inception

WEB POWERED SECURITY

Simple & Easy Installation
Integrated Security - Access Control

inception
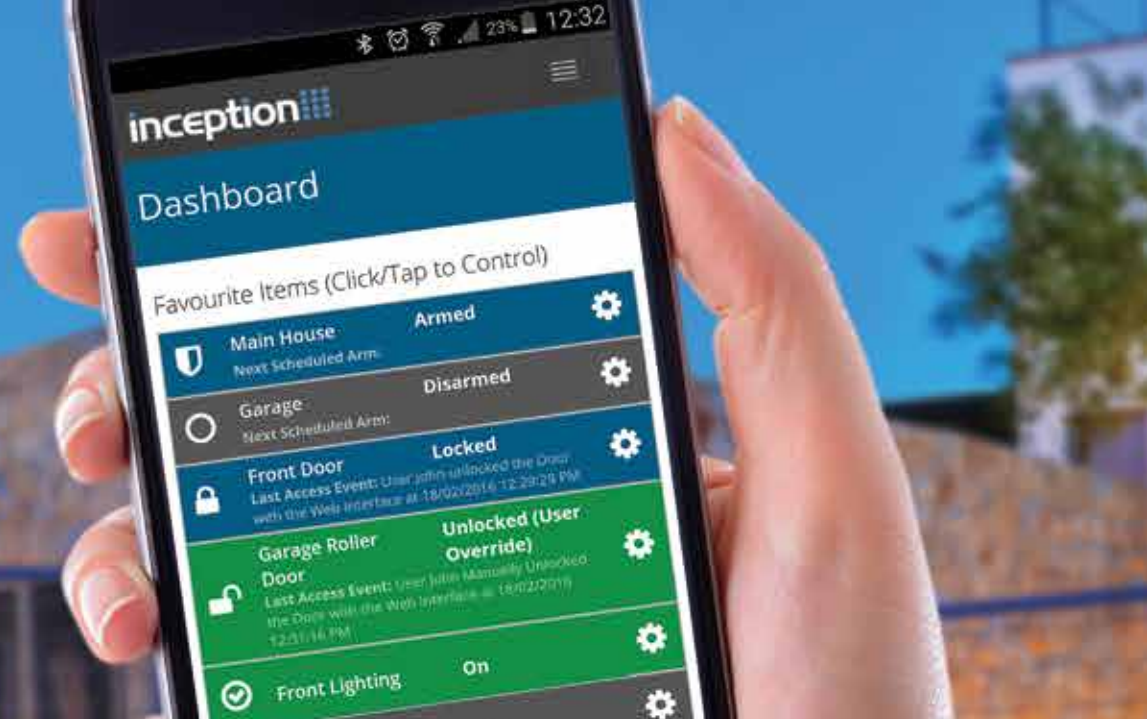WEB POWERED SECURITY
inner range
SkyTunnel

Inception is an integrated access control and security alarm system with a design edge that sets it apart from the pack. Apart from its modern and sleek looks, Inception's software is built directly into the controller - so the only tool you will need is a web browser.

With a step by step commissioning guide and simple interface, Inception is easy to install, easy to use and outstandingly powerful in its class.

inception
Dashboard

Favourite Items (Click/Tap to Control)

Main House	Armed
Garage	Disarmed
Front Door	Locked
Garage Roller Door	Unlocked (User Override)
Front Lighting	On
House Airconditioning	Off
House Heating	Off

Status Monitoring Shortcuts

inner range
www.innerrange.com
Intelligent Security Solutions

Security Alarm

Access Control

Automation

No Software Required

Multiple Devices

Easy Setup With Checklist Prompting

Send IP Alarms Via The Multipath-IP Network

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 programing 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 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 32 doors, 512 inputs and 512 outputs.

Monitor Alarms And Easily Access Inception Via 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.

With a SkyTunnel** connection in place, accessing the Inception controller is as easy as opening a web page and entering the controllers 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. 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.

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 3G wireless alarm communications to the Monitoring Station to ensure alarms are delivered every time.***

SkyTunnel is a cloud based service provided by Inner Range to deliver hassle-free connections of security system hardware and software over the internet.

