

KEYSCAN  
AURORA



# Product Guide





Welcome to

# Keyscan Access Control Systems!



Keyscan is dedicated in its commitment to provide our customers with the best access control systems available in today's demanding marketplace. Over twenty-five years of leading-edge innovations and over fifty thousand active systems operating worldwide are a testament to our staying power in the security industry.

Continuous innovation is entrenched in every aspect of what we do at Keyscan. Our engineers constantly strive for excellence developing new and feature-rich products that offer you best-in-class, enterprise quality, access control solutions.

Keyscan's hybrid approach to network appliance-based access control architecture provides unmatched flexibility when handling new installations or legacy system takeovers. Keyscan gives cost effective ways to replace existing access control infrastructure while, in many cases, utilizing existing cabling, readers and credentials allowing you to easily revitalize aged or failing access control systems. For new installations that demand an IP "at-the-edge" solution, our line of network appliance-based access control units, as well as our single-door PoE equipped controller, conveniently address these requirements without the need for extensive cabling runs and increased installation time. It is this "hybrid" approach that brings Keyscan to the forefront and further distinguishes us with our uncompromising approach to the access control marketplace.

Keyscan's single-software solution has gained industry-wide recognition and admiration. It provides maximum access control management efficiency regardless of system size, integration and complexity. From a single-door entry level application all the way to a multi-national, multi-site, enterprise with system integrations and thousands of doors to be secured, Keyscan's access control management software is optimized to outperform expectations. Installing technicians and sales professionals can become highly proficient on a system platform suitable for all installations. Our dealers can be extremely competitive and maximize their opportunities and service options for their customers.

Thank you for considering what Keyscan has to offer. Whether you are a security dealer, integrator or end-user customer this guide will give you a full outline of Keyscan's product line benefits and supply you with information critical for your access control selection process.

Our team of skilled sales staff look forward to supporting your access control needs and ensure you get *everything that access control should be – Keyscan!*

Sincerely,

A handwritten signature in black ink, appearing to read "John F. Dyall".

John F. Dyall  
President

## Keyscan Aurora Access Control Management Software

### *Powering the future of access control*

For Keyscan, Aurora is the dawn of a new age for access control. It is the culmination of over 25 years dedicated to access control. This unwavering dedication and effort thrusts Aurora well past the supremacy established by its industry-renowned predecessors. Aurora is defined by the distant horizon and it is with this vision and focus on innovation that Keyscan proudly presents, Aurora.

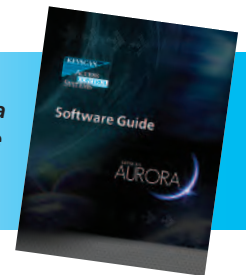
Aurora unleashes the expanded processing power and capabilities of Keyscan's new line of access control units already available. With a completely redesigned interface, Aurora delivers a new experience that entrenches Keyscan's commitment to innovation and forward-thinking.

Aurora delivers impressive capabilities and features such as:

- Support for 45,000 credentials (with expansion to 90,000\*)
- Ten (10) assigned groups to a single credential holder
- Multiple credentials assignable to a single person
- Unlimited optional user-definable fields
- Impressive panel-to-panel global communication
- New multi-threaded communication structure
- Optional licensed and Add-on modules for enhanced functionality



**For a full outline of Keyscan Aurora features and benefits, refer to the Keyscan Aurora Software Guide.**



Keyscan Aurora access control management software is a solution that comfortably supports small and mid-size access control installations while also exceeding the demands of truly large access control deployments.

\*Hardware option available upon special order

# Door Access Control Units

Keyscan’s innovative hybrid approach to network appliance-based access control architecture gives you unmatched flexibility for new installations or revitalizing aged or failing access control systems. Our full line of access control units allow you to easily replace existing access control infrastructure while, in many cases, utilizing existing cabling, readers and even credentials.

