

# ACL805SUW-RDPX Surface Mount Keypad with Proximity Reader Installation Sheet



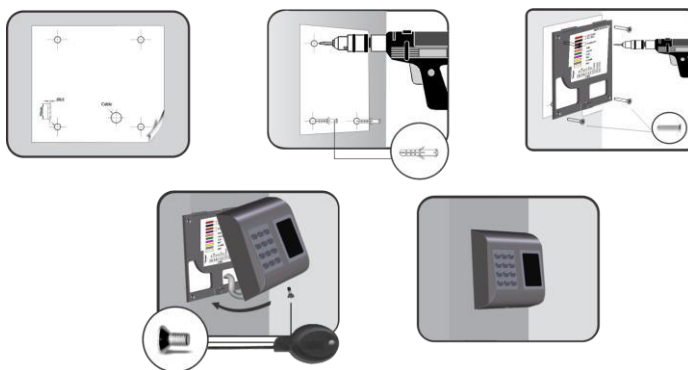
## Description

The ACL805SUW-RDPX is a multiprotocol digital keypad and proximity reader for access control applications with backlit keys and a selectable output protocol. These surface mount readers include a buzzer and a tri-color LED for state indication (access granted, access denied or idle).

The ACL805SUW-RDPX has an automatic Wiegand output (32 or 56 bit) and capable of reading Casi Rusco, EM and HID compatible cards/fobs (125 kHz).

## Mounting

Figure 1: Mounting instructions



## Wiring

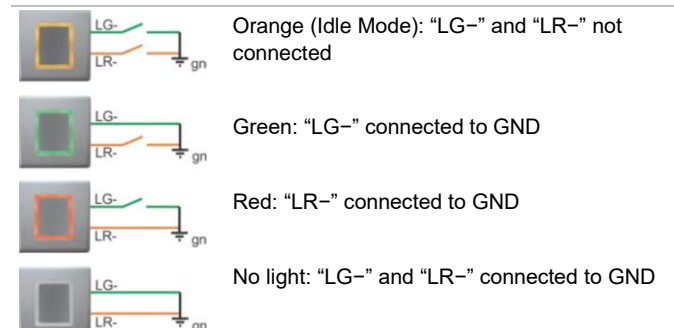
Figure 2: Wiring instructions



1	tamp	Grey	Tamper
2	tamp	Blue	Tamper
3	LG-	Yellow	LED Green minus
4	LR-	Orange	LED Red minus
5	GND	Black	Ground
6	+ 12 V	Red	9 to 14 VDC
7	D0	Green	Data 0
8	D1	White	Data 1

## Tricolor LED and DIP switch LED

Figure 3: LED



## DIP switch settings – reader

1. Backlight in idle mode ON/OFF
2. Buzzer on read card ON/OFF
3. Not used
4. Enable HID (ON\_OFF)
5. Enable EM or CASI (ON\_OFF)
6. Select EM or CASI (ON-EM; OFF-Casi Rusco)



## Card type selection



HID only      HID and EM      HID and Casi      Casi only      EM only

## Settings in TruPortal software

Go to System Administration > Card Formats. Select the Wiegand format that corresponds to the card type:

- 32 bit 14443 cascade 1 for EM cards
- 40 bit CASI 4002 for Casi Rusco cards
- The HID formats available for HID cards

Format Name:

Format Type:

Facility Code:

Total Bit Length:

Data Field:	Starting Bit:	Bit Length:
Card Number	<input type="text" value="0"/>	<input type="text" value="32"/>
Facility Code	<input type="text" value="0"/>	<input type="text" value="0"/>
Issue Code	<input type="text" value="0"/>	<input type="text" value="0"/>

Parity Type:	Start Offset:	Length:	Check Bit Offset:
Even	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Odd	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

Format Name:

Format Type:

Facility Code:

Total Bit Length:

Data Field:	Starting Bit:	Bit Length:
Card Number	<input type="text" value="1"/>	<input type="text" value="38"/>
Facility Code	<input type="text" value="0"/>	<input type="text" value="0"/>
Issue Code	<input type="text" value="0"/>	<input type="text" value="0"/>

