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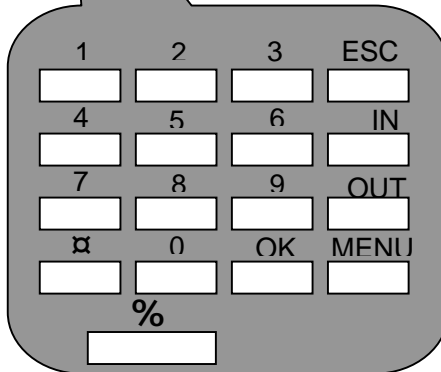
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1、 Introduction

In this chapter, details of the common terms and the finger print press manner are presented.

F4plus Fingerprint Access Machin



OK Confirm key: confirm your current present operation;

MENU Enter the management interface in the initial status;

C Cancel your present operation

▲ Scrolling up key: Scrolling up the menu

▼ Scrolling up key: Scrolling down the menu

⏻ Power key: control the power on and off

BELL Door bell;

Number: Input number 0-9

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2、 Necessary to know

Please do not place the product in the place with strong light, because the strong light may significantly affect the finger print scanning, and thus cause the print verification fail.

Try to avoid using outdoor, the working temperature range of the attendance machine is 0-40⁰C. Usage outdoor of long period, in addition to the internal heat of the machine, will cause problem to the operation, including the decrease of the reaction and the passing rate. If outdoor usage can not be avoided, it is suggested to use sun umbrella and cooling facility.

3、 Basic Concepts

3.1. Basic Concepts

This section contains definitions and descriptions of F4Plus concepts ,including:

- Ø User Enrollment
- Ø User Verification
- Ø Match Threshold Levels
- Ø User ID Numbers
- Ø Authority (Status) Levels

The two most important BioClock Fingerprint T&A Functions are user enrollment and user verification.

3.1.1. User Enrollment

Enrollment is the process of create an ID number and scanning a user's finger to create a template three times. This template is associated with a user ID number and stored.

During user verification, the stored template is compared to the current fingerprint scan to confirm the user's identity.

Enrollment is performed at designated BioClock units. The user can verify on the time recorder that enroll his fingerprint. The enrollment process takes approximately 2 seconds.

Up to ten fingers can be enrolled for the same ID number, so the user may have more verifications way.

Ideally, everyone finger on each hand should be enrolled so that if the user injures the enrolled finger had, an alternate finger template is available. While recording the finger type is optional, it is recommended such as left or right index, so that at verification the user is prompted as to which finger to use.

3.1.2. User Verification

Verification occurs when a user either enters an ID number or places a finger in the fingerprint sensor, then input password for comparison with the stored template.

3.1.3. Match Threshold Levels

The Mach Threshold is a number that represents the degree to which a verification is examined to ensure that the person is the person claimed.

The Match Threshold Levels establishes a balance between False Acceptance Rate (FAR) and False Rejection Rate (FRR). FAR measures how often a non-authorized user is falsely recognized and granted access to the system. FRR measures how often an enrolled and authorized user, who should be granted access to the system, is denied

on the basis that the system did not recognize him.

You can set match threshold levels on a per-use basis. For the fingerprint verification is difficult, you can adopt ID & Fingerprint verification (match one to one).

Raising the threshold increases security, while lowering it increases throughput. The correct balance is essential.

For users with worn or damaged fingers, match threshold levels can (and should) be reduced.

Different sites have different requirements.

Table 3-1 Suggested Match Threshold Settings

FRR	FAR	One-to many	One-to-one
High	Low	45	25
Middle	Middle	35	15
Low	High	25	10

3.1.4. User ID Numbers

Before beginning fingerprint enrollment, a user is assigned User ID Number. This ID number is used to call up the fingerprint template each time that verification is requested.

ID numbers are normally called up via the keypad, but they can be called up through other means such as RF Card.

3.1.5. Authority (status) Levels

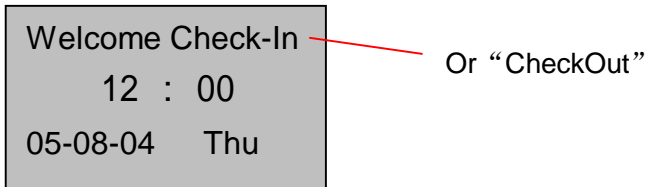
BioClock Fingerprint T&A has four authority or status levels:

- I Users are people whose identity must be verified, such to gain access to a facility or to have their attendance recorded.
- I Enrollers are Users who are authorized to enroll new users or delete on to the system.
- I Managers can do other operations, except set advanced option and enroll manager's authority.
- I Supervisors are Users who access to all functions and change all setup in the system.

Note: Without Manager and Supervisor status in the system, the Enroller will enroll them. And if there isn't a Supervisor in the system, the Manager will enroll him.

3.1.6. Start-up window

Click the power button and the screen showed on, a display of a window was called the Start-up window. The following appears:



3.2. How to place the finger

- 1) **The correct way is:**

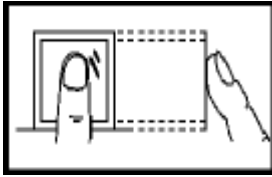


Place a finger flatware on the sensor surface
Place it to the center of the sensor surface

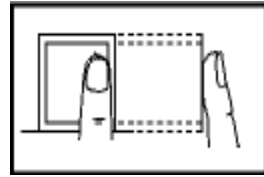
- 2) **The wrong way is:**

Upright

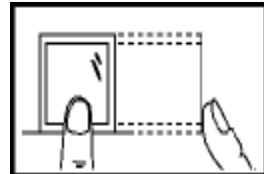
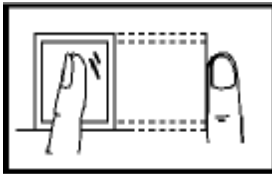
Unfettering



askew



part



Note: Please adopt the correct way to place the finger, this company assumes no responsibility for errors from the use of the BioClock. This company reserves the right to revise document and to make changes from time to time in the contents here of without obligation to notify any person of such revision or changes.

4、

This chapter describes how to enroll and verify users on the Fingerprint T&A verification system.

