Progeny

Access Control

# Products & Solutions

# CONTACT US


Tel: +44 (0) 1254 883348
Fax: +44 (0) 1254 889113

Email: sales@progeny.co.uk
Web: www.progeny.co.uk

**BSB Electronics Ltd**
Progeny House
Union Court
Heys Lane Industrial Estate
Great Harwood
Lancashire
BB6 7FD
England


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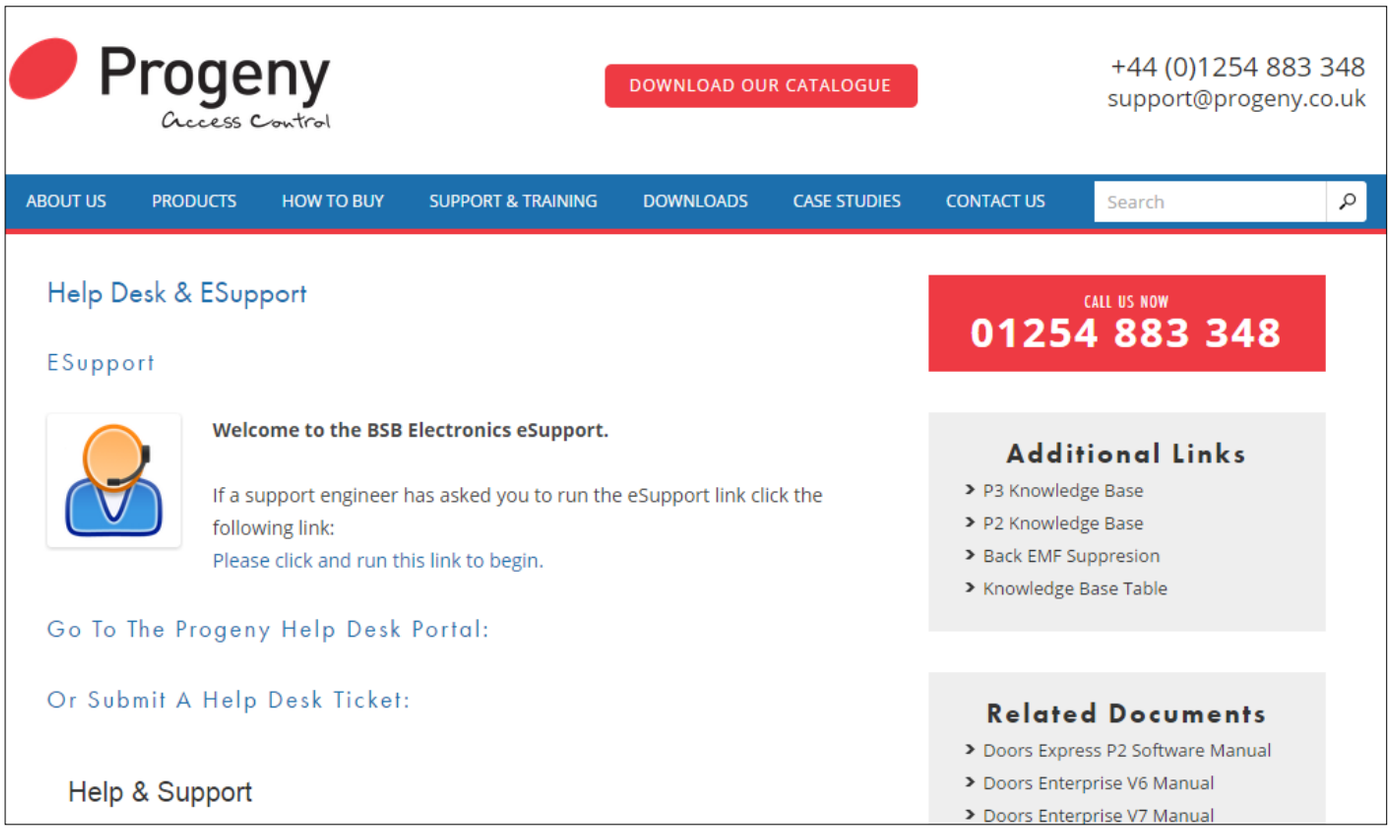
# WEBSITE

Have you visited our website? At www.progeny.co.uk you will find our software download links, case studies and latest news. We also have a new Helpesk and eSupport page where you can go if you are experiencing any technical issues. Alternatively, please scan the QR code below with your smart phone to go straight to our site.

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Progeny Access Control

# DESIGNING AN ACCESS CONTROL SYSTEM

## Introduction

Electronic Physical Access Control provides 24/7 security. This can be to protect people, valuables or information. Designing the ideal access control system involves lots of important choices.

Here are some the main considerations:

- Identification method
- Reader Technology & Credentials (Crystal, iCLASS, MIFARE etc.)
- Online or Stand Alone / Compact
- Communication Method
- Which doors will be controlled?
- Selecting a computer system
- Integration with other systems (Fire, Membership Software etc.)

### Identification

There are three principle methods of electronic identification:

- Secret Knowledge (Access Code or PIN)
- Token (Card, Key fob)
- Biometric (Fingerprint, Iris Pattern and others)

Each method has its pros and cons. These can be used individually (“Single Factor Identification”) or in pairs to get “Two Factor Identification”. Using a Card and Code, for instance, would be two factor identification and improves security by cancelling some of the cons of each factor.

### Photo ID

With online access control software it is possible to manage the printing of PVC cards, personalised with company name, employee details/photo etc.

### Stand Alone / Compact

All programming is done locally for each door via a keypad provided with the controller. There is no need for computers of any kind. Ideally suited for small numbers of doors and users. Compact access controllers have the reader (usually a keyboard) and controller built into the same unit. These systems offer the lowest cost.

See the Compact, P1 & C2 pages for more detail.

### Online

With an online networked solution, you can control an unlimited number of doors and sites from a single server.

The software allows simple programming and monitoring of the system. If the connection is lost or the PC switched off the controllers carry on as normal. See the P2 & P3 pages for more detail.

### Choosing Communication Method

IP addressable Ethernet can make use of an existing LAN or one can be created for very little cost. The main advantages are hardwired infrastructure, freedom of choice for locating server and workstation PC’s. Also the best choice if you are using any server based features such as Roll Call or Anti-Pass back.

USB and Serial methods are more suited to small systems with single PC.

GPRS ideal for those locations were you have power but it is difficult to get data cable to the controllers.

## Emergency Egress

Care needs to be taken, when an access control door forms part of an emergency egress route. Commonly used methods with fail open locking devices include:

- Fire Relay (Part of the fire alarm system)
- Green Call Point
- Fire Space Zone (Server based feature only to be used in conjunction with one of the first two)

## Cables

It is important to use the correct cables:

- RS 485 Network : Screened twisted pair (Belden 8132)
- Reader : Screened 8 Core
- Keyboards : Screened 8 Core
- Lock : Rated > Lock Current
- RQE : Screened 8 Core

## Reporting

Event reporting is one of the main benefits of having an “Online System”. All events: (Card Transactions, Releasing, Opening, Closing, failed access, etc) are time stamped and recorded. This information can then be filtered and presented in many ways to get at the management / monitoring information you need. Reports can be exported to TSV, XLS or CSV format. Reports include History, Attendance, “Roll Call” & “Time Sheet”.

## Read In / Read Out

This is a choice of whether to have a card reader on one or both sides of the door. If mounted on the outside only then a request to exit button / mechanical egress will be required on the inside. This usually comes down to whether you need to track the movements of users in and out of that area, e.g. for roll call.

## Integration

Integration can happen at three levels:

- Credential (Shared use with other systems e.g. Cashless Vending, T&A, “Follow Me” Printing)
- Controller Hardware (Wired connections between systems e.g. Fire Alarm, CCTV)
- Software (Data sharing / exchange between systems e.g. T&A, Biometric, Membership Management, E-Booking systems)

## Selecting a PC

Selecting the correct PC for an access control system is very important and can be a challenge. The following guidance notes are designed to help you through the selection process.

Some of the considerations are as follows:

Single PC or Client / Server PC configuration
Dedicated or shared use of the Server PC and / or Workstation PC
Availability of the server & client PC i.e. 24/7 or only during working hours etc.
System features being used

**Dedicated:** refers to a PC that is used entirely for the access control system. The only other applications loaded are those needed to maintain the PC. (Antivirus, backup software etc.). You will need a dedicated server if using any of the server based features such as “Roll Call” or “Zoned APB”.

**Shared:** refers to a PC that is used for access control, but also for one or more applications such as Accounts, Contact management Building Management, DVR, etc. This is generally ok for workstations that are not required for mission critical tasks such as “Alarm Handling” and “Roll Call Printing”.

## Operating System for the PC / Server

**Workstation:**

Both “Doors Express” and “Doors Enterprise” are compatible with Windows 7 and Windows 8. Microsoft are dropping support for XP in 1st quarter 2014 so not recommended for new installations.

**Server:**

Recommended, Server 2008, Server 2012.