**Using SkyTunnel to access Inception's web page is provided free of charge for the first 30 days, thereafter a monthly monitoring plan or a SkyTunnel access subscription must be in place. Directly connecting to Inception over the Internet instead of subscribing to the SkyTunnel service is also possible, however setup of this is likely to require advanced configuration of your internet router by an IT professional.

***Requires a monthly monitoring plan to be in place with your security installer or monitoring station. Having a valid monitoring plan also allows Inception's web page to be accessed via the Internet.

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.

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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 EV1 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.

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.

994720 SIFER Smart Card Reader
994720MF SIFER Smart Card Multi-Format Reader

ISO CARDS
994610 SIFER-P DESFire EV1 4K ISO - (Pre-programmed - Printed)
994612 SIFER-U DESFire EV1 4K ISO - (User Programmable - Printed)
994614 SIFER-C DESFire EV1 4K ISO - (Custom Programmed - Printed)

FOB's
994616 SIFER-P DESFire EV1 4K FOB (Pre-programmed - Printed)
994618 SIFER-U DESFire EV1 4K FOB (User Programmable - Printed)
994620 SIFER-C DESFire EV1 4K FOB (Custom Programmed - Printed)

SIFER Tools
994750AU SIFER Card Programing Station for SIFER-U cards

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.

999030
Inception WiFi Adapter

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 3G 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 childs 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
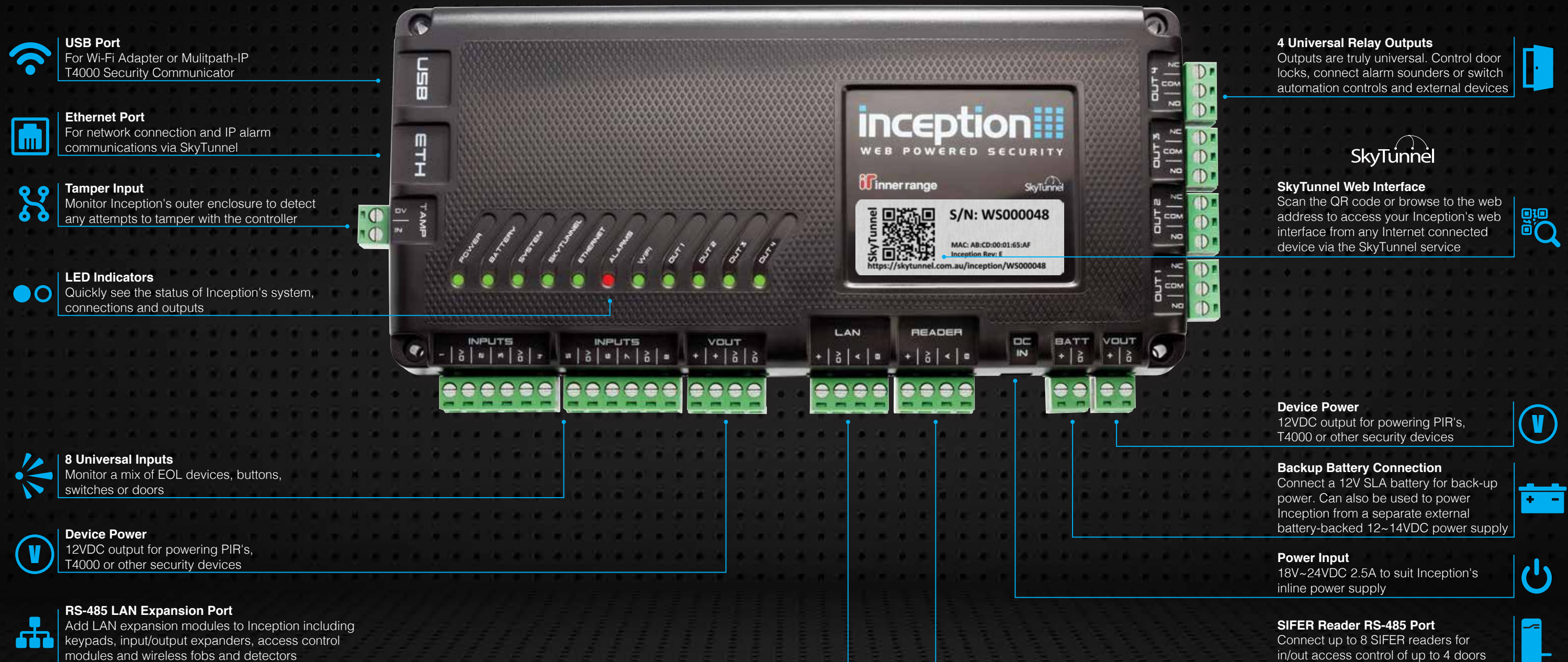T4000 – Inception Interface Cable