The following topics are included:

- 2 Enrolling User
- 2 Testing an Enrollment
- 2 Enrolling a User with the Display Finger Option On
- 2 Verifying Your Identity
- 2 Hints for Successful Enrollments

Note: You must have Enroller, Manager, or Supervisor status to enroll users. For information on status levels, see **“Authority (Status) Levels” on 1.1.5**

4.1. Enrolling Users

If this is the first enrollment in a new or empty system, everyone will become an enroller.

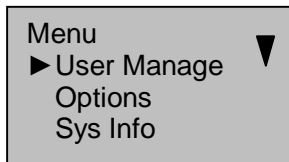
If there is a manager in the system, you will have Manager status to enroll a new user.

There are three ways of enrollment, fingerprint enrollment, password enrollment, fingerprint & password are suitable for three different crowds. Fingerprint enrollment suited the most people who have better quality fingerprints; Fingerprint & Password suited few people who enrolling successful, but verification was difficult; Password enrollment suited 1% people who verification unsuccessful.

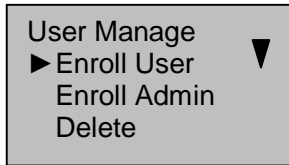
To start the enrollment process, identify yourself firstly—press [Menu], enter your ID number or fingerprint, and then verify your identity.

Note: If this is the first enrollment in a new or empty system, you will not be prompted for verification.

The following message appears on the display:

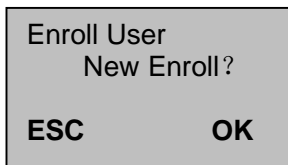


Press [OK], access the User Manager, the following message display:

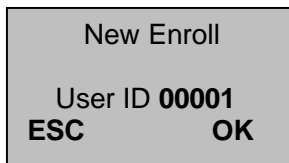


1、Fingerprint Enrollment

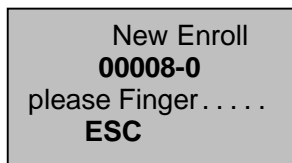
- 1) Access the Enroll Fingerprint to press [OK], the following display:



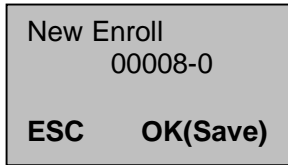
- 2) Press [OK], the following appears:



- 3) Input the enrolling number (the range is 1 to 65534), press [OK], the following appears:



4) If the test is successful three times in a row, the following appears:



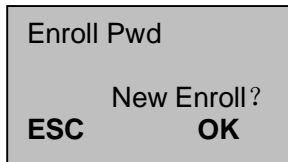
Note: **00008-0**
The last number 1 means the first fingerprint.

Press [OK], the previous message continues to be displayed while the template is created.

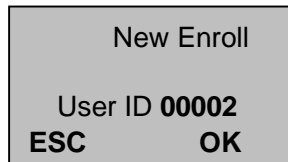
If your identity cannot be verified, you are prompted to try again. And you must restart the verification procedure (step 3).

2、 Password Enrollment

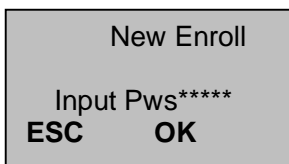
1) Access the password enrollment, press [OK], the following appears:



2) Press [OK], the following appears:



3) Input the enroll number (the range is 1 to 65534), press [OK], the following appears:

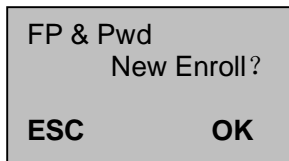


Note: The password range is 1 to 5.

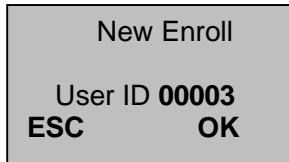
Press [OK], the previous message continues to be displayed while the template is created.

3、 Fingerprint & Password

1) Access the Fingerprint& Password, press [OK], the following appears:



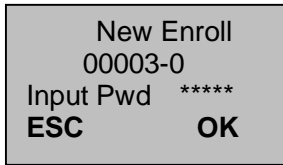
2) Press [OK], the following appears::



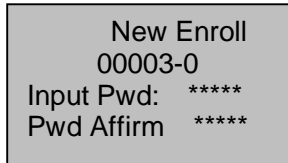
3) Input the password (range is 1 to 65534), press [OK], the following appears:



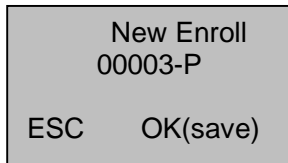
4) If the test is successful three times in a row, the following appears:



5) Input your password, the following appears:



6) Input the password again, press [OK], the following appears:



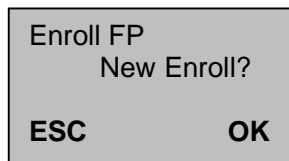
Note: **00003-P**
The last letter P means

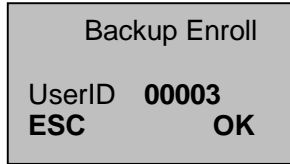
4.2. Testing an Enrollment

Ask the users to place their finger to perform a test verification. If the test was successful, you will adopt Fingerprint enrollment. If the poor quality of fingerprint, you will be recommended to use Fingerprint & Password.

4.3. Enrolling a User with the Display Finger Option On

Press [ESC] to the Display Dinger Option On, the following appears::





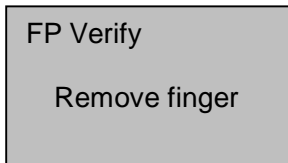
@ Note: Where system memory permits, it is advisable to have at least two fingers enrolled for a long-term user.

