Sebury

www.sebury.com.cn

Sebury

F1 Fingerkey & Finger Reader

User's Manual

Sebury Technology Co., Ltd

Contents

Thank you for using Sebury's products
This user's manual will give you directions for the using of F1
Please read this user's manual carefully before attempting to install the F1

Introduction

The F1 uses the latest 32 bit ARM7TDMI-S microprocessor and DSP technology to operate door strikes and security systems that require a momentary (timed) or latching dry contact closure.

All programming is done through a infrared remote control keypad, codes and operating parameters are stored within the flash memory and can not be lost due to power failure.

The F1 has 1 code supervisor, and 0-4 fingerprint supervisors can store 120 fingerprints maximum, and every user with 1 to 4 fingerprints each, 3-digit ID code, 10-digit programmable output data, which could be output with Wiegand 26 or Wiegand 34. The unit has one relay with 2Amp contacts.

1.Specifications

1.1 Programmable Functions
Relay latching or momentary
Relay activate independently or together
Change Codes 1 code supervisor
2 registering master fingerprint, 2 deregister master fingerprint, 29 to 120 users

Door open detection
Output format

1.2 Programmable Timers
Door relay time 00-99 seconds
Alarm time 00-99 minutes

1.3 Wiring Connections
Wiegand output
Electric lock
External Push Switch
Magnetic Contacts
Alarm

IMPORTANT INFORAMTION

There are no user serviceable parts contained within the F1 Fingerkey & Fingerprints Reader.

If holes are to be drilled before mounting onto a wall, check for hidden cables and/or pipes before drilling. Use safety goggles when drilling or hammering in cable clips.

Every effort has been made to provide accurate information, however slight variations can occur. We also reserve the right to make changes for product improvement at any time.

NOTE:

PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TOINSTALL THEF1.

2 Intramural Interface Circuit

2.1 Wiegand output interface (See Figure 1)
2.2 Alarm output interface (See Figure 2)
2.3 Electric lock interface (See Figure 3)

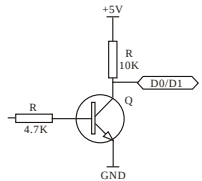

Figure 1

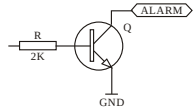

Figure 2

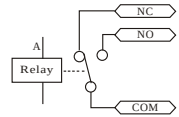

Figure 3

3. Mounting

1. Drill 4 holes on the wall.
2. Thread the cable through cable hole.
3. Wiring.
4. When wiring completed, attach the rear plate to the wall firmly with at least three flat head screws.
5. Plug the cable harness.
6. Attach the front cover to the rear plate.

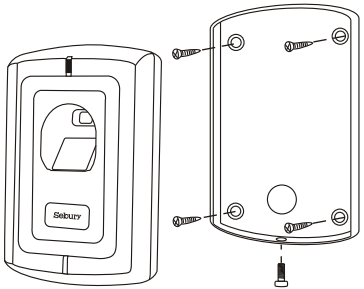

Figure 4

PCB Diagram

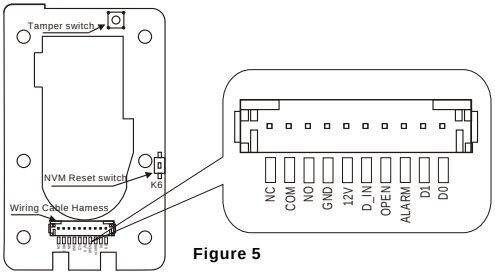

Figure 5

The front cover can be permanently secured by using the short screw supplied

4. Wiring

Unplug the cable harness and connect the necessary cables, there are two mode of the application wiring, using general adaptor mode (See Figure 6) and using Sebury special adaptor(See Figure 7), recommended using Sebury special adaptor, it will make system work more stable.

Tape any wires that are unused.

Terminal Wire Connector Function

D0	Green	Wiegand Output DATA0
D1	White	Wiegand Output DATA1
ALARM	Grey	Alarm
OPEN	Yellow	To Door Remote Control Button Then Negative
D_IN	Brown	To Door Contact Then To Door In
+12V	Red	(+) 12Vdc Positive Regulated Power Input
GND	Black	(-) Negative Regulated Power Input
NO	Blue	Door Strike Relay N/O
COM	Purple	Door Strike Relay Com
NC	Orange	Door Strike Relay N/C

Warning! Don't plug adaptor our transformer into mains until all wiring has been completed and the front cover secured.

