eSSL

Security at Fingertips

User Manual

K20,21,30

Contents

1. Before Start

Must to know

Notice: Do not attempt to service the machine yourself, except as explain in your online documentation or in instruction otherwise. Always follow this user guide closely.

● Please do not place the product in the place with strong light, because the strong light may significantly affect the fingerprint scanning, and thus cause the fingerprint verification fail. This product is designed for indoor installation, if it has to be installed it outdoor, please place the equipment in proper environment, you must beware of not exposing it to wet or harsh condition, the product work temperature rang is 0-40℃. Do to use you machine in every hot environment, keep you machine away from the heat source and radiator. For long time use it outdoor and the internal heat of the machine, will cause problem to the operation

●Fingerprint identification machine is a precision electronic machine, all safety and operation instruction should be read before the product is operated.

● The products warranty does not cover defects or damages arising from the lock defects, improper installation, lack of or improper

maintenance, improper storage, shipping and handling, ordinary wear and tear , misuse abuse, accident unauthorized service or use with unauthorized service parts.

Fingerprint Enrollment and Identification shall be taken after the installation the fingerprint identification machine

Enrollment   Installation   Identification

Enrollment   Installation   Identification

How to place the finger

Make sure the fingerprint image captured is of a core of presented finger, a fingerprint is point to locate within innermost recurring ridge of any give finger.

To obtain a higher success rate, enroll same finger 3times in a slightly adjust angle, one to the center, one incline slightly to the left. The third incline slightly to the right. You follow the following place procedure; the success rate will increase dramatically.

The correct way is:

        Place a finger flatware on the sensor surface

        Place it to the center of the sensor surface
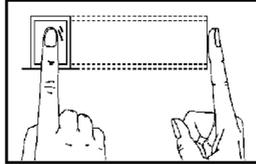
The wrong way is
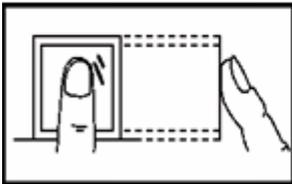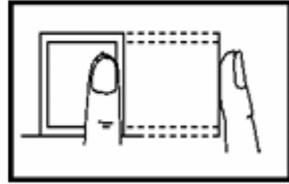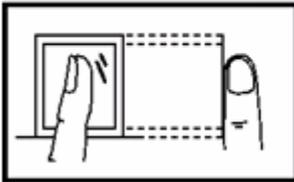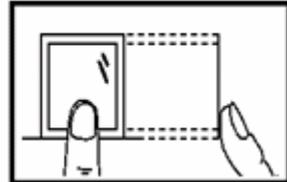
Notice: Please adopt the correct way to place the finger; Our Company is not liable for any damages and troubles whatsoever arising out of from improper pressing manners.

Understanding the Operator Panel LEDs

The operator panel LEDs signify different, depending on their sequences. LED s that are off, on or blinking indicates fingerprint machine work.

1. Normal work.
> Green light blinks each second.

2. Failure authentication
> Red light shines for 3 second

3. Verification successful
> Green light shines for 3 second

Note: If the fingerprint machine LED don't follow above description. Please contact us to get technical assistance
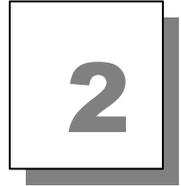
2. Menu tree

★ Indicates this menu item only appear in specific and customize fingerprint machine, this manual give a special instruction.

3. Basic Concepts

This section contains definitions and descriptions of the fingerprint Identification system concepts，including：

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

The two most important Functions to Fingerprint Idenification are user enrollment and user verification.

3.1 User Enrollment

Enrollment is the procedure to create an ID number and scan a user's finger to create a template three times. This template is associated with a user ID number and stored up.

Though the stored fingerprint reference template match against place user's finger, this fingerprint template is used to identify user's Identity, so an enrolled user is able to achieve the time clock in the appoint machine, the whole procedure take about 2 second, for the same ID number the up to ten different fingerprint ability to

be enrolled, the user may own much more verification way.

