal surface. Use a spacer plate or the reader mount block (C300951) accessory to improve the read range.

The recommended mounting height for the reader is 1.1m (3.6ft) from the floor level to the centre of the reader. However, this may vary in some countries, and you should check local regulations for variations to this height. If using conduit, the reader can be mounted on a mounting block (C300951).



### 3. Connect inputs and outputs

Two [8In 4Out Boards](#) are pre-installed in the cabinet. The Primary board is directly below the controller.

The boards provide connection for a total of 16 inputs and 8 outputs. Two of the 16 inputs, on the Primary board, are used for monitoring mains power failure and battery low.

The remaining 14 inputs can be used to connect sensors.

The HBUS 16In 16Out Board can be utilized with the SMB Kit to expand the solution.

Connect inputs and outputs, as required. Fit two 4K7 resistors as close as possible to the device being monitored. When the monitored device incorporates a normally-closed tamper switch, it can be wired in series with resistor R1. All devices connected to a single I/O board must share the same resistor value. The resistance value for an I/O board can be changed

within the [SMB Installer Portal](#).

Relays are provided as 'dry' contacts or 'electromagnetically switched' contacts. Each relay is rated 3A at 24Vdc for a resistive load, or 1A at 24Vdc for an inductive load.

The relay is controlled by the assigned output in the [SMB Installer Portal](#). To make use of the relay, terminate the positive constant supply to the common termination of the relay and nominate either Normally Open (N/O) or Normally Closed (N/C) termination to operate the external device.

The D8 Fuse Board provides power distribution. The board can be used to power locks, sensors, readers, and sirens, while maintaining circuit protection. Jumpers are used to draw either 12Vdc or 24Vdc from the board. The default jumper position is one which draws 24Vdc, designed to power locks at 24 dc. Change the jumper to position two, if you want to draw 12Vdc from the board.

Reference the [LifeSafety Power D8 Installation Manual](#) for further information.

The B100 provides an additional voltage in a conjunction with the LifeSafety FPO150. The B100 voltage input is 24Vdc from the FPO150 and the secondary voltage output is 12Vdc (DC OUT). 12V required for the controller and I/O boards and 24V is required for powering locks. The jumpers should not be interfered with.

Reference the [LifeSafety Power B100 Installation Manual](#) for further information.

## 4. Connect power to the system

The cabinet comes pre-installed with a LifeSafety FPO150 which is used to power the electrical hardware and charging up to four 7Ah 12V batteries (connected in a way to support 24Vdc backup. It provides a battery charging current of 2.5A.

### Calculating battery life

The cabinet supports up to four 7Ah 12V batteries. To know how long your batteries will support your cabinet, calculate the following:

$(\text{combined battery capacity}^*) \div (\text{total current draw in amps}^{**}) = (\text{battery life in hours})$

\*To find the combined battery capacity, add the Ah values of all your batteries.

\*\*To find the total current draw, add the current draw of the individual units in your cabinet. Refer to the end of this installation note and separate hardware installation notes for current draw values.

## LifeSafety FPO150

The AC mains connection to the LifeSafety's FPO150 power supply must be followed in accordance with LifeSafety's installation manuals. All AC mains electrical connections must comply to the local electrical authority's codes and NFPA section 70. Installation & service should be performed by a qualified service personnel.

