



## **PIN and Proximity Reader**

**Stand-alone System  
(CR-R885-S and CR-R885-SB)**



**Installation and Operating Instructions**



## TABLE OF CONTENTS

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|                                                           |           |
|-----------------------------------------------------------|-----------|
| <b>Installation .....</b>                                 | <b>2</b>  |
| Mounting and Wiring .....                                 | 2         |
| Mounting on Metal Surfaces .....                          | 2         |
| Technical Specifications .....                            | 3         |
| Feedback .....                                            | 5         |
| Resetting to Default .....                                | 5         |
| Card Presentation Test .....                              | 5         |
| <b>System Programming .....</b>                           | <b>6</b>  |
| Section [001] Card/Code Options .....                     | 6         |
| Section [002] Door Lock Control .....                     | 7         |
| Section [003] Access Granted Options .....                | 7         |
| Section [004] Display on Card Read .....                  | 8         |
| Section [005] Keypad Lockout .....                        | 9         |
| Section [101] Buzzer Setting .....                        | 9         |
| Section [102] Face Light Intensity .....                  | 9         |
| Section [103] Face Light Operation .....                  | 9         |
| Section [104] Face Light Colour .....                     | 10        |
| Section [200] Changing the Installer Code .....           | 10        |
| Resetting the Installer and Master Codes to Default ..... | 10        |
| <b>Master Programming .....</b>                           | <b>11</b> |
| Sections [201] and [202] Changing the Master Codes .....  | 11        |
| Section [203] User Code Programming .....                 | 11        |
| Deleting a User Code .....                                | 13        |
| Section [204] User Code Reset .....                       | 14        |
| <b>User Operation .....</b>                               | <b>15</b> |
| User Access .....                                         | 15        |
| Panic Alarm .....                                         | 16        |
| <b>User Code Table .....</b>                              | <b>17</b> |
| <b>Warranty .....</b>                                     | <b>19</b> |

## INSTALLATION

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To select an installation site:

- Avoid wiring the PosiPin cables in the same conduit as AC power cables, lock power or signal wiring.
- Reader wiring must remain a minimum of 30cm (12in) away from other wiring, such as wiring for AC power, computer data, telephones, electric locks, etc.
- Avoid sites within 1.1m (3.5ft) of computer monitors or CRTs.
- Avoid sites near sources of broad spectrum EMI noise, such as motors, pumps, generators, DC to AC converters, AC switching relays, power supplies and light dimmers.
- Avoid sites near potential sources of RF signals, such as cellular phones, two-way radios, etc.

## MOUNTING AND WIRING

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Use the mounting plate as a guide to drill two holes to secure the mounting plate and a hole for the cable 0.95cm to 2.54cm (0.375in to 1in) wide. Place a grommet around the edge of the hole for the cable. Prepare PosiPin's cable by cutting the cable jacket back 3.175cm (1.25in) and stripping the wires back 0.635cm (0.25in). Splice PosiPin's wires with a recommended cable wire (see page 5) and connect as shown in *Figure 1* on page 4.

## MOUNTING ON METAL SURFACES

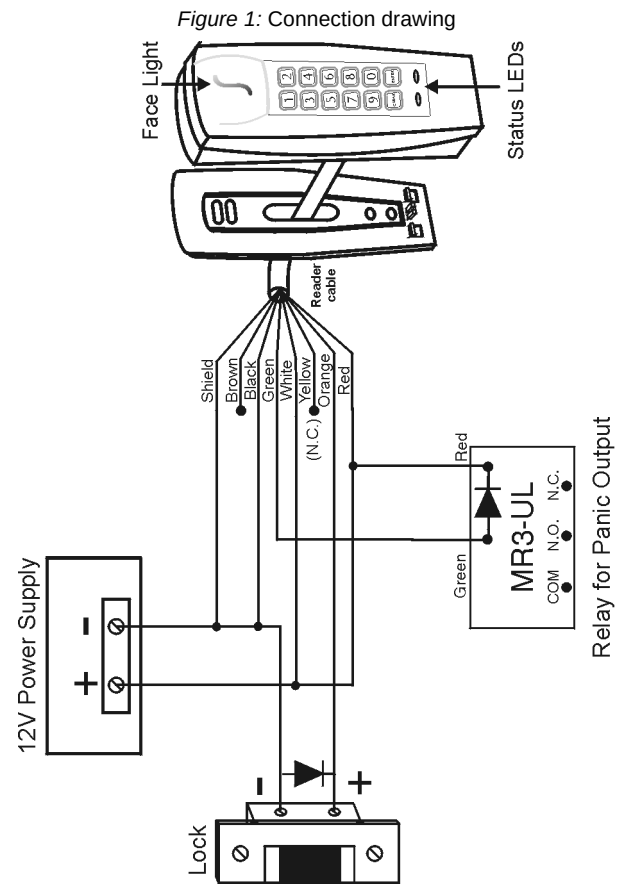
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Although the read range may decrease, PosiPin can be mounted on metal. However, do not box in or surround the card reader with any kind of metal. If the reader must be installed in a metal enclosure, ensure that the face of the card reader is not covered and that at least 1.6" (4cm) remain between the card reader and the metal on all sides of the card reader.

