Continental Access
A Napco Security Group Company

Keypad / Reader Configuration and Programming Guide

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DOCUMENT PERTAINS TO: KEYPAD /READER CONFIGURATION AND PROGRAMMING GUIDE

REVISION: B

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Overview / Keypad Technologies

OVERVIEW

This document provides a quick reference for selecting and configuring keypads and keypad/reader combos. There are many variations of every model. The most common models and technologies will be explained. Some keypads require specific Continental Hardware to operate correctly. This guide will assist with determining the correct controller and firmware needed for specific keypads.

KEYPAD TECHNOLOGIES

Weigand

- Keypad data is sent on the data lines for the reader (D0 and D1)
- Reader/Keypad combo requires a total of 5 wires (Pwr, Gnd,Led, D0, D1)
- On HID and Exceed Weigand Keypads, the data is sent in bursts. The default is a 4 bit burst unless ordered specifically for an 8 bit burst. These readers require a V2 firmware chip. The firmware image must be newer than 3.05.18 to support an 8 bit burst).
- On Essex Weigand Keypads, data is sent in the same format as a card reader. This reader requires only V1 firmware chip and will work on legacy panels.
- Indala readers are considered proprietary. If you purchase a 36 bit Indala Keypad/Reader, you must use 36 bit Indala cards. If you purchase a 26 bit Indala Keypad/Reader, you must use 26 bit Indala cards.

XY Matrix

- Keypad data is sent over 7 wires (4 Rows and 3 Columns)
- Reader/Keypad combo requires a total of 12 wires (Pwr, Gnd, Led, DO, D1,R1,R2,R3,R4,C1,C2 and C3)
- Super Two controller requires an add-on board to support XY Matrix keypads which has limited availability (it is recommended to use weigand model keypads on Super Two's).

KEYPAD MANUFACTURERS / MODELS

VERY IMPORTANT: You must verify the +12 Volts on your controller provides enough amperage for the readers. For example, a Superterm and Turbo Superterm provide 500ma on the 12V line. You might be required to use an external 12 volt power supply or purchase a expanded power supply which provide 3.4s amps on the 12V line. A Super Two provides 1.6amp on the 12V line by default.

HID

1. Proxpro w./Keypad, HID P/N 5355AGS00, **XY Matrix**, 12V, Part # CICR2362PK

2. Proxpro w/Keypad HID P/N 5355AGK00, **Weigand**, 12V, 4 bit burst, Part # CICR2362PKW

NOTES:

- It is recommended to buy these readers from Continental Access. A slight variation in the part number might make the reader incompatible with Continental Controllers.
- All readers are ordered by default for a 4 bit burst. A special order must be placed for an 8 bit burst reader.

HID (IClass)

1. IClass Keypad/Reader combo, HID P/N RPK40, **Weigand**, 4 bit burst, Part # CICRPK40

Essex

1. 12 Position, Stainless Steel Indoor/Outdoor Keypad, **XY Matrix**, Part # CICR2906K
   - May be used in conjunction with a reader or in “keypad only” mode
2. 12 Position, Stainless Steel Indoor /Outdoor Keypad, **Weigand**, Part # CICR2907K
   - May be used in a “keypad only” mode only with pin codes less than 65535

Keypad Manufacturers / Models Cont.

Exceed (All Exceed readers are now PIV compatible)

1. **Multi-Frequency**, Mid Range, Keypad/Reader, **Weigand,** 4 bit burst,
   Part # CICRXF2110

2. Mid-Range, 125 KHZ, Keypad/Reader ,**Weigand**, 4 bit burst,
   Part # CICRXF2110P-K

3. **Multi-Frequency**, Mid Range, Keypad/Reader, Weigand, 4 bit burst ,
   Part # CICRXF2210

NOTES:

- All readers are ordered by default for a 4 bit burst. A special order must be placed for an 8 bit burst reader.
- 15693 is ISOX
- 14443 is MIFARE
- ISOX-Lite 9420 credentials ARE ONLY SUPPORTED on older readers (readers 5 years or older)
- ISOX 9440 credentials ARE NOT supported on newer readers (firmware X02-53 and newer)
- CICRXF-1060 readers are low end and will not work with 14443(mifare). You must order CICRXF-1060MF

Indala (All Indala readers are a 36 bit format unless ordered specifically for a 26 bit format)

