



**SAC 2110 V2**  
*Touch Standalone Access Control*

**User Manual**

For more information visit [www.sieraelectronics.com](http://www.sieraelectronics.com)



## 1. Packing List

Name	Quantity	Remarks
Touch Access Control SAC 2110	1	
User manual	1	
Screw driver	1	Φ20mm×60mm, Special for keypad
Rubber plug	2	Φ6mm×30 mm, used for fixing
Self tapping screws	2	Φ4mm×28 mm, used for fixing
Star screws	1	Φ3mm×6mm, used for fixing

Please ensure that all the above contents are correct. If any are missing please notify the supplier of the unit.

## 2. Quick Reference Programming Guide

To enter the programming mode	* [Master code] # 999999 is the default factory master code
To exit from the programming mode	*
<b>Note that to undertake the following programming the master user must be logged in</b>	
To change the master code	0 [New code] # [New code] # The master code can be 6 to 8 digits
To add a PIN user.	1 [User ID number] # [PIN] # The ID number is any number between 1 & 2000. The PIN is any four digits between 0000 & 9999 with the exception of 1234 which is reserved. Users can be added continuously without exiting programming mode
To add a card user	1 [Read Card] # Cards can be added continuously without exiting programming mode
To delete a PIN or a card user.	2 [User ID number] # for a PIN user or 2 [Read Card] # for a card user Users can be deleted continuously without exiting programming mode
To unlock the door for a PIN user	Enter the [PIN] then press #
To unlock the door for a card user	Present the card



### 3. Description

The unit is single door multifunction touch standalone access controller or a Wiegand output keypad or card reader. It is plastic touch keypad access control. The inbuilt card reader supports EM or MF card types. It builds-in STC microprocessor, with strong anti-interference ability, high security and reliability, powerful function and convenient operation. It is suitable for mounting either indoor or outdoor. This unit supports up to 2000 users in either a Card, 4 digit PIN, or a Card + PIN option. The unit has many extra features including lock output current short circuit protection, Wiegand output, and a backlit keypad. These features make the unit an ideal choice for door access not only for small shops and domestic households but also for commercial and industrial applications such as factories, warehouses, laboratories, banks and prisons.

### 4. Features

- Touch keypad, numbers backlight
- 2000 users, supports Card, PIN, Card + PIN
- Can be used as a standalone keypad for PIN users
- Pin can be Modified by users
- Adjustable Door Output time, Alarm time, Door Open time
- Very low power consumption (30mA)
- Easy to install and program
- Built in buzzer
- Red, Orange and Green LEDS display the working status
- Fast Search speed: time between reading card and opening the door is less than 0.1S

