

Control & Monitoring



Introduction

Today's businesses are becoming more and more reliant on their IT infrastructure to sustain a competitive edge. Businesses are therefore looking to maximise their capital investments in IT systems by striving to achieve 100% network availability.

"Human Error" remains the largest threat to network integrity. Something as simple as incorrect or unauthorised modification to cable patching can cause systems to fail resulting in lost time and lost revenues. The first line of defence is therefore the proactive control of who has access to the infrastructure and when!

Whilst building control systems have been developed to manage room access, historically cabinet level security has been managed with conventional barrel key locks. On larger sites this has required the adoption of complex and time-consuming systems to manage the authorisation of personnel and the issuing of keys. Even with these elaborate processes in place the risk from the loss of keys, not to mention the potential expense and trouble of changing locks, can make access control and expensive hidden cost.

In response to demand from our customers Cooper B-Line has developed i-PAL, an intelligent electronic proximity and control solution. Based on proven building control architecture i-PAL can deliver either simple configurable local access and control or, when integrated with i-BOX, a fully scalable local and remote access control and monitoring solution with access tracking and alarm function. In addition the adoption of i-BOX has the added benefit of fully configurable environmental monitoring solution with a range of SMART sensors complete with individually configurable threshold alarms.



i-PAL

Access Control

Integrated Proximity Access Locking Handle

i-PAL offers a simple modular solution to cabinet access control utilising leading edge proximity card technology. Fully compatible with the Access Cabinet range i-PAL can be supplied as either a factory or retrofit option.

As a stand alone solution i-PAL can be configured in a matter of minutes to provide configurable access control;

Step 1 Simply plug the i-PAL handle (IPALBL, IPALBK, IPALGY) into its multi regional universal power supply (IBIPPSU).

Step 2 Then using the system administrator program card you can programme in up to 500 users cards per handle. (IPALCARD contains one system administrator programme card together with three user and user delete cards - additional user cards are available IPALACARD).

Step 3 Add or delete user cards using the system administrator programme card as required.

i-PAL can also be designed into other bespoke applications and is compatible with a number of other cabinet products. i-PAL is designed for indoor applications although other handles offering the same functionality are available for outdoor application, please contact us for details.



Key Features

- ✓ Proactive Control
- ✓ Local Management
- ✓ Easy Configuration
- ✓ Scalable
- ✓ Retrofit-able
- ✓ Upgradeable



IBIPPSU

+



IPALBK

+



IBOXCARD

=

ACCESS CONTROL

Technical Details

Dimensions Handle assembly:	30mm Wide x 20mm Deep x 154mm High
Dimensions I-PAL module:	34mm Wide x 36mm Deep x 85mm High
Voltage:	12VDC
Power:	0.72W
Current:	60ma @ 12VDC
Communications Port:	RS232
Standalone operation:	500 Card Capacity <i>When Connected to i-BOX, see i-BOX details</i>

Component Part Codes

Order Code	Description
IPALBL	Single i-PAL Handle Blue
IPALBK	Single i-PAL Handle Black
IPALGY	Single i-PAL Handle Grey
IPALEXTL	i-PAL Handle 5 metre Extension Lead
IBIPPSU	i-BOX/i-PAL Universal Power Supply
IPALCARD	i-PAL Card set comprising of 1x program card, 3x user cards and 3x user delete cards
IPALACARD	i-PAL Additional card set comprising of 5x user cards and 5x user delete cards
	*Note lock ods/lock cam may require modification to operate correctly



IPALBL



IPALBK



IPALGY

Solution

Integration With i-BOX

By simply integrating i-PAL with i-BOX the i-PAL becomes a fully scaleable local and remote access control system with full system administrator override facility providing ultimate access control. Additional enhanced functions include;

- Integrated centralised user card management database allowing individual users cards to be added, deleted or modified in a matter of seconds. Any changes to the database trigger automatic updates to all the associated access points (handles) providing real time seamless security.
- An increased user capacity from 500 users per access points (stand alone i-PAL) to 4,000 users per access point.
- Real time transaction logging including event date/time stamp for each access point transaction or attempted transaction.
- The ability to generate detailed reports with the option to filter the data in a wide variety of ways including by an individual access points, group of access points, employee name, company / department, individual date or date range. The system also allows this data to be exported should the information need to be presented in an alternate format or need further analysis.
- The ability to define and associate up to 256 configurable user times zones. These time zones can then be associated to individual cards providing authorised access periods (i.e. 08:00 to 18:00 Monday to Friday access is granted).
- IP camera integration allowing individual access points to be associated with local cameras providing the opportunity to link video or photographic data to all logged transaction events.
- The option to link unauthorised/exceptional access transactions to SMS or e-mail alerts providing real time security alarms.

