

BASIC CONFIGURATION SHEET

125KHz Low Frequency Proximity Reader & Credential Technology

SYSTEM DESIGN GUIDELINES

- The following configurations are to be used as a guideline for basic system design. There are many other factors that can influence system design configurations. **For additional sales support, contact your Keyscan Regional Sales Manager or the Keyscan Inside Sales Team at sales@keyscan.ca or 1.888.KEYSCAN (1.888.539.7226).**
- Keyscan has provided 2 communication options within this document for installations that require multiple access control units. If the project requires advanced features that include global communication / time zones / anti-passback or lockdown functionality, the configuration combining both NETCOM2P and CIM is recommended. Configurations designed to treat access control units as network appliances may use the configuration with the NETCOM2P alone.
- The customer assumes all responsibility for the proper selection, installation, operation, maintenance and adherence to any and all federal state/provincial, municipal building and fire codes of the merchandise purchased from Keyscan. Keyscan SHALL NOT BE RESPONSIBLE FOR ANY CONSEQUENTIAL, CONTINGENT, SPECIAL OR INCIDENTAL DAMAGES whatsoever.
- Some configurations require discussions and approval by the local AHJ.

1 Door

<p>Keyscan Parts List</p> <ul style="list-style-type: none"> 1 AURORA Software 1 CA150 PoE Equipped Panel* 1 K-PROX3 Reader ? CS12536 Cards (pack of 50)
<p>Other Manufacturer Parts List</p> <ul style="list-style-type: none"> 1 Electronic Locking Hardware 1 Door Contacts (optional) Lock Power Supply 1 Request-to-Exit Device (optional)
<p><small>* If lockdown or global communication is required, substitute the CA150 with a CA250. If powering CA150 panel externally, provide a power supply for panel, locking hardware and readers. Consider adding PoE UPS to prepare for AC power loss situations.</small></p>

2 Doors

<p>Keyscan Parts List</p> <ul style="list-style-type: none"> 1 AURORA Software 1 CA250 Panel 1 NETCOM2P 2 K-PROX3 Reader ? CS12536 Cards (pack of 50)
<p>Other Manufacturer Parts List</p> <ul style="list-style-type: none"> 2 16.5V 40VA Transformers (RCI T1005) 1 7 AH Battery (RCI BB12-7) 2 Electric Strikes Lock Power Supply 2 Door Contacts (optional) 2 Request-to-Exit Device (optional)

3 Doors

<p>Keyscan Parts List</p> <ul style="list-style-type: none"> 1 AURORA Software 1 CA4500 Panel 1 NETCOM2P 3 K-PROX3 Reader ? CS12536 Cards (pack of 50)
<p>Other Manufacturer Parts List</p> <ul style="list-style-type: none"> 2 16.5V 40VA Transformers (RCI T1005) 1 7 AH Battery (RCI BB12-7) 3 Electric Strikes Lock Power Supply 3 Door Contacts (optional) 3 Request-to-Exit Device (optional)

4 Doors

<p>Keyscan Parts List</p> <ul style="list-style-type: none"> 1 AURORA Software 1 CA4500 Panel 1 NETCOM2P 4 K-PROX3 Reader ? CS12536 Cards (pack of 50)
<p>Other Manufacturer Parts List</p> <ul style="list-style-type: none"> 2 16.5V 40VA Transformers (RCI T1005) 1 7 AH Standby Battery (RCI BB12-7) 4 Electric Strikes Lock Power Supply 4 Door Contacts (optional) 4 Request-to-Exit Device (optional)

5 Doors

<p>Keyscan Parts List</p> <ul style="list-style-type: none"> 1 AURORA Software 1 CA8500 Panel 1 NETCOM2P 5 K-PROX3 Reader ? CS12536 Cards (pack of 50)
<p>Other Manufacturer Parts List</p> <ul style="list-style-type: none"> 2 16.5V 40VA Transformers (RCI T1005) 1 7 AH Standby Battery (RCI BB12-7) 5 Electric Strikes Lock Power Supply 5 Door Contacts (optional) 5 Request-to-Exit Device (optional)