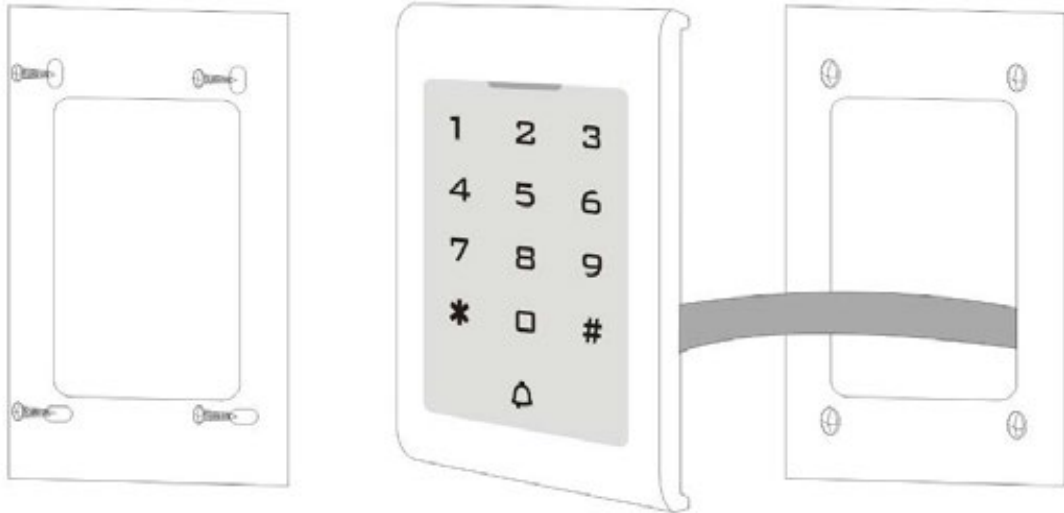
### 5. Specifications

Operating Voltage	DC 12V±10%
User Capacity	2000
Card Reading Distance	2-5 cm
Active Current	<60mA
Idle Current	≤ 30 mA
Operating Temperature	-45°C~60°C
Operating Humidity	10%- 90% RH
Adjustable Door Relay time	0 -99 seconds
Adjustable Alarm Time	0- 3 minutes
Wiegand Interface	WG26 or WG34 input and output
Wiring Connections	Electric Lock, Exit Button, External Alarm, External reader

## 6. Installation

- Drill the holes on the wall according to the hole size of the back cover or install the cable box on the wall.

And Fix the back cover firmly on the wall with the supplied screws. (Picture below)

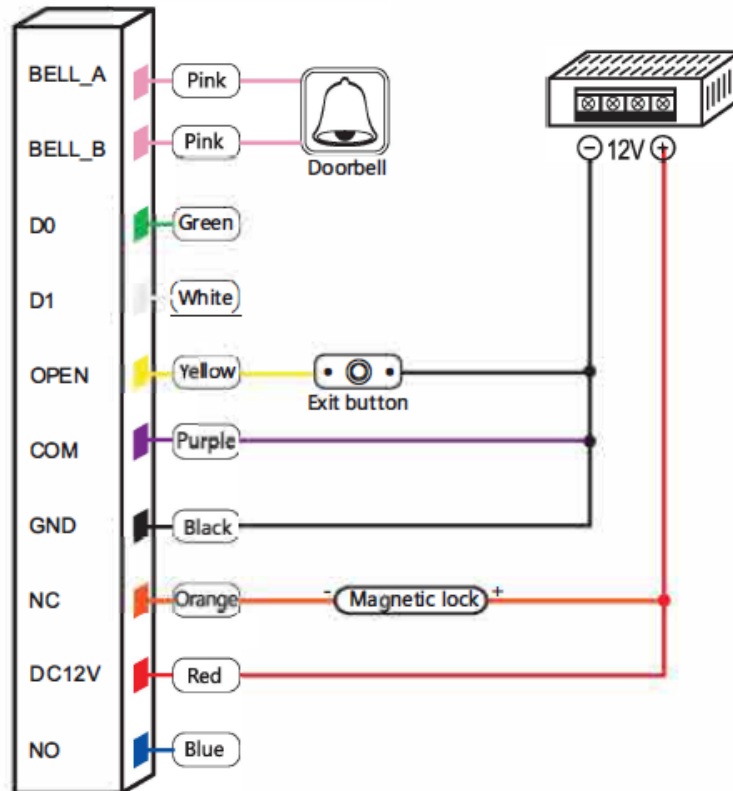


- Thread the cable through the cable hole, connect the wire needed, wrap unused wire with insulating tape in case of short circuit
- Fix the front cover to the back cover with screw driver

