



ACT FP User Manual

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Contents

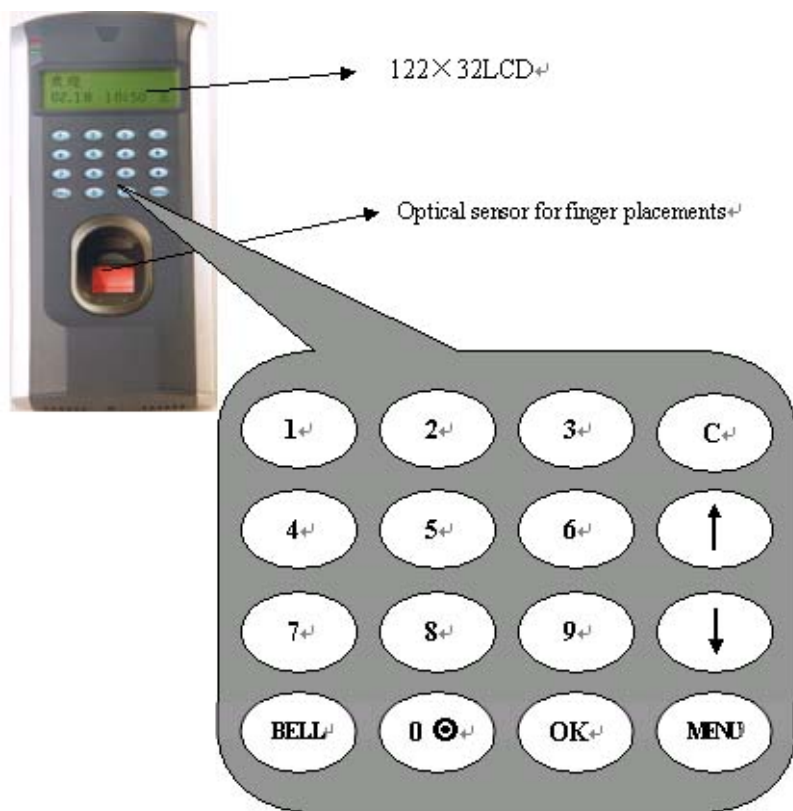
1、	Introduction	31
2、	Things to know.....	32
3、	Basic Concepts	32
3.1.	Basic Concepts.....	32
3.1.1.	<i>User Enrollment.....</i>	<i>33</i>
3.1.2.	<i>User Verification.....</i>	<i>33</i>
3.1.3.	<i>Match Threshold Levels.....</i>	<i>33</i>
3.1.4.	<i>User ID Numbers</i>	<i>33</i>
3.1.5.	<i>Authority (status) Levels.....</i>	<i>34</i>
3.1.6.	<i>Start-up window.....</i>	<i>35</i>
3.2.	How to place the finger	35
4、	Enrollment and Verification Procedures	36
4.1.	Enrolling Users.....	37
4.1.1.	<i>Fingerprint Enrollment.....</i>	<i>38</i>
4.1.2.	<i>Password Enrollment.....</i>	<i>39</i>
4.1.3.	<i>Fingerprint & Password.....</i>	<i>40</i>
4.2.	Testing an Enrollment	41
4.3.	Enrolling a User with the Display Finger Option On.....	42
4.4.	Verifying Your Identity	42
4.4.1.	<i>Fingerprint Verification.....</i>	<i>42</i>
4.4.2.	<i>Password Verification.....</i>	<i>43</i>
4.4.3.	<i>ID number & Fingerprint.....</i>	<i>43</i>
4.5.	Hints for Successful Enrollments	44
5、	System Options	45
5.1.	System Options	46
5.1.1.	<i>Date Time.....</i>	<i>47</i>
5.1.2.	<i>Language</i>	<i>47</i>
5.1.3.	<i>Format.....</i>	<i>47</i>

User Guide

5.1.4.	<i>Advanced Options</i>	48
5.2.	Power Manager	49
5.3.	Communication Options	51
5.4.	Log Options	52
5.5.	Access Options.....	52
5.6.	Auto Test.....	53
6、	System Information	54
7、	Troubleshooting	55
8、	User Acc Opts Guide	56
8.1.	Product Features	56
8.2.	Basic Concepts	57
8.3.	Access Options.....	57
8.3.1.	<i>Brief Introduction to Access Options</i>	58
8.3.2.	<i>Verification Flow of Access Options</i>	59
8.4.	Function Description	36
8.4.1.	<i>Definition of Time zone</i>	36
8.4.2.	<i>Definition of Grouping Function</i>	38
8.4.3.	<i>User Acc Opts</i>	48
8.4.4.	<i>Access Comb</i>	51
8.4.5.	<i>Lock</i>	54
8.4.6.	<i>DSen. Delav</i>	55
8.4.7.	<i>Dsen. Mode</i>	55
	Technical specifications	56

1、 Introduction

In this chapter, details of the commonly used terms and the functions of each key are explained.