**Keyscan’s door access control unit capabilities:**

- Network TCP/IP ready (with NETCOM2P/6P)
- Easily configurable reader settings supporting many Wiegand protocols
- Up to 6000 transactions retained in file buffer
- Auto-transfer protocol uploads file buffer when communication is re-established after an interruption
- Expanded flash memory allows for 45,000 credentials (expandable to 90,000 with special order hardware)
- Robust lock down and global communication among multiple ACUs, server and sites (requires CIMs and CIM Link)
- Removable terminal blocks
- Accommodates 512 time schedules and 511 group levels
- Multiple inputs and outputs for expansion capability
- Supports assigning a single credential holder to 10 different access groups
- Dual processors

## CA8500

### 8 Reader Access Control Unit



**Includes:**

- CA8500b ACU board
- 2- OCB8 relay boards
- 1- DPS-15 power supply
- 1- black metal enclosure with lock and tamper switch

## CA4500

### 4 Reader Access Control Unit



**Includes:**

- CA4500b ACU board
- 1- OCB8 relay board
- 1- DPS-15 power supply
- 1- black metal enclosure with lock and tamper switch

## CA250

### 2 Reader Access Control Unit



**Includes:**

- CA250b ACU board
- 1- OCB8 relay board
- 1- DPS-15 power supply
- 1- black metal enclosure with lock and tamper switch

## CA150 – Single Door PoE Equipped Controller

When it comes to performance, capacities and overall capability, the CA150 is comparable with our full line of access control units.

- Innovative IP “At-The-Edge” solution
- Network appliance-based connectivity with built-in PoE ready TCP/IP module
- PoE mode powers reader, strike, and other auxiliary devices
- DHCP supported
- Dual Processors
- Flash Memory
- Two reader ports
- Optimized to perform with Keyscan access control management software



The CA150 easily accommodates securing isolated but critical single door applications.

*For full details and product specifications refer to the CA150 brochure.*



# Elevator Floor Access Control Units

Keyscan's EC series elevator floor controllers are designed to secure office or residential floors by prompting credential holders to present their assigned credential when using an elevator. The EC1500 and EC2500 elevator floor control units leverage the same hybrid network appliance-based architecture as the CA series door controller counterparts.

## Keyscan elevator floor control unit features:

- Restrict floor access selection for credential holders/groups
- Integrates with telephone entry systems
- Expand floor control with optional off-board relays
- Network TCP/IP ready (with NETCOM2P/6P)
- Easily configurable reader settings supporting many Wiegand protocols
- Up to 6000 transactions retained in file buffer
- Auto-transfer protocol uploads file buffer when communication is re-established after an interruption
- Dual processors
- Robust lock down and global communication among multiple ACUs, server and sites (requires CIMs and CIM Link)
- Removable terminal blocks
- Accommodates 512 time schedules and 511 group levels
- Expanded flash memory allows for 45,000 credentials (expandable to 90,000 with special order hardware)



## EC2500

### 2 Cab Elevator Floor Access Control Unit

Supports 2 Cabs with 2 readers and up to 16 floors

(Out of the box 8-floor control, expandable with optional OCB8 relay boards)

#### Includes:

- EC2500b ACU board
- 2 - OCB8 relay boards
- 1 - DPS-15 power supply
- 1 - black metal enclosure with lock and tamper switch



## EC1500

### 1 Cab Elevator Floor Access Control Unit

Supports 1 Cab with 1 reader and up to 40 floors

(Out of the box 8-floor control, expandable with optional OCB8 relay boards)

#### Includes:

- EC1500b ACU board
- 1 - OCB8 relay board
- 1 - DPS-15 power supply
- 1 - black metal enclosure with lock and tamper switch



*Keyscan's door and elevator floor access control units can all be mixed and matched to suit any installation requirement.*

# High Frequency Readers

13.56 MHz

## K-SMART – Contactless Smartcard Reader

Keyscan’s contactless smartcard reader offers users the convenience of a contactless credential with the enhanced security that only a smartcard reader and credential combination can offer.