4.4. Verifying Your Identity

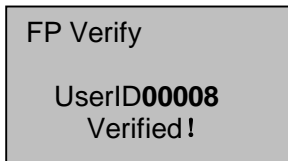
The workers used Fingerprint T&A to verify their identity. The system defaults to three ways of verification: Fingerprint verification, Password verification, ID number & Fingerprint. The following appears:

4.4.1. Fingerprint Verification

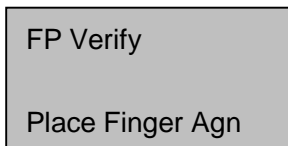
Place the finger on the sensor surface, the following appears:



It continues for about 0.5 seconds. If the test is successful, it will say “Thank you”, the following appears:



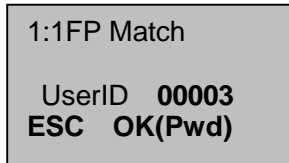
If your identity cannot be verified, you are prompted to try again, the following appears:



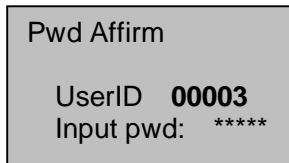
It continues for about 0.5 seconds, return to the start-up window.

4.4.2. Password Verification

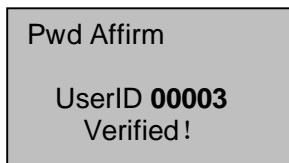
To start the enrollment process, enter your ID number, the following appears:



Press [OK], the following appears:



Input correct password, press [OK], the following appears:



If the password cannot be verified, the following appears:

Pwd Affirm
UserID **00003**
Error pwd!

4.4.3. ID number & Fingerprint

To start the enrollment process, enter your ID number, the following appears:

1:1FP Match
UserID **00003**
ESC OK(Pwd)

If your identity is verified, the following appears:

1:1FP Match
UserOD**00003**
Verified!

4.5. Hints for Successful Enrollments

The fingerprint is of good quality, the verification speed will fast; Otherwise, it will verify slowly or occur to FRR.

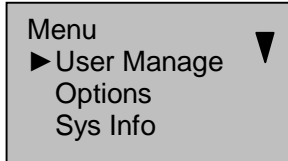
In order to improve the fingerprint verification quality, the following hint appears:

Table 4-1 Enrolled unsuccessful or the fingerprint of poor quality

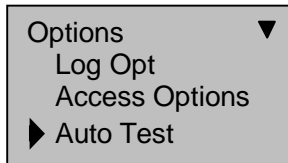
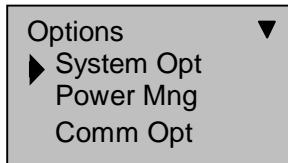
<p>Dry or dirty fingerprints</p>	<p>Solve the dry problem that rub the dry finger and palm. If the fingerprint is dry, you will adopt the way of wetting up the finger, such as</p>
<p>Have no enough to bring pressure</p>	<p>The user should place a finger firmly and squarely on the sensor surface.</p>
<p>How to select the finger?</p>	<p>Recommend to left or right index or middle finger. Use fingerprints of good quality, without worn or hurt. The user usually selects the forefinger, if it was of a poor quality, you will be recommended to middle finger or ring finger. If the user's finger is less, you will select the thumb.</p>
<p>How to place the finger?</p>	<p>Place your finger firmly and touch the sensor surface must be over 2/3. The fingerprint does not touch upright on the sensor surface. Do not touch the finger too fast; Do not move the finger on the sensor surface.</p>
<p>The influence of the fingerprints change</p>	<p>For users with worn or damaged fingers, the identification can be influenced. If the finger quality was poor, you will select password verification.</p>
<p>Others</p>	<p>However, few people's fingerprint quality is too poor to verify the fingerprint in gear. Please use ID & fingerprint verification, and the Match Threshold Levels can be reduced or use password verification.</p>

5、 System Options

Press the [Menu], then verify your identity. The following appears:



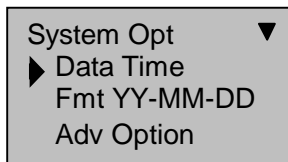
Access Options, press [OK], the following appears::



The following topics included: System Options, Power Manage, Communication Options, Log Options and Auto Test.

5.1. System Options

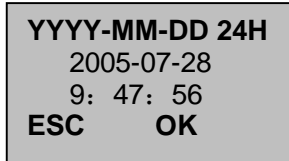
Access System Opt, the following appears:





The setup facility covers three areas: System Options, and Advanced Options.

5.1.1. Date Time

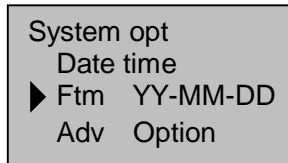
Access Date Time, the following appears:



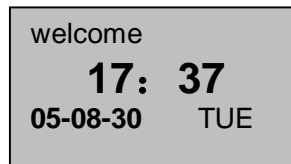
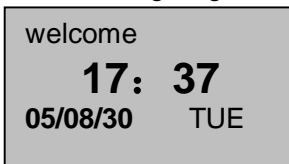
To change the date, press  and , then input the correct date and time, press [OK]

5.1.2. format

Press UP or Down, select "Fmt", Press OK, and modify Fmt,





There are four formats: **YY-MM-DD**、**YY/MM/DD**、**YY.MM.DD**、**MM-DD-YY**、**MM/DD/YY**、**MM.DD.YY**、**DD-MM-YY**、**DD/MM/YY**、**DD.MM.YY**、**YYYYMMDD**。It will modify date format on original interface For example:**YY/MM/DD** is left figure、**YY-MM-DD** is right figure:

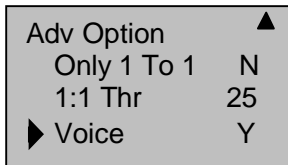
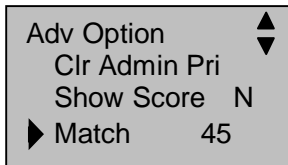


5.1.3. Advanced Options

Access Advanced Option, press [OK], the following appears:



Press  and  to scroll up or down the screen to select the option.



Reset Opts: restore all setup information to default Delete Logs: delete all logs of flash disk.

Clear all Data: delete all enrolling fingerprints and logs.

Clear Managers' rights: change the managers' rights into ordinary users' rights.

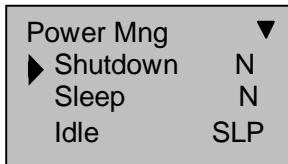
Show Score: whether show the quality value of fingerprint in the screen or not;



Match Threshold Levels: For helping in selecting threshold level settings, see Table 1.1.3.