Importantly the loss of the network does not mean loss of security as the handle holds the card access data and simply uploads authorised transaction data to the i-BOX database when the network and i-BOX come back on line. Each i-BOX is configured to support the integration of up to two i-PAL handles.



i-PAL Enhanced Features

- ✓ Simple Key Replacement
- ✓ Support for 4,000 Users
- ✓ Transaction Logging
- ✓ Time Zone Configuration
- ✓ Plug and Play
- ✓ GUI Management Interface
- ✓ IP Camera Link
- ✓ Online for:-
Real Time Alarm Reporting;
SMS, Email, SNMP Traps

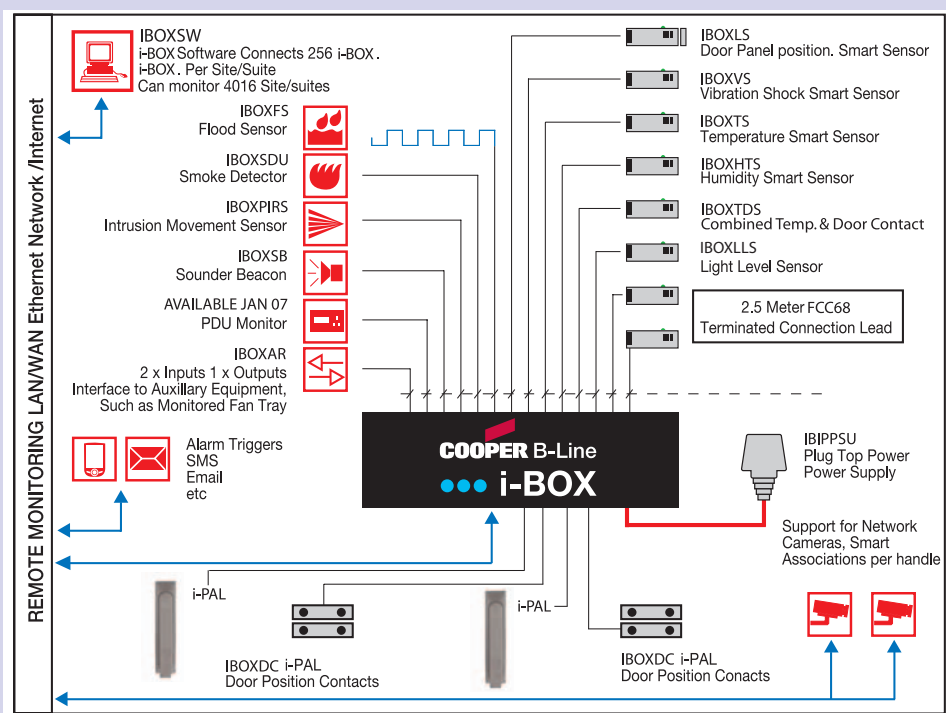
Environmental Monitoring

As well as offering the integration of an enterprise level Access Control and Security system i-BOX has the added benefit of providing a comprehensive Environmental monitoring solution, allowing for the convergence of Facilities / IT monitoring within a single network addressable unit. Built into i-BOX as standard are four environmental sensors, these being;

- Temperature.
- Humidity.
- Light.
- Consumed voltage.