- Avoid duplication when used with Keyscan 36 bit credential format
- Built-in support for smartcard security and encryption
- A built-in “heartbeat” monitors reader communication advising end-users if any type of tamper or malfunction is detected
- Designed to function with Keyscan K-SECURE or ISO 14443 type credentials
- Also available: K-SMART-GOV, US government FIPS201 transparent reader



## Keyscan iCLASS SE Readers (New Installations)

Keyscan iCLASS SE is a new access control platform for new installations. Keyscan iCLASS SE goes beyond the traditional smartcard model to offer a secure identity data structure based on Secure Identity Object™ (SIO), a new portable credential methodology.

- Keyscan Elite Key extends private security by protecting uniquely keyed credentials
- Multi-layered security ensures data authenticity and privacy
- Stellar performance with SIO media mapping, field programmable and status LEDs
- Will function only with iCLASS SE credentials

Keyscan iCLASS SE platform is based on the Trusted Identity Platform (TIP) for advanced applications, mobility and heightened security. It enables a new class of portable identity credentials that can be securely provisioned and safely embedded into both fixed and mobile devices, providing advanced security and performance.

## Keyscan iCLASS SE Legacy Readers (supports original installations)

### Featuring iCLASS backwards compatibility

Keyscan iCLASS readers and credentials make access control more versatile and provide security through encryption and mutual authentication between the card and reader. Keyscan’s iCLASS SE legacy readers are user-friendly and deliver the convenience and reliability of proximity technology.

- Designed to be 'backwards compatible' to work in conjunction with environments using previously installed iCLASS security technology
- Provide the same wiring connections, low-current consumption and operation as proximity readers



If you purchased Keyscan iCLASS readers and credentials between June 2005 and November 2013 this legacy product will function with those existing Keyscan Elite Key iCLASS readers and credentials.

**The Keyscan iCLASS “SE Legacy” readers and credentials are backwards compatible with previously installed Keyscan iCLASS “SR” readers and credentials.**

# High Frequency Credentials

13.56 MHz



Available in 1K and 4K formats

## K-SECURE - 13.56 MHz Smartcard Credentials

Keyscan's K-SECURE Contactless Smartcard is equipped with numerous anti-counterfeiting and card anti-duplication technologies and a robust AES multilayer encryption technology offering greater security.

- Complies with international interoperability (ISO14443) standards for 3rd party applications
- ISO printable
- Keyscan 36-bit format for even more security over standard 26-bit 125kHz credentials which can be duplicated
- Designed to function with Keyscan K-SMART readers.

## Keyscan iCLASS SE Credentials (New Installations)

iCLASS SE credentials are part of the next-generation iCLASS SE access control platform and open ecosystem based on a Trusted Identity Platform (TIP) architecture for advanced applications, mobility and heightened security. iCLASS SE makes access control more powerful, more versatile, and more secure by providing additional key diversification, authentication, encryption and portability for advanced security and performance.

Available Keyscan iCLASS SE Card, FOB and Tag Credentials:

<b>KC2K2SE</b>	Clamshell Card	<b>KI16K16SE</b>	ISO Smart Card
<b>KI2K2SE</b>	ISO Smart Card	<b>KF2K2SE</b>	Smart FOB
<b>KI2K2MSE</b>	ISO Smart Card Magstripe	<b>KT2K2SE</b>	Smart Tag



Images may not accurately reflect current credential.



Images may not accurately reflect current credential.

## Keyscan iCLASS SR Credentials (supports original installations)

### Featuring iCLASS backwards compatibility

Keyscan iCLASS offers customers a multiple layer of card-to-reader security. End users receive a high-security credential that is exclusive to Keyscan Access Control Systems and backward compatible with legacy iCLASS SE readers. Keyscan iCLASS credentials and Readers are 'factory programmed' to match. As a result, only matching cards and readers will work together, further prohibiting other cards and readers from inadvertently functioning within your company's secured areas.