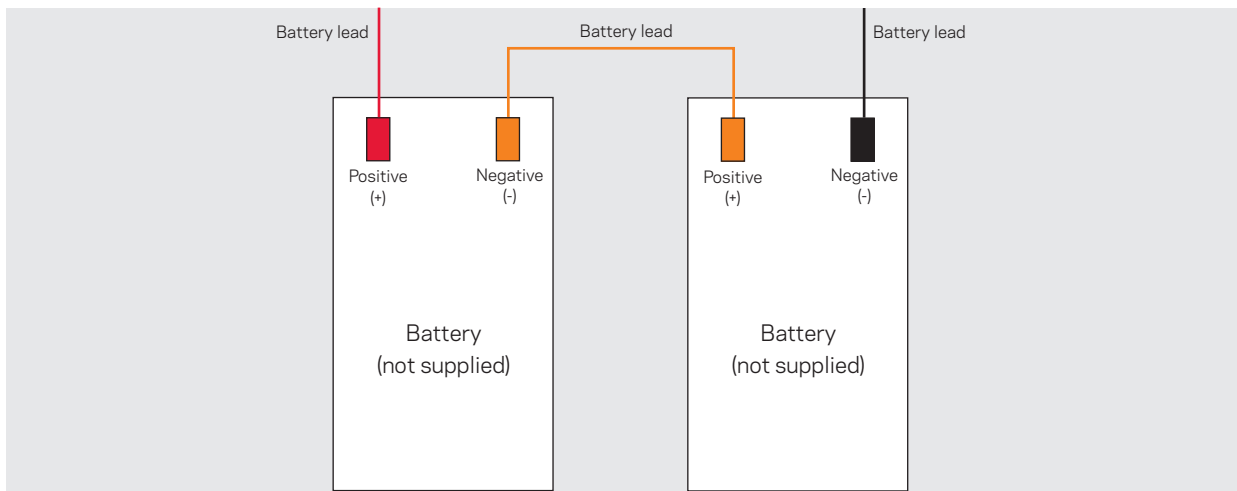
Refer to [LifeSafety's FPO150 Installation Manual](#) for additional guidance.

Note: For Gen 2 FPO boards: Battery Type Selection - this jumper selects the type of battery being used. Select SLA for Sealed Lead Acid/Gel type batteries. Select LFP for Lithium Iron Phosphate batteries.

The power supply provides two alarm outputs for monitoring battery low voltage and mains failure alarms. Both the alarm outputs have on-board 4k7 EOL resistors fitted as standard.

Note: Do not apply voltage directly to the Battery Low or Mains Failure outputs, as this will damage the monitoring circuitry, rendering the power supply unusable.

1. Using the battery leads provided, connect the required number of 7Ah 12V batteries to the FPO150. To provide 24Vdc battery backup, connect the batteries as shown.



2. The red wire connects to the red/positive battery terminal. The black wire connects to the black/negative battery terminal. Use the orange wire provided as a jumper between batteries.

Note: The batteries are not provided. The batteries are used as standby batteries, should the mains power supply fail. Battery capacity requirements are to be calculated based on the total load of the system and the number of hours required to run the system on battery backup. Minimum 4 hours on standby required for UL2610 and UL294 compliance. Two 24AHbatteries( Min) are required to support 6A.

To support the additional battery capacity, it must be housed in an additional UL

compliant cabinet and connected to provide 24Vdc back to the FPO150.

3. Terminate the AC mains earth to the main earth stud located on the right-hand side of the gear plate. Earth termination must adhere to NFPA section 70 and local authority electrical codes.
4. Connect the AC supply mains to the black (Live/Hot) and white (Neutral) wires in accordance with LifeSafetys installation manuals, NFPA section 70 and local authority electrical codes.
5. Energize the Lifesafety FPO150 mains.

Note: A power lead is not provided with the kit.

6. Ensure all equipment operates correctly, both with mains power ON/batteries ON, and with mains power OFF/batteries ON.

### **Battery Low alarm**

The Battery Low system alarm will be triggered when the battery charge falls below 10.8V. If no battery is connected the Battery Low alarm will not activate. This output is connected to Input 7 on the default configuration of the Primary 8In 4Out Board.

### **Mains Failure alarm**

The Mains Failure system alarm will be triggered when the mains voltage falls below approximately 90V or when the mains voltage rises above approximately 250V. This output is connected to Input 8 on the default configuration on the Primary 8In 4Out Board.

Note: Both Battery Low alarm and Mains Failure alarm are sent as a system notification to the customer via the Gallagher SMB app. These events are also visible in the Event History of the controller in the SMB Installer Portal.

## 5. Connect the controller to the cloud

The controller connects to the site's local TCP/IP network.

