



Incedo™

EAC-M50
Installation Guide

ASSA ABLOY
Opening Solutions

Experience a safer
and more open world

1 Introduction

Product Description

Incedo™ is ASSA ABLOY's new access control system, optimised for small to medium-sized businesses yet easily upgraded to meet the demands of a large, multi-site organisation. Designed around three core hardware components and three software options, Incedo will meet your customer's requirements no matter how complex.

This powerful access control solution has features which punch well above its weight. An Incedo system is easy to install, configure and manage, thanks to its design and use of plug-and-play hardware with simple in-field configuration. The system offers many enterprise features without the associated costs.

Incedo Lite is an embedded application included with every Cluster Controller. With no need for a dedicated PC or complicated software to install, you simply browse to the controller on your client's network and begin to manage the system instantly. The interface is easy to use, with auto ID of hardware, simple configuration menus, and multiple means of adding credentials to the system. Incedo Lite is quick to set up and ready to go.

For applications where multi-site and advanced access control functionality are a requirement, we developed Incedo Plus. This solution can manage hundreds of sites, thousands of doors and tens of thousands of key holders from multiple workstations. Integrations with third-party CCTV and elevator systems, plus visitor management capability, make Incedo Plus ideal for multiple, connected applications.

Finally Incedo Cloud hosted within ASSA ABLOY's ultra-secure environment, offers additional features over Incedo Plus, as well as giving the owner and an installation partner access to the system 24/7. No longer must you be on-site to amend configuration or access vital information to run reports. Simply connect to your network from any device with internet access to take true, real-time control of your Incedo system.

Reliable and backed by a strong warranty, ASSA ABLOY puts access control from a trusted industry leader within reach.

2 System Specifications

Note:

- Additional EAC-DM5 Door Reader Modules are required
- See System Architecture – Best Practices on page 4 for more details

Hardware capabilities (per EAC-M50 enclosure)

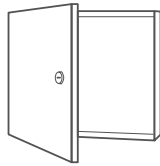
Feature	Specification
Max People	1000 Lite 125000 Plus version 1000 Cloud (per instance)
Max Cards	3 Cards per Person
Max Logs	100 000
#of Doors	Upto 8 in readers or upto 4 in and out readers

Our range of Wireless Aperio® door locks can be simply integrated with the EAC-M50 via a communication hub to connect to Incedo, offering increased online access control possibilities.

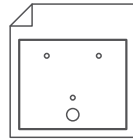
For 32 doors, there can be any combination of both wired and wireless Aperio locks or readers.

3 What's in the packaging?

EAC-M50 Contents



EAC - M50



Drilling
template



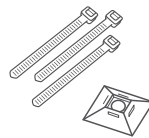
Quick Install
Guide



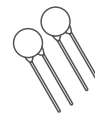
More
Documentation



Duplicate
Labels



Cable ties
& anchor



Metal-Oxide
Variators (MOVs)



Spare
fuses

4 Installation preparation

***Note**
Installation of Aperio units requires Aperio AH30 communication hubs, commissioning software and USB dongle

System requirements

- Compatible PC Browser
- Access to an Ethernet Network point or a router/switch that will allow network connectivity
- In the absence of any network, Incedo Lite can be set up and administered by connecting a desktop/laptop PC directly to the Controller Module with an (uncrossed) network cable
- Mains power with 3A fused spur

Suggested Tools

- Electric drill
- Drill bits (Masonry / steel – to suit the site wall materials)
- Screwdriver, small, flat
- Wire strippers
- Side cutters
- Site plan (to lay out door and reader locations)

Additional Hardware

- ASSA ABLOY wired readers
- Aperio Door Locks*
- Electric strike locks and/or magnetic locks
- Power supply with sufficient capacity to power the locks
- Push buttons for Request-to-Exit (REX)
- Door Position Sensor (DPS)
- Mains power cable
- Cable for Door Module readers, sufficient for the site (measure the site)
- Cable for Door Position Sensor and Request-to-Exit, sufficient for the site (measure the site)
- Two 1K resistors for each sense line

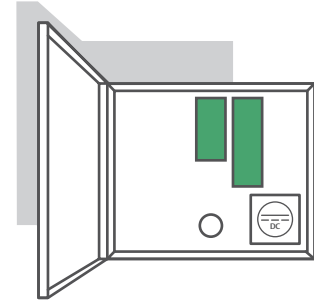
5 System Architecture. Best Practices

Aperio Hubs need to be connected to the RS485 on the Master Cluster Controller:

- Any combination of single-readers and two reader doors is permissible
- Readers may be independently allocated to any door. Whatever the combination, upto 4 entry and exit readers or 8 entry readers per enclosure

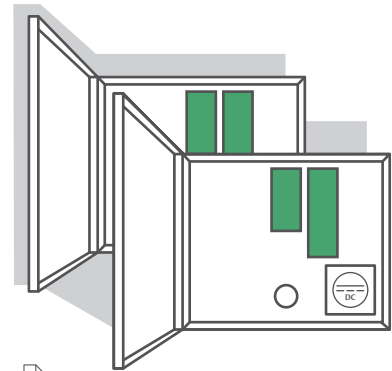
ONE EAC-M50 enclosure

- Is sufficient for upto a maximum of 2 wired doors or maximum 32 wireless doors or a combination of both



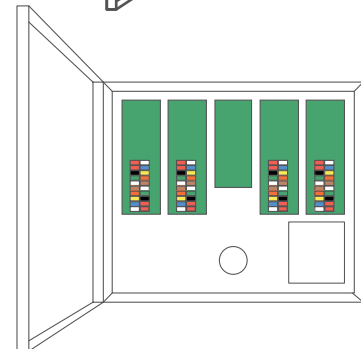
TWO+ EAC-M50 enclosures are needed:

- For 9 to 32 wired readers
- The enclosures are linked with an RS-485 cable, saving on long, multiple-reader cable runs (Remember that the total wired door count still cannot exceed the 8-door limit per enclosure.)

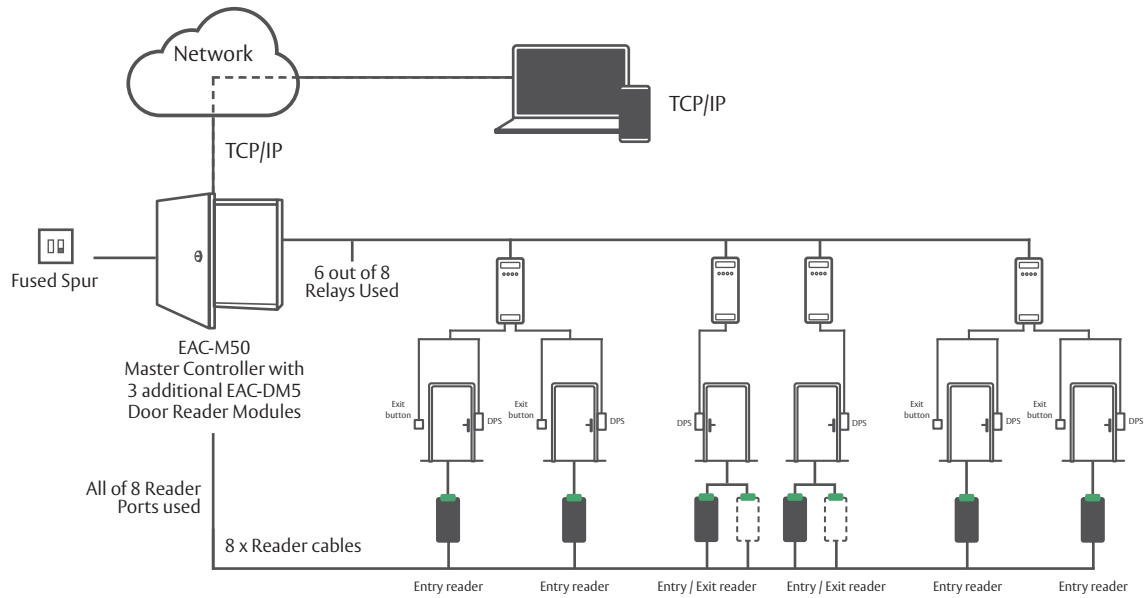


How many EAC-DM5 Door Reader Modules are needed?

- One EAC-DM5 Module is needed for each door that has both entry and exit readers
- One EAC-DM5 Module is needed for every two doors that only require entry readers
- In each EAC-M50 enclosure there is space to fit a further 3 x EAC-DM5 to total 4 x EAC-DM5



