

# User Manual

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Thank you for purchasing Keyking products. Please read this manual thoroughly before using.



FPC2000/2002 Biometric Reader (Standalone)



**KEYKING GROUP**

# Index

Chapter 1 Introduction .....	4
1.1 Summary .....	4
1.2 Model Definition .....	5
1.3 Model List .....	6
1.3.1 FPC1000 Series List: .....	6
1.3.2 FPC2000 Series List: .....	6
1.4 Features .....	7
1.5 Application Mode .....	8
1.5.1 FPC2000 works as a reader .....	8
1.5.2 FPC2000 works as a standalone .....	8
Chapter 2 Wiring Diagram .....	10
2.1 FPC2000 Appearance .....	10
2.2 Wiring Diagram .....	11
2.3 Lock Wiring Diagram .....	13
2.4 TCP/IP Network .....	14
Chapter 3 Instructions .....	16
3.1 Personnel Management .....	17
3.1.1 Add Personnel .....	17
3.1.2 Delete Personnel .....	21
3.1.3 Modify .....	22
3.1.4 Add Admin .....	22
3.1.5 Delete All .....	23
3.2 Network Configuration .....	24
3.2.1 Terminal ID .....	24
3.2.2 Net Configure .....	25
3.2.3 IP Address .....	25
3.2.4 Subnet Mask .....	26
3.2.5 Gateway .....	27
3.2.6 Host IP .....	27
3.2.7 Host Port .....	28
3.3 Option .....	29
3.3.1 Language .....	29
3.3.2 Clock Setting .....	30
3.3.3 Screensaver .....	30
3.3.4 Door Relay .....	31
3.3.5 MultiFP Verify .....	31
3.3.6 Tamper Alarm .....	32
3.4 Device .....	33
3.4.1 FP-Module .....	33
3.4.2 WG Setting .....	34
3.4.3 Card Number Mode .....	34
3.4.4 Display Mode .....	35
3.4.5 Terminal Initialize .....	36
3.4 Terminal Info .....	36

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3.5 Door Open Mode.....	37
Chapter 4 Mounting .....	38
4.1 Install FPC2000 on the wall (Back box) .....	38
4.2 Install FPC2000 on the wall .....	39
Chapter 5 Operation in Sphinx.....	40
5.1 Install driver for BioUSB10 .....	40
5.2 Select FPC2000 Series .....	40
5.3 Search & Config FPC2000.....	40
5.4 Enrolling finger for user .....	40
5.5 Transfer to FPC2000 terminal .....	40
5.6 FPC2000 setting .....	41
Chapter 5 FAQ .....	42

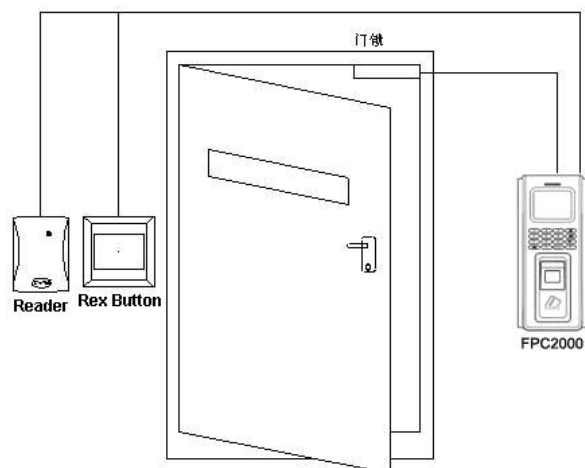
# Chapter 1 Introduction

## 1.1 Summary

FPC2000 is a new outstanding biometric standalone controller with TFT color display developed by KEYKING. When FPC2000 works as T&A controller, employees need to press their finger on the reader(which has to be authorized) to complete attendance. The TFT screen will display time and staff ID info. This system greatly improved the T&A simplicity and offered cost saving on traditional tags. When FPC2000 works as an access controller, the traditional key is no longer needed, employees can enter their special space by flashing authorized cards. FPC2000 can by itself control a door, both in and out, at least one reader is needed for one side, and the other side can be controlled either by a reader or a Rex Button. This system provides a more convenient and secured access environment, it also makes it possible for managers to verify the attendance in time. FPC2000 is compatible with a big range of applications including, building management, enterprise management, government, military and prison.



FPC2000 Appearance



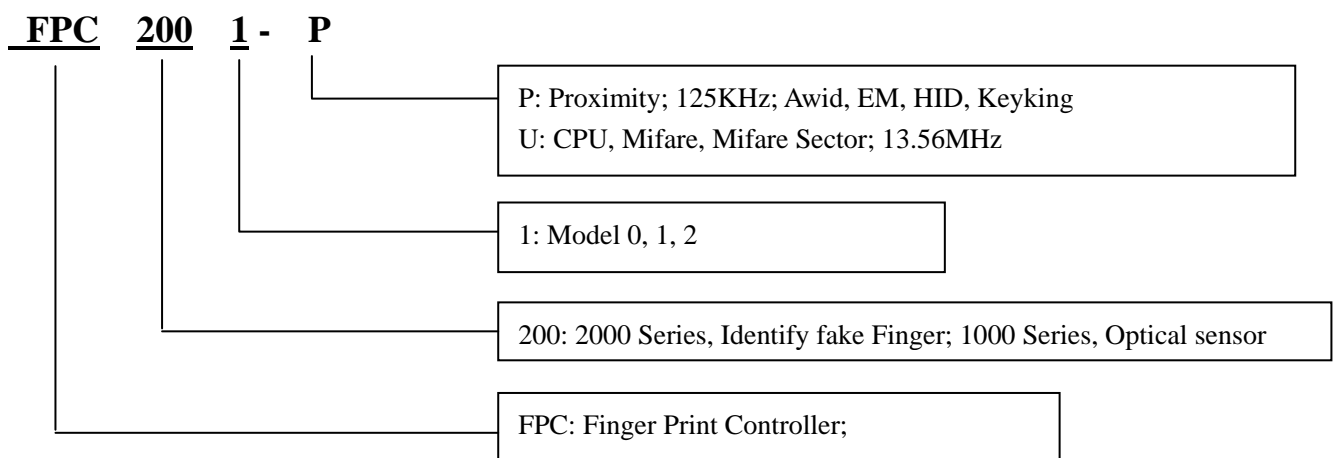
FPC2000 Diagram



FPC2000/2002 installed on the wall

## 1.2 Model Definition

### Model Definition:



**FPC2000-P-----PROX:** Awid, EM, HID, Keyking;

**FPC2000-U-----CPU:** CPU, Mifare SN & Mifare Sector;

### Compatible with these types card:

**P:** Proximity; Such as EM4100, TK4100, HID1326, 1386, AWID, KK234\250T;





**U:** KK1208 M1, Philips S50, Mifare-1 Compatible

### Supports Multi Wiegand Output:





- ✓ AWID: Follow card, up to 58bits
- ✓ EM, 2308: Option-W26/34
- ✓ HID, 1326, 1386: Follow card, W26/27/34/35/37 and so on
- ✓ KK, KK243\250T: Follow card, W34/50 bits





## 1.3 Model List

### 1.3.1 FPC1000 Series List:

Model	Description	Picture
FPC1000-P	CPU: 400MHz DSP ((4MB Flash memory +8 MB RAM), Fingerprint capacity: 1,000 PCS, unlimited user identified by PC (Software feature),Fully integrated with SECUSYS software. Support Card types: Auid, EM, HID, Keyking, 125KHz Fingerprint Sensor: 500 dpi optical sensor Authentication modes: fingerprint, proximity card, proximity card + fingerprint, ID + fingerprint etc., Communication Interface: Wiegand output, TCP /IP, Dimension: 197mm L x88mm W x 35mm / 470g	
FPC1000-U	CPU: 400MHz DSP (4MB Flash memory +8 MB RAM) Fingerprint capacity: 1,000 PCS, unlimited user identified by PC (Software feature),Fully integrated with SECUSYS software. Support Card types: S50,Mifare Card, 13.56MHz, KK1208M1 Fingerprint Sensor: 500 dpi optical sensor Authentication modes: fingerprint, proximity card, proximity card + fingerprint, ID + fingerprint etc., Communication Interface: Wiegand output, TCP /IP, Dimension: 197mm L x88mm W x 35mm / 470g	
FPC1001-P	CPU: ARM, 32 Bits, Cortex-M4, 400MHz DSP (16MB Flash memory +4 MB RAM),Fully integrated with SECUSYS software. Fingerprint capacity: 1,000 PCS, unlimited user identified by PC (Software feature). Support Card types: Auid, EM, HID, Keyking, 125KHz Fingerprint Sensor: 500 dpi optical sensor Authentication modes: FingerPrint Only, FingerPrint or Card, FingerPrint + Card Communication Interface: Wiegand output, TCP /IP, Dimension: 135mm L x58mm W x 45mm / 490g	
FPC1001-U	CPU: ARM, 32 Bits, Cortex-M4, 400MHz DSP (16MB Flash memory +4 MB RAM),Fully integrated with SECUSYS software. Fingerprint capacity: 1,000 PCS, unlimited user identified by PC (Software feature). Support Card types: S50,Mifare Card, 13.56MHz, KK1208M1 Fingerprint Sensor: 500 dpi optical sensor Authentication modes: FingerPrint Only, FingerPrint or Card, FingerPrint + Card Communication Interface: Wiegand output, TCP /IP, Dimension: 135mm L x58mm W x 45mm / 490g	