Ideally. Every finger on each hand should be enrolled, so that if a enrolled finger is injured, to alternate the backup finger is available, in normal condition, it is better that last two finger is enrolled, like, left or right index finger, so the user ability to use his (her) any finger to identify and keep away the troubles is duo to he (her) forget which finger has been enrolled

3.2 User Identification/Verification

The process of comparing place user's finger against the stored fingerprint reference template. when a user either input an ID number or places a finger in the fingerprint sensor, then input password or press fingerprint, after verification process carry out, the system will show whether identify failure or success and store up the successful result to equipment 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.

3.3 Threshold

Threshold - A predefined number, often controlled by a biometric system administrator, which establishes the degree of correlation necessary for a comparison to be deemed a match. If the score resulting from template comparison exceeds the threshold, the

templates are a "match" (though the templates themselves are not identical).

The Threshold establishes a balance between False Acceptance Rate (FAR) and False Rejection Rate (FRR). FAR mean the probability that a biometric system will incorrectly identify an individual or will fail to reject an impostor. The rate given normally assumes FRR measure the probability that a biometric system will fail to identify an enrolee, or verify the legitimate claimed identity of an enrolee.

You can set the threshold to all users. For a user who's the fingerprint verification is difficult, you can adopt ID & Fingerprint verification (match one to one).

Raising the threshold increases security, while lowering it increases pass. The correct balance is vital. For a user whose finger is worn or injured, the threshold should be reduced.

Notice: FAR and FRR affect each other, if increases FAR then reduce FRR. The default Threshold is 35, 1:1 matching Threshold is 15.

Table 1—1 Suggested Threshold Settings

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

Low	High	25	10

3.4 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 or password each time that verification is requested.

ID numbers are normally inputted via the keypad, but they can be called up by other means of such as RF Card, Mifare Card (the realizing function condition is that there is card reader in the machine)

3.5 Privilege (status) Levels

Privileges are permission that is give to use. These define the ability of user to perform specified administrative and other task, including the ability to view, edit, add, or renew specified information categories.

Privilege levels are named set of permission that can be modified as required, User's four privilege levels are assigned by the fingerprint machine, that are user, enroller, administrator, Super administrator(supervisor).

The Fingerprint Identification systems have four Privilege or status levels:

- Users are people whose identity must be verified, such to

gain access to a facility or to have their attendance recorded.

● Enrollers are Users who are authorized to enroll new users or delete on to the system.

● Managers can do other operations, except set advanced option and enroll manager's privilege.

● Supervisors are Users who access to all functions and change all setup in the system.

Note: if there is no the 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.

3.6 Start-up window

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

Welcome	check in
10：**12**	
06-05-14	Feb

or"**check out**"
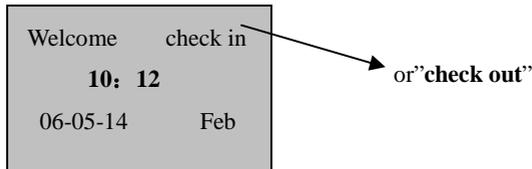
4.Getting Start

This chapter describes how to enroll and verify users on the Fingerprint verification system

The following topics are included:

- Enrolling User
- Testing an Enrollment
- Enrolling a Auxiliary Fingerprint of User
- Verifying Your Identity
- Hints for Successful Enrollments

4.1 Enrolling Users

After setting up your fingerprint machine, the machine power on, you may enroll the user. If this is the first enrollment in a new or empty system, everyone will become an enroller, if there is a administrator in the system, you should be allowed by a administrator to enroll a new user.

This machine provides with three ways to enroll, such the Fingerprint Enrollment, the Password Enrollment, the Fingerprint and the Password Enrollment. Above three kinds of ways are correspond equal to different personnel whose fingerprint quality is different. The Fingerprint Enrollment is suitable to the personnel whose fingerprint quality is quite good; the fingerprint and the

password are suitable to the personnel, whose fingerprint may be enrolled successfully, but the verification process is the quite difficult; the Password Enrollment is suitable to the personnel whose fingerprint is unable to enroll successfully. According to the actual situation, you may select a proper enrollment way.

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.

4.1.1 Fingerprint Enrollment

1） Press the MENU button to enter the User enroll，Access the Enroll Fingerprint to press [**OK**], the following display:
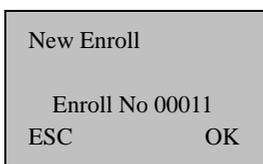
New Enroll

   Enroll No 00011
ESC   OK

Note： this fingerprint machine default enrolling number is 5 digit, if youu enrolled number does not arrive 5 digit, the machine will add 0 in front of this figure , E.g. your number is 11, the 00011 will be displayed in the machine.