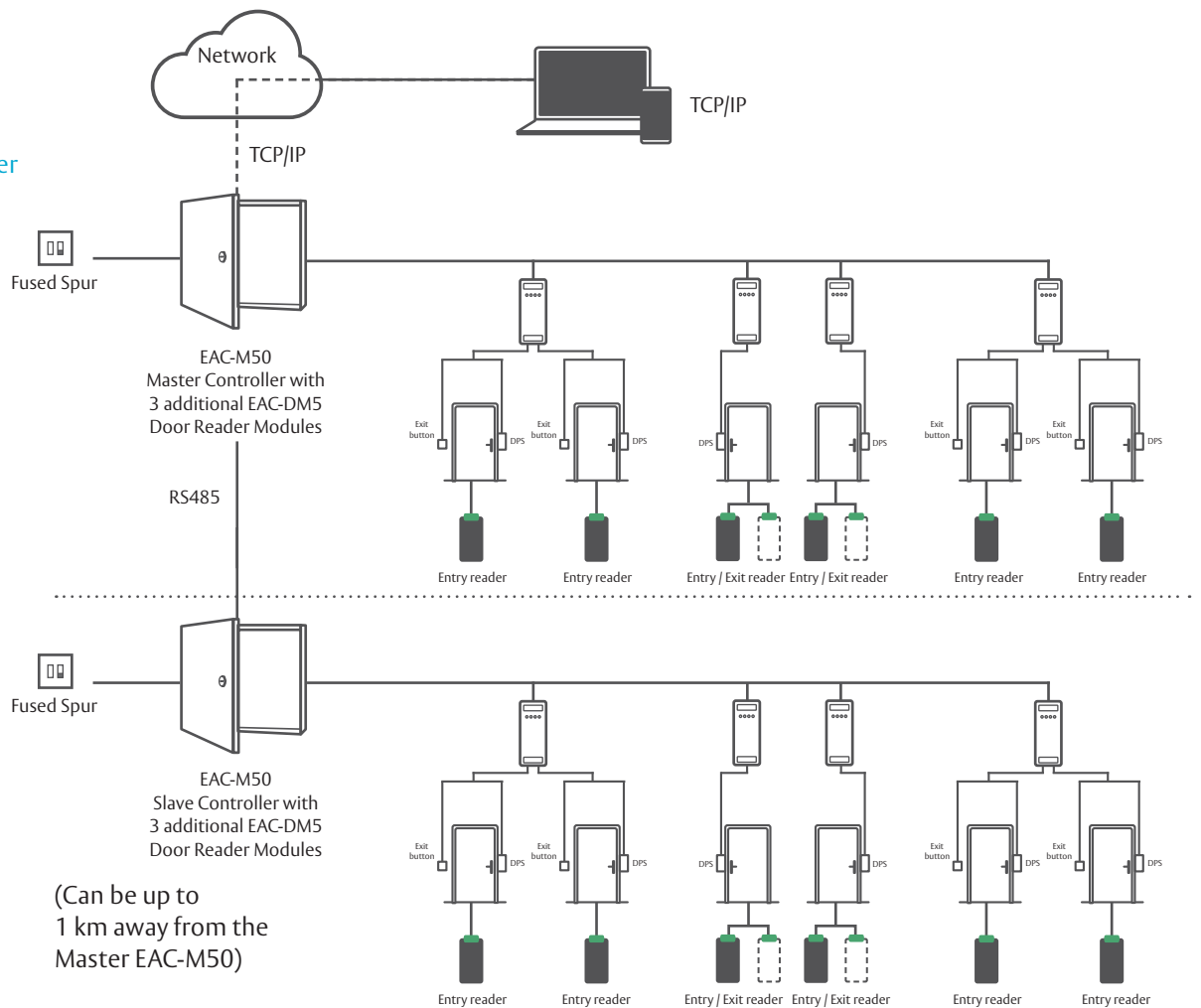
6 doors (4 doors entry and 2 doors entry and exit only) Example.



- Any combination of single-reader or entry+exit-reader doors is possible
- Lite version is connected by local network
- Cloud version is connected via the Internet
- Plus version needs to be installed onto a server PC on the customers network

12 doors (8 doors entry and 4 doors entry and exit only) Example.

Incedo will only accommodate upto 8 wired doors in total per EAC-M50 enclosure

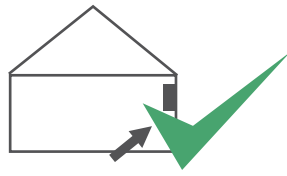


(Can be up to 1 km away from the Master EAC-M50)

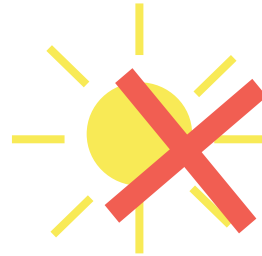
- Lite version is connected by local network
- Cloud version is connected via the Internet
- Plus version needs to be installed onto a server PC on the customers network

6 Mounting the EAC-M50

Mounting Location Considerations Shelter and Security



Secure Indoor location

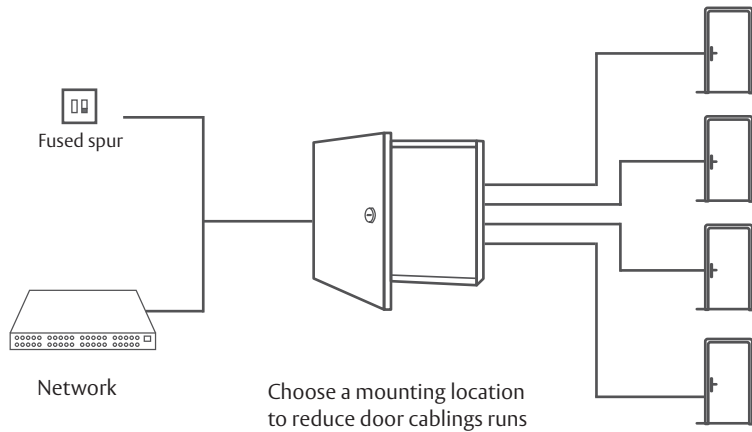


Away from weather

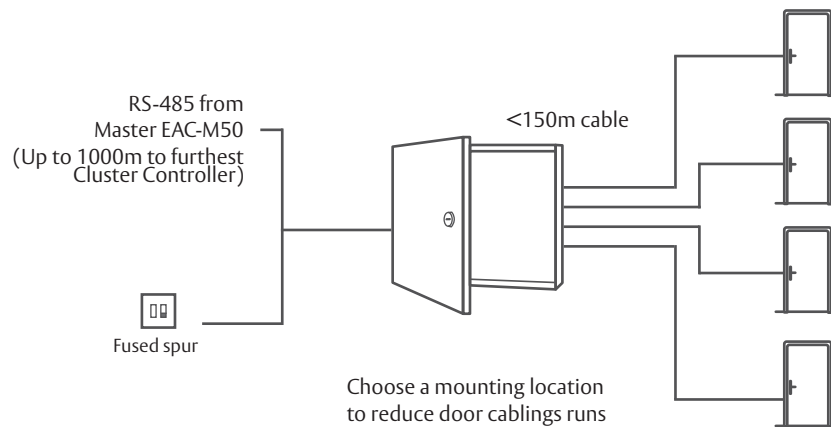
Note that the Slave EAC-M50:

- Does NOT connect to the network
- MUST connect via RS-485 to the Master EAC-M50
- Is able to continue reading cards and controlling its doors in the event of an RS-485 cable break

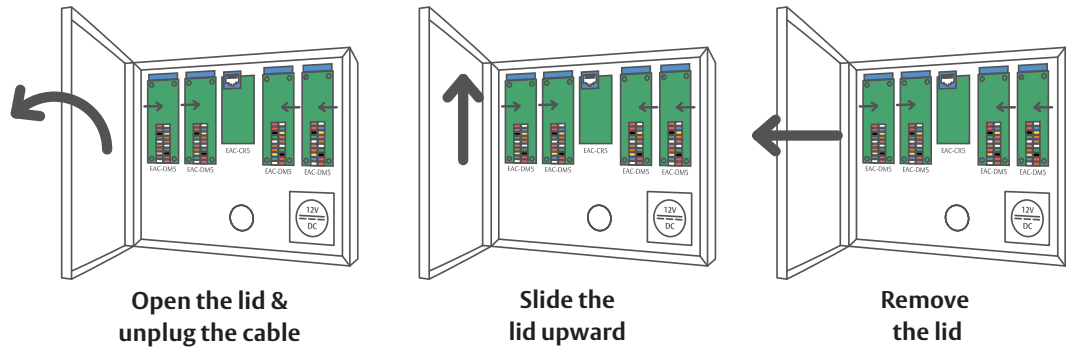
Single EAC-M50 cable run considerations



Slave EAC-M50 cable run considerations



Removal / Fitting the Lid



Mark up the mounting holes using the drilling template

1. Select fasteners that are appropriate for the mounting surface (masonry/wood/ dry wall)
2. Select the drill size appropriate for the fasteners
3. Fix the Drilling Template against the chosen vertical surface making sure that the top edge is horizontal. (Remember to allow 30 mm clearance on the left of the EAC-M50 enclosure to allow the door to hinge fully open)
4. Centre punch the two mounting hole locations
5. Drill holes of a diameter that is suitable for the fasteners
6. Remove the lid from the enclosure (as per instructions above)
7. Mount the enclosure to the surface
8. Replace the lid (and plug the lid cable back in) after the system wiring is complete, making sure to re-attach the earth strap to the lid
9. Place the EAC-CR5 and EAC-DM5 Module labels in the correct positions provided on the back page of the EAC-M50 Quick Install Guide. The information on the labels will be used during the door configuration process via Incedo software

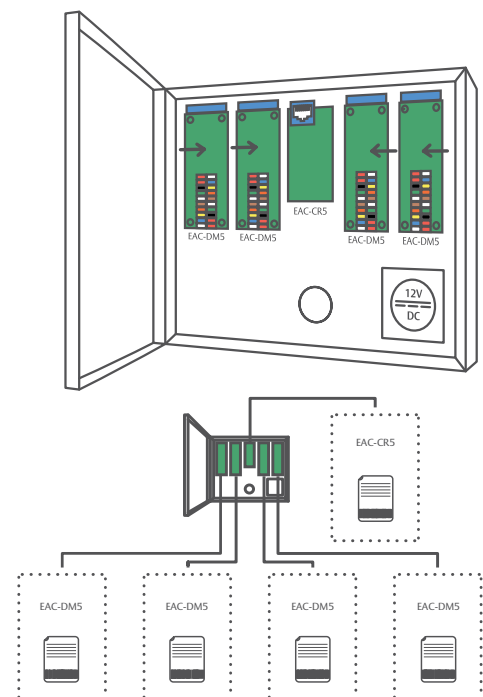
Note:
EAC-DM5 Modules may be added or removed without powering down the system.

