# ACCESS CONTROL
## Products & Solutions

Progeny
Access Control

# About Progeny

With over 40 years experience in the industry, you can trust Progeny to provide innovative, reliable and affordable Access Control solutions. We design and manufacture the Progeny range to rigorous standards at our factory in Lancashire, backed by a 5 Year Warranty to give you complete peace of mind.

We are constantly innovating to ensure we provide the latest products and solutions - including:

- Bluetooth Location system
- MIFARE DESFire Reader Solutions
- Evacuation Management Mobile App

Our access control systems are scalable, so can grow with your business. From a project with one door and few users to a site with unlimited doors and up to 32,000 users, we have a system to suit you.

## Contents

**DESIGNED & MANU-FACTURED IN UK**

**5 YEAR SUPPORT**

**HID COMPATIBLE**

**5 YEAR WARRANTY**

To find out more, contact us on: **01254 883348** or **sales@progeny.co.uk**.

Visit our website: **www.progeny.co.uk** for product datasheets, manuals, software downloads and more.
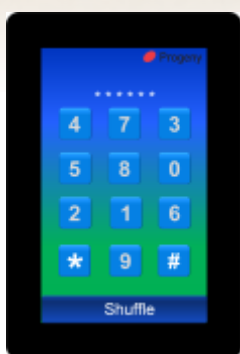
# www.progeny.co.uk

## Dark Window Keypad

For secure access code / PIN entry. This keypad has a touch sensitive 5" display where the keys are presented in different location for each use.

The view of the keys is limited by a special micro-louvre privacy filter.

For two factor authentication the keypad is available with Crystal or MIFARE credential reader built in.

## Mobile Credential Readers

These readers can read secure credentials held on mobile smart devices such as mobile phones. Also available with HID Prox and iCLASS reading capability.

Switch-plate and mullion keypad options for two factor authentication.

## Bluetooth Location Integration

Bluetooth Beacons that can be attached to existing RFID credentials, reveal the location of the beacon user.

The beacon signals are picked up by Bluetooth-WiFi gateways.

Doors Enterprise can now collect this information for reporting. The first application for this being "evacuation management".
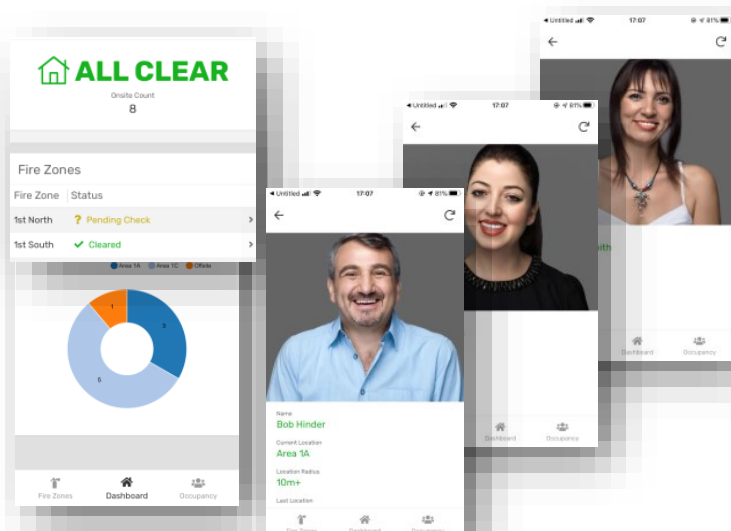
Data is pushed out to a mobile application data source.

## Evacuation Management App

The dashboard of this mobile app displays the Fire Alarm status, Fire Warden Zone Status and Occupancy for each location.

The occupancy can be further drilled down to individual personnel cards, with Name, Photo and location

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# Designing Your Access Control System

## Physical Access Control

Electronic Physical Access Control provides 24/7 security. This can be to protect people, valuables or information. When you are designing your access control system, there are several important choices:

- 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.)

## Identity Authentication

You will need to identify the people you wish to allow access to. There are three main methods for electronic identification:

- Secret Knowledge (Access Code or PIN)
- Token (Card, Keyfob)
- Biometric (Fingerprint)

Each method has its pros and cons. They can be used individually as 'Single-Factor' authentication or together to get 'Two' or 'Three Factor' Identification which is more secure. Using a Card and Code, for instance, would be 'Two-Factor' identification and improves security by eliminating some of the drawbacks of each factor.

### Photo ID

With online access control software, you can design and manage the printing of cards which can be personalised with company name, employee details, photo etc.

## Offline or Online?

Offline (standalone) systems do not require computers of any kind, so are ideally suited for small numbers of doors and users. Compact access controllers have the reader (usually a keypad) and controller built into the same unit. All programming is done locally for each door via a keypad provided with the controller. These systems offer the lowest cost.

With an Online networked system, you can control an unlimited number of doors and sites from a single server. Our 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.

## Online Communication

There are several choices for the management software to communicate with your door controller. 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 and freedom of choice for locating server and workstation PCs. This is also the best choice if you wish to use any server based features such as Roll Call or Anti-Passback.

PoE (Power over Ethernet) allows power and data to be passed along the same cable (usually Cat 5e) as an alternative to 'Mains Power'.

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

## Emergency Egress

Care needs to be taken if 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 'Fire Relay' or 'Green Call Point')

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# Designing Your Access Control System

## Lock Suppression

It is important to check that the locking device is suppressed. Any electromagnetic device will produce a Back E.M.F when power is removed. This can interfere with and even damage other electronic equipment. Most good locking devices will already have suppression fitted. If not, you should fit an appropriate suppression device across the coil.

In the case of solenoid operated locks, a flywheel diode will do. Connect the cathode to the positive and the anode to the negative terminal of the coil. The diode will need to be rated at the full operating current of the coil.

Do not use a diode for a mag-lock, as this will cause an excessive delay to the release of the door. A MOV or VDR is a far better choice. Polarity is not critical, but make sure the rated voltage is greater than the normal operating voltage of the lock.

A more detailed explanation of Back E.M.F. can be located at our website here: https://progeny.co.uk/back-emf-suppression

## Cables

It is important to use the correct cables, All wiring should be installed in accordance with relevant wiring regulations.

- RS 485 Network: Screened twisted pair (Belden 8132 or equivalent)
- Reader: Screened 8 Core
- Keypads: Screened 8 Core
- Lock: Rated > Lock Current

## Reporting

Event reporting is one of the main benefits of having an 'Online' system. All events (Card Transactions, Egress, Opening, Closing, Denied Access, etc.) are time stamped and recorded. This information can then be filtered and presented to show the management/ monitoring information you need. Reports can be exported to TSV, XLS or CSV format. New events recorded by Crystal systems include 'Power-Up' & 'Power-Down' times and Two Factor Identification events. Last known door used and APB zone location is recorded in the card-holder record.

## Read In/Read Out

You need to decide 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 depends on 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. (Examples: Cashless Vending, T&A, 'Follow Me' Printing)
- Controller Hardware: Wired connections between systems (Examples: Fire Alarm, CCTV)
- Software: Data sharing/exchange between systems (Examples: 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. Some of the considerations include:

- 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.
- The system features being used

**Dedicated:** refers to a PC that is used soley 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 critical tasks such as 'Alarm Handling' and 'Roll Call Printing'.

## Operating System

The 'install-set' for Doors Enterprise now includes SQL Server Express 2014 (64 bit). So the Machine and OS will need to be 64bit.

Doors Enterprise is compatible with:

**Workstation:** Windows 8.1 or 10.

**Server:** Server 2012, 2016 or 2019

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# Access Control Management Software

## Doors Enterprise

Doors Enterprise is our innovative software for use with Progeny Access Control systems. The latest release: V8 continues a lineage that stretches back 20 years. The user-friendly interface and new features are based on customer feedback. The software is multisite & multiuser and takes advantage of the power and scalability of Microsoft SQL Server.

### Operating System

Supported operating systems include:

- Windows 8.1 or 10.
- Windows Server 2012, 2016 & 2019

### 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 access controllers.

### Doors Enterprise Client

Doors Enterprise allows for an unlimited number of workstations and software users across single or multiple sites.

### 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 the department or a 'date pick' calendar for an employee start date.