2）Input the enrolling number (the range is 1 to 65534), press [OK], The following appears:
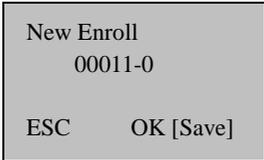
```
New Enroll
    00011-0

ESC      OK [Save]
```

Note：00005-0
The last number 0 means
The first fingerprint

3）If the test is successful three times in a row, the following appears:
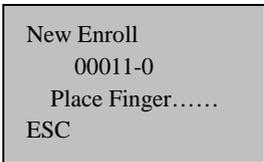
```
New Enroll
    00011-0
  Place Finger……
ESC
```

4）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 2).

4.1.2 Password Enrollment

1）Press the MENU button to enter the User enroll，Access the password enrollment, press [OK], the following appears:
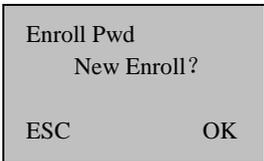
```
Enroll Pwd
   New Enroll？

ESC          OK
```

2）Press [OK], the following appears:

```
New Enroll

Enroll No 00006
ESC          OK
```

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

```
New Enroll

Input Pwd *****
ESC          OK
```

4）Input your password, the following appears：

```
New Enrollment

Input Pwd   *****
Pwd   Affirm *****
```

5）Input the passwords again, press [OK], the following appears:

```
New Enroll
00006-P


ESC      OK [Save]
```

Note：00006-P
The last letter P means password.

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

4.1.3 Fingerprint & Password

1） Press the MENU button to enter the User enroll，Access the Fingerprint& Password, press [OK], the following appears:

```
FP& Pwd
     New Enroll？

ESC              OK
```

2）Press [OK], the following appears:

```
New Enroll

Enroll No   00008
ESC              OK
```
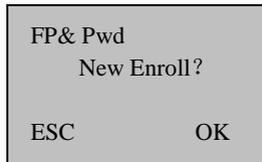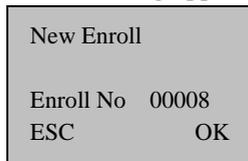
3）Input the password (range is 1 to 65534), press [OK], the following appears:
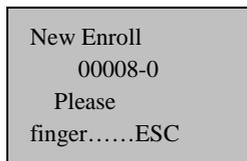
```
New Enroll
     00008-0
   Please
finger……ESC
```

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

```
New Enroll

  Input Pwd: *****
ESC              OK
```

5）Input your password, the following appears:

```
New Enroll


   Input Pwd *****
   Pwd Affirm *****
```
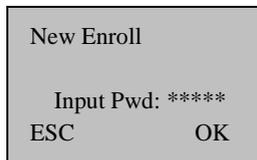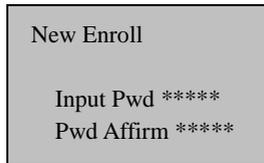
6）Input the password again, press [OK], the following appears:：

```
New Enroll
     00008-0P


ESC      OK [Save]
```
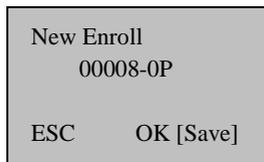
**Note：00008-0P; the second from the last 1 means one fingerprint,
The last letter P means password.**

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

4.1.4 Enroll ID ★

1）Press the MENU button to enter the User enroll，Access Reg
RFID, press [OK], the following appears:：
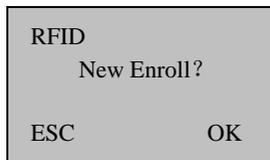
```
RFID
      New Enroll？


ESC              OK
```

2）Press [OK], the following appears：

```
      New enroll


Enroll No: 00010
ESC              OK
```
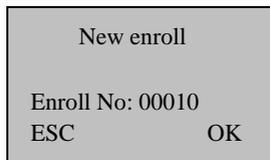
3）Input the enroll number (the range is 1 to 65534), press [OK], the following appears：
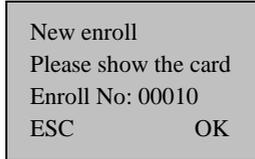
> New enroll
> Please show the card
> Enroll No: 00010
> ESC   OK