Expanding the controller with more Door Reader Modules

The EAC-M50 comes assembled with one EAC-DM5 Module, and can support another three EAC-DM5 Modules.

Additional EAC-DM5 Modules are plugged into the sides of the existing Modules, and then fastened in place with the four mounting screws that are included with each EAC-DM5 Module.

Remember to place the additional EAC-DM5 Module labels on the back page of the EAC-M50 Quick Install Guide for easy reference to which door they support (see diagram to right).



7 Wiring the System

EAC-DM5 Reader Module

EAC-DM5 Module Cable Specifications

*Depends upon voltage of door lock

Application	Conductors (#of Wires)	Cross Sectional Area	AWG	Max Cable Length
Door Locking Device (12V and higher)	2	0.75 mm ²	18	150 m*
Card Reader	5+	0.32 mm ²	20	150 m
Door Contact	2	0.32 mm ²	20	150 m
Request-to-Exit	2	0.32 mm ²	20	150 m

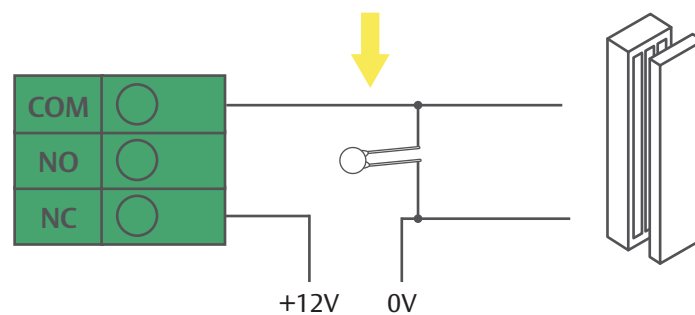
Metal Oxide Variators (MOV's) included in the packaging

*Replacement MOV's are available on Amazon or other good retailers

MOV Rating	25V RMS 500A 77V Max Clamping*
------------	--------------------------------

Where to use the supplied MOV's

The MOV's must be connected across the cable supply for the Locking device, at the device, not at the controller, to prevent sparking at the relay contacts.

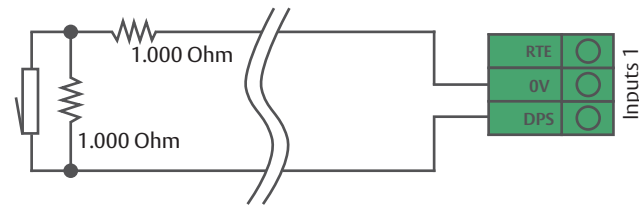


The Supplied MOV's are only for 12V applications and are MANDATORY.

Supervised Inputs (Optional)

Incedo Lite can monitor the Door Position Sensor (DPS) circuits for tampering when resistors are installed.

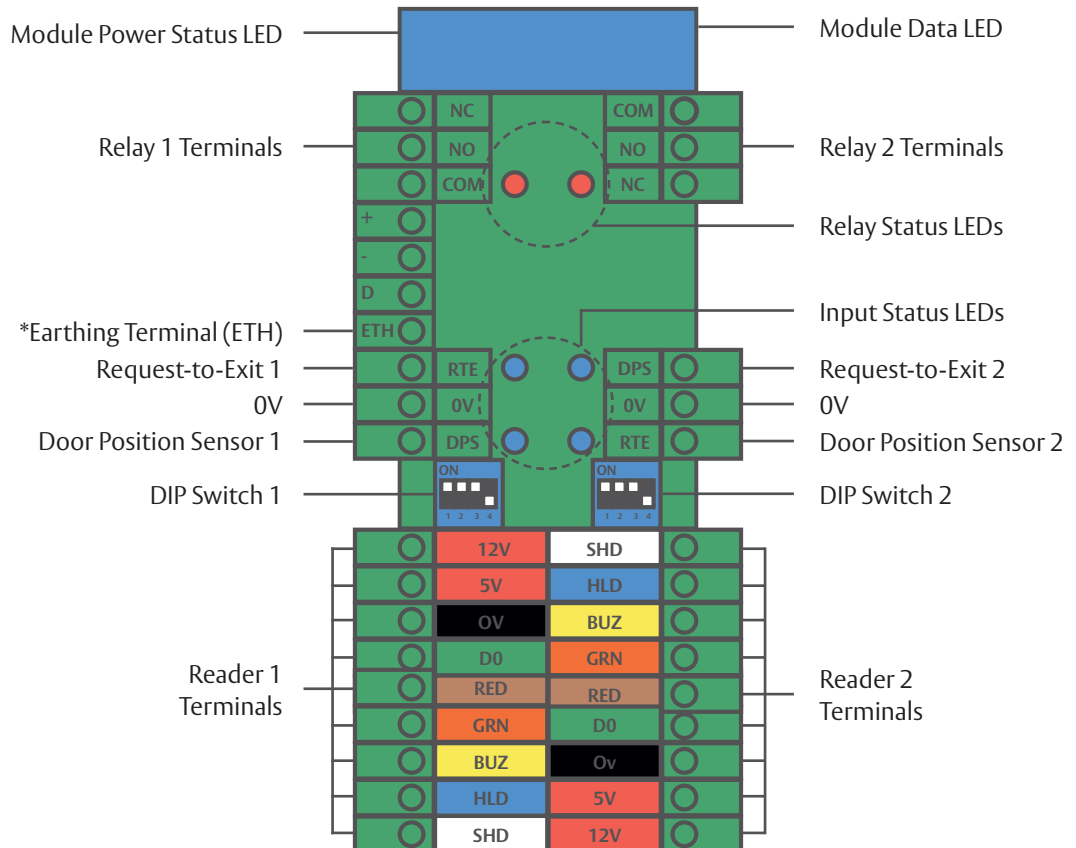
Two 1k Ω resistors are required for every sense line. These should be installed in a location where they cannot be accessed without opening the door in question:




This feature must be activated in Incedo software via the door configuration process.

EAC-DM5 Key Components Diagram

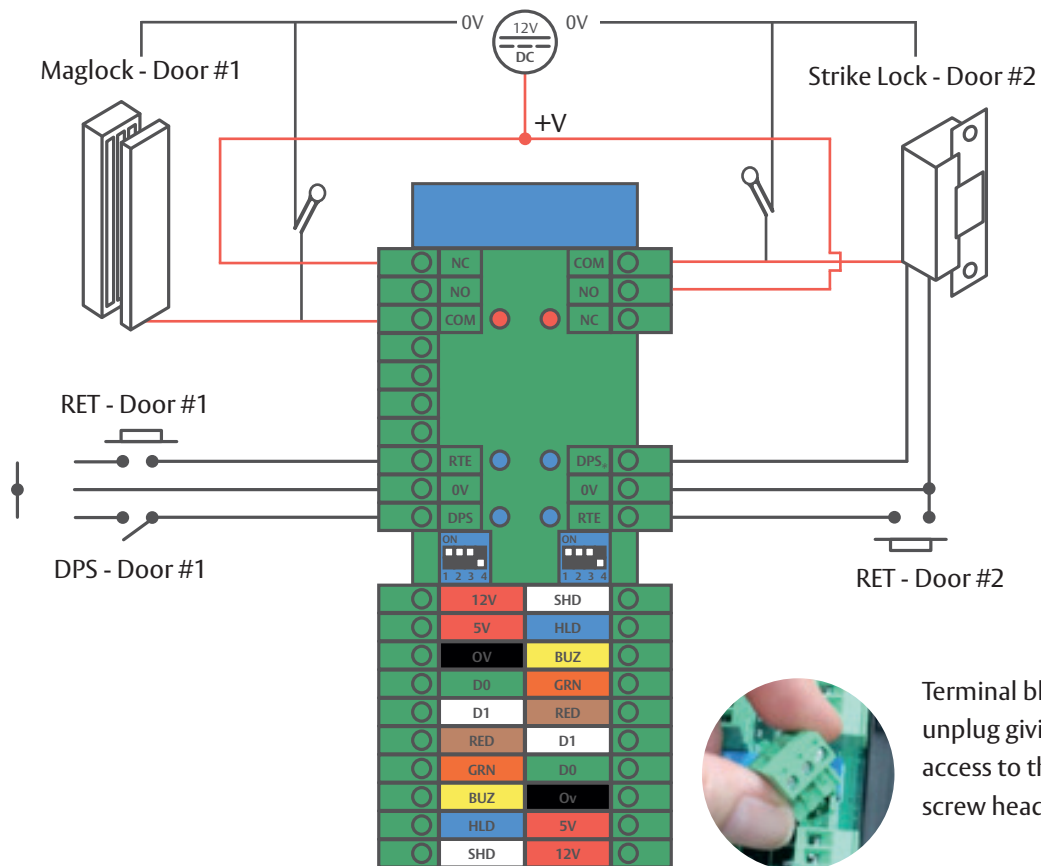
*EAC-DM5 Reader Modules have spare Earthing Terminals – see page 12 for details



DIP Switch position	Function
 1110	(Factory Set DIP Switch Position) 26-bit, 44-bit, 40-bit, 37-bit and card + PIN-code Mode.

EAC-DM5 Wiring Example

*DPS: Some electric strike locks include Door Position sensor terminals. When they don't, additional sensors should be fitted if door position sensing is required



Terminal blocks easily unplug giving simple access to the terminal screw heads.

Caution: Inadequate spark suppression can result in early failure of relay contacts – and will void the warranty on the affected EAC-DM5 Module

Some strike locks and maglocks have built-in arc suppression. Consult the installation information for the locks you are using. It is recommended that the MOV's (supplied with the Door Reader Module) are connected across any inductive local to the load. NB: The supplied MOV's are only suitable for 12V applications.