OK Confirm the current option

MENU Access to Menu and configuration

C Cancel your current operation

↑ Scroll up

↓ Scroll down

⊙ Power button

BELL Door bell;

Number: Numerical keys

2、 Things to know

Please do not install ACT FP in direct sunlight as this may affect the performance of the fingerprint sensor. This may result in false verifications of the fingerprints.

Try to avoid the ambient temperature to rise above 40 deg. C where ACT FP is installed. If the unit is installed we strongly recommend to cover the unit with a protective cover for trouble free operation.

3、 Basic Concepts

3.1. Basic Concepts

This section explains and describes the functions and options of enrolling the users.

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

The two most important functions are user enrollment and user

verification.

3.1.1. User Enrollment

Enrollment is the process of associating an ID number to the user's finger/s to create a template. This template is stored in the memory of ACT FP for future verification.

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

The enrollment process takes approximately 2-4 seconds.

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

Ideally, we recommend enrolling two fingers of each hand so that in case of injury of one hand the user can use the finger of the other hand as a backup. It is recommended to enroll left or right index finger and left middle or right middle fingers. For users with extremely thin fingers, we recommend to enroll the thumb. For users whose fingers are difficult to enroll or cannot be enrolled, we recommend to enroll the password along with fingerprint.

3.1.2. User Verification

Verification occurs when a user either enters an ID number or places a finger on the fingerprint sensor. If the user is enrolled with fingerprint and/or password than he need to enter the password as an alternative to finger.

3.1.3. Match Threshold Levels

The Match Threshold is a number that represents the degree to which a verification is performed to ensure that the user is the user who he claims to be.

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 user basis. However for fingerprints which are facing difficulties in verification we recommend to use 1:1 matching i.e. enter his user ID than place the

finger for verification.

Raising the threshold increases security, while lowering it increases throughput. Based on the quality of the fingerprints of the users, you need to strike a correct balance.

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

Different installations have different requirements.

Table 1—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

Each fingerprint is assigned a User ID Number. This ID number is used to call up the fingerprint template each time the verification is requested. ID numbers can also be called up via the keypad or RF card

3.1.5. Authority (status) Levels

ACT FP has four authority or status levels:

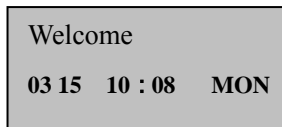
- ✧ ·Users are people whose identity must be verified, to have access to the door.
- ✧ ·Enrollers are Users who are authorized to enroll new users or delete from the system.
- ✧ ·Administrator can perform other operations, except set advanced option and enroll administrator authority.
- ✧ ·Supervisors are users who has access to all functions and can modify all the settings in the system.

Note: Without Administrator and Supervisor enrolled in the

system, the Enroller can add users. If Supervisor is not enrolled in the system, the Administrator can add him.

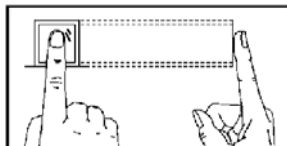
3.1.6. Start-up window

Plug the power adaptors to the mains power supply or hit the Power button on the keypad and the following startup window appears on the ACT FP.



3.2. How to place the finger

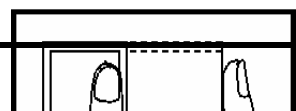
Place the finger flat and in the center on the sensor. Try to cover atleast 80% of the sensor area.



❖ **Do not place the finger in the following positions:**

Upright

Sideways





➤ **Note:** Please adopt the correct method for placing the finger for verification. We are not responsible for malfunctioning of the unit due to improper placement of the finger.

4、 Enrollment and Verification Procedures

This chapter describes how to enroll and verify users on the ACT FP.

The following topics are included:

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

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

4.1. Enrolling Users

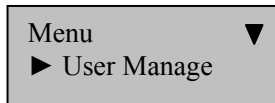
The first enrollment in a new machine will have the capability of enrolling other users. If you are the administrator of the system, then you should enroll as admin with your finger.

There are three modes of enrollment, fingerprint enrollment, password enrollment and fingerprint & password. The type of enrollment to be selected depends on the environment and the quality of the fingerprints of the users. Fingerprint enrollment should be used for good quality of fingerprints like a typical office environment. Fingerprint & Password should be used for few people who are enrolled successfully, but verification is difficult. Password enrollment should be used for users who cannot be enrolled nor verified.

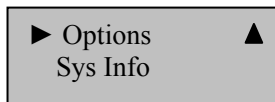
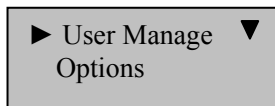
To start the enrollment process, identify yourself first—press [Menu], enter your ID number or fingerprint, and then verify your identity.