1. Power on the controller.
2. Connect the site's Ethernet cable directly to the controller's Ethernet port.
3. Does the site's network use a proxy server to access the internet?  
If **no**, continue to step 4.  
If **yes**, you will need to supply the proxy server's hostname, port, and logon credentials to the controller. Refer to the topic "[7. Controller web browser configuration](#)" later in this document, to access the proxy settings.
4. Log into the [SMB Installer Portal](#) and assign the controller to a site. If you have no login details, please contact Gallagher Technical Support. Note: The SMB Installer Portal is a web-based portal and does not require you to download an app from the iOS or Google Play Store.  
Refer to the topic "[6. Assign the controller to a site](#)" later in this document.
5. Once assigned to a site, the controller will come online and connect to the cloud. An IP address is automatically assigned to the controller via DHCP. There is no MAC address or IP addressing required.

The controller will download the latest firmware and its default configuration from the cloud. The download will take approximately 5 minutes. It may take longer if the download occurs over cellular. The controller will restart after the download. Configuration changes should not be published to the controller at this time. The Gallagher SMB solution only supports the latest firmware version on the controller. The firmware version can be viewed within the Properties section of the Controller lightbox in the SMB Installer Portal.

If the controller doesn't come online, check the site has an internet connection. Plug your laptop into the network and test the connection. Ensure the following ports are open on the site's network for the controller:

| Port | Protocol | Details                 |
|------|----------|-------------------------|
| 67   | UDP      | DHCP to internal router |
| 53   | UDP      | DNS to internal router  |
| 123  | UDP      | NTP to time.google.com  |
| 443  | TCP      | SMB Cloud HTTPS         |



## Using a proxy server

If the site's network connects to the internet using a proxy server, you will need to connect a web browser to the controller's configuration web pages and enter the proxy server's connection details.

When the controller is powered up with DIP switches 2 and 3 ON, the controller uses the following default addresses:

Controller IP: 192.168.1.199 Gateway: 192.168.1.198 Subnet: 255.255.255.0

This enables you to configure your PC with an IP address in the same subnet as the controller, and by setting DIP switch 1 to ON, connect a web browser to the controller. Your PC IP address should be different from the controller's IP address, (i.e. not 192.168.1.199).

To enter the proxy server's connection details, perform the following procedure:

1. Connect the controller to your PC via the controller's Ethernet port.
2. Set DIP switches 1, 2 and 3 to ON and power cycle the controller.
3. Using a web browser, enter the IP address of the controller as follows:  
<http://192.168.1.199/cloud/> The 'Enter Network Password' web page displays.
4. Enter cloud for the username, then GGLcloud for the password and press Enter. The 'Gallagher Cloud Controller Configuration' web page displays.
5. Click the Proxy Server Configuration link. The 'Proxy Server Configuration' web page displays.
6. Enter the proxy server's name, port number, logon credentials (if required), then click Save.
7. Set DIP switches 1, 2 and 3 to OFF.
8. Connect the controller to the site's network and power cycle the controller.

The proxy settings will be retained after the controller restarts.

Note: To clear the proxy settings, set DIP switches 1, 2 and 3 to ON, then power cycle the controller. Wait for the controller's Run LED to enter a 2-flash pattern, then set DIP switches 1, 2 and 3 to OFF, and power cycle the controller again.

## 6. Assign the controller to a site

1. Log into the [SMB Installer Portal](#).

Note: Login details can be requested from Gallagher Technical Support.

2. Has the site been created?

If **no**, continue to step 3.

If **yes**, go to step 6.

3. Select the **+ADD NEW SITE** located at the top of the screen.

The 'New Site' lightbox displays.

4. Enter a name for the site and complete all fields.

The key account holder will be the first person from your customer's site to download the Gallagher SMB App. The Key Account holder performs a similar role to a facility manager and is the person who will invite other users to the site.