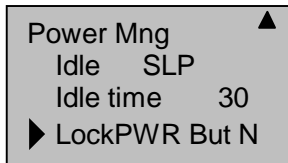
Sound: whether use to phonic hint or not.

5.2. Power Manager

Access Power Manage, the following appears:



Press  and  to scroll up or down the screen to select the option.



This product uses smart manage system, supports the time switch and resting features, it can satisfy the user's different demands.

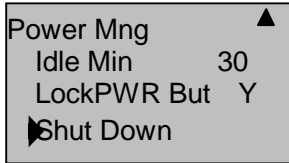
Shutdown: auto shut-off in the timed.

Sleep: automatic resting in the timed, press any key to enter working state.

Idle and Idle Minute, they are related each other, while the idle minute is zero, the idle is closed; while the idle minute is not zero (unit was minute), for example, it is one minute, the user does not do anything in one minute, the system will enter the idle state.

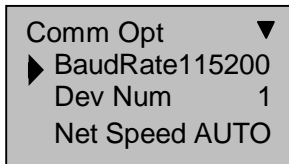
LockPWR But: This choice "NO", so key ascend of shut down the key close machine then; If choice "yes", the power supply management menu will appear an options of "shut down", shut down at this time the key will can't close machine,

only entering the menu choice" the close machine" options, then can close machine.



5.3. Communication Options

Access Comm Opt, the following message appears:



Fingerprint T&A support **RS232, RS485, TCP/IP**, whether you use Single-Board Computer (SBC) or Networking, Fingerprint T&A will satisfy the user's demands.

Baud Rate: there are three options, 9600, 38400, 115200;

The speed of communication is fast, recommend to use RS232; The speed of low communication is stable, recommend to use RS485.

Device Number: machine ID, the range is **1 to 255**.

Network speed:the default network speed is AUTO , The options that can choose 10M-F,10M-H,100M-F,100M-H

IP address: it defaults to IP address is 192.168.1.201. You may change according to practical requirement.

NetMask: the default NetMask is 255.255.255.0, You may change according to practical requirement.

Gateway: the default Gateway is192.168.1.1, You may change according to practical requirement.

RS232: whether use RS232 or not

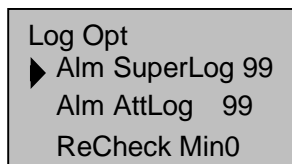
RS485: whether use RS485 or not.

COMM Key: it defaults to code is 0,but can setting up.

@Warning: RS485 communication in the outdoor environment, the lightning protection device is required.

5.4. Log Options

Access Log Opt, the following message appears:



```
Log Opt
▶ Alm SuperLog 99
  Alm AttLog 99
  ReCheck Min0
```



Alarm Attendance Log: when the remainder log capacity reached set numerical value, it will automatically sound a warning that logs were fulfilled.

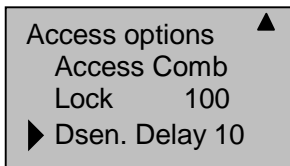
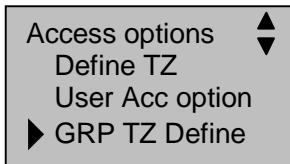
Recheck Minute: Set within compass (Unit: minute).
Someone's enrollment has enrolled, then, the log twice was not displayed in the system.

5.5. Access options

Enter the **Acc Opt** menu; the screen shall display the

following information:

Press  and  to scroll up or down the screen to select the option.



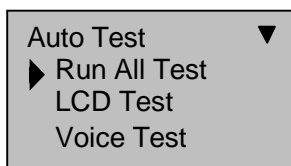
Basic concepts in Access options function:



- 1) **Access Options:** is the setting of registered user's unlocking time zone and unlocking combination;
- 2) **Define TZ:** is the definition of everyday Time Zone that can unlock door in one week;
- 3) **GRP (Grouping):** divides registered users into several groups, is easy and convenient to manage;
- 4) **Effective Time Zone:** is the definition of Time Zone in which user currently passes verification;
- 5) **Lock:** fingerprint scanner controls the time to open electronic lock;
DSen. Delay Some segment time which begin after open door just begin alarm;
Dsen. Mode include three : **No**、**NC**、**None**; **No**: No use door magnistor; **NC** : When the door is open, the lock is open; **None**:When the door is closed ,the lock is closed.

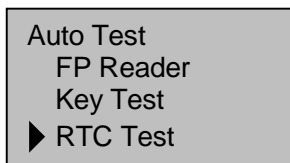
- 6) **Duress options** : Its function be if the register coerces the fingerprint then after fingerprint pass certain time Send out the alert automatically, Keep someone from force to open the door but use in the item's menu, Carry on the constitution to various functions, the concrete operation please consult the customer control at access function guidebook.

5.6. Auto Test

Access auto test, the following message appears:



Press  and  to scroll up or down the screen to select the option.

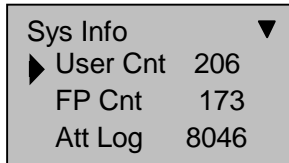




In the option, you can run system device test. When the device broken down, it can analyse the cause of the device's fault and the devices were quickly and easily maintained.

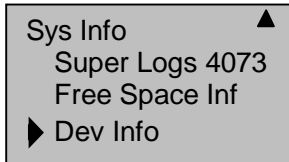
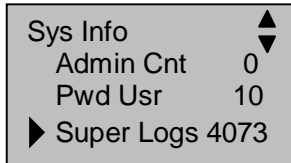
It tests the Memory, LCD, Sound, Fingerprint sensor, keypad and clock. In the course of test, you should guarantee the stability of the power. Otherwise, the system's hardware was probably damaged, especially it runs the memory test.

6、 System Information

Access [Menu] to Sys Info, press [OK], the following appears:



Press  and  to scroll up or down the screen to select the option.



It displays user numbers, password numbers, fingerprint numbers, manager and log numbers in the screen. You can see some information such as the remainder log capacity in the memory, the device capacity, the defaults date, machine number and OEM's information are in the system.

7、 Trouble shooting

1、 Cleaning

From time to time, the optical platen, the keypad and display window require cleaning. Since working environments differ, it is not possible to define when cleaning should be performed.