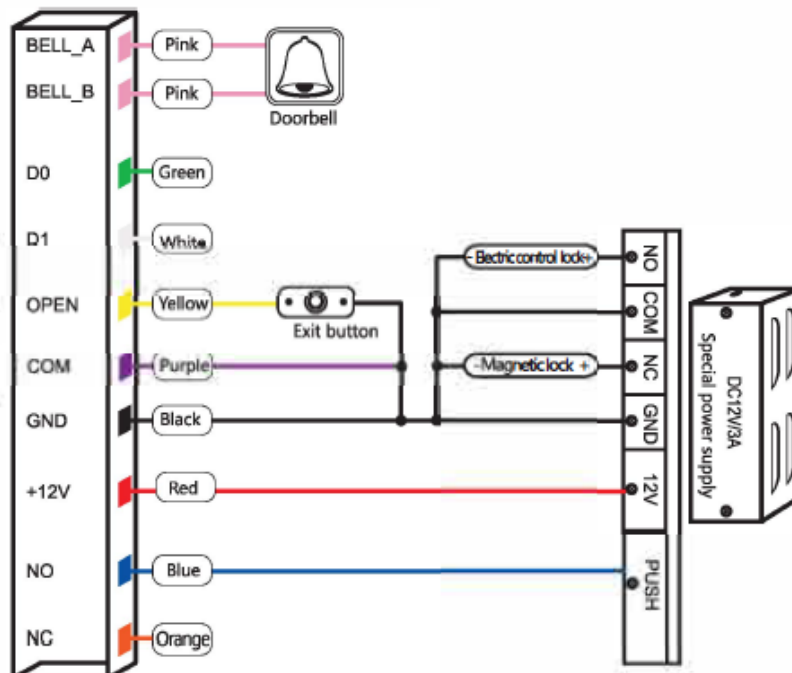
## 7. Wiring

Colour	Function	Description
Green	D0	Wiegand Input (Wiegand Output in Card Reader Mode)
White	D1	Wiegand Input (Wiegand Output in Card Reader Mode)
Yellow	OPEN	Exit Button input terminal
Red	+12V	12V + DC Regulated Power Input
Black	GND	12V - DC Regulated Power Input
Blue	NO	Relay normally-on terminal
Purple	COM	Relay Public terminal
Orange	NC	Relay normally-off terminal
Pink	BELL_A	Doorbell button one terminal
Pink	BELL_B	Doorbell button to the other terminal

Common Power Supply diagram:



Special Power Supply diagram:



## 8. To Reset to Factory Default

- a. Disconnect power from the unit
- b. Press # button while the Light indication is orange after powering the unit
- c. On hearing two “Di”, device is now back factory settings Please note only installer data is restored, user data will not be affected

## 9. Anti Tamper Alarm

The unit uses a LDR (light dependent resistor) as an anti tamper alarm. If the keypad is removed from the cover then the tamper alarm will operate.

## 10. Sound and Light indication

Operation Status	Red Light	Green Light	Orange Light	Buzzer
Power on	-	Bright	-	Di
Stand by	Bright	-	-	-
Press keypad	-	-	-	Di
Operation successful	-	Bright	-	Di
Operation failed	-	-	-	DiDiDi
Enter into programming mode	Bright	-	-	
In the programming mode	-	-	Bright	Di
Exit from the programming mode	Bright	-	-	Di
Open the door	-	Bright	-	Di

## 11. Detailed Programming Guide

<b>11.1 User Settings</b>  To enter the programming mode	* [Master code] #  999999 is the default factory master code
	To exit from the programming mode  *
<b>Note that to undertake the following programming the master user must be logged in</b>	
To change the master code	0 [New code] # [New code] #  The master code can be 6 to 8 digits long
<b>Setting the working mode:</b>  Set valid card only users Set valid card <b>and</b> PIN users Set valid card <b>or</b> PIN users	[3] [0] # Entry is by card only [3] [1] # Entry is by card <b>and</b> PIN together [3] [2] # Entry is by either card <b>or</b> PIN (default)
<b>To add a user in either card or PIN mode, i.e. in the [3] [2] # mode. (Default setting)</b>	

