

inception

WEB POWERED SECURITY

Simple & Easy Installation | Integrated Security - Access Control





System Hardware

Web Powered Convenience

With Inception there is no need to install software on a computer, no need to leave a computer on site and no issues with software/firmware compatibility. Instead, the installation process is as simple as powering up the controller, connecting the network cable (or use the optional WiFi adapter) and using any web browser to navigate to Inception's web page. Here you will find everything you need to set-up, commission and operate the entire system.

End users can conveniently use any existing computer, tablet or smartphone to control their Inception system via the fully featured user interface.

Easy To Program & Easy To Commission

Inception's web interface features an industry-first interactive Commissioning Checklist that guides the technician through the commissioning process. When followed from start to finish, the configuration process can be completed efficiently in a logical way, minimising the risk of missing important configuration settings.

Technicians can commission a system with confidence, knowing that they have covered everything, from core programming, to custom automation, changing default credentials, backing up the database and downloading a commissioning report, without missing a step!

Inception's programming screens are presented in a simplified manner with unnecessary options out of view. The programming screens are concise and easy to navigate with built-in context-based help to provide on-screen detailed information to the installer.

Universal Inputs & Outputs Provide Access Control And Security Monitoring Directly From The Controller

The Inception controller features 8 inputs and 4 relay outputs on-board. These inputs and outputs are truly universal. A mix of EOL (end of line) inputs and standard button/switch inputs can be used independently of each other, while the 4 relay outputs can be used to directly control door locks, powered siren modules or connect and control any device of your choice.

For example, using Inception's built in RS-485 reader port, up to 8 x SIFER card readers or 8 Wiegand readers via Inner Range OSDP <-> Wiegand converters can be connected and used in conjunction with the 4 relay outputs to provide access control for four doors with read in and out control. The 8 inputs can then be used to connect PIR's or reed switches for security alarm purposes.

Expanding Inception

Inception allows for expansion via its on-board RS-485 LAN port. Keypads, access control modules and input/output expanders can be added to increase Inception's scope up to 128 doors, 1024 inputs and 1024 outputs.

Flexible Automated Responses

The Inception controller contains configuration options for many of the commonly used automatic responses in Intruder and Access Control systems. These could be tasks like turning on an output linked to a strobe during an area alarm for example, or turning on an output linked to a buzzer if a door is left open too long.

If more advanced or custom functionality is required, then Automated Actions are key. These would most often be simple automation cases such as turning on the lights when an area is disarmed, but have the flexibility to handle the very complicated scenarios that a client may dream up.

Automated actions are broken up into two parts; the trigger condition and the action responses. The trigger determines when actions should occur, while the action responses determine which actions to perform when the trigger condition becomes valid, and which actions to perform when it becomes invalid. These action responses can control the basic items in the system like outputs, areas and doors, but can also control the feedback tones on individual SIFER readers or siren devices.

The trigger for an action goes beyond the simple "Door is Unlocked/ Locked" or "Area is Armed/Disarmed" cases, allowing doors to also trigger when opened, closed, locked out, forced, held open too long, or almost held open too long. Areas are also more advanced, allowing entry or exit mode, alarm active, input activity or many other states to trigger an action. Input, output and time period states can also be used as a trigger.

These flexible trigger conditions allow a wide variety of actions to automatically be performed in response to a wide variety of scenarios. Adding the ability to group many trigger conditions together into the one action wraps a very powerful feature into a very simple package.



Connect Using WiFi

Inception's optional WiFi adapter (purchased separately) provides a convenient wireless connection option. With two modes of operation, the WiFi adapter can act as a handy technician's service tool or serve as a permanent wireless connection, to an available onsite wireless network.

- 1. Wireless Access Point mode** allows installers to establish a wireless connection directly to the Inception controller. This avoids the need to find an IP address or connect to the client's local network. In this mode the WiFi adapter can be used as a service tool, allowing the installer to configure/perform maintenance on site and simply remove the WiFi adapter when done.
- 2. Client Mode** allows Inception to connect to an existing WiFi network for a permanent local network/Internet connection.





Inception Features & Benefits



Security Alarm & Intruder Detection

Inception is a fully featured intruder detection system capable of monitoring up to 1024 detection points with powerful security monitoring features, which tightly integrate with Inception's access control function.



Access Control

Inception is a powerful access control system capable of providing physical access for up to 128 doors and 256 card readers, or 32 Lift Cars. The access control system provides logical and clever integration with the security alarm function.



Automation

Inception's universal inputs and outputs can be used for monitoring and automated actions and control of systems such as lighting, air conditioning and many other systems. Convenient control is provided via Inception's web-based interface giving you convenient and flexible control directly from a tablet or smartphone.



Multiple Devices

The Inception web interface is responsive, meaning that the layout of the interface is automatically adjusted to suit the device you are using to access it. This keeps Inception's navigation and controls easy to follow, regardless of which device is being used to access it.



IP Alarm Transmission

Inception is designed for the modern age of alarm transmission, and is equipped with IP alarm communication functions straight out of the box. Inception can be connected and monitored via its on-board Ethernet connection using the Inner Range Multipath-IP system. Or it can be teamed up with a T4000 alarm communicator to provide dual-path IP alarm transmission using 4G wireless communications networks.



No Software Required

With the web-based software interface being built directly into the Inception system controller, there is no need to install security management software onto a separate computer. This provides a quick and hassle-free installation process and outstanding convenience for daily operation and control. It also eliminates any chance of software/hardware version clashes.



Integration

Inception features powerful integration options for use with Control 4 Home Automation systems. Integration with the Control 4 allows flexible control and synchronisation of security, access control, inputs and outputs from either system. Inception also features a powerful 3rd party automation interface to allow custom integration with many building automation and control systems. From Version 3.0 Inception also features a REST-based integration API that allows 3rd party applications to integrate directly, via a high level interface to provide User Management, Live Item State & Item Control.



Easy Commissioning

Inception features an industry-first "Commissioning Checklist". The checklist is an interactive guide for the installer, taking them through all the items that need to be programmed and tested in a logical order. This ensures that the Inception system is programmed and installed both quickly and accurately.



Access Control

Door Held Open

Detect if doors have been held open for too long. Warn locally with buzzers first, but if nothing changes, then escalate with notifications and alarms.

Dual Credential Access

Require both a card and a PIN for higher security locations or for after-hours access.

Live User Locations

Track user locations as they move through a building. Automatically run and email Muster reports in an emergency or view a live interface to ensure everyone gets to safety.

Elevator Control

Grant user permissions to floors, schedule free access times and update user locations with button feedback.

Anti-Passback

Prevent tailgating, sharing of access cards or ignoring access rules where accurate user location is important. Warn or deny on violations, and automatically forgive after time to minimize inconvenience.

Door Interlocking

Flexible configuration supports many scenarios, from simple airlocks through to safety environments, like limiting access if active machinery or hazardous substances are on the other side of the door.



Intruder Detection

Multiple Areas

Have granular control over the security of your site. Support multiple offices with one system or keep important areas secure during the day.

Auto-Arming

On a schedule or after inactivity, ensure areas are secure when no one is there.

Pre-Arm Health Check

Verify the health of the system and that all inputs are closed before arming for the night. See a list of problems to fix, such as doors or windows to close, to ensure the site is secure.

Many Detector Types

Detect and notify about a wide range of events. Alert and warn about smoke, user duress, medical, emergency, environmental alarms and so on.

Residential Mode

Enable residential area mode to secure a building in Full, Perimeter or Night modes.



Integrated System

Unlock on First Access

Unlock the front door automatically during working hours, but only if someone has arrived and disarmed the system.

Door Alarm Monitoring

Alert if a door is forced (opened without being unlocked), or notify if a door has been held open too long.

Three-badge Arming

Easily arm the system by presenting a card three times at a reader.