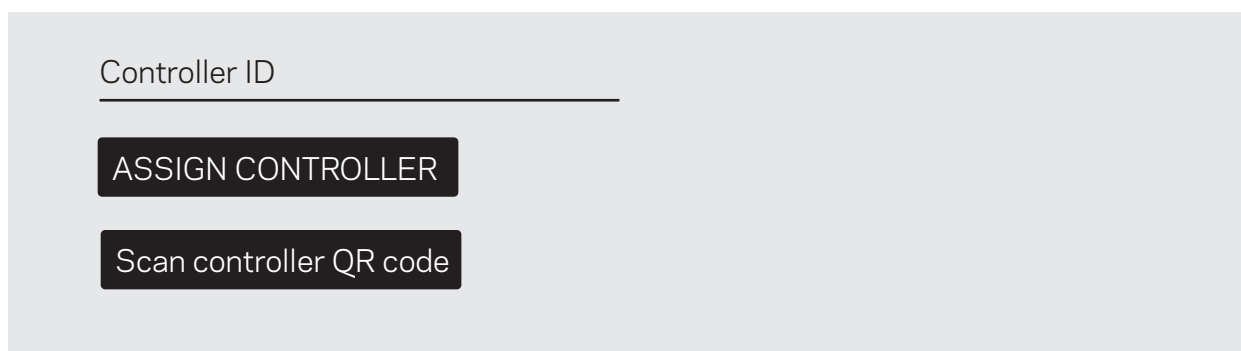
Select the **Site uses tags** checkbox if the site will be issuing key tags to users. Selecting this checkbox will enable tag assigning functionality within the Gallagher SMB App.

Note: If using tags, cards, or user codes to arm & disarm an area, change the **Locally disarm area** to **Single Factor** within the **Area** lightbox.

5. Select the **Save** button.

The site is created, and the default configuration is displayed.

6. Navigate to the site, click the **Scan controller QR code** button, scan the QR code printed on the controller, then click the **ASSIGN CONTROLLER** button. If using a laptop, take a photo of the QR code using your phone and present it to the laptop.



The screenshot shows a light gray interface with a text input field labeled "Controller ID" with a purple underline. Below the field are two dark gray buttons with white text: "ASSIGN CONTROLLER" and "Scan controller QR code".

Note: If you're unable to scan the controller's QR code, you can enter the controller's ID in the **Controller ID** field, then click the **ASSIGN CONTROLLER** button. The controller's ID is printed on the controller, below the QR code.

The controller will download the latest firmware and its default configuration from the cloud. If the message **Cannot assign controller** displays, it has already been assigned to a site.

## 7. Controller the site

Configure the site using the [SMB Installer Portal](#). Configure Areas, Inputs, Outputs, Doors, then click PUBLISH to download the configuration changes to the controller.

To meet UL requirements Exit Delay or Auto-Arming must not be configured. Fail to Arm must be configured for all areas.

For configuration instructions, refer to the [Help Centre for Installers](#).

## 8. Test the site

Test Mode allows technicians to install, configure, and test an SMB site without alarming others by setting off sirens or other devices activated in response to an alarm. Test mode also prevents Site Managers, guards, and monitoring services from responding to alarms generated while the system is being tested.

1. Click **Enable Test Mode** from the **Site Actions**
2. Test Mode can only be enabled for a period – set the time for Test Mode to expire.
3. Monitoring is enabled, a warning will display advising the Technician to inform the Monitoring station.
4. Test buttons will appear next to the Outputs. Alarm Relays are bypassed, Technicians can 'chirp' test outputs from this screen.
5. Click the **Test button** next to each Output.
6. Once testing is complete click **Disable Test Mode** to disable it immediately, or it will automatically disable at the set expiry time.

Note: Once a site is activated, Test mode can only be entered when Installer Mode is enabled.

## 9. Initialise tampers

The front optical tamper detector will sense when the cabinet door has been opened. The rear optical tamper detector will sense when the cabinet is removed from its mounting surface.

When you have finished wiring the devices and no longer need to access the cabinet:

1. Close and lock the cabinet door using the key provided.
2. Within the [SMB Installer Portal](#), click the controller at the top of the hardware tree.

3. Within the site's controller lightbox, select **Restart**.

## 10. Activate the site

When the site is activated, it will become operational and billing will commence. A site can be activated as soon as the system is operational, allowing the Key Account Holder to start using the system before you have fully completed the installation.

Select **Activate Site**. This will send an 'Account Activation' email to the Key Account Holder. The Key Account Holder will need to follow the instructions in the email to download the Gallagher SMB App and accept their credentials.

Note: If you are unable to onboard the Key Account Holder, ensure they have a PIN or pattern set on their phone.

The site has now been handed over to the customer. The SMB Installer Portal changes to 'read-only' for the site. If you need to make additional configuration changes, the customer must enable **Installer Mode** within the **Settings** of the SMB App.