### Multi-Lingual

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

## Dormant Card Policy

Doors Enterprise allows you regain control over those credentials that get lost or never returned. We are all busy these days and it can be difficult to keep track of those employees who leave or visitors who do not return credentials. 'Dormant Card Policy' sets maximum time that a credential might be expected to be not used due to say annual leave or working away from the site. Once this time has lapsed the card will be marked as dormant and automatically disabled from all doors.

## Features & Benefits:

- Multi-Site: manage multiple sites from one place.
- Multi-Operator, no limits on logins.
- 32,000 credential holders.
- Comprehensive reporting suite, including: Roll Call, Attendance & Absence & simple Timesheet
- Free of charge: Download the latest version from our website: **www.progeny.co.uk**
- Additional Features: Design and print photo ID badges.
- Customise to suit you: up to 25 custom database fields
- User-friendly: wizards ensure simple data import and report creation
- Automatic data import for integration with third party software systems.
- Email notifications.

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# What's New

New server components that provide for Bluzone Integration and Mobile App data service.

## Desktop Reader

This USB powered reader allows for speedy enrolment of new cards or fobs into a P4/Doors Enterprise system. Supplied with a 1.8m USB cable (can be extended to a maximum of 5m). To use, simply click 'add new card' and present the card/fob to the reader. The credential's card ID is then accurately entered for you.

**4803**

## Wizards

Wizards make the setup and importing of data a very simple and intuitive process. Importing data with the 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 of credentials. A roll call report can be run off manually or automatically.

## Time Sheet Report

The Time Sheet report collects all the in and out transactions, from nominated readers, for each user. These are tabulated with totals for each in and out and totals for each user at the bottom.

Any missed clocks are left blank so that when exported to a spreadsheet they can be filled in later. Because the formulae are exported with the report data, the totals are updated as the missed clocks are added to the spreadsheet.

# DOORS
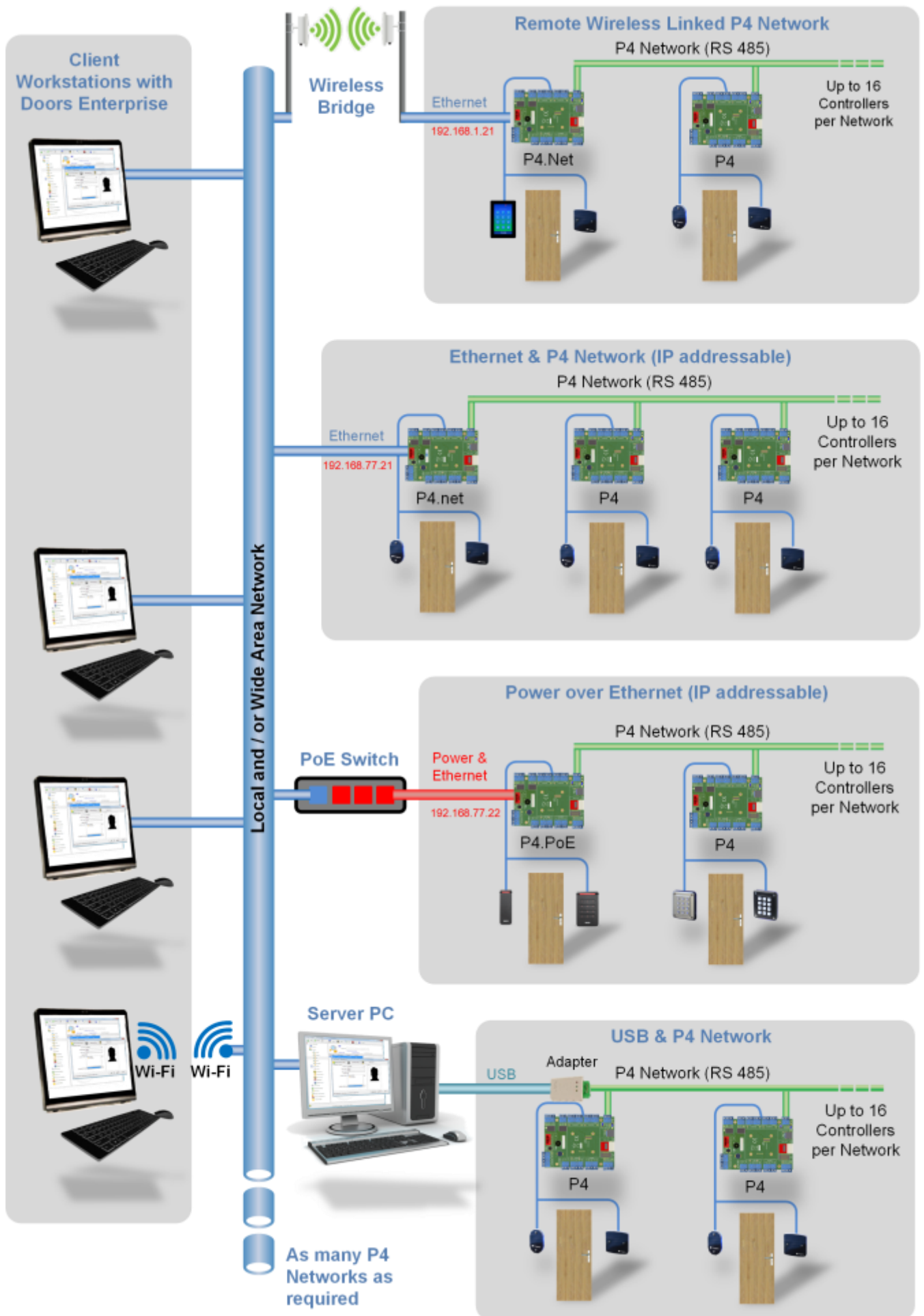# ENTERPRISE

## Attendance/Absence Report

Attendance and Absence are combined into a single report. You also have free choice of fields to be included. This feature is common to all reports, as is the ability to export to CSV, TSV or Excel spreadsheet format.
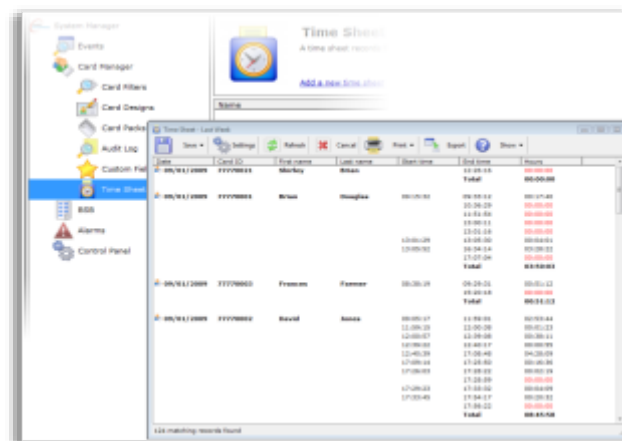
## New Features:

- Server based Email Alerts
- Email Rollcall option
- New install set for latest operating systems
- Includes SQL Server 2014 Express
- Sequential multi-factor identification separately controlled for both in and out
- Access code
- Reader Brightness
- Reader volume for Feedback & Alarms
- Control over the keypad star key
- Advanced electronic lock drive modes
- Random search prompt

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# P4 System



**Client Workstations with Doors Enterprise**

**Wireless Bridge**

**Remote Wireless Linked P4 Network**
P4 Network (RS 485)
Ethernet
192.168.1.21
P4.Net
P4
Up to 16 Controllers per Network

**Ethernet & P4 Network (IP addressable)**
P4 Network (RS 485)
Ethernet
192.168.77.21
P4.net
P4
P4
Up to 16 Controllers per Network

**Local and / or Wide Area Network**

**Power over Ethernet (IP addressable)**
P4 Network (RS 485)
**PoE Switch**
Power & Ethernet
192.168.77.22
P4.PoE
P4
Up to 16 Controllers per Network

Wi-Fi  Wi-Fi

**Server PC**

**USB & P4 Network**
USB  Adapter  P4 Network (RS 485)
P4
P4
Up to 16 Controllers per Network

As many P4 Networks as required

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# P4 Controller

## Overview

The P4 range is our most fully featured to date - giving you ultimate flexibility. With a larger power supply, the capacity to expand to more users and doors, the option to install Standalone then switch to Online when ready and compatibility with a wide range of reader technologies, P4 is the only Controller you will need..

## Scalable Online or Offline

The P4 system architecture allows for expansion without any additional equipment costs - up to 32,000 users and an unlimited number of doors can be added.