### 1.3.2 FPC2000 Series List:

FPC2000-P	CPU: 400MHz DSP (4MB Flash memory +8 MB RAM), Fingerprint capacity: 3000 PCS (Can be expandable to 8000), Support Card types: Auid, EM, HID, Keyking, 125KHz Fingerprint Sensor: 500 dpi optical sensor Authentication modes: fingerprint, proximity card, proximity card + fingerprint, ID + fingerprint etc., Communication Interface: Wiegand output, TCP /IP,Fully integrated with SECUSYS software. Dimension: 197mm L x88mm W x 35mm / 490g	
FPC2000-U	CPU: 400MHz DSP (4MB Flash memory +8 MB RAM), Fingerprint capacity: 3000 PCS (Can be expandable to 8000), Support Card types: S50,Mifare Card, 13.56MHz, KK1208M1 Fingerprint Sensor: 500 dpi optical sensor Authentication modes: fingerprint, proximity card, proximity card + fingerprint, ID + fingerprint etc., Communication Interface: Wiegand output, TCP /IP,Fully integrated with SECUSYS software. Dimension: 197mm L x88mm W x 35mm / 490g	
FPC2001-P	CPU: ARM, 32 Bits, Cortex-M4, 400MHz DSP (16MB Flash memory +4 MB RAM), Wiegand output, TCP /IP,Fully integrated with SECUSYS software. Fingerprint capacity: 480 PCS Support Card types: Auid, EM, HID, Keyking, 125KHz Fingerprint Sensor: 500 dpi optical sensor Authentication modes: FingerPrint Only • FingerPrint or Card • FingerPrint + Card Dimension: 135mm L x58mm W x 45mm / 490g	
FPC2001-U	CPU: ARM, 32 Bits, Cortex-M4, 400MHz DSP (16MB Flash memory +4 MB RAM), Wiegand output, TCP /IP,Fully integrated with SECUSYS software. Fingerprint capacity: 480 PCS Support Card types: S50,Mifare Card, 13.56MHz, KK1208M1 Fingerprint Sensor: 500 dpi optical sensor Authentication modes: FingerPrint Only • FingerPrint or Card • FingerPrint + Card Dimension: 135mm L x58mm W x 45mm / 490g	

<b>FPC2002-P</b>	CPU: 400MHz DSP (4MB Flash memory +8 MB RAM),Wiegand output, TCP /IP,Fully integrated with SECUSYS software. Fingerprint capacity: 480 PCS Support Card types: Auid, EM, HID, Keyking, 125KHz Fingerprint Sensor: 500 dpi optical sensor Authentication modes: fingerprint, proximity card, proximity card + fingerprint, ID + fingerprint etc., Dimension: 197mm L x88mm W x 35mm / 470g	
<b>FPC2002-U</b>	CPU: 400MHz DSP (4MB Flash memory +8 MB RAM),Wiegand output, TCP /IP,Fully integrated with SECUSYS software. Fingerprint capacity: 480 PCS Support Card types: S50,Mifare Card, 13.56MHz, KK1208M1 Fingerprint Sensor: 500 dpi optical sensor Authentication modes: fingerprint, proximity card, proximity card + fingerprint, ID + fingerprint etc., Dimension: 197mm L x88mm W x 35mm / 470g	
<b>BioUSB10P</b>	Biometric USB enrollement Finger Print Reader for direct connection to PC. Fully integrated with SECUSYS software, Built in Multi-Proximity reader	
<b>BioUSB10U</b>	Biometric USB enrollement Finger Print Reader for direct connection to PC. Fully integrated with SECUSYS software, Built in CPU reader	

## 1.4 Features

- TFT color display with elegant appearance.
- Standard Wiegand 26/34 output, compatible with Wiegand format access controller
- Dust and water resistant, suitable for wide kinds of installations.
- Quick responding, anti-interference, low power consumption and stable.
- WDT circuit, self-checking function.
- High speed of fingerprint matching, 3000 fingerprints within 1 second.
- Multithreaded code has taken full advantage of multi-core CPU
- 500dpi optical biometric sensor, scratch resistant.
- World leading fingerprint algorithm, resistant fake fingerprint.
- Support Chinese/English interface.
- Background picture and company name can be changed base on customer's requirement.
- Display card number, user name, employee ID and etc.

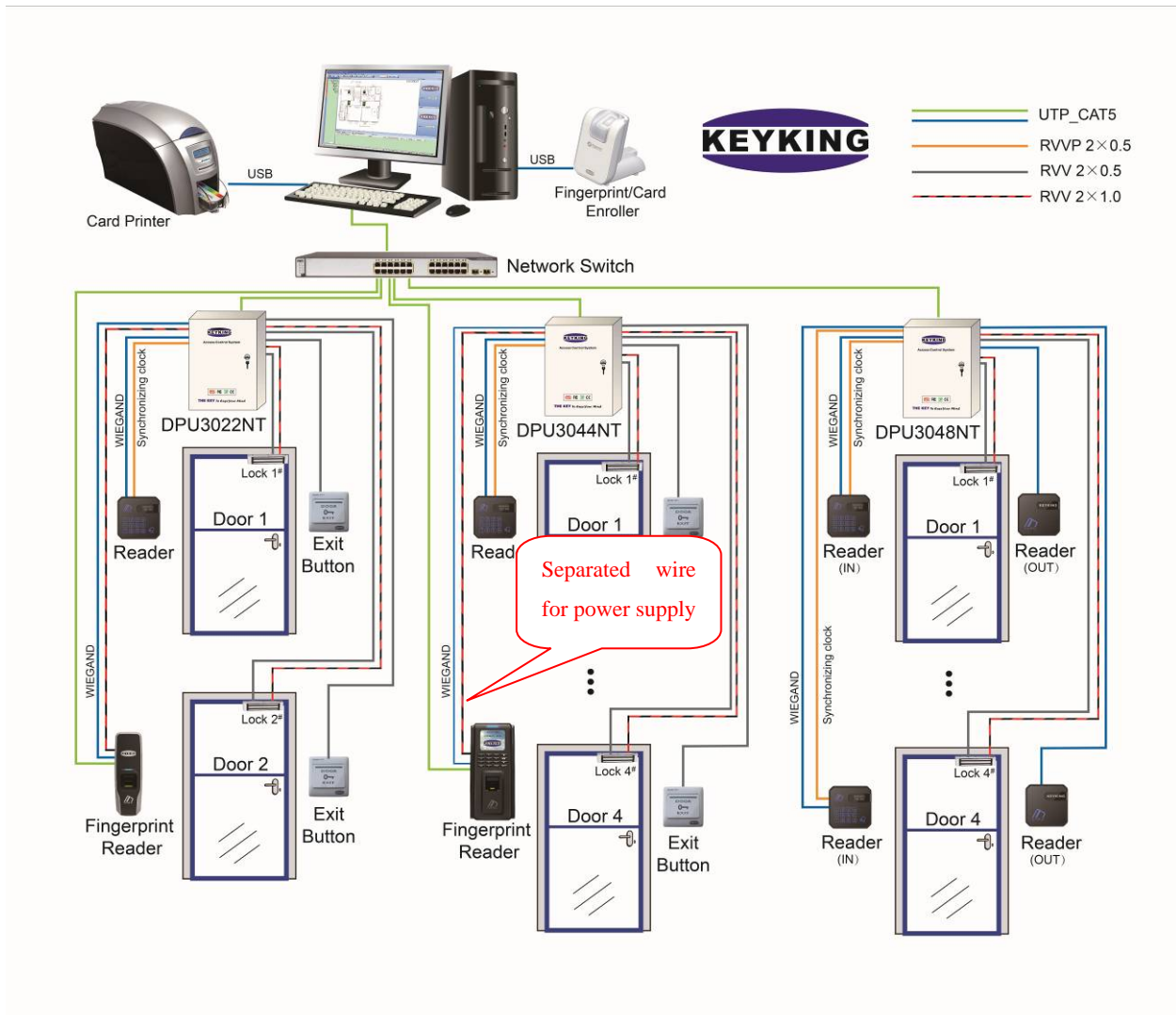
### Specification:

- CPU: ARM, 32Bits, Cortex-M4, 400MHz DSP
- Memory: 4MB Flash memory+8MB RAM
- Fingerprint Template: FPC2000--3000 pcs; FPC2002--480 pcs.
- Biometric sensor: 500 dpi optical biometric sensor
- Verify mode: FP, Card, Card+FP, ID+FP
- Communication interfaces: Wiegand output, TCP/IP communicate
- Operating voltage: 12VDC
- Operating current: ≤500mA
- Standby current: ≤350mA
- Temperature: -20°C to 65°C
- Humidity: 0--95%
- Dimension: 197mm L x88mm W x 35mm
- Weight: 490g



## 1.5 Application Mode

### 1.5.1 FPC2000 works as a reader



Note:

- Separated wire for FPC2000. Please do not use the wires of CAT-5 as power supply wire for FPC2000, because FPC2000 asks big current.

### 1.5.2 FPC2000 works as a standalone

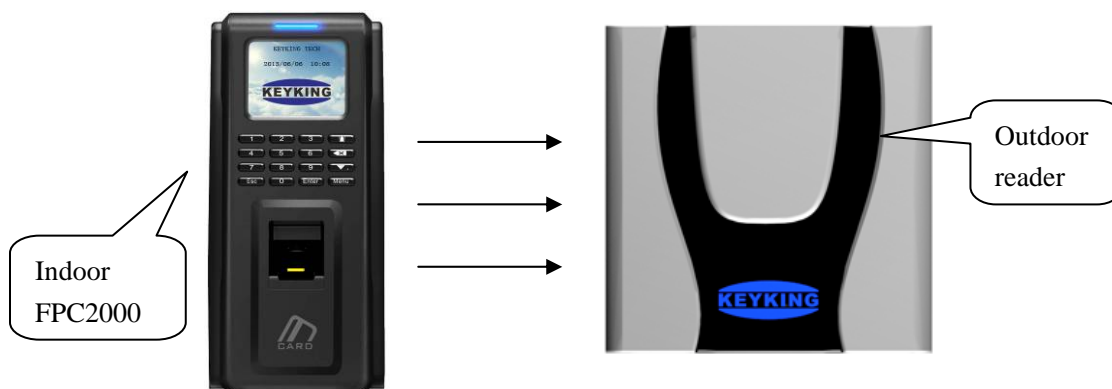
3 Application Modes:

- Standalone, no external reader

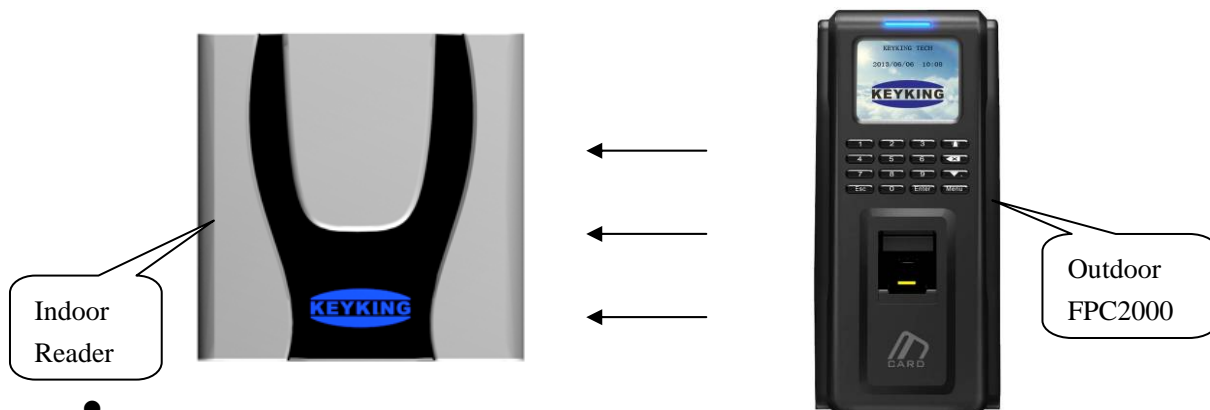




- Outdoor external reader, indoor FPC2000



- Indoor external reader, outdoor FPC2000



## Chapter 2 Wiring Diagram

### 2.1 FPC2000 Appearance

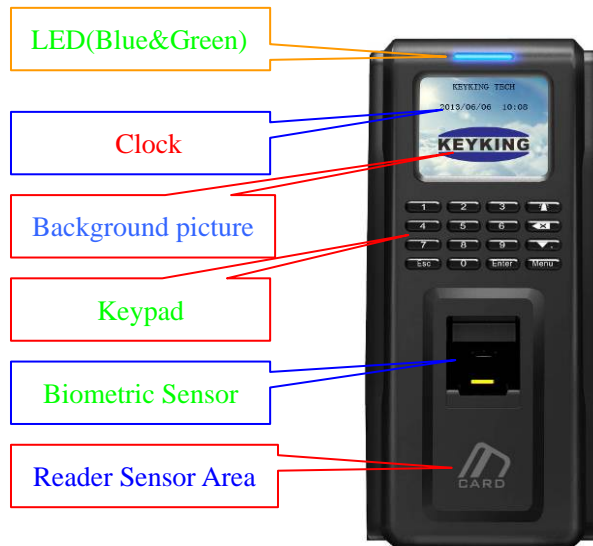

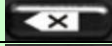



Figure 2-1

#### LED:

- Blue LED: Power indicator
- Green LED: Sensor indicator (Relay on indicator)

#### Keypad:

NO.	Key	Description	NO.	Key	Description
1	1	Numeral 1	9	9	Numeral 9
2	2	Numeral 2	10	0	Numeral 0
3	3	Numeral 3	11	Esc	Exit
4	4	Numeral 4	12		Door bell
5	5	Numeral 5	13		Delete
6	6	Numeral 6	14		Next/. symbol
7	7	Numeral 7	15	Menu	Menu
8	8	Numeral 8	16	Enter	Enter/Confirm

## 2.2 Wiring Diagram

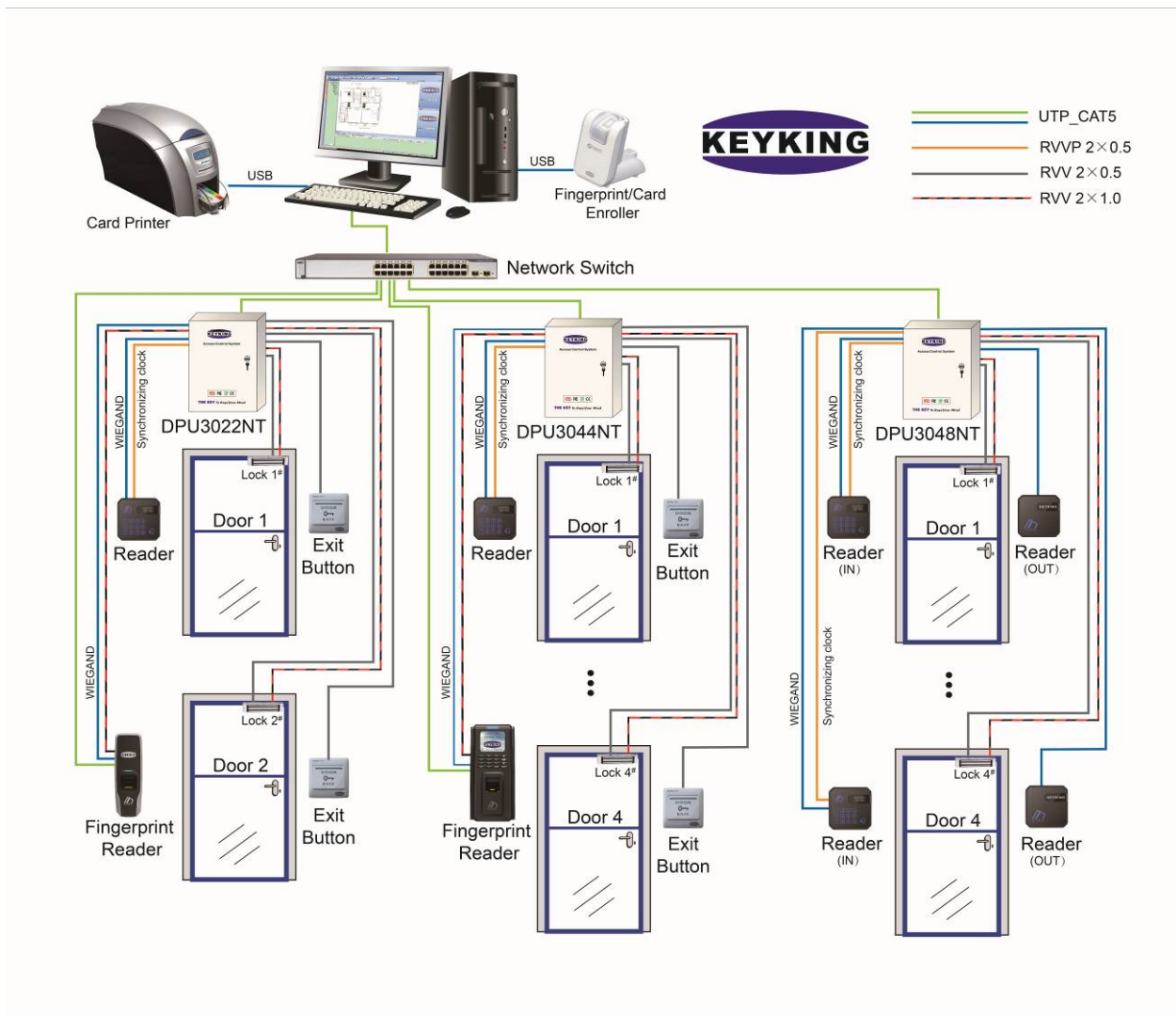


Figure 2-2 FPC2000 work as a fingerprint reader only.

Note:

1. **Separated Power for FPC2000:** Use a separated RVV2\*1.0 wire as the power cable from controller or a separated power supply. And connect the GND together once you use a separated power for panel and FPC2000. Do not use the UTP\_CAT5 as the power cable for FPC2000, do not get the power from reader socket of panel directly.
2. **Reader Fuse - 135mA only:** If you get the power from panel, please connect to the power input connector directly, do not connect to the reader socket directly. Otherwise the current will exceed the fuse limitation, and the FPC2000 will not work.

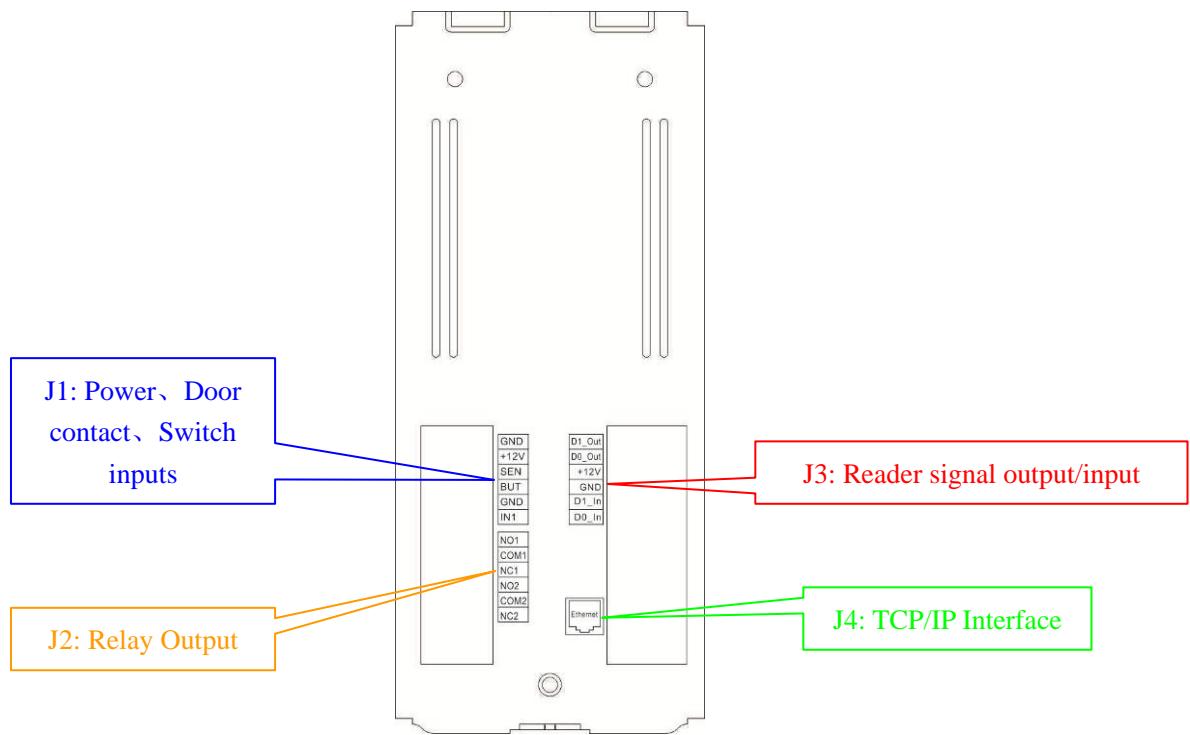


Figure 2-3 Wiring Sketch

Icon	NO	Connect ion	Definition	Icon	NO	Connecti on	Definition
J1	1	GND	Power supply Door contact, Rex Button, Auxiliary output	J3	13	D1_Out	Reader signal input/output
	2	+12V			14	D0_Out	
	3	SEN			15	+12V	
	4	BUT			16	GND	
	5	GND			17	D1_In	
	6	IN1			18	D0_In	
J2	7	NO1	Relay output	J4	19	RJ45	TCP/IP interface
	8	COM1					
	9	NC1					
	10	NO2					
	11	COM2					
	12	NC2					

Figure 2-4

Wiring Description:

**J1: Power supply, Magnetic door contact, Rex Button, Auxiliary input**

- ✓ 12V: DC 12V Positive
- ✓ GND: Ground
- ✓ SEN: Door contact
- ✓ BUT: Rex Button,
- ✓ GND: Ground
- ✓ IN1: Auxiliary input

**J2: Relay output**

- ✓ Based on customized lock model and power requirement.