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

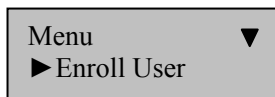
The following message appears on the display:



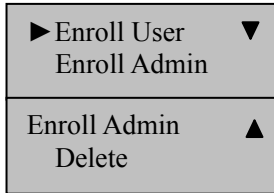
Press Up or Down key , select the option you need:



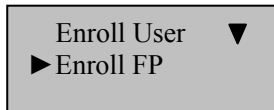
Press [OK], to access the User Manager and the following options will be displayed:



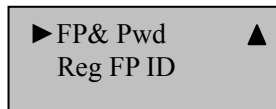
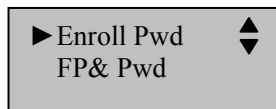
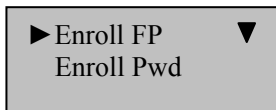
Press Up or Down key select what you need options:



Press [OK] to access the User Enrollment and the following options will be displayed:

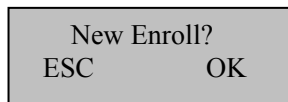


Press Up or Down key select what you need options:



4.1.1. Fingerprint Enrollment

(1) Select the Enroll Fingerprint option and press [OK], so that the following options will be displayed:



(2) If you want to enter a different ID no. than type that ID and press [OK].The ID number should be in the range of 1 to 65536.

New Enroll?
Enroll ID **00001**

(3)Select the ID no. and press [OK], so that the following screen will be displayed:

00008-0
Place Finger

(4) If the enrollment is successful three times in a row, so that the following screen appears:

Enroll ID **00008-1**
ESC OK

Note: 00008-1 The number 1 represents the first fingerprint enrolled against that ID no.

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 from **step 3**.

4.1.2. Password Enrollment

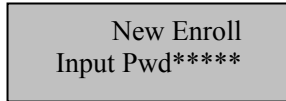
(1) Access the password enrollment option and press [OK], so that the screen appears:

New Enroll?
ESC OK

(2) Press [OK], so that the following screen appears:

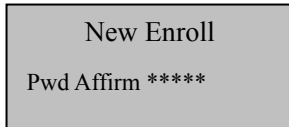
New Enroll?
Enroll ID **00002**

(3) Input the User ID (from 1 to 65534), press [OK], so that the following screen appears:



New Enroll
Input Pwd*****

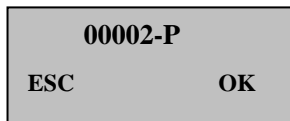
(4) Input the password and press [OK], so that the following screen appears:



New Enroll
Pwd Affirm *****

➔ **Note:** The password range is 1 to 5.

(5) Input the password again, press [OK], so that the following screen appears:



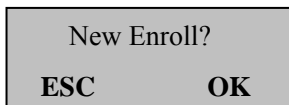
00002-P
ESC OK

Note: 00002-P
The last letter P means user ID is enrolled with password.

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

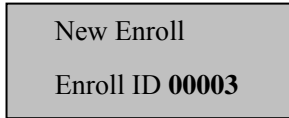
4.1.3. Fingerprint & Password

Access the Fingerprint & Password, press [OK], so that the following screen appears:

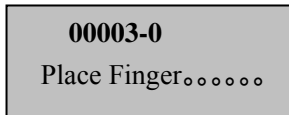


New Enroll?
ESC OK

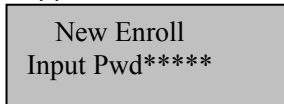
(2) Press [OK], so that the following screen appears:



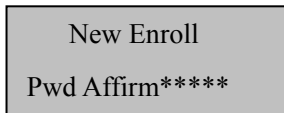
(3) Input the password (from 1 to 65534), press [OK], so that the following screen appears:



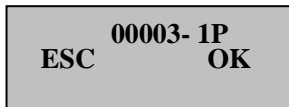
(4) If the enrollment is successful three times in a row, the following screen appears:



(5) Input your password, so that the following screen appears:



(6) Input the password again and press [OK], so that the following screen appears:



Note: 00003—1P
1P means the User is enrolled with one fingerprint and password.

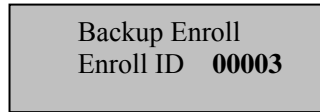
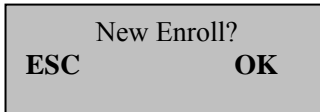
Press [OK] so that the previous message continues to be displayed while the template is created.

4.2. Testing an Enrollment

Ask the users to place their finger to perform a verification. If the verification is successful, we recommend to adopt Fingerprint enrollment. If the verification is inconsistent, we recommended to use Fingerprint & Password.

4.3. Enrolling a User with the Display Finger Option On

Press [ESC] after the user is enrolled so that the Display Finger Option can be turned On.



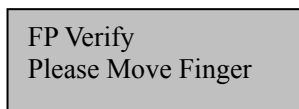
➤ **Note:** Where system memory permits, it is advisable to have at least two fingers enrolled for all users.

4.4. Verifying Your Identity

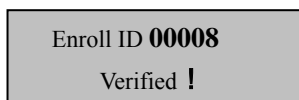
After all enrollments are done in ACT FP, the reader is ready to be used for access control. ACT FP has three modes of verification: Fingerprint verification, Password verification or Fingerprint and Password.

4.4.1. Fingerprint Verification

Place the finger on the sensor surface, so that the following screen appears:



After about 1 second, if the verification is successful, it will say "Thank you" and following screen appears:



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

FP Verify
Place Finger Agn !

