PIN and Proximity Reader
For Access Control Systems
(CR-R885-BL)

Installation and Operating Instructions
V1.1

Position Technology™

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INSTALLATION

For PosiPin to function correctly with the access control system, some programming may be required in the controller or control panel of the host system. For further instructions, refer to the appropriate manual. Only explanations directly concerning PosiPin's programming will be included in this manual.

SELECTING 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

After selecting a site for the PosiPin, 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. Route the cable to the controller and connect as shown in *Figure 1: Connection Drawing* on page 5.

MOUNTING ON METAL SURFACES

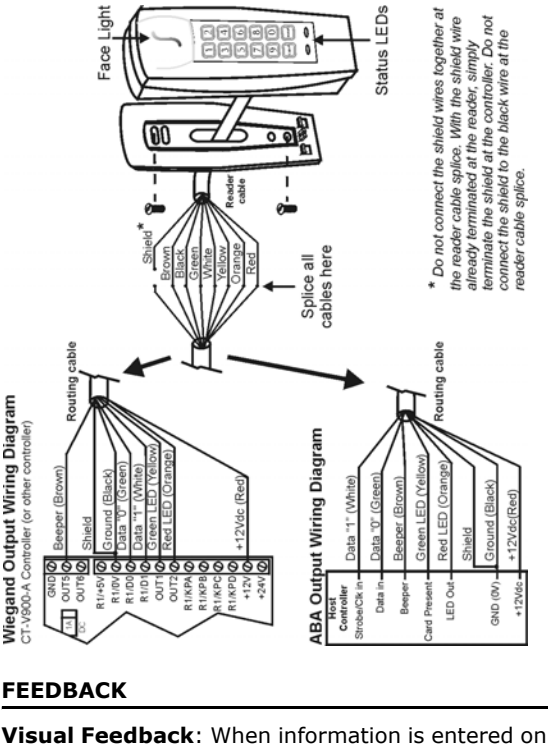
Although the read range may slightly decrease, PosiPin can be mounted on metal. However, do not box in or surround the card reader with any kind of metal. If the reader must be installed in a metal enclosure, ensure that the face of the card reader is not covered and that at least 1.6" (4cm) remain between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

TECHNICAL SPECIFICATIONS

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:	-25°C (-13°F) to +65°C (+149°F)
Output formats:	Reader: 26- and 37-bit Wiegand Keypad: 8-, 26- and 37-bit Wiegand, 4-bit with or without parity, and 4 bits buffered with or without parity
Cable Distance:	152.4m (500ft.)

Suggested Cables:	22AWG, 0.8mm, Multi-conductor, Alpha 5196, 5198 18AWG, 1.2mm, Multi-conductor, Alpha 5386, 5388 Belden 9553, 18AWG, 6-conductor, stranded w/overall shield
Indicators:	Beeper, red LED, green LED, blue or 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.)
Approvals:	CE Compliant to all EU and EFTA countries except Greece according to RTT&E directives.

Figure 1: Connection Drawing



FEEDBACK

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 operation.

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").

PROGRAMMING

Ensure that corresponding programming is completed in the control panel or controller connected to the PosiPin.

To Program:

1. Press and hold the **[CLEAR]** key for 4 seconds.
   The reader emits a confirmation beep and the green LED illuminates.
2. Enter the **[INSTALLER CODE]**. Press the **[ENTER]** key.
   (default:000000) Reader emits a confirmation beep and the green LED flashes.
3. Enter the 3-digit **[SECTION]**. Press the **[ENTER]** key.
   Reader emits a confirmation beep and the green LED stops flashing.
4. Enter the required **[DATA]**. Press the **[ENTER]** key.
   The reader emits a confirmation beep and the green LED flashes.

5. To program another section, repeat steps 3 and 4. To exit programming mode, press and hold the **[CLEAR]** key for 4 sec.
   The reader emits a rejection beep and the green LED extinguishes.

CARD/CODE OPTIONS

Section **[001]** - Default: **[3]**
PosiPin can function as a reader, a keypad or as both combined.

Enter	Description
[0]	Keypad and reader disabled. For programming only.
[1]	Reader only enabled. A user must present a valid card to the reader for Access Granted.
[2]	Keypad only enabled. A user must enter a valid code on the keypad for Access Granted.
[3]	Keypad and reader enabled. A user must present a valid card and enter a valid code for Access Granted.

KEYPAD COMMUNICATION FORMAT

Section **[002]** - Default: **[1]**
PosiPin must use the same keypad communication format as the controller.

Enter	Description
[0]	8-bit Wiegand (Motorola ARK).
[1]	26-bit Wiegand, default used by Centaur (also see section [006]).

[2]	37-bit Wiegand (Not supported by Centaur).
[3]	4 bits without parity.
[4]	4 bits with parity.
[5]	4 bits buffered without parity (also see section **[003]**).
[6]	4 bits buffered with parity (also see section **[003]**).

Note that BCD is not supported.

TRANSFER LIMIT FOR 4-BITS BUFFERED FORMAT

Section **[003]** - Default: **[00]**
This feature sets the number of digits retained in memory before the data is sent to the controller. For example, if section **[003]** is set at 05, PosiPin will transmit once five digits are entered on the keypad.