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 and 1 x T4000. 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

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

Inception Peripherals

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Simple plug and play technology

www.innerrange.com
inner range
Intelligent Security Solutions

USB Port
For Wi-Fi Adapter or Mulitpath-IP
T4000 Security Communicator

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

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

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

SkyTunnel

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

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 for
in/out access control of up to 4 doors

Inception LAN Module Compatibility Chart

Module / Device Description	Part Number	Compatible
8 Input LAN Expander (UniBus Host)	996005PCB&K	✔
UniBus 8 Input Expander	996500PCB&K	✔
UniBus 8 Relay Expander	996515PCB&K	✔
Standard LAN Access Module (SLAM)	996012PCB&K	✔
Paradox RF Expander	995025	✔
Elite Terminal	995000U	✔
SIFER Smart Card Reader	994720 / 992720MF	✔
T4000 3G Alarm Communicator	998530LT / 998530	✔
LAN Over Ethernet Device (CLOE)	995093	✔
LAN Isolator	995080	✔
Fibre Modem (Single or Multi Mode)	995081 / 995087	✔

System Capacities

	On-board Inception Controller	With LAN Expansion
Doors	4*	32
SIFER Readers	8	64
Wiegand Readers	0	32/64**
Areas	32	32
Inputs	8	512
Outputs	4*	512
Users	2,000	2,000
Events	50,000	50,000

*The Inception controller has 4 relay outputs in total.
These can be used as lock relays for doors or general purpose dry contact outputs
** 64 Wiegand readers requires 32 x Standard LAN Access Modules (SLAM). i.e one per door

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 2,000 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)

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.
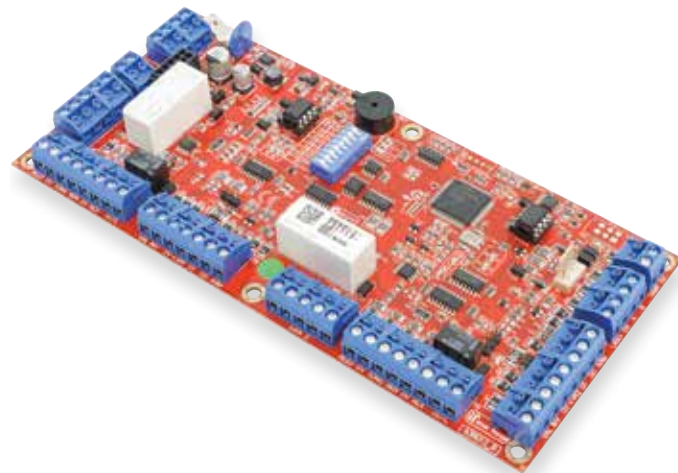
Paradox remote control fobs can be used to arm or disarm the Inception system with ease and can provide bi-directional audible and visual feedback for arming. Custom actions can be assigned to the fob buttons to provide convenient wireless control at the touch of a button. In addition to this, the REM 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 (excluding REM 3)
• Motion Detectors
• Wireless Door Contacts (Reed Switches)
• Smoke and Glass Break Detectors