**J3 Reader signal input/output**

- ✓ D1\_Out : Wiegand signal output
- ✓ D0\_Out: Wiegand signal output
- ✓ +12V: DC 12V Positive
- ✓ GND: Ground
- ✓ D1\_In: Wiegand signal input
- ✓ D0\_In: Wiegand signal input

#### J4: TCP/IP interface

- ✓ Customer can set all configurations when it's connected to host PC. Moreover user authorization and exporting card events can also be done via manage software.
- ✓ To use a switch or directly connect to host PC via Ethernet port.

## 2.3 Lock Wiring Diagram

#### J4: Relay Output (Lock Control)

As shown below.

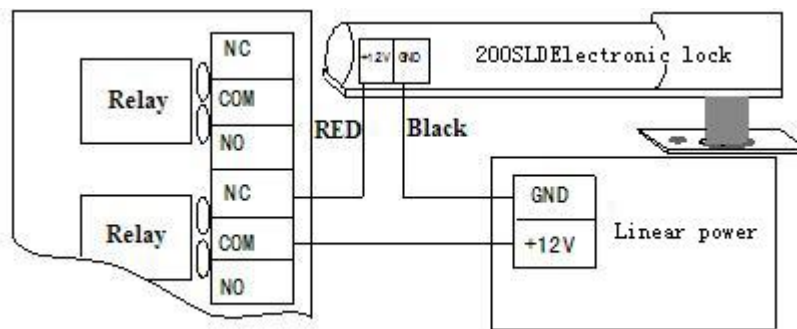


Figure 2-5 Electronic Strike Lock

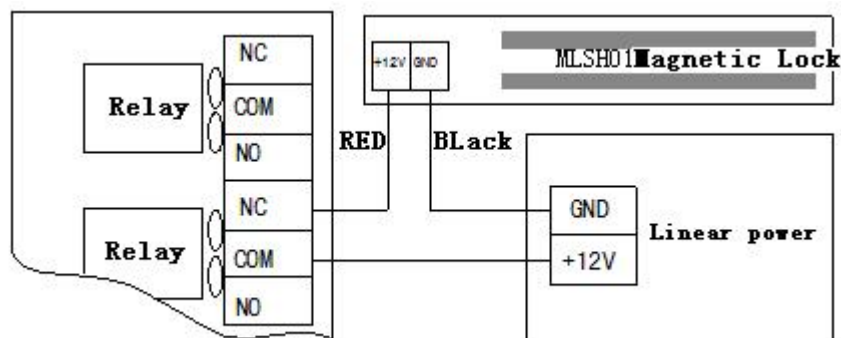


Figure 2-6 Magnetic Lock (Fail safe)

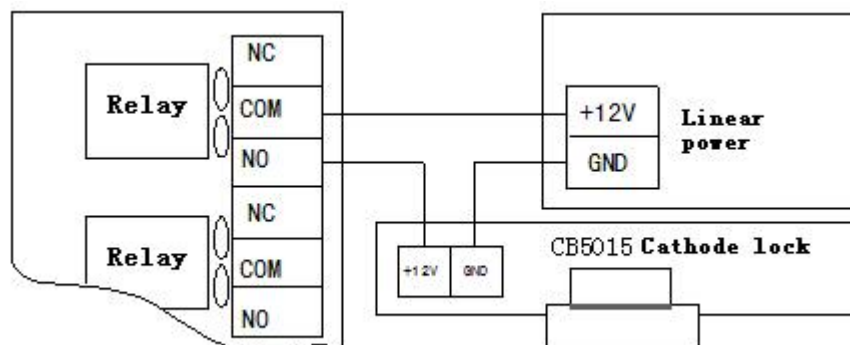


Figure 2-7 Cathode lock (Fail secure)

## 2.4 TCP/IP Network

FPC2000 TCP/IP network

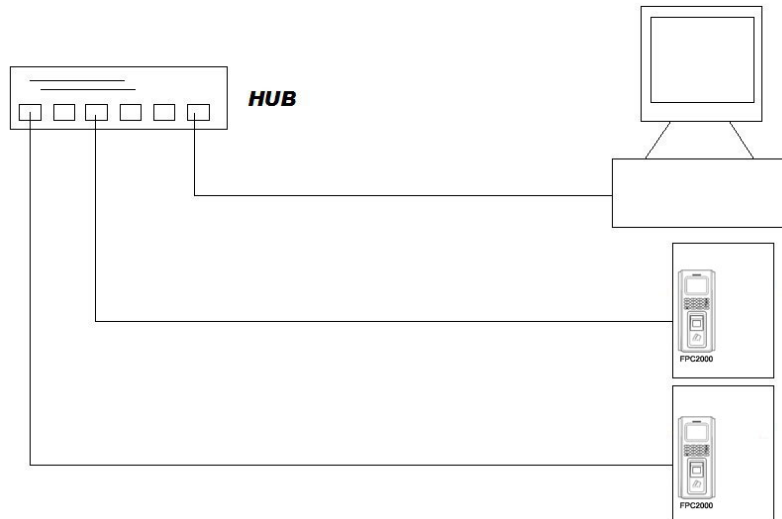


Figure 2-8

TCP/IP crystal head

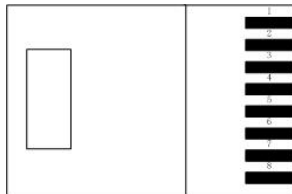


Figure 2-9

RJ45 NO.	Definition
1	TX+
2	TX-
3	RX+
6	RX-

Figure 2-2

Normal net cable (to switch)

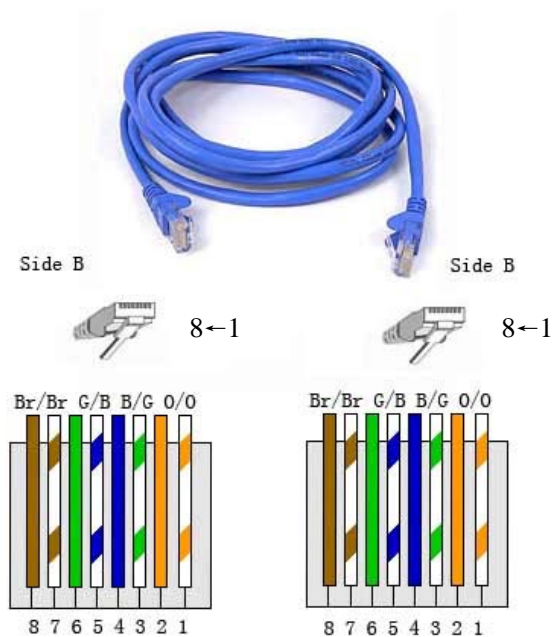


Figure 2-10

Crossed cable (to PC)