1. ARK-501 FLEXPASS PROX READER W/12 Position Weigand Output Keypad
   Part # CICR2348PKP (36 bit)
   Part # CICR2348PKP26 (26 bit)

2. ARK-501 FLEXPASS PROX READER W/12 Position Weigand Output Keypad
   CICR2348PKP-W (36 bit)
   CICR2348PKP-W26 (26 bit)

Keypad Compatibility

MANUFACTURER	MODEL	KEYPAD TECHNOLOGY	READER TECHNOLOGY	CONTINENTAL PART #	SUPPORTED CONTROLLERS
HID	5355AGS00 KEYPAD/ READER COMBO	XY MATRIX	Prox 125 khz	CICR2362PK	All controllers except Supertwo. The Supertwo controller requires an XY matrix add on board which has limited availibility(It is recommended to use the weigand model).
HID	5355AGK00 KEYPAD/ READER COMBO	WEIGAND	Prox 125 khz Proximity	CICR2362PKW	All controllers with V2 firmware. (Legacy Panels do not support weigand model HID keypads)
HID (IClass)	RPK40 IClass	WEIGAND	Prox 125 khz/**IClass - 13 mhz smart card tech.**	CICRPK40	All controllers with V2 firmware. (Legacy Panels do not support weigand model HID keypads)
ESSEX	12 POS STAINLESS STEEL KEYPAD ONLY	XY MATRIX	N.A.	CICR2906K	All controllers except Supertwo. The Supertwo controller requires an XY matrix add on board which has limited availability (It is recommended to use the weigand model).
ESSEX	12 POS STAINLESS STEEL KEY-PAD ONLY	WEIGAND	N.A	CICR2907K	All controllers. (This keypad looks like a card reader to the panel). You do not configure this keypad under the keypad settings.
EXCEED	XF-2110	WEIGAND	Prox 125 khz/**ISOX -13 mhz smart card tech.**	CICRXF2110	All controllers with V2 firmware. (Legacy Panels do not support weigand keypads)
EXCEED	XF-2110P-K	WEIGAND	Prox 125KHZ only (HID prox, GE/Casi and Schlage/ Exceed	CICRXF2110P-K	All controllers with V2 firmware.(Legacy Panels do not support weigand keypads)
EXCEED	XF-2210	WEIGAND	Prox 125 khz/**MIFARE DESFIRE - 13 mhz smart card tech.**	CICRXF2210	All controllers with V2 firmware.(Legacy Panels do not support weigand keypads)
INDALA	ARK-501	XY MATRIX	Indala 125khz prox – 36 bit (default)	CICR2348PKP	All controllers except Supertwo. The Supertwo controller requires an XY matrix add on board which has limited availability (It is recommended to use the weigand model).
INDALA	ARK-501	WEIGAND	Indala 125khz prox – 36 bit (default)	CICR2348PKP-W	All controllers with V2 firmware. (Legacy Panels do not support weigand keypads)

MODES OF OPERATION

MODES OF OPERATION FOR KEYPAD / READER :

1) **Card Only**—valid entry requires a badge swipe only.

2) **Card & Pin**— valid entry requires a badge swipe and a Pin code to be entered into the keypad. The Pin code is the 4 digit code programmed into the Personnel screen.

3) **Common Code**— valid entry requires a 4 digit common code to be entered into the keypad. The common code is configured under the “configuration/readers/door control” screen under the keypad settings.

4) **“FFFF” Mode**— This is a special mode which allows the badge number, pin number and facility code from the personnel record to be entered into the keypad. A badge swipe will also work if the keypad contains a reader.

NOTE: Entering only the 4 digit Pin Code from personnel into the keypad is not supported.

KEYPAD /READER PROGRAMMING EXAMPLES

Programming Examples for Wiegand Model Keypads (ex. HID 5355AGK00 and Exceed XF-2110)

Card Only Mode

1) Do not configure “Keypad Settings” under “Configuration/Readers/Door Control”. Refer to figure 1.