After about 0.5 seconds, the display returns to the main screen.

4.4.2. Password Verification

To verify a user enrolled with password, enter the userID number, so that the following screen appears:

Enroll ID **00003**
ESC OK

Press [OK], the following appears:

Enroll ID **00003**
Input Pwd*****

Input correct password and press [OK], so that the following screen appears:

Pwd Affirm
Enroll ID **00003**

If the password cannot be verified, the following screen appears:

Pwd Affirm
Error pwd !

4.4.3. ID number & Fingerprint

To verify a user enrolled with fingerprint and password, enter the userID number, so that the following screen appears:

Enroll ID **00003**
ESC OK

The user will be prompted to place the finger and following screen appears:

FP Verify
Please Move Finger

If your identity is verified, the following screen appears and thereafter the user will be prompted to enter his password :

Enroll ID **00003**
Verified !

4.5. Hints for Successful Enrollments

If the fingerprint of the user is of good quality then the verification will be successful.

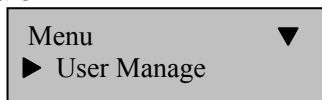
In order to improve the fingerprint verification quality, we recommend the following suggestions

Dry or dirty fingerprints	If the finger is dry, the user should rub his finger on his palm and than try to enroll and verify. The finger should be clean while enrolling
Sensor does not recognize the presence of finger	The user should place the finger firmly with enough pressure and squarely on the sensor surface.

<p>How to select the finger?</p>	<p>We recommend to use left or right index or middle finger. Use fingerprints of good quality, which does not have more wear and tear. If the user's finger is thin and does not cover 80% of the sensor surface, we recommend to use the thumb.</p>
<p>How to place the finger?</p>	<p>Place your finger firmly and touch the sensor surface so that it covers 80% of the area Do not remove the finger too fast and do not move the finger on the sensor surface.</p>
<p>Others</p>	<p>However, few users fingerprint quality is too poor to verify. Please use ID & fingerprint verification, and the Match Threshold Levels can be reduced or use password verification.</p>

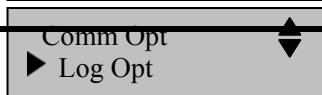
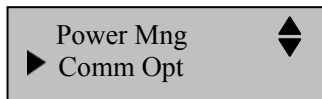
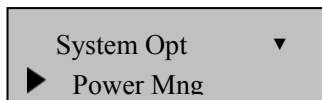
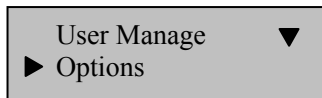
5、 System Options

Press the [Menu], then verify your identity. So that the following screen appears:



Press Up or Down key, to select “Options”

Scroll down the menu and the following information will be displayed:



In the setup options, there are six options : system setup, power setup, communication setup, record setup, door lock function setup, auto examination. We will discuss each option in details.

5.1. System Options

The following are the list of options within the System Options

System Opt	▼
▶ Date Time	

Date Time	▼
▶ Language	ENG

Language	S	◆
▶ Fmt	YYYYMMDD	

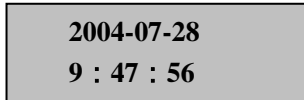
Fmt	YYYYMM
-----	--------

Adv Option



5.1.1. Date Time

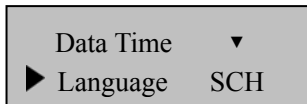
You can set the date and time using this option



To change the date, press Up and Down Key, then input the correct date and time. Press [OK] to save the changes.

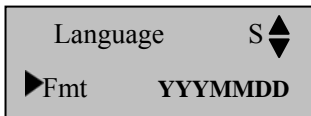
5.1.2. Language

Select the desired language and press OK. The default language is English.



5.1.3. Format for Display of Date on the Main Screen

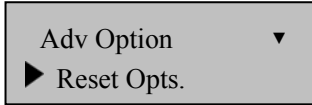
Press UP or Down to select “Fmt” option. Press OK, and select the Fmt option.



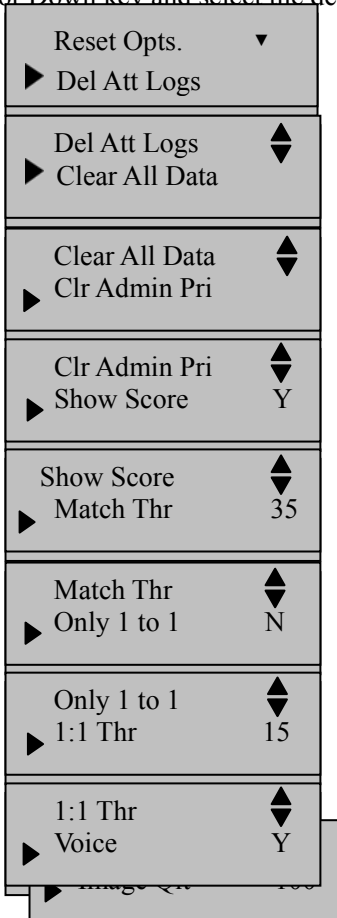
There are four formats to choose from **YYYYMMDD**, **YY.MM.DD**, **YY-MM-DD**, **YY/MM/DD**.