Inception Features & Benefits

SkyTunnel Makes Connectivity Simple

SkyTunnel is a cloud based service provided by Inner Range to deliver hassle-free connections of security system hardware and software over the internet. With Inception's built in SkyTunnel connection, having security alarms monitored and accessing Inception's web interface via the Internet is a straight forward process. All data is kept private and access to the site is locked thanks to SkyTunnel's secure SSL/TLS encrypted communications and authentication. All that is needed is an active internet connection.

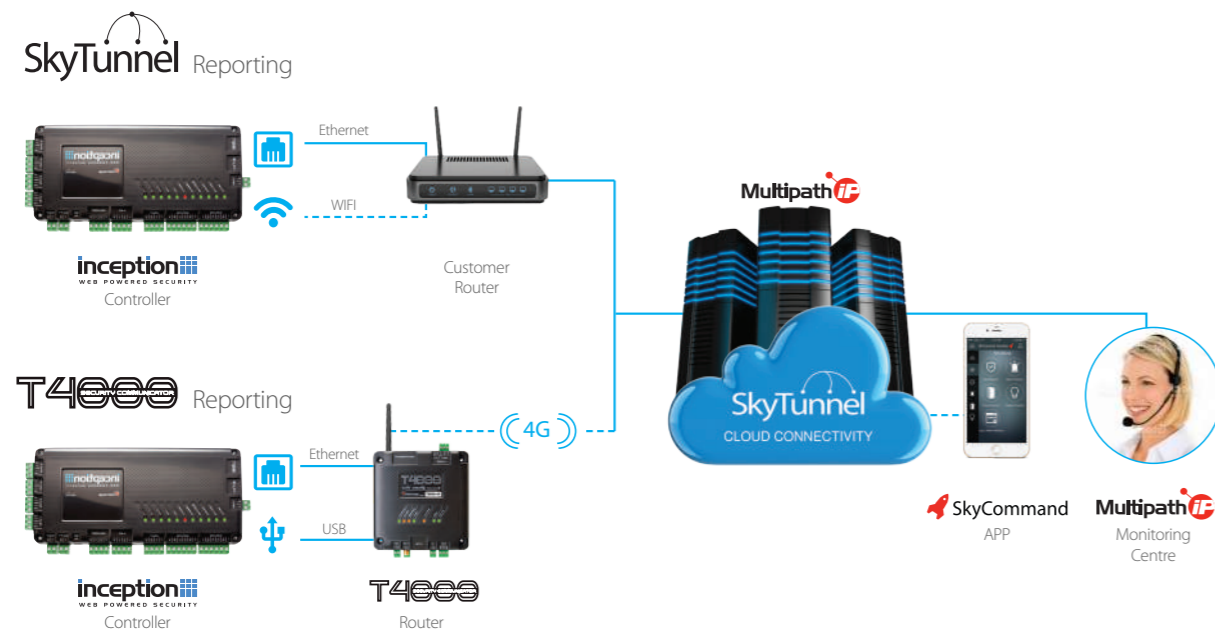
Access Inception Securely via the Internet

With a SkyTunnel connection in place, accessing the Inception controller is as easy as opening a web page and entering the controller's web address. Inception's web page is designed to be responsive, meaning that you can use the device of your choice, be it a computer, tablet or smart phone. Provided your device has a connection to the Internet, you can access Inception from any place at any time, with the protection of a secure connection. To access Inception via SkyTunnel, simply scan the QR code on the Inception controller or enter the web address into your browser and you're up and running.

Reliable Alarm Monitoring

Monitoring alarms via Inception's SkyTunnel connection is just as convenient. Inception can be monitored by any central station offering monitoring services for Inner Range's Multipath-IP alarm transmission system. The Inception controller only needs access to the Internet via Ethernet or WiFi and once established setting up alarm monitoring is quick and easy using the SkyTunnel connection service.* For a more advanced monitoring service, team up a Multipath-IP T4000 Security Communicator with your Inception controller. The T4000 can provide both wired and dual-network 4G wireless alarm communications to the Monitoring Station to ensure alarms are delivered every time.*

**Requires a monthly monitoring plan to be in place with your security installer or monitoring station*



Firmware Updates

Firmware updates for the Inception Controller are regularly released, adding new features to the product, enhancing existing features or fixing any issues as they are discovered. Each release is packaged with comprehensive release notes that explain everything there is to know about the new features or enhancements that are added, or the issues that have been resolved.

If the controller has a connection to SkyTunnel, it can know as soon as a new firmware release occurs, prompting with a "New Firmware Available" link at the top of the screen. From here, release notes can be downloaded from the controller to the browsing device to see what is new and the firmware can be pulled onto the device directly from SkyTunnel.

After a controller firmware update, it is important that all supporting modules and peripherals are also up to date. Inception takes care of this by highlighting any modules or peripherals that are out of date and by pre-packaging along all of the latest firmware files for each device, ready to be sent over the LAN.

All of this can occur directly from the controller's web interface, with no need to hunt down each device's firmware and manually upload to the controller, however this is still an option if desired!

Free Online Training

Training is not a requirement to install the Inception product, with the Commissioning Checklist and the detailed onscreen help hopefully able to guide a new technician through his first use of the product. However, for those wanting extra information, self-paced online training is available via the Inner Range website; all that is needed is an Inner Range web account.

Training takes a look at the controller, LAN modules including wiring information and accessories, along with connectivity and installation information to get up and running. From there, a detailed programming scenario is worked through, resulting in a fully configured system.

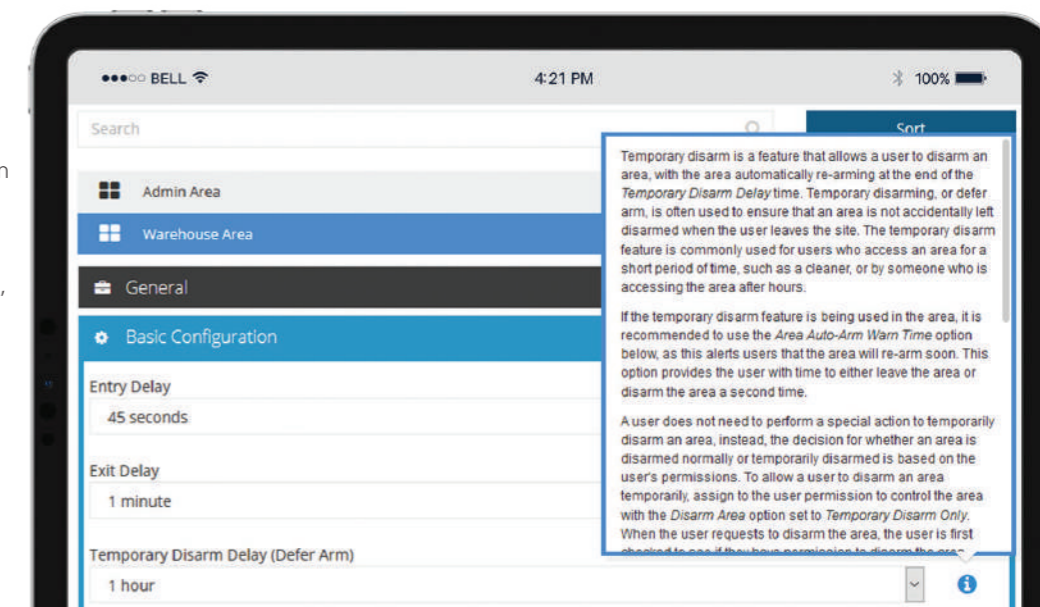
Detailed Onscreen Help

Standard industry terminology and Inner Range terminology combine with plain English to create a product that tries to be as accessible as possible, regardless of a technician's background in the industry.

However, a technician's experience can be wide-ranging; a veteran who has seen it all, a new player picking up their first controller, or a specialist in Access Control or Security or Automation looking to branch out. Creating a system to suit everyone's level of experience is no easy task.

No matter what a technician's experience level is with the product, Inception provides comprehensive, context specific help text throughout the web interface. Each web page has a page description at the top that can be expanded from a single sentence to generally at least 4 paragraphs of text, describing what the page offers and how to use the page. Each edit item has a tooltip icon next to it that when clicked, shows a popup with generally at least 2 paragraphs of information, describing what the option does, why it does it, where it should be used, considerations to take when setting the option and any other options it affects.