*This feature only applies when the format programmed in Section **[002]** is set for Option **[5]**: 4 bits buffered without parity or Option **[6]**: 4 bits buffered with parity.*

Enter	Description
[01] to [11]	If section **[002]** is Option **[5]**: 4 bits buffered without parity.
[01] to [10]	If section **[002]** is Option **[6]**: 4 bits buffered with parity.

DISPLAY ON CARD READ

Section **[004]** - Default: **[3]**
PosiPin's response to a card being presented to the reader can be adjusted according to the installation's requirements.

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

Select **[0]** in *Face Light Operation* (see page 12) to enable options **[0]** to **[3]** in section **[004]** or select **[1]** in *Face Light Operation*, (see page 12) to enable options **[4]** to **[7]** in section **[004]**.

* If section **[103]** (page 12) is set to **[1]**, the face light will also flash.

KEYPAD LOCKOUT

Section **[005]** - Default: **[0]**
The PosiPin keypad comes with a feature that will lock the keypad for 60 seconds when an installer code is entered incorrectly 3 consecutive times.

Enter	Description
[0]	Keypad Lockout disabled.
[1]	Keypad Lockout enabled.

26-BIT WIEGAND CARD FAMILY CODE SETTING

Section **[006]** - Default: **[000]**
When the keypad is enabled, the card's family code must be programmed in order for the keypad to recognize the user's PIN. When a user enters a PIN on the keypad, PosiPin will automatically add the family code programmed in section **[006]** to the beginning of the PIN before transmitting the data to the controller. Therefore, also ensure that all cards to be used with the PosiPin contain the same family code.

*This feature only applies when the communication format programmed in Section **[002]** is set for Option **[1]**: 26-bit Wiegand.*

Enter	Description
[0] to [255]	Cards' Family Code.

READER'S INTERFACE

Section **[007]** - Default: **[0]**
The reader component of the PosiPin must be programmed to use the same reader communication format as the controller.

Enter	Description
[0]	26-bit Wiegand.

[1]	37-bit Wiegand.

CHECK-IN SUPERVISION

Section **[008]** - Default: **[0]**

*This feature only applies when the communication format programmed in Section **[002]** is set for Option **[1]**: 26-bit Wiegand or Option **[2]**: 37-bit Wiegand.*

When no actions are performed on the PosiPin for a period of time, it will communicate its status to the controller every 30 seconds by sending a code to confirm its presence (26-bit Wiegand = 255:65535; 37-bit Wiegand = 65535:65535). If the PosiPin does not communicate its status every 30 seconds, the controller can be programmed to generate an alarm.

Enter	Description
[0]	Check-in Supervision disabled.
[1]	Check-in Supervision enabled.

BUZZER SETTING

Section **[101]** - Default: **[3]**

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).

Enter	Description
[0] to [7]	Number of beep tones per response.

FACE LIGHT INTENSITY

Section **[102]** - Default: **[4]**
The Face Light's illumination can be adjusted according to the installation's requirements from 0 (extinguished) to 8 (brightest).

Enter	Description
[0] to [8]	Face Light's intensity level.

FACE LIGHT OPERATION

Section **[103]** - Default: **[0**]
The Face Light can be set to remain illuminated continually or can follow the Status LEDs' state.

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

If **[0]** in section **[103]** is selected, this will override options **[4]** to **[7]** in *Display on Card Read* (see page 9). In addition, if **[1]** in section **[103]** is selected, this will override **[0]** to **[3]** in *Display on Card Read* (see page 9).

FACE LIGHT COLOUR

Section **[104]** - Default: **[0]**
The Face Light's colour can be blue or green as desired.

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

Enter	Description
[0]	Blue Face Light.
[1]	Green Face Light.

CHANGING THE INSTALLER CODE

Section **[200]** - Default: 000000
The Installer Code is used to enter PosiPin's programming mode. The Installer Code is six digits long where each digit can be any value from 0 to 9.

PANIC ALARM

A panic code can be generated and transmitted to the controller by pressing and holding the **[CLEAR]** and **[ENTER]** keys for 2 seconds (26-bit Wiegand = 255:65534; 37-bit Wiegand = 65535:65534).

*This feature only applies when the communication format programmed in Section **[002]** is set for Option **[1]**: 26-bit Wiegand or Option **[2]**: 37-bit Wiegand.*

RESETTING TO DEFAULT

To reset PosiPin to factory defaults, disconnect its power supply. Press and hold the **[1]** and **[2]** keys simultaneously while reconnecting its power supply.

CARD PRESENTATION TEST

Present the card to the reader as shown in the figure below. Place the card parallel to the PosiPin reader and move it toward the reader until the card code

displays on the controller screen. At this point, the card is read, decoded, data transmitted to the controller and the controller has responded accordingly. To read the card again, remove and re-insert the card into the reader's field.