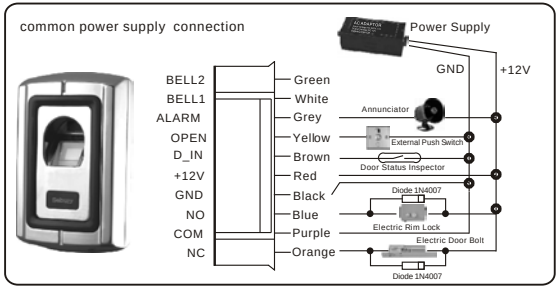

Figure 6

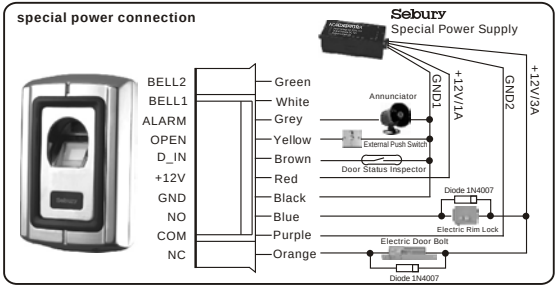

Figure 7

Note: Recommended using Sebury special adaptor, it will make system work more stable.
The diode of 1N4007 is absolutely necessarily, or else the system will unstable.

5. Power Up

After all wiring is complete and the unit face plate is attached to the back plate, apply 12Vdc power to the unit. The red accept LED flashing.

5.1 Engineer Programming Mode

To enter programming mode
Press: * | Supervisor code | #

Note:
The supervisor code is 9999 at factory default setting.

5.2 Changing Supervisor Codes

In engineer programming mode:

To change Supervisor code
Press: 0 | new supervisor code | # | re-enter new supervisor code | #

Note:
The supervisor code must be 4-digit number.

5.3 Adding Supervisor fingerprints & Adding User

5.3.1 Adding Supervisor fingerprints

Without remote keypad, users can be added by supervisor fingerprints.
Press 7 | reading Supervisor's 1- 4 fingerprints | #
The first two fingerprints are used for registering users.
The rest two fingerprints are for deregistering users.

5.3.2 Adding User

Press 1 user ID # reading fingerprint 1 re-reading fingerprint1..... reading fingerprint 4 re-reading fingerprint 4 #

Note:

one user can add 4 fingerprints, one fingerprint must be read **2 times.**

5.3.3 Adding more-than-one users

Press 1 user1 ID # reading fingerprint 1 re-reading fingerprint 1 ..... reading fingerprint 4 re-reading fingerprint 4 ..... user(N)'ID reading fingerprint 1 re-reading fingerprint 1..... reading fingerprint 4 re-reading fingerprint 4 #

Note:

One user can add 4 fingerprint; one fingerprint must be read **2 times**.
The "N" mean the more than one user.

5.3.4 Adding users by the supervisor fingerprints (without entering into in the engineer programming mode)

One user can add 2 fingerprints, one fingerprint must be read 2 times .

5.3.4.1 Adding single user by the supervisor fingerprints (Without entering into programming mode)

Reading one reading registering master fingerprint reading user's fingerprint 1 re-reading user's fingerprint 1 reading user's fingerprint 2 re-reading user's fingerprint 2 #

5.3.4.2 Adding more-than-one users by the supervisor fingerprints (without into the engineer programming mode)

Reading one registering master fingerprint reading user1's fingerprint 1 re-reading user1's fingerprint 1 reading user 1's fingerprint 2 re-reading user 1's fingerprint 2..... reading user(N)'s fingerprint 1 re-reading user(N)'s fingerprint 1 reading user(N) 's fingerprint 2 re-reading user(N)'s fingerprint 2 #

Note:

The "N" mean the more than one user.

5.4 support EM card reading(with USB port)

5.4.1 adding EM-card users

adding single one: push "1",then read card, and then save by "#" ;adding more than one : push"1",then read card1 , card2, card3 ··· and then save by "#"

5.4.2 delete users

delete single one push "2" ,then read card ,and then save by "#" ;delete more than one push "2" then read card1 , card2 , card3 . ··· and then save by "#"

Note:

it opens door and show wiegand card number for valid users , but only output wiegand card number for unvalid users

5.5 Delete User

5.5.1 Delete user by the Infrared remote control keypad

a.) Press: 2 0 0 0 0 # to delete all user.

b.) Press: 2 user ID # to delete used this ID code of the user.

5.5.2 Delete the supervisor fingerprints by the Infrared remote control keypad

a.) Press [2][0][0][0][1][#] to delete the first registering master fingerprint

b.) Press [2][0][0][0][2][#] to delete the second registering master fingerprint

c.) Press [2][0][0][0][3][#] to delete the first deregister master fingerprint

d.) Press [2][0][0][0][4][#] to delete the second deregister master fingerprint

5.5.3 Delete users by the supervisor fingerprints (without in the engineer programming mode)

a.) [reading one deregister master fingerprint] [reading user's one fingerprint] [reading deregister master fingerprint] to delete single user

B.) [reading one deregister master fingerprint] [reading the first user's one fingerprint] [reading the second user's one fingerprint] [reading the "N" user's one fingerprint] [reading one deregister master fingerprint] to delete more-than-one user's

5.6 Setting output data

The output programmable data is formed by user ID as default setting, and could be output with Wiegand 26 or Wiegand 34.