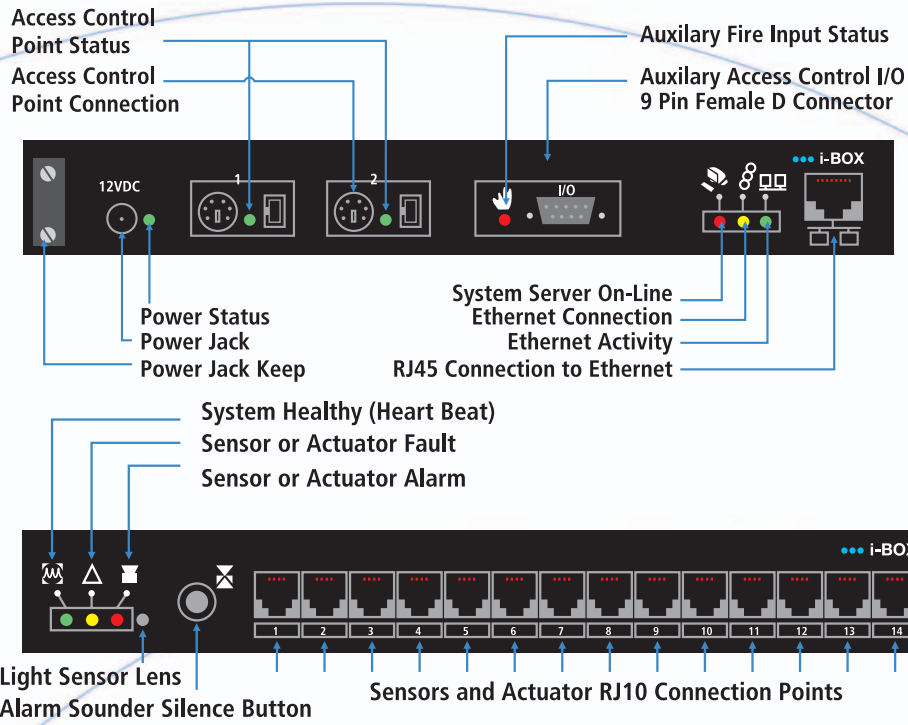
The further fourteen SMART ports on the front of the i-BOX allow a whole range of optional plug and play sensors to be connected, details of these sensors are shown on the preceding pages. In each case the individual sensor provides;

- Individual sensors can be linked up to 15m away from the i-BOX using the sensor extension cables (IBOXSEC).
- The ability to set individual sensor level threshold limits with pre alarm and full alarm functionality triggering alarm outputs via inbuilt SNMP (Small Network Management Protocol) agents including V2c.
- In most cases sensors have the function to provide Low , Pre, and High threshold alarms with the added function of being able to set Quick Change alarms identifying potential problems when they first occur.
- Threshold alarms can be set to be temporarily disabled in instances when the cabinet door or side panels are opened altering the microenvironment within the cabinet.
- The facility to link alarm functions with external "calls to action" including SMS and e-mail alerts, essential for lights out or unmanned facilities.
- Configurable sensor level identification enabling quick and easy identification of the item in alarm.
- Full plug and play functionality providing easy intuitive configuration.
- Built in network and sensor test wizards to ensure optimum system operation.



Other features of the system include;

- Support for up to 65,000 users per network system.
- The ability to manage up to 256 i-BOX units using one network PC providing the ability to control, monitor and manage up to;
- 512 x i-PAL access points.
- 1,024 x Integrated temperature, humidity, light and consumed voltage sensors.
- 3,584 x Additional fully configurable sensors.
- Native Ethernet TCP/IP, UDP 10Mb communications.
- Local and Wide Area Network (LAN / WAN) support.
- CCTV integration connecting up to two cameras to one i-BOX.
- Simple integration to either cabinet level or room level fire alarm systems.
- ActiveX Software Development Kit (SDK) for full integration to third party applications.
- Card management and configuration facility with the ability to generate user cards including photo ID.
- Multi language support.



