Mini Control Board
Sboard-III



User Manual

INTRODUCTION

The Sboard-III is a mini single door control panel, can work with any Wiegand 26~44, 56, 58, 64 bits output reader. it uses Atmel microcontroller to assure stable performance, and equips with an infrared remote control for easy operation. The Sboard-III supports 999 users, all user data can be transferred.

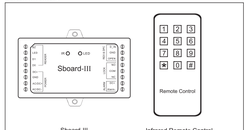
Features

- 999 users, user data can be transferred.
- Multi access modes: Card, Card or PIN, Card with PIN.
- Can connect with any reader with Wiegand 26~44, 56, 58, 64 bits.
- Can connect with any keypad reader with 4bit, 8bits (ASCII).
- 12~28V AC/DC power input, 12V DC output.
- Can connect with external alarm and door contact.

Specifications

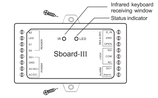
User Capacity	**999**
Operating Voltage Idle Current	**12~28V AC/DC** <20mA
Relay Adjustable Relay Output Time Lock Output Load	**One (No, NC, Common)** 0~300 Seconds (5 seconds default) 2 Amp Maximum
Wiegand Interface	**Wiegand 26~44, 56, 58, 64 bits input**
Environment Operating Temperature Operating Humidity	**Indoor** -20°C ~ 60°C (-4°F ~ 140°F) 0~90%RH
Physical Colour Dimensions Unit Weight Shipping Weight	**ABS Shell** Black L91 x W48 x D20 (mm) 63g 73g

Carton Inventory





INSTALLATION



Wiring

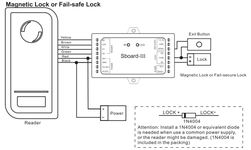
Name	Notes
The Left Side	
BZ-	Buzzer Control
LED	LED Light Control
D1	Wiegand Input Data 1
D0	Wiegand Input Data 0
DC+	Positive Pole of Power Output
GND	Negative Pole of Power Output
AD/DC+	Positive Pole of Power Input
AC/DC-	Negative Pole of Power Input
The Right Side	
D_IN	Door Status Detecting
GND	Negative Pole of Door Contact
OPEN	Connect to One Wire of Exit Button
NO	Normally Open Relay Output (install diode provided)
COM	Negative Pole of Lock (Common Connection for Relay Output)
NC	Normally Closed Relay Output (install diode provided)
DC+	Positive Pole of Alarm
Alarm-	Negative Pole of Alarm

Sound and Light Indication

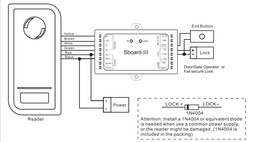
Operation Status	LED	Buzzer
Power on	Green light is on for 3 seconds	Beep for 3 seconds
Stand by	Red light bright	-
Programming Mode	Orange light bright	-
Add user successfully	Green light bright	1 beep
Add user failure	Red light shines 5 times	5 beeps
Set Successfully	Green light shines 2 times	2 beeps
Set failure	Red light shines 5 times	5 beeps
Relay operates	Green light bright	1 beep
Invalid user	Red light shines 5 times	5 beeps
Restore the factory settings	Green light shines 4 times	4 beeps
Alarm	Red light shines	Uninterrupted beeps

Connection Diagram

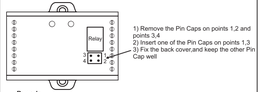
Magnetic Lock or Fail-safe Lock



Door/Gate Operator or Fail-secure Lock



When Use NO/NC/COM Dry Contact Output



Remark:
The power supply's voltage must be the same with lock's supply voltage, or else, the lock will not work properly or be damaged.

How to Reset Sboard-III

Press the white "REST" button on the PCB for 5 seconds, then Green LED flashes 4 times and buzzer sounds 4 beeps, means reset successfully, after that, the device will restart.
After resetting, the user information is still retained.

PROGRAMMING

Programming will be vary depending on access configuration. Follow the instructions according to your access configuration.

Notes:

- **Remote Control:** Please use the Infrared Remote Control to program the Sboard-III, "IR"on the Sboard-III is the infrared receiving window, please direct the Remote Control to it.
- **User ID number:** Assign a user ID to the user in order to track it. The user ID number can be any number form 1~999.
  IMPORTANT: User IDs do not have to be proceeded with any leading zeros. Recording of User ID is critical.
- **PIN:** Can be any 1~8 digits except 00000000.

Enter and Exit Program Mode

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) # (factory default is 888888)
2. Exit Program Mode	*

Change Master Code (4~8 digits, except 00000000)

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code)#
2. Update Master Code	0 (New Master Code) # (Repeat New Master Code) #
3. Exit Program Mode	*

Add Users with Remote Control

Sboard-III Connected with Card Reader:
For the readers develop together with Sboard-III, such as S series readers, skip below step 1; For other card readers, set the Sboard-III's Wiegand input as below step 1 according to the Wiegand output of the readers.

Sboard-III Connected with Keypad Reader:
Can be any Keypad Reader with 4Bits, 8Bits (ASCII) output formart
For the readers develop together with Sboard-III, such as SK series readers, skip below step 1; For other keypad readers, set the Sboard-III's Wiegand input as below step 1 according to the Wiegand output of the readers.
PIN(s) can be input / added on either the remote control or the external keypad.