Available Keyscan iCLASS SR Legacy Card, FOB and Tag Credentials:

<b>KC2K2SR</b>	Clamshell Card	<b>KI16K16SR</b>	ISO Smart Card
<b>KI2K2SR</b>	ISO Smart Card	<b>KF2K2SR</b>	Smart FOB
<b>KI2K2MSR</b>	ISO Smart Card Magstripe	<b>KT2K2SR</b>	Smart Tag

ader series is designed to work with compatible credentials. Both readers compatible and will work in conjunction with iCLASS environments .

# Low Frequency Readers

## 125 kHz

### K-PROX2 - Proximity Reader

Keyscan's reliable K-PROX2 proximity reader provides a sleek black finish with clear LED illumination for access granted and denial indications. Keyscan K-PROX2 features:

- On board beeper to generate audible tones or sound a local door-held-open alert
- A versatile 2 in 1 design provides both mullion mount and single gang mounting options
- Epoxy encased electronics well-suited for both interior or exterior use
- Impressive read range of 4 to 6 inches
- UL294 listed

There is no other logical choice to support your proximity requirements.



### K-KPR - Proximity Reader and Keypad

This integrated proximity and keypad reader uses RFID technology. It offers the benefits of proximity and adds an additional layer of security when needed.

- Ideal for applications that require access credential and/or personal ID number
- Dual verification offers higher security
- Sealed in tamper-resistant epoxy potting and suitable for indoor or outdoor use

It is this level of unprecedented flexibility that is a Keyscan trademark.

### K-VAN - Vandal Resistant Proximity Reader

When planning access control into rough environments rely on Keyscan's K-VAN proximity reader. This reader is constructed of a solid stainless steel body and fibertex. Its features include:

- Proximity RFID technology
- Vandal and bullet resistant insert
- Compact size with optional tamper-proof blind mounting

K-VAN is an ideal proximity reader for all indoor or outdoor applications where aggressive behavior, crime or high-threat environments could be expected.



### K-RX - Wireless Receiver

Keyscan's K-RX wireless receiver is a good selection for parking garage, gate and many other long-range applications.

- Transmits a signal via hardwired Wiegand for access control panel confirmation
- Works with the K-TX2 or K-INTX2 transmitter FOBs from up to 200 feet
- K-TX2 or K-INTX2 both act as a regular FOB when used within your facility

With rolling security codes and Keyscan's built-in authentication routine the K-RX RF Receiver and K-TX2/K-INTX2 FOBs deliver a secure wireless solution.



# Low Frequency Credentials

125 kHz



## CS125-36 - 125 kHz Proximity Card Credentials

Keyscan's CS125 standard proximity clamshell cards are designed to be used with Keyscan proximity readers K-PROX2, K-KPR, K-VAN as well as other 125 kHz compatible readers.

- Available in Keyscan 36 bit and standard 26 bit formats
- Up to a 4" read range
- An affordable alternative to other compatible card credentials
- Will function with Keyscan and other 125 kHz compatible low frequency readers

## Keyscan Compatible Proximity Card/FOB Credentials



The C1325 clamshell proximity access control card credential offers universal compatibility for Keyscan and other 125 kHz proximity readers. Also available in ISO printable version (C1386) these proximity access control cards offer durable packaging, and

- Functions with Keyscan's K-PROX2, K-KPR, K-VAN readers as well as other 125 kHz compatible readers
- Available in Keyscan 36 bit and standard 26 bit formats
- Consistent read range
- Also available ISO version with graphics quality surface



The PROXKEYIII is a proximity FOB offering proximity technology in a convenient credential that easily attaches to a key ring, badge clip or lanyard. The PROXKEYIII is built to withstand harsh operating environments and offers durable packaging.