i-BOX Part Code And Technical Specification

Order Code	Description
IBOX	<p>The i-BOX unit is an ethernet controller that plugs directly into the IP network.</p> <ul style="list-style-type: none"> The unit is powered by a single IBIPPSU. The IBOX has a single temperature, humidity, light level and incoming voltage sensor built into the unit. <ul style="list-style-type: none"> Voltage Sensor: Incoming voltage sensor, sampling 10Bit Humidity 0-100%, 0.5% Resolution, 3% Accuracy, Temperature Range -25°C to 123.8°C, Accuracy .04°C @ 25°C to 40°C Aspirating Fan: 5.2 cfm Light Level Sensor: 0 to 200 Lux <p>Controller and sensor connections</p> <ul style="list-style-type: none"> 2 x IPAL Cabinet Handle, or Standard Access Control Doors via 6 way Mini Din Plug 2 x IBOXDC, Door Position Sensor, MiniDin through connector An additional 14 external devices and sensors can be plugged into the i-BOX via 4 way FCC68 connectors 1 x 9 way D Type for addition set firmware I/O, default fire interface plus 9 x Status LED's <p>Unit Size And Operating Environment</p> <ul style="list-style-type: none"> Dimensions 212mm wide x 95mm deep x 29mm high Universal Fixing Bracket 25 x 25mm Voltage: 12VDC (48VDC option) Current: 210ma @ 12VDC Steel Enclosure: Finish Powder Coated Grey TEX36 Operating Environment -25°C to 85°C Power: 2.52 Watts <p>Communication Protocols</p> <ul style="list-style-type: none"> Communications Port: RJ45 Ethernet Card Holder: 4,000 capacity local storage expandable to 32,000 Standard Memory: 5,000 transaction local storage expandable to 32,000 Protocol: TCP/IP, UDP and ARP Supporting: LAN/WAN & VPN

i-BOX USER CARDS

Order Code	Description	
IBOXCARD	<p>i-BOX User Cards</p> <ul style="list-style-type: none"> Pack of 10 Programmable User Cards 	
IBOXFOB	<p>i-BOX User Fobs</p> <ul style="list-style-type: none"> Pack of 10 Programmable User Fobs 	
IBOXAPL	<p>i-BOX User Self Adhesive Labels</p> <ul style="list-style-type: none"> Pack of 10 Programmable Self Adhesive Labels 	



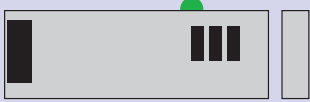



i-BOX

Sensor Options

Optional i-BOX Sensors

Order Code	Description	
IBOXTS	<p>SMART Temperature Sensor</p> <ul style="list-style-type: none"> With 2.5 metre terminated lead with 4 way FCC68 jack. Set high low temperature freshhold alarm and ambient temp on demand. Associate Door Contact for door left open alarm etc Door Contact Read range 15mm from side 10mm from Front 1 x Status LED Temperature: -10 to 75c Accuracy 4% Dimensions: 20mm high x 60mm long x 20mm wide Powered by i-BOX Power: 15ma 	
IBOXDC	<p>Door Position Contacts</p> <ul style="list-style-type: none"> With 2.5 metre terminated lead with mini din through jack. For associated IBOX only. Read range 15mm from side 10mm from Front 1 x Status LED Dimensions: 20mm high x 60mm long x 20mm wide Powered by i-BOX Power: 8ma 	
IBOXLCS	<p>SMART Location Contacts</p> <ul style="list-style-type: none"> With 2.5 metre terminated lead with 4 way FCC68 jack. For Side Panel open/closed, and equipment location monitoring. Read range 15mm from side 10mm from Front 1 x Status LED Dimensions: 20mm high x 60mm long x 20mm wide Powered by i-BOX Power: 12ma 	
IBOXTDS	<p>Combined Temperature And Contact Sensor</p> <ul style="list-style-type: none"> With 2.5 metre terminated lead with 4 way FCC68 jack. Set high low temperature freshhold alarm and ambient temp on demand 1 x Status LED Temperature: -10°C to 75°C Accuracy 4% Dimensions: 20mm high x 60mm long x 20mm wide Powered by i-BOX Power: 12ma 	
IBOXHTS	<p>SMART Temperature And Humidity Sensor</p> <ul style="list-style-type: none"> With 2.5 metre terminated lead with 4 way FCC68 jack. Set high low temperature freshhold alarm and ambient temp on demand 1 x Status LED Humidity 0-100%, 0.5% Resolution, 3% Accuracy Temperature: -25°C to 123.8°C Resolution 0.04°C @ 25 to 40°C Powered from i-BOX Power: 16ma 	
IBOXLS	<p>Smart Light Level Sensor</p> <ul style="list-style-type: none"> With 2.5 metre terminated lead with 4 way FCC68 jack. Designed for darkened environments, high level light and colour responsive sensors available on request. 1 x Status LED Light Level Response: 0 To 200 Lux Dimensions: 20mm high x 60mm long x 20mm wide Powered from i-BOX Power: 15ma 	

Optional i-BOX Sensors (continued...)