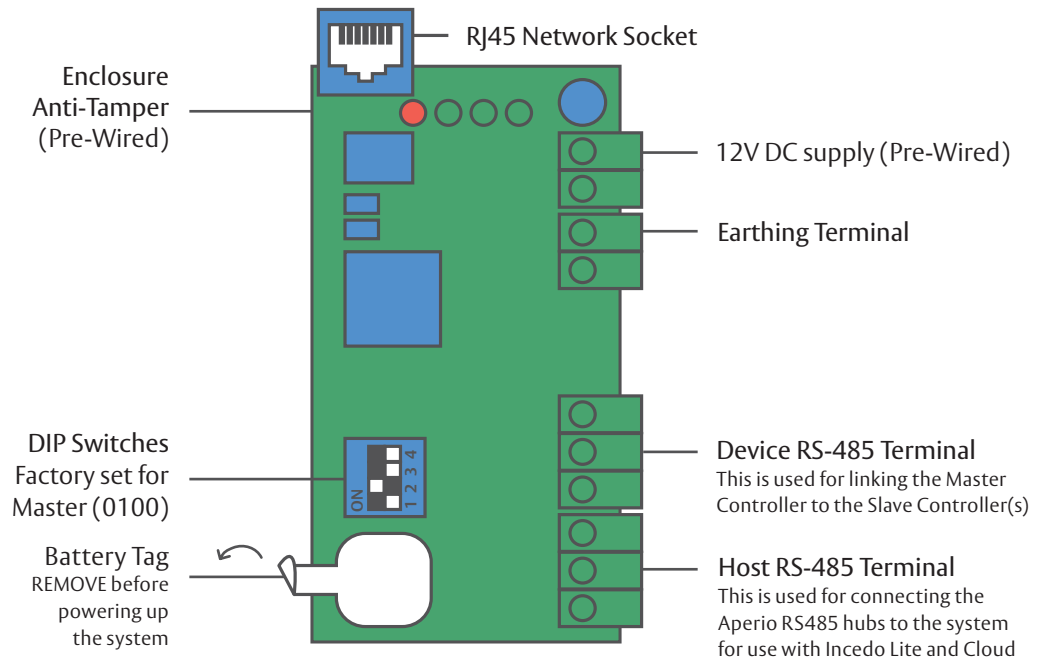
EAC-CR5 Controller Module

Cable Specifications

Application	Conductors	Cross Section	AWG	Max Cable Length
Network	8	$\geq 0,75$ mm ²	24	90 m
RS-485	Twisted pair, with or without screen	≥ 0.51 mm ²	22	1 000 m

Key Components and Connections

Note:
Any module that has changes made to its DIP Switch settings while already powered up must be powered down and powered up again. This is because the settings are only read by the module during the power up cycle






*Note:

- **Factory default is an absolute last resort**
Defaulting the Controller Module will erase all Incedo Lite data, including any static IP address that has been set up – so this address should be noted somewhere safe for future use
- The most likely reason for choosing to default a Control Module would be when the Incedo Lite IP address is accidentally set outside of the mask, and Incedo Lite becomes inaccessible
- As long as the IP subnet of the Controller Module is the same as the PC/ Laptop, the Firmware Upgrade Tool may be used to discover the address and allow you to login and set up an appropriate IP address. **The Incedo Firmware Upgrade Utility Tool** is available for download from the “More Documentation” link included on page 3

*Note:

The Slave EAC-M50 is NOT connected to the Network
The total door count may not exceed 16 doors when using one master and one slave

DIP-switch Position	Function MODE
 0000	Slave Controller Mode
 0100	Master Controller Mode
 1000	<p><i>*Special Function – See the note on the next page.</i></p> <p>Factory Default Mode</p> <p>Set DIP Switch 1 to ON, cycle power to the Module, wait for Controller restart (~20 seconds), and return DIP Switch 1 to OFF. (Switches 2, & 4 position do not affect the system)</p>

Earthing Terminal

The Controller and Reader Modules are sensitive to Electrostatic Discharges (ESD). Observe precautions while handling the circuit board assemblies by using proper grounding straps and handling precautions at all times.

To further protect against the harmful effects of EMC and transients, a functional earth connection point is provided as a screw terminal (see silkscreen marking: ETH).

System Backup

Always back up the system data using the Incedo Firmware Upgrade Utility Tool. This could save you having to set up the system from scratch again in the event of a system default, as described above. The Access Manager Utility Tool is available for download from the “More Documentation” link included on page 3.

Connecting two EAC-M50 units via RS-485

Link the two Controller Modules by connecting their RS-485 Device terminals. Remember to set the DIP Switches on the second Controller Module (in the remote EAC-M50) to SLAVE (0000) – and remember to cycle the power to the module in question if you have changed the DIP Switch Settings while it is already in the powered up state.

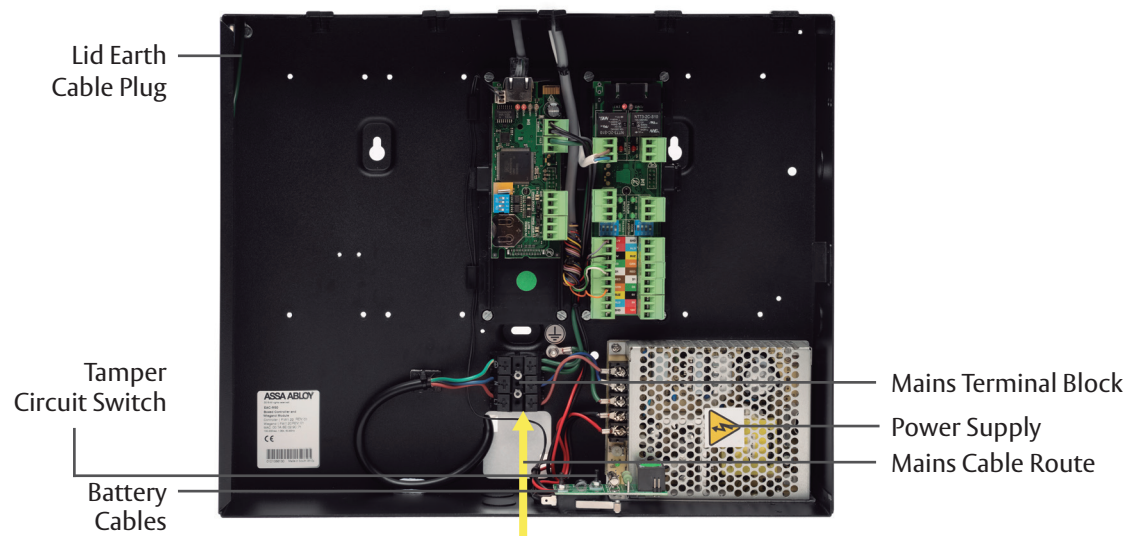
Mains supply Connection

Mains Cable Specification

- Connect the power cable to a non switched 3 A fused spur which is local to the panel and clearly identified
- Select a cable that is in accordance to National Wiring code best practices of your local authority

Mains Cable Connection

1. Lay the mains cable from the mains outlet to the EAC-M50 enclosure, ensuring that the supply has been turned off, isolated and padlocked to avoid accidental re-energising
2. Pass the mains cable through a gland in the enclosure wall and follow the route indicated by the yellow arrow. (It should pass behind the battery, if it were installed)
3. Strip the ends mains cable, exposing 10 mm of the conductors
4. Press down on the terminal buttons while threading each stripped wire end into its corresponding terminal
5. Releasing the terminal button will clamp the stripped wire end in place
6. Take some time to thoroughly inspect all the wiring and correct any mistakes before progressing to the next step
7. Pull out the plastic tag from under the Lithium Button Cell on the Controller Module's PCB
8. Turn on the mains supply cable into the outlet socket using a switched fuse spur and power up the installation
9. The STAT (Status) LEDs on the Controller and Reader Modules will flash rapidly for approximately one second
10. After one second the Controller STAT LED will turn off during the booting process. The Reader Modules' STAT LEDs will remain on constantly as long as a suitable supply voltage is present
11. Once satisfied that there are no short circuits, it is now safe to connect the recommended 12V battery (not included) using the EAC-M50's integrated spade terminal plugs



Version 1.0

8 Network Setup

Compatibility

Before commencing network setup, be sure that the operating system and browser are supported. At time of writing, Incedo Lite compatibility includes the following full releases (or later):

- Firefox 72.0.1
- Internet Explorer 11 11.356.18362.0
- Chrome 79.0.3945.130

DNS Name function:

- The DNS Name function only works with a PC

First steps:

1. If you have not done so already, remove the plastic tag from under the button cell on the Controller PCB
2. Power up the EAC-M50.
(Allow a minute for it to boot up)

How to connect to Incedo Lite for the first time

First option:

If you have a Router with an active DHCP server

1. Type the following IP address in to one of the supported browsers:- 192.168.100.1
2. The Incedo Lite login dialogue will launch
3. See Logging on, on the next page

Second option:

Switch or Direct connection

- Connect a PC/Laptop directly to the EAC-M50 network socket using a straight (uncrossed) Ethernet cable – or via a network switch
- The PC needs to have an IP address, which is 192.168.100.1 in the same range as the EAC-M50's default address

1. Click Start>Control Panel
2. Click the “Network and Sharing Centre icon”
3. Select “Local Area Connection”
4. Click the “Properties button”
5. Double-click “Internet Protocol Version 4 (TCP/IPv4)”
6. Set the IP Address to 192.168.100.X (X being any available number between 2 and 254. Ensure that your chosen number is not the same as the EAC-M50
7. Set the Subnet Mask to 255.255.255.0
8. Click the OK button
9. Type the following IP address in to one of the supported browsers:- 192.168.100.1
10. The Incedo Lite login dialogue will launch