WARRANTY

The Seller warrants its products to be free from defects in materials and workmanship under normal use for a period of one year. Except as specifically stated herein, all express or implied warranties whatsoever, statutory or otherwise, including without limitation, any implied warranty of merchantability and fitness for a particular purpose, are expressly excluded. Because Seller does not install or connect the products and because the products may be used in conjunction with products not manufactured by Seller, Seller cannot guarantee the performance of the security system. Seller obligation and liability under this warranty is expressly limited to repairing or replacing, at Seller's option, any product not meeting the specifications. In no event shall the Seller be liable

to the buyer or any other person for any loss or damages whether direct or indirect, consequential or incidental, including without limitation any damages for lost profits stolen goods or claims by any other party caused by defective goods or otherwise arising from the improper, incorrect or otherwise faulty installation or use of the merchandise sold.

Notes

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MOUNTING AND WIRING

After selecting a site for the PosiPin, 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

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MOUNTING ON METAL SURFACES

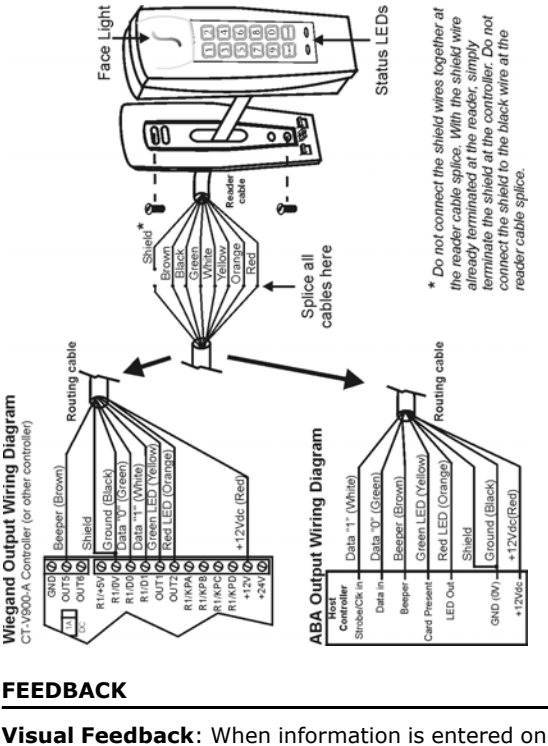
Although the read range may slightly decrease, PosiPin can be mounted on metal. However, do not box in or surround the card reader with any kind of metal. If the reader must be installed in a metal enclosure, ensure that the face of the card reader is not covered and that at least 1.6" (4cm) remain between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

TECHNICAL SPECIFICATIONS

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:	-25°C (-13°F) to +65°C (+149°F)
Output formats:	Reader: 26- and 37-bit Wiegand Keypad: 8-, 26- and 37-bit Wiegand, 4-bit with or without parity, and 4 bits buffered with or without parity
Cable Distance:	152.4m (500ft.)

Suggested Cables:	22AWG, 0.8mm, Multi-conductor, Alpha 5196, 5198 18AWG, 1.2mm, Multi-conductor, Alpha 5386, 5388 Belden 9553, 18AWG, 6-conductor, stranded w/overall shield
Indicators:	Beeper, red LED, green LED, blue or 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.)
Approvals:	CE Compliant to all EU and EFTA countries except Greece according to RTT&E directives.

Figure 1: Connection Drawing



FEEDBACK

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 operation.

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").

PROGRAMMING

Ensure that corresponding programming is completed in the control panel or controller connected to the PosiPin.

To Program:

1. Press and hold the **[CLEAR]** key for 4 seconds.
   The reader emits a confirmation beep and the green LED illuminates.
2. Enter the **[INSTALLER CODE]**. Press the **[ENTER]** key.
   (default:000000) Reader emits a confirmation beep and the green LED flashes.
3. Enter the 3-digit **[SECTION]**. Press the **[ENTER]** key.
   Reader emits a confirmation beep and the green LED stops flashing.
4. Enter the required **[DATA]**. Press the **[ENTER]** key.
   The reader emits a confirmation beep and the green LED flashes.

5. To program another section, repeat steps 3 and 4. To exit programming mode, press and hold the **[CLEAR]** key for 4 sec.
   The reader emits a rejection beep and the green LED extinguishes.

CARD/CODE OPTIONS

Section **[001]** - Default: **[3]**
PosiPin can function as a reader, a keypad or as both combined.

Enter	Description
[0]	Keypad and reader disabled. For programming only.
[1]	Reader only enabled. A user must present a valid card to the reader for Access Granted.
[2]	Keypad only enabled. A user must enter a valid code on the keypad for Access Granted.
[3]	Keypad and reader enabled. A user must present a valid card and enter a valid code for Access Granted.

KEYPAD COMMUNICATION FORMAT

Section **[002]** - Default: **[1]**
PosiPin must use the same keypad communication format as the controller.

Enter	Description
[0]	8-bit Wiegand (Motorola ARK).
[1]	26-bit Wiegand, default used by Centaur (also see section [006]).

[2]	37-bit Wiegand (Not supported by Centaur).
[3]	4 bits without parity.
[4]	4 bits with parity.
[5]	4 bits buffered without parity (also see section **[003]**).
[6]	4 bits buffered with parity (also see section **[003]**).