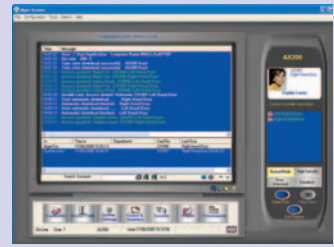
Order Code	Description	
IBOXVS	<p>Smart Intrusion Vibration Vandalism Sensor</p> <ul style="list-style-type: none"> With 2.5 metre terminated lead with 4 way FCC68 jack. 1 x Status LED Vibration freshold from 0-100 SPM Dimensions: 20mm high x 60mm long x 20mm wide Powered from i-BOX Power: 12ma 	
IBOXAR	<p>Auxiliary Relay and 2 x Digital Inputs</p> <ul style="list-style-type: none"> With 2.5 metre terminated lead with 4 way FCC68 jack. 1 x Status LED Face Plate single gang electrical box size: 85mm square 13mm deep Back Box: 110mm high x 86mm wide x 28mm deep Relay rated: 48VDC @ 5amp Digital Inputs: Normally open or closed voltage free contacts Powered by i-BOX Power: 28ma quiescent 52ma alarm 	
IBOXFS	<p>SMART Flood Sensor</p> <ul style="list-style-type: none"> With 2.5 metre terminated lead with 4 way. FCC68 jack, 5 Meters Flood cable, supplied with 15 Fixing clips. 2 x quick blow fuses for electrical safety Flood scale 40-170 using sensitive wicking cable 1 x Status LED Face Plate single gang electrical box size: 85mm square 13mm deep Back Box: 110mm high x 86mm wide x 28mm deep Voltage: 12v Power: 50ma 	
IBOXPIRS	<p>Intrusion 360 Passive Infra Red Movement Sensor</p> <ul style="list-style-type: none"> With 2.5 metre terminated lead with 4 way FCC68 jack 1 x Status LED, Multizone PIR Area covered 7M x 6M @ a mounting height of 2.5M Dimensions: 26mm high x 60mm long x 20mm Wide Powered by i-BOX Power: 15ma 	
IBOXSB	<p>Sounder Beacon Unit</p> <ul style="list-style-type: none"> With 2.5 metre terminated lead with 4 way FCC68 jack. 4 x Red Flashing High Intensity Minature bulbs flash at frequency of approximately 3Hz Sound Output: 100dB @ 1M Alarm Frequency 3.5-4.5KHz Dimensions: 45mm deep x 122mm long x 73mm wide Voltage: Powered By i-Box Power: 200ma 	
IBOXSDU	<p>i-Box Smoke Detector Unit</p> <ul style="list-style-type: none"> With 2.5 metre terminated lead with 4 way FCC68 jack. Combined optical smoke detector with rate of rise and fixed temperature heat 1 x Status LED Temperature: -10°C to 75°C Accuracy 4% Smoke response to EN54 Part 7 Heat Response 60°C Dimensions: 105mm diameter x 60mm deep Powered by i-BOX Power: 15ma quiescent 30ma in alarm 	
IBOXSEC	<p>2.5m Sensor Extension Cable Terminated Lead</p> <ul style="list-style-type: none"> With 4 way FCC68 with jack and socket 	
IBOXSBK	<p>Sensor Mounting Bracket</p> <ul style="list-style-type: none"> Single bracket supplied complete with fixings 	

Sensors (continued...)