Following is guide:

Table 7-1 Cleaning Schedule

Item	Cleaning Frequency
Keypad and display window	Cleaning when visibly dirty and hard to read. See cleaning the keypad and display below.
Optical platen	Do not over clean. The platen is designed to work under greasy or dirty conditions.
	However, do clean if the platen is obstructed or people are reporting deteriorating performance. See cleaning the Optical Platen below.

2 、 Cleaning the Keypad and Display

To clean the keypad and display, use the same cleaning products as for the platen, and wipe dry.

3 、 Cleaning the Optical Platen

Clean the optical platen as follows:

(1) If dusty or gritty, first blow on the platen to clean off any loose particles.

(2) Spray on a light coating of a window cleaning product or other similar neutral detergent.

Warning: Do not use any other cleaner or the platen may become damaged.

(3) Using a non-abrasive and lintine, pat dry. Be careful not to scratch the platen. If lint particles adhere to the platen surface, blow them off when the platen is dry.

8、 User Acc Opts Guide

8.1. Product Features

- 2 Arbitrarily time zone and grouping access control
- 2 Access control and time attendance functions manageable
- 2 Internal integrated single-door controller and easy installation
- 2 Top-grade wireless doorbell and six music selectable
- 2 Red and green status indication LED on panel, elegance and fashion
- 2 Removal alarm function
- 2 Installation adopts standard door-control rack mount
- 2 With network management software, provide easy management of multi-device
- 2 Compatible with Zhongkong time attendance management system
- 2 Wireless modem optional
- 2 U-disk download (optional)
- 2 Wiegand 26 standard output (optional) is compatible with other door controller
- 2 Adopts ZK 2004V5.06 version high-speed arithmetic

8.2. Basic Concept

Basic Concepts in Acc Opt

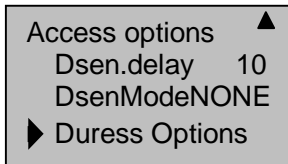
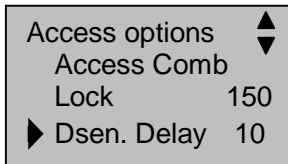
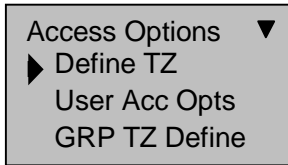
- Ø **Access Options:** is the settings of registered user's unlocking time zone and unlocking combination.
- Ø **Define TZ:** is the definition of everyday Time Zone that can unlock door in one week.
- Ø **Grouping (GRP):** divides registered users into several groups, is easy and convenient to manage.
- Ø **Effective Time Zone:** is the definition of Time Zone in which user currently passes verification.
- Ø **Group Time Zone:** is used to set group unlocking time.
- Ø **User Time Zone:** is user to set user's unlocking time.
- Ø **Access Comb (Unlocking combination):** defines different unlocking combinations, and each combination is composed of different groups.
- Ø **Lock (Time duration of lock drive):** fingerprint scanner controls the time to open electronic lock.
- Ø **DSen. Delay** Some segment time which begin after open door just begin alarm;
- Ø **Dsen. Mode** include three : **No**、**NC**、**None**; **No**: No use door magnistor; **NC** : When the door is open, the lock is open; **None**:When the door is closed ,the lock is closed.
- Ø **Duress alarm:** The register coerces the fingerprint, then after that fingerprint pass automatic alert of certain time

8.3. Access Options

Press “MENU” button,enter main Menu ;

Press “Up、 Down Key” ,select “Options”, Press “OK” access Menu; Press “Up、 Down Key”, select “Acc Opt”, enter Menu;

The following display:



There are eight main functions in Access Options:

- 1) **TimeZoneDefine** is Access Options minimum TimeZone define unit;
- 2) **User Access Options:** Setup relevantly according to users' demand;
- 3) **GRP TZ Define** is GRP TZ, TimeZone station the GRP;
- 4) **Access Comb:** The defining is different to open the Comb of the lock; each Comb is constituted by different GRP;;
- 5) **Lock (Time for lock drive):** Time that fingerprint

machine control enabled electrocontrol lock;

- 6) **DSen. Delay:**Some segment time which begin after open door just begin alarm;
- 7) **Dsen. Mode :**include three : **No**、**NC**、**None**; **No**: No use door magnistor; **NC** : When the door is open, the lock is open; **None**:When the door is closed ,the lock is closed.
- 8) **Duress options:** ts function be if the register coerces the fingerprint then after fingerprint pass certain time Send out the alert automatically, Keep someone from force to open the door but use in the item's menu, Carry on the constitution to various functions, the concrete operation please consult the customer control at access function guidebook.

8.3.1. Brief Introduction To Access Options

Access Options that setup User lock time and open lock Comb; Each User options is constituted by one Grouping、 Use GRP TZ and User TZ. Grouping will make User assign to some GRPs , for example, GRP1,GRP2,etc; **GRP TZ** can select at most three already setup TZs, their relation is“OR”. (Namely satisfy only one in these); **User TZ** also can choose three already setup TZs at most, their relation is “OR”, too. (Namely satisfy only one in these); Usage relationship sees“**User Acc Opts**”.