On-board Engineers keypad enables access control to be programmed locally. For example; adding cards to test if the system is functioning correctly or to run standalone until the IT infrastructure is ready to go online.

## Distributed Intelligence

The on-board memory stores all the access control information for a given door, including card details and Bio templates. This means that, in the event of lost communication with the server, the controller will continue to function normally.

## Charger Power Supply

The P4 includes a 12V 5A Charger power supply, so budgeting power usage is a thing of the past. The charger also features uninterrupted changeover from mains to battery, deep discharge protection for the battery and 3 individually fused auxiliary outputs.

## Features & Benefits:

- 32,000 users
- Interlocking facility built in
- Distributed Intelligence
- Online or Offline Operation
- Free Multi-Site Management Software
- 200 Year Data Retention
- Connect using Ethernet (IP), USB (Com) or PoE (IP)
- Wide range of Readers & Keypads
- One, Two or Three Factor Authentication
- 5A Power Supply with battery back-up
- Supports any Locking Technology
- Card In/Card Out
- 5 Year Warranty
- Designed & Manufactured in the UK
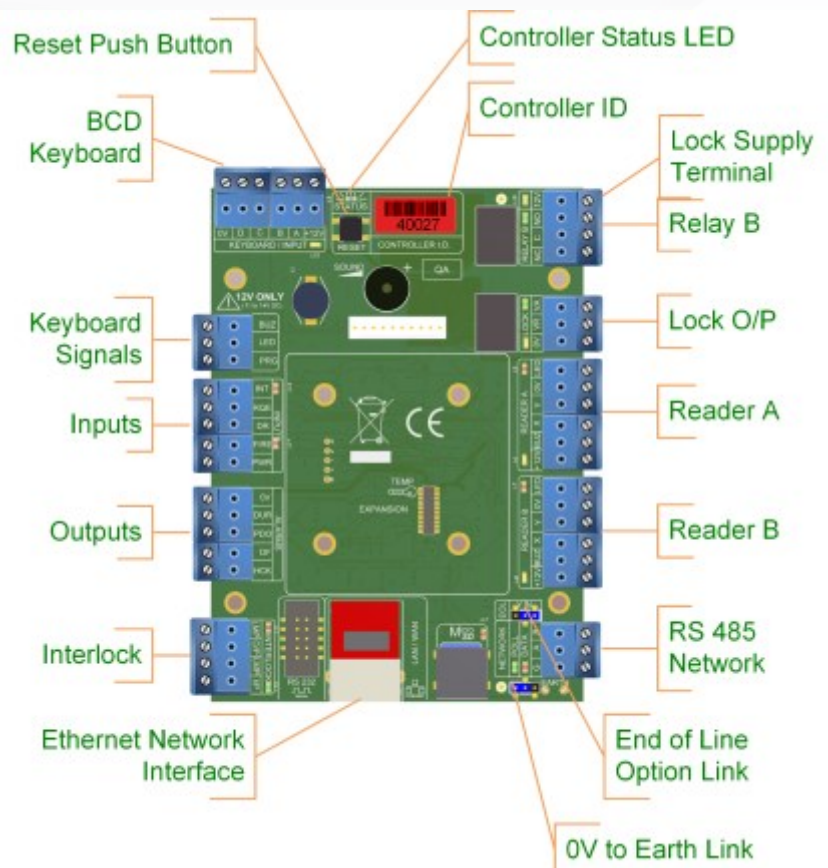
## P4.net 2 Door Controller



5A Charger PSU

Engineers Keypad

P4

P4.net

Space for 12V 7Ahr Sealed Lead Acid Battery

Battery Backup

## Choice of reader Technology

Choose from Proximity, Biometric, Mag Stripe or Keypad, to suit your requirements. P4 will interface with 35 standard reader technologies and you can define custom formats through the Advanced Engineers menu.

## Random Search

If you require a system that enables you to search employees on a random basis for security reasons, this feature is ideal as it allows for randomised impartial searches to be carried out. The search rate is adjustable from '1 in 1' to '1 in 99' and randomly flags users to be security searched as they pass through the door or turnstile.

## Access Levels

P4 raises the bar on access levels with 250 per site. Each user can have two access levels for each site.

## Event Logging

All transactions are time and date stamped before being recorded into the P4 event-log. While online these logs would be continuously collected by the Doors Enterprise software. However, when operating standalone each P4 door controller will keep up to 8000 most recient logs..

   Each controller has its own real time clock and the event log memory also has a 200-year data retention. So even when offline transactions and events are accurately and reliably recorded.

## Engineer Control

On-board Engineers keypad enables the Engineer to set the IP address at the Controller, no need to visit a PC

All local door functions can be programmed via the on-board keypad e.g. adding cards to test if the system is functioning correctly or run standalone.  Engineer and User passwords can also be reset from here

The standalone 'discovery mode' feature makes adding cards very straightforward. Simply put the controller into discovery mode and present one or as many cards as you wish to add to that door.

## Lock Drive

The P4 Controllers have the traditional relay to switch the positive wire of the lock supply, as well as an electronic switch in the negative wire. This allows for some "lock' driving modes that will significantly reduce if not eliminate relay contact wear and extend the life of the controller. The modes are:

- Standard (Relay only)
- Protected (Relay and Electronic Switch)
- Electronic (Electronic Switch only) Fail Secure
- Electronic (Electronic Switch only) Fail Open

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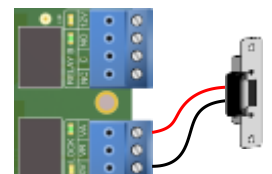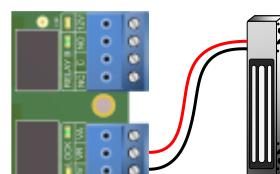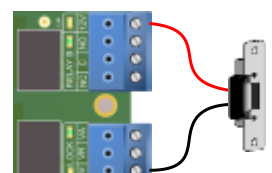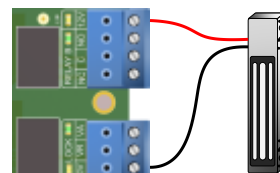
# Data Connection Options

## Ethernet

The P4.net is an online door controller that makes use of standard Ethernet local area network connections to communicate with the central management software. Each P4.net controller has an RJ45 socket and uses the UDP/IP protocol with very little data bandwidth required.

The RS 485 P4 network can then be used to connect further standard P4 controllers. These share the IP address of the P4.net controller. Maximum 16 controllers per network. As many networks as required.

**4002 & 4002D**

## Power over Ethernet (PoE)

This innovative technology allows power and data to be passed along the same cable (usually Cat 5e). Progeny offers a matching injector option. PoE is an alternative to 'Mains Power'.

The P4 PoE controllers allow for a simple, fast and cost -effective installation, saving time on the need to provide electrical power spurs to controllers; instead, existing Ethernet structured cabling (Cat 5) can be used in conjunction with a PoE Ethernet switch. Note: P4 PoE controllers will continue to function even if Ethernet communications are lost.

Progeny also offers a 30W PoE injector matched to our 4003-17 controllers. These injectors convert standard Ethernet switches to PoE.

**4003-17**

## USB Interface

Using the 3107 USB to 485 adapter, the server PC can be connected to the Progeny network of P4 controllers with a maximum 1000m cable run.

| P4 Controllers | |
|---|---|
| 4001 | P4 1 Door Controller with 5 A charger PSU |
| 4001D | P4 2 Door Controller with 5 A charger PSU |
| 4002 | P4.net 1 Door Controller with 5 A charger PSU and Ethernet |
| 4002D | P4.net 2 Door Controller with 5 A charger PSU and Ethernet |
| 4003-17 | P4 PoE 1 Door Controller (1.7 A supply)  - Matching injector available |
| 4003-INJ-17 | 30W PoE injector for use with 4003-17 |

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# Keypads

| Product Codes | |
|---|---|
| **4124** | Standard Keypad |
| **4121** | Crystal Vandal Resistant Keypad |
| **4132** | Optional Surface Mount Back Box |
| **4860** | Dark Window Keypad |
| **4133** | Spy-Proof Cover for 4124 & 4121 |

Keypads cater for the 'Secret Knowledge' method of identification. They can be used by themselves or in conjunction with token-based credentials for additional security. Keypads can be used to enter a common code used by more than one user or a true Personal Identification Number (PIN). P4 systems also allow for the entry of a 'virtual card' via the keypad.