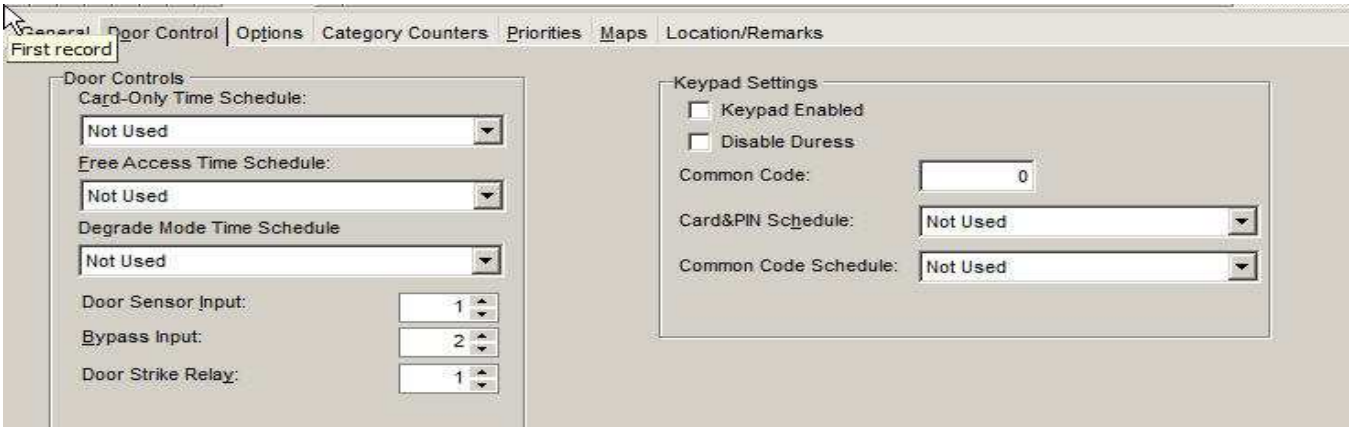

Figure 1.

Keypad Entry for “Card Only” mode:

1) No Keypad Entry - Swipe Badge Only

Card and Pin Mode

1) The “Card&Pin“ mode requires the user to swipe their badge at the reader, and they must also enter a 4 digit pin number which is configured in Personnel. The “Keypad Enabled“ must be selected. The “Card&Pin: schedule must be configured. Refer to figures 2 and 3 for configuration of “Keypad Settings” and Personnel.

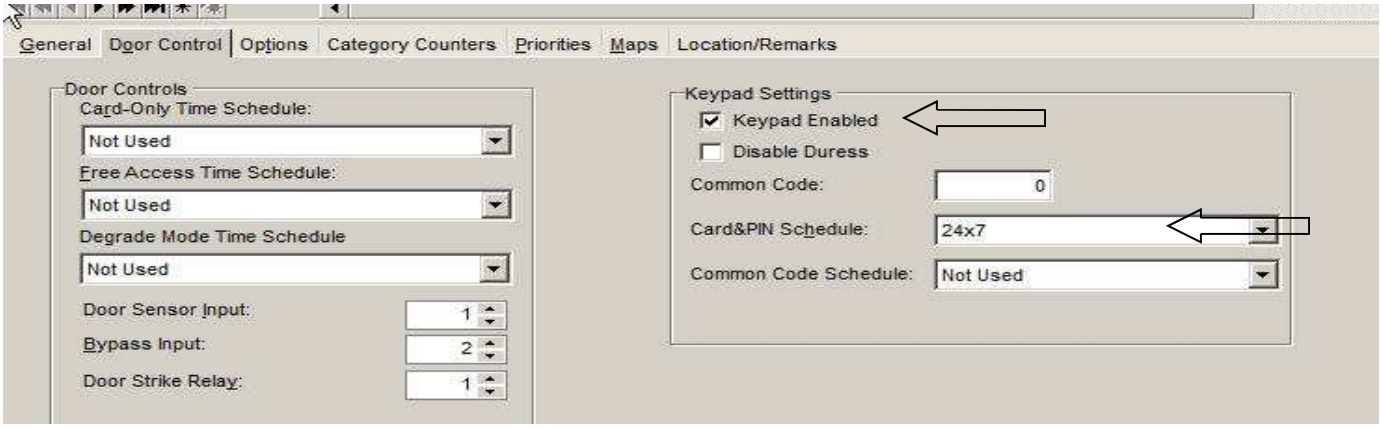

Figure 2.

2) A four digit **PIN** code must be programmed into the “Personnel” record. The “PIN Code” must be four digits and must not begin with a leading zero. Refer to figure 3.

Note: Entering a Pin code in without a badge swipe is not supported.