## Controller Run LED flash patterns

| Flash                              | Pattern   | Meaning   |
|------------------------------------|---|---|
| Short flash Long flash (1 s cycle) | 100 ms on, 250 ms off<br>400 ms on, 250 ms off                      | Boot code monitor running, network unplugged  |
| Half flash                         | 450 ms on, 50 ms off (2Hz flash)                                    | Controller resetting  |
| Fast                               | 130 ms on, 130 ms off (4Hz flash)                                   | Initialising  |
| 1 flash                            | 500 ms on, 500 ms off (1Hz flash)                                   | Normal running  |
| 2 flashes                          | 2 flashes - pause (each flash is 50 ms on, 400 ms off, 1.2 s pause) | Controller is operating, connected to the cloud but has no configuration  |
| 3 flashes                          | 3 flashes - pause (each flash is 50 ms on, 400 ms off, 1.2 s pause) | Controller has a valid set of keys but has not connected to the cloud   |
| 4 flashes                          | 4 flashes - pause (each flash is 50 ms on, 400 ms off, 1.2 s pause) | No private keys or certificate loaded, so will be unable to authenticate with the cloud. Contact Gallagher Technical Support.   |
| 5 flashes                          | 5 flashes - pause (each flash is 50 ms on, 400 ms off, 1.2 s pause) | Controller has a connection to the cloud but either the cloud has failed to authenticate the controller, or the controller has failed to authenticate the cloud. Contact Gallagher Technical Support. |
| 6 flashes                          | 6 flashes - pause (each flash is 50 ms on, 400 ms off, 1.2 s pause) | Controller does not have runnable firmware. Contact Gallagher Technical Support.  |

## Technical specifications

| Controller                        | Value  |
|-----------------------------------|--|
| Voltage                           | 12.4Vdc  |
| Current without devices connected | 110mA  |
| Maximum current per RS485 port    | 750mA  |
| Temperature range                 | -10°C to 70°C (14°F to 158°F)<br>0°C to 49°C (32°F to 120°F) UL verified |
| Humidity                          | 0 - 95% non-condensing<br>0 - 85% UL verified                            |
| 10/100BaseT Ethernet port         | 1 x 10Mbps/100Mbps   |

| I/O Boards                       | Value   |
|----------------------------------|---|
| 8In 4Out Board operating current | 45mA DC (relays OFF)                                    |
| 8In 4 Out Board power rating     | 200mA DC (relays ON)                                    |
| Fuse                             | 0.61W (relays OFF)<br>2.72W (relays ON)                 |
|                                  | Onboard 1A resettable polyfuse                          |
| Connections                      | Inputs  |
|                                  | 8   |
|                                  | Format  |
|                                  | 4 state monitoring                                      |
|                                  | Output relays   |
|                                  | 4   |
|                                  | Format  |
|                                  | 24Vdc/ac, 3A resistive, 1A inductive                    |
|                                  | HBUS Ports  |
|                                  | 1   |
|                                  | Format  |
|                                  | RS485 balanced  |
| 8 Port Hub operating current     | 2 A DC (relays ON)<br>20 mA DC (@ 13.6Vdc)              |
| 8 Port Hub fuse                  | 1 x 4A resettable fuse supplying all output power ports |

| Reader            | Value  |
|-------------------|--|
| Voltage           | 9Vdc - 16Vdc (12.4Vdc nominal)   |
| Current           | Idle <sup>1</sup> Maximum <sup>2</sup>   |
|                   | T11 at 9Vdc80mA176mA   |
|                   | T15 at 9Vdc81mA168mA   |
|                   | T30 at 9Vdc130mA241mA  |
| Temperature range | -35°C to +70°C (-31°F to 158°F)<br>-35°C to +66°C (-31°F to 151°F) UL verified                   |
|                   | Direct sunlight may increase the internal reader temperature above the ambient temperature level |

|   |  |
|---|--|
| Humidity  | 0 - 95% non-condensing<br>0 - 85% UL verified  |
| Environmental protection  | IP68 <sup>3</sup>  |
| Impact rating   | IK07 <sup>3</sup>  |
| Unit dimensions   | T11 Reader:<br>Height 115mm (4.5")<br>Width 70mm (2.8")<br>Depth 12mm (0.5")                 |
|   | T15 Reader:<br>Height 139mm (5.47")<br>Width 44mm (1.73")<br>Depth 23mm (0.9")               |
|   | T30 Keypad Reader:<br>Height 118.0mm (4.65")<br>Width 86.0mm (3.39")<br>Depth 26.7mm (1.05") |
| Maximum number of access controlled doors on one SMB controller | 10   |
| Standards and compliance  | FCC, RCM, RoHS   |