995025
RF Module Paradox (433Mhz)

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 512 inputs and 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
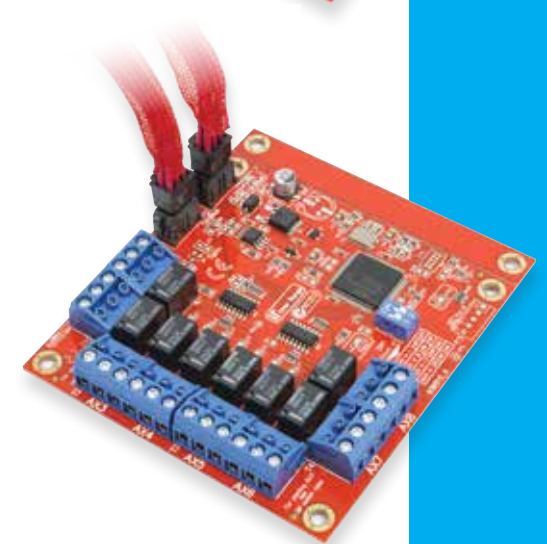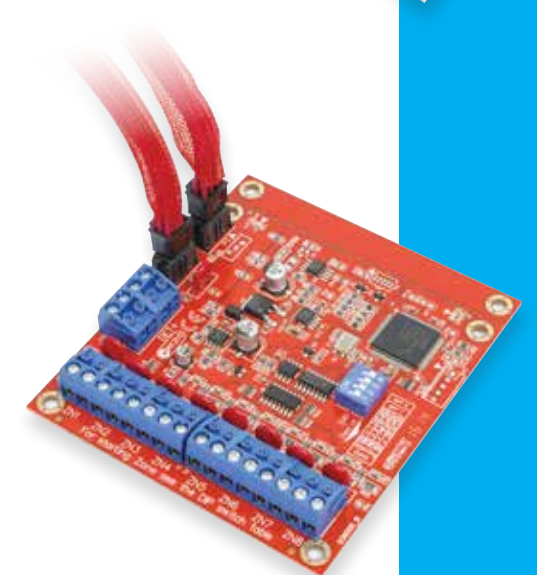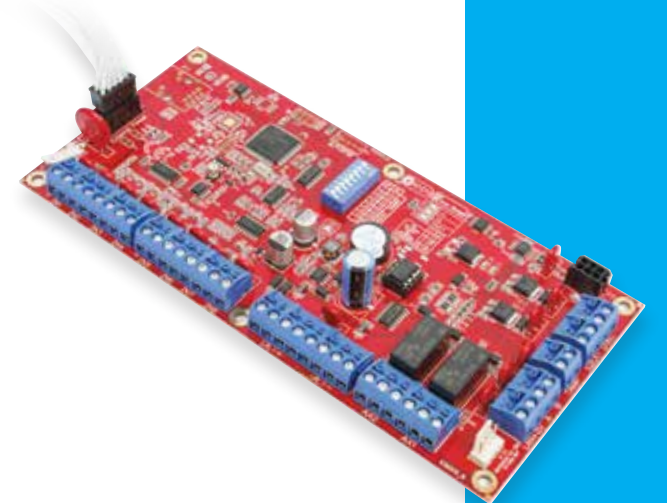UniBus 8 Input Expander (PCB, Patch Cable & Accessories)

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.

Inception LAN Expansion Modules

MAGELLAN
MG-RTX3

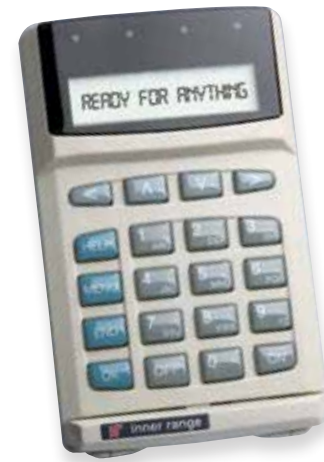inner range   P A R A D O X
RF Module   N1210 CE

Elite LCD Keypad

The Elite LCD keypad allows users 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 via the keypad.

The LCD display shows plain text navigation through operations and alarms, events and items are presented by name. The keypad can also be used by the installer to access a limited range of Inception's configuration options. The keypad's indicator LEDs can also display a real-time status of the security system.

995000U
Elite LCD Keypad (ivory)
995000UWH
Universal Elite LCD Keypad (white)