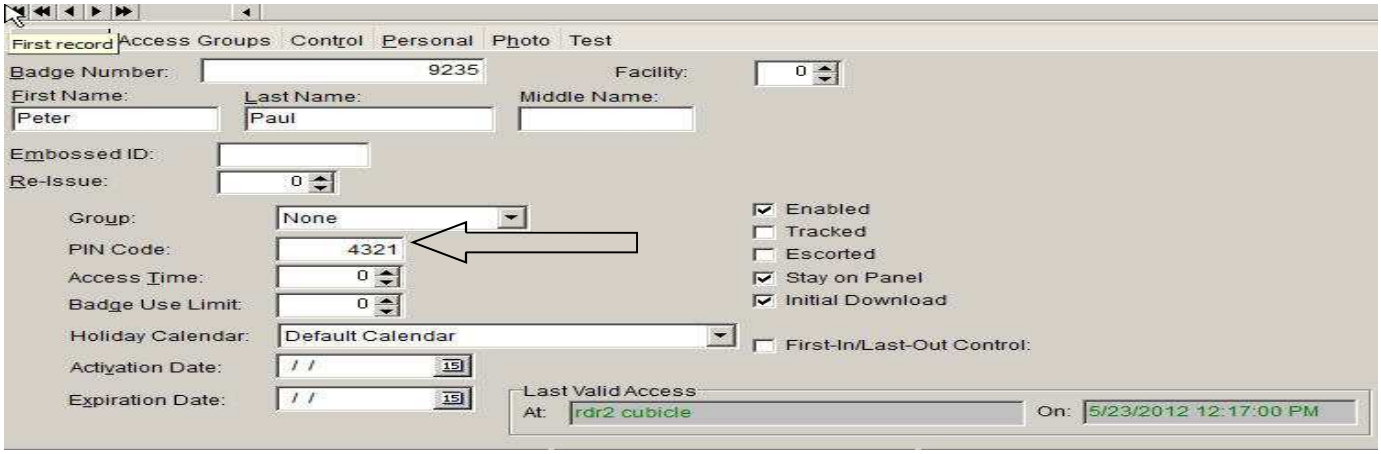

Figure 3.

Keypad Entry for “Card&Pin” mode:

1) Swipe a badge at the reader
2) Enter the 4 digit Pin code programmed into the Personnel screen

KEYPAD /READER PROGRAMMING EXAMPLES Cont.

Common Code Mode

1) The same four digit code is for all users. The “Keypad Enabled” must be selected. A four digit “Common Code” must be configure into “Common Code”. This code must be four digits and must not begin with a leading zero. A “Common Code Schedule” must be programmed in. Refer to figure 4 for configuration of “Keypad Settings”.

NOTE: All users will use the same Common Code (5432)