- Functions with Keyscan's K-PROX2, K-KPR, K-VAN readers as well as other 125 kHz compatible readers
- Available in Keyscan 36 bit and standard 26 bit formats
- Consistent read range and suited for use in applications where a Photo ID is not required
- Adhesive tag credential also available (1391)

Contact Keyscan today for information of all cards, FOBs and tags available for low and high frequency access control applications

## Keyscan RF Transmitters

Keyscan's selection of RF transmitters are a simple way to grant access in parking gate, garage and other long-range read access control environments. They can also function within your facility.

Available Keyscan RF transmitters for proximity and long-range access control environments:

- K-TX2** RF transmitter HID coil
- K-INTX2** RF transmitter Indala coil

RF receivers and transmitters are also available for iCLASS access control applications. Contact Keyscan for product and part information.



K-TX2

## CIM (Communications Interlink Module)

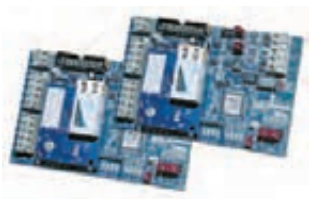
A new communication control module designed to use a CAN Bus communication network.

- Provide optimized server to Access Control Unit (ACU) communication
- Gives users an all new ACU to ACU network providing inter-panel communication for global functions

The CIM also includes enhanced device-based diagnostics and improved communication speeds.



*CIM shown with NETCOM2P*



## CIM-Link (Global Network Connectivity Module)

Keyscan designed the CIM-Link, a TCP/IP companion module, which incorporates multiple CIM CAN Bus communication loops into a single global infrastructure via LAN/WAN network.

- Maximizes system design options
- Promotes greater global communication flexibility across your facility
- Expands ACU to ACU functionality to multiple independent CAN Bus global networks

## NETCOM2P - TCP/IP Plug-on Communication Adaptor

Networking Keyscan access control units is made easy by using the NETCOM2P plug-on adaptor.

- Allows maximum system design options
- Designed to plug directly onto the CIM to establish network communication using CAN Bus communication network
- Can also plug onto ACU board in other specific applications

Available with AES Rijndael 256 bit encryption (NETCOM6P).



## NETCOM2 - Off-board TCP/IP Communication Adaptor

Networking access control units is made easy by using the NETCOM2 TCP/IP adaptor.

- Flexible system design options

Available with AES Rijndael 256 bit encryption (NETCOM6).

## USB-SER

When connecting directly to a computer, the USB-SER provides Keyscan system compatibility.

- RS485 to USB conversion
- RS232 to USB
- One compact easy-to-use device

Ideal for IT personnel, technicians and instances where the access control computer does not have a serial communication port.



# Peripheral Products



## OCB8 - Relay Board

Keyscan's OCB8 is a Form-C relay output board with durable and reliable construction for long-term use. For use with Keyscan's door and elevator floor controllers wherever you need a dry contact closure for auxiliary equipment.

- Expand floor control for Keyscan's EC1500 and EC2500 elevator floor controllers
- Add auxiliary outputs to CA4500 and CA8500 door controllers to trigger response such as sirens, alarms, strobe lights or further restrict access
- Time programmable

## USB-CAM

Keyscan's USB-CAM makes photo identification easier than ever. With plug-and-play capability to Keyscan software photobadge and/or visitor management features, users can capture photos directly from Keyscan access control management software.

- Fully integrated with Keyscan software to capture photos†
- CCD sensor for optimal image quality
- Streaming video

The USB-CAM saves time and creates a simple and seamless solution for photo identification.

† may require software module or license sold separately



Requires card printer



## IOCB1616 - Input & Output Expansion Board

When high-level system design calls for additional input and output capabilities, look to the IOCB1616 expansion board.

- Provides 16 additional inputs with 16 additional open collector outputs
- Easy to add relay output option if desired
- Connect up to four (4) IOCB1616 boards to CA4500 and CA8500

Ideal for monitoring exit only doors, glass breaks, motion detectors and any other sensing device through the Keyscan system.