The main 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 'Key'.

## Vandal Resistant Keypad

This keypad is robust enough for any public facing outdoor applications. The backlit keys make access code entry in the dark easy. An integral sounder gives a key beep and 'Prolonged Door Open' alarm function.

- Vandal Resistant
- Anti-Tamper Screws
- Simple 4 wire interface
- Independent sound volume controls
- Backlight & tri-colour status light for feedback
- H: 118 W: 99 D: 21 (mm)
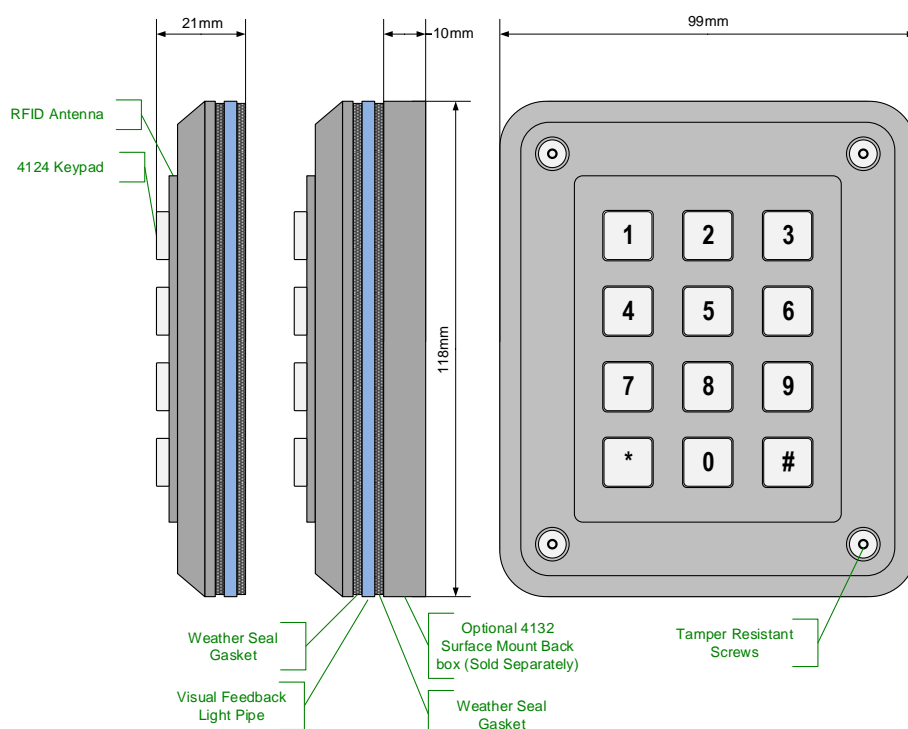- IP 65, IK 10

## Keypad

**4124**

**4132**
(Optional but recommended for external use)

This keypad is suitable for indoor or outdoor applications. The backlit keys make access code entry in the dark easy. An integral sounder gives a key beep and 'Prolonged Door Open' alarm function.

- Suitable for indoor or outdoor use
- Simple 4 wire interface
- Independent sound volume controls
- Backlight & tri-colour status light for feedback
- IP 65, IK 09
- H: 118 W: 99 D: 21 (mm)

**4121**

**4132**
(Optional but recommended for external use)

RFID Antenna
4124 Keypad
Weather Seal Gasket
Visual Feedback Light Pipe
Optional 4132 Surface Mount Back box (Sold Separately)
Weather Seal Gasket
Tamper Resistant Screws

21mm    10mm    99mm    118mm

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# Dark Window Keypad

## Features & Benefits:

- Privacy viewing of Keypad
- Shuffling key positions and alternative key layouts
- Micro-louvre filter limits horizontal viewing.
- Anti-bacterial surface kills 99.9% of germs
- 4 Wires to Connect to P4
- Simple Intuitive Interface
- Crystal RFID & MIFARE options available
- 5 Year Warranty
- Designed and manufactured in the UK
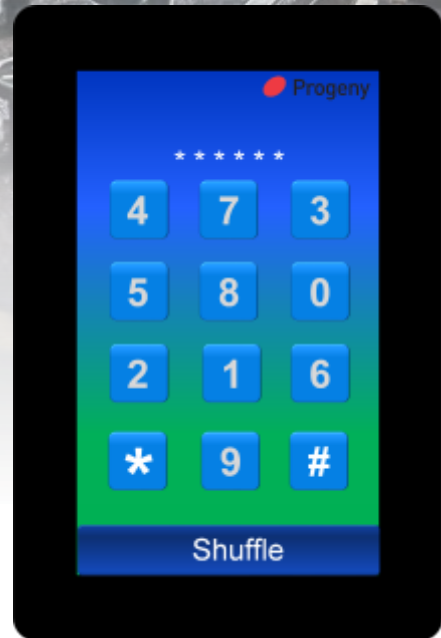
## Dark Window Keypad

The Dark Window access terminal provides a secure means of entering access codes.

These keypads interface with the P4 controllers in a similar way to any standard keypad but provide much greater security by ensuring that only the person using the keypad can see which numbers are being entered.

### Randomised Key Positions

Each time the keypad is used, the numbers for each key are randomly shuffled to new positions. Observing which keys are pressed will not reveal the code or PIN to an onlooker.
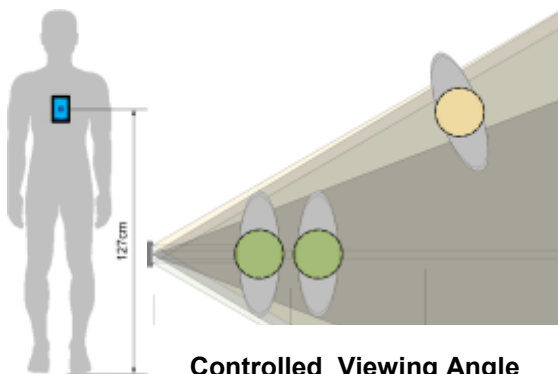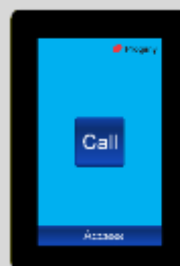
**Controlled Viewing Angle**

| PRODUCT SPECIFICATION | | |
|---|---|---|
| **PARAMETER** | MIN | MAX |
| **Operating Voltage** | 8.0 V DC | 14.0 V DC |
| **Peak Current** | - | 140 mA |
| **Average Current** | - | 100 mA |
| **Cable Distance** | - | 50 m |
| **Display Life** | 30,000 Hrs | 50,000 Hrs |
| **Brightness** | 460 | 500 cd/m$^2$ |
| **Viewing Angle** | Vertical | +/- 70 Deg |
| | Horizontal | +/- 30 Deg |
| **Temperature Range** | -5 | +50 °C |

**Status Indication**

Standby    Interlocked    Lock Released

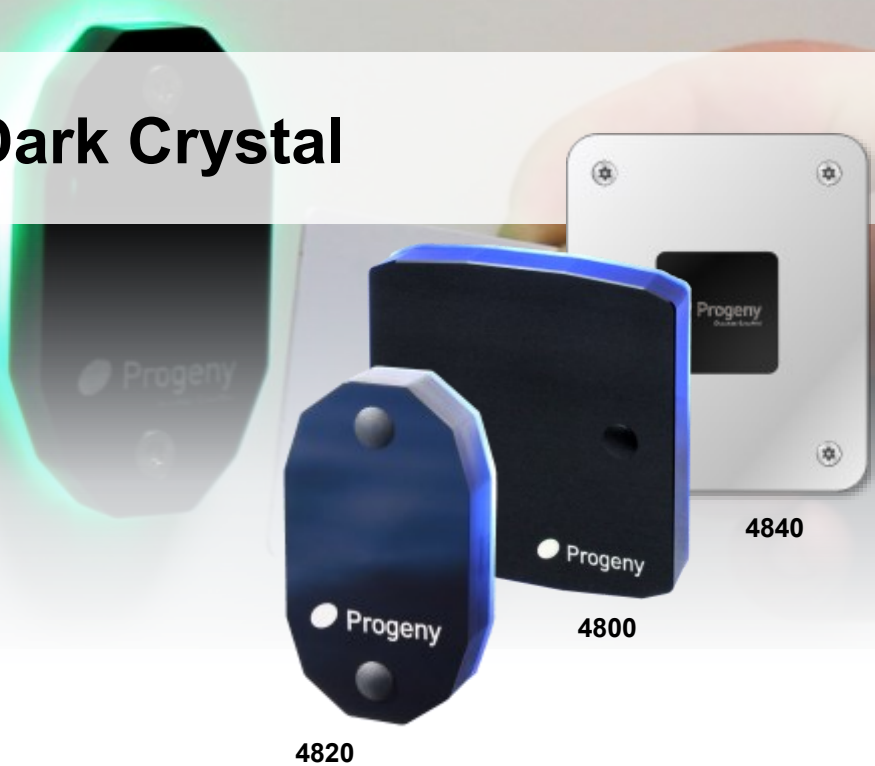# Progeny
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# Dark Crystal