If there is any doubt about what a feature or option does, there is detailed help close at hand.





Inception - SkyCommand

Smart Phone Control

Controlling and managing an Inception system on the go has never been easier. The SkyTunnel connection delivers the Inception web interface straight to a mobile device's web browser, automatically resized and adjusted to fit the device. Nothing is missing when compared to a computer's display, making remote control or maintenance of a system as accessible as possible.

The free SkyCommand smart phone app* simplifies control of the system even further. The app allows quick system arming and disarming, controlling of outputs and viewing of live events with just a few taps of the screen. The app is also capable of controlling many Inception or other Multipath-IP devices, removing the need for a client to keep track of multiple devices; instead, they are all at their fingertips.

Email Notifications

Inception is capable of sending notification messages via email using clear, easy to read language. Configuration of notifications is incredibly flexible, allowing different users to be notified about different events at different times.

Users can be notified about almost any type of event. For example, the system can be configured to send notifications whenever an alarm occurs in a particular area or access to a particular door is granted or denied. Notifications can also be sent when repeated failed login attempts are made on the web interface or Keypad, or if programming changes are made to particular entities. Maintenance events, such as power and battery issues can also be communicated.

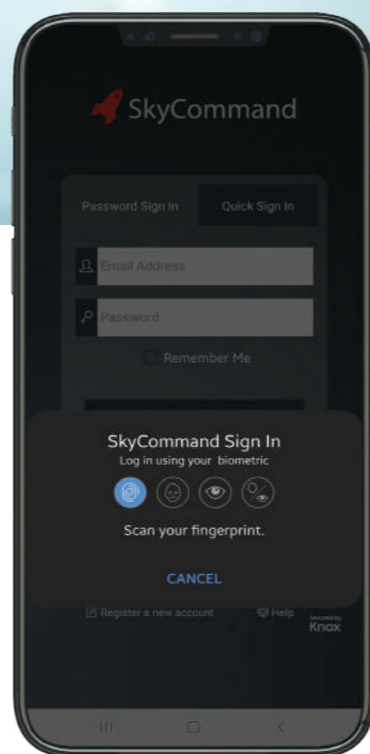
When multiple events need to be sent to a single user, they are consolidated into a single email message. This prevents the flooding of messages to the user's mailbox. Inception can be configured to send email using a local or public SMTP server.

Push Notifications

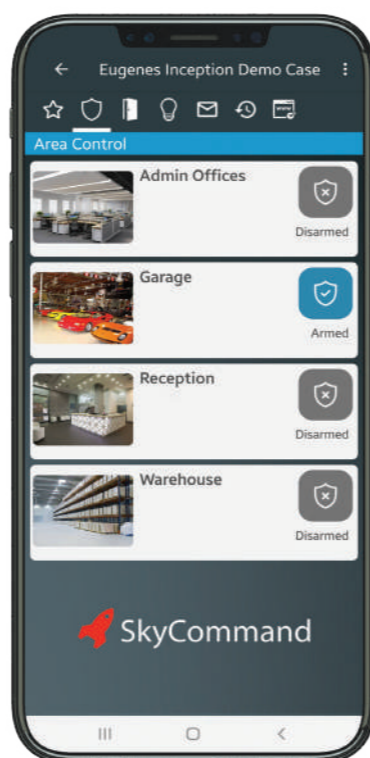
Inception push notifications are sent to smart devices using the SkyCommand app, which is free to download for Android and iOS devices and can be installed on as many devices as necessary. In addition to push notifications SkyCommand also provides convenient control of the security system.

Push notifications can be configured to be sent in response to area arm and disarm events, area alarm and restore events and system alarms for the Inception controller.

**The app is free to download, however an affordable monthly subscription is necessary per controller to enable push notifications. This allows the app (or multiple apps) to control the security system and receive push notifications on an ongoing basis.*



Detailed live status



Interactive control of whole site



SkyCommand Dealer Portal

Never before has it been more convenient for an installation company to remotely manage their customers ongoing security needs. Introducing the SkyCommand Dealer portal by Inner Range. The SkyCommand Dealer portal offers the perfect place for installation companies to manage all of their Multipath-IP devices including T4000, Inception and SkyGuard devices.

Field Technicians

The secure and intuitive interface allows a field technician to view live event logs, utilise live diagnostics and access Inception web interfaces remotely from a tablet or smart-phone. Site names and notes can be updated per-device, making searching for a specific client or system a breeze.

Installation Company

Devices can be enrolled or pre-enrolled with a monitoring centre to simplify the signup process when commissioning a new site. Adding and editing app users and their permissions can be done by any staff member without prior in-depth knowledge of the system. The suite of subscription services on offer, such as interactive control and notifications, are a powerful addition to the product offering.

Combining all of these tools in one place can streamline and enhance both the initial installation and ongoing maintenance processes for a company's clients.



- USB Port**
For Wi-Fi Adapter, Multitpath-IP T4000 Security Communicator or USB to Serial adapter for automation
- Ethernet Port**
For network connection and IP alarm communications via SkyTunnel
- Tamper Input**
Monitor Inception's outer enclosure to detect any attempts to tamper with the controller
- LED Indicators**
Quickly see the status of Inception's system, connections and outputs



4 Universal Relay Outputs
Outputs are truly universal. Control door locks, connect alarm sounders or switch automation controls and external devices



SkyTunnel Web Interface
Scan the QR code or browse to the web address to access your Inception's web interface from any Internet connected device via the SkyTunnel service

- 8 Universal Inputs**
Monitor a mix of EOL devices, buttons, switches or doors
- Device Power**
12VDC output for powering PIR's, T4000 or other security devices
- RS-485 LAN Expansion Port**
Add LAN expansion modules to Inception including keypads, input/output expanders, access control modules and wireless fobs and detectors

Device Power
12VDC output for powering PIR's, T4000 or other security devices

Backup Battery Connection
Connect a 12V SLA battery for back-up power. Can also be used to power Inception from a separate external battery-backed 12~14VDC power supply

Power Input
18V~24VDC 2.5A to suit Inception's inline power supply

SIFER Reader RS-485 Port
Connect up to 8 SIFER readers, or 8 Wiegand readers via OSDP <-> Wiegand converters, for In & Out access on all four doors

System Capacities

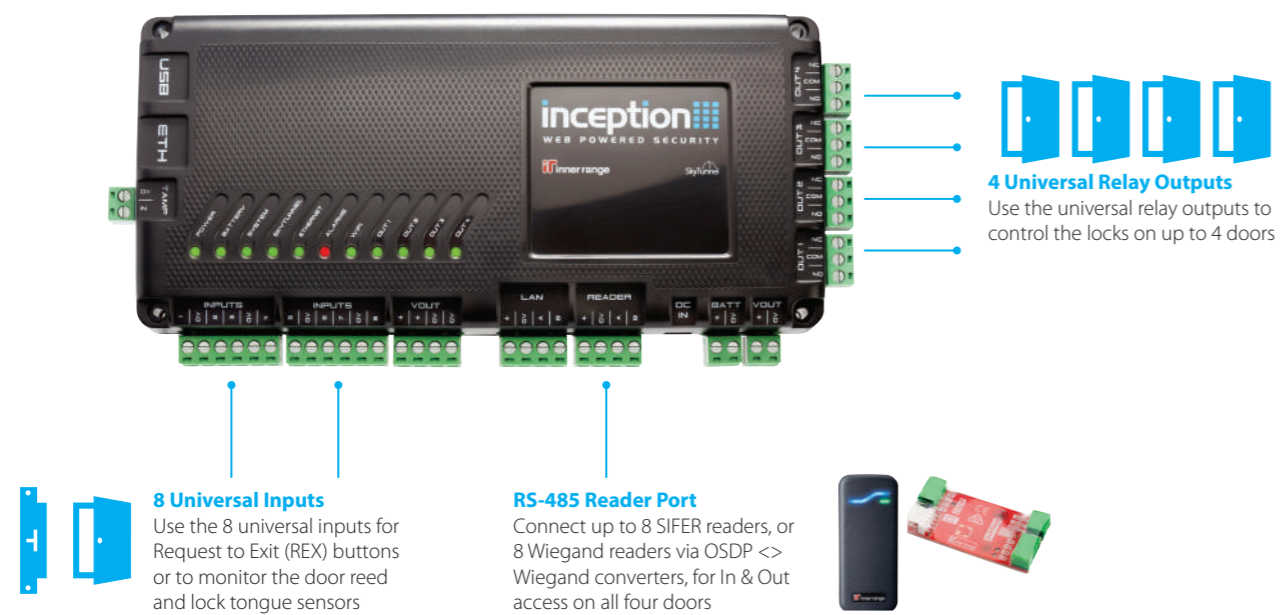
	On-board Inception Controller	With LAN Expansion
Doors	4*	128
SIFER Readers	8	256
Wiegand Readers	8**	128/256***
Areas	96	96
Inputs	8	1024
Outputs	4*	1024
Lift Cars	32	32
Users	10,000	10,000
Events	250,000	250,000