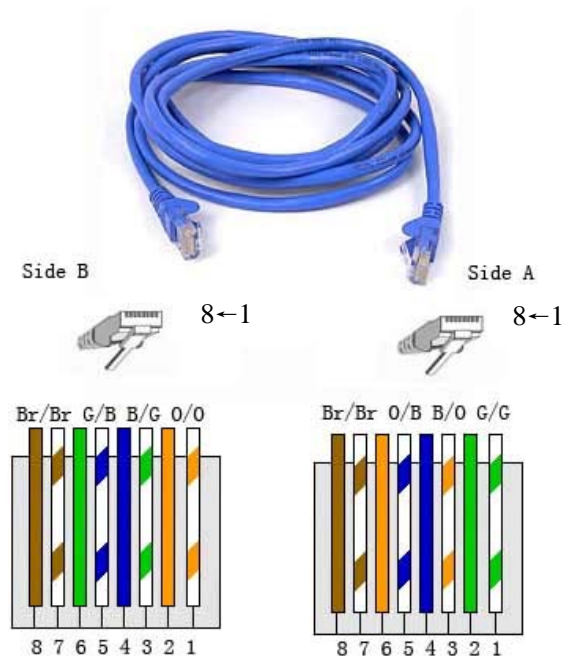
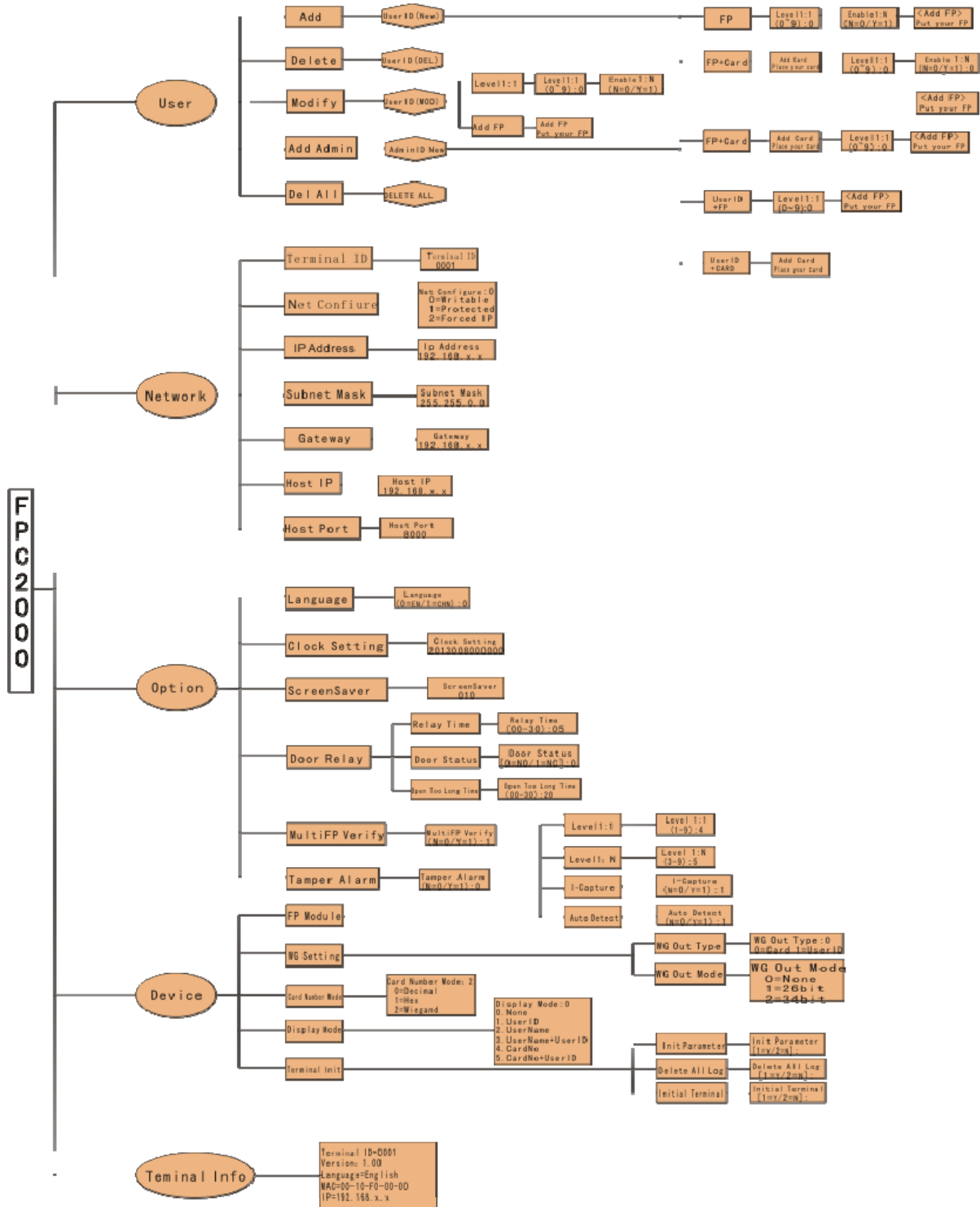


Figure 2-11



## Chapter 3 Instructions

User Management, PIN management, Work mode and Time set are configured in the manage menu. Menu structure is shown below.



## 3.1 Personnel Management

### 3.1.1 Add Personnel

1. Press button Menu to enter manage menu when FPC2000 is idle. In the following steps, Esc works as cancel while Enter works as confirm.

**Keyking FPC2000**

1. User
2. Network
3. Option
4. Device
5. Terminal Info

2. Press 1 to enter User interface. (As shown below)

**Keyking FPC2000**

1. Add
2. Delete
3. Modify
4. Add Admin
5. Delete All

3. Press 1 again to enter Add interface(As shown below)

**Keyking FPC2000**

New ID

-----

4. Input the new ID and press enter to the next interface. (As shown below)

**Keyking FPC2000**

1. FP
2. FP/Card
3. FP+CARD
4. UserID+FP
5. User ID+card

#### 3.1.1.1 FP

1. Press 1 to enter Add FP interface. (As shown below)

**Keyking FPC2000**

Level 1:1

(0~9) :0

2. Select a level according to customer's requirement(High level for high matching accuracy, but will low down responding time), press Enter to enter the next interface.

**Keyking FPC2000**

Enable 1: N

:

(N=0/Y=1) :

3. Press 0 to confirm that the FP is attached to the User ID, else press 1 stands for searching FP in the database. Press Enter to enter the next interface.

**Keyking FPC2000**

〈Add FP〉

Put Your FP

4. Put your finger right twice to finish registering. The screen will display “Add FP OK” and then go back to the main menu.

**3.1.1.2 FP/Card**

Enter the following interface referring 3.1.1.

**Keyking FPC2000**

1. FP
2. FP/Card
3. FP+CARD
4. UserID+FP
5. User ID+card

1. Press 2 to enter add FP/Card interface. (As shown below)

**Keyking FPC2000**

Add card

Place your card

2. Place the card in the sensor area; system will enter the next interface after a beep sound.

**Keyking FPC2000**

Level 1:1

(0~9) :0

3. Select a level according to customer's requirement(High level for high matching accuracy, but will low down responding time), press Enter to enter the next interface.

**Keyking FPC2000**

Enable 1: N

:

(N=0/Y=1) :

4. Press 0 to confirm that the FP is attached to the User ID, else press 1 stands for searching FP in the database. Press Enter to enter the next interface.

**Keyking FPC2000**

〈Add FP〉

Put your FP

5. Put your finger right twice to finish registering. The screen will display “Add FP OK” and then go back to the main menu.

**3.1.1.3 FP+Card**

Enter the following interface referring 3.1.1.

**Keyking FPC2000**

1. FP
2. FP/Card
3. FP+CARD
4. UserID+FP
5. User ID+card

1. Press 3 to enter add FP+Card interface. (As shown below)

**Keyking FPC2000**

Add Card

Place your card

2. Place the card in the sensor area; system will enter the next interface after a beep sound.

**Keyking FPC2000**

Level 1:1

(0~9) :0

3. Select a level according to customer's requirement(High level for high matching accuracy, but will low down responding time), press Enter to enter the next interface.

**Keyking FPC2000**

〈Add FP〉

Put your FP

4. Put your finger right twice to finish registering. The screen will display "Add FP OK" and then go back to the main menu.

**3.1.1.4 UserID+FP**

Enter the following interface referring 3.1.1.

**Keyking FPC2000**

1. FP
2. FP/Card
3. FP+CARD
4. UserID+FP
5. User ID+card

1. Press 4 to enter add UserID+FP interface. (As shown below)

**Keyking FPC2000**

Level 1:1

(0~9) :0

2. Select a level according to customer's requirement(High level for high matching accuracy, but will low down responding time), press Enter to enter the next interface.

**Keyking FPC2000**

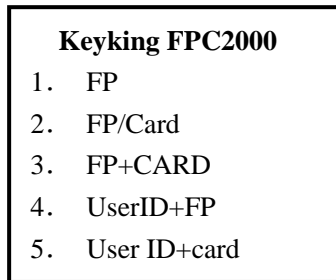
〈Add FP〉

Put your FP

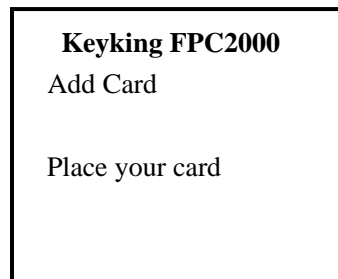
3. Put your finger right twice to finish registering. The screen will display "Add FP OK" and then go back to the main menu.

### 3.1.1.5 User ID+card

Enter the following interface referring 3.1.1.



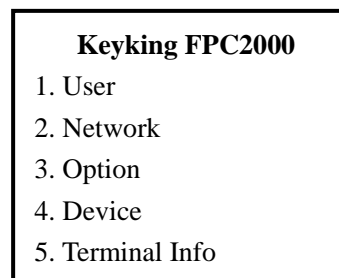
1. Press 5 to enter add UserID+Card interface. (As shown below)



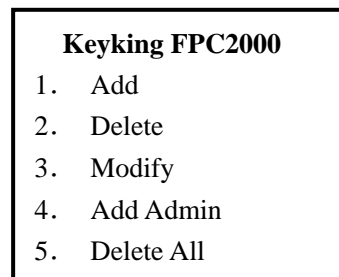
2. Place the card in the sensor area; system will enter the next interface after a beep sound.

## 3.1. 2 Delete Personnel

1. Press button Menu to enter manage menu when FPC2000 is idle. In the following steps, Esc works as cancel while Enter works as confirm.



2. Press 1 to enter User interface. (As shown below)



3. Press 2 to enter Delete interface.

**Keyking FPC2000**  
UserID [DEL]  
  
-----

- 4 Input the UserID which is to be deleted, then press Enter to confirm.

### 3.1.3 Modify

1. Press button Menu to enter manage menu when FPC2000 is idle. In the following steps, Esc works as cancel while Enter works as confirm.

**Keyking FPC2000**  
1. User  
2. Network  
3. Option  
4. Device  
5. Terminal Info

2. Press 1 to enter User interface. (As shown below)

**Keyking FPC2000**  
1. Add  
2. Delete  
3. Modify  
4. Add Admin  
5. Delete All

3. Press 3 to enter Modify interface.

**Keyking FPC2000**  
Input UserID [MOD]  
  
-----

4. Input the UserID which is to be modified, customer can change configuration like level 1:1 or replace FP or card.

### 3.1.4 Add Admin

1. Press button Menu to enter manage menu when FPC2000 is idle. In the following steps, Esc works as cancel while Enter works as confirm.



**Keyking FPC2000**

1. User
2. Network
3. Option
4. Device
5. Terminal Info

2. Press 1 to enter User interface. (As shown below)

**Keyking FPC2000**

1. Add
2. Delete
3. Modify
4. Add Admin
5. Delete All

3. Press 4 to enter Add Admin interface.

**Keyking FPC2000**

Admin ID (NEW)

-----

4. Input new Admin ID and press Enter to the next interface. Refer to 3.1.1.

### 3.1.5 Delete All

1. Press button Menu to enter manage menu when FPC2000 is idle. In the following steps, Esc works as cancel while Enter works as confirm.