4）Slip the card near the area of induction follow the prompt, read out Card ID, the follow appear:
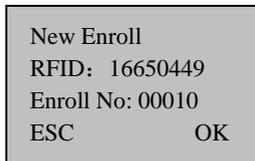
> New Enroll
> RFID：16650449
> Enroll No: 00010
> ESC   OK

5）Press "**OK**" key to complete Enrollment，go on next operation. the following appear：
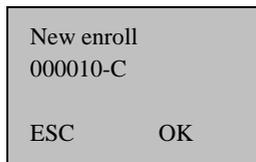
> New enroll
> 000010-C
>
> ESC   OK

Note ：00010-C
The least letter C means ID card

6）Press "ESC" key to cancel the new enrollment, press OK to save enrolled data, so that complete registering ID card flow

Note：IDcard is a option function on the fingerprint machine, if you want to customize fingerprint machine with ID card function, please contacts our market supporter and sale. If you want to know more information please refer to (ID card use guide)

4.1.5 Enroll HID Card ★

This operation procedure is same as ID Card operation, use HID card only by Using 125MHZ,13.56 MHz contactless smart card technology only, these fingerprint products provide users with new options for supporting multi-authentication of identity. Combine a contactless card presentation with a fingerprint biometric. Or, use a personal identification number (PIN) number along with a contactless card presentation. (See multi-authentication)

HID standard card is encrypted by using specify format encode card ID and the equipment code.

Note：HID card apply to fingerprint -machine, this is an option function on the fingerprint machine, if you want to customize fingerprint machine with HID card function, please contacts our market supporter and salesman.

4.1.6 Enroll Mifare Card★

1）Press (MENU) KEY on the initial interface, after your privilege are admitted, follow information appear on the screen：

```
User Manage          ▼
    Enroll User
  ►FPCard Mng
    Enroll Admin
```
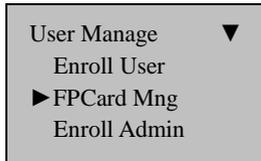
2）Press (ok) Key, enter next operation. Information show follows：

```
FPCardMng           ▼
Create PINCard
►Enroll FPCard
Create FPCard

Reg FPCard
Unreg FPCard
Empty FPCard
Dump FPCard
ESC          Ok
```
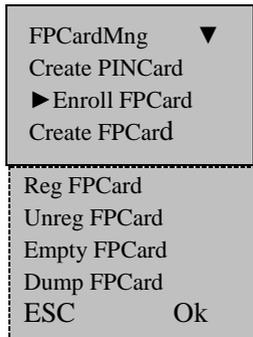
There are eight sub-item, which is create fingerprint card, enroll fingerprint into card, register fingerprint card, cancel fingerprint card, erase fingerprint from card, copy fingerprint from card, transfer fingerprint to card, the each follow detail explain is for eight sub-item.

1. Create PIN. Card (Create PIN card): utilize registered user in the fingerprint machine to Create PIN card, user may user the card to identify himself, and don't place the finger.

2.Enroll fingerprint into card (Enroll FP card): directly store the fingerprint that has been register into card, at this time there is a fingerprint in the card, and that does not exist in the machine, user may user "Card + Fingerprint" to identify himself, must punch the Fingerprint card firstly, than place finger.

3. Create Fingerprint Card (Create FP Card): copy fingerprint from the fingerprint machine in which exist to a Card, user can use the fingerprint to verify, also can utilize a fingerprint and a Fingerprint Card to verify.

4. Register Fingerprint Card (Reg FP Card): there is more than two attendances machines, A enroll PIN. Card has been registered in one fingerprint machine, which want to be use to anther fingerprint machine, the Fingerprint Card must be registered firstly.

5. Clean Fingerprint Card (Unreg FP Card): this operation is a reverse process to above operation

6. Erase fingerprint from Fingerprint (Empty FP Card): clear all data (fingerprint, PIN) on the fingerprint card.

7. Copy Fingerprint from card. (Dump FP Card): Copy a fingerprint from a card to Fingerprint machine, it is able to directly track attendance by fingerprint after finish this operation process.