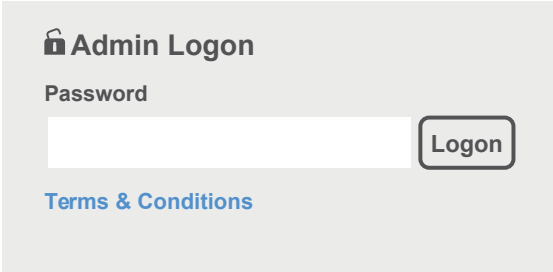
Note:

Only one instance of the interface may be opened at a time. Multiple Client connections are not supported with Incedo Lite

Note:

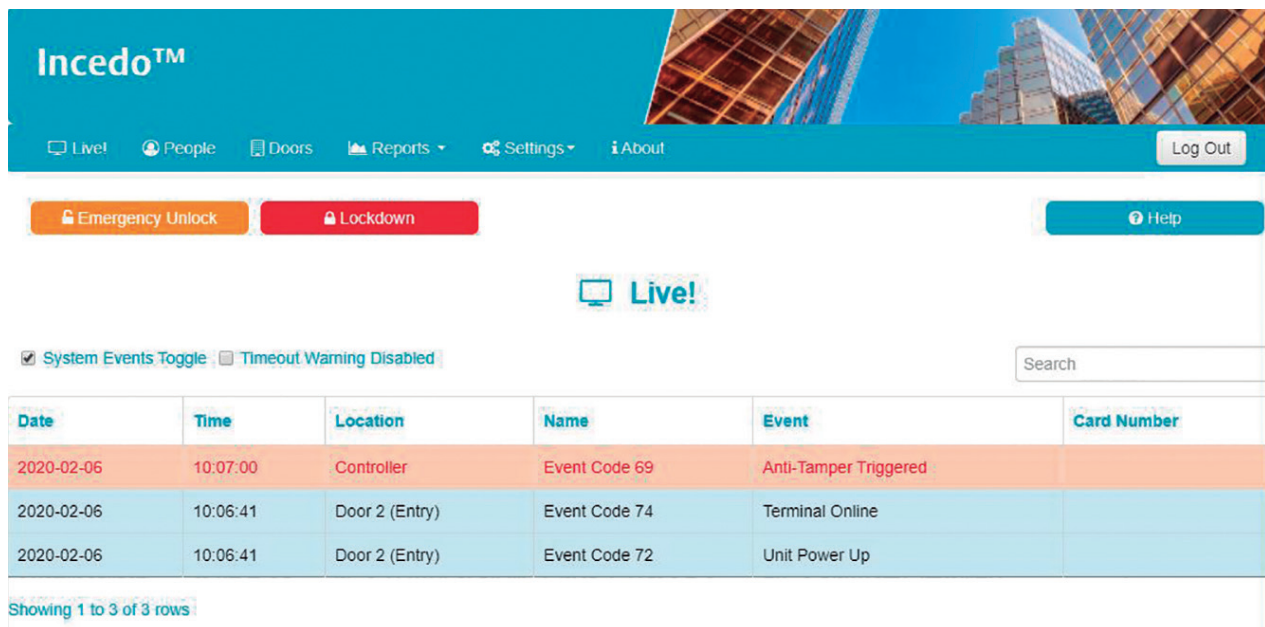
- It is advised to set up a static IP address for future use
- The DNS name function only works on a PC
- If you wish to use DNS features with Mobile devices then you need to set the DNS setting within your router. (DNS setting is router manufacturer dependent.)

Logging on



1. Enter the default Admin Password: 12345
2. Click Logon

... Incedo Lite will open on the “Live!” Screen:



The screenshot displays the Incedo™ Live! interface. At the top, there is a navigation bar with the Incedo™ logo and menu items: Live!, People, Doors, Reports, Settings, and About. A Log Out button is located in the top right corner. Below the navigation bar, there are three main buttons: Emergency Unlock (orange), Lockdown (red), and Help (blue). The central area features a large "Live!" indicator with a monitor icon. Below this, there are two toggle switches: "System Events Toggle" (checked) and "Timeout Warning Disabled" (unchecked). A search bar is positioned to the right of these toggles. The main content area contains a table with the following data:

Date	Time	Location	Name	Event	Card Number
2020-02-06	10:07:00	Controller	Event Code 69	Anti-Tamper Triggered	
2020-02-06	10:06:41	Door 2 (Entry)	Event Code 74	Terminal Online	
2020-02-06	10:06:41	Door 2 (Entry)	Event Code 72	Unit Power Up	

Below the table, it indicates "Showing 1 to 3 of 3 rows".

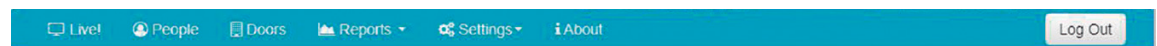
Required Settings

Using the menu-driven interface (paths shown on the next page) complete these steps:

1. Login with default password 12345
2. Set the date and time
3. Update the master password
4. Add/Configure doors and readers using the labels and door names on the back page of the EAC-M50 Quick Install Guide
5. Add/Manage people

Function Paths

The menu headings are displayed in the menu ribbon – these give you access to the functions:



Live!

- Displays transactions in real time, latest on top

People

- Add people and manage their access rights accounts and their cards

Doors

- Click on Device Discovery to search for connected modules
- Add Door
- Reset APB

Reports

- Access Report
- Status Report
- Audit Report
- Hours Worked Report

Settings



- Network Settings
- Date and Time
- Security (Changing the password)
- Special Days (Add public holidays, etc.)
- Language (*Change language preference*)
- Advanced options:
 - Access Groups
 - UDP output (Destination Address setup)
 - APB Settings
 - Door module settings

About

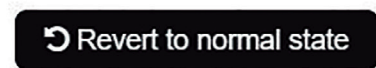
- Browser Application Version
- Web Application Version

System Overrides

- These buttons are always available on screen as long as you are logged in

Button	Function
	All controlled doors are UNLOCKED, allowing everybody to pass.
	All controlled doors are LOCKED – and no cards will open doors.

- Emergency Unlock OR Lockdown will remain active until it is disabled by clicking on “Revert to Normal State” – on the right hand end of the thick red stripe:



9 Electrical Specifications

Power Supply (EAC-PR5)

AC Mains Input	DC Output
90-240 VAC (50/60Hz), 1.3A	12V, 5A

Optional Battery (Strongly recommended)

Not included with the EAC-M50, this battery must be sourced separately.

Note:

- Only connect the battery after all system wiring is complete and tested on the built-in power supply

Battery	Specification
Type	Lead Acid
Voltage	12V
Capacity	7 Ah
Physical Dimensions	65 mm x 101 mm x 151 mm
Battery Protection Fuse	Specification
Length	20 mm, 0.787"
Type	Slow-blow
Rating	6.3 A

Controller Module (EAC-CR5)

Power

Conditions	Current	Power
Supply at 12V DC	140 mA	1.7 W

Inter-Module Communications

Connector	Purpose
10-way connectors: female on the left, male on the right	Power and data lines to other modules

Network

Connector	Purpose
RJ45	Ethernet, 10/100 Base T, half or full duplex

RS-485 Ports (Device & Host)

Interface	Baud Rate	Data Format
RS-485	38 400	8 data bits, no parity, 1 stop bit

Reader Module (EAC-DM5)

Power (At 12V)

Conditions	Current	Power
Relays idle, No readers connected	37 mA	0.44 W
Both relays activated, maximum reader load	503 mA	6W

Relays

Contact Rating	Configuration	Contacts	Operations
[10A, 28V DC] [5A, 220V AC] [10A, 120V AC]	Double Pole Single Throw	NO, NC, COM	100 000

Inter-Module Communications

Connector	Purpose
10-way connectors: Female on the left, male on the right	Power and data lines to other modules

Reader Port

Connector	Reader Connections
10-way Screw Terminal Plugs	12V, 5V, 0V, D0, D1, LED (Red), LED (Green), Buzzer, Hold, Shield

Battery Charging Circuit

Conditions	Current	Power
Supply at 12V DC, battery flat, max charge current	500 mA	6 W

10 FAQ

Fail Safe versus Fail Secure

Electrically controlled locks fall in to one of two categories:

1. Locks that require power to lock (with loss of power, these are unlocked, allowing EVERYBODY access)
2. Locks that require power to unlock (with loss of power, these are locked, allowing NOBODY access)

The first is considered fail SAFE, as people can still escape the building, and help can get in, should some misfortune occur.

The second is considered fail SECURE, as intruders cannot just walk in when power is lost.

Which lock to use

Mag locks are inherently Fail Safe, as they require power to lock.

Strike locks are available in Fail Safe as well as Fail Secure versions, but are most often Fail Secure.

Caution:

- There is another level that should also be considered.

What relay terminals to use

The relays on the EAC-DM5 Module should be switching power from an independent source, and so a similar principle also applies to your choice of Normally Open (NO) or Normally Closed (NC) relay terminals:

- Use the NC and COM terminals for switching circuits that you wish to keep energised should power to the EAC-DM5 Module be lost
- Use the NO and COM terminals for switching circuits that you wish to be cut off in the event that power to the EAC-DM5 Module is lost

Can Incedo Lite handle separated secure areas?