5.1.4. Advanced Options

Select the Advanced Option. Press [OK], so that the following screen appears:



Press UP or Down key and select the desired option.



Each option is explained in details as follows:

Reset Opts: Restore all default settings.

Del Att Logs: Clear all the transactions stored in the memory.

Clear all Data: Delete all the fingerprint templates and transactions.

Clr Admin Pri: Change the rights of the administrator to a normal user.

Show Score: Display the score of the quality of the fingerprint match.

Match Threshold Levels: For helping in selecting threshold level settings, see [Table 3.1.3](#).

Only 1 to 1: Disable 1:N matching

1:1 Threshold Levels: For selecting the right level please refer the table 3.1.3 below,

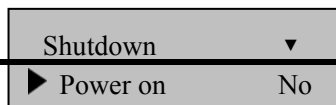
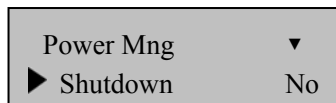
Image Qlt : The fingerprint clearance degree

Table 3.1.3

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

5.2. Power Manager

Select the power setup menu and the screen shall display the following information:





There are various power modes which can be selected This may significantly increase the life of the machine and satisfy the various requirements of the users.

Shut down: Turn off the power at pre-defined time

Power on: Turn on the power at pre-defined time

Sleep: Enable sleep mode at pre-defined time. Press any key to bring the unit out of sleep mode.

Idle and Idle Minute: These two options are related to each other. When you set idle time to 0, then the idle setup function is off. When the idle time is not set to 0 (unit is minute), for example, 1, then the system will go to sleep mode in 1 minute.

Setup On time Fun?

ESC

OK

5.3. Communication Options

Select the communication menu; so that the screen will display the following information:

Comm. Opt ▶ Baud	▼ Rate
BaudRate 115200	▼
Dev Num ▶ IP Addr	◆
IP Addr ▶ Net	◆ Speed
Net 100M	◆ Speed
Ethernet ▶	◆ RS232
RS232 ▶	◆ RS485
RS485 ▶ COMM	▲ Key

Dev Num: The number of the machine, ranged from 1-255. This is also the site code if you are using the Weigand communication protocol.

Baud rate: The communication speed with which the unit communicates with the computer. There are three options 9600, 38400 or 115200.

IP address: By default, the IP is **192.168.1.201**. You may set the address as per your network settings.

Network speed: The default network speed is 10M-F.

Ethernet: Enable or disable the TCP/IP mode of communication.

RS232: Enable or disable RS 232 mode of communication.

RS485: Enable or disable RS485 mode of communication.

COMM Key: The default value is set to 0.

Warning: If you are using RS485 communication in an outdoor environment, a lightning protection device must be installed to protect the circuit from voltage spikes.

5.4. Log Options

Select Log Opt, and the following screen appears:

Log Opt ▼	
▶ Alm SuperLog	10
Alm SuperLog ▼	
▶ Alm AttLog	10
Alm AttLog ▲	
▶ ReCheck Min	0

Alarm Attendance Log: When the number of transactions reaches a set value a warning alarm will be sounded to clear the memory,

Recheck Minute: This can be set to avoid record duplicate punches. For eg. If this value is set as 2, then it will not record the transaction of the same user ID within 2 minutes of the first punch.

5.5. Access Options:

Select the **Acc Opt** menu and the following options will be displayed on the screen.

Access Options ▼	
▶ Define TZ	
Define TZ ▼	
▶ User Acc Opts	
User Acc Opts ◆	
▶ GRP TZ Define	
GRP TZ Define ◆	
▶ Access Comb	

Five main functions in Access Options are:

Time Zone Define: Define the access timings for the day of the week.

User Access Options: Assign the group to each user based on their access rights.

GRP TZ Define: Assign the time zones to the group based on their access rights.

Access Comb is to define various unlock combinations, every combination consists of different groups;

Lock: Lock open duration time can be set with this option

DSen. Delay: The time duration after which the door sensor should be activated.

For details of the operation, please refer to the **Access Options Operating Guide**

5.6. Auto Test

Select the auto test option and the following screen appears:

Auto	Test
▼	
Run	All Test
▼	
FLASH Test	◆
▶ LCD Test	
LCD Test	◆
▶ Voice Test	
Voice Test	◆
▶ FP Reader	
FP Reader	◆
▶ Key Test	
Key Test	▲
▶ RTC Test	

With this option, we can conduct test on the different modules of the system. This will enable you to find the cause of the problem is the unit is malfunctioning.

It tests the Memory LCD, Fingerprint sensor, keypad and clock. During the course of test, you should guarantee the stability of the power. If the power fails during the test it can cause damage to the hardware and make it unusable.