#### TECHNICAL SPECIFICATIONS

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|                   |                                                                                                                                                                      |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input Voltage:    | Typical: 13.8VDC, min.: 11.0VDC, max: 14.5VDC                                                                                                                        |
| Input Current:    | Typical: 65mA @ 12.5VDC, with card: 105mA                                                                                                                            |
| Consumption:      | Typical: 812mW @ 12.5VDC, with card 1.31mW                                                                                                                           |
| Frequency:        | Exciter Field: 125KHz Pulse Modulated, receive low: 12.500KHz, Receive high: 15.625KHz                                                                               |
| Operating Temp:   | -35°C (-31°F) to +65°C (+149°F)                                                                                                                                      |
| Cable Distance:   | 152.4m (500ft.)                                                                                                                                                      |
| Suggested Cables: | 22AWG, 0.8mm, Multi-conductor, Alpha 5196, 5198<br>18AWG, 1.2mm, Multi-conductor, Alpha 5386, 5388<br>Belden 9553, 18AWG, 6-conductor, stranded w/<br>overall shield |
| Indicators:       | Beeper, red LED and green LED<br>For CR-R885-S: red and green Face Light<br>For CR-R885-SB: blue and green Face Light                                                |
| Weight:           | 280g (9.8 oz.)                                                                                                                                                       |
| Material:         | Black, UV resistant, ABS plastic                                                                                                                                     |
| Dimensions:       | 99.5mm (5.75in.) x 118.5mm (2in.) x 19.5mm (1in.)                                                                                                                    |



## FEEDBACK

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Depending on the programming mode chosen, the feedback will differ. In the section *System Programming* on page 6 and *Master Programming* on page 11, the combinations of visual feedback and beep tones are specified step by step.

**Visual Feedback:** When information is entered on the reader's keypad, the red and/or green LEDs will flash, remain constant or extinguish depending on the step reached in programming.

**Confirmation Beep:** When an operation is successfully entered, the reader emits a rapid series of beep tones ("beep-beep-beep-beep-beep").

**Rejection Beep:** When the system reverts to a previous status or an operation is incorrectly entered, the reader emits one long beep tone ("beeeeeeeeeep").

## RESETTING TO DEFAULT

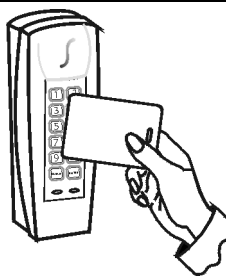
---

To reset all sections to factory defaults, disconnect reader's power supply. Press and hold the **[1]** and **[2]** keys simultaneously while re-connecting its power supply. Sections are reset when the reader emits a confirmation beep.

## CARD PRESENTATION TEST

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Place the card parallel to the PosiPin reader (as shown in the figure) and move it toward the reader until the reader provides audio or visual feedback.



PosiPin 5

## SYSTEM PROGRAMMING

The Installer code (default: 000000) can program a new Installer Code PIN in section **[200]** and program all the system sections from **[001]** to **[005]** and **[101]** to **[104]**.

To enter System Programming Mode:

1. Press and hold the **[CLEAR]** key for 4 seconds.  
*The reader emits a confirmation beep, the green LED illuminates and the red LED extinguishes.*
2. Enter the **[INSTALLER CODE]** and press the **[ENTER]** key.  
*Reader emits a confirmation beep and the green LED flashes.*
3. Enter the 3-digit **[SECTION]** and press the **[ENTER]** key.  
*Reader emits a confirmation beep and green LED becomes constant.*
4. Enter the required **[DATA]** and press the **[ENTER]** key.  
*The reader emits a confirmation beep and the green LED flashes.*
5. **To program another section, repeat steps 2 and 3.** To exit, press and hold the **[CLEAR]** key for 4 seconds.  
*The reader emits a rejection beep and the green LED extinguishes.*