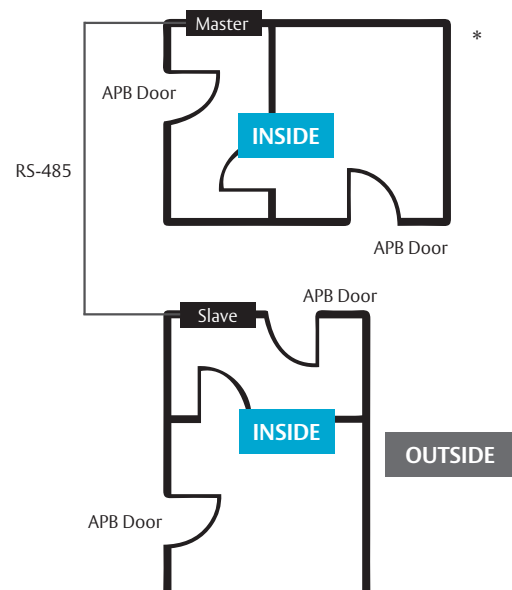
Yes it can:

All access control administration is performed via the EAC-M50 Master.

The EAC-M50 Slave has offline capability (between controllers only)

- This means that access control in the remote area will continue to function normally in the event of a break in the RS 485 cable
- The cable break event will be logged on the EAC-M50 Master
- When the RS-485 cable is restored, Incedo Lite event log will be updated with any events that happened on the slave side while the cable was broken
- Incedo Lite system event logs will reveal where a person has been spending their time

*The Slave APB only works when connected to the master controller



11 End User Licence Agreement

ASSA ABLOY LIMITED
Incedo LITE
END USER LICENSE AGREEMENT (“EULA”)
(Standard Version v.1 – 01.2020)

Important - read carefully: this end user license agreement (“*eula*”) is a legal agreement between you (“*licensee*”), either an individual or an entity, and ASSA ABLOY limited (on behalf of itself or its applicable subsidiary or affiliate “ASSA ABLOY”) governing the use of the ASSA ABLOY INCEDO™ lite software products (“*software*”) that came with this eula, whether provided on a standalone basis or pre-installed or embedded on ASSA ABLOY hardware products (“*hardware*”), and any associated product documentation or other written materials accompanying or provided with the software or available on line at the appropriate assa abloy website(s) (“*documentation*”) and “), all updates thereto provided by ASSA ABLOY (unless provided under different terms at the time of download or update). By installing, copying or otherwise using the embedded software or the hardware on which it resides licensee acknowledges it has read and understood this eula and agrees to be bound by the terms of this eula. If licensee does not agree to the terms and conditions of this eula, licensee must promptly return the embedded software, hardware and documentation (in its original, unused condition) in accordance with the instructions in the documentation within thirty (30) days after the date of purchase (or during the return period provided by the selling party or by local law, whichever is longer) for a refund in accordance with ASSA ABLOY returns policy as set forth in the documentation.

ASSA ABLOY reserves the right to refuse to grant a license (as defined in section 1) to any licensee who has failed to pay any sum due either to ASSA ABLOY, or an authorized reseller, in connection with the hardware, this eula, the software, any other software license to use any software product(s) of ASSA ABLOY and/or in connection with any maintenance and support agreement as defined in section 3.1.

1. Grant of License

1.1 In consideration of payment of the applicable purchase price for the Hardware (“*Purchase Price*”) as set out in the invoice or other relevant documentation, to ASSA ABLOY or its authorized reseller and subject to Licensee’s compliance with the terms and conditions of this EULA, ASSA ABLOY grants Licensee a limited, non-exclusive, non-transferable, non-sublicensable, revocable, worldwide (subject to any legal restrictions on export or use) license to download and run a machine readable, object code version (subject to section 2 below) of the Software, solely for Licensee’s internal business operations on compatible Hardware that Licensee owns or controls in accordance with the applicable Software and Hardware documentation and instructions Such documentation and instructions shall be considered part of this EULA. Licensee’s right to use the Software is expressly subject to the use within the Licensee’s business and other such limitations as indicated by the invoice or other purchasing documentation issued by ASSA ABLOY or ASSA ABLOY’s authorized reseller for the Software and/or Hardware provided to Licensee..

1.2 Licensee acknowledges that the Software has not been developed to meet its individual requirements, and that it is therefore Licensee’s responsibility to ensure that the facilities and functions of the Software as described in the Documentation meet such requirements. The Software and Documentation is supplied only for Licensee’s internal use for its business, and not for any re-sale purposes or for the provision of the Software (whether directly or indirectly) to third parties. ASSA ABLOY shall not under any circumstances whatever be liable to Licensee, its affiliates, officers, directors, shareholders, employees, agents or other representatives or any

third parties to which the Licensee has provided the Software, whether

1.3 Except as expressly set forth in Section 2(a), only object code, machine-readable versions of the Software are licensed to Licensee hereunder, and Licensee has no rights under this EULA to the source code versions of the Software. Licensee may use, reproduce and internally distribute the Software and the Documentation solely in connection with and as reasonably necessary for Licensee's authorized use of the Software and for backup and archive purposes; provided, however, that Licensee may not copy any Software that is installed, embedded or otherwise resident in any Hardware products. Subject ASSA ABLOY's prior authorization in writing and to the foregoing license grant and terms and conditions of this EULA, Licensee may make the Software and Documentation available to a third party to operate the Software on behalf of Licensee, provided that Licensee shall be fully liable for such third party's compliance with the terms and conditions of this EULA.

1.4 PLEASE READ THE INSTRUCTIONS FOR USE OF THE SOFTWARE: The licensee's rights in accordance with this EULA are also subject to Licensee's compliance with the instructions provided by ASSA ABLOY at the time of purchase and on its website at www.assaabloyopeningsolutions.com

2. Restrictions

The license rights granted in this EULA are subject to the following restrictions:

(a) Other than in accordance with section 1.3, Licensee may not sell, license, sublicense, lend, rent, lease, assign, distribute, host, outsource, disclose or otherwise commercially exploit the Software or otherwise transfer or make available the Software to a third party; provided, however, that if any sample code or application programming interfaces are provided by ASSA ABLOY with or as part of the Software (hereunder, "API's") for the purpose of enabling interoperability between the Software and an application developed by or for Licensee ("*Licensee App*"), Licensee may distribute those portions of the API's that are marked or identified in the

Documentation as being redistributable solely as part of a Licensee App.

(b) Licensee may not use the Software for time-sharing, outsourcing, service bureau, or managed service provider purposes, or otherwise make the Software available to third parties for their commercial purposes, unless expressly authorized in writing by ASSA ABLOY.

(c) Licensee acknowledges that the Software in source code form remains a confidential trade secret of ASSA ABLOY and/or its third party licensors ("*Licensors*"). Licensee may not reverse engineer, decipher, decompile, modify or disassemble the Software or otherwise attempt to derive the source code of the Software, incorporate the Software in whole or in part in any other software or product, or develop derivative works of the Software or allow others to do so, or to attempt to do any of the foregoing (except and only to the extent the foregoing restrictions are prohibited by applicable law notwithstanding this limitation).

(d) Licensee shall not use or access the Software for benchmarking or competitive analysis, or in order to build a similar or competitive product or service.

(e) Except as expressly stated herein, no part of the Software or Documentation may be copied, reproduced, distributed, republished, downloaded, displayed, posted or transmitted in any form or by any means, including but not limited to electronic, mechanical, photocopying, recording or other means.

(f) Any future release, update, or other addition to functionality of the Software shall be subject to the terms of this EULA, unless ASSA ABLOY expressly states otherwise.

(g) Licensee shall not disclose or publish the results of any performance, functional, or other evaluation or benchmarking of the Software to any third party without the prior written consent of ASSA ABLOY.

(h) If the Software or Hardware product uses a volume license key or other method to limit the volume of use of the product, Licensee shall not disable, bypass or otherwise circumvent the operation of such key or method.

(i) For some Software or Hardware products, there are additional product-specific restrictions set forth in the applicable product addendum attached to or referenced in this EULA. In the event of any conflict between the terms of this EULA and the terms of any applicable product addendum, the terms of the product addendum shall be controlling.

(j) All use shall be in compliance with applicable law, including without limitation all local laws, such as building codes and regulations.

3. Support

3.1 Support. During the term of this EULA and subject to Licensee's payment of Purchase Price for the Hardware, ASSA ABLOY or ASSA ABLOY's authorized reseller will make technical support and software maintenance available to Licensee on ASSA ABLOY's then current terms ("Support").

3.2 Procurement and Support of System. Licensee is responsible for procuring, installing and maintaining the hardware or software infrastructure, including a suitable operating system environment (collectively the "System"), required for the proper operation of the Software. Licensee acknowledges that updates to the Software provided as part of Support may require modification or upgrades to certain components of the System in order to utilize such updates, and that Licensee is solely responsible for obtaining such software and hardware modification or upgrades from the applicable suppliers or manufacturers.

3.3 Updates and Modifications. The Licensee acknowledges that they may be required from time to time, to install updates to use the Hardware and the Software and the Licensee agrees to promptly install any updates that ASSA ABLOY introduces. The Licensee's continued use of the Hardware and Software represents the Licensee's consent to these updates. Updates and modifications will be made available to the Licensee via the ASSA ABLOY website at www.assaabloyopeningsolutions.com. ASSA ABLOY will provide support to Hardware and Software that is no more than one (1) version (e.g., where version 3 is the current version, version 2 would be supported, but not version 1) behind the current version of the Software as offered by ASSA ABLOY.

ASSA ABLOY may at its option: i) choose to decline to provide support to Hardware or Software that is more than one (1) version behind the current version of the Software as offered by ASSA ABLOY; or ii) may charge the Licensee for continued support for Software or Hardware that is more than one (1) version behind the current version of the Software as offered by ASSA ABLOY.

3.4 Unauthorized Support. ASSA ABLOY or ASSA ABLOY's authorized reseller reserves the right to charge additionally for support, where the activity or fault requiring such support is found to be due to the provision of support to the Licensee by third parties not authorized by ASSA ABLOY or ASSA ABLOY's authorized reseller to provide such support.