Note that BCD is not supported.

TRANSFER LIMIT FOR 4-BITS BUFFERED FORMAT

Section **[003]** - Default: **[00]**
This feature sets the number of digits retained in memory before the data is sent to the controller. For example, if section **[003]** is set at 05, PosiPin will transmit once five digits are entered on the keypad.

*This feature only applies when the format programmed in Section **[002]** is set for Option **[5]**: 4 bits buffered without parity or Option **[6]**: 4 bits buffered with parity.*

Enter	Description
[01] to [11]	If section **[002]** is Option **[5]**: 4 bits buffered without parity.
[01] to [10]	If section **[002]** is Option **[6]**: 4 bits buffered with parity.

DISPLAY ON CARD READ

Section **[004]** - Default: **[3]**
PosiPin's response to a card being presented to the reader can be adjusted according to the installation's requirements.

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

Select **[0]** in *Face Light Operation* (see page 12) to enable options **[0]** to **[3]** in section **[004]** or select **[1]** in *Face Light Operation*, (see page 12) to enable options **[4]** to **[7]** in section **[004]**.

* If section **[103]** (page 12) is set to **[1]**, the face light will also flash.

KEYPAD LOCKOUT

Section **[005]** - Default: **[0]**
The PosiPin keypad comes with a feature that will lock the keypad for 60 seconds when an installer code is entered incorrectly 3 consecutive times.

Enter	Description
[0]	Keypad Lockout disabled.
[1]	Keypad Lockout enabled.

26-BIT WIEGAND CARD FAMILY CODE SETTING

Section **[006]** - Default: **[000]**
When the keypad is enabled, the card's family code must be programmed in order for the keypad to recognize the user's PIN. When a user enters a PIN on the keypad, PosiPin will automatically add the family code programmed in section **[006]** to the beginning of the PIN before transmitting the data to the controller. Therefore, also ensure that all cards to be used with the PosiPin contain the same family code.

*This feature only applies when the communication format programmed in Section **[002]** is set for Option **[1]**: 26-bit Wiegand.*

Enter	Description
[0] to [255]	Cards' Family Code.

READER'S INTERFACE

Section **[007]** - Default: **[0]**
The reader component of the PosiPin must be programmed to use the same reader communication format as the controller.

Enter	Description
[0]	26-bit Wiegand.

[1]	37-bit Wiegand.

CHECK-IN SUPERVISION

Section **[008]** - Default: **[0]**

*This feature only applies when the communication format programmed in Section **[002]** is set for Option **[1]**: 26-bit Wiegand or Option **[2]**: 37-bit Wiegand.*

When no actions are performed on the PosiPin for a period of time, it will communicate its status to the controller every 30 seconds by sending a code to confirm its presence (26-bit Wiegand = 255:65535; 37-bit Wiegand = 65535:65535). If the PosiPin does not communicate its status every 30 seconds, the controller can be programmed to generate an alarm.

Enter	Description
[0]	Check-in Supervision disabled.
[1]	Check-in Supervision enabled.

BUZZER SETTING

Section **[101]** - Default: **[3]**

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).

Enter	Description
[0] to [7]	Number of beep tones per response.

FACE LIGHT INTENSITY

Section **[102]** - Default: **[4]**
The Face Light's illumination can be adjusted according to the installation's requirements from 0 (extinguished) to 8 (brightest).

Enter	Description
[0] to [8]	Face Light's intensity level.

FACE LIGHT OPERATION

Section **[103]** - Default: **[0**]
The Face Light can be set to remain illuminated continually or can follow the Status LEDs' state.

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

If **[0]** in section **[103]** is selected, this will override options **[4]** to **[7]** in *Display on Card Read* (see page 9). In addition, if **[1]** in section **[103]** is selected, this will override **[0]** to **[3]** in *Display on Card Read* (see page 9).

FACE LIGHT COLOUR

Section **[104]** - Default: **[0]**
The Face Light's colour can be blue or green as desired.

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

Enter	Description
[0]	Blue Face Light.
[1]	Green Face Light.

CHANGING THE INSTALLER CODE

Section **[200]** - Default: 000000
The Installer Code is used to enter PosiPin's programming mode. The Installer Code is six digits long where each digit can be any value from 0 to 9.

PANIC ALARM

A panic code can be generated and transmitted to the controller by pressing and holding the **[CLEAR]** and **[ENTER]** keys for 2 seconds (26-bit Wiegand = 255:65534; 37-bit Wiegand = 65535:65534).

*This feature only applies when the communication format programmed in Section **[002]** is set for Option **[1]**: 26-bit Wiegand or Option **[2]**: 37-bit Wiegand.*

RESETTING TO DEFAULT

To reset PosiPin to factory defaults, disconnect its power supply. Press and hold the **[1]** and **[2]** keys simultaneously while reconnecting its power supply.