8. Transfer fingerprint into card (Move to FP Card): the fingerprint in fingerprint machine is transferred to a Fingerprint Card. there is not fingerprint in the fingerprint machine after transferred.

Note：Mifare card is an option function on the fingerprint machine, if you want to customize the fingerprint machine with Mifare card function, please contacts our market supporter and salesman's. If you want to know more information please refer to (Mifare Card use guide)

4.2 Testing an Enrollment

Ask the users to place their finger to perform test . 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 Auxiliary Fingerprint of User

For a long time using, if there is space in the system memory to store, it is better to enroll more than two fingerprints a user. Enter the new enrollment interface Press 'OK 'key to continue performing the new user enrolling, Press 'ESC' key to cancel the new enrollment, and to enter the backup enrollment interface, the following appears:

```
New Enroll

 Enroll No 00008
ESC          OK
```

```
Display
Enroll No 00009

ESC          OK
```

This operation procedure is same as above enroll new user operation

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

4.4 Authentication type

4.4.1 Fingerprint authentication

Use fingerprints to validate access authentication with the following types:

（1）1：1 authentication（Verification）

In this mode, enter a pre-registered ID first and then a fingerprint. The enrolled fingerprint corresponding to the ID will be compared to the entered fingerprint on a 1:1 basis. The 1:1 authentication type takes a short time regardless of the number of users. There is no need to make any special settings in the system. After entering the ID, enter the fingerprint to perform authentication. Block diagrams

of enrollment, verification, and identification tasks.

Operational trip：

In the initial interface, enter your ID number, the following appears:

```
1：1 FP Verify

    Enroll No 00011
ESC        OK[Pwd]
```
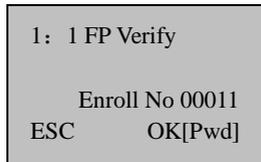
Note： This fingerprint machine default enrolling number is 5 digit, if you enrolled number does not arrive 5 digit, the machine will add 0 in front of this figure , E.g. your number is 11, the 00011 will be displayed in the machine.

Press "OK", then Place the finger on the sensor surface, the following appears：
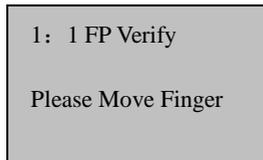
```
1：1 FP Verify

Please Move Finger
```

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

```
FP Verify

    Enroll No 00001
      Verified！
```

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

```
FP Verify

    Place Finger Agn！
```
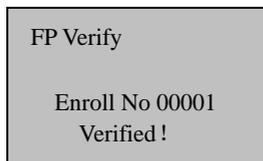
It continues for about 0.5 seconds, return to the start-up window.

（2）1：N authentication (Identification)

Only enrolled fingerprints are used for authentication. Though the authentication procedure is simple, this method will take a little longer than the 1:1 authentication if there are many users. There is no need to make any special settings in the system

Operational trip：

Place the finger on the sensor surface, the following appears:
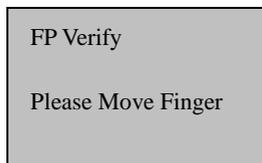
```
FP Verify

Please Move Finger
```

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

```
FP Verify

  Enroll No 00001
     Verified !
```

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

```
FP Verify

Place Finger Agn !
```
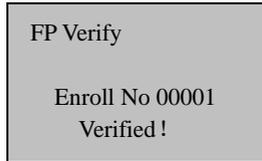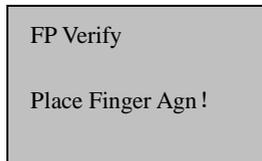
It continues for about 0.5 seconds, return to the start-up window.

1: G; 1: H (Group authentication)

For group authentication, user can define a range of user ID, if user ID is within the range, authentication way must be 1: N, otherwise the authentication procedure is 1:1 matching.

--**1: H authentication:** user must input the advance part ID to perform fingerprint authentication, if the input ID is entire No., the system will carry on 1:1 authentication,

--**1: G authentication:** the user must be grouped before authentication, you can specify a group ID of 1--4 digits long for each user group. You will enter a group ID and press down -key, and then place a fingerprint for authentication. You can specify a group ID when you register a user. Unlike other methods, you must

enter the group ID, and then press down-key before entering the fingerprint to perform group authentication.