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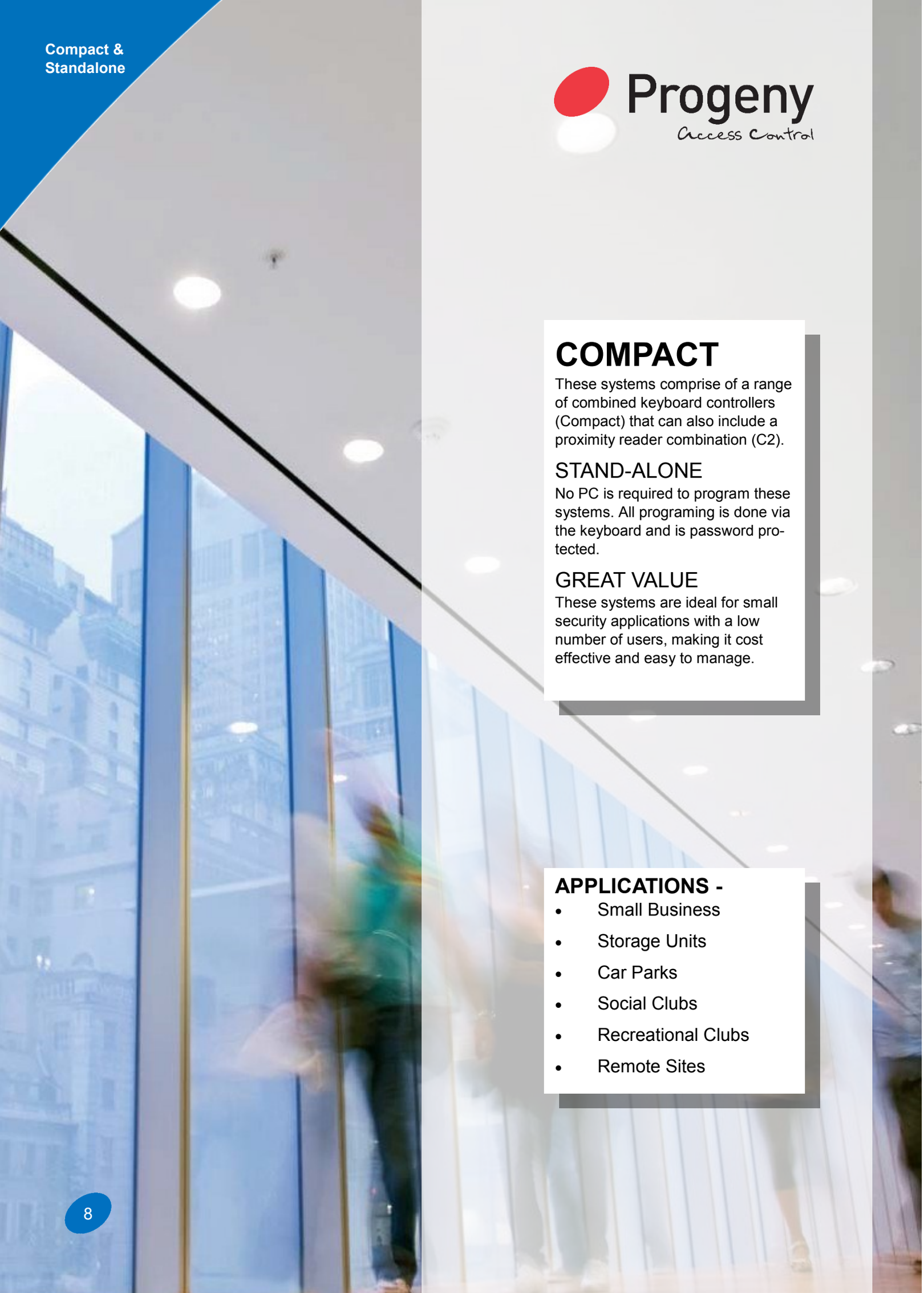

# COMPACT

These systems comprise of a range of combined keyboard controllers (Compact) that can also include a proximity reader combination (C2).

## STAND-ALONE

No PC is required to program these systems. All programing is done via the keyboard and is password protected.

## GREAT VALUE

These systems are ideal for small security applications with a low number of users, making it cost effective and easy to manage.

## APPLICATIONS -

- Small Business
- Storage Units
- Car Parks
- Social Clubs
- Recreational Clubs
- Remote Sites

# COMPACT KEYBOARD CONTROLLERS

Simple and cost effective systems which can be used in various environments and are ideal for low security applications. The keyboards have the access control mechanism built in. To complete the system a low voltage power supply unit (12V DC), a locking device (Mag-lock or Electric Strike) and an egress device are all that is required.

## Installation

Any competent installation engineer will be able to install this equipment without any special training. Simply connect the power supply unit, locking device and egress device and you are then ready to program the control unit.

## Simple to Use

Each channel can be operated with up to 50 codes. The two channels can be combined to give a total of 100 access codes for a single door. The codes can be 4, 5 or 6 digits in length, to operate one of the channels simply enter the access code for that channel. A correct code entry will change the LED to green and the output relay will activate.

Alternatively the second channel may be used as a secure switch, not just keypad access control. Both channels have door monitoring to for PDO (prolonged door open) alarm.

### COMPACT FEATURES

- Available in three designs
- Low Power
- 2 Channels
- 50 Codes Per Channel
- 1 to 99 Seconds and Toggle Mode
- Voltage Free Contacts
- Tamper Switch
- Individual Request to Exit Inputs
- Hacker Alarm
- “Door Failed to Close” Alarm

The DF (door forced) alarm is generated when the door has been opened without a valid code or egress activation. In order to do this door sensors must be connected.

## 2059 Classic

This unit offers the lowest cost of the compact range. The keyboard is fully potted and weather proof with a membrane keyboard and key press ‘beep’.

This particular design features a call button for visitors and includes a tamper switch.

## 2064 VR

Designed for outdoor environments, this controller is vandal resistant and weatherproof. The satin chromed solid zinc keys and housing are also backlit.

## 2067 Spy Proof

Traditional ‘Spy Proof’ keyboard allows covert entry of an access code. The design provides a top quality product along with architecturally pleasing aesthetics. High gloss chrome finish. Internal use only.

| Keyboard Controllers | |
|---|---|
| 2059 | Classic |
| 2064 | Vandal Resistant |
| 2067 | Spy Proof |
| 2131 | Flush mount Back Box |
| 2132 | Surface mount Back Box |

# C2 Compact Prox

The new C2 system consists of proximity reader and a two-channel controller-keyboard. Each channel has its own relay output. One channel is dedicated to the proximity reader and cards. The second channel is used in conjunction with a keyboard to provide code based secure switch or access control.

The C2 has a 100 card user capacity and 50 access codes and allows control of 1 or 2 doors.

### Installation

Any competent installation engineer will be able to install this equipment without any special training. Simply connect the power supply unit, locking device, proximity reader and egress device and you are then ready to program the control unit.

### Configuration

The proximity reader is normally used for entry. The keyboard/Control unit can be situated in a number of locations to serve as an additional role: Second Door, Secure Switch Etc.

### The C2 Range

The C2 system is available in various designs to suit aesthetic and environment needs and are all suitable for external use.

Typical applications include: small business installations and storage rooms.

| C2 Product Codes | |
|---|---|
| 3859 | C2 Compact Crystal & Keyboard |
| 3859-SP | C2 Compact with Switch Plate Reader |
| 3859-MULL | C2 Compact with Mullion Reader |
| 3859-P | C2 Compact with Panel Mount Reader |

# P1 STAND ALONE

The P1 controller utilises the separate controller/reader structure, required for higher security applications. It is designed to work with the Progeny range of readers & keyboards

The P1 controller is available in one or two door options and has a built in 12V 5A charger power supply.

The controller is an ideal solution for “Lobby Entry” applications, where the product will read any standard bank card and determine access into semi-secure areas such as ATM lobbies, high security cash rooms etc.

The P1 controller has a high security Interlock interface as standard which allows control of entry to and from areas that need to be secured against two doors being opened simultaneously.


**P1 FEATURES**

- Available in One or Two Door Versions
- 10,000 Card Holders
- Built-in 12V 5A Charger PSU
- Non-Volatile Memory (40 years)
- “Fail Secure” or “Fail Safe” Lock Drive
- Monitored Fire & Intruder Inputs
- Second General Purpose Relay
- 2 x Standard Reader Interface
- 1 x Dedicated Keyboard Interface
- Progeny Touch Switch Compatible
- Standard Interlock

| P1 Product Codes | |
|---|---|
| 2163 | P1 Controller with 5A PSU (1 Door) |
| 2163D | P1 Controller with 5A PSU (2 Door) |

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# SIMPLY P2

## SIMPLE TO SPECIFY

Connectivity is simplified to just two options: USB and IP Addressable (Ethernet). The P2 network then uses a single twisted pair to daisy chain controllers up to 1000 metres away. One controller per door with the option of card in/ card out makes listing the equipment needed child's play. Same cost credentials mean card or fob decisions can be made later.

## SIMPLE TO INSTALL

Any competent installation engineer will be able to install this equipment without any special training. The wiring has been greatly simplified reducing the number of both cores and cables. The 3800 Progeny Crystal reader also mounts on a standard UK single gang back box, making first fix possible. Cabling costs can be reduced by wiring the egress button or switch along with the door contacts in to the back of the reader saving running multiple cables to the door controller.

## SIMPLE TO USE

The software has been carefully designed to be easy to use. A setup wizard will help you scan for any connected door controllers and then take you through registering the credentials. The credentials can be entered manually or simply presented to a reader. The wizard will then do all the rest of the work to get the credentials working. Standard Windows interface techniques have been used so that users will be able to start using the software with very little guidance.

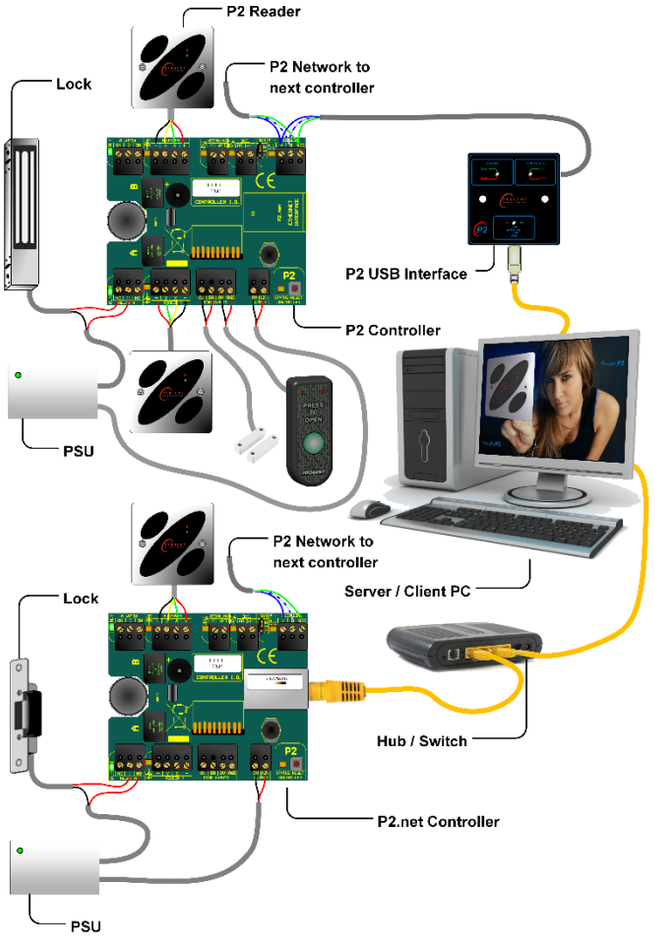
## APPLICATIONS:

- Systems of up to 16 doors
- 2000 users in size
- Small Schools
- Nursery Care
- Small Offices
- Retails shops
- Cash & Carry

# P2 Hardware

## USB Interface

Using a desktop reader can help with card management. For convenience, the 3803 USB interface has been designed to accommodate a reader.




## IP Connectivity

Any system that can make use of the existing IP infrastructure offers cost savings, and reduced disruption during installation.