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WARRANTY

The Seller warrants its products to be free from defects in materials and workmanship under normal use for a period of one year. Except as specifically stated herein, all express or implied warranties whatsoever, statutory or otherwise, including without limitation, any implied warranty of merchantability and fitness for a particular purpose, are expressly excluded. Because Seller does not install or connect the products and because the products may be used in conjunction with products not manufactured by Seller, Seller cannot guarantee the performance of the security system. Seller obligation and liability under this warranty is expressly limited to repairing or replacing, at Seller's option, any product not meeting the specifications. In no event shall the Seller be liable

to the buyer or any other person for any loss or damages whether direct or indirect, consequential or incidental, including without limitation any damages for lost profits stolen goods or claims by any other party caused by defective goods or otherwise arising from the improper, incorrect or otherwise faulty installation or use of the merchandise sold.

Notes

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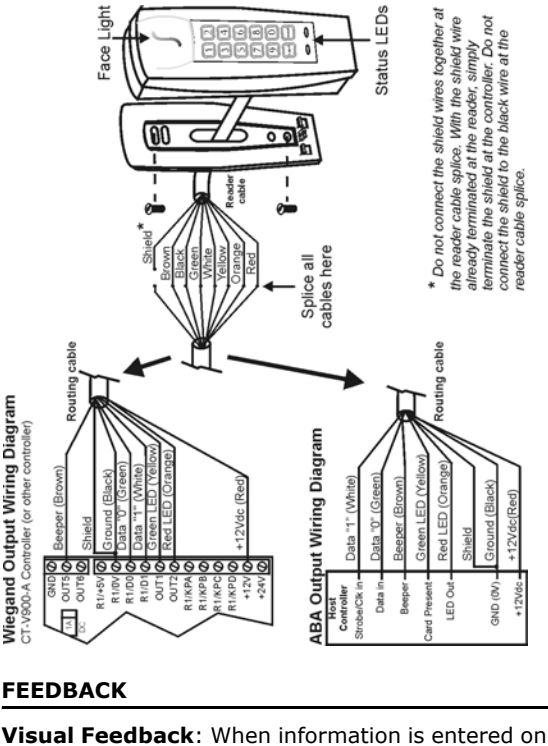
Dimensions:	99.5mm (5.75in.) x 118.5mm (2in.) x 19.5mm (1in.)
Approvals:	CE Compliant to all EU and EFTA countries except Greece according to RTT&E directives.

Figure 1: Connection Drawing



FEEDBACK

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 operation.

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").

PROGRAMMING

Ensure that corresponding programming is completed in the control panel or controller connected to the PosiPin.

To Program:

1. Press and hold the **[CLEAR]** key for 4 seconds.
   The reader emits a confirmation beep and the green LED illuminates.
2. Enter the **[INSTALLER CODE]**. Press the **[ENTER]** key.
   (default:000000) Reader emits a confirmation beep and the green LED flashes.
3. Enter the 3-digit **[SECTION]**. Press the **[ENTER]** key.
   Reader emits a confirmation beep and the green LED stops flashing.
4. Enter the required **[DATA]**. Press the **[ENTER]** key.
   The reader emits a confirmation beep and the green LED flashes.

5. To program another section, repeat steps 3 and 4. To exit programming mode, press and hold the **[CLEAR]** key for 4 sec.
   The reader emits a rejection beep and the green LED extinguishes.

CARD/CODE OPTIONS

Section **[001]** - Default: **[3]**
PosiPin can function as a reader, a keypad or as both combined.

Enter	Description
[0]	Keypad and reader disabled. For programming only.
[1]	Reader only enabled. A user must present a valid card to the reader for Access Granted.
[2]	Keypad only enabled. A user must enter a valid code on the keypad for Access Granted.
[3]	Keypad and reader enabled. A user must present a valid card and enter a valid code for Access Granted.

KEYPAD COMMUNICATION FORMAT

Section **[002]** - Default: **[1]**
PosiPin must use the same keypad communication format as the controller.

Enter	Description
[0]	8-bit Wiegand (Motorola ARK).
[1]	26-bit Wiegand, default used by Centaur (also see section [006]).

[2]	37-bit Wiegand (Not supported by Centaur).
[3]	4 bits without parity.
[4]	4 bits with parity.
[5]	4 bits buffered without parity (also see section **[003]**).
[6]	4 bits buffered with parity (also see section **[003]**).

Note that BCD is not supported.

TRANSFER LIMIT FOR 4-BITS BUFFERED FORMAT

Section **[003]** - Default: **[00]**
This feature sets the number of digits retained in memory before the data is sent to the controller. For example, if section **[003]** is set at 05, PosiPin will transmit once five digits are entered on the keypad.

*This feature only applies when the format programmed in Section **[002]** is set for Option **[5]**: 4 bits buffered without parity or Option **[6]**: 4 bits buffered with parity.*

Enter	Description
[01] to [11]	If section **[002]** is Option **[5]**: 4 bits buffered without parity.
[01] to [10]	If section **[002]** is Option **[6]**: 4 bits buffered with parity.

DISPLAY ON CARD READ

Section **[004]** - Default: **[3]**
PosiPin's response to a card being presented to the reader can be adjusted according to the installation's requirements.

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

Select **[0]** in *Face Light Operation* (see page 12) to enable options **[0]** to **[3]** in section **[004]** or select **[1]** in *Face Light Operation*, (see page 12) to enable options **[4]** to **[7]** in section **[004]**.