<p>To add a <b>Pin</b> user</p>	<p>1 [User ID number] [#] [PIN] [#]</p> <p>The ID number is any number between 1 &amp; 2000. The PIN is any four digits between 0000 &amp; 9999 with the exception of 1234 which is reserved. Users can be added continuously without exiting programming mode as follows:</p> <p>1 [User ID no 1] [#] [PIN] [#] [User ID no 2] [#] [PIN] [#]</p>
<p>To delete a <b>PIN</b> user</p>	<p>2 [User ID number] [#]</p> <p>Users can be deleted continuously without exiting programming mode</p>
<p>To change the <b>PIN</b> of a PIN user <i>(This step must be done out of programming mode)</i></p>	<p>* [ID number #] [Old PIN #] [New PIN #] [New PIN #]</p>
<p>To add a <b>card</b> user (Method 1)</p> <p>Note: This is the fastest way to create users by Card. Note that the "User ID" will be automatic and therefore lose control of the ID assigned to the card, so if you later want to delete it you will not know what the corresponding ID.</p>	<p>1 [Read card] [#]</p> <p>Cards can be added continuously without exiting programming mode</p>
<p>To add a <b>card</b> user (Method 2)</p> <p>This is the alternative way to enter cards using User ID Allocation. In this method a User ID is allocated to a card. Only one user ID can be allocated to a single card.</p>	<p>1 [ID number] [#] [Read card] [#]</p> <p>User can be added continuously without exiting programming mode</p>
<p>To add a <b>card</b> user (Method 3)</p> <p>Card number is the last 8 or 10 digits printed on the back of the card, user ID number auto generation</p>	<p>1 [Card number] [#]</p> <p>User can be added continuously without exiting programming mode</p>
<p>To add a <b>card</b> user (Method 4)</p> <p>In this method a User ID is allocated to a card number. Only one user ID can be allocated to the card number</p>	<p>1 [ID number. #] [Card number. #]</p> <p>User can be added continuously without exiting programming mode</p>
<p>To delete a <b>card</b> user by card. Note users can be deleted continuously without exiting programming mode</p>	<p>2 [Read Card] [#]</p>

To delete a <b>card</b> user by user ID. This option can be used when a user has lost their card	2 [ User ID ] #
To delete a <b>card</b> user by card number. This option can be used when the user want to make the change but the card has lost	2 [ Card number ] # Note users can be deleted continuously without exiting programming mode
To add a <b>card and PIN</b> user in card and PIN mode ( 3 [ 1 ] # )	
To Add a <b>card</b> and <b>Pin</b> user (The PIN is any four digits between 0000 & 9999 with the exception of 1234 which is reserved.)	Add the card as for a card user Press [*] to <b>exit from the programming mode</b> Then allocate the card a PIN as follows: * [ Read card ] [ 1234 # ] [ PIN # ] [ PIN # ]
To change a <b>PIN</b> in card and PIN mode (Method 1) Note that this is done outside programming mode so the user can undertake this themselves	* [ Read Card ] [ Old PIN # ] [ New PIN # ] [ New PIN # ]
To change a <b>PIN</b> in card and PIN mode (Method 2) Note that this is done outside programming mode so the user can undertake this themselves	* [ ID number # ] [ Old PIN # ] [ New PIN # ] [ New PIN # ]
To delete a <b>Card and PIN</b> user just delete the card	2 [ User ID ] #
To add a <b>card</b> user in card mode ( 3 [ 0 ] # )	
To Add and Delete a <b>card</b> user	The operating is the same as adding and deleting a card user in 3 [ 2 ] #
To delete <b>All users</b>	
To delete <b>ALL users</b> . Note that this is a <b>dangerous</b> option so use with care	2 [ 0000 ] #
<b>To unlock the door</b>	
For a <b>PIN</b> user	Enter the [ PIN ] then press #
For a <b>card</b> User	[ Read card ]
For a <b>card and PIN</b> user	[ Read card ] then enter [ PIN # ]