**Keyking FPC2000**

1. User
2. Network
3. Option
4. Device
5. Terminal Info

2. Press 1 to enter User interface. (As shown below)

**Keyking FPC2000**

1. Add
2. Delete
3. Modify
4. Add Admin
5. Delete All

3. Press 5 to enter Delete All interface.

**Keyking FPC2000**

Delete all?

[Y=1/N=2]:

4. Press the corresponding number to select, press Enter to confirm deleting.

## 3.2 Network Configuration

### 3.2.1 Terminal ID

1. Press button Menu to enter manage menu FPC2000 is idle. In the following steps, Esc works as cancel while Enter works as confirm.



**Keyking FPC2000**

1. User
2. Network
3. Option
4. Device
5. Terminal Info

2. Press 2 to enter Network interface. (As shown below)

**Keyking FPC2000**

1. Terminal ID
2. Net Configure
3. IP Address
4. Subnet Mask
5. Gateway
6. Host IP
7. Host Port

3. Press 1 to enter Terminal ID interface. (  stands for delete button,  stands for symbolic button)

**Keyking FPC2000**

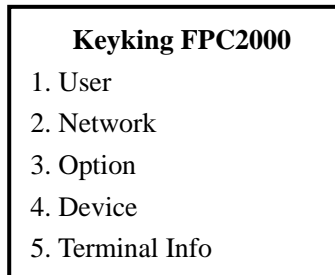
〈Terminal ID〉

0001

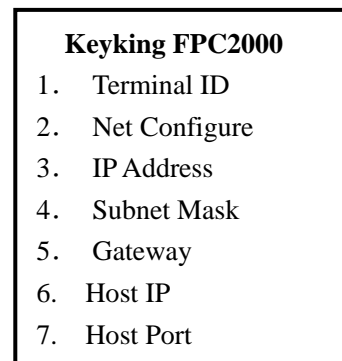
4. Input the Terminal ID by using the keypad and press Enter to confirm.



### 3.2.2 Net Configure

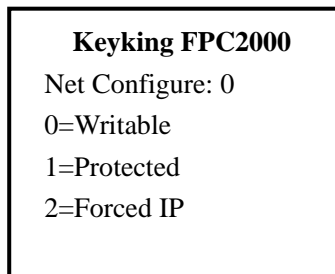
1. Press button Menu to enter manage menu FPC2000 is idle. In the following steps, Esc works as cancel while Enter works as confirm.



2. Press 2 to enter Network interface. (As shown below)



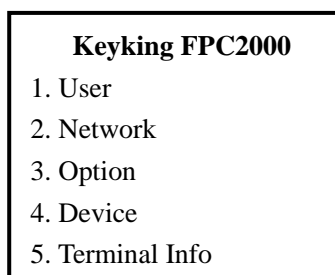
3. Press 2 to enter Net Configuration interface. (  stands for delete button,  stands for symbolic button)



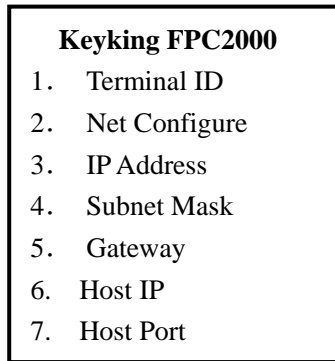
4. Select a configuration and input the corresponding number, then press Enter to confirm.



### 3.2.3 IP Address

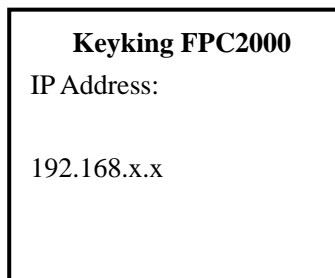
1. Press button Menu to enter manage menu FPC2000 is idle. In the following steps, Esc works as cancel while Enter works as confirm.



2. Press 2 to enter Network interface. (As shown below)



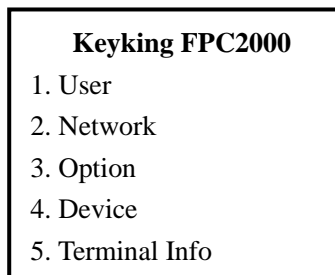
3. Press 3 to enter IP Address interface. (  stands for delete button,  stands for symbolic button)



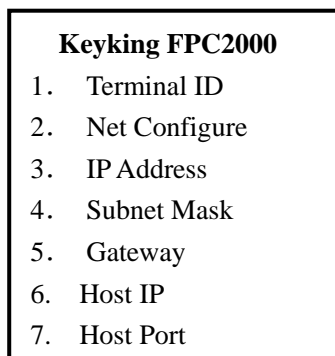
4. Input the IP address and press Enter to confirm.

### 3.2.4 Subnet Mask

1. Press button Menu to enter manage menu FPC2000 is idle. In the following steps, Esc works as cancel while Enter works as confirm.



2. Press 2 to enter Network interface. (As shown below)



3. Press 4 to enter Subnet Mask interface. (  stands for delete button,  stands for symbolic button)

stands for symbolic button)

**Keyking FPC2000**  
Subnet Mask:  
  
255.255.x.x

4. Input your Subnet Mask and press Enter to confirm.



### 3.2.5 Gateway

1. Press button Menu to enter manage menu FPC2000 is idle. In the following steps, Esc works as cancel while Enter works as confirm.

**Keyking FPC2000**  
1. User  
2. Network  
3. Option  
4. Device  
5. Terminal Info

2. Press 2 to enter Network interface. (As shown below)

**Keyking FPC2000**  
1. Terminal ID  
2. Net Configure  
3. IP Address  
4. Subnet Mask  
5. Gateway  
6. Host IP  
7. Host Port

3. Press 5 to enter Gateway interface. (  stands for delete button,  stands for symbolic button)

**Keyking FPC2000**  
Gateway:  
  
192.168.X.X

4. Input your Gateway and press Enter to confirm.

### 3.2.6 Host IP

1. Press button Menu to enter manage menu FPC2000 is idle. In the following

steps, Esc works as cancel while Enter works as confirm.



**Keyking FPC2000**

1. User
2. Network
3. Option
4. Device
5. Terminal Info

2. Press 2 to enter Network interface. (As shown below)

**Keyking FPC2000**

1. Terminal ID
2. Net Configure
3. IP Address
4. Subnet Mask
5. Gateway
6. Host IP
7. Host Port

3. Press 6 to enter Host IP interface. (  stands for delete button,  stands for symbolic button)

**Keyking FPC2000**

Host IP:

192.168.X.X

4. Input the Host IP and press Enter to confirm.

### 3.2.7 Host Port

1. Press button Menu to enter manage menu FPC2000 is idle. In the following steps, Esc works as cancel while Enter works as confirm.



**Keyking FPC2000**

1. User
2. Network
3. Option
4. Device
5. Terminal Info

2. Press 2 to enter Network interface. (As shown below)

**Keyking FPC2000**

1. Terminal ID
2. Net Configure
3. IP Address
4. Subnet Mask
5. Gateway
6. Host IP
7. Host Port

3. Press 7 to enter Host Port interface. ( Stands for delete button,  stands for symbolic button)

**Keyking FPC2000**

Host Port:

8000

4. Input the Host Port and press Enter to confirm.

## 3.3 Option

### 3.3.1 Language

1. Press button Menu to enter manage menu FPC2000 is idle. In the following steps, Esc works as cancel while Enter works as confirm.

**Keyking FPC2000**

1. User
2. Network
3. Option
4. Device
5. Terminal Info

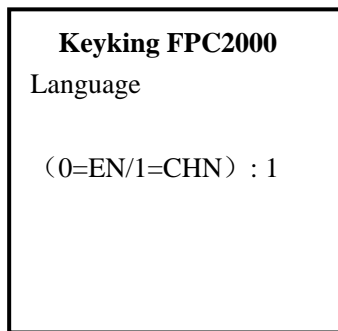
2. Press 3 to enter Option interface. (As shown below)

**Keyking FPC2000**

1. Language
2. Clock Setting
3. Screen Saver
4. Door Relay
5. MultiFP Verify
6. Tamper Alarm

3. Press 1 to enter Language interface.(As shown below)

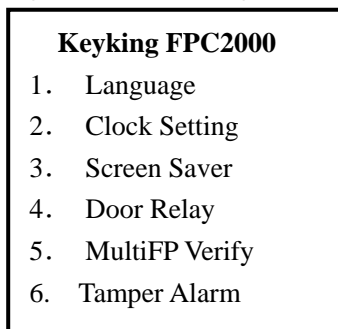




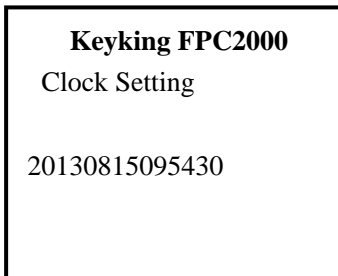
4. Press the corresponding number (0=English 1=Chinese) and press Enter to confirm.

### 3.3.2 Clock Setting

1. Enter the following interface referring to 3.3.1.



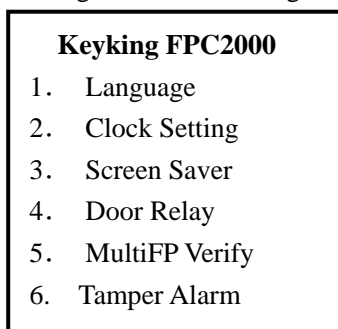
2. Press 2 to enter Clock Setting interface.(As shown below)



3. Input the accurate time and press Enter to confirm.

### 3.3.3 Screensaver

1. Enter the following interface referring to 3.3.1.



2. Press 3 to enter Screensaver interface.(As shown below)

**Keyking FPC2000**

Screensaver(SEC): 010

3. Input the interval time and press Enter to confirm.

### 3.3.4 Door Relay

1. Enter the following interface referring to 3.3.1.

**Keyking FPC2000**

1. Language
2. Clock Setting
3. Screen Saver
4. Door Relay
5. MultiFP Verify
6. Tamper Alarm

2. Press 4 to enter Screensaver interface. (As shown below)

**Keyking FPC2000**

1. Relay Time
2. Door Status
3. Open too long time

3. Each interface is shown below.

<p><b>Keyking FPC2000</b></p> <p>Relay Time</p> <p>(00-30) : 01</p>	<p><b>Keyking FPC2000</b></p> <p>Door Status</p> <p>[0=NO/1=NC]:0</p>	<p><b>Keyking FPC2000</b></p> <p>Open too long time</p> <p>(00-30): 20</p>
--	--	---

Relay Time: Relay activate time

Door Status: NO stands for Door normal open, NC stands for door normal close.