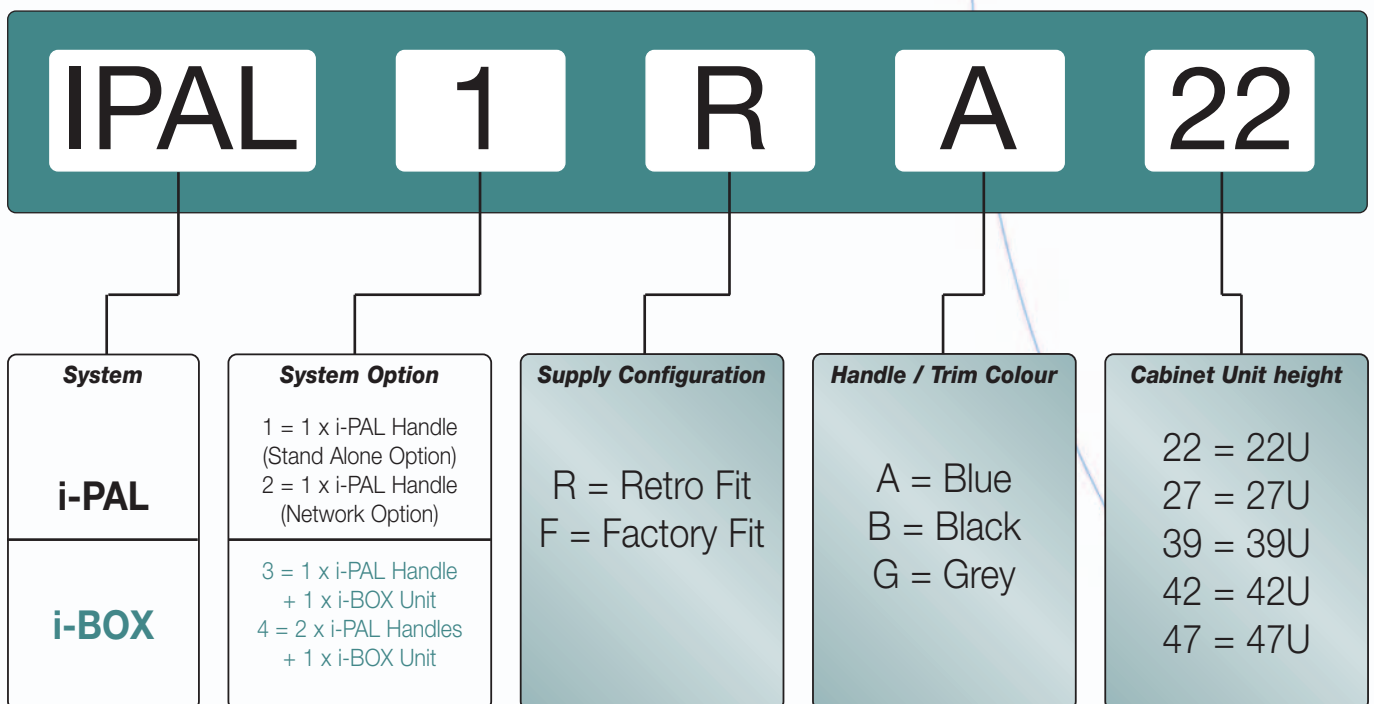
Order Code	Description
IBOXMFL	<p>Monitored Fan Tray Lead</p> <ul style="list-style-type: none"> 2,5 metre terminated lead with 4 way FCC68 jack, connection with 2 x Molybdenum 3 pin connectors on flying lead for connection to fan tray. 1 x Status LED Dimensions: 20mm high x 60mm long x 20mm wide Digital Inputs: Normally open or closed dry contacts Powered by i-BOX Power: 12ma

i-BOX User Interface

Order Code	Description
IBOXSW	<p>i-BOX Software</p> <ul style="list-style-type: none"> Manages 65,000 card holder and access level group with 256 time zones per system Built in alarm reporting, Photo ID, Who's in/out, Configuration/User wizards for true Plug and Play operation CCTV Network Camera Support per Door Software using SQL Standard Query Language Protocol: TCP/IP, UDP and ARP Alarm Handling: SMS, Email & SNMP Traps version 2.1c SDK option for Integration to 3rd Party Applications, with support for up to 4016 systems Minimum PC specification, Pentium Processor, 64Mb RAM, 64Mb Video Memory for 800 x 600 resolution, 200Mb of free harddisk space 100 BaseT ethernet connection, Mouse, Keyboard Designed for Microsoft® Windows XP™



Access Cabinet i-PAL & i-BOX Options



Access Cabinet - i-PAL Programmable Electronic Locking System

Each kit comprises of the following supplied boxed and labelled;

- 1 x Colour Specific i-PAL Handle.
- 1 x Bottom Locking Rod (Unit Height Specific).
- 1 x Electronic Lock Rod Extension.
- 1 x Rod Coupling.
- 1 x Cable Duct (Universal Width - Trim To Size).
- 1 x Universal Power Supply.
- 10 x Self Adhesive cable clips.
- 1 x Programme Card
- 2 x User Cards
- 2 x User Delete Cards
- 1 x Set of fitting instructions.
- 1 x Glazed Door Top Trim Strip - Colour Specific (Trim To Size If Required).