6、 System Information

From the Menu select the Sys Info, press [OK], so that the following screen appears:

Sys Info	▼
▶ User Cnt	Δ
User Cnt	▼
▶ FP Cnt	0
FP Cnt	◆◆
▶ Att	Log
Att Log	◆◆
▶ Admin	Cnt
Admin Cnt	◆◆
▶ Pwd	Usr
Pwd Usr	◆◆
▶ Super	Logs
Super Logs	◆◆
▶ Free Space Info	
Free Space Info	▲
▶ Dev Info	

It displays the number of users enrolled, number of passwords enrolled, fingerprints enrolled, manager and log information on the screen. You can see some other information like remainder log capacity in the memory, the device capacity, the default date, machine number.

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:

Figure 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 obscured or if users report deteriorating performance. See cleaning the Optical Platen below.

2. Cleaning the Keypad and Display

To clean the keypad and display, use a soft paper tissue which should be slightly damp.

3. Cleaning the Optical Platen

Clean the optical platen as follows:



- (1) If dusty, blow air on the platen to clean any dust particles.
- (2) If the sensor is greasy wipe it with a mild window cleaner or other similar neutral detergent.

Warning: Do not use any other cleaner or the platen may be damaged. Be careful not to scratch the platen.

8、 Opts Guide

8.1. Product Features

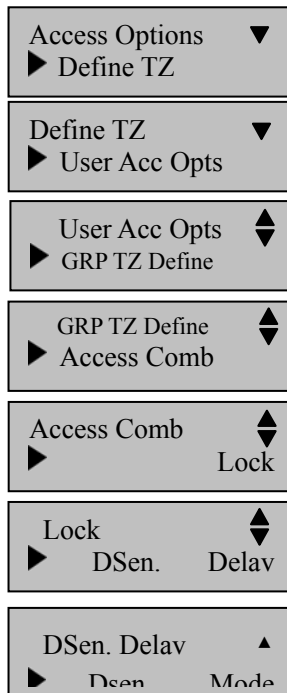
- ✧ Can store upto 1500 templates and 15000 transactions
- ✧ Easy to configure access control functions
- ✧ Internal integrated single-door controller
- ✧ Self-contained doorbell option for visitors
- ✧ Red and Blue LED indication for acceptance and rejection of fingerprints
- ✧ Provision to connect to Alarm if the unit is tampered
- ✧ Wall mountable back plate for secured installation
- ✧ 26 bit Weigand standard output to interface with third party controllers

8.2. Basic Concepts

Basic concepts in Access Options function:

8.3. Access Options

Select the Access Options function from the main menu, and the following screen appears:



“Access Options” has 7 main functions:

Time Zone : Access Timings for a user for a week.

User Acc Opts : Define various options like groups and time zone options for each user.

GRP TZ Define :To create a group based on the time zones.

Access Comb : Define different unlocking combinations for each group.

Lock : Duration for which the lock needs to be kept open after the user is successfully verified.

8.3.1. Brief Introduction to Access Options

Access Options function is used to program the settings of registered user's based on their access rights

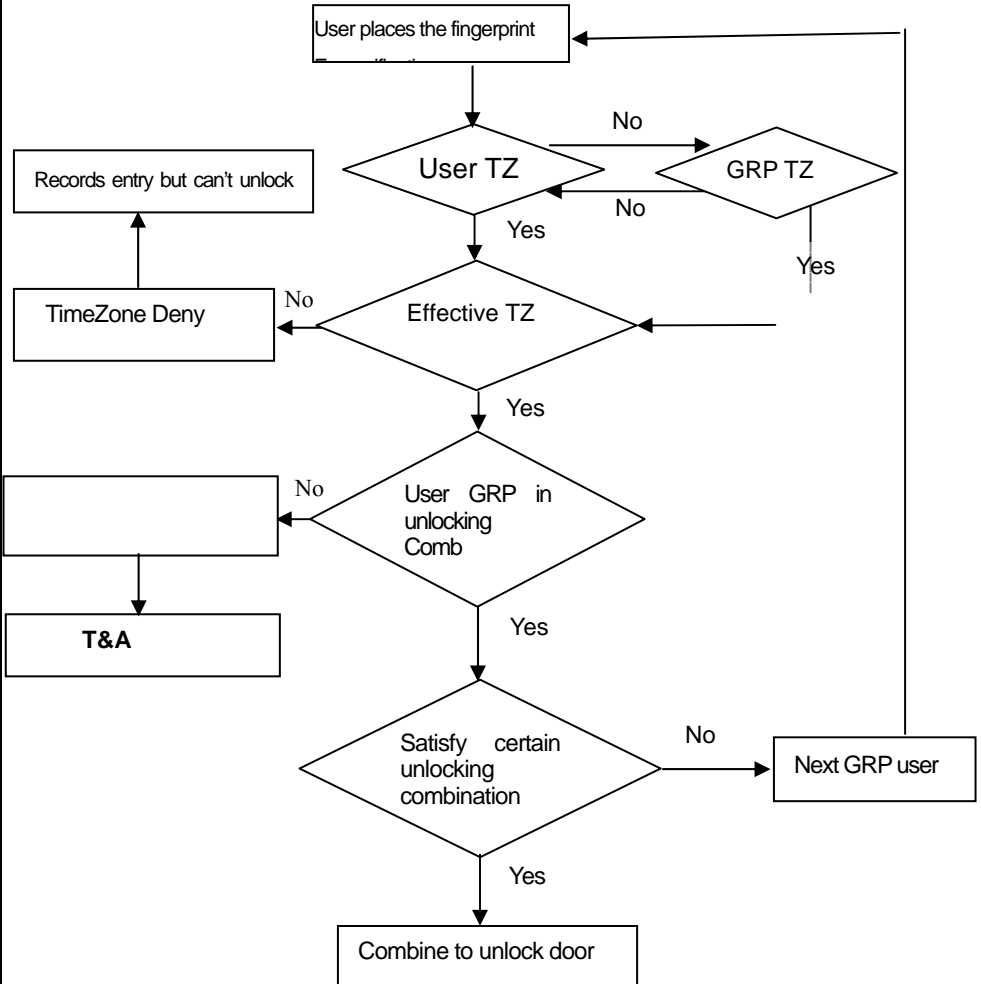
Each user should be assigned a group and is assigned a time zone based on the access rights. Users can be divided into a maximum of 5 groups and for each individual group a separate time zone can be defined. Each individual user can belong a to maximum of three different groups. The lock will be activated if the users access rights are satisfied from any of the three groups.