Open too long time: Interval time to alarm if door remains opened.

### 3.3.5 MultiFP Verify

1. Enter the following interface referring to 3.3.1.

**Keyking FPC2000**

1. Language
2. Clock Setting
3. Screen Saver
4. Door Relay
5. MultiFP Verify
6. Tamper Alarm

2. Press 5 to enter MultiFP Verify interface. (As shown below)

**Keyking FPC2000**

MultiFP Verify

(N=0/Y=1) :1

3. Press 0 stands for not to enable Multi FP Verify while 1 stands for affirmative. Press Enter to confirm.

### 3.3.6 Tamper Alarm

1. Enter the following interface referring to 3.3.1.

**Keyking FPC2000**

1. Language
2. Clock Settings
3. Screen Saver
4. Door Relay
5. MultiFP Verify
6. Tamper Alarm

2. Press 6 to enter Tamper Alarm interface. (As shown below)

**Keyking FPC2000**

Tamper Alarm

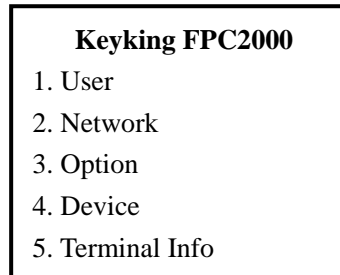
(N=0/Y=1) :1

3. Press 0 stands for not to enable Tamper Alarm while 1 stands for affirmative. Press Enter to confirm.

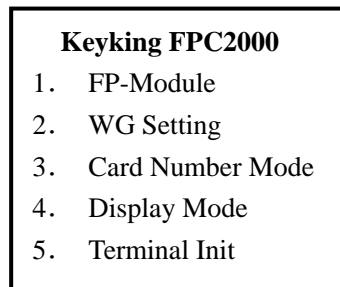
## 3.4 Device

### 3.4.1 FP-Module

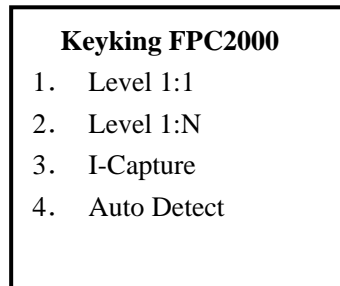
1. Press button Menu to enter manage menu FPC2000 is idle. In the following steps, Esc works as cancel while Enter works as confirm.



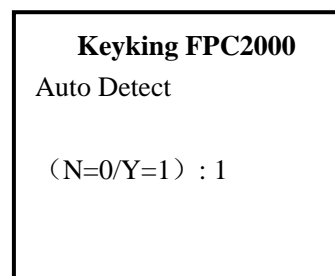
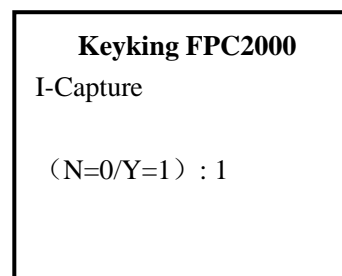
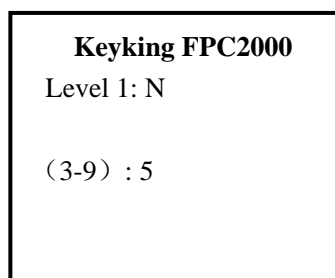
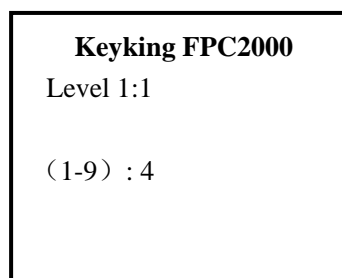
2. Press 4 to enter Device interface. (As shown below)



3. Press 1 to enter FP-Module interface. (As shown below)



4. Press the corresponding letter to enter each interface as shown.



Level 1:1: Verify FP with all the registered FP, high level for high matching accuracy,

but will low down responding time.

Level 1:N: Verify FP with all FP in the database, high level for high matching accuracy, but will low down responding time.

I-Capture: Press 1 to enable I-Capture, 0 to disable I-Capture.

Auto Detect: Press 1 to enable I-Capture, 0 to disable I-Capture.

### 3.4.2 WG Setting

1. Enter the following interface referring to 3.4.1.

<b>Keyking FPC2000</b> 1. FP-Module 2. WG Setting 3. Card Number Mode 4. Display Mode 5. Terminal Init
---

2. Press 2 to enter WG Setting interface. (As shown below)

<b>Keyking FPC2000</b> 1. WG Out Type  2. WG Out Mode
--

3. Press the corresponding key to enter each interface as shown.

<b>Keyking FPC2000</b> WG Out Type: 0 0=Card 1=User ID
---

<b>Keyking FPC2000</b> WG Out Mode: 2 0=None 1=26bit 2=34bit
--

WG Out Type: Select the needed type by pressing the corresponding keys.

WG Out Mode: Select the needed type by pressing the corresponding keys.

### 3.4.3 Card Number Mode

1. Enter the following interface referring to 3.4.1.

**Keyking FPC2000**

1. FP-Module
2. WG Setting
3. Card Number Mode
4. Display Mode
5. Terminal Init

2. Press 3 to enter Card Number Mode interface. (As shown below)

**Keyking FPC2000**

Card Number Mode: 2

0=Dec

1=Hex

2=Wiegand

3. Card number is displayed on the screen, Press Enter to confirm your choice after finishing selecting Card Number Mode.

### 3.4.4 Display Mode

1. Enter the following interface referring to 3.4.1.

**Keyking FPC2000**

1. FP-Module
2. WG Setting
3. Card Number Mode
4. Display Mode
5. Terminal Init

2. Press 4 to enter Display Mode interface. (As shown below)

**Keyking FPC2000**

Display Mode: 3

0. None

1. User ID

2. UserName

3. UserName+UserID

4. CardNo

5. CardNo+UserID

6. CardNo+UserName

7. CardNo+Name+User  
ID

3. There are 5 options can be choose from, input the corresponding letter and press Enter to confirm.

### 3.4.5 Terminal Initialize

1. Enter the following interface referring to 3.4.1.

<b>Keyking FPC2000</b> 1. FP-Module 2. WG Setting 3. Card Number Mode 4. Display Mode 5. Terminal Init
---

2. Press 5 to enter Display Mode interface. (As shown below)

<b>Keyking FPC2000</b> 1. Init Parameter 2. Delete All Log 3. Initial Terminal
---

3. Press the corresponding key to enter each interface as shown.

<b>Keyking FPC2000</b> Init Config  [1=Y/2=N]:
---

<b>Keyking FPC2000</b> Delete All Log  [1=Y/2=N]
---

<b>Keyking FPC2000</b> Initial Terminal  [1=Y/2=N]
---

Init Parameter: Initialize all parameters

Delete All Log: Delete all personnel data, FP and attendance Log

Initial Terminal: Set terminal to defaulted status.

**Note: Initial Terminal will clear all data in the device, please take a thorough consideration before operating.**

## 3.4 Terminal Info

1. Press button Menu to enter manage menu FPC2000 is idle. In the following steps, Esc works as cancel while Enter works as confirm.

<b>Keyking FPC2000</b> 1. User 2. Network 3. Option 4. Device 5. Terminal Info
---

2. Press 5 to enter Terminal Info interface. (As shown below)



**Keyking FPC2000**

Device ID=0001

Version: 1.00

Language=English

MAC=00-10-F0-00-43-1D

IP =192.168.4.207

The screen will show the basic information of the device, such as Device ID, Version, Language, Mac Address and IP Address.

## 3.5 Door Open Mode

### 1 FP Mode

Application: Put your finger on the biometric reader of FPC2000, if verify passed, the screen will show that verify OK and display User ID, User Name and Card Number. Then the replay will response-door open. If verify failed, then FPC2000 will beep three sounds and display Please try again, door remains closed.

Note: Only the registered personnel can pass verifying.

### 2 FP/Card

Application: Flash a registered card or FP

FPC2000 can control a door by FP/Card

### 3 FP+Card

Application: Flash a registered card and FP.

Flash a registered card in front of FPC2000. (read range 3-10cm), FPC2000 will beep a long sound and then put your finger on the reader, if verify passed then door will open. The interval time between flashing card and verify FP is 8 seconds.

### 4 UserID+FP or UserID+Card

Application: Input your User ID by using the keypad and then verify your FP or flash your card to complete access process.

## Chapter 4 Mounting

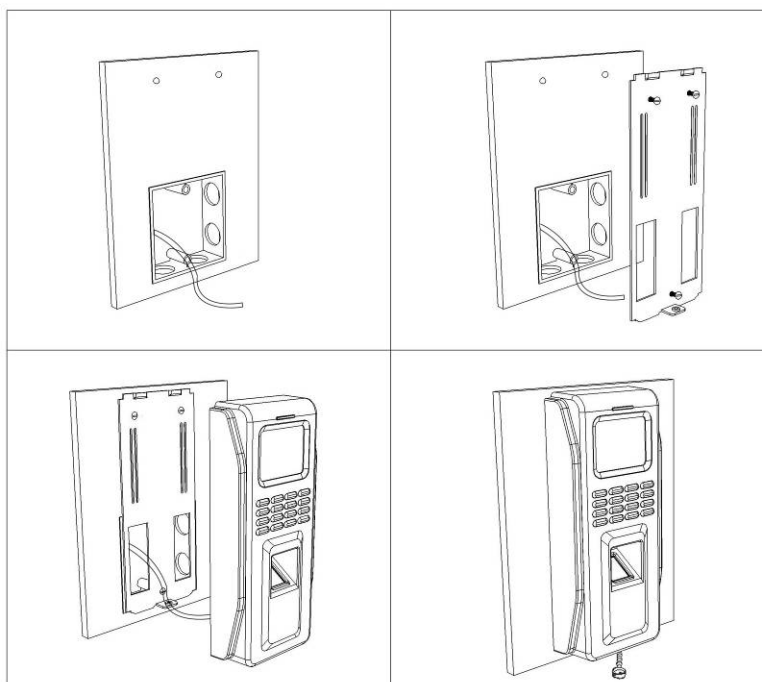
### 4.1 Install FPC2000 on the wall (Back box)

1. Use installation box: Drill a hole on the wall (size:86x86mm) where you want to install your reader. Then install the installation box in the hole.