Step 1
Set Wiegand Input Format

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Exit Program Mode	8 (26~44, 56, 58, 64) # (factory default: 26bits)
3. Exit	*

Set PIN Input Format

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. PIN Input Bits	8 4 # (4bits) (factory default) 8 8 # (8bits ASCII)
3. Exit	*

Disable/ Enable Parity Bit
For Wiegand readers with 32, 40, 56 or 64 bits output, need disable parity bits.

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Disable Parity Bits 2. Enable Parity Bits	8 0 # 8 1 # (factory default)
3. Exit	*

Add Card, PIN or Card + PIN Users

(User ID: 1~999; PIN: 1~8 digits)

Programming Step	Keystroke Combination
Add Card User	
1. Enter Program Mode	* (Master Code) #
2. Add Card User by Reading the Card **OR** 2. Add Card by Card Number **OR** 2. Add Multiple Cards Continuously	1 1 (User ID) # (Read Card on External Reader) 1 1 (User ID) # (Input 8/10 digits Card number)# 1 2 (First User ID Number) # (Read Card Continuously)
Add PIN User	
1. Enter Program Mode	* (Master Code) #
2. Add PIN User	1 1 (User ID) # (Input PIN) #
Add Card + PIN User	
1. Enter Program Mode	* (Master Code) #
2. Add Card + PIN User	1 5 (User ID) # (Input PIN) # (Read Card or Input 8 or 10 Digits Card Number)
3. Exit	*

Sboard-III Connect with Fingerprint Reader

For example:
Connect SF1 as the fingerprint reader to Sboard-III, two steps to enroll the valid fingerprint.
(1)Add the fingerprint (A) on SF1 (follow the SF1 manual)
(2)Add the same Fingerprint(A) on Sboard-III as below:

1	Enter Program Mode: * (Master Code) #
2 **OR**	1 1 (User ID) # (Press Fingerprint A on SF1) #
2 **OR**	1 1 (User ID) # (Input 8 Digits Fingerprint Virtual ID Number) #
3	Exit: *

Fingerprint virtual ID number Example:
Device number is 255, Fingerprint ID is 1, the input number will be 25500001
Device number is 1, Fingerprint ID is 1, the input number will be 00100001

Delete Users

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Delete User - By User ID **OR** 2. Delete User - By Card **OR** 2. Delete User - By Card Number **OR** 2. Delete User - Delete All Users	2 (User ID) # 2 (Read Card on External Reader) 2 (Input 8/10 Digits Card Number) # 2 (00000000) #
3. Exit	*

Note: Card+PIN user can be deleted by any of these ways

Set Relay Configuration

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Pulse Mode **OR** 2. Toggle Mode	3 1 (1~300) # (5 seconds default) 3 1 0 #
3. Exit	*

External Keypad Backlight Working Mode (Optional function, need customize)

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Always ON	5 1 1 # (factory default)
2. Always OFF	5 1 2 #
2. Automatic OFF after 60 seconds	5 1 3 # (If the backlight is OFF, it will go ON by pressing any key, this key isn't taken into consideration)
3. Exit	*

Set Door Open Too Long Detection (Need use with an external magnetic contact)

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Enable Door Open Detection	7 1 1 # A # B # C #
2. Disable Door Open Detection	7 1 2 # (factory default)

Notes

A=1~300=The preset door open duration in seconds before the alarm start.

B=1-Built-in buzzer ON while alarming.
B=2-Built-in buzzer OFF while alarming.

C=1=Enable external alarm output while alarming.
C=2=Disable external alarm output while alarming.

3. Exit	*

Reset of the alarm: Close the door or input a valid user.

Door Forced Open Detection (Need use with an external magnetic contact)

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Enable Door Forced Open Detection	7 2 1 # A # B # C #
2. Disable Door Forced Open Detection	7 2 2 # (factory default)
Notes	
A=1~300=Alarm time in seconds.	
B=1=Built-in buzzer ON while alarming.	
B=2=Built-in buzzer OFF while alarming.	
C=1=Enable external alarm output while alarming.	
C=2=Disable external alarm output while alarming.	
3. Exit	*

Reset of the alarm: Close the door and after expiration of the programmed alarm time or input a valid user.

Set Strike-out Alarm

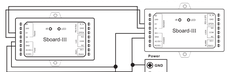
The strike-out alarm will engage after 10 successive failed PINs/Cards/ Fingerprints attempts within 10 minutes

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Set Strike-out Alarm ON	7 3 1 # A # B # C #
2. Set Strike-out Alarm OFF	7 3 2 # (factory default)
Notes	
A=1~300=Blocking and alarm time in seconds.	
B=1=Built-in buzzer ON while alarming.	
B=2=Built-in buzzer OFF while alarming.	
C=1=Enable external alarm output while alarming.	
C=2=Disable external alarm output while alarming.	
3. Exit	*

Reset of the alarm: After expiration the programmed alarm time

User Information Transfer

The enrolled user can be transferred from a "Master"unit to a "Slave" unit.
The Master code must be the same in the "Master" and the "Slave" unit.



Remark: Master unit's "D1" connects to Slave unit's "D0"
Master unit's "D0" connects to Slave unit's "D1"

Programming Step	Keystroke Combination
1. Enter Program Mode	* (Master Code) #
2. Operate on "Slave" unit	9 9 #