4.4.2 Password authentication

A password of 1--5 digits long is used to validate authentication. You can use this method in such a special case as when the fingerprints are damaged

To start the enrollment process, enter your ID number, the following appears:
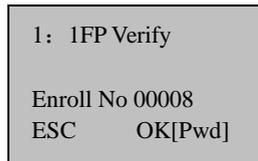
```
1：1FP Verify

Enroll No 00008
ESC        OK[Pwd]
```

Press [OK], the following appears：
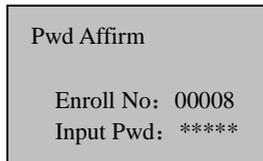
```
Pwd Affirm

Enroll No：00008
Input Pwd：*****
```

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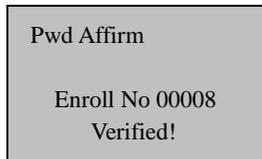
```
Pwd Affirm

Enroll No 00008
    Verified!
```

If the password cannot be verified, the following appears:

```
Pwd Affirm

Enroll No 00008
   Error Pwd !
```
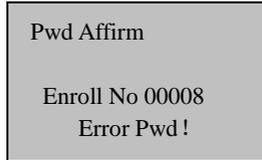
4.4.3 RF/ MIFARE card authentication ★

The RF card of a user is used to identify the user. You can register the RF card number to the system in advance to provide against loss or theft of the RF card.

4.4.4 MIFARE card authentication ★

The MIFARE card is a contact -less IC card, 1K card has its 1 K byte memory assignment as 16 sectors, each with 4 blocks of 16 bytes. The MIFARE card interacts with the reader, which is able to store fingerprint template inside, the fingerprint template is transferred to reader, then the template against placed finger while use performance verification.

The MIFARE card also own unique serial No. you can use it instead of ID card. (**For more detail see appendix.)**

If the Mifare card has been used as created PIN card, need to enter

"Menu→Option→System Option→ advance Option", press "▲/▼", select " No. Card" as Y (es), the validating as follow.

In the starting-up windows. place the PIN card near induction area (distance is not far, otherwise the card will not be detected) the screen show as follow：
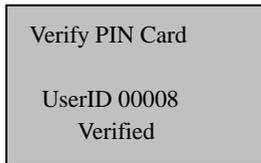
> Verify PIN Card
>
> UserID 00008
> Verified

If use other way to register Mifare card (the example: The registration fingerprint card), Set "No. card" option as Y (es), then step same with above.

If Set No. card" option as N (O), then confirmation flow as follows: In the initial interface, (distance is not far, otherwise the card will not be detected), screen display as follows：
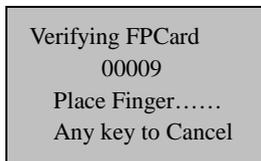
> Verifying FPCard
> 00009
> Place Finger……
> Any key to Cancel

Place the finger on the sensor surface, the following appears：
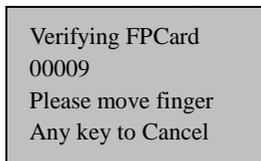
> Verifying FPCard
> 00009
> Please move finger
> Any key to Cancel

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

```
Verifying FPCard
       00009
UserID    00009
    Verified!
```

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

```
Verifying FPCard
       00009
  Please try again
  Any key to cancel
```

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

Note: beside of above authentication type, multi-authentication also is privoded. See Appendices. If you want to this function please contact our market support or salesmen.

4.5 Hints for Successful Enrollments

If 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

Trouble	Solution

Fingerprints is too dry or dirty	Solve the dry problem that rubs the dry finger with palm. If the fingerprint is dry, you should adopt the way of wetting up the finger, such as brow air over finger.
Have no enough to bring pressure	The user should place a finger firmly and flat on the sensor surface.
How to select the finger?	Recommend to left or right index or middle finger. Use fingerprints of good quality, without worn or injury. 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 small, you will select the thumb.
How to place the finger?	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.
The effect of the fingerprint pattern change	For a user with worn or injury finger, the identification can be affected. If the finger quality was poor, you should be select password to verify.
Others	However, few people's fingerprint quality is too poor to verify, the fingerprint in gear. Please use ID & fingerprint verification, and the Threshold can be reduced or use password verification.