Press [3] [user ID] [#] [new data] [#]

Note: The data must be must be within 0000000001- 4294967295

5.7 Setting Door Relay Strike Time

The door relay output can be operated as either normally opened or normally closed, a maximum current of 3 ampere can pass through the relay if used as normally opened or 2 ampere if normally closed. The door relay time can be set from 0 seconds to a maximum of 99 seconds. The factory default setting is 6 seconds and can be changed through the keypad.

Press: [4] [new time from 00 to 99 seconds] [#]

5.8 Setting Alarm Signal Output Time

Press: [5] [new time from 00 to 99 minutes] [#]

5.9 Setting Door Open Detection

Press: [6] [0 0] [#] to disable this function (factory setting)

Press: [6] [0 1] [#] to enable this function.

In order for this feature to work, door contacts must be connected. There are 2 programming functions that work together in this mode.

a.) If door not closed after opening, intramural buzzer sounds.

b.) If door forced open, intramural buzzer sounds and sends alarm signal.

5.10 Setting the alarm code

Press [8] [new code] [#] [re-enter new code] [#]

5.11 Setting format of Wiegand output

Press [9] [0 0] [#] output with Wiegand 26 (factory default setting).

Press [9] [0 1] [#] output with Wiegand 34

5.12 Exit Engineer Programming Mode

All the setting completed, press [*] to exit engineer programming mode.

6. Resetting To Factory Default Setting

To revert all settings to the factory default settings, but all of the users' data is safe.
Reset flash memory by key (see figure 5). Turn off the power, press the K6 on the PCB, and re-power the device, the F1 will give a beep and is now reset to factory default values.

7. How to release the door

7.1 Using fingerprints to release the door

Put the finger on the fingerprint sensor for 1 second.

7.2 Release the door by the "OPEN" pin of the device

The door will release then the "OPEN" pin of the device is connected to the low level (GND).

8. Release Alarm

Enter [alarm code] [#]

9. Indicator light and sound

9.1 Indicator light status

Operation Status	ACCEPT (Red LED)	OK (Green LED)
Natural	Flashing	Extinct
The key pressed	Illuminated	Extinct
Code or fingerprint accurate	Extinct	Illuminated
Code or fingerprint invalid	Flashing	Extinct
Login programming mode	Extinct	Quick Flashing

Operation Status	ACCEPT (Red LED)	OK (Green LED)
Confirmed	Extinct	Illuminated
Exit programming mode	Flashing	Extinct
Remind re-entering code or fingerprint	Flashing	Extinct
Alarming	Flashing	Extinct
Add user successful	Extinct	Illuminated
Add user unsuccessful	Flashing	Extinct

9.2 Sounds of intramural buzzer

Operation Status	Explain
Effective keystroke	Once short ringing
Login programming mode	Twice short ringing
Wait for enter above 10 seconds under programming mode	Twice short ringing
Confirmed	Thrice short ringing
Exit programming mode	Once long ringing and twice short ringing
Remind re-entering the code	Twice short ringing and once long ringing
Remind close the door	Short ringing in 1 minute then alarming
Alarming	Consecutive ringing
Add user unsuccessful	Thrice short ringing
Add user successful	Once long ringing

10. Technical Specification

Supply Voltage	12 VDC ± 10%
Stay Current	110mA
Door Relay	2Amp 12VDC
Alarm Output Load	150mA pull current
Operating Temperature	-20℃~ 60℃
Operation Humidity	20%RH ~ 95%RH
Memory capacity	120 Fingerprints
Users capacity	29 to 120 users
Supervisor fingerprints capacity	0~4 Fingerprints
Resolution	450 DPI
Fingerprint input time	<1S
Identification time	<2S
FAR	<0.0001%
FRR	<0.01%
Keypad	Infrared remote control keypad
Wiring Connections	Wiegand output
	Electric lock
	Remote door control
	Door open detection
	External Alarm
Housing	Metal shell
Dimensions	115mm×70mm×35mm
Weight	500g

11. Package Listing

Descriptions	Model no.	Quantity	Remark
FingerKey	F1	1	
Infrared remote control keypad		1	
User Manual	F1	1	
Diode	1N4007	1	
Security Screws	Φ3mm×12 mm	1	Used for front case and back case (spare)
Screw driver		1	
Self Tapping Screws	Φ4mm×25 mm	1	Used for fixing
Pastern Stopper	Φ6mm×27 mm	4	Used for fixing

Sebury

K1

K2

BC-6000

BC-2000

K5

K4