### SECTION [001] CARD/CODE OPTIONS

PosiPin can function as a reader only, as a keypad only or as a combined reader **and** keypad. Option [3] by default

| Enter      | Description                                                                                                                         |
|------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>[0]</b> | Keypad and reader disabled. For programming only.                                                                                   |
| <b>[1]</b> | Reader only. Present valid card to the reader for Access Granted.                                                                   |
| <b>[2]</b> | Keypad only. Enter valid code on the keypad for Access Granted.                                                                     |
| <b>[3]</b> | Keypad and reader enabled. A user must present <b>BOTH</b> a valid card <b>AND</b> enter a valid code to receive an Access Granted. |



*When a Card/Code option is set, it may require several seconds for the system to update the programming. The reader emits a confirmation beep once the modification is complete.*

### **SECTION [002] DOOR LOCK CONTROL**

The Door Lock Control determines the length of time the locking device remains unlatched after an Access Granted. When **[0]** is programmed, the lock is unlatched after an Access Granted and remains unlatched until it receives a second Access Granted (functions like a key). When **[1]** to **[5]** is programmed, the lock remains unlatched for the defined time period. Option **[2]** by default.

| <b>Enter</b> | <b>Description</b>                         |
|--------------|--------------------------------------------|
| <b>[0]</b>   | Card/Code Controlled Free Access (Latched) |
| <b>[1]</b>   | 1 second                                   |
| <b>[2]</b>   | 5 seconds                                  |
| <b>[3]</b>   | 10 seconds                                 |
| <b>[4]</b>   | 20 seconds                                 |
| <b>[5]</b>   | 60 seconds                                 |

### **SECTION [003] ACCESS GRANTED OPTIONS**

The Access Granted Options depend on the Card/Code Options set in section [001]. Option **[0]** by default.

| <b>Enter</b> | <b>Description</b>                         |
|--------------|--------------------------------------------|
| <b>[0]</b>   | Single Access Granted                      |
| <b>[1]</b>   | Dual Access Granted                        |
| <b>[2]</b>   | Dual Access Granted with Dual Panic Disarm |

#### **Single Access Granted**

When **[0]** is programmed, one user can obtain Access Granted by using a valid card, code or both depending on the Card/Code Option set.

### Dual Access Granted

When [1] is programmed, two users are required to obtain Access Granted. Each user must use a valid card, code or both depending on the Card/Code Option set. Only one user is required to disarm a Panic Alarm.

*Example: When the reader and the keypad are enabled, User 1 must present a valid card and enter a valid code and then User 2 must present a valid card and enter a valid code for Access Granted.*

### Dual Access Granted with Dual Panic Disarm

When [2] is programmed, two users are required to obtain Access Granted (same as *Dual Access Granted*) and two users are required to disarm a Panic Alarm.

*For example, a Panic Alarm is triggered, User 1 must present a valid card and enter a valid code and then User 2 must present a valid card and enter a valid code to disarm the alarm.*

### SECTION [004] DISPLAY ON CARD READ

The visual feedback when a card is presented to the reader can be adjusted according to the installation's requirements. Option [3] by default.

| Enter | Description                           |
|-------|---------------------------------------|
| [0]   | Display on Card Read disabled         |
| [1]   | Red Status LED flashes                |
| [2]   | Green Status LED flashes              |
| [3]   | Red and green Status LEDs flash       |
| [4]   | Face Light flashes                    |
| [5]   | Face Light and red Status LED flash   |
| [6]   | Face Light and green Status LED flash |
| [7]   | Face Light and both Status LEDs flash |

#### **SECTION [005] KEYPAD LOCKOUT**

When Keypad Lockout is enabled and the Installer Code is entered incorrectly 3 consecutive times, the keypad ignores all entries for 60 seconds. Option [0] by default.

| Enter | Description             |
|-------|-------------------------|
| [0]   | Keypad Lockout disabled |
| [1]   | Keypad Lockout enabled  |

#### **SECTION [101] BUZZER SETTING**

The number of beep tones emitted as a response to a card being presented to the reader can be adjusted from 0 (disabled) to 7 (7 rapid beep tones). Option [3] by default.

#### **SECTION [102] FACE LIGHT INTENSITY**

The Face Light's illumination can be adjusted according to the installation's requirements from 0 (extinguished) to 8 (brightest). Option [4] by default.

#### **SECTION [103] FACE LIGHT OPERATION**

The Face Light can be set to remain illuminated continually or can follow the state of the Status LEDs. Option [1] by default.

| Enter | Description                    |
|-------|--------------------------------|
| [0]   | Face Light constant            |
| [1]   | Face Light follows Status LEDs |

#### SECTION [104] FACE LIGHT COLOUR

The Face Light's colour can be modified as desired. Option [0] by default.