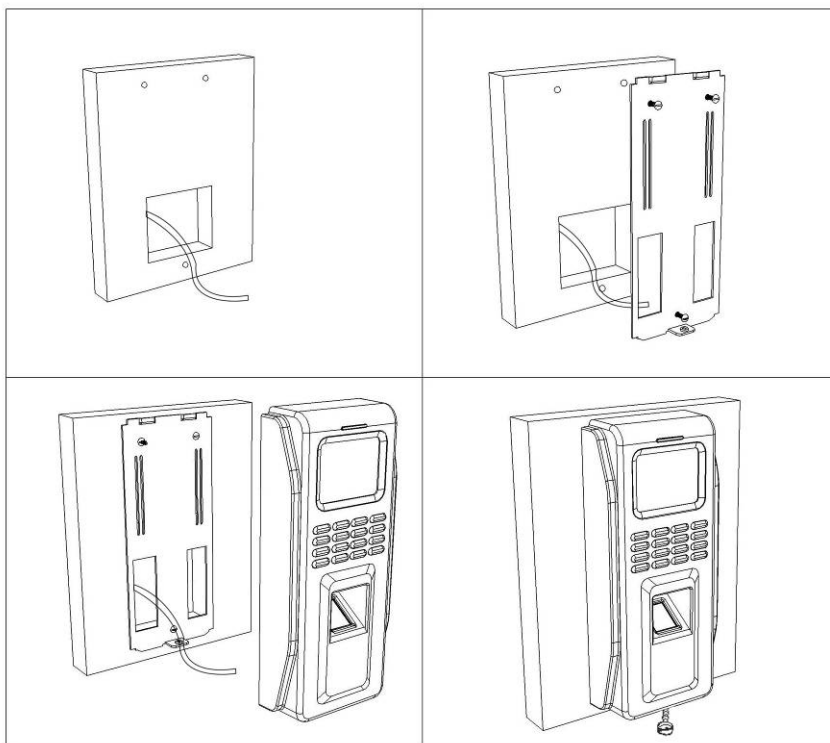
Installation box (Standard 86 box, single)

2. Wiring: Design the wiring between reader and controller, then process wiring.
3. Connection: Please refer to chapter 2 of the connections.
4. Fix base plate: Use a M4\*30 screw to fix the bottom of the base plate on the installation box. Two  $\phi 6$ , deep 40mm holes should be drilled on the upper side, then slide two rubber plugs into the holes and fix the base plate with two  $\phi 4$ mm, 30mm screws.
5. The upper side of the FPC2000 should be fixed on the base plate first, then make the reader in vertical position and use a M3\*4 screws to fix it.



## 4.2 Install FPC2000 on the wall

1. Cut a square hole in the wall. Width 70mm Height 60mm.
2. Wiring: Design the wiring between reader and controller, then process wiring
3. Connection: Please refer to chapter 2 of the connections.
4. Fix base plate: First drill 3  $\phi 6$ , deep 40mm holes and put rubber plugs in. then make the reader in vertical position and use a M3\*4 screws to fix it. If the reader is to install on metal frame, then please make sure the frame width is above 90mm, next cut a square hole in the wall. Width 70mm Height 60mm, drill 3  $\phi 6$ , deep 40mm holes and tap them with M4 screw tap. Finally make the reader in vertical position and use a M3\*4 screws to fix it.



## Chapter 5 Operation in Sphinx

### 5.1 Install driver for BioUSB10

1. Plug BioUSB10 into the USB socket of PC.



BioUSB is enroller for fingerprint and card, based on a built-in proximity/mifare card.

2. Please find the driver from this folder C:\Program Files (x86)\keyking\Sphinx INT 4.3\Drivers\BioUSB10 Enroller Driver(USB2.0).



3. When you finish installation, done.

### 5.2 Select FPC2000 Series

1. Select "KEYKING FPC2000 Series" in "Setup/Communication/Fingerprint" of Sphinx.

### 5.3 Search & Config FPC2000

1. Click "NT" to search FPC2000.
2. Save it when you see it in the controller list.

### 5.4 Enrolling finger for user

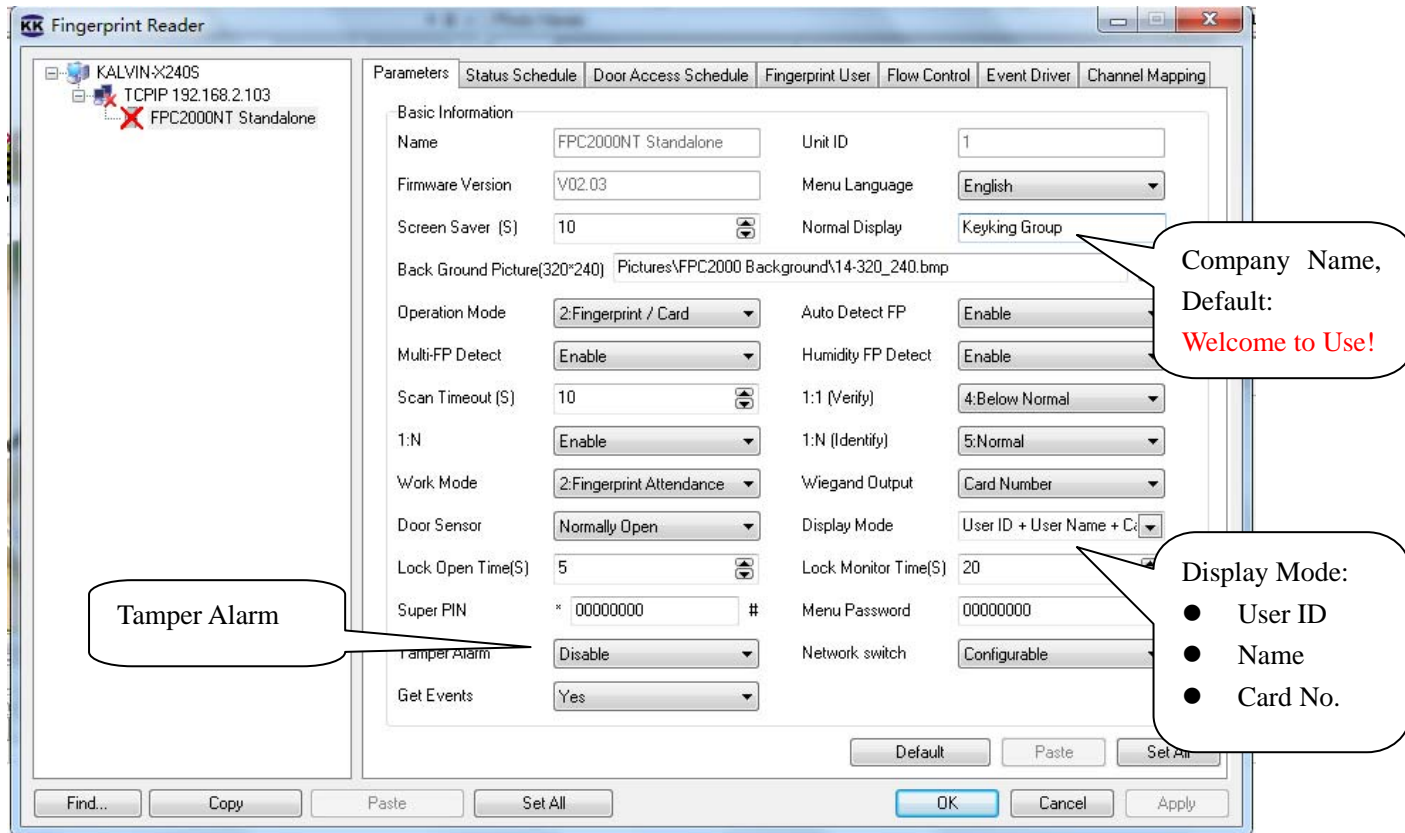
1. Enrolling fingerprint through the BioUSB or FPC2000 in "personnel information / Fingerprint".
2. **Admin User:** Setup at least one user as a "Admin", then somebody else can not access the menu to manage it. If you did not setup any "Admin User", everybody can manage FPC2000 to add user or something else.

### 5.5 Transfer to FPC2000 terminal

1. Select these FPC2000 you would like to download.

## 5.6 FPC2000 setting

Select these FPC2000 you would like to setup. While you setup FPC2000, please make sure it is online.



Here you can change the Company name and everything.

When you click Apply, then done.

## Chapter 5 FAQ

NO	Descriptions	Solution
1	No response for flashing (indicator off, buzzer no beeping)	<ul style="list-style-type: none"> <li>● Power problem (check power supply)</li> <li>● Invalid card type (use supported card)</li> </ul>
2	Door stays opened	<ul style="list-style-type: none"> <li>● Set short relay responding time in manage menu</li> </ul>
3	FP or card information missing	<ul style="list-style-type: none"> <li>● Register FP/Card in PC.(Connect to PC first)</li> </ul>
4	Can not open door by flashing card or FP.	<ul style="list-style-type: none"> <li>● Device not power up (FPC2000, Lock)</li> <li>● Invalid card/FP (register your card/FP)</li> <li>● Door open mode (Set to Card or Card / FP)</li> </ul>
5	Can not open the door when it's Card+FP mode	<ul style="list-style-type: none"> <li>● Invalid card (register your card)</li> <li>● Invalid FP (register your FP)</li> <li>● Over interval time between flash card and verify FP.</li> </ul>
6	Door bell not working	<ul style="list-style-type: none"> <li>● No connected door bells</li> <li>● Cable problem</li> <li>● Faulty door bells</li> </ul>
7	Wrong Time/Date	<ul style="list-style-type: none"> <li>● Set Time/Date in manage menu.</li> </ul>