Say in brief, the register users can open the term of the lock

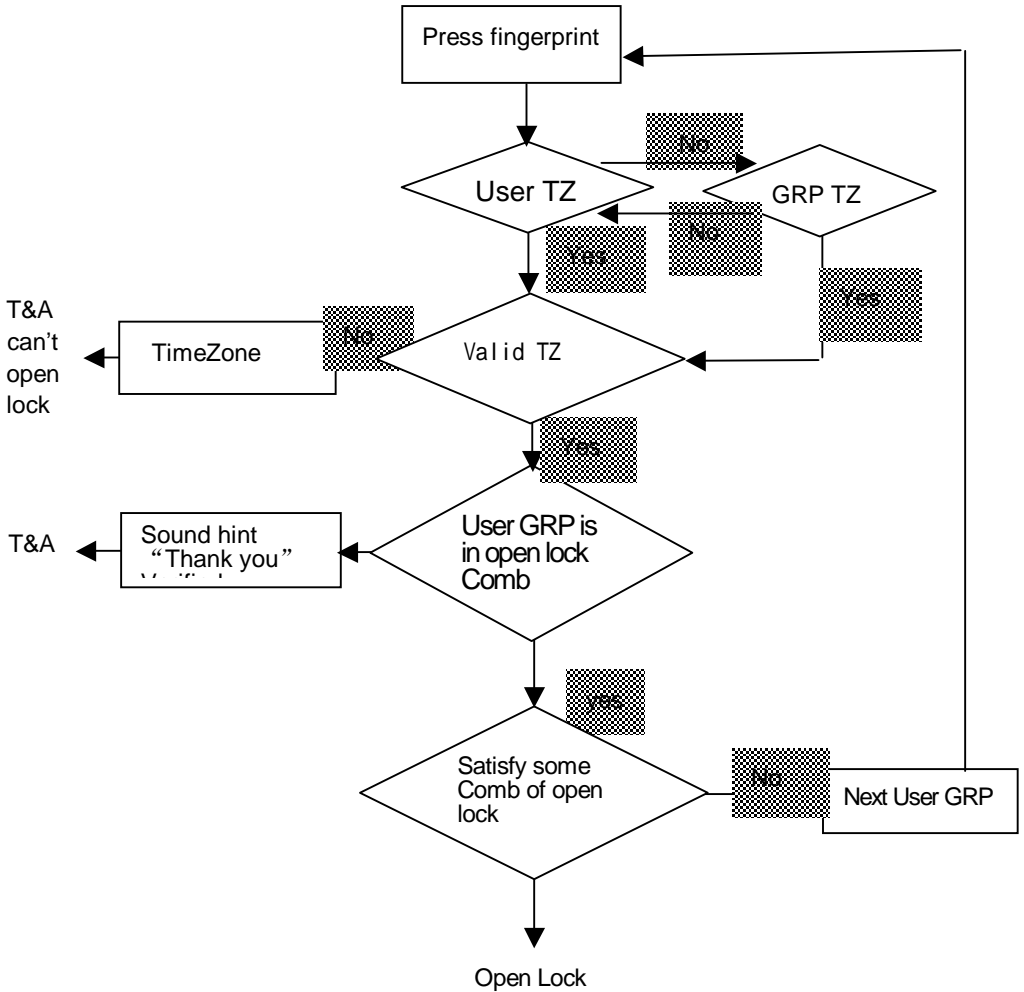
- 1: The GRP of the User place must be in open lock Comb (And other GRP are in one open lock Comb, too. But the demand then can open together the door lock)

2: The current open lock time should be in any valid time area of User TZs;

The system default the new register Users as GRP 1, default open lock Comb as “1”, default TimeZone as the “1”. When GRP1 and TZ 1 **are under leave factory state**, the new register Users default open the lock. (If Users modified Access Options, the system will change with Users' modification). If GRP of User place are not in open lock Comb, the Comb can **attendance**, can not open the lock

8.4. Verification Flow of Access

Options



8.5. Introduce to function

8.5.1. Define TimeZone

TimeZone is Access Options minimum Define TZ unit;

The whole system can define at most 50 TimeZones.

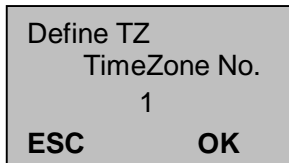
Each TimeZone define seven time zone namely for a week; each time area is everyday valid TimeZone in 24 hours. Each User can setup at most 3 TimeZones, their relation is“OR”, **as long as verify the time can satisfy one of them namely for valid. Each TimeZone format: HH:MM-HH:MM, namely system preciseion minute according to 24 hours.**

End time less than beginning time (23:57 - 23:56) mean the whole day is forbid; End time larger than beginning time (00:00 - 23:59) mean the whole day is valid.

The valid TimeZone of User open the lock: The whole day opens (00:00 - 23:59); End time is larger than beginning time in TimeZone.

@Notice: The system default TimeZone 1 as the whole day open. (Namely the new register users can open lock)

1) Enter “TZ Define”, the following display::



Press "OK" to enter setting of time zone 1 and screen displays as follows:

```
Def TimeZone1 ▲  
Sun 00:00-23:59  
Mon 00:00-23:59  
Tue 00:00-23:59
```

```
Def TimeZone1 ▲  
Tue 00:00-23:59  
Wed 00:00-23:59  
Thu 00:00-23:59
```

```
Def TimeZone1 ▲  
Thu 00:00-23:59  
Fri 00:00-23:59  
Sat 00:00-23:59
```

Above **TimeZone 1 is the whole day open**, namely just leave factory state.

2) For example:

TimeZone is defined again, namely define TimeZone 1:

Saturday or Sunday have a rest and does not allow entering;

From Monday to Friday can enter on duty time:

On duty time: 08:30-18:00:

Def TimeZone1 ▲ Sun 23:57-23:56 Mon 08:30-18:00 Tue 08:30-18:00
--

Def TimeZone1 ▲ Wed 08:30-18:00 Thu 08:30-18:00 Fri 08:30-18:00
--

Def TimeZone1 ▲ Thu 08:30-18:00 Fri 08:30-18:00 Sat 23:57-23:56
--

So as to analogize define multi-TimeZones according to demand; the system can define at most 50 TZs.。

8.5.2. Definition of Grouping

Grouping function can divide users into GRPs, and make different GRPs into different Combs, easy to manage the GRPs. And all that can combine a lot of open lock Combs. The system defines 5 GRPs: GRP 1, GRP 2, GRP 3, GRP 4, and GRP 5. The new register Users defaults to belong to GRP 1, but can assign afresh to other GRPs.

GRP TZ: Setup GRP open lock time, select TimeZone Define number. New register Users default to use TZ 1 of GRP 1, but when Users reinstall GRP, Users use correspond GRP

default TimeZones, so must define apiece GRPdefault TimeZones.

How about use GRP TimeZone see"User Acc Opts".