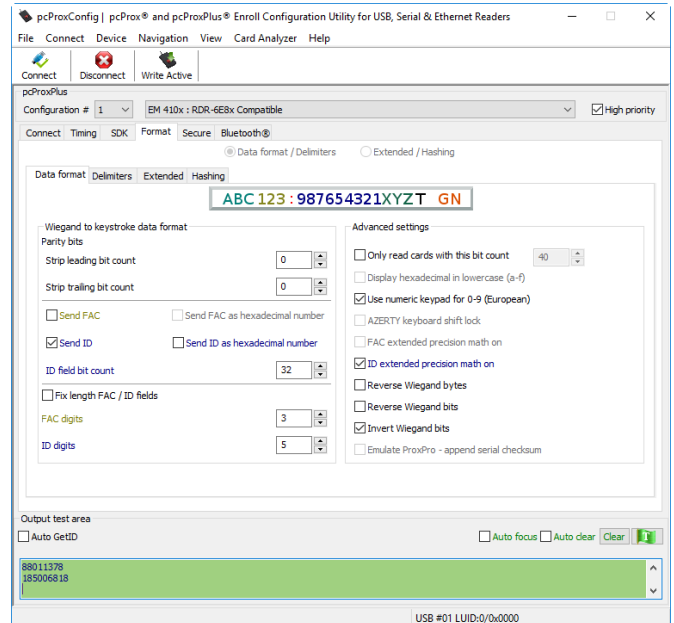
Parity Type:	Start Offset:	Length:	Check Bit Offset:
Even	<input type="text" value="1"/>	<input type="text" value="19"/>	<input type="text" value="0"/>
Odd	<input type="text" value="0"/>	<input type="text" value="39"/>	<input type="text" value="39"/>

## Settings in pcProxConfig software

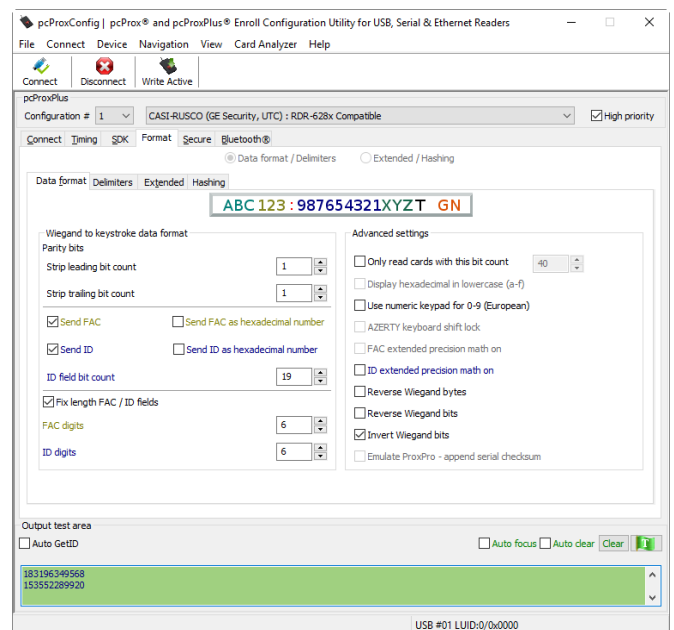
Select Casi Rusco (Carrier) or EM 410x or some of the available HID formats as card type.

Use these settings in the pcProx Config software when reading the card via the TP-RDR-LRN desktop reader.

### EM



### Casi Rusco



## Keypad programming

### Reset master code

**Caution:** Resetting the master code will delete all user codes.

1. Disconnect power.
2. Press and hold A key, and reconnect power.
3. Hold A key for at least 3 seconds.

The default master code is 000000.

## Programming mode

To change keypad options, follow the steps below.

1. Hold B key for at least 3 seconds to enter the programming menu.
2. Authorize using the master code, or 000000 when using the keypad for the first time.

If you are not authorized to enter the programming mode, the keypad transmits 3 short beeps.

If the code is valid, the programming mode is signalled by 1 short and 1 long beeps, and indicated by the orange LED on. You can continue with the programming.