**4840**

**4800**

**4820**
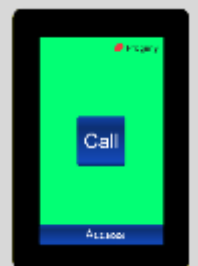
## Features & Benefits:

- Privacy viewing of Keypad
- Low cost credentials
- Brightness & Volume control
- Status Indication
- Alarm notification
- 4 Wires interface to P4
- 5 Year Warranty
- Designed and manufactured in the UK

## Crystal Readers

The Dark Crystal Proximity reader is an RFID reader that takes advantage of a simple 4 wire interface to P4 Controllers.

The unique back light and multi-colour light indicators give excellent user feedback on the operation of the system including:

- Interlock
- Programming Mode
- Lock Status
- Alarms

The Readers have a contemporary design with adjustable lighting so they can be as discreet or prominent as required.

Features such as light and sound control can be accessed Online via the software or Standalone via the P4 Controllers built-in keypad..

## Dark Crystal Mullion

The Mullion reader is suitable for mounting onto door frames, posts or other locations that cannot make use of a single gang back box. It is also available with a pigtail lead to provide extra flexibility when mounting onto surfaces that cannot be easily rebated out.  It is IP 65 rated, making it ideal for outdoor installation

- Suitable for outdoor use
- Fits standard door mullion
- Durable construction
- IP 65, IK 09
- H: 80, W: 45, D: 18 (mm)

**4820**

## Dark Crystal Switch Plate

This reader mounts directly onto a standard UK single gang back box. Ideal solution for the 'second fix' installation.

- Indoor use
- H: 90 W: 90 D: 19 (mm)

**4800**

## Dark Crystal Panel Mount

This IP rated reader has standard mounting holes and is designed to fit into an intercom or entry panel.

- Fits standard recess in Intercom Panel
- Intuitive sound feedback

**4830**

| Product Codes | |
|---|---|
| 4800 | Dark Crystal Switch Plate Reader |
| 4820 | Dark Crystal Mullion Reader |
| 4830 | Dark Crystal Panel Mount Reader |
| 4840 | Dark Crystal Vandal Resistant Reader |
| 4124-RF | Combined Keypad & Reader |
| 4132 | Optional Keypad Surface Mount Back Box |
| 2132 | Optional Reader Surface Mount Back Box |
| 4803 | Desktop Reader with USB Connection |
| 4133 | 'Spy Proof' shield for the Keypads |

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Progeny
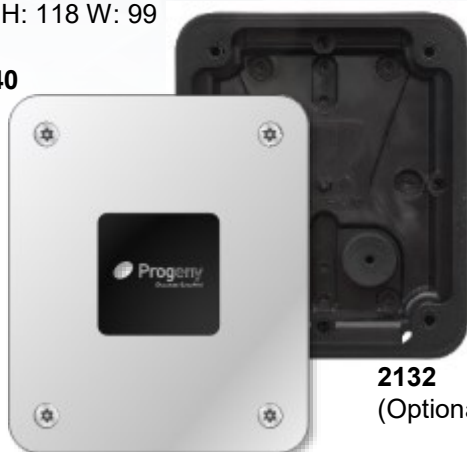Access Control

# Crystal Credentials

## Dark Crystal Vandal Resistant

For public-facing installations, the Vandal Resistant Reader is ideal. With a sturdy steel cover plate, it is backed by our "Vandal Proof Guarantee" (see terms & conditions)

- Suitable for indoor or outdoor use
- IP 65, IK 10
- H: 118 W: 99                D: 2 (mm)

**4840**

**2132**
(Optional)

## Combined Keypad & Crystal Reader

This keypad reader is ideal for 'Sequential' or 'Non-Sequential' multifactor authentication.  Sequential authentication options include 'Card & PIN', 'Card & Code'. Non-Sequential authentication options include 'Card or Code', 'Card or Virtual Card'.

The keypad comes with screw termination and can be flush mounted or, using the optional back box (4132), it can be surface mounted.

- Keypad with built-in RFID
- IP 65, IK 09
- H: 118 W: 99 D: 21 (mm)

**4124-RF**

**4132**
(Optional)

## Crystal ISO Card

For applications where the user is likely to need to carry or wear the credential through out the day. They can be kept in purse or wallet, or in a cardholder with a Yo-Yo or Lanyard.

These polyester cards conform to the ISO standard dimensions (CR80). This means the cards will fit in standard card holders and they are also suitable for Photo ID printing.

- Printable area on the surface for use with photo ID printers
- Compatible with all Progeny Crystal readers.
- 100 Million possible card IDs.
- H 54 x W 86 x D 0.82 (mm)
- 5 Year warranty

00053496
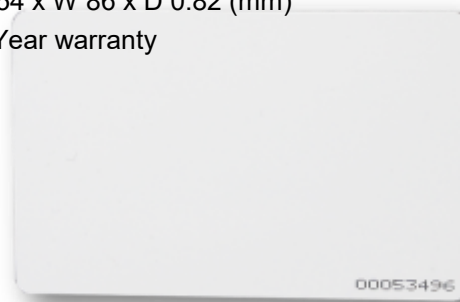
**3840 & 3804**

## Crystal Fob

For applications where it is more convenient to keep the RFID credential with other keys on a keyring.

- Easily attached to a key ring.
- Compatible with all Progeny Crystal readers.
- Available as 'Site-coded' or 'Non-site-coded UID'.
- 100 Million possible IDs.
- 5 Year warranty.

**3841 & 3805**

| 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 |

# HID SIGNO Readers

## HID Prox iCLASS and Seos

These readers are drop in replacements for legacy Prox and iCLASS readers. In addition they can read the new SEOS cards and are Mobile Credential ready.

All readers available with Pigtail or Terminal Block connection.

## Mobile Credential Ready

All these readers are also mobile credential ready. They can be configured to work with both mobile and physical credentials.

## Seos

These new high security credentials are also compatible with this reader range.

Seos is the next generation of credential technology that provides the ideal mix of security and flexibility for any organization. Powered by highly advanced encryption and a software-based infrastructure

Seos supersedes legacy and existing credential technologies by providing these key benefits:

- **Security:** Best-in-class cryptography, resulting in a more secure environment than other credential technologies.
- **Mobility:** Seos is software-based, which includes the use on mobile devices, smart cards, tags, and more.

## Mullion Reader

Available with Pigtail or Terminal Block connections

- H: 122 W: 45 D: 20 (mm)

**4721**

## Mullion Reader & Keypad

Available with Pigtail or Terminal Block connections. Dimensions:

- H: 122 W: 45 D: 20 (mm)

**4731**

## Switch Plate Reader & Keypad

Available with Pigtail or Terminal Block connections. Dimensions:

- H: 122 W: 80 D: 22 (mm)

**4741**

## Features & Benefits:

- Compatible Credentials:
  - HID Prox
  - iCLASS
  - SEOS
  - Mobile
- Surface mount
- Pigtail or Terminal Connection
- Ave Current 75mA
- Peak Current 250mA
- Temp Min –35 °C
- Temp Max +66 °C
- IP 65, IK 09

## Important Notice:

The legacy readers HID Prox and iCLASS are now replaced by the SIGNO range of readers.

SIGNO readers will work along side the existing Prox and iCLASS readers and are a direct service replacement .