*The Inception controller has 4 relay outputs in total. These can be used as lock relays for doors or general purpose dry contact outputs.
** Via 8 OSDP <-> Wiegand converters.
*** 256 Wiegand readers requires a combination of OSDP <-> Wiegand converters and 127 Standard LAN Access Modules.



Inception - Deployment Examples

Four Door Access Control System

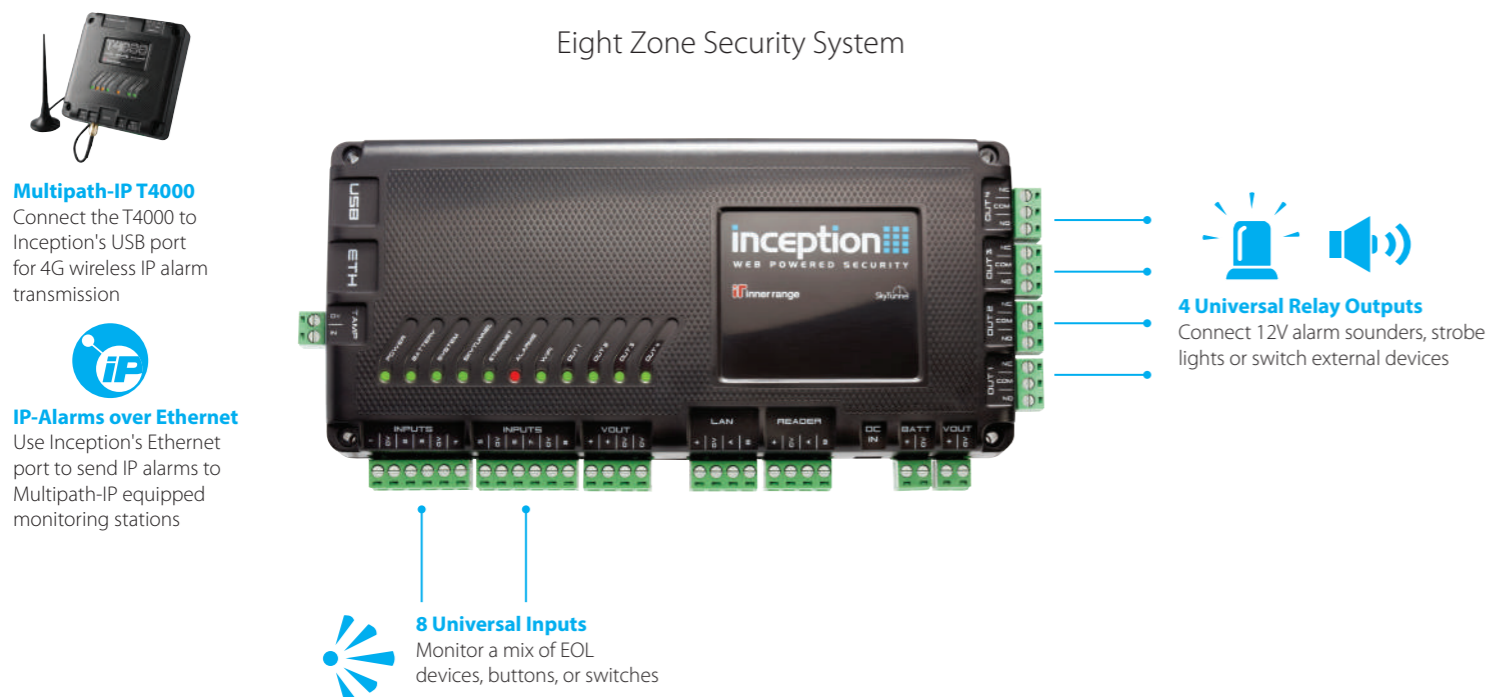


Integrated Access Control and Security System

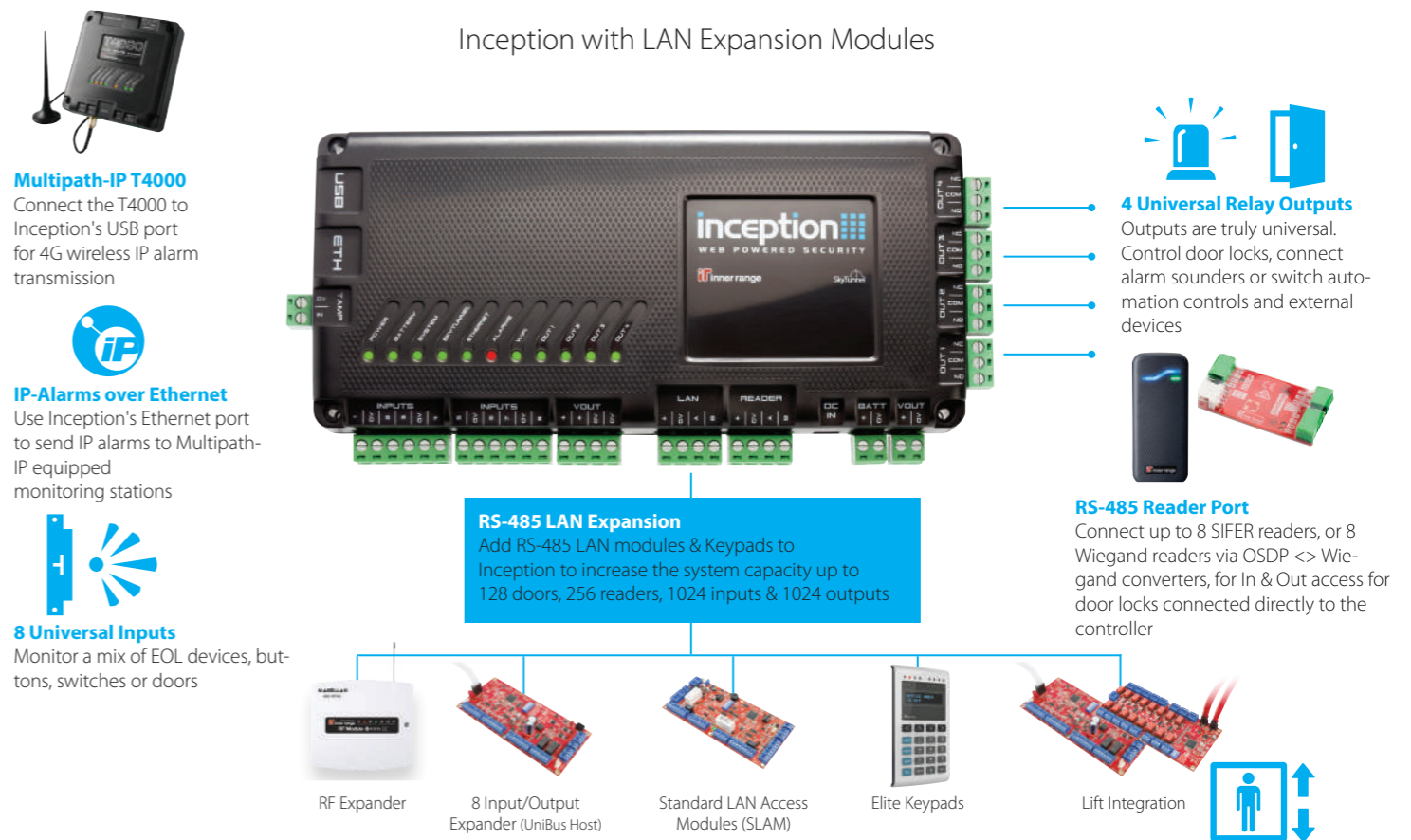
Example showing 2 access controlled doors with 4 inputs used for general intruder detection