3. Enter the option number you want to change. Refer to "Programming options" below.
4. Press A to validate the change and exit the menu.

If the change is valid, the orange LED switches off.

If the change is invalid, the keypad transmits short beeps, and the orange LED blinks rapidly. Return to step 3.

To exit the programming mode, press B in any stage of the programming mode. The orange LED switches off.

## Programming options

When in the programming mode, press a number to program one of the following options.

Option	Description																												
1	<p><b>Change master code</b></p> <p>Enter new 6-digits master code.</p> <p>After enrolling new master code, the keypad automatically exits the menu, and the new master code must be typed to enter the menu again.</p>																												
2	<p><b>Select Type of Wiegand</b></p> <p>The Wiegand selected must be the same as the controller's Wiegand Input where the keypad is being connected. The following values are available:</p> <ul style="list-style-type: none"> <li>• 2-1: Wiegand 26 bit</li> <li>• 2-2: Wiegand 30 bit</li> <li>• 2-3: Wiegand 34 bit</li> <li>• 2-4: Wiegand 37 bit</li> <li>• 2-5: Wiegand 40 bit</li> <li>• 2-6: Wiegand 42 bit</li> <li>• 2-7: Wiegand 58 bit</li> </ul> <p><b>Example:</b> If you use a controller that recognizes Wiegand 34 bit, then enter the menu of the keypad, press 2, then press 3.</p>																												
3	<p><b>Select Output Protocol</b></p> <p>Keypads have the following outputs:</p> <p>3-1: Single Wiegand. Keypad will send code in Wiegand format.</p> <p>3-3: Clock &amp; Data. Keypad will send the code in Clock and Data format.</p> <p>3-5: 8 bit per key. Each key press will be sent as 8-bit data immediately. Key press will be sent as following table:</p> <table border="1"> <thead> <tr> <th>Key</th> <th>0</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> </tr> </thead> <tbody> <tr> <td>Wiegand output</td> <td>240</td> <td>225</td> <td>210</td> <td>195</td> <td>180</td> <td>165</td> </tr> <tr> <th>Key</th> <th>6</th> <th>7</th> <th>8</th> <th>9</th> <th>A</th> <th>B</th> </tr> <tr> <td>Wiegand output</td> <td>150</td> <td>135</td> <td>120</td> <td>105</td> <td>90</td> <td>75</td> </tr> </tbody> </table>	Key	0	1	2	3	4	5	Wiegand output	240	225	210	195	180	165	Key	6	7	8	9	A	B	Wiegand output	150	135	120	105	90	75
Key	0	1	2	3	4	5																							
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Wiegand output	150	135	120	105	90	75																							

Option	Description
	3-6: 6 bit per key. Each key press will be sent as 6-bit data immediately.
	3-7: 4 bit per key. Each key press will be sent as 4-bit data immediately.
4	<p><b>PIN Code Length</b></p> <p>If 0 is selected, then any PIN with is accepted, but it must be typed with A for confirmation (for example, 123A). If 1 to 8 is selected, then the PIN length is set by the number selected.</p>
6	<p><b>Presets</b></p> <p>The Presets are set of preprogrammed parameters for easy programming.</p> <p>6-1: Wiegand 26 bit normal. Type: Wiegand 26 bit; output: single Wiegand; PIN length: 4 digits.</p> <p>6-2: Wiegand 34 bit Normal. Type: Wiegand 34 bit; output: single Wiegand; PIN length: 4 digits.</p>
7	<p><b>Site Code Length</b></p> <p>Set the code length sent to Host. Default is 0.</p> <p>This option is used only in specific cases.</p>
8	<p><b>Enter Site Code</b></p> <p>Put the site code always in 5-digit format (for example, 00170).</p>
9	<p><b>Backlight, Buzzer, Parity</b></p> <p>Turns ON/OFF the backlight in idle mode, buzzer on key press, and parity bit. The following values are available:</p> <ul style="list-style-type: none"> <li>• 9-0: Backlight in idle mode is off*</li> <li>• 9-1: Backlight in idle mode is on</li> <li>• 9-2: Buzzer on key press is off*</li> <li>• 9-3: Buzzer on key press is on</li> <li>• 9-4: Parity bit is off</li> <li>• 9-5: Parity bit is on</li> </ul>

\* Default values

Next, proceed from the step 4 above – press A to validate the change.