For 2052 HID Prox see 4721

For 3231 HID see 4721

For 3237 iCLASS & Keypad see 4741

| Reader Product Codes | |
|---|---|
| 4721 | Mullion Mobile, Prox & iCLASS |
| 4731 | Mullion Mobile, Prox, iCLASS & Keypad |
| 4741 | Switch-Plate Mobile, Prox, iCLASS & Keypad |
| 4750 | Biometric with Mobile, Prox & iCLASS |

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# HID Credentials

## HID Prox Credentials

These 125 KHz proximity credentials work with legacy HID-Prox readers as well as the new Signo readers.

| Credential Product Codes | |
|---|---|
| 2042 | Prox Card |
| 2043 | Prox Fob |
| 2044 | Prox Clamshell |

## iCLASS Credentials

These are 13.56MHz iCLASS credentials that work with both the legacy iCLASS readers and the new Signo readers.

| Credential Product Codes | |
|---|---|
| 3232 | iCLASS Card |
| 3233 | iCLASS Fob |
| 3238 | iCLASS Clamshell |

## SEOS Credentials

Available as pure SEOS or as dual technology cards to include Prox or iCLASS. The SEOS element only works with the Signo Readers.

The combined SEOS and Prox / iCLASS cards provide a migration path for existing systems to upgrade gradually.

| Credential Product Codes | |
|---|---|
| 4703 | SEOS Fob |
| 4705 | SEOS Card |
| 4706 | SEOS & Prox Card |
| 4707 | SEOS & iCLASS Card |
| 4701 | Mobile Credential Subscription (MOQ 100) |

# Mobile Identification



4740

4730

4720

4706

4701

## Mobile Access

Now you can use your mobile phone to access your building. In addition to or replacing the traditional RFID credential.

A fast-rising trend in the access control is the use of mobile credentials, which have various advantages. The phone is almost always carried by the user. When the phone is lost, the user will immediately realize it and take action, as opposed to traditional cards and key-fobs.



Mobile credentials are easier to issue and revoke, making them easier to administrator. "They can at the comfort of their home or office easily issue the credential virtually over the air to the users anytime and anywhere. This helps save time and money not requiring employees coming to site or office.

### Features & Benefits:

- Issue and revoke credentials remotely
- Transfer credentials from one device to another
- No need to remember access cards or fobs
- Connects to P4 access control system
- Manage access from Doors Enterprise
- Also available with HID Prox or iCLASS

| Product Codes | |
|---|---|
| 4720 | Mullion Mobile & SEOS |
| 4730 | Mullion Mobile, SEOS & Keypad |
| 4740 | Switch-Plate Mobile, SEOS & Keypad |
| 4750 | Biometric with Mobile |
| 4706 | SEOS Card |
| 4703 | SEOS Fob |
| 4701 | Mobile Credential Subscription (MOQ 100) |

## Supported Devices

### Android

Android 4.3+ with Bluetooth 4.0

Android 4.4+ with NFC

- Google Nexus 5
- Samsung Galaxy Note 3, S4, S4 Plus, S5
- Sony Xperia Z2
- HTC One

### Apple

iOS7+ with Bluetooth 4.0

- iPhone: 4S, 5, 5C, 5S
- iPad: Air, Mini, 3rd & 4th gen
- iTouch



NFC

Bluetooth SMART

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# Dark Crystal MIFARE



**4231**

**4270**

**4825**

**Crystal MIFARE Reader**

## MIFARE Readers

The Dark Crystal Proximity reader is an RFID reader that takes advantage of a simple 4 wire interface to P4 Controllers.

The unique back light and multi-colour light indicators give excellent user feedback on the operation of the system including:

- Interlock
- Programming Mode
- Lock Status
- Alarms

## Dark Crystal MIFARE Readers

Progeny dark crystal readers are available for just about any situation including,

- IP 65 rated for internal or external use
- Switch plate for Surface or Backbox mounting
- Available as:
  - UID (CSN)
  - Sector Reading
  - DESFire (for use with DESFire credentials)

With a simple 4 wire interface, intuitive lighting and sound and durable construction, the Dark Crystal range is ideal for installers and end users alike. The Readers have a contemporary design with adjustable lighting so they can be as discreet or prominent as required.

Features such as light and sound control can be accessed Online via the software or Standalone via the P4 Controllers built-in keypad.

## Features & Benefits:

- UID, Sector and DESFire Options
- Durable construction
- IP 65, IK 09
- Simple 4 wire interface - easy to install
- H: 90 W: 90 D: 19 (mm)
- Designed and manufactured in the UK

| Product Codes | |
|---|---|
| 4231 | MIFARE UID (CSN) Reader |
| 4270 | MIFARE Sector Reader |
| 4825 | MIFARE DESFire Reader |

# Barcode & Magstripe

## Barcode Reader

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

The switch plate style has 60mm spaced mounting points to fit a standard single gang back box, making it simple to install and ideal for 2nd fix

The switch plate reader comes with an attractive stainless steel cover to give protection and a modern aesthetic. This reader can be surface mounted. Cards are presented below the reader.



**2030-SC**



**2030-ST**

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

## 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.

## Magstripe

The magnetic stripe often referred to as 'Magstripe', is read by swiping past a reading head. Magnetic stripe cards are commonly used in credit cards, identity cards and transport tickets. Track 1 & Track 2 are available.

Suitable for indoor or outdoor use, the readers 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.



**2075**

| Magstripe Readers | |
|---|---|
| 2075 | Magstripe reader (TRK2) |
| 2075-TRK1 | Magstripe reader (TRK1) |
| 2150 | Pack of 10 Cleaning Cards |

| Credentials | |
|---|---|
| 2014 | Mono Magstripe Card |
| 2015 | Colour Magstripe Card |

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# Telekey II Long Range RFID



4301

4300

## Introduction

The Progeny Telekey II is a long-range reader for use with button activated fobs.  The read range of 20 metres can be extended to 100 metres with the antenna provided.  It 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. Vehicle users do not need to get out of the cab in order to open a barrier.

Using the Telekey for secure access could not be simpler. The uniquely numbered Telekey fob can be managed in your P4 access control system just like any card credential. The Telekey II reader connects to the P4 access control system using the dark crystal 4 wire interface.

## How it works

Each key fob has a unique ID number, pressing one of the buttons ( 1 or 2) on the fob, it transmits this number.  When in range, this number is read by the reader and passed onto a standard access controller for decision making.

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

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

## Features & Benefits:

- No need to reach out in the rain to present credential for access
- Each fob has unique Credential ID that can be managed from the access control system
- 2 channels (2 buttons)
- Up to 100-metre range possible, when used with an aerial
- 433.92 MHz
- Standard Progeny P4 reader interface
- Surface Mount Reader
- Antenna included with 2M coax cable
- Designed and manufactured in the UK

The IP56 rated enclosure of the reader makes it suitable for indoor or outdoor mounting. This removes any need to dig up the 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.

| Long Range Reader | |
|---|---|
| 4300 | Telekey II Long Range Reader |
| **Credentials** | |
| 4301 | Telekey II Fob |

# Egress Device

## Touch Switch

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 enclosure makes it suitable for both internal or external use.

- No moving parts
- Automatically adjusts to the environment
- Mounts on a single-gang Pattress Box
- IP 65, IK 09
- 5 Year warranty.

**4811**

Choice of label

| Product Code | |
|---|---|
| **4811** | Dark Crystal Touch Switch |

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# C4 Compact Keypad-Reader-Controller

## Features:

- Controller, Proximity Reader & Touch to Exit in one
- 200 Proximity Cards
- Up to 8-digit Access Code
- Easy Code and Card management with Key-switch, Master-card or Menu Password
- Connection for separate Reader / Keypad
- Capacitive Touch Switch
- Credentials: ISO CR80 Card & Key fob
- 5 Year Warranty & Support
- Designed and manufactured in the UK
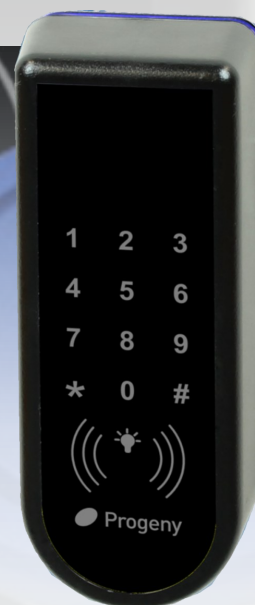
**4059**

## New and Improved

We have taken a fresh look at this popular product. The new Compact keypad has a Crystal Proximity reader built in and a connection for an external Crystal Reader and or Keypad.