4. Certification and Audit

Licensee shall use commercially reasonable efforts to implement measures to monitor and ensure all users of the Software comply with the restrictions and limitations of this EULA. At ASSA ABLOY's written request, but not more frequently than once annually during the term of this EULA, Licensee shall certify to ASSA ABLOY, in a writing signed by Licensee's authorized representative, Licensee's compliance with the terms of this EULA, and provide ASSA ABLOY a list of (a) the number of users by country, and (b) the locations and types of the systems on which it operates or has installed the Software. ASSA ABLOY reserves the right to audit Licensee's use of the Software no more than once annually, per Licensee site, at ASSA ABLOY's expense. ASSA ABLOY shall schedule any audit at least fifteen (15) days in advance. Any such audit shall be conducted during regular business hours at Licensee's facilities and shall not unreasonably interfere with Licensee's business activities. If such audit reveals that Licensee has underpaid fees to ASSA ABLOY, Licensee shall promptly pay to ASSA ABLOY such fees at the prices previously agreed to for such Software and, if the underpayment is greater than five percent (5%), Licensee shall also reimburse ASSA ABLOY for its reasonable costs of the audit.

5. Ownership

5.1 All right, title, and interest, including all intellectual property rights, in and to the Software and Documentation (and all copies thereof) shall be owned and retained by ASSA ABLOY or its Licensors. Any rights not expressly granted by ASSA ABLOY in this EULA are reserved. All Software is licensed and not sold, and any reference to “sale” or “purchase” shall mean the purchase of a license to the Software as set forth herein. Licensee may not remove, modify or otherwise tamper with any copyright, trademark, proprietary rights notices, labeling, legend, disclaimer or warning notices included in or embedded in any part of the Software or Documentation or in any copy made of the Software or Documentation. The Software may contain or be distributed with open source software which may be covered by a different license. Licensee agrees that all open source software shall be and shall remain subject to the terms and conditions under which it is provided, and Licensee shall be responsible for compliance with such terms. Additional information regarding open source licenses is available at www.assaabloyopeningsolutions.com.

5.2 Nothing in this EULA shall be deemed to give the Licensee any rights in the trademarks, service marks, patents, trade secrets, confidential information, copyrights or other intellectual property rights of ASSA ABLOY or any third party licensor, and Licensee shall be strictly prohibited from using the name, trademarks or service marks of ASSA ABLOY or any third party licensor in Licensee’s promotion or publicity without ASSA ABLOY’s prior express written approval.

6. License Fee

Licensee acknowledges that the rights granted to Licensee under this EULA are conditional on Licensee’s timely payment of the Purchase Price for the Hardware payable to ASSA ABLOY, as the case may be, payable to ASSA ABLOY’s reseller. The Software is embedded in the Hardware and as such no separate license fee is paid by Licensee, the License is granted on the condition that the Purchase Price for the Hardware has been paid in full.

7. Warranty and Disclaimers

7.1 Limited Warranty. ASSA ABLOY warrants that for a period of ninety (90) days from the date the Hardware with Software embedded is purchased by Licensee or downloaded by Licensee, whichever is earlier, that: the Software will, when properly used on an operating system for which it was designed, perform substantially in accordance with the functions described in the Documentation; and (b) the Software will perform substantially in accordance with the then-current Documentation, provided that such Software is properly used by Licensee in accordance with such Documentation and this EULA. If Licensee discovers within this warranty period that the Software fails to substantially conform to the Documentation, Licensee must follow the Hardware return instructions described in the Documentation or otherwise communicated to the Licensee by ASSA ABLOY or ASSA ABLOY’s reseller.

7.2 Remedies. ASSA ABLOY’s sole and exclusive liability and Licensee’s sole and exclusive remedy under this limited warranty shall be, at ASSA ABLOY’s election, either: (a) replacement of the media if defective, or (b) ASSA ABLOY’s commercially reasonable effort to repair or replace the Software or the Hardware to make the Software perform substantially in accordance with the accompanying Documentation, if the Software as initially delivered is non-conforming. In the event ASSA ABLOY is unable to remedy the non-conformity and such non-conformity materially affects the functionality of the Software, Licensee may promptly terminate the Software license applicable to the non-conforming Software/Hardware and return such Hardware and any applicable Documentation to ASSA ABLOY or ASSA ABLOY’s authorized reseller in accordance with the Hardware return instructions described in the Documentation or otherwise communicated to the Licensee by ASSA ABLOY or ASSA ABLOY’s reseller. The above remedies are available only if ASSA ABLOY or ASSA ABLOY’s authorized reseller is promptly notified in writing within the ninety (90) day warranty period. Any replacement Software will be warranted for the remainder of the original warranty period, or for thirty (30) days, whichever is longer.

7.3 Quality and Performance. The licensee expressly acknowledges and agrees that, to the extent permitted by applicable law, use of the

Software is at the Licensee's sole risk and that the entire risk as to satisfactory quality, performance, accuracy and effort is with the Licensee and to the maximum extent permitted by law, the software is provided on an "as-is" basis. ASSA ABLOY provides limited warranties and remedies solely as set forth in its limited warranty with respect to the Hardware only

7.4 Restrictions and Exclusions. ASSA ABLOY does not warrant that the Software will meet Licensee's requirements or will operate in combination with other software or hardware which may be selected for use by Licensee, or that the operation of the Software will be uninterrupted or error-free. This limited warranty is VOID if failure of the Software is due to accident, negligence, abuse, improper installation or misuse of the Software, or installation on incompatible hardware or use with incompatible software.

7.5 Disclaimers. To the maximum extent permitted by law, the warranties stated above are exclusive and in lieu of all other warranties and conditions, whether express, implied or statutory, including without limitation the implied warranties of merchantability, non-infringement, fitness for a particular purpose, title or quality of service. ASSA ABLOY does not warrant that use of the licensed software will be uninterrupted or error-free, compatible with the licensee's system, computers or mobile devices, that defects will be corrected, or that the software is free of malware, viruses or other harmful components. If applicable law requires any warranties with respect to the software, then to the maximum extent allowed by law, all such warranties are limited in duration to ninety (90) days from the date of download or purchase, whichever is earlier.

No warranties shall arise under this eula from course of dealing or usage of trade. ASSA ABLOY does not warrant that the software or documentation is free of third party claims of infringement or misappropriation of intellectual property rights.

8. Taxes and duties

Licensee agrees to pay, and indemnify ASSA ABLOY from claims for, any local, state or national tax (exclusive of taxes based on net income), duty, tariff or other impost related to or arising from the transaction contemplated by this EULA.

9. Limitation of Liability

ASSA ABLOY, its licensors, agents, suppliers, distributors or resellers shall not be liable whatsoever for any indirect, incidental, special, consequential or punitive damages, including without limitation damages for lost profits, data or loss of use, diminution in value, business interruption, loss of revenues, or procurement of replacement software, however incurred by the licensee or any third party, whether in an action in contract or tort, even if such party has been advised of the possibility of such damages. To the maximum extent permitted by law, ASSA ABLOY's licensors disclaim all damages of any kind. Except for any indemnification provided herein, the aggregate and cumulative liability of ASSA ABLOY for damages under this eula shall not exceed the amount of the fees paid by licensee for the software licensed under this eula.

10. Limitations on Claims

The Licensee agree that, unless prohibited by law, any claim or cause of action arising out of or related to use of the Software, or reliance on this EULA, must be filed within one (1) year after such claim or cause of action arose or be forever barred, regardless of any time limit set forth in any statute or law to the contrary.

11. Indemnification

Licensee agrees to indemnify, hold harmless and defend ASSA ABLOY, ASSA ABLOY's resellers and each of ASSA ABLOY's third party licensor's respective affiliates, officers, directors, shareholders, employees, authorized resellers, agents and other representatives from all claims, defence costs (including, but not limited to, legal fees), judgments, settlements and other expenses arising from or relating to the use or misuse of the Software, the Hardware incorporating the Software, provision of services (including, but not limited to support), or the licensee's negligence, willful misconduct, criminal conduct or breach of this EULA.

12. IP Indemnity

12.1 Indemnity. ASSA ABLOY will defend Licensee from and against any claim brought by a third party against Licensee to the extent such claim alleges that the Software directly infringes any intellectual property rights of such third party (“Claim”), and will pay all costs, damages and expenses (including reasonable legal fees) finally awarded against Licensee by a court of competent jurisdiction or agreed to in a written settlement agreement signed by ASSA ABLOY arising out of such Claim; provided that Licensee: (a) gives ASSA ABLOY prompt written notice upon learning of a Claim or potential Claim; (b) allows ASSA ABLOY to assume sole control of the defense of such Claim and all related settlement negotiations; and (c) reasonably cooperates with ASSA ABLOY, at ASSA ABLOY’s request and expense, in the defense or settlement of the Claim, including the provision of all assistance, information and authority reasonably requested by ASSA ABLOY. Notwithstanding the foregoing, ASSA ABLOY shall have no liability for any claim of infringement based in whole or in part on (i) the use of a superseded or altered release of the Software to the extent that the infringement would have been avoided by the use of a current unaltered release of the Software provided by ASSA ABLOY or its affiliates to Licensee, (ii) the modification of the Software by anyone other than ASSA ABLOY or its authorized agents to the extent that the infringement would have been avoided but for such modification, (iii) the use of the Software other than in accordance with the documentation accompanying the Software or the applicable license agreement, (iv) the combination of the Software with other software or hardware not provided by ASSA ABLOY, where the combination causes the infringement and not the Software standing alone, (v) third party software, including open source software, incorporated in the Software, or (vi) product features based on published standards where there was no non-infringing way to implement such standards.