<sup>1</sup> The reader is idle

<sup>2</sup> Maximum reader current during credential read

<sup>3</sup> Environmental protection and impact ratings are independently verified

#### LifeSafety Power FP0150

|        |                                  |
|--------|----------------------------------|
| Rated  | 120/230 VAC, 50-60Hz, 2.5A, 200W |
| Output | 23.5-24VDC, 6A                   |

[https://www.lifesafetypower.com/docs/im\\_fpo.pdf](https://www.lifesafetypower.com/docs/im_fpo.pdf)

#### D8 Simple Distribution Board

|                |                         |   |
|----------------|-------------------------|---|
| Input          | Current                 | 6A maximum                                    |
|                | Standby Current         | 65mA  |
| Output         | Current (D8)            | 3A Resistive (Not Power Limited)              |
| Fuse (D8 Only) | 3A ATM automotive style |   |
| Size           | D8                      | 4.00" x 2.50" x 1.0"<br>(102mm x 64mm x 26mm) |
| Weight         | D8                      | 0.15lb (0.07kg)                               |

Refer to the LifeSafety Power D8 Installation Manual for more information -

[https://www.lifesafetypower.com/docs/im\\_d8.pdf](https://www.lifesafetypower.com/docs/im_d8.pdf)

#### B100 DC-DC Convertor

|       |                 |   |
|-------|-----------------|---|
| Input | Voltage         | 8 - 25V (must be at least 3V above output voltage setting). Not UL evaluated. |
|       | Current         | 3.0A maximum  |
|       | Standby Current | 35mA  |

|                |  |                                       |
|----------------|--|---------------------------------------|
| Output         | Voltage  | 4.7 - 23V<br>12.4 - 23Vdc UL verified |
|                | Current  | 3A maximum (Class 2 Power Limited)    |
| Fuse (D8 Only) | 7.5A ATM automotive style                      |                                       |
| Size           | 4.00" x 2.50" x 1.75"<br>(102mm x 64mm x 45mm) |                                       |
| Weight         | 0.20lb (0.09kg)                                |                                       |

Refer to the LifeSafety Power D8 Installation Manual for more information - [https://www.lifesafetypower.com/docs/im\\_b100.pdf](https://www.lifesafetypower.com/docs/im_b100.pdf)

#### **SMB USA Base Kit standards and compliance**

FCC, RCM, RoHS

## Partitioned Systems

The protected area must be under the responsibility of one ownership and management. This may be a group of buildings attached or unattached and may even have different addresses but are under the responsibility of someone having mutual interest (other than the alarm installing company). This does not apply to strip mall applications where each independent business must have their own separate alarm system. An example for a commercial partitioned system would be a business that has an Office area and a warehouse area in a building where each area can be armed or disarmed independently. Residentially, systems can be partitioned so that the GARAGE area is armed separately from the HOUSE. Each of the above examples would be under the sole responsibility of a single owner. The Siren power supply must be in a protected area including partitioned systems. The bell must be located where it can be heard by the person or persons responsible for maintaining the security system during the daily arming cycle.

All units shall be installed in accordance to:

1. The National Electrical Code, ANSI/NFPA 70.
2. Local authority having jurisdiction.
3. Manufacturer's installation instructions provided with each unit.
4. The protected premise units must be mounted inside the secured or protected area.

Unit shall be Configured to Communicate to Central Monitor Station UL Listed Rapid Response (RRMS) Triangulum AI or "TRM for short" Communication Protocol used= Contact ID > This communication path is required to be used for UL 2610 compliance. Any Remote connections/ App control are not evaluated by UL.