## 11.2 Door Settings

Relay Output Delay Time	
To set door relay strike time	* [Master code] # 4 0~99 #* 0-99 is to set the door relay time 0-99 seconds
Standalone access control mode	* [Master code] # 5 0 # The door will be locked automatically after open the door normally
Relay toggle mode	* [Master code] # 5 1 # The door will not be locked automatically. To lock the door, the user has to read the card or press the exit button.
Reader mode	* [Master code] # 5 2 26/34 # WG26/34 input and output
Bind a code to a specific card	* [Master code] # 6 Read card 4 digits code # When using card+code to unlock the door.
Data backup output	* [Master code] # 7 0 # Send the data to external device.
Data backup input	* [Master code] # 7 1 # The device will receive the data.
WiFi matching	* [Master code] # 7 3 # WiFi match(optional)
Add public code	* [Master code] # 9 4 didits code Only one public code is available. Delete public code: * [Master code] # 9 #

## 12. Master Card Operation

### 12.1 Add Card

[Read master add card] [Read the 1<sup>st</sup> user card] [Read the 2<sup>nd</sup> user card] ... [Read master add card]

**Note:** The master add card is used to add card users continuously and quickly. When you read the master add card at the first time, you will hear short "BEEP" sound twice and the indicator light turns orange, it means you have entered into add user programming. When you read the master add card at the second time, you will hear long "BEEP" sound once and the indicator light turns red, it means you have exited the add user programming.

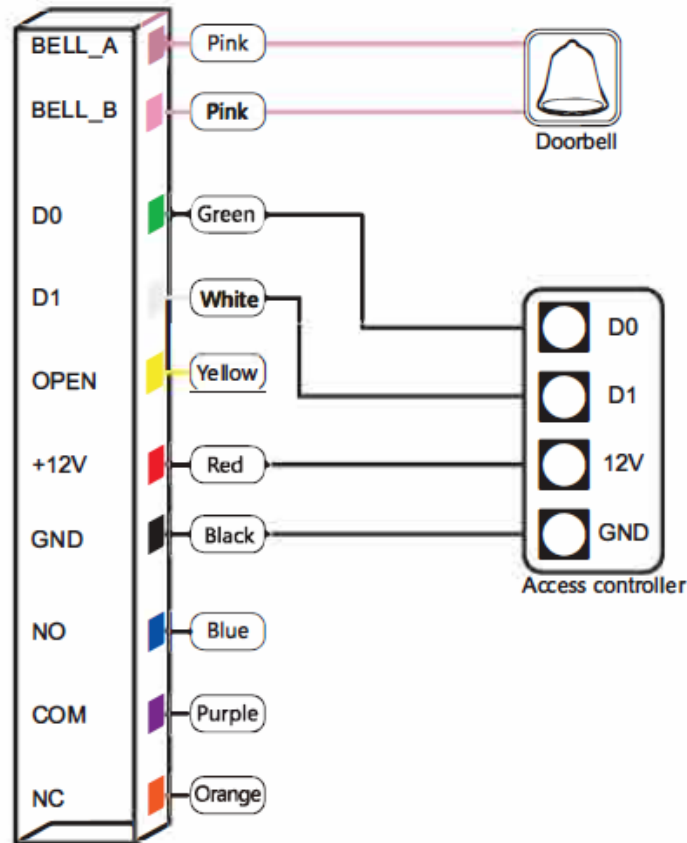
### 12.2 Delete Card

[Read master delete card] [Read the 1<sup>st</sup> user card] [Read the 2<sup>nd</sup> user card] ... [Read master delete card]

**Note:** The master delete card is used to delete card users continuously and quickly. When you read the master delete card at the first time, you will hear short "BEEP" sound twice and the indicator light turns orange, it means you have entered into delete user programming. When you read the master delete card at the second time, you will hear long "BEEP" sound once, the indicator light turns red, it means you have exited the delete user programming.

### 13. The unit operating as a Wiegand Output Reader

In this mode the unit supports a Wiegand 26 or 34 bit output so the Wiegand data lines can be connected to any controller which supports a Wiegand 26 or 34 bit input.



### 14. Data Backup Operation

Example: Backup the data of machine A to machine B

The green wire and white wire of machine A connects with the green wire and white wire of machine B correspondingly, set B for receiving mode at first, then set A for sending mode, the indicator light turns green flash during the data backup, data backup is successful when indicator light turns red.

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