@Note: time zone of system defaults that group 1 selects serial number "1" of time zone. (i.e. new registered user default can unlock door)

- a) Enter "GRP TZ Define " and screen displays as follows:

GRP TZ Define ▲	
Group No.	
1	
ESC	OK

Press OK to enter.

There are 3 time zones in GRP TZ Define. Relationships among these 3 time zones are "OR".

Group 1 is effective in time zones of 1, 8 and 40, and can also select other defined time zones.

GRP1 Dflt TZ ▲	
TZ 1	1
TZ 2	8
TZ 3	40

- b) Enter "GRP 2 Dflt TZ " and screen displays as follows:
Setting of time zone of group 2:

Press OK to enter.

GRP2 Dflt TZ	▲
TZ 1	2
TZ 2	10
TZ 3	36

Group 2 is effective in time zones of 2, 10 and 36, and can also select other defined time zones.

On the analogy of this, time zones of each group can be defied according to practical requirements. Whole system can define time zones of maximum 5 groups.

8.5.3. User Acc Opts

User Access Options is to process correlative setting according to user's requirements.

1. Enter this menu to check certain user's Access Options status.
 - 2 User Access Options include: belonged grouping setting, use group time zone and user time zone
 - 2 Grouping: divides registered users into several groups, is easy and convenient to manage.
 - 2 Use group time zone: whether the user uses default time zone of belonged group.
 - 2 User time zone: is user to set user's unlocking time, and select serial number of time zone already being set.

@Note: relationships between use group time zone and user time zone

Yes and **No** in "**Use Group Time zone**" only have impact on the following **user time zone**:

- 1) If **use group time zone** is "**Yes**", then user time zone will automatically be
-

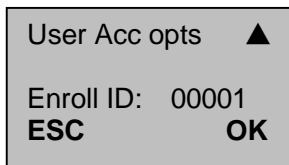
assigned the value of serial number of time zone of belonged group (group time zone should be set in advance).

- 1.1. If **User Time zone** is changed, then **use group time zone** automatically change to **"No"**.
-

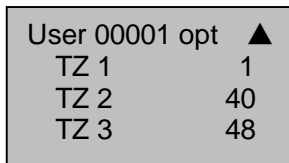
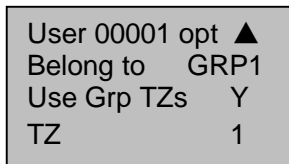
2. Example of setting:

The following example is to set user 00001 and 00002 to group 1 and group 2, respectively.

- A. Enter setting interface of serial number 00001, and screen displays as follows:



Press "OK" to enter setting menu of use group time zone. Press "UP" and "DOWN" keys and select "Yes". Screen displays as follows:

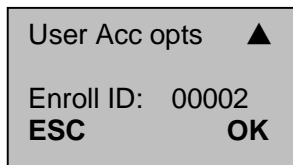


User of serial number 00001:

User's belonged grouping is "1", it uses time zone of group 1 (serial number of user time zone is serial number of group time zone).

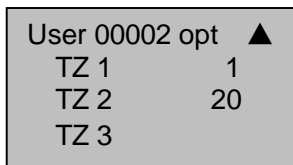
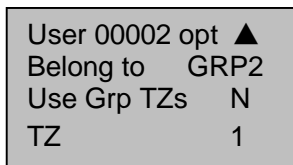
User 00001 is effective in time zones of 1, 8 and 48;

B. Enter setting interface of serial number 00002, and screen displays as follows:



Press **OK** to enter.

If serial number of user time zone is 1 or 20, then **use group time zone** automatically change to "No".;



User of serial number 00002:

User's belonged grouping is "2", it uses user time zone and does not use group time zone, i.e. it is effective in time zones of 1 and 20;

When user wants to use group time zone, then select “Yes”. In user time zone, serial number of group time zone will be automatically assigned the value of serial number of group time zone. Contrariwise, if user wants to use user time zone, just directly modify the serial number in user time zone and use group time zone will automatically change to “No”.

8.5.4. Access Comb

Unlocking combination is the direct representation of controlling unlocking. For example, if user wants that all registered users cannot unlock, then the user can set all 10 unlocking combinations to null.

Unlocking combination definition is to define different unlocking combinations, and each combination is composed of different groups. Unlocking combination directly uses group number and does not consider user verification sequence between each group. For example “123” represents group 1, group 2, group 3 and at least one user in each group congregates and passes verification together, then door can be unlocked. “4” represents that after individual user in group 4 passes verification, then door can be unlocked. System can simultaneously define maximum 10 unlocking combinations. It is required that only one of them passes verification.

@Note: Unlocking combination of system initial default setting is “1” (i.e. new registered user default can unlock door).

Press “MENU” and enter main interface.

Select “Options” and press “OK” to enter setting menu.

Select “Access Options” and press OK to enter menu.

Select “Unlocking Combination Definition” to enter

“Unlocking Combination” and screen displays as follows:

Access Comb	▲
Comb 1	1
Comb 2	
Comb 3	

Access Comb	▲
comb4	
comb5	
comb6	

When do not process setting yet (i.e. factory default status), system defaults that group 1 is unlocking combination 1 and others are null.

If do not want to allow all users to unlock door, then set 10 unlocking combination all to null.

If only want to allow some groups to unlock door together, then set these groups in unlocking combination definition;

1) For example:

Access Comb	▲
comb1	123
comb2	4
comb3	24

Access Comb	▲
comb3	24
comb 4	45
comb 5	15

From above combination setting, it can be seen that:

123 is a combination.

4 is a combination.

24 is a combination.

45 is a combination.

15 is a combination

Combination 1: when personnel of group 1, group 2 and group 3 are all on the scene and the time zone is effective in which at least one user in each group passes verification together, then door can be unlocked. ;

Combination 2: only one of personnel belonged to group 4 is on the scene, then door can be unlocked.

Combination 3: when personnel of group 2 and group 4 are all on the scene and the time zone is effective in which at least one user in each group passes verification together, then door can be unlocked.

Combination 4: when personnel of group 4 and group 5 are all on the scene and the time zone is effective in which at least one user in each group passes verification together, then door can be unlocked.

Combination 5: when personnel of group 1 and group 5 are all on the scene and the time zone is effective in which at least one user in each group passes verification together, then door can be unlocked.