## UL2610 Commercial Burglar Alarm (Central Station)

Minimum system configuration below

- Gallagher SMB USA Base Kit, T11 White Reader: C500306
- Gallagher SMB USA Base Kit, T11 Black Reader: C500307
- Gallagher SMB USA Base Kit, T15 White Reader: C500308
- Gallagher SMB USA Base Kit, T15 Black Reader: C500309
- Gallagher SMB USA Base Kit, T30 White Reader: C500311
- Gallagher SMB USA Base Kit, T30 Black Reader: C500312
- Gallagher SMB Controller 6000 (C500100)
- T30 Multi Tech Keypad Reader, Black: C300490
- T30 Multi Tech Keypad Reader, White: C300491
- Gallagher SMB T15 Multi (C500480; Black Color)
- Gallagher SMB T15 Multi (C500481; White Color)
- Gallagher SMB T11 Multi (C500430; Black Color)
- Gallagher SMB T11 Multi (C500431; White Color)
- Gallagher HBUS 8In 4Out Board (C300680)
- LSP 150 W PSU (C305747)
- LSP D8 Power Distribution Module (C305743)
- LSP B100 Secondary Voltage Module (C305740)
- SMB USE Base Kit - Dual Cabinet

Engineering Note: for the Keypads only one is required any of the above. The unit shall be configured as an Arming device if Dual Access control and Burglar Alarm Operation.

1. Acknowledgment Signal AKA Handshake. Gallagher HBUS 8In 4Out Board (C300680) Shall be used with the following: When armed from the protected premise the Listed Tomar, Model 270LS-12-80-W steady-burn warning light, must be employed. It may be mounted inside the protected premise (if visible from outside the protected premise) or outside the protected premise.
2. Unit shall be Configured to Communicate to Central Monitor Station UL Listed Rapid Response (RRMS) Triangulum AI or "TRM for short" Communication Protocol used = Contact ID > This communication path is required to be used for UL 2610 compliance.



Any Remote connections/ App control are not evaluated by UL.

3. Loss of communication or compromise attempt result in alarm at monitoring station. The Polling Time shall be programmed to Supervise the communication Link between the protected premise at 200 seconds or less. Open/Closing acknowledgment enabled. Min one entry/Exit Zone employed in system.
4. At the protected premise: The entry delay is to be configured for maximum 60 seconds when off-premises transmission is via PSDN.
5. Network addressing of devices shall not make use of public domain name servers.
6. Power supply shall be configured to maintain controller and all equipment at the protected premise for a minimum of 4 hours.
7. All Burglar Zones shall be supervised with end of Line resistors.
8. The controller shall have its tamper options enabled so that when the enclosure door of the cabinet is opened an alarm is initiated. The reader / keypads shall have tamper options enabled if required.
9. When utilizing the Relays on the model Gallagher HBUS 8In 4Out Board (C300680) for burglar alarm applications the relays outputs are required to be supervised.
10. The subscriber's control unit shall provide for the connection of protective wiring, conductors, and attachments in accordance with the Standard for Central-Station Alarm Services, UL 827.
11. The subscriber's control unit shall provide for the connection of protective wiring, conductors, and attachments in accordance with the Standard for Central-Station Alarm Services, UL 827.
12. When a T30 Multi Tech Keypad is configured as an arming reader, the reader's LED squiggle will display:
  - Green: one or more areas are disarmed.
  - Red: all areas are armed.

And the reader's LED Arm (shield) icon will display:

- Green: one or more areas are disarmed.
- Red: all areas are armed.
- Quick Flash White: a long press on the Arm button causes the LED to flash white briefly, ready for the user to present their smartphone, SMB Key Tag, or SMB Card, or enter their User Code, to start the arming process.
- Blue: a long press on the 'O' button changes the LED to blue, ready for the user to present their smartphone, SMB Key Tag, or SMB Card, or enter their User Code, to start the arming process.

For UL compliance Force arming is not an allowed option and shall be disabled.

Knockouts are provided on the units so that the field wiring may be run in conduit if required by the local authority having jurisdiction. All field wiring connections are intended to be made at the installation wiring terminals provided as part of the units.

Do Not Connect To A Receptacle Controlled By A Switch.

Arming mode needs to be configured for areas (zones) – configure Fail to Arm.

Performance Ratings UL294

- Line Security = Level 1
- Standby Power = Level IV
- Attack = Level I
- Endurance = Level IV

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