* If section **[103]** (page 12) is set to **[1]**, the face light will also flash.

KEYPAD LOCKOUT

Section **[005]** - Default: **[0]**
The PosiPin keypad comes with a feature that will lock the keypad for 60 seconds when an installer code is entered incorrectly 3 consecutive times.

Enter	Description
[0]	Keypad Lockout disabled.
[1]	Keypad Lockout enabled.

26-BIT WIEGAND CARD FAMILY CODE SETTING

Section **[006]** - Default: **[000]**
When the keypad is enabled, the card's family code must be programmed in order for the keypad to recognize the user's PIN. When a user enters a PIN on the keypad, PosiPin will automatically add the family code programmed in section **[006]** to the beginning of the PIN before transmitting the data to the controller. Therefore, also ensure that all cards to be used with the PosiPin contain the same family code.

*This feature only applies when the communication format programmed in Section **[002]** is set for Option **[1]**: 26-bit Wiegand.*

Enter	Description
[0] to [255]	Cards' Family Code.

READER'S INTERFACE

Section **[007]** - Default: **[0]**
The reader component of the PosiPin must be programmed to use the same reader communication format as the controller.

Enter	Description
[0]	26-bit Wiegand.

[1]	37-bit Wiegand.

CHECK-IN SUPERVISION

Section **[008]** - Default: **[0]**

*This feature only applies when the communication format programmed in Section **[002]** is set for Option **[1]**: 26-bit Wiegand or Option **[2]**: 37-bit Wiegand.*

When no actions are performed on the PosiPin for a period of time, it will communicate its status to the controller every 30 seconds by sending a code to confirm its presence (26-bit Wiegand = 255:65535; 37-bit Wiegand = 65535:65535). If the PosiPin does not communicate its status every 30 seconds, the controller can be programmed to generate an alarm.

Enter	Description
[0]	Check-in Supervision disabled.
[1]	Check-in Supervision enabled.

BUZZER SETTING

Section **[101]** - Default: **[3]**

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).

Enter	Description
[0] to [7]	Number of beep tones per response.

FACE LIGHT INTENSITY

Section **[102]** - Default: **[4]**
The Face Light's illumination can be adjusted according to the installation's requirements from 0 (extinguished) to 8 (brightest).

Enter	Description
[0] to [8]	Face Light's intensity level.

FACE LIGHT OPERATION

Section **[103]** - Default: **[0**]
The Face Light can be set to remain illuminated continually or can follow the Status LEDs' state.

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

If **[0]** in section **[103]** is selected, this will override options **[4]** to **[7]** in *Display on Card Read* (see page 9). In addition, if **[1]** in section **[103]** is selected, this will override **[0]** to **[3]** in *Display on Card Read* (see page 9).

FACE LIGHT COLOUR

Section **[104]** - Default: **[0]**
The Face Light's colour can be blue or green as desired.

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

Enter	Description
[0]	Blue Face Light.
[1]	Green Face Light.

CHANGING THE INSTALLER CODE

Section **[200]** - Default: 000000
The Installer Code is used to enter PosiPin's programming mode. The Installer Code is six digits long where each digit can be any value from 0 to 9.

PANIC ALARM

A panic code can be generated and transmitted to the controller by pressing and holding the **[CLEAR]** and **[ENTER]** keys for 2 seconds (26-bit Wiegand = 255:65534; 37-bit Wiegand = 65535:65534).

*This feature only applies when the communication format programmed in Section **[002]** is set for Option **[1]**: 26-bit Wiegand or Option **[2]**: 37-bit Wiegand.*

RESETTING TO DEFAULT

To reset PosiPin to factory defaults, disconnect its power supply. Press and hold the **[1]** and **[2]** keys simultaneously while reconnecting its power supply.

CARD PRESENTATION TEST

Present the card to the reader as shown in the figure below. Place the card parallel to the PosiPin reader and move it toward the reader until the card code

displays on the controller screen. At this point, the card is read, decoded, data transmitted to the controller and the controller has responded accordingly. To read the card again, remove and re-insert the card into the reader's field.

WARRANTY

The Seller warrants its products to be free from defects in materials and workmanship under normal use for a period of one year. Except as specifically stated herein, all express or implied warranties whatsoever, statutory or otherwise, including without limitation, any implied warranty of merchantability and fitness for a particular purpose, are expressly excluded. Because Seller does not install or connect the products and because the products may be used in conjunction with products not manufactured by Seller, Seller cannot guarantee the performance of the security system. Seller obligation and liability under this warranty is expressly limited to repairing or replacing, at Seller's option, any product not meeting the specifications. In no event shall the Seller be liable

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Notes

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PPIN-EI01

PIN and Proximity Reader
For Access Control Systems
(CR-R885-BL)

Installation and Operating Instructions
V1.1

Position Technology™

TABLE OF CONTENTS

INSTALLATION

For PosiPin to function correctly with the access control system, some programming may be required in the controller or control panel of the host system. For further instructions, refer to the appropriate manual. Only explanations directly concerning PosiPin's programming will be included in this manual.