6 Doors

<p>Keyscan Parts List</p> <ul style="list-style-type: none"> 1 AURORA Software 1 CA8500 Panel 1 NETCOM2P 6 K-PROX3 Reader ? CS12536 Cards (pack of 50)
<p>Other Manufacturer Parts List</p> <ul style="list-style-type: none"> 2 16.5V 40VA Transformers (RCI T1005) 1 7 AH Standby Batteries (RCI BB12-7) 6 Electric Strikes Lock Power Supply 6 Door Contacts (optional) 6 Request-to-Exit Device (optional)

7 Doors

<p>Keyscan Parts List</p> <ul style="list-style-type: none"> 1 AURORA Software 1 CA8500 Panel 1 NETCOM2P 7 K-PROX3 Reader ? CS12536 Cards (pack of 50)
<p>Other Manufacturer Parts List</p> <ul style="list-style-type: none"> 2 16.5V 40VA Transformers (RCI T1005) 1 7 AH Standby Battery (RCI BB12-7) 7 Electric Strikes Lock Power Supply 7 Door Contacts (optional) 7 Request-to-Exit Device (optional)

8 Doors

<p>Keyscan Parts List</p> <ul style="list-style-type: none"> 1 AURORA Software 1 CA8500 Panel 1 NETCOM2P 8 K-PROX3 Reader ? CS12536 Cards (pack of 50)
<p>Other Manufacturer Parts List</p> <ul style="list-style-type: none"> 2 16.5V 40VA Transformers (RCI T1005) 1 7 AH Standby Battery (RCI BB12-7) 8 Electric Strikes Lock Power Supply 8 Door Contacts (optional) 8 Request-to-Exit Device (optional)

9 Doors

<p>Keyscan Parts List</p> <ul style="list-style-type: none"> 1 AURORA Software 1 CA8500 Panel 1 CA250 Panel 1 NETCOM2P OR 2 NETCOM2P 2 CIM 9 K-PROX3 Reader ? CS12536 Cards (pack of 50)
<p>Other Manufacturer Parts List</p> <ul style="list-style-type: none"> 4 16.5V 40VA Transformers (RCI T1005) 2 7 AH Standby Battery (RCI BB12-7) 9 Electric Strikes Lock Power Supply 9 Door Contacts (optional) 9 Request-to-Exit Device (optional)

10 Doors

<p>Keyscan Parts List</p> <ul style="list-style-type: none"> 1 AURORA Software 1 CA8500 Panel 1 CA250 Panel 1 NETCOM2P OR 2 NETCOM2P 2 CIM 10 K-PROX3 Reader ? CS12536 Cards (pack of 50)
<p>Other Manufacturer Parts List</p> <ul style="list-style-type: none"> 4 16.5V 40VA Transformers (RCI T1005) 2 7 AH Standby Batteries (RCI BB12-7) 10 Electric Strikes Lock Power Supply 10 Door Contacts (optional) 10 Request-to-Exit Device (optional)

11 Doors

<p>Keyscan Parts List</p> <ul style="list-style-type: none"> 1 AURORA Software 1 CA8500 Panel 1 CA4500 Panel 1 NETCOM2P OR 2 NETCOM2P 2 CIM 11 K-PROX3 Reader ? CS12536 Cards (pack of 50)
<p>Other Manufacturer Parts List</p> <ul style="list-style-type: none"> 4 16.5V 40VA Transformers (RCI T1005) 2 7 AH Standby Batteries (RCI BB12-7) 11 Electric Strikes Lock Power Supply 11 Door Contacts (optional) 11 Request-to-Exit Device (optional)

12 Doors

<p>Keyscan Parts List</p> <ul style="list-style-type: none"> 1 AURORA Software 1 CA8500 Panel 1 CA4500 Panel 1 NETCOM2P OR 2 NETCOM2P 2 CIM 12 K-PROX3 Reader ? CS12536 Cards (pack of 50)
<p>Other Manufacturer Parts List</p> <ul style="list-style-type: none"> 4 16.5V 40VA Transformers (RCI T1005) 2 7 AH Standby Batteries (RCI BB12-7) 12 Electric Strikes Lock Power Supply 12 Door Contacts (optional) 12 Request-to-Exit Device (optional)