## Simple Programming

The programming of the 'IP Address' into the controller is simply done using the keyboard provided with the P2.net.

| P2 Product Codes | |
|---|---|
| 3801 | P2 Controller |
| 3802 | P2.net Controller |
| 3821 | P2 Controller with 5A PSU (1 Door) |
| 3821D | P2 Controller with 5A PSU (2 Door) |
| 3822 | P2.net Controller with 5A PSU (1 Door) |
| 3822D | P2.net Controller with 5A PSU (2 Door) |
| 3803 | P2 USB Interface |
| 3808 | P2 Software: Doors Express |
| 3811 | P2 Demo Case (USB) |
| 3812 | P2.net Demo Case (IP, Ethernet) |
| **Credentials** | |
| 3800 | Crystal Reader (Switch Plate) |
| 3820 | Crystal Reader (Mullion) |
| 3830 | Crystal Reader (Panel Mount) |
| 3804 | Crystal Card (ISO) |
| 3805 | Crystal Fob |
| 3806 | Crystal Sticky Dot |

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# P2 SOFTWARE: DOORS EXPRESS

P2 access controllers require a PC to program the system. The software used for programming the system is called Doors Express. The software uses Microsoft SQL database technology which provides security and reliability. The software is split into two main components:

### P2 Server

Progeny P2 Server provides the link between the controllers, database and client.

### Doors Express Client

Doors Express Client provides a simple interface for unlimited end users.

**SOFTWARE FEATURES**

- Database (SQL Server)
- Live Event Reports
- History Reports
- Attendance/Absence Reports
- Roll Call Report
- Client Workstations
- Photo ID Badge Printing (Fixed Design)
- Text Alarms with Audit Trail
- Zoned Door Release on Fire Alarm
- Automatic Scheduled Backup
- Automatic Scheduled Archive
- Setup Wizard
- ID Badge Design
- Zoned Anti-Pass-Back
- Floor Plan Alarms
- Card Data Import

### Automatic Setup Wizard

P2 includes a handy setup wizard which will search for doors wired into the network and add them on to the system automatically. Cards can also be added during initial set up meaning that in just a few clicks the system can be setup and running after loading the software for the first time.

DOORS Express

### Hardware Volume Control

The software allows the end user to turn down or mute the volume of the general feedback of card transactions from the reader and controller.


### Hardware Feedback & Fault Monitoring

The P2 system sends the voltage readings from the controller and readers back to the PC.

### Simple Card Management

An easy to use interface allows the user to quickly add cards on to the system.

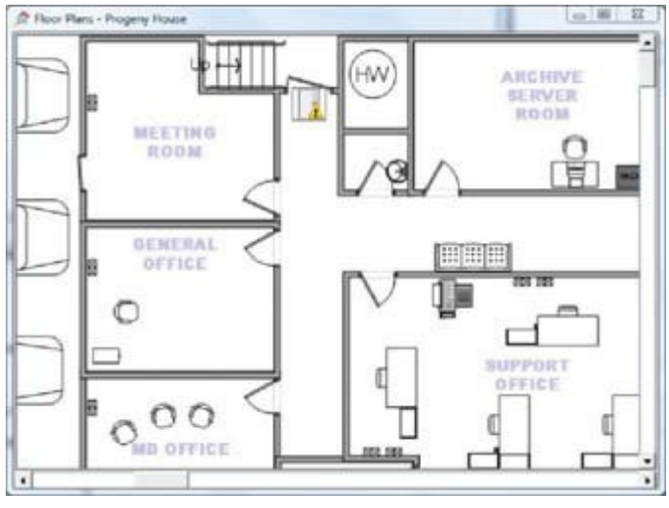
### Simple Attendance & Absence Reporting

Doors Express allows the user to setup reports that can show a card holders attendance.

If a more detailed attendance analysis of a card holder is required then a “Time Sheet” report can be created.

### Floor Plan Alarms

In Doors Express Professional, a CAD or other suitable drawing of the building can easily be added into the system.



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# P3 SYSTEM

## MULTI-SITE

P3 is an online access control system for single or multiple sites. IP connectivity gives easy reach to sites that can be anywhere in the world.

## CONTROL

The PC based software allows live changes to be made to access profiles; you can enable/ disable users with just a few clicks.

## ACCOUNTABILITY

All activity on the system is monitored and recorded. A wide selection of point and click reports are then available to drill down onto that valuable information.

## SCALABLE

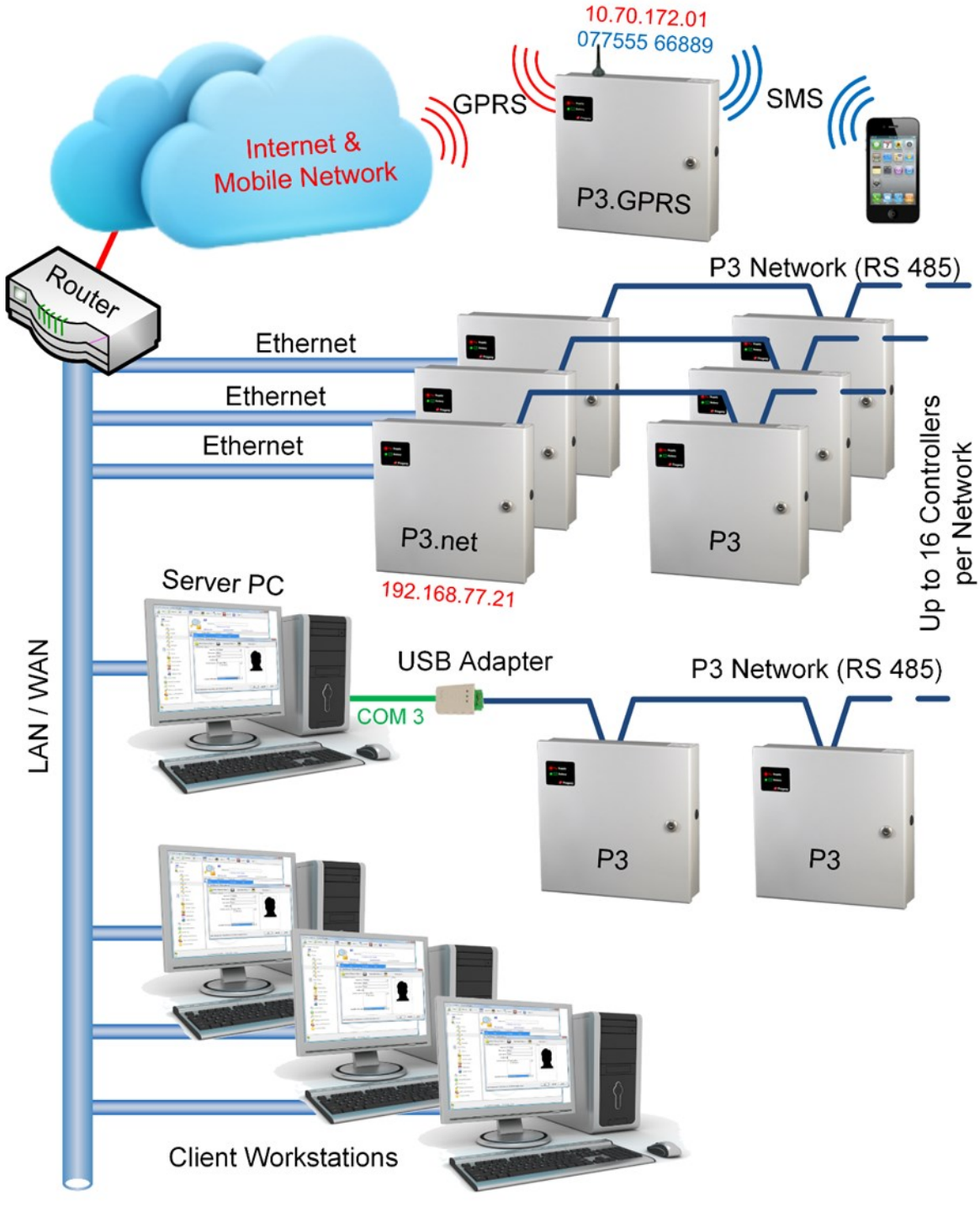
P3 systems are scalable from small to large systems; with capacity for up to 10,000 cardholders and 65,000 doors.

## FLEXIBLE

With a wide range of readers and credentials to choose from these systems are ideal almost any application: Health, Leisure, Commercial, Banking, Building Site and Cash Handling.

## INTEGRATION

Credential, Hardware and Software level integration with other systems including membership management, T & A software, Lift Controls, Cashless vending etc…




# P3 SYSTEM

## Connectivity Options

To extend the reach of the P3 system three methods of connectivity are provided:

- USB: Using the 3107 P3 USB to 485 adapter, the server PC can be connected to the P3 network with 1Km reach.
- LAN/WAN (IP addressable): This makes use of the customer's existing data network. The P3.net connects into a standard RJ45, 10/100 Base T network point and uses UDP/IP to communicate with the server PC.
- GPRS (IP addressable): for mobile and difficult to reach applications.

## Distributed Intelligence

The P3 access controller is designed with the flexibility to be programmed both stand alone

and from a PC. This means the controller can be installed and operational even before the network and PC are available.

**FEATURES**

- Fully Distributed Intelligence
- 65,000 Doors
- 10,000 Card Holders
- 2000 Event Log Memory
- 125 Access Levels per site
- 32 Time Zones per site

**CONTROLLER FEATURES:**

- Stand Alone & Online Operation
- 12V 5A Charger PSU
- Non-Volatile Memory (40 years)
- On-board Real-Time Clock
- “Fail Secure” or “Fail Safe “Lock Drive
- Second General Purpose Relay
- Fire & Intruder Inputs
- Connectivity: RS 232, USB, Ethernet (IP) & GPRS
- 2 x Standard Reader Interfaces
- 1 Dedicated Keyboard Interface
- Progeny Touch Switch Compatible

## Scalable

The system architecture allows for expansion without any major overhead in equipment.

## Distributed Intelligence

The on-board memory of each controller stores all the access control information for a given door.

## Choice of reader Technology

Card reader type can be selected from, “Mag Stripe”, “Proximity”, and “Biometric”. P3 will interface to 35 standard reader technologies plus the ability to define custom formats through the advanced engineers menu.

## 2000 Event Memory

Each controller has its own real time clock and event log memory to allow for the system to continue operation even when isolated from the PC or the remainder of the network.

## Charger Power Supply

The 12V 5A Charger power supply has space for a standard 12V 6AHr Sealed Lead acid battery (not supplied).