Conditions of a registered user can unlock the door are:

- 1: The group that user belongs to should be in unlocking combination (also this group can be in unlocking combination with other groups, but it is required to unlock door together with them).
- 2: Current unlocking time should be in any effective time zone in user time zone.

By default a new user is assigned a group 1 and time zone 1 By default group 1 and time zone 1 have unlocking option set for all days of the week. If the group of a user does not include in any grouping combination then that user can only record attendance but it will not activate the relay contacts to open the door.

8.3.2. Verification Flow of Access Options




8.4. Function Description

8.4.1. Definition of Time zone

Time zone is the minimum time zone unit of Access Options. Whole system can define maximum 50 time zones. 7 time regions (i.e. one week) can be set in each time zone. Each time region is effective time zone in 24 hours of a day. Each user can set maximum 3 time zones. Relationships among these three time zones are “OR”. It is effective as long as the time to verify can meet one of these three time zones. Each time region format of time zone is **HH:MM-HH:MM**, i.e. the format is according to 24-hour mode and accurate to minute.

End-time less than start-time (23:57-23:56) represents all-day forbidden. End-time larger than start-time (00:00- 23:59) represents effective in this region.

Effective time zone for user to unlock: all-day open (00:00-23:59) or end-time larger than start-time in time zone.

 **Note:** System defaults that time zone of serial number 1 is all-day open (i.e. new registered user default can unlock door).

1) Enter “Define TZ” and screen displays as follows:

Define TZ	▼
▶ Time Zone No	1

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

Def Time Zone 1	▼
▶ Sun	00:00-23:59

Sun	00:00-23:59	▼
▶ Mon	00:00-23:59	

Tue	00:00-23:59	▲
-----	-------------	---

Mon	00:00-23:59	▲
▶ Tue	00:00-23:59	

Definition of time zone 1 above is all-day open, i.e. factory default status.

2) For example:

Time zone can be redefined, i.e. definition of time zone 1 is:
 Saturday and Sunday are break, and not allow to enter.
 Working time of Monday to Friday allow to enter.
 Working time: 08:30-18:00

Setting is as follows

Def Time Zone 1 ▼
 Sun 23:57-23:56
00 00 10 00

Sun 23:57-23:56 ▼
 ▶ Mon 08:30-18:00
— 00 00 10 00

Mon 08:30-18:00 ⬆
 ▶ Tue 08:30-18:00


Tue 08:30-18:00 ⬆
 ▶ Wed 08:30-18:00

On analogy of this, multi time zones can be defied according to practical requirements. Whole system can define maximum 50 time zones.

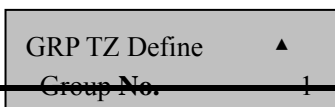
8.4.2. Definition of Grouping Function

Grouping function can divide users into group, and can also combine different groups into different unlocking combinations, which are easy and convenient for grouping management of Access Options. And all that, the grouping function can combine many unlocking combinations. System defines 5 groups: group 1, group 2, group 3, group 4 and group 5. New registered user default belongs to group 1, but the user can be relocate into other group.

Select **serial number of Time Zone** already being set in **group Time Zone** .New registered user default uses time zone of **group 1**. But after user resets the belonged group, the user uses default time zone of correlative group. So default time zone of each group should be defined first.For details of use group time zone, please refer to "[User Access Options](#)".

 **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 1 TZ Define " and screen displays as follows:



Press **OK** to enter.

GRP 1 Dflt TZ	▼
▶ TZ 1	1

TZ 1	▼
▶ TZ 2	8

TZ 2	▲
▶ TZ 3	40

There are 3 time zones defined. Relationships among these 3 time zones are as follows:

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

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

GRP TZ Define	▲
Group No.	2

Press **OK** to enter.