This keypad has the access control electronics built in. To complete the system, a low voltage power supply and a locking device are all that is required.

## Simple Installation

Simply connect two wires to the 12V DC power supply, two wires to the locking device and you are good to go.

Adding an external crystal reader the new C4 compact controller allows for many system options including:

| Compact Controller | |
|---|---|
| 4059 | C4 Compact Keypad Controller |
| **Compatible Readers** | |
| 4800 | Switch Plate Crystal Reader |
| 4820 | Mullion External Crystal Reader |
| 4830 | Panel mount Crystal Reader |
| 4840 | Vandal Resistant Crystal Reader |
| 4124 | Keypad |
| 4124-RF | Keypad with Crystal Reader |
| 4121 | Vandal Resistant Keypad |
| **Compatible Credentials** | |
| 3804-10 | Crystal Cards 10 Pack |
| 3805-10 | Crystal Key Fobs 10 Pack |

- "Card In" / "Card Out"
- "Card In" with secure side controller
- "Card or Code" in
- "Card and Code" in

## Easy to Use

Simply teach new cards to the controller using one of the three discovery methods:

- Classic User Menu discovery function
- Key switch enabled discovery and code change
- Master proximity card enabled discovery

## 4059 C4 Compact Controller

This keypad is potted and weatherproof with a membrane keypad and key press audible feedback. This design features a call button for visitors and includes a tamper switch.

**PROXIMITY FUNCTIONS**

- Card users — 200
- Request to exit input: — N/O contact
- Door monitor input: — N/C contact
- Anti-Tailgate Feature
- Door Open Alarm — Int & Ext Reader

**CODE FUNCTIONS**

- Code length: — 2 to 8 digits
- Key switch Programming: — N/O contact input
- Penalty Timer: — 0 to 99 seconds
- Lock release timer: — 1 to 99 seconds / 0 = Toggle mode
- Electronic Lock Drive — 1.0 Amp DC

**Progeny** Access Control

# Interlock Systems

Trigger Device

## Applications

The product is suitable for numerous applications:

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

## High Security

Interlock systems control the locking of two or more doors, If one door is open or unlocked, all the other doors remain locked and will not open until the first door is closed and locked. Interlocks are sometimes referred to as 'Air Locks' or 'Tiger Traps',

## 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, keypads etc or simply be released using push buttons or touch switches.

## Scope

2, 3 and 4-way interlocks can be created as standard. Contact our support team for systems with more doors involved.

| 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 | |
| 4001 | P4 Controller with 5A PSU |
| 4002 | P4.net Controller with 5A PSU |

## Normal Action

With this type of interlock all the doors are normally locked and a 'Trigger' device of some kind is used to request the opening of a door.

While a door is unlocked or open, other doors are prevented from unlocking.

## Reverse Action

With reverse action interlocks, all the doors are normally unlocked and free to open. However, when one of the doors is detected as 'open', all the other doors will be locked. This type of interlock most commonly used for functional control rather than security. 'Reverse' and 'Normal' action interlocks can also be mixed on the same system.

## 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 allow one door open at any given time.

## Interlock Programmer

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.

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# Bluetooth Location

## Location

For a long time online access control systems have been used to deduce the location of persons in a building. By recording the use of their access control credentials at key points in the building, the time and location of persons can be deduced. However the data quickly becomes dated and the resolution is limited to the number of access control points used.

A common use for this data is for Roll Call in an emergency. However the roll call report can be in accurate with persons arriving and leaving just as the report is printed.

## Bluetooth 4.1 Beacon

Bluetooth Beacons with controlled transmission power can used to monitor occupancy on a live basis. Status rather than history is used to report the occupancy of a building.

The Bluetooth beacons can be added to existing RFID credentials being carried by staff, contractors, visitors etc.

## BluFi Cloud Gateway

The anonymous beacons data is relayed to a cloud location service for processing.

The Blufi Gateway reads the Bluetooth beacon ID and uses WIFI to access an offsite cloud based location service.

## Web Dashboard

The web dashboard show occupancy history.

- Remote management of beacons and BluFi™ Gateways
- Query telemetry data of endpoints Push configuration and firmware updates to endpoints
- Grouping and reporting functions
- Location and heat map info using standard geo-coordinates
- Interact via web console

## Doors Enterprise

Doors Enterprise collects the compiled data from the cloud services and merges the user data for use by the mobile application.
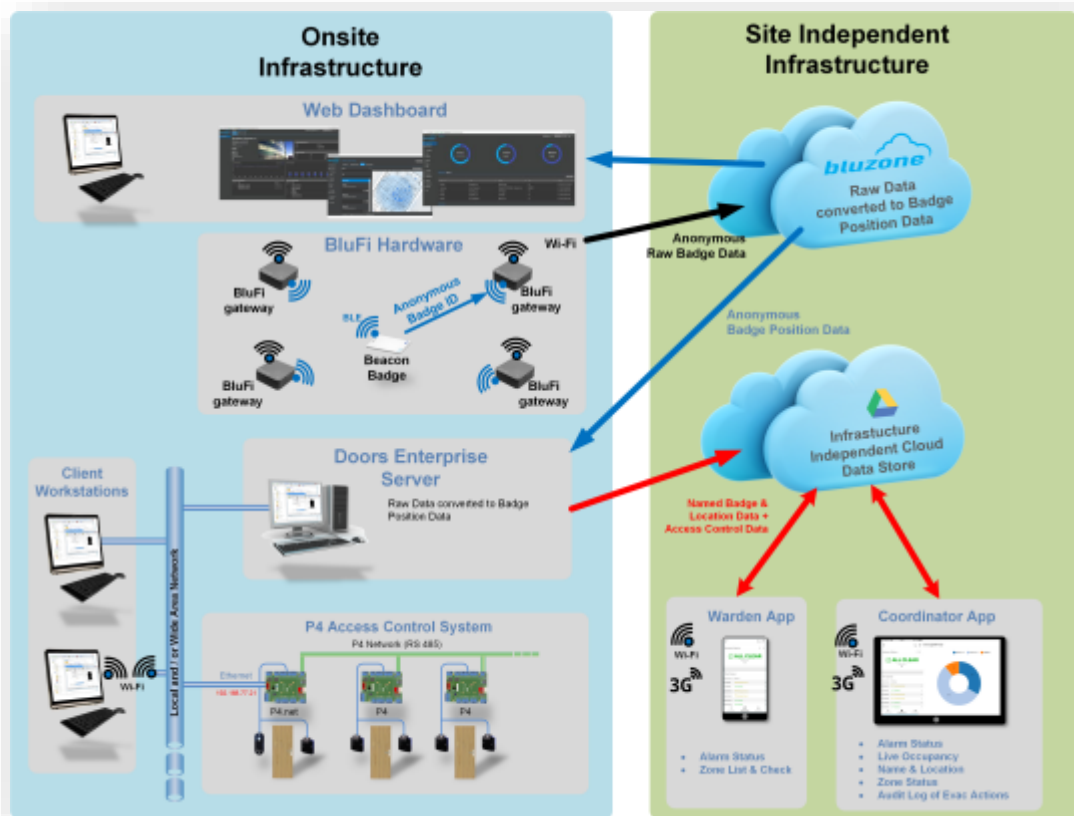
## Mobile App

The mobile apps share the cloud data. The data available varies according to the user login settings.

Wardens: can observe and update the checked status of fire zones. This is also shared with the Coordinators.

Coordinators: can see that fire zone clearance status and also the occupancy data for the building.

In the event that the someone is left behind in the building the coordinator can drill down on the user details and location. Missing person data can thus be handed to first responders.