*This feature only applies when Face Light Operation programmed in Section [103] is set for Option [0]: Face Light constant.*

| Enter | Description                                             |
|-------|---------------------------------------------------------|
| [0]   | Red (for CR-R885-S) or Blue (for CR-R885-SB) Face Light |
| [1]   | Green Face Light                                        |

#### SECTION [200] CHANGING THE INSTALLER CODE

The Installer Code (000000 by default) is used to program all the system's sections, but cannot program the Master and User Codes (see page 11). In section [200] enter six digits where each digit can be any value from 0 to 9.

#### RESETTING THE INSTALLER AND MASTER CODES TO DEFAULT

To reset the Installer Code, Master Code 1 and Master Code 2 to factory defaults, disconnect the reader's power supply. Press and hold the [3] and [4] keys simultaneously while re-connecting its power supply. Installer Code, Master Code 1 and Master Code 2 are reset when the reader emits a confirmation beep.

## MASTER PROGRAMMING

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Master Programming Mode is used to program Master and User Codes.

### SECTIONS [201] AND [202] CHANGING THE MASTER CODES

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Master Code 1 (default: 111111) is used to program both Master Codes, the User Codes and the *Section [002] Door Lock Control* (see page 7). Master Code 2 (default: 222222) can program the User Codes and change its own PIN. Master Code 2 **cannot** program Master Code 1 or the Door Lock Control. In the desired section enter the 6-digit personal identification number (PIN) where each digit can be any value from 0 to 9.

To change the Master Codes:

1. Press and hold the **[CLEAR]** key for 4 seconds.  
*The reader emits a confirmation beep, the green LED illuminates and the red LED extinguishes.*
2. Enter **[MASTER CODE 1 or MASTER CODE 2]** and press the **[ENTER]** key.  
*Reader emits a confirmation beep and the red and the green LEDs flash simultaneously.*
3. Enter **[201]** to change Master Code 1 or **[202]** to change Master Code 2 and press the **[ENTER]** key.  
*Reader emits a confirmation beep and the green LED becomes constant.*
4. Enter the new PIN and press the **[ENTER]** key.  
*The reader emits a confirmation beep and the green LED flashes.*
5. To exit, press and hold the **[CLEAR]** key for 4 seconds.  
*The reader emits a rejection beep and the green LED extinguishes.*

### SECTION [203] USER CODE PROGRAMMING

---

Master Code 1 and 2 can activate cards and program the personal identification numbers (PIN) for the User Codes. PosiPin includes 1000 User Codes. User Code **000** to **999** can be 1 to 8 digits in length where

each digit can be any value from 0 to 9. You can use the table on page 17 to record the User Codes.

To program User Codes:

1. Press and hold the **[CLEAR]** key for 4 seconds.  
*The reader emits a confirmation beep, the green LED illuminates and the red LED extinguishes.*
2. Enter **[MASTER CODE 1 or MASTER CODE 2]** and press the **[ENTER]** key.  
*Reader emits a confirmation beep and the red and the green LEDs flash simultaneously.*
3. Enter **[203]** and press the **[ENTER]** key.  
*Reader emits a confirmation beep and the red and the green LEDs flash alternately.*
4. Enter the User Code number from **000 to 999**. Press the **[ENTER]** key.  
*The reader emits a confirmation beep and the green LED illuminates. If the red LED illuminates, the section is empty. If the red LED stays extinguished, a User Code is already programmed in the section.*
5. Program the card and/or code depending on the Card/Code Option selected (see page 6). If Reader Only or Keypad Only are enabled, present the card to the reader or enter the PIN. If Keypad and Reader are enabled, first present the card to the reader and then enter the PIN. Press the **[ENTER]** key.  
*The reader emits a confirmation beep and advances to the next section.*
6. **To program another section, repeat step 5.** To exit, press and hold the **[CLEAR]** key for 4 seconds.



When you press the **[CLEAR]** key in step 5:

*If the section is not programmed, PosiPin will exit the section and revert to step 4. If a card was entered or a key was pressed, PosiPin will delete the information and remain in the section. You can then enter a new card or PIN.*

### DELETING A USER CODE

User Codes can be deleted individually. When the User Code is deleted, a new card and/or PIN can be programmed in the section.