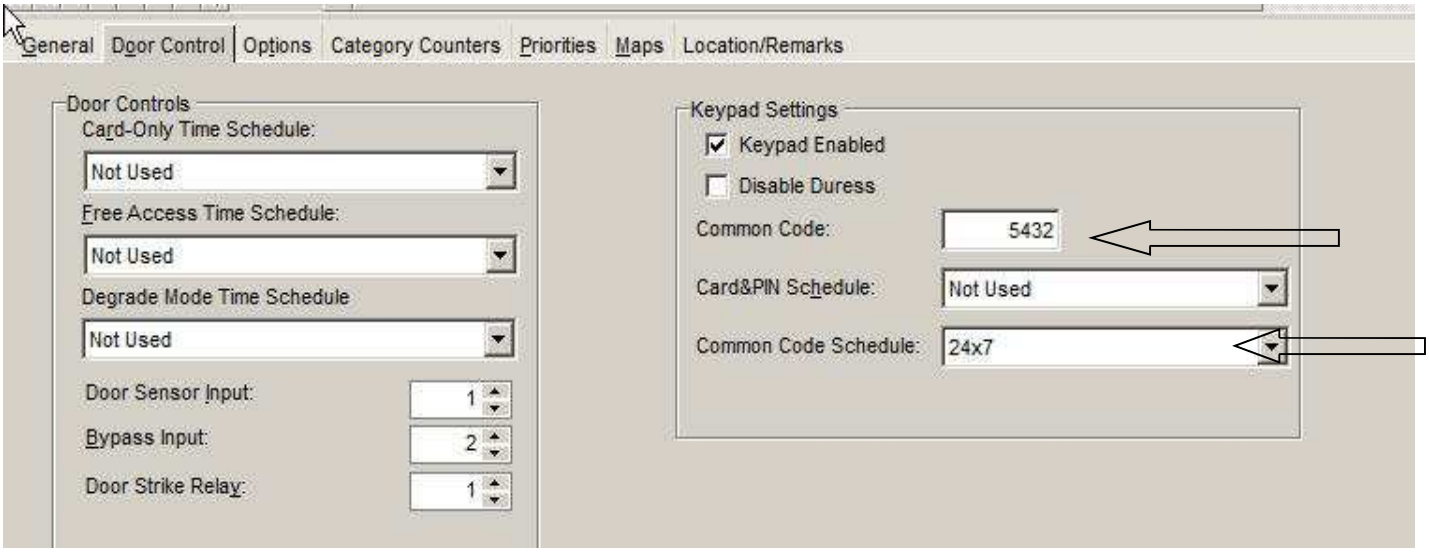

Figure 4.

Keypad Entry for “Common Code” mode:

1) All users must enter “5432” into keypad.

KEYPAD /READER PROGRAMMING EXAMPLES Cont.

“FFFF” Mode

1) The “FFFF” mode is a special mode which allows the user to enter their badge number into the keypad. The “Keypad Enabled“ must be selected. The Common Code” must be set to “FFFF” and a “Common Code Schedule” must be configured. Refer to figure 5 for configuration of “Keypad Settings”.

Note: A badge swipe will also work with this mode. In case the user leaves their badge home, they are able to enter the their badge number into the keypad.

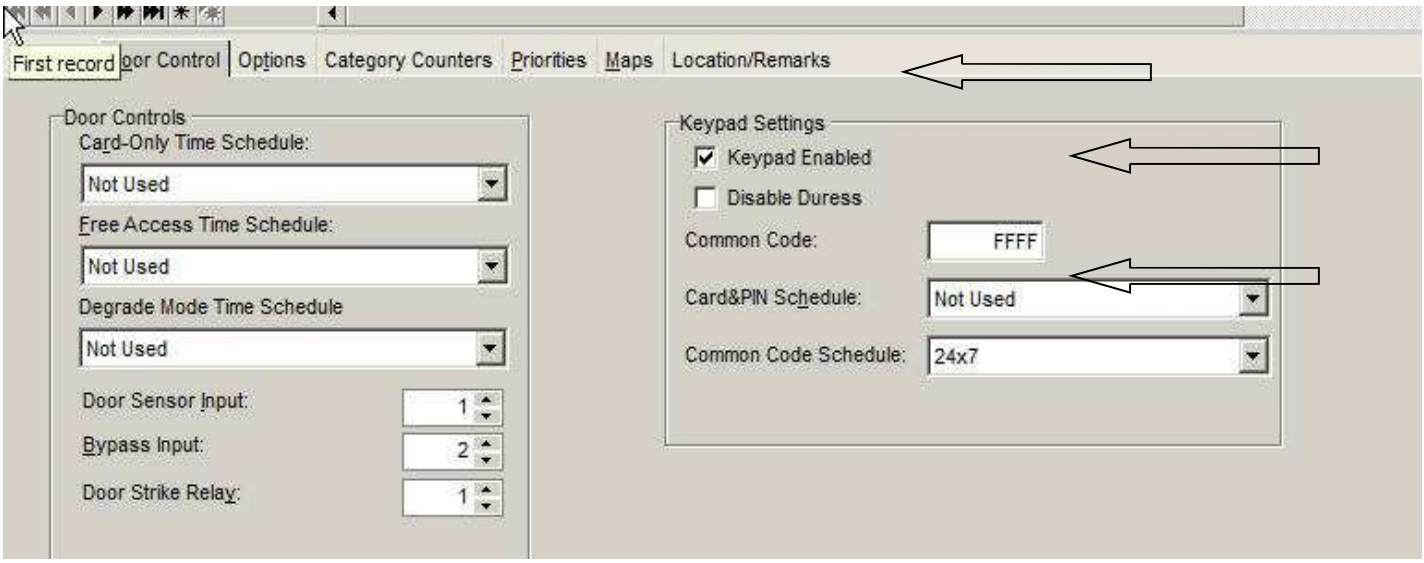

Figure 5.

Keypad Entry for the “FFFF” mode:

1) All users must enter one of the following formats into the keypad depending on whether they are using facility codes or a pin number in personnel:

- Entering badge number 55432 only— Press 55432#

- Entering a facility code and badge number into the keypad - Press *0155432#

  (This entry is for badge number 55432 with a facility code in box 1. If the facility code is in box four, you would press *04 at the beginning instead of *01)