13 Doors

<p>Keyscan Parts List</p> <ul style="list-style-type: none"> 1 AURORA Software 2 CA8500 Panel 1 NETCOM2P OR 2 NETCOM2P 2 CIM 13 K-PROX3 Reader ? CS12536 Cards (Pack of 50)
<p>Other Manufacturer Parts List</p> <ul style="list-style-type: none"> 4 16.5V 40VA Transformers (RCI T1005) 2 7 AH Standby Batteries (RCI BB12-7) 13 Electric Strikes Lock Power Supply 13 Door Contacts (optional) 13 Request-to-Exit Device (optional)

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125KHz Low Frequency Proximity Readers & Credential Technology

14 Doors	15 Doors	16 Doors
Keyscan Parts List 1 AURORA Software 2 CA8500 Panel 1 NETCOM2P OR 2 NETCOM2P 2 CIM 14 K-PROX3 Reader ? CS12536 Cards (pack of 50)	Keyscan Parts List 1 AURORA Software 2 CA8500 Panel 1 NETCOM2P OR 2 NETCOM2P 2 CIM 15 K-PROX3 Reader ? CS12536 Cards (pack of 50)	Keyscan Parts List 1 AURORA Software 2 CA8500 Panel 1 NETCOM2P OR 2 NETCOM2P 2 CIM 16 K-PROX3 Reader ? CS12536 Cards (pack of 50)
Other Manufacturer Parts List 4 16.5V 40VA Transformers (RCI T1005) 2 7 AH Standby Batteries (RCI BB12-7) 14 Electric Strikes Lock Power Supply 14 Door Contacts (optional) 14 Request-to-Exit Device (optional)	Other Manufacturer Parts List 4 16.5V 40VA Transformers (RCI T1005) 2 7 AH Standby Batteries (RCI BB12-7) 15 Electric Strikes Lock Power Supply 15 Door Contacts (optional) 15 Request-to-Exit Device (optional)	Other Manufacturer Parts List 4 16.5V 40VA Transformers (RCI T1005) 2 7 AH Standby Batteries (RCI BB12-7) 16 Electric Strikes Lock Power Supply 16 Door Contacts (optional) 16 Request-to-Exit Device (optional)
17 Doors	18 Doors	19 Doors
Keyscan Parts List 1 AURORA Software 2 CA8500 Panel 1 CA250 Panel 1 NETCOM2P OR 3 NETCOM2P 3 CIM 17 K-PROX3 Reader ? CS12536 Cards (pack of 50)	Keyscan Parts List 1 AURORA Software 2 CA8500 Panel 1 CA250 Panel 1 NETCOM2P OR 3 NETCOM2P 3 CIM 18 K-PROX3 Reader ? CS12536 Cards (pack of 50)	Keyscan Parts List 1 AURORA Software 2 CA8500 Panel 1 CA4500 Panel 1 NETCOM2P OR 3 NETCOM2P 3 CIM 19 K-PROX3 Reader ? CS12536 Cards (pack of 50)
Other Manufacturer Parts List 6 16.5V 40VA Transformers (RCI T1005) 3 7 AH Standby Batteries (RCI BB12-7) 17 Electric Strikes Lock Power Supply 17 Door Contacts (optional) 17 Request-to-Exit Device (optional)	Other Manufacturer Parts List 6 16.5V 40VA Transformers (RCI T1005) 3 7 AH Standby Batteries (RCI BB12-7) 18 Electric Strikes Lock Power Supply 18 Door Contacts (optional) 18 Request-to-Exit Device (optional)	Other Manufacturer Parts List 6 16.5V 40VA Transformers (RCI T1005) 3 7 AH Standby Batteries (RCI BB12-7) 19 Electric Strikes Lock Power Supply 19 Door Contacts (optional) 19 Request-to-Exit Device (optional)
20 Doors	21 Doors	22 Doors
Keyscan Parts List 1 AURORA Software 2 CA8500 Panel 1 CA4500 Panel 1 NETCOM2P OR 3 NETCOM2P 3 CIM 20 K-PROX3 Reader ? CS12536 Cards (pack of 50)	Keyscan Parts List 1 AURORA Software 3 CA8500 Panel 1 NETCOM2P OR 3 NETCOM2P 3 CIM 21 K-PROX3 Reader ? CS12536 Cards (pack of 50)	Keyscan Parts List 1 AURORA Software 3 CA8500 Panel 1 NETCOM2P OR 3 NETCOM2P 3 CIM 22 K-PROX3 Reader ? CS12536 Cards (pack of 50)
Other Manufacturer Parts List 6 16.5V 40VA Transformers (RCI T1005) 3 7 AH Standby Batteries (RCI BB12-7) 20 Electric Strikes Lock Power Supply 20 Door Contacts (optional) 20 Request-to-Exit Device (optional)	Other Manufacturer Parts List 6 16.5V 40VA Transformers (RCI T1005) 3 7 AH Standby Batteries (RCI BB12-7) 21 Electric Strikes Lock Power Supply 21 Door Contacts (optional) 21 Request-to-Exit Device (optional)	Other Manufacturer Parts List 6 16.5V 40VA Transformers (RCI T1005) 3 7 AH Standby Batteries (RCI BB12-7) 22 Electric Strikes Lock Power Supply 22 Door Contacts (optional) 22 Request-to-Exit Device (optional)