Eight Zone Security System



Inception with LAN Expansion Modules





Inception LAN Expansion Modules

Standard LAN Access Module

The Standard LAN Access Module (SLAM) is used to control and monitor up to 2 doors on Inception's RS-485 LAN. Connect up to 4 Inner Range SIFER readers to accommodate entry and exit readers on both doors. Alternatively, 2 Wiegand readers may be connected to allow control of a single door with entry and exit readers or two doors with a single reader each. Programming options allow for each reader to be configured independently and security area control to be integrated with access control where required.

The SLAM features 4 dedicated inputs and outputs for each door including lock and DOTL (Door Open Too Long) relays. The outputs and inputs are flexible - in particular, outputs can be given DOTL, valid, invalid, beeper, generic output and follow door state behaviour. Similarly, inputs can be given reed, tongue, REX, breakglass or generic detector/switch behaviour. The door contacts and/or tongue sense inputs are utilised to provide "door forced" and "door open too long" alarms.

Cache functionality is also provided via the on-board database, which provides offline access for up to 10,000 user cards if communications to the Inception controller are lost. The power supply requirements are 11 to 14VDC and a range of Integriti plug-on external 2Amp, SMART 3Amp or SMART 8Amp switch mode power supplies are available. The SMART power supplies are fully monitored via the SLAM module.

996012PCB&K
Standard LAN Access Module (PCB & Accessories)

OSDP <> Wiegand Converter

The OSDP <> Wiegand Converter is a small inline device that can operate in two main modes that can open up many new options when determining and designing a site's hardware requirements.

Option 1: Connect Wiegand readers to OSDP ports

Via the Converter, a Wiegand reader can now be connected to an OSDP port. This allows Wiegand readers to make use of many of the benefits that an OSDP reader bus provides:

- 128bit AES encrypted communication path
- 4-core cables to the module, while still offering beeper, valid and invalid LED control
- Longer cable runs
- More flexible wiring configurations (for example, daisy-chaining readers together for a single run back to the module).

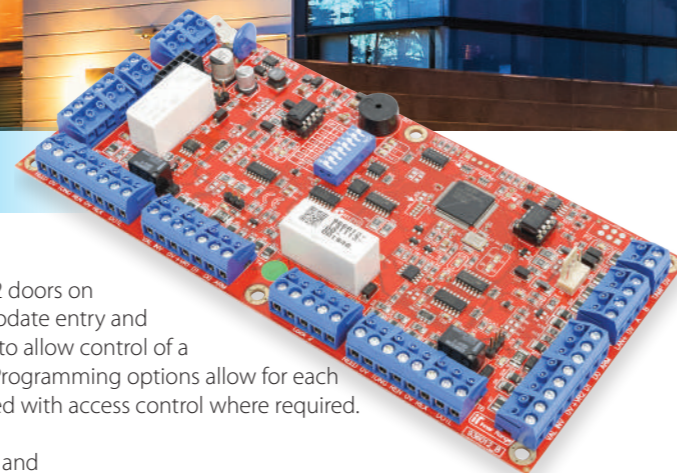
In practice, this allows up to 8 Wiegand readers to be connected directly to an Inception Controller, allowing read-in and read-out abilities on up to 4 doors without extra hardware, which is perfect if upgrading an existing site with access control to Inception. In addition, two extra Wiegand readers can be connected to SLAMs, again allowing read-in and read-out abilities on both doors of a SLAM.

The advanced control that Inception offers for a Wiegand reader's beeper and valid/invalid LEDs are also available when connected to the OSDP <> Wiegand converter. This allows numerous area events like arm success or failure, entry delay, alarm and area arm warning, or door events like door unlocked and held open too long to make use of the inbuilt Wiegand reader beeper and LEDs to provide feedback to users.

Option 2: Connect OSDP readers to Wiegand reader port.

Via the Converter, OSDP readers such as Inner Range SIFER readers or other products can now be connected to existing Wiegand reader ports. This allows SIFERs, for example, to be used on older Concept hardware or other products in preparation for a site upgrade. When used in conjunction with an Inception system, it allows non-SIFER OSDP readers to be connected to SLAMs, allowing sites with existing OSDP readers to be changed to an Inception site.

994200
OSDP <> Wiegand Converter



SIFER Smart Card Reader

The SIFER card reader is a Smart card reader designed and manufactured by Inner Range. It is a multi-drop RS-485 connected reader that employs 128 bit AES encryption from the card through to the door module, providing a far superior level of security than that of traditional Wiegand based card readers. SIFER readers utilise the MIFARE® DESFire® EV2 card format.

SIFER allows the colour scheme of the indicator LEDs to be customised according to the sites requirements. The internal beeper is used to provide audible feedback to indicate valid access, access denied and other event or warning sounds.

Up to 8 SIFER readers may be connected to the RS-485 reader port on the Inception controller and up to 4 may be connected to the Standard LAN Access Module (SLAM).

SIFER's bus interface allows all of the readers to be connected via just one cable. With a single connection to the controller, time and money is saved through the reduced need for cabling.

SIFER readers are IP67 rated and can be configured with site specific encryption keys. The SIFER reader is available in two versions: The standard SIFER which will only read SIFER cards, and the Multi-Format SIFER which can read SIFER cards and also the Card Serial Number (CSN) of other smart cards such as MIFARE® & iClass.

The SIFER Keypad model offers all of the options and benefits of the standard SIFER reader, while allowing PIN numbers to be entered. This allows a door to be configured for Card and/or PIN access from a single IP67 rated reader.

SIFER Cards & Fobs

1. **SIFER-P:** Pre-programmed 'stock' cards. The most cost-effective card option without customisation options. With more than four billion card numbers available, each SIFER-P card is guaranteed to be unique.
2. **SIFER-U:** User Programmable cards that allow an installer to customise the card number, site code and use their own encryption key via the SIFER Programming Station. (Part 994750)
3. **SIFER-C:** Custom batch orders configured by our factory according to the specified card number range, site code, encryption key and printing options. Cards cannot be re-programmed at a later stage by the installer or our factory.

SIFER READERS

994720 SIFER Smart Card Reader
994720MF SIFER Smart Card Multi-Format Reader
994725 SIFER Keypad/Smart Card Reader
994725MF SIFER Keypad/Smart Card Multi-Format Reader

ISO CARDS

994610 SIFER-P DESFire® EV2 4K ISO - (Pre-programmed - Printed)
994612 SIFER-U DESFire® EV2 4K ISO - (User Programmable - Printed)
994614 SIFER-C DESFire® EV2 4K ISO - (Custom Programmed - Printed)

FOB's

994616 SIFER-P DESFire® EV2 4K FOB (Pre-programmed - Printed)
994618 SIFER-U DESFire® EV2 4K FOB (User Programmable - Printed)
994620 SIFER-C DESFire® EV2 4K FOB (Custom Programmed - Printed)

SIFER Tools

994750AU SIFER Card Programming Station for SIFER-U cards





Inception Peripherals

Multipath-IP T4000 Security Communicator

The Inception controller can natively send alarms over IP to Multipath-IP equipped monitoring stations via the local Internet connection and Inner Range's SkyTunnel service.