Customer Retro Fit Kit.

Order Code	Description
IPAL 1 R A 22	Blue
IPAL 1 R A 27	Blue
IPAL 1 R A 32	Blue
IPAL 1 R A 39	Blue
IPAL 1 R A 42	Blue
IPAL 1 R A 47	Blue
IPAL 1 R B 22	Black
IPAL 1 R B 27	Black
IPAL 1 R B 32	Black
IPAL 1 R B 39	Black
IPAL 1 R B 42	Black
IPAL 1 R B 47	Black
IPAL 1 R G 22	Grey
IPAL 1 R G 27	Grey
IPAL 1 R G 32	Grey
IPAL 1 R G 39	Grey
IPAL 1 R G 42	Grey
IPAL 1 R G 47	Grey

Factory Fitted

Order Code	Description
IPAL 1 F A 22	Blue
IPAL 1 F A 27	Blue
IPAL 1 F A 32	Blue
IPAL 1 F A 39	Blue
IPAL 1 F A 42	Blue
IPAL 1 F A 47	Blue
IPAL 1 F B 22	Black
IPAL 1 F B 27	Black
IPAL 1 F B 32	Black
IPAL 1 F B 39	Black
IPAL 1 F B 42	Black
IPAL 1 F B 47	Black
IPAL 1 F G 22	Grey
IPAL 1 F G 27	Grey
IPAL 1 F G 32	Grey
IPAL 1 F G 39	Grey
IPAL 1 F G 42	Grey
IPAL 1 F G 47	Grey

Access Cabinet - i-PAL Programmable Electronic Locking System

Each kit comprises of the following supplied boxed and labelled;

- 1 x Colour Specific i-PAL Handle.
 - 1 x Bottom Locking Rod (Unit Height Specific).
 - 1 x Electronic Lock Rod Extension.
 - 1 x Rod Coupling.
 - 10 x Self Adhesive cable clips.
 - 1 x Glazed Door Top Trim Strip - Colour Specific (Trim To Size If Required).
 - No Power Supply Unit
 - 1 x Cable Duct (Universal Width - Trim To Size).
- This option would be used where the handle will be plugged into an existing i-BOX installation

Order Code	Description
IPAL 2 R A 22	Blue
IPAL 2 R A 27	Blue
IPAL 2 R A 32	Blue
IPAL 2 R A 39	Blue
IPAL 2 R A 42	Blue
IPAL 2 R A 47	Blue
IPAL 2 R B 22	Black
IPAL 2 R B 27	Black
IPAL 2 R B 32	Black
IPAL 2 R B 39	Black
IPAL 2 R B 42	Black
IPAL 2 R B 47	Black
IPAL 2 R G 22	Grey
IPAL 2 R G 27	Grey
IPAL 2 R G 32	Grey
IPAL 2 R G 39	Grey
IPAL 2 R G 42	Grey
IPAL 2 R G 47	Grey

Order Code	Description
IPAL 2 F A 22	Blue
IPAL 2 F A 27	Blue
IPAL 2 F A 32	Blue
IPAL 2 F A 39	Blue
IPAL 2 F A 42	Blue
IPAL 2 F A 47	Blue
IPAL 2 F B 22	Black
IPAL 2 F B 27	Black
IPAL 2 F B 32	Black
IPAL 2 F B 39	Black
IPAL 2 F B 42	Black
IPAL 2 F B 47	Black
IPAL 2 F G 22	Grey
IPAL 2 F G 27	Grey
IPAL 2 F G 32	Grey
IPAL 2 F G 39	Grey
IPAL 2 F G 42	Grey
IPAL 2 F G 47	Grey

Access Cabinet - i-BOX Control & Monitoring System

Each kit comprises of the following supplied boxed and labelled;

- 2 x Colour Specific i-BOX Handles.
- 2 x Bottom Locking Rods (Unit Height Specific).
- 2 x Electronic Lock Rod Extensions.
- 2 x Rod Couplings.
- 2 x Cable Ducts (Universal Width - Trim To Size).
- 1 x Universal Power Supply.
- 20 x Self Adhesive cable clips.
- 10 x User Cards
- 1 x i-BOX Unit.
- 1 x AX Series User Interface Software
- 1 x Set of instructions.
- 2 x Glazed Door Top Trim Strip - Colour Specific (Trim To Size If Required).