## P3.net IP Addressable (Ethernet) Access Control

P3.net make use of standard Ethernet local area network connections to communicate with the central access control server PC. Each P3.net has an RJ45 socket and uses the UDP/IP protocol with very little data bandwidth. This can make use of an existing network, or a separately installed dedicated network.

## P3 Lift Controller

The P3 Lift Controllers are available as either 2 floor, 2 shaft controllers (3007-2F) or 4 floor, 2 shaft controllers (3007-4F). The lift controllers can be added to an existing P3 system allowing for lift access to be controlled with a single reader in the lift cab.

## P3.SIM (System Integration Module)

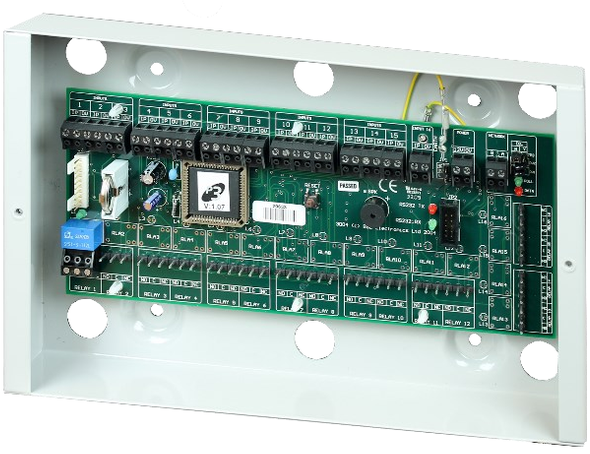
SIM stands for Systems Integration Module and is not to be confused with your mobile phone SIM. The P3 SIM is available in two forms. The P3 SIM has a built in power supply, 16 inputs and 16 relay outputs. These are primarily designed to be general purpose input and output.

Server based features in the Doors Enterprise Software can then make use of these inputs and outputs for:

- Fire Door Monitoring
- CCTV DVR Integration
- Alarm Condition Notification
- Car Park Full Indications
- Many more…


## P3.SIM (Input Only)

The P3 SIM Inputs have 16 inputs and 1 relay output. These are primarily designed to be general purpose input. Most of the functionality comes from server based features such as triggers and alarms. The P3 SIM provides a good means of monitoring fire doors that do not have access control connected. The inputs can be programmed to be inverted or not, allowing “normally closed” or “normally open” contacts to be connected



| P3 Product Codes | |
|---|---|
| 3001 | P3 Controller with 5A PSU (1 Door) |
| 3001D | P3 Controller with 5A PSU (2 Door) |
| 3002 | P3.net Controller with 5A PSU (1 Door) |
| 3002D | P3.net Controller with 5A PSU (2 Door) |
| 3004 | P3.SIM (16 inputs and 16 Outputs) |
| 3004-IN | P3.SIM (16 Inputs and 1 Output) |
| 3006 | P3.GPRS Controller (1 Door) |
| 3007-2F | P3 Lift Controller (2 Floor, 2 Shaft) |
| 3007-4F | P3 Lift Controller (4 Floor, 2 Shaft) |
| 3107 | P3 USB Interface |
| 3109 | P3 Software: Doors Enterprise |
| **Readers & Credentials** | |
| | Choose from any of the Progeny range of Keyboards, Readers and Credentials |

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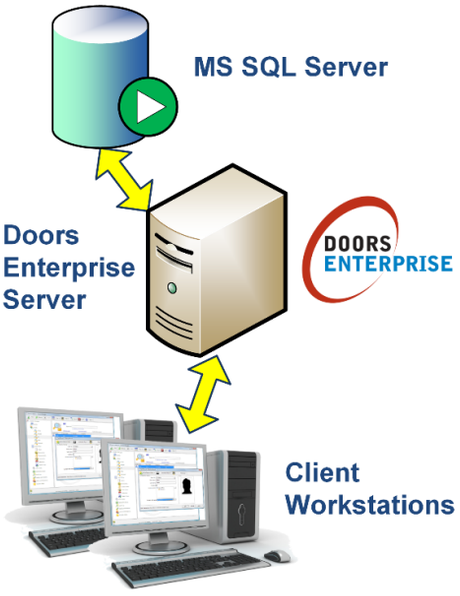
# DOORS ENTERPRISE




## MS SQL Server Database

Microsoft SQL Server Database delivers increased security, scalability and availability to the access control data.

## Doors Enterprise Server

Doors Enterprise Server provides a single point of communication between clients, the database and the P3 access controllers.

## Doors Enterprise Client

Doors Enterprise allows for an unlimited number of work stations and software users.

## Custom Database Fields

Up to 25 Custom Fields can be created to contain additional information about cardholders.

Each custom field can be one of 5 types for

example: you might need a drop down box for department or a calendar date pick for an employee start date.

## Multi-Lingual

Each client workstation can easily select its own language setting. The client-side translation dictionary includes English and French with other languages available on request.

### FEATURES

- MS SQL Server database
- Each client workstation can easily select a language setting. The client-side translation dictionary includes English and French with other languages to follow.
- Up to 25 Custom Fields can be created to contain additional information about cardholders.
- Live Event Reports
- History Reports
- Attendance/Absence Reports
- Simple Timesheet Report
- Roll Call Report
- Client Workstations
- Photo ID Badge Design & Printing
- Text Alarms with Audit Trail
- Zoned Door Release on Fire Alarm
- Automatic Scheduled Backup/Archive
- Setup Wizard
- Zoned Ant-Pass-Back
- Floor Plan Alarms
- Card Data Import Facility

## Dormant Card Policy

Doors Enterprise allows you to decide on a maximum time that a card should legitimately not be used. Once this time has lapsed the card will be marked as dormant and disabled from all doors.

## Wizards

Wizards make setup and importing of data a very simple and intuitive process.

Importing data with card data import wizard provides feedback at every stage.

Space zones keep track of who is currently in that zone, based on log in and log out use of a card or token. A roll call report can be run off manually or automatically.

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crystalrange

# CONTROLLERS

## New Controller Range

Backward compatible with the P1, P2 and P3 systems. Works with the latest version of Doors Enterprise.

## Models

There are 4 different controllers in the range; the Module, the 2A Single Door and the 5A One and Two Door.

## Memory

New high speed non volatile memory with long data retention has been increased as standard to 32,000 with option for 128,000.

## Solid State Lock Drive

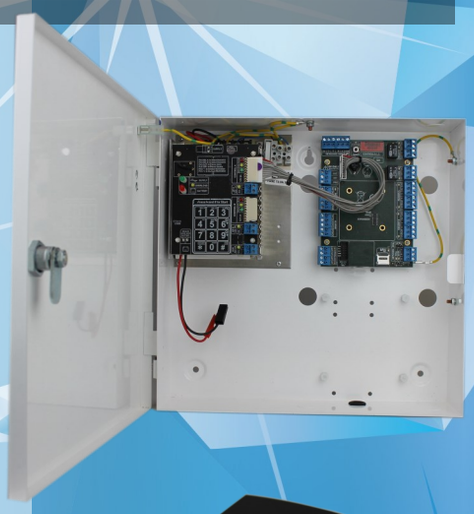
The new controllers have an additional switch that allows for some new lock driving modes that reduce relay contact wear.

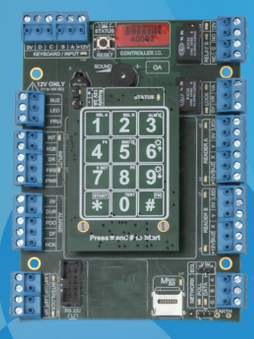
## Connectivity

A new expansion interface allows immediate connection of the new GPRS module as a ‘piggyback’ to the PCB.

## New Features

Crystal Controller launches with all the features of P3 and more.





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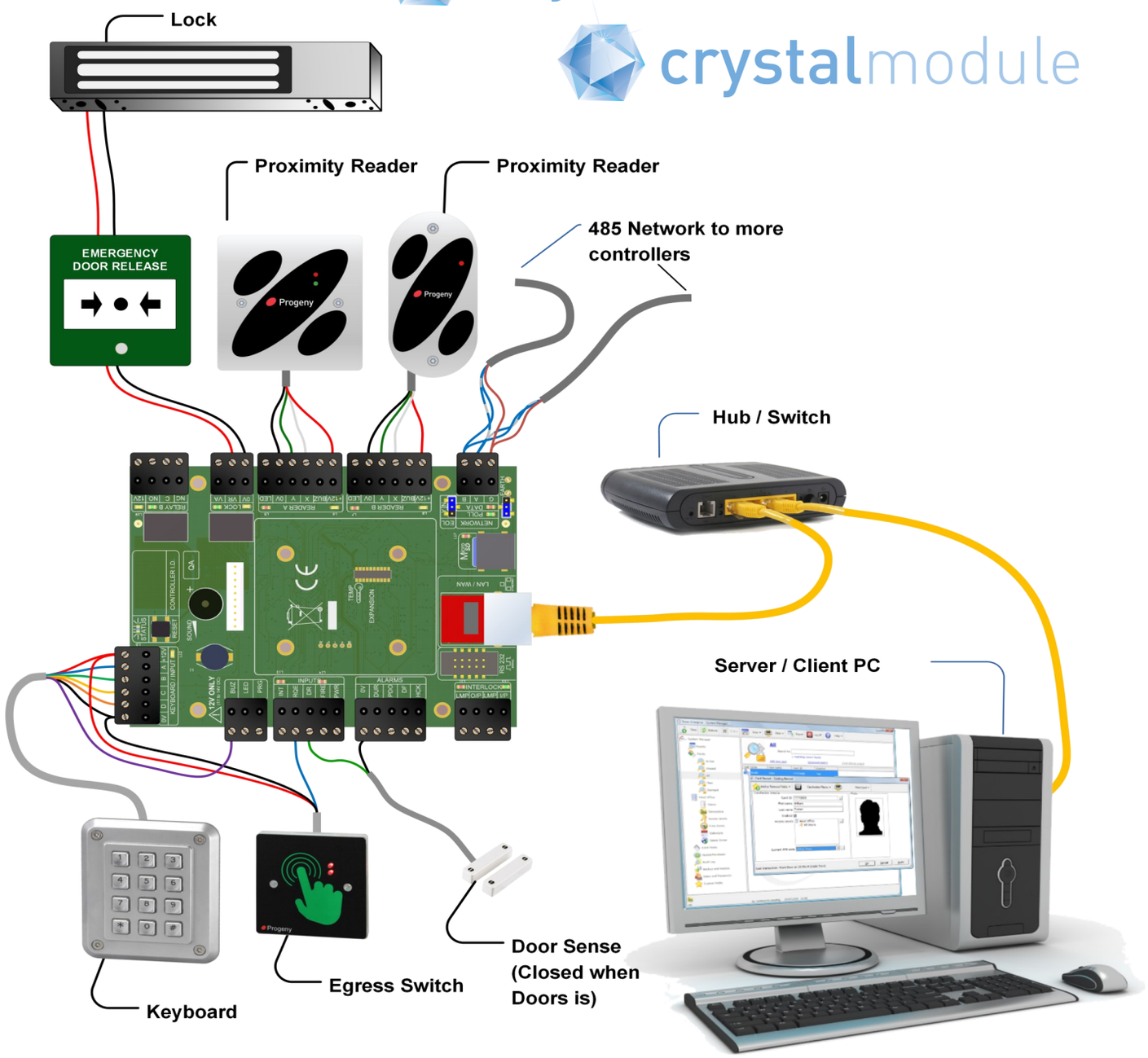
# crystal2door
# crystal1door
# crystalmodule




## TYPICAL WIRING DIAGRAM

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## COMPATIBILITY

The overall terminal block foot print remains unchanged from the P3 controller. However, an individual reader buzzer signal is now provided to simplify wiring

The reader interface now include native support for the Crystal Readers. Taking advantage of the simplified 4 wire two way interface.