Small Enclosure to suit Inception Controller

The small low-profile metal enclosure is a sturdy universal enclosure designed to house a wide range of Inner Range products.
For Inception systems, the small enclosure can house the Inception controller and a T4000 along with a 7Ah backup battery.
The DC power cable for the Inception controller can be routed through the cable entry holes to allow the inline power supply block to be accommodated outside the enclosure. The enclosure size is 252(L) x 358(W) x 85(D).
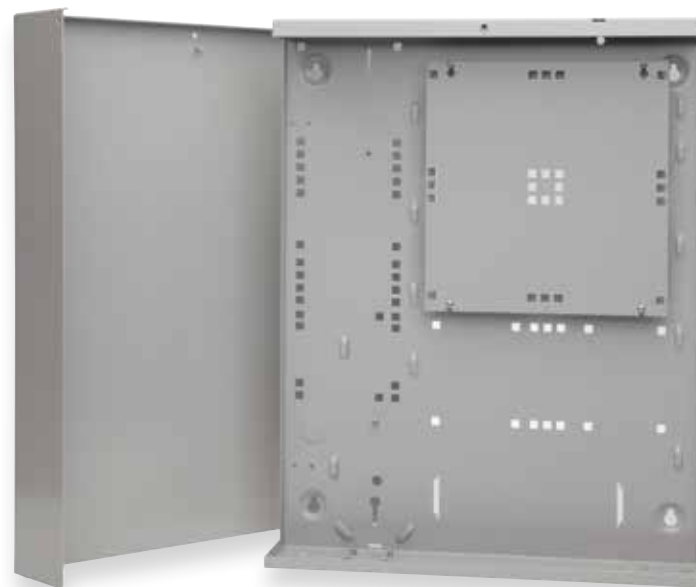
995200
Small Enclosure (enclosure only)

Medium Enclosure to suit Inception Controller

The medium low-profile metal enclosure is a sturdy universal enclosure designed to house a wide range of Inner Range products. For Inception systems, this enclosure can house the Inception Controller, a T4000 and 1 or 2 LAN expansion modules such as the Standard LAN Access Module or the 8 Input LAN Expander. The DC power cable for the Inception controller can be routed through the cable entry holes to allow the inline power supply block to be accommodated outside the enclosure. The enclosure size is 460(L) x 358(W) x 85(D).

The medium enclosure is also available with a SMART 3Amp power supply fitted. This can be used where additional power is required for LAN expansion modules such as the Standard LAN Access Module or 8 Input LAN Expander.

Alternately, larger enclosures are also available, including the Extra Large, WideBody and Rack-Mount solutions. For details on the complete range of enclosures please refer to the Inner Range website.

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

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

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WEB POWERED SECURITY

DESIGNED IN AUSTRALIA

Inception Controller (Australia)	996300AU
Inception Controller (Europe)	996300EU

Specifications

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: - To "DC IN" (recommended): - To "BATT" (alternate method):	18V to 24VDC 2.5A (e.g. the supplied 24V 2.5A PSU) *Note: A 12V, SLA Battery of 7AH to 18AH capacity must be connected to 'BATT' input.* 12.8V-14VDC 2.8A (e.g. a separate external battery-backed power supply) *Note: "DC IN" should not be connected when powered via the BATT connection*
Battery (supplied separately):	12 Volt Sealed Lead-Acid (gel) type - 7 to 18 Amp-Hour
Idle Current Consumption: - DC IN: (24V DC) - BATT: (DC IN = 0V)	*Note: Does not include battery charging or current required by any peripheral devices.* 60mA (85mA with Ethernet connected) 110mA (150mA with Ethernet connected)
Additional Current Required For: - Built-in Relays: (out 1 ~ out 4) - Inception WiFi Adapter: - Inception 4-Port USB Hub:	25mA per relay (33mA when Controller powered from "BATT" input) 25mA (40mA when Controller powered from "BATT" input) 20mA (40mA when Controller powered from "BATT" input) Not including current required by any device connected to a USB Port
Typical Battery Backup Time: - 7AH Battery: - 18AH Battery: - 18AH Battery:	With Ethernet or Wi-Fi + 1 LCD Terminal + up to 200mA for other devices. 16 Hours 40 Hours 24 Hours Configuration as above but up to 500mA for other devices.
Power Supply Outputs: - V OUT: - LAN +: - READER +: - USB 2.0: - Maximum Combined Current - All Outputs:	*See notes 1 & 2 below* 13.4VDC +/-150mV 1A max 13.4VDC +/-150mV 1A max 13.4VDC +/-150mV 1A max 5VDC 500mA max 2.5 A
Battery Charger Output Voltage:	13.75VDC / Output Current: Up to 500mA
Typical Battery Backup Time (7Ah battery):	16 hours (with controller connected to Ethernet or Wi-Fi with 1 x Elite keypad and up to 200mA for other devices such as PIR's or readers, etc)
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 *(See note 2 below)*
Indicator LED's:	11
Alarm Reporting Formats:	ContactID or IR-fast (via T4000 or SkyTunnel)

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.*

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.