However, for high-security applications where multiple network paths are desired or client sites where an existing internet connection is not available, the T4000 may be connected to the Inception controller using a USB connection. The T4000 provides the Inception controller with any combination of Ethernet plus Single or Dual SIM 4G network connectivity for wired and wireless alarm transmission, ensuring that alarms are delivered every time.

Connecting the T4000 to the Inception's built-in USB port is child's play using the specialised USB cable. Combined they are truly 'plug and play' devices taking only minutes to connect and configure. (A T4000 to Inception USB Interface cable part 996797 is also required)

998530LT
T4000 Security Communicator (Lite Version – recommend for use with Inception)
998530
T4000 Security Communicator (Use where the T4000 will need a separate power supply and back-up battery)

T4000 – Inception Interface Cable

The T4000 Inception interface cable is required to connect a T4000 to Inception's USB port.

996797
T4000 – Inception Interface Cable



Inception WiFi Adapter

Use the Inception WiFi Adapter to upgrade your Inception with WiFi abilities. The WiFi adapter supports two modes of operation and includes a 2dBi Antenna and external magnetic antenna base.

999039
Inception WiFi Adapter



USB Hub for Inception

Use the USB hub where more than one USB device is to be connected to the Inception controller. For example, 1 x WiFi adapter, 1 x T4000 and 1 x USB to Serial adapter for 3rd party automation. The USB hub has 4 ports and a very small footprint and can be powered from 12VDC available from the controller. This also allows the hub to be included in the backup power supply from the controller.

999032
Inception USB Hub



Wireless RF Expander Module

The Inner Range - Paradox RF module is a cost-effective wireless RF solution that connects to Inception's RS-485 LAN and allows Paradox Magellan wireless PIR's, reed switches, smoke detectors, remote control fobs and emergency pendants to function with the Inception system.

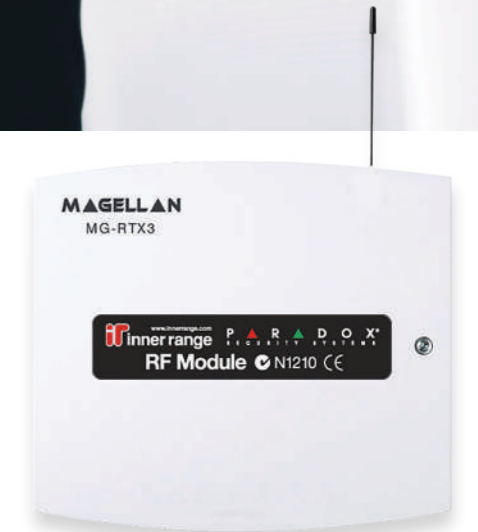
Paradox remote control fobs can be used to arm or disarm the Inception system with ease and can provide bi-directional audible and visual feedback for arming. Custom actions can be assigned to the fob buttons to provide convenient wireless control at the touch of a button. In addition to this, the REM 2 has an information button which can be used to indicate the current status of the security area.

Additionally, each RF module will provide 32 wireless detection inputs. Low battery supervision and reporting is provided for all wireless input devices.

Inception supports the following Paradox wireless devices:

- Remote Controls, Fobs & Emergency Pendants (Excludes REM3)
- Motion Detectors
- Wireless Door Contacts (Reed Switches)
- Smoke and Glass Break Detectors

995025
RF Module Paradox (433Mhz)



Inovonics RF Expander

The Inner Range - Inovonics™ RF Expander is an RS-485 LAN based module which provides an interface for Inovonics™ wireless security transmitters such as detectors, universal transmitters and user pendants.

Up to 32 Detectors can be monitored by each Module. User pendant transmissions can be received via any RF Expander Module in the system. The range of an RF system can be expanded by using Inovonics™ Repeater units which allow RF signals to be forwarded onto the expander module.

Transmitters can be simply registered into Inception using the 8-digit decimal serial number found on each device.

996008
Inovonics RF Expander





Inception LAN Expansion Modules

8 Input LAN Expander

The 8 Input LAN Expander module can be connected directly to Inception's RS-485 LAN to provide an additional 8 zone inputs, 2 auxiliary outputs and 2 siren drivers. Each 8 Input LAN Expander can be expanded, up to 32 inputs or 32 outputs using plug-on UniBus expansion devices.* This flexible expansion design allows the Inception system to be expanded up to a total of 1024 inputs and 1024 outputs.

**Limited to 32 inputs and 26 outputs or 24 inputs and 32 outputs at the same time.*

The 8 Input LAN Expander's power supply requirement is 11 to 14VDC and a range of plug-on external 2Amp, SMART 3Amp or SMART 8Amp switch mode power supplies are available. The SMART power supplies are fully monitored via the 8 Input LAN Expander module.

996005PCB&K
8 Input LAN Expander Module (PCB & Accessories)

UniBus 8 Input Expander

The UniBus 8 Input Expander connects directly to an 8 Input LAN Expander (host module) via the UniBus Port. It provides an additional 8 inputs along with extra detector power supply connections (DET+) to simplify device wiring.

The UniBus 8 Relay Expander is designed for installation within the same tamper protected enclosure as its host module. The UniBus device is connected directly to the host module or another UniBus device via the UniBus patch cable supplied. Up to 3 UniBus 8 Input expanders can be connected to one 8 Input LAN expander.

996500PCB&K
UniBus 8 Input Expander (PCB, Patch Cable & Accessories)

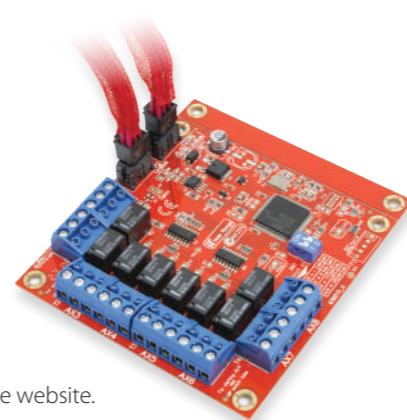
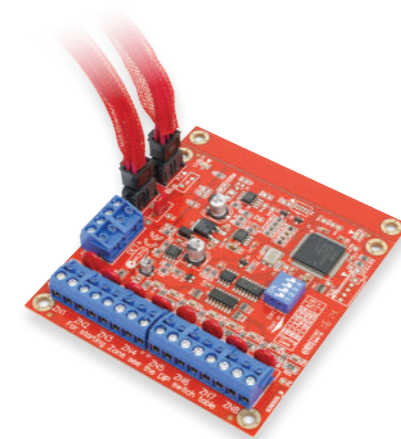
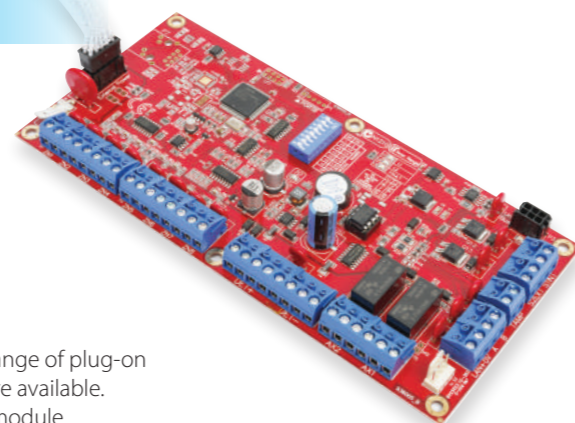
UniBus 8 Relay Expander

The UniBus 8 Relay Expander connects directly to an 8 Input LAN Expander (host module) via the UniBus Port. It provides 8 independent, high-current normally open or normally closed relay outputs, offering a general purpose interface for switching devices such as strobes, buzzers, building automation and process control.

The UniBus 8 Relay Expander is designed for installation within the same tamper protected enclosure as its host module and can be connected directly to the host module or another UniBus device via the UniBus patch cable supplied. Up to four UniBus 8 relay expanders can be connected to one 8 Input LAN Expander.

996515PCB&K
UniBus 8 Relay Expander (PCB, Patch Cable & Accessories)

Full technical data sheets for products featured on this page are available from the Inner Range website.