### Access Levels

- Up to 4 access levels per site can be assigned to card holders
- 250 access levels to choose from per site

## LOCK RELAY

The Crystal Controllers have the traditional relay to switch the +ve leg of the lock supply.

| | P1 | P2 | P3 | Crystal Standard | Crystal Large Memory |
|---|---|---|---|---|---|
| **Card Memory** | 10,000 | 2000 | 10,000 | 32,000 | 128,000 |
| **Event Memory** | - | 2000 | 2000 | 8000 | 8000 |
| **Network** | - | 115KBs | 19.2KBs | 19.2KBs | 115KBs |
| **Access Levels** | 1 of 1 | 2 of 127 | 2 of 125 | 2 of 125 | 4 of 250 |
| **Interlock** | Yes | No | Yes | Yes | Yes |
| **Lock Drive** | Relay | Relay | Relay | Electronic or Relay | Electronic or Relay |

However, it also has a new Electronic Switch in the negative wire. This allows for some new lock driving modes that will reduce if not eliminate relay contact ware. The modes are:

- Standard (relay only)
- Protected (Relay and Electronic Switch)
- Electronic (Electronic Switch only) VA
- Electronic (Electronic Switch only)

## MEMORY

### Card Memory

- 32,000 as standard
- 128,000 as an option
- 200 year data retention
- No card packs
- No more site code restrictions

Card memory has been upgraded both in capacity and size. The Crystal Controller will not use card packs internally and will treat all cards as flexi cards, increasing flexi card capacity to 128,000.

### Event Logging

This is increased to 8,000 events per controller.

### Random Search

A new feature that allows for randomised impartial searches to be carried out. Adjustable search rate from ‘1 in 1 to 1 in 99. Randomly flags users to be security searched as they pass through the door or turnstile.

## IP Addressable

The new Ethernet electronics no longer need any option links. Also, the configuration parameters has been simplified, faster and more secure.

## EXPANSION INTERFACE

A new expansion interface allows immediate connection of the new P3 GRPS module as a piggyback to the PCB. Other expansion modules are in the design pipeline including:

- Simplified lift controller
- New Input / Output

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Access Control

# crystalrange

| Product Code | Product Description |
|---|---|
| **Controllers** | |
| 4001M | Crystal 1 Door Controller Module |
| 4002M | Crystal.net 1 Door Controller Module with Ethernet |
| 4001-2A | Crystal 1 Door Controller with 2A Charger PSU |
| 4002-2A | Crystal.net 1 Door Controller with 2A Charger PSU |
| 4001-5A | Crystal 1 Door Controller with 5A charger PSU |
| 4002-5A | Crystal.net 1 Door Controller with 5A charger PSU with Ethernet |
| 4001D-5A | Crystal 2 Door Controller with 5A charger PSU |
| 4002D-5A | Crystal.net 2 Door Controller with 5A charger PSU with Ethernet |
| 4003 | Crystal.POE 1 Door Controller with Power Over Ethernet |
| 4006 | 1 Door Crystal Controller with 5A Charger PSU & GRPS Interface |
| 4006D | 2 Door Crystal Controller with 5A Charger PSU & GRPS Interface |
| **Readers and Touch Switches** | |
| 3800 | Crystal Reader (Switch Plate) |
| 3810 | Crystal Reader Touch Switch |
| 38410-MULL | Crystal Reader Touch Switch (Mullion) |
| 3820 | Crystal Reader (Mullion) |
| 3824 | Crystal Reader Surface Spacer (SP) |
| 3824-MULL | Crystal Reader Surface Spacer (Mull) |
| 3830 | Crystal Reader (Panel Mount) |
| 4803 | Crystal USB Desktop Reader |
| 4124 | Low cost keyboard with Wiegand or BCD interface |
| 4121 | VR Keyboard with Crystal Interface |
| 4124-RF | Crystal combined Keyboard & Reader |
| **Credentials** | |
| 3804-10 | Crystal ISO Card Pack |
| 3805-10 | Crystal Fob Pack |
| **Miscellaneous** | |
| 3107 | USB Adaptor (RS485) |

### Car Park Monitoring
Zoned roll call can also be used to monitor shared car park usage. A simple roll call report can be set up for each group of users and the display will show total quantity and who is using the car park.

### Photo ID
The software also includes an ID badge designer. Photos can be easily captured and saved for each card holder and printed using a suitable card printer from within Doors Enterprise.

### Time Sheet
The time sheet report will collect all the in and out transactions for each user. These are tabulated with totals for each in and out and totals for each user at the bottom.


### Time Zones
Having granted access to a card holder with an access level, time zones allow you to control when they have access. This control is further extended by linking to calendars.

### Calendars
Calendars allow exception dates to be planned in, bank holidays etc.

# INTEGRATION
An equally important feature of any contemporary access control system is its ability to integrate with other systems. The Progeny range of access control systems integrate at 3 defined levels:


### Credential Level
Credential level of integration a card or fob is used for access control plus one or more other systems.

### Hardware Level
Integrate with Fire, Intruder, Lifts, CCTV, Turnstiles, telephone/video entry; the list goes on.

### Software Level
Automated Data Import allows very useful yet simple integration with third party applications such as “Membership Management” or “Booking Systems”.

Time and Attendance software is a prime example of software level integration with an Access Control System where the SQL server database is shared.

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# INTERLOCK SYSTEMS

## HIGH SECURITY

Also known as Air Lock & Tiger Traps, Interlock systems control the locking of two or more doors, such that if one door is open or unlocked, the remaining doors refuse access.

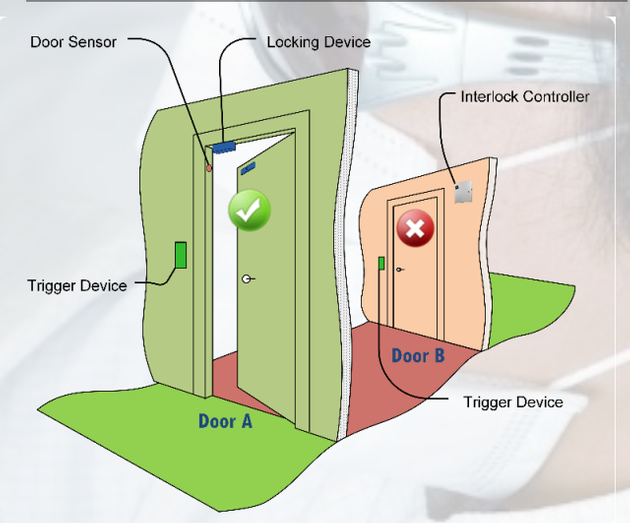
## ADAPTABLE

Doors can be normally locked (normal action) or unlocked (reverse action) to suit the application.

Doors may have full access control using card readers, keyboards etc. They may also be simply released using push buttons or touch switches.

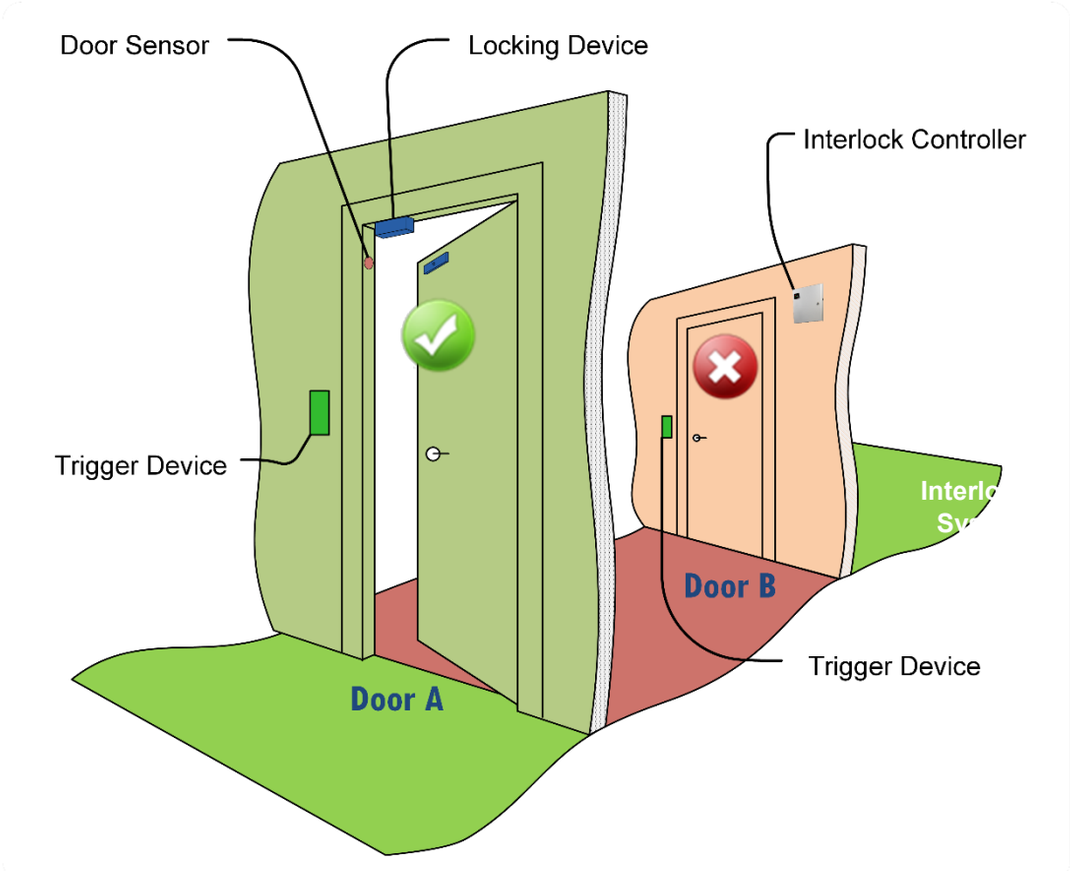
## SCOPE

Two, three and four way interlocks can be created as **standard**. Contact our support team for systems with more doors involved.