NOTES

GENERAL

- Keyscan recommends the use of low current locking hardware.
- Where multiple access control units are specified in a configuration, Keyscan has provided 2 communication options within this document:
 - If global communication, global time zones, global anti-passback or lockdown are required, utilize the CA250, CA4500 or CA8500 installed on a CIM line (configuration uses both NETCOM2P and CIM).
 - Configurations designed to treat access control units as network appliances may use the configuration with only the NETCOM2P.
- 7AH battery specification is based on a 3-4 hour standby requirement. Please adjust battery requirements accordingly if the installation requires a longer standby period.
- The number of lock power supplies required is based on the sum of the required electric load for all locking hardware being used. The system load should not exceed 80% of the available power supply load.
- Use the USB-SER to program the NETCOM2P when no serial port is available on the PC
- Engineering support is required if the project uses door contacts/mag locks to conform to local AHJ

PANELS

- Dedicate 15.4 watts if the CA150 - Single Door Access Control Unit is PoE powered

ELEVATOR CONTROL: Contact Keyscan for additional assistance.

READERS

- K-PROX3 Reader includes an optional backplate for single-gang junction box size
- Substitute K-VAN Reader if a vandal-resistant reader is required
- Substitute K-KPR Reader if a combination of prox/keypad reader is required

CARDS

- Substitute PSK-3-H if Key FOBs are required (Pack of 50)
- Substitute PDT-1-H if Adhesive Tags are required (Pack of 50)
- Substitute PSM-2P-H if Printable Cards are required (Pack of 50)

SOFTWARE

- Modules included in the base AURORA Software include: Photobadging, Visitor Management and Output
- Support Photobadging and Visitor Management Modules by adding:
 - Microsoft Certified Webcam
 - Dye Sublimation Printer of your choice
- Additional Aurora Add-On Software Licenses:
 - Client License:** Base software includes 2 concurrent client licenses. Additional Client Licenses: Single Client License (EAUR-CL1), Client License 5-Pack (EAUR-CL5), OR Client License 10-Pack (EAUR-CL10)
 - VMS Integration:** Avigilon (EAUR-AVIG), Exacq (EAUR-EXAC), Milestone (EAUR-MILE), ONSSI (EAUR-ONSS), i3 International (EAUR-i3), OpenEye (EAUR-OPEN), Salient (EAUR-SALI) and more
 - DSC Integration:** DSC Power Series (EAUR-DSCP) OR DSC MaxSys Series (EAUR-DSCM) Alarm Panels
 - Web Server License:** Web server access to the Aurora Database (EAUR-WEB) - additional hardware required
 - Microsoft SQL Server 2012 Database Upgrade:** SQL Database Upgrade (EAUR-SQLUPG) removes the 10GB limit and allows for full use of installed hard drive space - additional hardware required

WIRE

- Install readers using a maximum of 500 ft of wiring distance to a panel
- Reader to Panel connection uses 22/6 shielded wire
- Lock to Panel connection uses 18/2 non-shielded wire
- Panel to Panel connection is two twisted pair (CAT 5e) wire (CIM application)
- Door Contacts require 22/2 non-shielded wire
- Request-to-Exit devices require 22/4 non-shielded wire