GRP 2 Dflt TZ	▼
▶ TZ 1	1

TZ 1	▼
▶ TZ 2	10

Group 2 is effective in time zones of 1, 10, 30 and 36, and can also select other defined time zones.

TZ 2	▲
▶ TZ 3	36

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


8.4.3. 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.

User Access Options include: belonged grouping setting, use group time zone and user time zone

- ✧ Grouping: divides registered users into several groups, is easy and convenient to manage.
- ✧ Use group time zone: whether the user uses default time zone of belonged group.
- ✧ 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).
 - 2) 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:

User Acc Opts	
Enroll ID :	00001

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

User 00001 Opt	▼
▶Belong to GRP	1

Belong to GRP	▼
▶Use GRP TZs	Yes

Use GRP TZs	◆
▶ TZ 1	1

TZ 1	◆
▶ TZ 2	40

TZ 2	▲
▶ TZ 3	48

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:

User Acc Opts	▲
Enroll ID :	00002

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 00002 Opt	▼
▶ Belong to GRP	2

Belong to GRP	▼
▶ UserGRP TZs	No

UserGRP TZs	◆
▶ TZ 1	1

TZ 1	◆
▶ TZ 2	20

TZ 2	▲
▶ TZ 3	48

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”**.

8.4.4. 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.

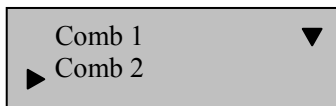
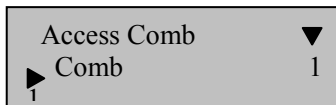
 **Note:** Unlocking combination of system initial default setting is “1” (i.e. new registered user default can unlock door).

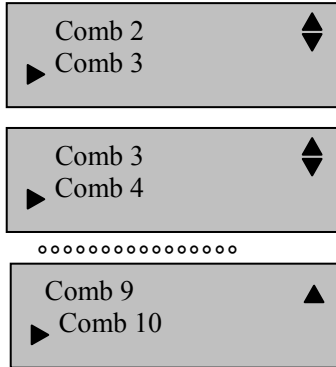
Press “MENU” and enter main interface.

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:



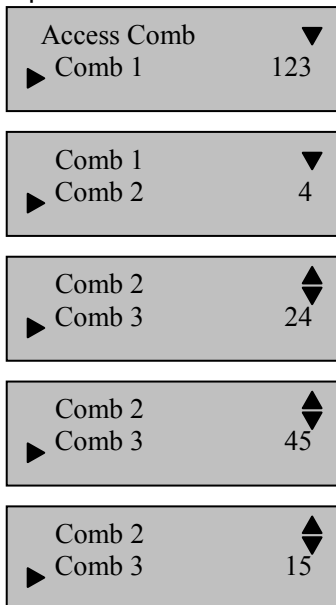


When do not process setting yet (i.e. factory default status), system defaults that group 1 is unlocking combination 1 and others are null.

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:



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

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

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

- ❶ 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)
 - ❷ 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.

8.4.5. 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.

8.4.6. DSen. Delav

DSen. Delav : 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.Delav , display as follows :



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

8.4.7. Dsen. Mode

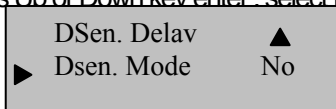
Dsen. Mode include three : : **No**、**NC**、**None** ; **No**: No use door magnistor; **NC** : When the door is open, the lock is open; **None**:When the door is closed ,the lock is closed.

Press “MENU”enter main interface ;

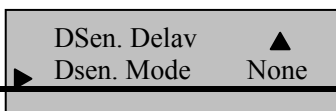
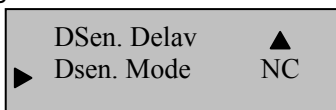
Select “Options” , press“OK”enter menu ;

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



User capacity	500/1000/1500
Transaction capacity	30000
Verification mode	1 : 1 or 1 : N
Access Contro	50 TimeZone , 5 Grouping , 10 Access Comb , 支持多指纹进入 , 指纹或密码验证方式可选 , 一路报警输出 , 拆机报警输出等高安全门禁功能

Technical specifications

Access Contro	50 TimeZone , 5 Grouping , 10 Access Comb , 支持多指纹进入 , 指纹或密码验证方式可选 , 一路报警输出 , 拆机报警输出等高安全门禁功能
Electrocontrol	Relay output 3A/12VDC
考勤功能 (可选)	Support zk attendance software
其他输入	一组门磁输入 , 一组开门按钮输入 , 一组门铃输出
Communications (Optional)	TCP/IP、RS485、RS232
Wiegand 输出	Wiegand26 output (Optional)
keyboard and Display	液晶显示屏 , 4*4 数字键盘 , 蓝色背++光
Power	12V DC , 待机电流 : 50 mA , 工作电流 : 400 mA
Validating speed	< =2 s
FRR	< =1%
FAR	< =0.0001%
Operating Temperature	0°C - 45°C
Operating Humidity	20%-80%
Language	English、Simplified Chinese、Traditional Chinese
OEM	Supply OEM Produce
Size	82 (L) *35 (W) *180 (H) mm