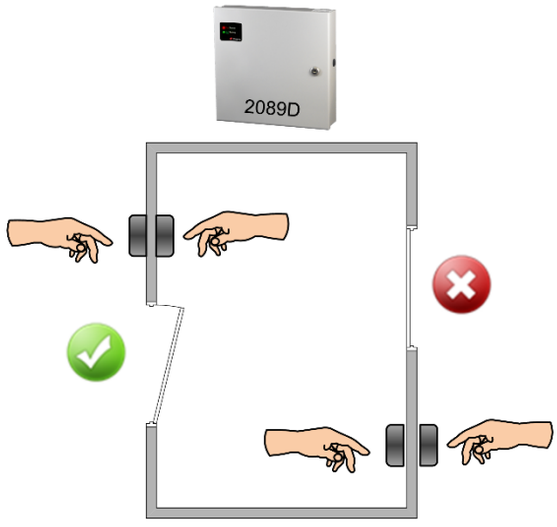

## APPLICATIONS:

- Clean Rooms
- Bank Lobbies
- Cash Handling
- Laboratories
- Jewellery Stores




## Simple 2 Door Interlock

Each door is electrically locked and monitored. The control electronics then generates a control signal to indicate when the door is closed and secure. Each controller also has a control input that will prevent the releasing of the locking device. By cross connecting these control signals, the door controllers communicate the door status, and only open one door at any given time. The simplest interlock would have two doors and standard systems can be made up to four doors.




## Normal Action

With normal action interlocks all the doors are normally locked and a “Trigger” device of some kind is used to unlock a door. While a door is unlocked or open, other doors are prevented from unlocking. This type of interlock is most commonly used for security, with typical applications including: Bank Lobbies, Cash Handling, Photo, Laboratories, Clean Rooms, and Jewellery Stores.

## Reverse Action

With reverse action interlocks all the doors are normally unlocked but monitored. When any one of the doors is detected as “open”, all the other doors are then locked. These are most commonly used for functional control rather than security. Reverse and normal action interlocks can also be mixed on the same system.

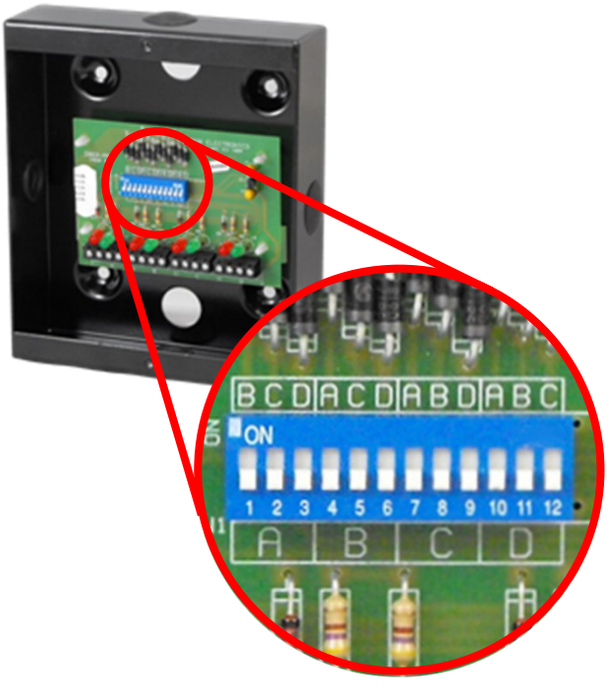
## 3 Door Mixed with Access Control

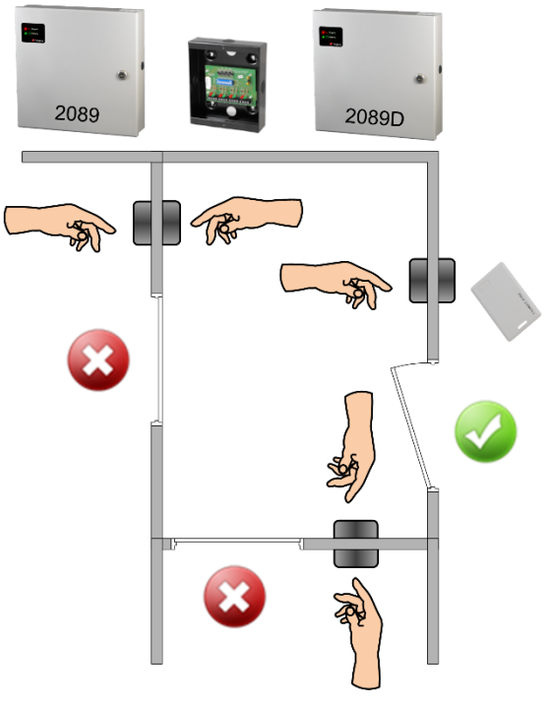
Doors may be controlled by P1, P3 controller and/or an interlock controller.

The trigger device can be a simple push button or an access control keyboard or card reader. All the Progeny P1 and P3 controllers have interlocking interfaces as **standard**. This means you can mix interlock controllers with access controllers on the same system.

## 3 Door Mixed with Access Control

An “Interlock Programmer” is used to greatly simplify connecting the interlock signals. It also allows for easy and flexible programming of the interlock system. A 12 way DIP switch allows the interlocking to be programmed in any combination. On board indicators show current interlock signal status.




| Interlock Product Codes | |
|---|---|
| 2089 | Interlock Controller with 5A PSU (1 Door) |
| 2089D | Interlock Controller with 5A PSU (2 Door) |
| 2069 | Interlock Programmer |
| **Access Controllers with Interlock** | |
| 2163 | P1 Controller with 5A PSU |
| 3001 | P3 Controller with 5A PSU |
| 3002 | P3.net Controller with 5A PSU |
| 3006 | P3.GPRS Controller with 5A PSU |

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# READERS & KEYBOARDS

## INTRODUCTION

Identifying a prospective user of a door is one of the most important tasks of an access control system.

- Keyboards will allow the entry of secret knowledge in the form of a “PIN” or an “Access Code”.
- Readers will extract a credentials Identification Number.
- Biometric Readers read a physical pattern of some sort that is unique to person.

For higher security these can be used in combination to provide two or even three factor identification.

### RFID

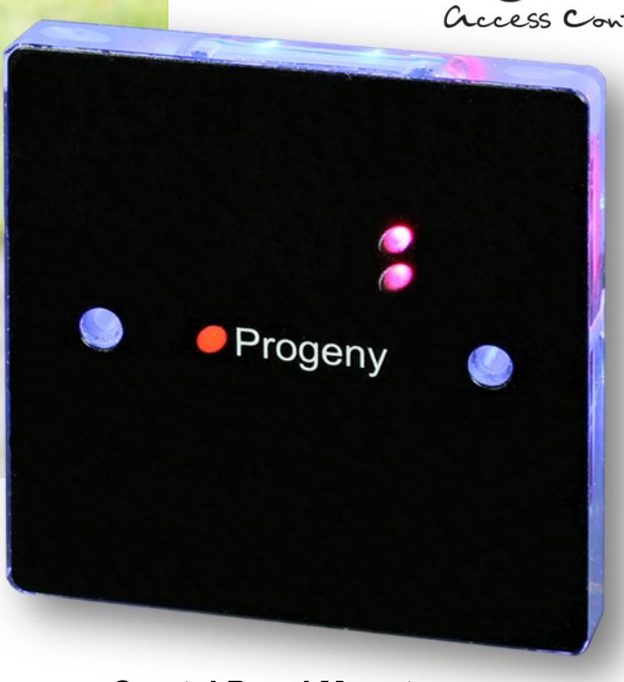
“Radio Frequency Identification” (RFID) comes in many shapes and sizes. All of these can be interfaced with the Progeny P1 and P3 controller products.

## MAGSTRIPE

Still a popular low cost token based means of identification. These readers extract the magnetically encoded numbers from the magnetic strip on the back of a card.

## BIOMETRIC

One of the integration success stories has been that of P3 system with biometric readers. In particular iRIS ENTRA and the iEVO Fingerprint readers.




# CRYSTAL RFID READERS

The Crystal Proximity reader is a universal RFID reader which can easily be configured by the user to work with the C2, P1, P2 and P3 systems. The readers are IP rated and are available in four styles; Switch Plate, Mullion, Panel Mount and Classic. The readers are also available with a pigtail flying lead, further enhancing the IP rating should there be a need to mount the reader externally. Crystal readers work with Crystal credentials which ensure compatibility, reliability and cost savings.

## Crystal Switch Plate

This reader mounts directly on to a standard UK single gang back box making it an ideal solution for first fix.

## Crystal Mullion

This style reader is suitable for mounting on to door frames or posts or other locations that cannot make use of a single gang back box. The reader is also available with a pigtail flying lead to provide extra flexibility when mounting on to surfaces that cannot be easily chased out or to provide an extra level of protection for outdoor environments. The reader is also supplied with a stainless steel cover for a more modern aesthetic.

## Crystal Panel Mount

This reader is also supplied with a stainless steel cover. This IP rated reader has standard mounting holes and is designed to fit in to an intercom or entry panel.

## Spacers

These are available for both the switch plate and mullion versions of the Crystal Proximity readers and are made from the same durable material as the readers themselves.

## Vandal Resistant

Crystal Switch plate reader with protective Stainless Steel Front Plate


| Crystal Readers | |
|---|---|
| 3800 | Crystal Proximity Switch Plate |
| 3820 | Crystal Proximity Mullion Reader/ |
| 3820P | Crystal Proximity Mullion (Pig Tail) |
| 3830 | Crystal Proximity Panel Mount |
| **Reader Spacers** | |
| 3824 | Switch Plate Spacer |
| 3824-Mull | Mullion Spacer |
| **UID Credentials** | |
| 3804-10 | Crystal ISO Cards pack of 10 |
| 3804-100 | Crystal ISO Cards pack of 100 |
| 3805-10 | Crystal Key Fobs pack of 10 |
| 3805-100 | Crystal Key Fobs pack of 100 |
| **Site Coded Credentials** | |
| 3840 | Crystal Site Coded ISO Card |
| 3841 | Crystal Site Coded Key Fob |

### Credentials

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**FEATURES**

- HI CO Cards
- Track 2 or Track 1
- Low Cost Credentials
- Surface Mount
- Weather Proof

# MAGSTRIPE

The magnetic stripe, often called a “Magstripe”, is read by swiping past a reading head. Magnetic stripe cards are commonly used in credit cards, identity cards, and transport tickets.