To delete User Codes:

1. Press and hold the **[CLEAR]** key for 4 seconds.  
*The reader emits a confirmation beep, the green LED illuminates and the red LED extinguishes.*
2. Enter **[MASTER CODE 1 or MASTER CODE 2]** and press the **[ENTER]** key.  
*Reader emits a confirmation beep and the red and the green LEDs flash simultaneously.*
3. Enter **[203]** and press the **[ENTER]** key.  
*Reader emits a confirmation beep and the red and the green LEDs flash alternately.*
4. Enter the section of the desired User Code. Press the **[ENTER]** key.  
*The reader emits a confirmation beep and the green LED illuminates. If the red LED illuminates, the section is empty. If the red LED remains extinguished, a User Code is already programmed in the section.*
5. Press the **[CLEAR]** key.  
*The red LED flashes.*
6. Press the **[ENTER]** key to delete the section's programming and advance to the next section. Press the **[CLEAR]** key to exit the section without deleting the programming.
7. Press and hold the **[CLEAR]** key for 4 seconds to exit.

## SECTION [204] USER CODE RESET

User Code Reset is used to delete all the User Codes (from User Code **000** to **999**).

To reset all User Codes:

1. Press and hold the **[CLEAR]** key for 4 seconds.  
*The reader emits a confirmation beep, the green LED illuminates and the red LED extinguishes.*
2. Enter **[MASTER CODE 1 or MASTER CODE 2]** and press the **[ENTER]** key.  
*Reader emits a confirmation beep and the red and the green LEDs flash simultaneously.*
3. Enter **[204]** and press the **[ENTER]** key.  
*Reader emits a confirmation beep and the red and the green LEDs flash alternately.*
4. Press the **[1]** key and then press the **[ENTER]** key to confirm the reset.  
*The reader emits a confirmation beep when the User Codes are deleted.*



*When the User Codes are reset, it may require several seconds for the system to update the programming. The reader emits a confirmation beep once the modification is complete.*

## USER OPERATION

### USER ACCESS

Access is granted according to the Card/Code Option (see page 6) and the Access Granted Option set (see page 7).

|                          | Single Access Granted                                                                                                                                                                                                        | Dual Access Granted                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reader Only</b>       | 1 user: user presents a valid card to the reader.                                                                                                                                                                            | 2 users: each user presents a valid card to the reader.                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Keypad Only</b>       | 1 user: user enters a valid User Code on the keypad and presses the <b>[ENTER]</b> key.                                                                                                                                      | 2 users: each user in turn enters a valid User Code on the keypad and presses the <b>[ENTER]</b> key.                                                                                                                                                                                                                                                                                                                                    |
| <b>Reader and Keypad</b> | 1 user: user presents a valid card to the reader. The reader emits a confirmation beep and the green Status LED flashes. User must enter a valid User Code on the keypad and press the <b>[ENTER]</b> key within 10 seconds. | 2 users: the first user presents a valid card to the reader. The reader emits a confirmation beep and the green Status LED flashes. The first user must enter a valid User Code on the keypad and press the <b>[ENTER]</b> key within 10 seconds. The reader will emit a Confirmation Beep and the red Status LED flashes slowly. The second user has 30 seconds to present a valid card to the reader and then enter a valid User Code. |



*The second user's card and/or User Code must be different from the first.*

### PANIC ALARM

A panic alarm can be generated by pressing and holding the **[CLEAR]** and **[ENTER]** keys for 2 seconds. The Panic Alarm will activate the panic output (see page 4). Access will not be granted to users until the Panic alarm is disarmed. Disarming a Panic Alarm depends on the Card/Code Option (see page 6) and Access Granted Option (see page 7). To disarm a Panic Alarm:

|                          | Single Access Granted                                                                            | Dual Access Granted | Dual Access Granted with Dual Panic Disarm                                                                                                                                                                                              |
|--------------------------|--------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reader Only</b>       | present 1 valid card to the reader                                                               |                     | 2 users: each user presents a valid card to the reader.                                                                                                                                                                                 |
| <b>Keypad Only</b>       | enter 1 valid User Code and press the <b>[ENTER]</b> key                                         |                     | 2 users: each user enters a valid User Code and presses the <b>[ENTER]</b> key.                                                                                                                                                         |
| <b>Reader and Keypad</b> | present 1 valid card to the reader then enter 1 valid User Code and press the <b>[ENTER]</b> key |                     | 2 users: the first user presents a valid card to the reader. then must enter a valid User Code and press the <b>[ENTER]</b> key. The second user has 30 seconds to present a valid card to the reader and then enter a valid User Code. |



*The second user's card and/or User Code must be different from the first.*

[illegible]



## WARRANTY

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This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

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