## Specifications

Operating voltage	9 to 14 VDC
Current consumption	110 mA at 12 VDC
Interface Proximity Reader	Wiegand according to the card type Wiegand 32 bit: EM410x Cards Wiegand 40 bit: Casi Rusco Automatic Wiegand – HID Cards
EM410x	32 data bits
Wiegand 32 description	Pulse width: 100 µs Pause: 1 ms Wiegand for EM410x Cards
Casi Rusco	Even parity + 38 data bits + odd parity
Wiegand 40 description	Pulse width: 100 µs Pause: 1 ms P1 = even parity calculated over the bits 1 to 19 P2 = odd parity calculated over the bits 0 to 39 Wiegand for Casi Rusco cards
HID	Automatic Wiegand according to the HID card type
Wiegand 26–37 bit	
Interface Keypad	Wiegand 26, 30, 34, 40, 42, 58 bit, 8 bit per key, 6 bit per key, 4 bit per key

Wiegand 26 description	Even parity + 24 data bits + odd parity Pulse width: 100 µs Pause: 1 ms P1 = even parity calculated over the bits 2 to 13 P2 = odd parity calculated over the bits 14 to 25
Wiegand 30 description	Even parity + 28 data bits + odd parity Pulse width: 100 µs Pause: 1 ms P1 = even parity calculated over the bits 2 to 15 P2 = odd parity calculated over the bits 16 to 29
Wiegand 34 description	Even parity + 32 data bits + odd parity Pulse width: 100 µs Pause: 1 ms P1 = even parity calculated over the bits 2 to 17 P2 = odd parity calculated over the bits 18 to 33
Wiegand 40 description	Even parity + 38 data bits + odd parity Pulse width: 100 µs Pause: 1 ms P1 = even parity calculated over the bits 2 to 20 P2 = odd parity calculated over the bits 21 to 39
Wiegand 42 description	Even parity + 40 data bits + odd parity Pulse width: 100 µs Pause: 1 ms P1 = even parity calculated over the bits 2 to 21 P2 = odd parity calculated over the bits 22 to 41
Wiegand 58 description	Even parity + 56 data bits + odd parity Pulse width: 100 µs Pause: 1 ms P1 = even parity calculated over the bits 2 to 29 P2 = odd parity calculated over the bits 30 to 57
Wiegand 8 bit per key description	8 data bits (sent on each key press) Pulse width: 100 µs Pause: 1 ms
Wiegand 6 bit per key description	6 data bits (sent on each key press) Pulse width: 100 µs Pause: 1 ms
Wiegand 4 bit per key description	4 data bits (sent on each key press) Pulse width: 100 µs Pause: 1 ms
Read range	Casi Rusco, HID up to 4 cm, EM up to 6 cm
PIN code length	1 to 8 digits
LED control	Yes, by wires
LED	Green: Externally controlled Red: Externally controlled Orange: Idle, Key press and Menu
Tamper	Yes
Cable distance	50 m according to Wiegand standard
Panel connection	Cable, 1 m
Material of design housing	ABS
Dimensions (W x H x D)	100 x 94 x 30 mm
Operating Temperature	-20 to +50°C
Relative humidity	0 to 95% noncondensing
IP rating	IP65

Color	-S = Silver, -G = Grey
Shipping weight	550 g
Product weight	250 g

## Regulatory information

Manufacturer	PLACED ON THE MARKET BY: Carrier Fire & Security Americas Corporation Inc. 13995 Pasteur Blvd Palm Beach Gardens, FL 33418, USA  AUTHORIZED EU REPRESENTATIVE: Carrier Fire & Security B.V. Kelvinstraat 7, 6003 DH Weert, Netherlands
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Product documentation	Please consult the following web link to retrieve the electronic version of the product documentation.
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