## READERS

Progeny Magstripe readers are Track 2 as standard. Readers for Track 1 are available, please contact our sales team for more information. Both readers are compatible with P1 or P3 Controllers.

2075 is a Magstripe reader for indoor or outdoor use. The reader head provides an extremely reliable reading capability with over 1 million head passes. Made from an ultra-tough UV resistant polycarbonate, this reader is very durable, even in the harshest conditions.

| Magstripe Readers | |
|---|---|
| 2075 | Magstripe reader (TRK2) |
| 2075-TRK1 | Magstripe reader (TRK1) |
| **Cleaning Reader Spacers** | |
| 2150 | Cleaning Cards (Pack of 10) |
| **Site Coded Credentials** | |
| 2014 | Mono Magstripe Card |
| 2015 | Colour Magstripe Card |

## Progeny HID Proximity

HID proximity cards and readers are recognized as the industry standard for physical access control. Featuring 125 kHz RFID technology, HID proximity products are robust, affordable and seamlessly integrate with access control systems.


| Progeny HID Prox Readers | |
|---|---|
| 2052-HID | Prox Point Reader (Mullion Pig Tail) |
| 2050-HID-KB | Prox Pro Reader with Keyboard |
| 2058-HID | Progeny Prox Reader (Mullion Terminal) |
| 2053-HID | Vandal Resistant Prox Reader |
| 2060-HID | Panel Mount Prox Reader |
| **Site Coded Credentials** | |
| 2042-HID | ISO Prox Card |
| 2043-HID | Prox Key Fob |
| 2044-HID | Prox Clam Shell Card |
| 2045-HID | Prox Sticky Dot |

## Progeny iCLASS

Progeny iCLASS offers widely supported card level integration to third part systems such as:

- Cashless Vending
- Follow Me Printing

iCLASS SIO-Enabled (SE™) smart card readers support Secure Identity Object™ (SIO), a new portable credential methodology from HID, and HID's Trusted Identity.


"So you can use the same card for access to the office and use it to pay for coffee while you wait for your print queue to print"

Technology-independent - Supports multiple technologies (iCLASS Seos and iCLASS SE credential platforms, standard iCLASS, MIFARE, and MIFARE DESFire EV1).

| Progeny iCLASS Readers | |
|---|---|
| 3231 | Progeny iCLASS Reader (Mullion) |
| 3231-M | Progeny iCLASS Reader to read MIFARE CSN |
| 3237 | Progeny iCLASS Reader with Keyboard |
| **Site Coded Credentials** | |
| 3232 | ISO iCLASS Card |
| 3233 | iCLASS Key Fob |
| 3235 | iCLASS Sticky Dot |
| 3238 | iCLASS Clam Shell Card |

## Hands Free & Safety Registration

Basic features:-

- “Hands Free” Tags and Readers
- Long life active tags
- Secure digital data exchanges
- Hands free reading range (>3.0m)
- Fast (20 tags/sec.) multiple reading
- High level noise immunity (digital transmissions)
- Direction sensing firmware
- Inert tags until in reader detection zones

## Applications

The product is suitable for numerous applications, they include but are not limited to:

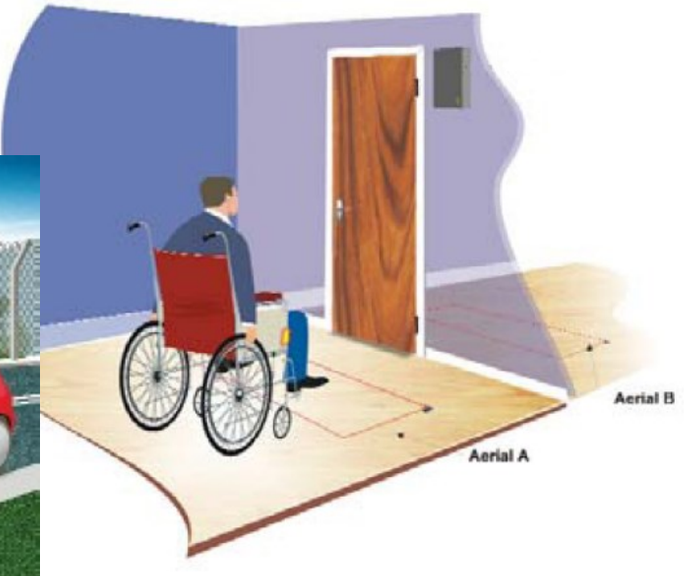
- Direction Sensing
- Two Door Controller
- Personnel & Product Tracking
- Time and Attendance
- Hands Free Access Control
- Car Parking Control
- Personnel Identification
- Personnel & Article Tracking

## Details

The direction sensing reader utilises two external loop aerials to enable sensing at ranges of up to 3 metres.

Alternatively the same device can monitor two independent doors which are close together without providing direction information. The radiofrequency communications are scrambled to provide high integrity, and to prevent simulated tokens being used.

Used in the direction sensing mode a tag moving from one loop to another will have its direction of travel identified by the reader. The speed of reading tags is effectively halved compared to a single zone reader.

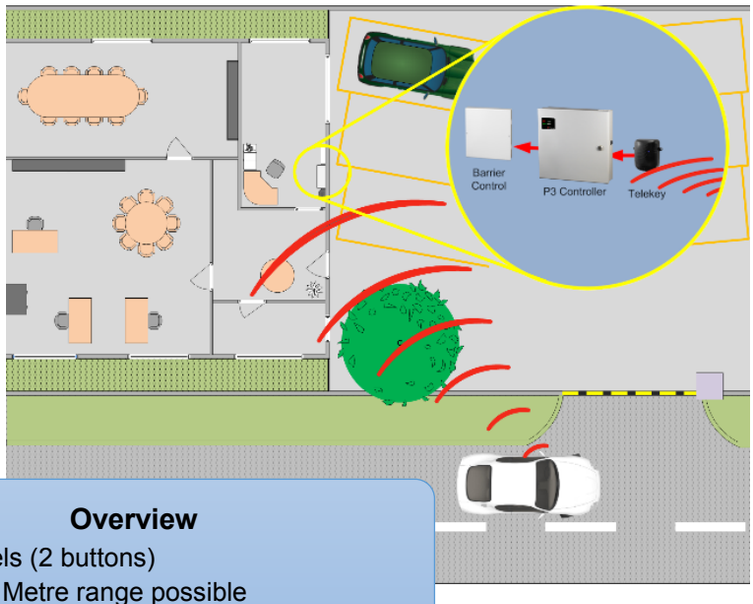


# LONG RANGE RFID


The Progeny Telekey has a read range up to 25 metres and is an ideal way to control access through automated gates, rising barriers etc. Fobs can be enabled or disabled from the access control system and all users will be identified and logged.

The long read range removes the need to have the reader on a post by the road side. Vehicle users do not need to get out of the cab in order to open a barrier.

The Telekey fob is also available with embedded Progeny prox, HID prox or iCLASS credentials.




## How it works

Each key fob has a unique ID number (site code & card number), pressing one of the buttons on the fob transmits this number. When in range, this number is read by the reader and passed onto a standard P1 or P3 access controller for decision making.

**Overview**

- 2 channels (2 buttons)
- Up to 25 Metre range possible
- Available with Crystal, HID or MIFARE
- Standard Progeny reader interface
- Surface mount

Each fob can be treated as any other credential and allocated:

- Access Levels
- Time zones
- Calendar limits
- “Valid from” and “Valid to” dates

The IP 56 enclosure of the reader makes it suitable for indoor or outdoor mounting. This removes the possible need to dig up road or car park to run cables to readers near the gate or barrier. The reader also has two reader outputs that correspond to the two buttons on the fob. This can be used to control two barriers from one reader possibly for in / out applications.

Telekey can be added to any P1 or P3 access control system. The reader also works in tandem with whatever existing reader technology is in

| Long Range Readers | |
|---|---|
| 3300 | Telekey Reader |
| **Site Coded Credentials** | |
| 3301 | Telekey Fob |
| 3806-10 | Crystal Sticky Dots pack of 10 |
| 2045-HID | Prox Sticky Dot |
| 3235 | iCLASS Sticky Dot |

# Biometric Integration

## What are Biometrics?

Biometrics can be taken literally as 'life measurement' but the term is usually associated with the measurement and use of unique physiological characteristics to identify an individual such as Fingerprints, Face or the Iris.

## Advantages of Biometrics

Identification based on biometric techniques removes the need to remember a password or carry a token which also eliminates theft of cards or fobs and therefore constant replacements. Biometric options are also more cost effective as individuals can be easily added or removed from the system at no extra cost.

## iEVO Fingerprint Biometric Reader Fingerprint Recognition

Everyone has a unique, unchanging fingerprint. A fingerprint is made of a series of ridges and furrows on the surface of the finger and these are used to determine the uniqueness of the fingerprint. Once scanned on the fingerprint sensor, the image of these patterns is converted into a code through a mathematical sequence called an algorithm, which effectively becomes a digital form of you. This is stored on a database for comparison which identifies a virtual card number to be sent to the Progeny range of controllers.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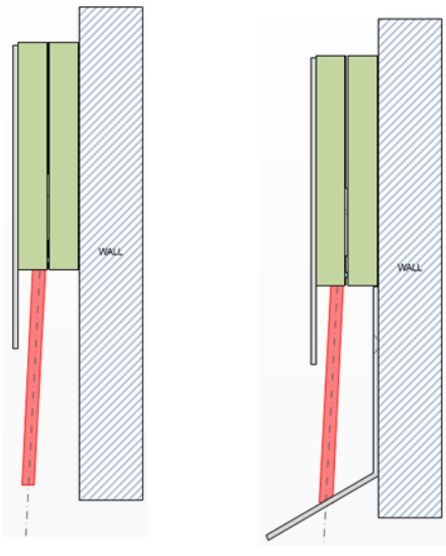



# CRYSTAL BARCODE READER

The 2030-SC is a scanning optical barcode reader. The reader is weather protected and suitable for both indoor and outdoor use.

## Reader

The switch plate style has 60mm spaced mounting points to fit a standard single gang back box.

The switch plate reader comes with an attractive stainless steel cover to give protection and a modern aesthetic.

The switch plate reader can be surface mounted. Cards are presented below the reader.