SELECTING 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

After selecting a site for the PosiPin, 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. Route the cable to the controller and connect as shown in *Figure 1: Connection Drawing* on page 5.

MOUNTING ON METAL SURFACES

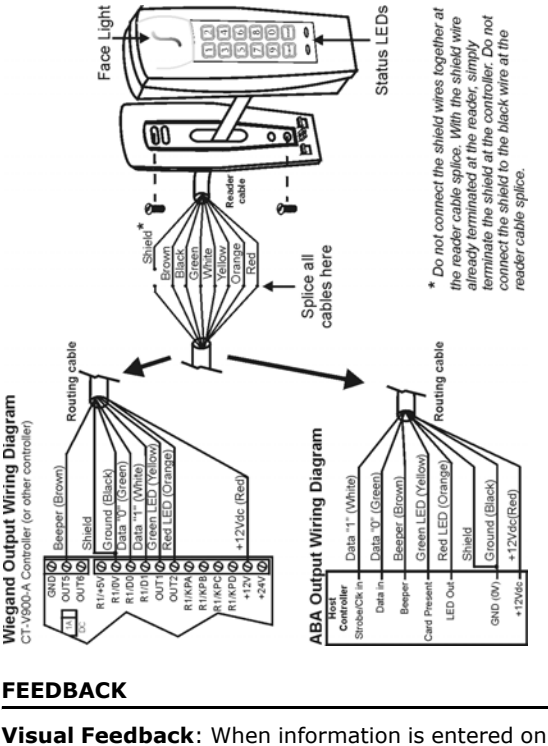
Although the read range may slightly decrease, PosiPin can be mounted on metal. However, do not box in or surround the card reader with any kind of metal. If the reader must be installed in a metal enclosure, ensure that the face of the card reader is not covered and that at least 1.6" (4cm) remain between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

TECHNICAL SPECIFICATIONS

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:	-25°C (-13°F) to +65°C (+149°F)
Output formats:	Reader: 26- and 37-bit Wiegand Keypad: 8-, 26- and 37-bit Wiegand, 4-bit with or without parity, and 4 bits buffered with or without parity
Cable Distance:	152.4m (500ft.)

Suggested Cables:	22AWG, 0.8mm, Multi-conductor, Alpha 5196, 5198 18AWG, 1.2mm, Multi-conductor, Alpha 5386, 5388 Belden 9553, 18AWG, 6-conductor, stranded w/overall shield
Indicators:	Beeper, red LED, green LED, blue or 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.)
Approvals:	CE Compliant to all EU and EFTA countries except Greece according to RTT&E directives.

Figure 1: Connection Drawing



FEEDBACK

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 operation.

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").

PROGRAMMING

Ensure that corresponding programming is completed in the control panel or controller connected to the PosiPin.

To Program:

1. Press and hold the **[CLEAR]** key for 4 seconds.
   The reader emits a confirmation beep and the green LED illuminates.
2. Enter the **[INSTALLER CODE]**. Press the **[ENTER]** key.
   (default:000000) Reader emits a confirmation beep and the green LED flashes.
3. Enter the 3-digit **[SECTION]**. Press the **[ENTER]** key.
   Reader emits a confirmation beep and the green LED stops flashing.
4. Enter the required **[DATA]**. Press the **[ENTER]** key.
   The reader emits a confirmation beep and the green LED flashes.

5. To program another section, repeat steps 3 and 4. To exit programming mode, press and hold the **[CLEAR]** key for 4 sec.
   The reader emits a rejection beep and the green LED extinguishes.

CARD/CODE OPTIONS

Section **[001]** - Default: **[3]**
PosiPin can function as a reader, a keypad or as both combined.

Enter	Description
[0]	Keypad and reader disabled. For programming only.
[1]	Reader only enabled. A user must present a valid card to the reader for Access Granted.
[2]	Keypad only enabled. A user must enter a valid code on the keypad for Access Granted.
[3]	Keypad and reader enabled. A user must present a valid card and enter a valid code for Access Granted.

KEYPAD COMMUNICATION FORMAT

Section **[002]** - Default: **[1]**
PosiPin must use the same keypad communication format as the controller.

Enter	Description
[0]	8-bit Wiegand (Motorola ARK).
[1]	26-bit Wiegand, default used by Centaur (also see section [006]).

[2]	37-bit Wiegand (Not supported by Centaur).
[3]	4 bits without parity.
[4]	4 bits with parity.
[5]	4 bits buffered without parity (also see section **[003]**).
[6]	4 bits buffered with parity (also see section **[003]**).

Note that BCD is not supported.

TRANSFER LIMIT FOR 4-BITS BUFFERED FORMAT

Section **[003]** - Default: **[00]**
This feature sets the number of digits retained in memory before the data is sent to the controller. For example, if section **[003]** is set at 05, PosiPin will transmit once five digits are entered on the keypad.

*This feature only applies when the format programmed in Section **[002]** is set for Option **[5]**: 4 bits buffered without parity or Option **[6]**: 4 bits buffered with parity.*

Enter	Description
[01] to [11]	If section **[002]** is Option **[5]**: 4 bits buffered without parity.
[01] to [10]	If section **[002]** is Option **[6]**: 4 bits buffered with parity.