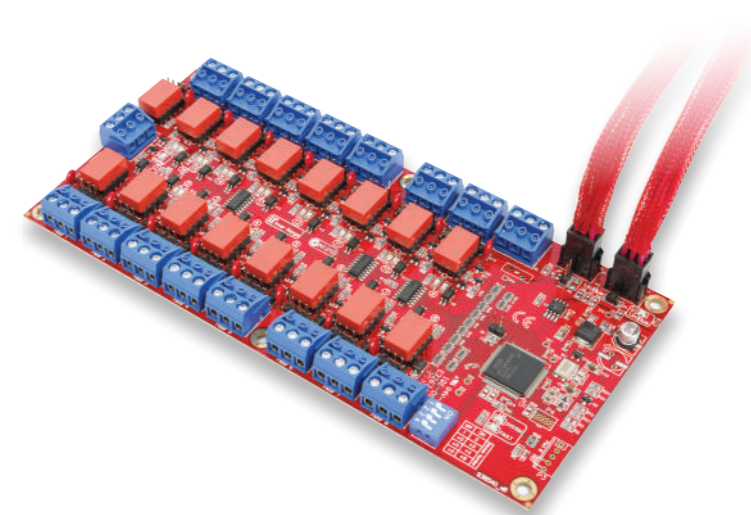


Lift Integration

Low-level lift integration to Inception involves wiring of outputs in the Inception system to lift buttons in a lift car, allowing the individual buttons to be enabled or disabled by the Inception system. Then, a user is able to present their card at a reader located in the lift car and based on their permissions, certain floor selection buttons can be enabled. In addition, the lift buttons can also be wired into Inputs in the Inception system, allowing Inception to know which button a user pressed.

Buttons in lift cars can be configured to enable automatically on a schedule, allowing free access to floors at certain times of the day. This behaviour can also be manually overridden by the end user, letting them set floors to free access, secured or locked out if they have the correct permissions. Security area integration is included, where lift floors can be associated with areas, preventing free access to that floor if the area is armed. In addition, if button feedback is available, the area can be automatically disarmed when the user selects it. Or if they do not have permission to disarm the area, they can be denied access until an authorized user accesses the area first, preventing them from walking into an armed area that they cannot control.

The lift integration can also be used to provide other security related functions, such as locker control, car garages or storage units. This could allow a single reader to unlock one or more lockers or a specific roller door based on which user presented their card.



The UniBus Lift Button Interface

UniBus 16-Floor Lift Interface device provides an efficient integration between the Inception System and a lift system. This facilitates managed and secure floor access for users within multi-storey buildings and apartment blocks. The UniBus Lift Interface device utilises a low-level button feedback interface between Inception and the lift system. It incorporates input conditioning and switching to provide the isolation required between the two systems.

Using a UniBus cable, the device connects directly to an 8 Input LAN expander, (UniBus Host) and up to 6 UniBus 16-Floor Lift Interface devices can be connected to a single host module to service up to 96 lift buttons with button feedback.

996540PCB&K
UniBus 16 Floor Lift Interface device



Inception Keypads & Enclosures

EliteX LCD Keypad

The EliteX LCD keypad is elegantly designed and features a clear and easy to read OLED display. Users can use the Keypad to perform typical operations on the Inception system. This includes control of security areas, door access, event activity review and controlling the state of outputs. Users PIN numbers can also be changed directly from the keypad. The OLED LCD display shows plain text navigation through operations and alarms, events and items are presented by name.

EliteX can also be used by the installer to access a limited range of Inception's configuration options. The keypad's 8 indicator LEDs can also display a real-time status of the security system.

995400 - EliteX Keypad

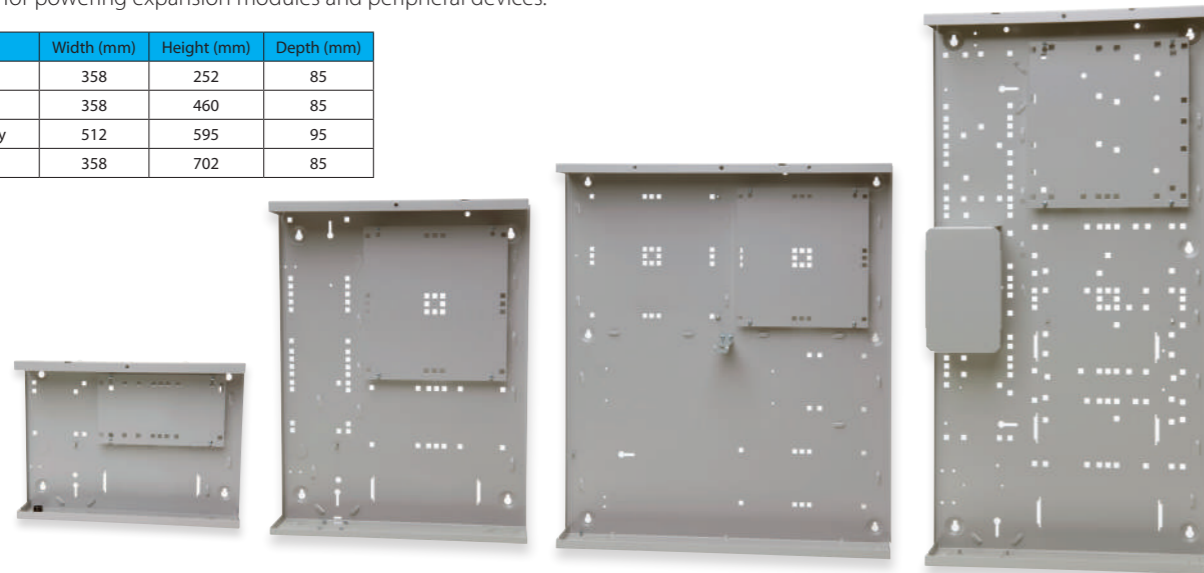
995000U - Original Elite LCD Keypad (ivory)
995000UWH - Original Elite LCD Keypad (white)

Enclosures for the Inception Controller

There are four sizes of low-profile metal enclosures suitable to house the Inception controller. The small enclosure is perfect for installations where the Inception controller is to be installed as a stand-alone unit.

Larger size powered or non-powered enclosures are available to accommodate expansion module installation in addition to the controller. The powered models feature 3Amp or 8Amp SMART power supplies, which are ideal for powering expansion modules and peripheral devices.

Enclosure	Width (mm)	Height (mm)	Depth (mm)
Small	358	252	85
Medium	358	460	85
Wide Body	512	595	95
X Large	358	702	85



eliteX
KEYPAD

995200 - Small Enclosure (enclosure only)

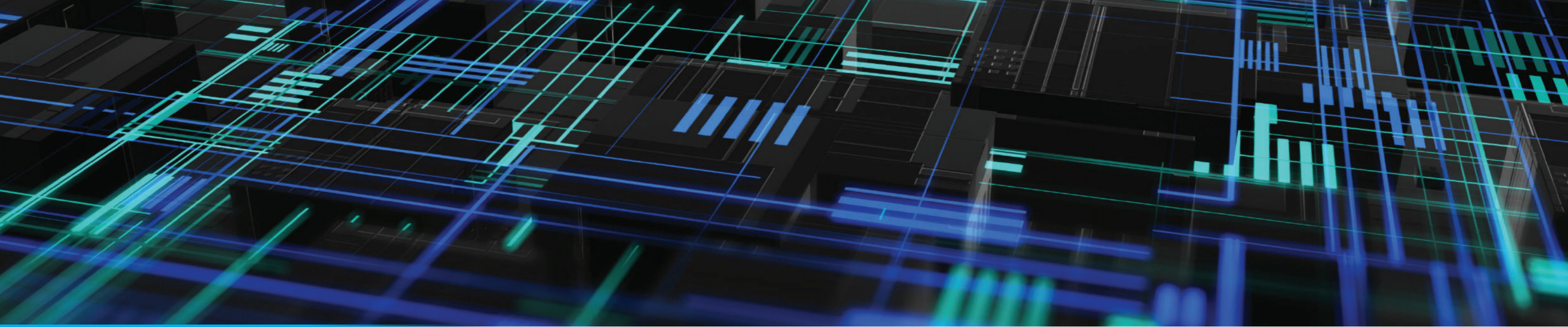
9952011 - Medium Enclosure (enclosure only)
995201PEI - Medium Enclosure with SMART 3Amp Power Supply