## Optional Position Target

This optional accessory assists the novice user to position the card at the correct distance and location. This is particularly useful in full sunlight when the scanning light bar is difficult to see.

## Credentials

The scanning barcode reader will work with most common coding types:

Code 39
All UPC/EAN/JAN
Code 128
CODABAR/NW7
Interleave 25
And more…

Only numeric data is processed by the reader.

## Specification

| | |
|---|---|
| Operating Voltage Range | 8-14 VDC |
| Supply Current (Ta > 6 °C) | 95mA |
| Supply Current (Ta < 6 °C) | 350mA |
| Operating Temperature | -20 to 65°C |
| Operating Humidity | 0 to 95% |
| Transmit Frequency | 125Khz |
| Cable Distance | 100m |

| P2 Product Codes | |
|---|---|
| 2030-SC | Crystal Barcode Reader (Scanning) |
| 2030-ST | Optional Position Target |

# KEYBOARDS

Keyboards cater for the “Secret Knowledge” method of identification. They can be used by themselves or in conjunction with token based credentials for additional security. Keyboards can be used to enter a common code used by more than one user or a true Personal Identification Number (PIN). P3 systems also allow for the entry of a “virtual card” via the keyboard.

The principle advantage of using code or PIN alone is that the user does not need to carry anything around. There is no credential to get lost or stolen. Keeping the “secret knowledge” secret is very important however. The spy proof and scramble keyboards have some interesting features to help with this and are explained below.

## “Spy-Proof” Keyboard

Allows covert entry of an access code. The design provides a top quality product along with architecturally pleasing aesthetics. The heavy gauge chrome plated front is 7mm thick and is bright polished to mirror finish. This provides a top quality feel and a comfortable edge to rest the hand whilst entering the code.

**FEATURES**

- Stylish Design
- Spy Proof Front
- Indoor Use Only


## Vandal Resistant Keyboard

This keyboard is robust enough for any public facing, outdoor applications. The back lit keys make access code entry in the dark easy. Integral sounder gives key beep and “Prolonged Door Open” alarm function.

**FEATURES**

- Vandal Resistant
- Back Lit Keys
- Surface Mount
- Weather Proof

Progeny
Access Control

# EGRESS DEVICES

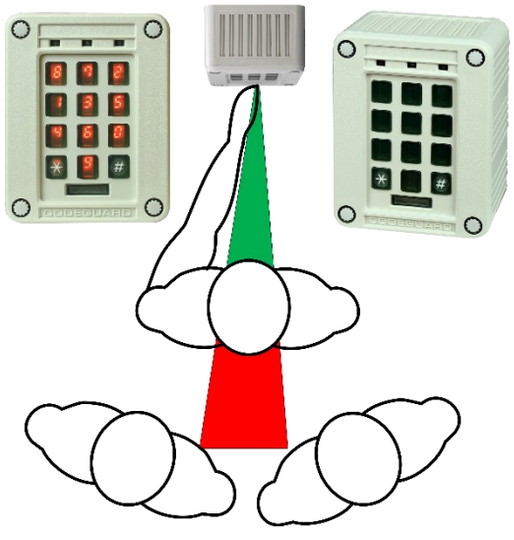
The Progeny Touch Switch is a general purpose switch capable of detecting near-proximity or touch. It detects tiny changes in the capacitance at the front surface. The switch uses a patented spread-spectrum charge-transfer technology. Every 80 seconds the switches self-calibrate, this means that the switch can accommodate large changes in surface capacitance due to; humidity, nearby objects etc. Designed specifically for "Request to Exit" or "Request to Enter Call" applications. The fully sealed IP66 enclosure makes it suitable for both, internal or external use.

The "Switch Plate" version will mount on any standard single gang light switch back box.

The "Mullion" version is ideal for those space restricted locations.


### FEATURES

- No Moving Parts
- Auto Adjust to Environment
- Status Indication
- Audible Feedback



## Scramble Keyboard

Interfaces with the P1 & P3 controllers in much the same way as any other Progeny KB, but provides much greater security by ensuring that only the person using the keypad can see which numbers are being entered. In addition, the numbers behind each key are moved randomly each time the keyboard is used.

As the digits are scrambled observing which keys are pressed will not reveal the code or PIN to a potential intruder.

Each time the Progeny Scramble keyboard is used, the digits 0 to 9 are allocated at random to the keyboard's 10 keys. There are over 3.6 million permutations! This also ensures that the keys wear equally, even if the same code is always used.

### FEATURES

- High Security
- Covert Code / PIN Entry
- 3.6 million permutations
- Even Key top Wear
- Surface Mount or Panel Mount

| Keyboards | |
|---|---|
| 2040 | Spy Proof Keyboard |
| 2121 | Vandal Resistant Keyboard |
| 2011S | Scramble Keyboard (Surface Mount) |
| 2011P | Scramble Keyboard (Panel Mount) |
| **Egress Devices** | |
| 3810 | Touch Switch (Switch Plate) |
| 3810-MUL | Touch Switch (Mullion) |

# TRAINING


BSB Electronics provide training courses at Progeny House. Our training courses run for a full day.

If you would like to attend then please contact our customer support team.

### On Site Training

BSB Electronics can also provide onsite training. The course length will be approximately five hours long and will provide an overview of the product along with a solid grounding on use and the setup of the system on Doors Enterprise.

### On Site Commissioning and End User Training

To check that Progeny equipment has been installed to the correct standard, BSB Electronics can provide a commissioning day if required or time permitting, on site end user training. The hardware installation will be inspected and tested, and the software installation (if an online system) will also be inspected and tested for correct setup. A commissioning day commences at 10:00 and lasts until approximately 16:00

# COMPLIANCE

We are committed to working closely with our suppliers, distributors, installers and customers to ensure that we are properly prepared and taking the necessary steps so as to comply with any European Directive. More detailed information on compliance can be found on the website.

### CE

CE marking is a declaration by the manufacturer that the product meets all the appropriate provisions of the relevant legislation implementing certain European Directives.

### WEEE

(Waste Electrical and Electronics Equipment Directive)

This directive is aimed at the reduction of waste from Electrical and Electronic Equipment and to improve the environment. Producers are encouraged to improve the life cycles of the equipment they manufacture.

### DDA 2005

(Disability Discrimination Act 2005)

This directive builds on and extends earlier disability discrimination legislation, principally the Disability Discrimination Act 1995. Under the Act, small to medium sized businesses have to make reasonable adjustments so they do not discriminate against disabled customers or employees.

- Touch Switches - Clear labelling & no moving parts
- P2 & P3 - Two stage lock release for automatic door openers
- P3 delay to lock release
- P2 & P3 auto relock feature
- Doors Express/P2 - Adjust the sound level of readers

### RoHS

(Restricted Use of Certain Hazardous Substances Directive)

Directive 2002/95/EC on the Restriction of the use of certain

Hazardous Substances in Electrical and Electronic Equipment (RoHS)

### IP Ratings

(Ingress Protection)

IP Ratings are defined in international standard EN 60529 (British BS EN 60529:1992, European IEC 60509:1989).

# HOW TO FIND US

## ADDRESS

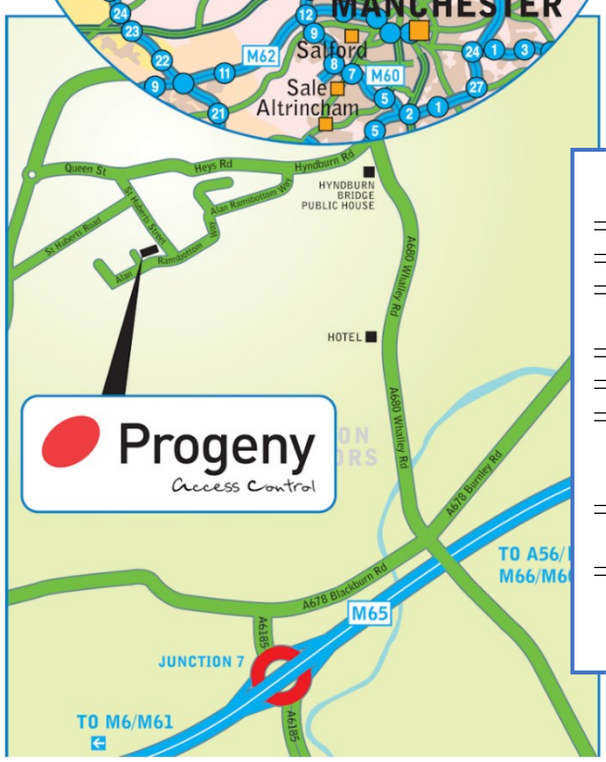
BSB Electronics
Progeny House
Union Court
Heys Lane Industrial Estate
Great Harwood
Lancashire
BB6 7FD
England

Tel +44 (0)1254 883348

Fax +44 (0)1254 889113


## DIRECTIONS FROM THE M6

⇒ Exit M6 at Junction 29 - follow the signs for the M65 Burnley. Exit M65 at Junction 7 (A6175) and bear left to the traffic lights.
⇒ At the traffic lights turn right and proceed to the next set of traffic lights.
⇒ Turn left onto the A680 and follow the road until you see the Hyndburn Bridge pub, on the left.
⇒ Take the next left turn at the traffic lights into Hyndburn Road (sign-posted 'Great Harwood') then turn first left into Heys Lane Industrial Estate onto Alan Ramsbottom Way.
⇒ Continue along Alan Ramsbottom Way for approximately 600m and Progeny House on the right.




## DIRECTIONS FROM MANCHESTER AIRPORT

⇒ Join the M56 slip road and follow the signs to Manchester.
⇒ Join the M60 (Manchester Orbital Motorway).
⇒ At Junction 18 leave the M60 and turn onto the M66 (Bury). Continue to the end of the M66. The road becomes the A56.
⇒ At the end of the A56 turn left and join the M65 at Junction 8.
⇒ Leave M65 at Junction 7.
⇒ Take the third exit off the roundabout up to the traffic lights. At the traffic lights turn right and proceed to the next set of traffic lights.
⇒ Turn left onto the A680 and follow the road until you see the Hyndburn Bridge pub on the left.
⇒ Take the next left turn at the traffic lights into Hyndburn Road (signposted 'Great Harwood') then turn first left into Heys Lane Industrial Estate. Progeny House is on the right.

Progeny
Access Control

BSB Electronics Ltd
Progeny House
Union Court
Heys Lane Industrial Estate
Great Harwood
Lancashire
England
BB6 7FD

T: 01254 883348 F: 01254 889113

www.progeny.co.uk

Designed and Manufactured in England