DISPLAY ON CARD READ

Section **[004]** - Default: **[3]**
PosiPin's response to a card being presented to the reader can be adjusted according to the installation's requirements.

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

Select **[0]** in *Face Light Operation* (see page 12) to enable options **[0]** to **[3]** in section **[004]** or select **[1]** in *Face Light Operation*, (see page 12) to enable options **[4]** to **[7]** in section **[004]**.

* If section **[103]** (page 12) is set to **[1]**, the face light will also flash.

KEYPAD LOCKOUT

Section **[005]** - Default: **[0]**
The PosiPin keypad comes with a feature that will lock the keypad for 60 seconds when an installer code is entered incorrectly 3 consecutive times.

Enter	Description
[0]	Keypad Lockout disabled.
[1]	Keypad Lockout enabled.

26-BIT WIEGAND CARD FAMILY CODE SETTING

Section **[006]** - Default: **[000]**
When the keypad is enabled, the card's family code must be programmed in order for the keypad to recognize the user's PIN. When a user enters a PIN on the keypad, PosiPin will automatically add the family code programmed in section **[006]** to the beginning of the PIN before transmitting the data to the controller. Therefore, also ensure that all cards to be used with the PosiPin contain the same family code.

*This feature only applies when the communication format programmed in Section **[002]** is set for Option **[1]**: 26-bit Wiegand.*

Enter	Description
[0] to [255]	Cards' Family Code.

READER'S INTERFACE

Section **[007]** - Default: **[0]**
The reader component of the PosiPin must be programmed to use the same reader communication format as the controller.

Enter	Description
[0]	26-bit Wiegand.

[1]	37-bit Wiegand.

CHECK-IN SUPERVISION

Section **[008]** - Default: **[0]**

*This feature only applies when the communication format programmed in Section **[002]** is set for Option **[1]**: 26-bit Wiegand or Option **[2]**: 37-bit Wiegand.*

When no actions are performed on the PosiPin for a period of time, it will communicate its status to the controller every 30 seconds by sending a code to confirm its presence (26-bit Wiegand = 255:65535; 37-bit Wiegand = 65535:65535). If the PosiPin does not communicate its status every 30 seconds, the controller can be programmed to generate an alarm.

Enter	Description
[0]	Check-in Supervision disabled.
[1]	Check-in Supervision enabled.

BUZZER SETTING

Section **[101]** - Default: **[3]**

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).

Enter	Description
[0] to [7]	Number of beep tones per response.

FACE LIGHT INTENSITY

Section **[102]** - Default: **[4]**
The Face Light's illumination can be adjusted according to the installation's requirements from 0 (extinguished) to 8 (brightest).

Enter	Description
[0] to [8]	Face Light's intensity level.

FACE LIGHT OPERATION

Section **[103]** - Default: **[0**]
The Face Light can be set to remain illuminated continually or can follow the Status LEDs' state.

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

If **[0]** in section **[103]** is selected, this will override options **[4]** to **[7]** in *Display on Card Read* (see page 9). In addition, if **[1]** in section **[103]** is selected, this will override **[0]** to **[3]** in *Display on Card Read* (see page 9).

FACE LIGHT COLOUR

Section **[104]** - Default: **[0]**
The Face Light's colour can be blue or green as desired.

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

Enter	Description
[0]	Blue Face Light.
[1]	Green Face Light.

CHANGING THE INSTALLER CODE

Section **[200]** - Default: 000000
The Installer Code is used to enter PosiPin's programming mode. The Installer Code is six digits long where each digit can be any value from 0 to 9.

PANIC ALARM

A panic code can be generated and transmitted to the controller by pressing and holding the **[CLEAR]** and **[ENTER]** keys for 2 seconds (26-bit Wiegand = 255:65534; 37-bit Wiegand = 65535:65534).

*This feature only applies when the communication format programmed in Section **[002]** is set for Option **[1]**: 26-bit Wiegand or Option **[2]**: 37-bit Wiegand.*

RESETTING TO DEFAULT

To reset PosiPin to factory defaults, disconnect its power supply. Press and hold the **[1]** and **[2]** keys simultaneously while reconnecting its power supply.

CARD PRESENTATION TEST

Present the card to the reader as shown in the figure below. Place the card parallel to the PosiPin reader and move it toward the reader until the card code

displays on the controller screen. At this point, the card is read, decoded, data transmitted to the controller and the controller has responded accordingly. To read the card again, remove and re-insert the card into the reader's field.

WARRANTY

The Seller warrants its products to be free from defects in materials and workmanship under normal use for a period of one year. Except as specifically stated herein, all express or implied warranties whatsoever, statutory or otherwise, including without limitation, any implied warranty of merchantability and fitness for a particular purpose, are expressly excluded. Because Seller does not install or connect the products and because the products may be used in conjunction with products not manufactured by Seller, Seller cannot guarantee the performance of the security system. Seller obligation and liability under this warranty is expressly limited to repairing or replacing, at Seller's option, any product not meeting the specifications. In no event shall the Seller be liable

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Notes

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