Customer Retro Fit Kit.

Order Code	Description
IPAL 4 R A 22	Blue
IPAL 4 R A 27	Blue
IPAL 4 R A 32	Blue
IPAL 4 R A 39	Blue
IPAL 4 R A 42	Blue
IPAL 4 R A 47	Blue
IPAL 4 R B 22	Black
IPAL 4 R B 27	Black
IPAL 4 R B 32	Black
IPAL 4 R B 39	Black
IPAL 4 R B 42	Black
IPAL 4 R B 47	Black
IPAL 4 R G 22	Grey
IPAL 4 R G 27	Grey
IPAL 4 R G 32	Grey
IPAL 4 R G 39	Grey
IPAL 4 R G 42	Grey
IPAL 4 R G 47	Grey

Factory Fitted Upgrade

Order Code	Description
IPAL 4 F A 22	Blue
IPAL 4 F A 27	Blue
IPAL 4 F A 32	Blue
IPAL 4 F A 39	Blue
IPAL 4 F A 42	Blue
IPAL 4 F A 47	Blue
IPAL 4 F B 22	Black
IPAL 4 F B 27	Black
IPAL 4 F B 32	Black
IPAL 4 F B 39	Black
IPAL 4 F B 42	Black
IPAL 4 F B 47	Black
IPAL 4 F G 22	Grey
IPAL 4 F G 27	Grey
IPAL 4 F G 32	Grey
IPAL 4 F G 39	Grey
IPAL 4 F G 42	Grey
IPAL 4 F G 47	Grey

Access Cabinet - i-BOX Control & Monitoring System

Each kit comprises of the following supplied boxed and labelled;

- 1 x Colour Specific i-BOX Handle.
- 1 x Bottom Locking Rod (Unit Height Specific).
- 1 x Electronic Lock Rod Extension.
- 1 x Rod Coupling.
- 1 x Cable Duct (Universal Width - Trim To Size).
- 1 x Universal Power Supply.
- 10 x Self Adhesive cable clips.
- 5 x User Cards
- 1 x i-BOX Unit.
- 1 x AX Series User Interface Software
- 1 x Set of instructions.
- 1 x Glazed Door Top Trim Strip - Colour Specific (Trim To Size If Required).

Order Code	Description
IPAL 3 R A 22	Blue
IPAL 3 R A 27	Blue
IPAL 3 R A 32	Blue
IPAL 3 R A 39	Blue
IPAL 3 R A 42	Blue
IPAL 3 R A 47	Blue
IPAL 3 R B 22	Black
IPAL 3 R B 27	Black
IPAL 3 R B 32	Black
IPAL 3 R B 39	Black
IPAL 3 R B 42	Black
IPAL 3 R B 47	Black
IPAL 3 R G 22	Grey
IPAL 3 R G 27	Grey
IPAL 3 R G 32	Grey
IPAL 3 R G 39	Grey
IPAL 3 R G 42	Grey
IPAL 3 R G 47	Grey

Order Code	Description
IPAL 3 F A 22	Blue
IPAL 3 F A 27	Blue
IPAL 3 F A 32	Blue
IPAL 3 F A 39	Blue
IPAL 3 F A 42	Blue
IPAL 3 F A 47	Blue
IPAL 3 F B 22	Black
IPAL 3 F B 27	Black
IPAL 3 F B 32	Black
IPAL 3 F B 39	Black
IPAL 3 F B 42	Black
IPAL 3 F B 47	Black
IPAL 3 F G 22	Grey
IPAL 3 F G 27	Grey
IPAL 3 F G 32	Grey
IPAL 3 F G 39	Grey
IPAL 3 F G 42	Grey
IPAL 3 F G 47	Grey



i-BOX

Shelving

i-BOX Shelving

Order Code

Description

IBOXSHLF

i-BOX 19-Inch Front Mounted Sliding Shelf

- 1U high x 315mm deep sliding cantilever shelf finished in Black RAL 9005. Designed to house a single i-BOX the shelf has integrated cable management to ensure connections remain stress free during operation and maintenance.
- The shelf assembly is rated at 15kg load capacity.