995203 - X Large Enclosure (enclosure only)
995203PE8 - X Large Enclosure with SMART 8Amp Power Supply

995204 - Wide Body Enclosure (enclosure only)
995204PE8 - Wide Body Enclosure with SMART 8Amp Power Supply

Product Index	Description
Inception Controller	
996300AU	Inception Controller AU/NZ (With Inline Power Supply Module)
Keypads	
995400	EliteX Keypad
995000U	Original Elite Keypad
995000UWH	Original Elite Keypad - White Model
995010KP	Weather Proof Keypad (Keypad Only)
Inception Accessories	
999039	Inception Wi-Fi Adapter
999032	USB Hub for Inception
999066AU	Inception Replacement Inline Power Supply Module (AU/NZ Only)
999028	DIN Rail Mounting clips to suit Inception Controller
Access Control Expansion Modules	
996012PCB&K	Standard LAN Access Module (SLAM)
995916	Fire Door Release - Relay Board/Power HUB
Card Readers & Cards	
994720	SIFER Smart Card Reader
994720MF	SIFER Smart Card Reader - Multi Format Version
994725	SIFER Keypad/Smart Card Reader
994725MF	SIFER Keypad/Smart Card Reader - Multi-Format Version
994200	OSDP-<>Wiegand Converter Device
994750AU	SIFER Card Programing Station for SIFER-U Cards
SIFER ISO Cards	
994610	SIFER-P DESFire® EV1 4K ISO - (Pre-programmed)
994612	SIFER-U DESFire® EV1 4K ISO - (User Programmable via 994750AU)
994614	SIFER-C DESFire® EV1 4K ISO - (Custom Order)
SIFER Keyfobs	
994616	SIFER-P DESFire® EV1 4K FOB (Pre-programmed)
994618	SIFER-U DESFire® EV1 4K FOB (User Programmable via 994750AU)
994620	SIFER-C DESFire® EV1 4K FOB (Custom Order)
Input & Output Expanders	
996005PCB&K	8 Input LAN Expander (UniBus Host)
996500PCB&K	UniBus 8 Input Expander
996515PCB&K	UniBus 8 Relay Expander
996540PCB&K	UniBus Lift Interface

Wireless Expanders	
995025	Paradox RF Expander
996008	Inovonics RF Expander
4G Wireless Monitoring Devices	
998535	T4000 Lite 4G Alarm Communicator
9985304G	T4000 Standard 4G Alarm Communicator
996797	T4000 Inception Controller Interface Cable
998536	T4000 Ultralite 4G Alarm Communicator
LAN Management Devices	
996088	LAN Ethernet Bridge
995093	CLOE - RS-485 LAN Over Ethernet Converter
995080	RS-485 - LAN Isolator
995081	RS-485 - Fibre Modem (Multi Mode)
995087	RS-485 - Fibre Modem (Single Mode)
995911	RS-485 - LAN Hub PCB - Breakaway version
995915	RS-485 - LAN HUB PCB - Mini 8 Way Version
995910	RS-485 - LAN HUB PCB - 9 Way with DET+ & OV HUB
995914	Power Distribution HUB PCB (32 Way DET+ & DET OV)
Non-Powered Enclosures to Suit Inception Controller	
995200	Small Enclosure (358W x 252H x 85D)
9952011	Medium Enclosure (358W x 460H x 85D)
995203	X Large Enclosure (358W x 702H x 85D)
995204	WideBody Enclosure (512W x 595H x 95D)
Powered Enclosures to Suit Expansion Modules	
995200PE3	Small Enclosure with 3A SMART Power Supply (358W x 252H x 85D)
995201PEI	Medium Enclosure with 3A SMART Power Supply (358W x 460H x 85D)
995203PEI	X Large Enclosure with 3A SMART Power Supply (358W x 702H x 85D)
995203PE8	X Large Enclosure with 8A SMART Power Supply(358W x 702H x 85D)
995204PE3	WideBody Enclosure with 3A SMART Power Supply (512W x 595H x 95D)
995204PE8	WideBody Enclosure with 8A SMART Power Supply (512W x 595H x 95D)
Power Supply PCB's	
996091PCB&K	3A SMART Power Supply PCB & Accessories
996092	8A SMART Power Supply Module & Accessories



Specifications

Inception Controller (Australia)	996300AU
Case Material:	ABS plastic
Dimensions:	205mm x 94mm x 36mm
Shipping Weight (gross):	1.2kg
Installation Environment:	0°C-50°C @ 15%-90% relative humidity (non-condensing)
Power Source:	18V to 24VDC 2.5A (e.g. the supplied 24V 2.5A PSU) <i>Note: A 12V, SLA Battery of 7AH to 18AH capacity must be connected to 'BATT' input.</i>
- To "DC IN" (recommended):	
- To "BATT" (alternate method):	12.8V-14VDC 2.8A (e.g. a separate external battery-backed power supply) <i>Note: "DC IN" should not be connected when powered via the BATT connection</i>
Battery (supplied separately):	12 Volt Sealed Lead-Acid (gel) type - 7 to 18 Amp-Hour
Idle Current Consumption:	<i>Note: Does not include battery charging or current required by any peripheral devices.</i>
- DC IN: (24V DC)	60mA (85mA with Ethernet connected)
- BATT: (DC IN = 0V)	110mA (150mA with Ethernet connected)
Additional Current Required For:	
- Built-in Relays: (out 1 ~ out 4)	25mA per relay (33mA when Controller powered from "BATT" input)
- Inception WiFi Adapter:	25mA (40mA when Controller powered from "BATT" input)
- Inception 4-Port USB Hub:	20mA (40mA when Controller powered from "BATT" input) Not including current required by any device connected to a USB Port
Power Supply Outputs:	<i>See notes 1 & 2 below</i>
- V OUT (4-PIN):	13.4VDC +/-150mV 750mA max
- V OUT (2-PIN):	13.4VDC +/-150mV 1.5A max
- LAN +:	13.4VDC +/-150mV 350mA max
- READER +:	13.4VDC +/-150mV 1A max
- USB 2.0:	5VDC 500mA max
- Maximum Combined Current - All Outputs	2.5 A
Battery Charger Output Voltage:	13.75VDC / Output Current: Up to 500mA
Typical Battery Backup Time:	With Ethernet or Wi-Fi + 1 LCD Terminal + up to 200mA for other devices.
- 7AH Battery:	16 Hours
- 18AH Battery:	40 Hours
- 18AH Battery:	24 Hours Configuration as above but up to 500mA for other devices.
AC Fail Detect (on "DC IN"):	16.5VDC / Low Battery Detect (on "BATT" input): 11.0VDC
Output Fuses:	Individual PTC protection - self-resetting
Battery Input Fuse:	7A onboard fuse - non-replaceable
Battery Deep Discharge Protection	Activated: 10.4V / Restored: 12.5V
Zone Inputs:	8
Relay Outputs:	4 ("OUT1-4")
Relay Contact Rating:	5A 30VDC or AC (<i>See note 2 below</i>)
Indicator LED's:	11
Alarm Reporting Formats:	ContactID or IR-fast (via T4000 or SkyTunnel)



For more information, visit www.innerrange.com/inception. There you will find installation guides and videos to help you get the most out of your Inception system.

NOTES:

1. Please refer to the respective product data sheets for details of power supply current requirements of the accessories and expansion modules that may be powered from the Inception controller power supply.
2. A separate external battery-backed power supply may be required for devices connected to the Inception controller if the current required is in excess of the maximum current allowed for that output, or causes the maximum combined output current specification to be exceeded.



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