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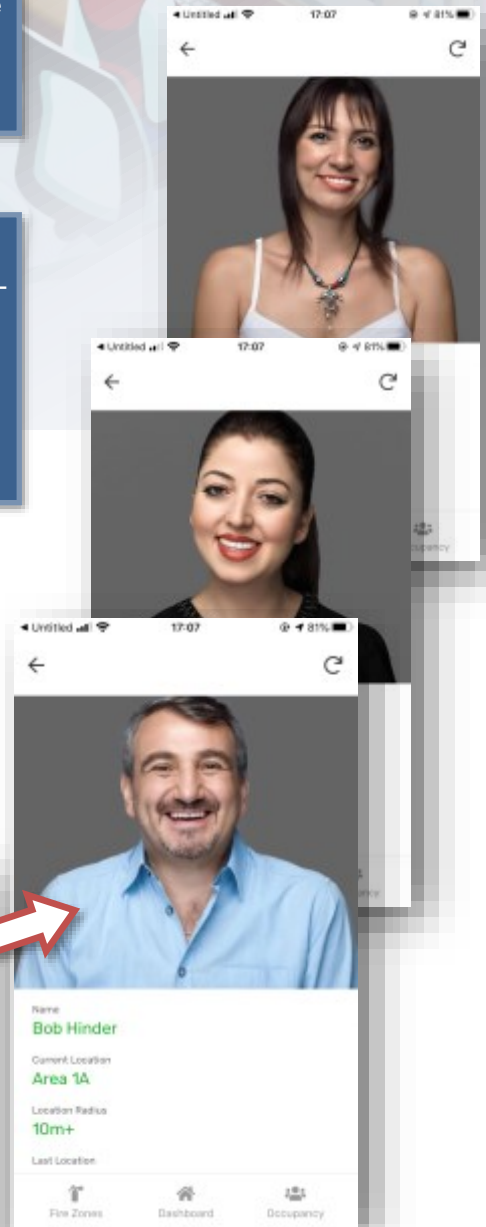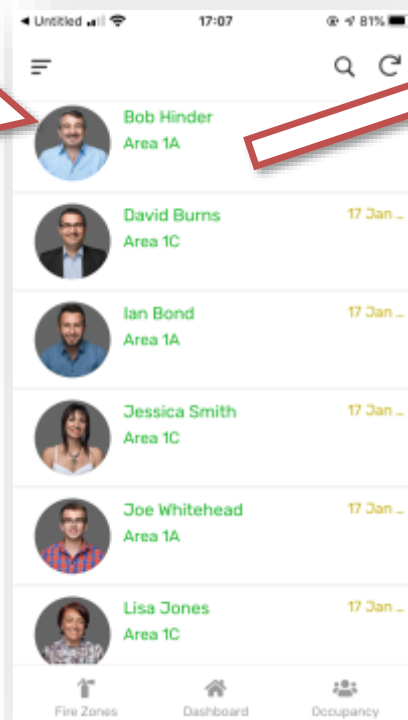
# Evacuation Management App
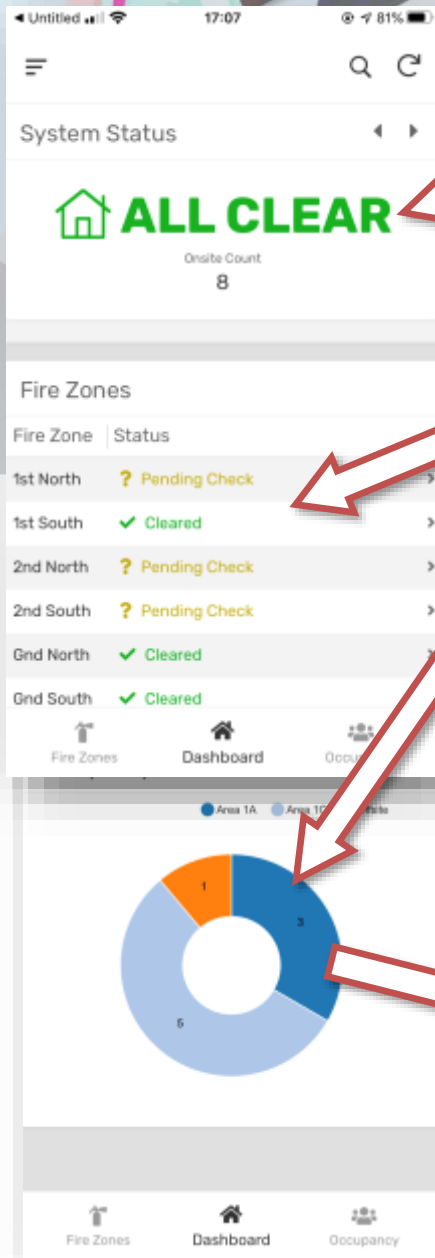
**System Status:**

Fire Alarm connected to Access Control System. Doors Enterprise updates alarm status to mobile apps

**Evacuation Confirmed by:**

Zone Clearance by Warden / Marshals

Attendance List

Automatic Muster Blufi Zone (Optional)

**Missing Person Data:**

- Photo
- Beacon Location
- Evacuation Status

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# Integration



Progeny Access Control Systems have a wealth of integration options at three levels:

- Software
- Hardware
- Credential

So you can integrate your access control into your existing management systems.

## Integrated Security & Building Management

RISCO SynopSYS software integrates with Doors Enterprise through the SQL server database and also integrates with Milestone OpenNVR system and enables:

- Graphic display of all of the buildings areas and doors



- Execution of remote actions such as opening doors
- Real-time monitoring of all access control events
- Customizable triggering of actions when specific events occur, such as camera pop-up when an unauthorised entry occurs

## Golf Club

Membership management system synchronises with Doors Enterprise using the ADI interface. This is used both for members with RFID fobs and also for Day members by changing the daily access code. The doors then have both RFID reader and Keypad to allow access for both full and day members.

## Leisure Park Booking System

This system makes use of the automated data import facility in Doors Enterprise. The online booking system allows for booking and payment of the Leisure facility and at the end of the payment process issues a generated access code (PIN) that will be used on the site. At the same time, a text file is saved with the



booking details including; the PIN and its valid from and valid to dates. This is then automatically picked up by Doors Enterprise which copies the details onto its own database and updates the controllers with required access data.

## Time & Attendance

Thinking Software 'Rota Horizon' software also links to Doors Enterprise via the SQL server database. Access control Readers points are identified as terminals and the 'Rota Horizon' software collects data recorded from the readers. The data is then processed using defined rules to produce reports and optionally link to payroll systems.



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# Training

## Office Based Training

Progeny Access Control provides training courses at Progeny House.   The courses are aimed at the installer of access control systems and give the installation engineer a thorough insight into the P4 & Crystal hardware, Doors Enterprise software and related products.

Our training courses run for a full day, commencing at 9.30am with the course drawing to a close around 4 pm.  Lunch and all refreshments are provided.

Our highly experienced technical team deliver the training courses. Not only will all delegates have both an enjoyable and rewarding day with us but will also gain valuable technical knowledge which will have a positive impact on your day-to-day jobs.

Courses are held once a month, if you would like to attend, please book online www.progeny.co.uk/training.

Or contact our customer support team;

**Tel:  01254 883348**, **Email: Suppor@Progeny.co.uk**



## On-Site Engineer Training

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

## Onsite Commissioning and End User Training

Progeny can provide commissioning on a per day basis. Also, if required (and time permitting), 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.

# Compliance

## 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 & 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

### Disability Discrimination Act

This directive builds on and extends earlier disability discrimination legislation, principally the Disability Discrimination Act 1995.

Progeny products have features to help meet these requirements including:

- P4 Controller - Two stage lock release for automatic door openers
- Controller delay to lock release
- P4 Controller auto relock feature
- P4 Controller with Dark Crystal Readers - Adjustable sound levels
- Keypad Reader - Adjustable sound levels

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

## IK Ratings

Mechanical Impact Protection. EN 50102 defines the IK coding system. In simple terms, the IK XX number indicates an energy of impact that can be withstood. For example, IK09 would be 10 J (5Kg swung from 20cm Height)

A guide (UTE C 3-103) has tables showing the IK rating required for according to the installation location.

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## Progeny 5 Year Warranty

The progeny 5 year warranty is now extended with product registration option to 5 Years from date of installation.

### Features

Any Progeny product that develops a fault within 5 Years of the date of manufacture will be repaired, replaced or reconditioned.

If the product is registered via our web portal, the full 5 years will start from the date of installation.

Any product not manufactured by Progeny will carry that manufacturers warranty. In some cases these are Lifetime

The warranty is "Return to Base". A Return Material Authorisation (RMA) can be easily obtained from Support@Progeny.co.uk.

For full details and conditions visit Progeny.co.uk

### Main Points:

- Extended Warranty from Progeny
- All products manufactured by Progeny
- 5 Years from date of manufacture
- Extend to date of installation by registering
- Register product using web portal
- Does not affect your statutory rights

## Find us online

For information on all our products and much more visit our website at:

### www.progeny.co.uk

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