## WIEEX2 - Wiegand Extender Board

When circumstances dictate a long cable run between control panel and reader, exceeding 500 feet, rely on Keyscan's WIEEX2 Wiegand Extender.

- Converts the Wiegand signal to standard RS485
- Provides a communication range of up to 4000 feet between WIEEX2 receiver and WIEEX2 transmitter while using standard CAT5 cable between units.



# KEYSCAN'S FULL LINE UP OF ACCESS CONTROL UNITS

	PoE Single Door Control System	Multiple Reader Access Control Systems				Elevator Floor Control Systems	
							
	CA150	CA250	CA4500	CA8500	EC1500	EC2500	
<b>Access Control Unit</b>	Doors/Elevator Floors Supported	1 door	2 doors	4 doors	8 doors	1 cab (up to 40 floors)	2 cabs (up to 16 floors)
	Reader Ports	2 (In/Out)	2	4	8	1	2
	Multi-ACU Compatibility	Yes (Ethernet)	Yes	Yes	Yes	Yes	Yes
	System Status LEDs	Yes	Yes	Yes	Yes	Yes	Yes
	Dual Processors	Yes	Yes	Yes	Yes	Yes	Yes
	Flash Memory	Yes	Yes	Yes	Yes	Yes	Yes
	Power Fail Output	NA	Yes	Yes	Yes	Yes	Yes
	Floor Monitor Inputs (Supervised)	NA	NA	NA	NA	Yes	Yes
<b>Inputs</b>	Request to Exit (RTE) Inputs (Supervised)	1	2	4	8	NA	NA
	Door Contact Inputs	1	2	4	8	NA	NA
	Auxiliary Inputs (Supervised)	2	8	16	16	NA	NA
	I/O Input Expansion	NA	NA	64 (banks of 16)	64 (banks of 16)	NA	NA
<b>Outputs</b>	Auxiliary Output Relays	1	2	4	8	NA	NA
	Expansion Auxiliary Output Relays	NA	NA	8	8	NA	NA
	I/O Outputs	NA	NA	64 (banks of 16)	64 (banks of 16)	NA	NA
	Door Output Relays	1	2	4	8	NA	NA
<b>Capacity</b>	No. of Credential-holders	45,000 (up to 90,000*)	45,000 (up to 90,000*)	45,000 (up to 90,000*)	45,000 (up to 90,000*)	45,000 (up to 90,000*)	45,000 (up to 90,000*)
	Transaction File Buffer	6000	6000	6000	6000	6000	6000
	Time Zones	256	256	256	256	256	256
	Time Schedules	512	512	512	512	512	512
	Group Levels	511	511	511	511	511	511
Holiday Dates	64	64	64	64	64	64	
<b>Connectivity</b>	Ethernet Ready	Equipped	Optional	Optional	Optional	Optional	Optional
	PoE - Power over Ethernet (IEEE 802.3af)	Equipped	NA	NA	NA	NA	NA
	Global Integration	Network/Server Dependant	Capable (requires CIM)	Capable (requires CIM)	Capable (requires CIM)	Capable (requires CIM)	Capable (requires CIM)
	CMAC Reverse IP	Equipped	Optional	Optional	Optional	Optional	Optional
	Serial Communication	Yes (single panel)	Yes	Yes	Yes	Yes	Yes

North American designed, engineered & manufactured

To learn more contact your Keyscan Regional Sales Manager or call: 1 888 KEYSKAN (539.7226)



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Keyscan Inc. LR110441-1 complies to:  
UL STD 294 Fifth Ed.

Access Control System Units  
CA8500; CA4500; CA250; EC1500; EC2500  
16V ac, 40VA, Class 2 input; relay output  
contacts, 24V ac, 10A; 30V dc; 5A  
205-M1983 Signal Equipment



CSA STD C22.2

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