12.2 Additional Remedies. If the Software, or any material portion thereof, is held by a court of competent jurisdiction to infringe, or if ASSA ABLOY believes that the Software may be subject to a Claim or held to infringe, ASSA ABLOY shall, in its discretion and at its expense (a) replace or

modify the Software so as to be non-infringing, provided that the replacement Software provides substantially similar functionality; (b) obtain for Licensee a license to continue using the Software; or (c) if non-infringing product or a license to use the Software cannot be obtained upon commercially reasonable terms, as determined solely by ASSA ABLOY, ASSA ABLOY may (i) terminate the license for the affected Software (as applicable) and (ii) upon return of the Software by Licensee or certification of its destruction, refund a pro-rated portion of the license fees or other charges paid by Licensee to ASSA ABLOY (or its affiliate company) for such Software (for perpetual licenses, as depreciated on a four-year straight-line basis and for term limited licenses, for the unused remainder of the term) and, if applicable, the unused portion of any prepaid support fees that directly relate to such Software.

12.3 Limitation and Exclusive Remedy. The indemnity provided herein states ASSA ABLOY’s and its affiliate companies’ entire liability and Licensee’s sole and exclusive remedy for any claim of intellectual property infringement by, or with respect to, the Software.

13. Export

Licensee may not export or re-export the Software in violation of any applicable laws or regulations including but not limited to those of the United States of America and the European Union. In addition, if the Software is identified as export controlled items under the export laws of the United States of America or the European Union, Licensee represents and warrants that it is not a citizen of, or otherwise located within, an embargoed nation and that he/she is not otherwise prohibited under applicable export laws from receiving the Software. Moreover if Licensee’s acquisition of the Software is subject to the laws of the United States of America, Licensee represents and warrants that he/she will comply with any specific restrictions and regulations that might be applicable to all contracts or agreements (including but not limited to the reproduction of the “restricted rights” proprietary notices and/ or legends) concluded with the United States government or its agents and representatives. All rights to use the Software are granted on the condition that those rights are forfeited if Licensee fail to comply with the terms of this EULA.

14. Third Party Software Component License Terms

To the extent there are any third party software components licensed to ASSA ABLOY by Licensors included in the Software, such components shall be licensed as part of the Software in accordance with the terms and conditions of this EULA. Such Licensors may provide additional rights, requirements and notices (which rights, requirements and notices can be found in a readme file or product addendum or are otherwise distributed with the Software), and nothing herein shall alter or limit any such additional rights, requirements or notices provided to Licensee by such Licensors.

15. Term and Termination of License

The term applicable to Licensee's use of the Software shall be perpetual unless indicated otherwise in the Purchase Documents. ASSA ABLOY may terminate this EULA and Licensee's corresponding right to use the Software in the event Licensee breaches a material obligation under this EULA and fails to cure such breach within thirty (30) days after ASSA ABLOY sends written notice describing the breach if such breach is capable of being cured, or immediately if the breach is not capable of being cured. Upon any termination of this EULA, or if Licensee should discontinue using the Software or give up personal use and control of the computers or other hardware on which the Software is installed, Licensee shall destroy all copies of the Software, Documentation, and any related materials in any form. The parties' rights and obligations under Sections 2, 4, 5, 7.4, and 8, 9, 10, 11, 12, 16 and 17 shall survive any termination of this EULA.

16. Confidential Information

Licensee agrees that the Software (including, for the avoidance of doubt, any Source Code that is licensed to Licensee) and Documentation are proprietary to and the confidential information of ASSA ABLOY or, as the case may be, ASSA ABLOY's resellers, and that all such information and any related communications (collectively, "*Confidential Information*") are confidential and a fundamental and important trade secret of ASSA ABLOY and/or ASSA ABLOY's resellers. If Licensee is a business user, Licensee shall disclose Confidential Information only to Licensee's employees who

are working on an Authorized Project and have a "*need to-know*" such Confidential Information, and shall advise any recipients of Confidential Information that it is to be used only as expressly authorized in the Agreement. Licensee shall not disclose Confidential Information or otherwise make any Confidential Information available to any other of Licensee's employees or to any third parties without the express written consent of ASSA ABLOY. Licensee agrees to segregate, to the extent it can be reasonably done, the Confidential Information from the confidential information and materials of others in order to prevent commingling. Licensee shall take reasonable security measures, which measures shall be at least as great as the measures Licensee uses to keep Licensee's own confidential information secure (but in any case using no less than a reasonable degree of care), to hold the Software, Documentation and any other Confidential Information in strict confidence and safe custody. ASSA ABLOY may request, in which case Licensee agrees to comply with, certain reasonable security measures as part of the use of the Software and Documentation. This clause shall not apply to any information that is in or comes into the public domain, or was in Licensee's lawful possession before receipt or which Licensee develops independently and without breach of this clause. Licensee acknowledges that monetary damages may not be a sufficient remedy for unauthorized disclosure of Confidential Information, and that ASSA ABLOY shall be entitled, without waiving any other rights or remedies, to such injunctive or other equitable relief as may be deemed proper by a court of competent jurisdiction.

17. General

17.1 Entire Agreement. This EULA, together with any Documentation and any attached and/or referenced addenda, exhibits and schedules, constitutes the complete agreement between the parties and supersedes all prior or contemporaneous agreements or representations, written or oral, concerning the subject matter of this EULA.

17.2 Amendments and Modifications to this EULA. Licensee agrees that ASSA ABLOY may modify this EULA from time to time, and that Licensee's right to support and use of the Software is conditioned on an ongoing basis with Licensee's

compliance with the then-current version of this EULA. ASSA ABLOY will provide notification of any material revisions or modifications to this EULA by posting a notice or new version of this EULA on the ASSA ABLOY website at www.assaabloyopeningsolutions.com., or by providing direct notice in a communication to the Licensee), or otherwise in some manner through the website or Software that ASSA ABLOY in its sole discretion deems reasonably. The modifications will be effective upon the 30th day following notice of such amendment being available to all users of the Software. By continuing to use the Software or support after revisions become effective, Licensee agrees to be bound by the revised EULA. If Licensee does not agree to the new EULA, it should cease using the applicable Software. No other act, document (including Licensee's purchase order or other Licensee document), usage or custom shall be deemed to amend or modify this EULA. If any of these provisions are held to be unenforceable in any jurisdiction for any reason, such provision shall be reformed only to the extent necessary to make it enforceable, and such decision shall not affect the enforceability (a) of such provision under other circumstances or jurisdictions, or (b) of the remaining provisions hereof under all circumstances or jurisdictions.

17.3 Governing Law and Jurisdiction. These terms and conditions, and interpretation thereof, will be governed by the laws of the England and Wales, without regard to conflicts of laws principles. Any action under or relating to this EULA shall be brought solely in the English courts and each party hereby submits to the personal jurisdiction of such courts, except that ASSA ABLOY may seek relief in any court of competent jurisdiction to protect or enforce its intellectual property and proprietary rights. The United Nations Convention on Contracts for the International Sale of Goods shall not apply to this EULA. The parties acknowledge that they require that this EULA be drawn up in the English language only. Any translation of this Agreement is done for local requirements and in the event of a dispute between the English and any non-English version, the English version of this Agreement will govern.

17.4 Assignment This EULA may not be assigned, delegated or otherwise transferred by Licensee, by

merger, acquisition, change of control, operation of law or otherwise, without the express prior written authorization from ASSA ABLOY, which may withhold consent in its sole discretion. Any attempt by Licensee to assign, delegate or otherwise transfer this EULA in violation of the foregoing restrictions shall be a breach and ASSA ABLOY shall have the right, in addition to any other remedy available at law or in equity, to terminate this EULA at any time subsequent to such breach. ASSA ABLOY may assign and/or transfer this EULA in whole or in part to its successors or to any third party or entity acquiring all or substantially all of ASSA ABLOY's assets.

17.5 Waiver. All waivers by ASSA ABLOY will be effective only if in writing. Any waiver or failure by ASSA ABLOY to enforce any provision of this EULA on one occasion will not be deemed a waiver of any other provision or of such provision on any other occasion.

17.6 Notices. Except as otherwise provided herein, all notices, consents, requests, instructions, approvals and other communications made, required, or permitted under this EULA will be given at the addresses set forth in the Order Form, by (i) personal service, deemed effective on the reported delivery date; (ii) recognized international or overnight courier, deemed effective on reported delivery date; or (iii) email transmission against receipt confirmation, deemed effective on delivery date confirmation.

17.7 Severability. If any part of this EULA is found by a court of competent jurisdiction or other competent authority to be invalid, unlawful or unenforceable then such part will be severed from the remainder of this EULA, which will continue to be valid and enforceable to the fullest extent permitted by Applicable Law. The invalid or unenforceable part or provision shall be replaced with a provision which accomplishes, to the extent possible, the original business purpose of such part or provision in a valid and enforceable manner.

12 Copyright and Trademarks

Copyright

© 2020 ASSA ABLOY Corporation/ASSA ABLOY AB.
All rights reserved.

This document may not be reproduced,
disseminated or republished in any form without the
prior written permission of ASSA ABLOY Corporation

Trademarks

ASSA ABLOY, HID, the HID Brick logo and SEOS
are trademarks or registered trademarks of ASSA
ABLOY, ASSA ABLOY AB, or its affiliate(s) in the US
and other countries and may not be used without
permission. All other trademarks, service marks,
and product or service names are trademarks or
registered trademarks of their respective owners.

The ASSA ABLOY Group is the global leader in access solutions. Every day, we help billions of people experience a more open world.

ASSA ABLOY Opening Solutions leads the development within door openings and products for access solutions in homes, businesses and institutions. Our offering includes doors, door and window hardware, locks, access control and service.

ASSA ABLOY Opening Solutions
Digital and Access Solutions EMEA
Dukes Court
Duke Street
Woking GU21 5BH
UK
campaigns.assaabloyopeningsolutions.eu/incedo-business