√ Note: time zones that cannot pass verification

- ² User time zone does not select serial number of time zone.
- ² Group time zone does not select serial number of time zone.
- ² Time in which user passes verification does not include any time zone that is set by user.
- ² Time zone is defined as forbidden.

@Note: If time zone that user sets is the time zone that cannot pass verification.

Ⓔ When meet combination 2 above, user who displays prompt of “Invalid Time zone Access” cannot unlock door, but can record attendance. (If there is user in group 4 who can meet unlocking condition, then combination 2 can unlock door)

- When meet combination 1, 3, 4, and 5 above, user who displays prompt of “Invalid Time zone Access” cannot unlock door, but can record attendance.
-

- 2) For example: one bank treasury requires that 3 people are all on the scene to open the door of treasury.
Detailed settings are as follows:

These 3 people belong to group 2, group 4 and group 5 respectively, and have the right to unlock door within the same time zone. Select “Group 1” and press “OK” to enter edit status. Press digit keys to enter 245. Then press ESC to exit and save setting interface.

@Note: When combination 245 is defined, then user cannot define 24, 25, 45 as combination.

8.5.5. LOCK

System requires to set fingerprint scanner to control the time to open electronic lock. Setting to “0” is close. Close lock control function. One quantity unit is 20ms; maximum value can be set to

254, i.e. 5.08s. Select this item and press “OK” to enter Options. Then press digit keys to enter corresponding digits. Finally press “ESC” to exit and save setting.

8.5.6. DSen. Delay

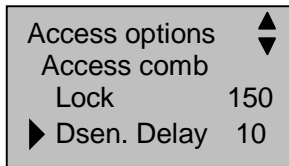
Some segment time which begin after open door just begin alarm;

Press “MENU” enter main interface;

Select “Options”, Press “OK” enter;

Select “Acc Opts”, Press OK enter menu ;

Press UP or Doen enter , select DSen.Delay, display as follows:



Press OK, select number, Press Up or Down key to modify DSen. Delay.

8.5.7. Dsen. Mode

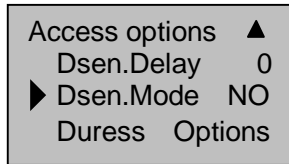
sen. Mode include three : No、NC、None; No: No use door magnistor; NC : When the door is open, the lock is open; None:When the door is closed ,the lock is closed.

Press “MENU”enter main interface;

Select “Options”, press “OK”enter menu;

Select “Acc Opts”, prsee OK enter menu;

Press Up or Down key enter , select DSen.Mode, display as follows;



Press OK, select option, press Up or Down key to change the state of Dsen. Mode

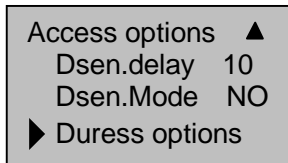
8.5.8 Duress Options

Press “MENU” enter main interface;

Select“ Options“,press Ok enter menu;

Select“Access options“,press OK enter menu;

Press Up or Down key enter , select Duress options, display as follows;

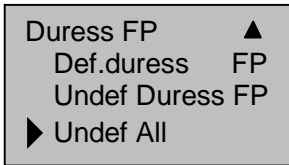
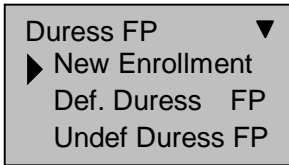


The Duress options includes Duress FP, Help key, 1:1 Trig,1:n Trig, Pwd Trig, Alarm Delay,

8.5.8.1 Duress FP

Customer exclusively specify an among thoses fingerprint of having register in the system for coerce the fingerprint. Under all circumstances When the fingerprint compares to coerce the alert towards pass produce.

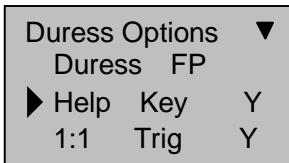
Enter Duress options,press Up or down key enter,select „Duress FP“,press OK enter menu.



New Enrollment: Register the new fingerprint for duress fingerprint;
Def.duress FP : The fingerprint that use to have already register for duress fingerprint;
Undef Duress FP: Cancel the single duress fingerprint;
Undef All: Cancel to duress fingerprint all.

8.5.8.2 Help Key

Enter Duress Options, press Up or down key enter,select“Help Key“



If the “Help Key“choice “Yes“. Press down the ▼ more than 3 send out to ask for help the signal; Press fingerprint or press ID number immediately after press" ▼ " key(3 second inside), Identify the success, the empress produces to coerce the alert at the same time;

If the “Help Key” choice “NO” , growing to press down “ ▼ ” key to also have no function .

8.5.8.3 Alert method

Our fingerprint verification contain three kinds of methods 1:1 manner、1:N manner、 password verification, Can choose among them of a kind of or several verifications method definition for coerce the alert method

Duress Options	▼
1:1 Trig	Y
▶ 1:n Trig	Y
Pwd Trig	Y

8.5.8.4 Alarm Delay

Define automatic alert time: After duress alarm signal occurrence, Not direct export alert signal, But can define, produce the alert signal automatically after waiting for a period of time(0-255 second)

Duress Options	▲
1:1 Trig	Y
Pwd Trig	Y
▶ Alarm Delay	10

Technical specifications

	features
User capacity	1500
Recorder capacity	50000
Verification mode	1: 1or1: N
Access control	50 Time Zone,5 Grouping,10 Combination, support many fingerprint access,
Electro control	Directness relay output 3A/12VDC
Attendance function	Support zk attendance software
Else input	A group of door-magnetism input,a group of button of open the door input
Communications	TCP/IP、RS485
Wiegand output	Wiegand26 output
Keyboard and display	LCD, 4*4 keypad, blue backlight
power	12V DC, stay current: 50 mA,work current: 400 Ma
Identification Speed	≤ 2 S
FRR	$\leq 1\%$
FAR	$\leq 0.0001\%$
Operating Temperature	0°C - 45°C
Operating Humidity	20%-80%
Language	Simplified Chinese ,Traditional Chinese, English
OEM	Supply OEM Made
Size	150 (L) *145 (W) *52 (H) mm