4.6 Enroll Administrator

In order to prstate unauthorized personal change the option of the machine, the machine provide an option to set administrator.

1）Enter the menu of the machine，after verify successfully, the following window appear：

```
Menu
►User Enroll
Option
Sys Info
```
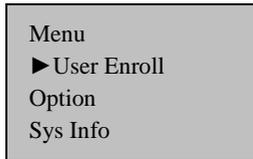
2）Press **OK** key， Enter user managerment,the following windows appear：

```
User Enroll
►User Enroll
  Enroll Admin
  Delete Datum
```
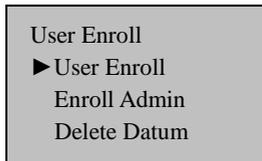
3）Using "▲/▼" key, select manager to enroll, the follow interface appear.

```
User Enroll
  User Enroll
►Enroll Admin
  Delete Datum
```
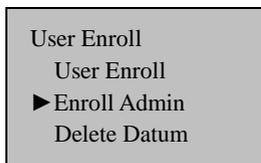
4）Press **OK** key， Enter management enrollment the following window appears.

```
Enroll Admin
►Enroll FP
  Enroll PWD
  FP&PWD
```
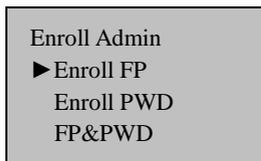
5）You can select a favor way to register an administrator, the administrator authorization includes enroller authorization, manager authorization, and super administrator (supervisor) authorization, more detail see privilege level. The enrollment way is same as user enrollment.

4.7 Delete enrolled Data

If a user wants to be deleted, you can take following step to cancel the user.

1）Press **Menu** Enter the machine menu ，after verify successfully, the following window appear：

```
Menu
►User Enroll
  Option
  Sys Info
```
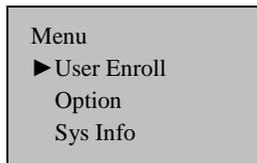
2）Press **OK** key， Enter user manager, the following window appear：

3）Using "▲/▼" key, select data to enroll, the follow interface appear.：

```
User Enroll
►User Enroll
  Enroll Admin
  Delete Datum
```
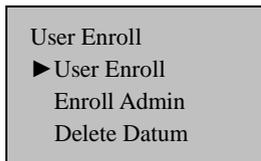
4）Press **OK** key， Enter the process to cancel data the following window appear.：
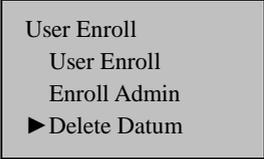
```
User Enroll
   User Enroll
   Enroll Admin
 ►Delete Datum
```

5）input the number you want to cancel, pressOK to confirm, go on next operation, follow the prompt on the window to cancel user.
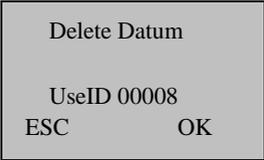
```
Delete Datum

 UseID 00008
ESC          OK
```

5.Option

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

```
Menu
    User Manage
 ▶  Options
    Sys Info
```
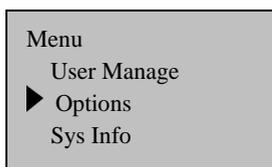
Access Options, press **[OK]**, the following appears:

```
Options                ▼
 ▶  System Opt
    Power Mng
    Comm Opt

    Log Opts
    Access Option
    Alarm Cnt
    Group VerType
    Auto Test
```
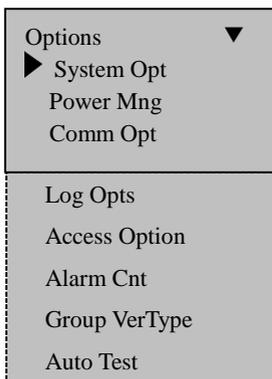
This following topic included: System Option, Power Manage Communication Option Log Option and access option, Auto test. Alarm Cnt, GroupVerType. The Alarm Cnt (Amount of failure to verify until sending alarm) and GroupVerType (Verification by group type) is an optional item, there are only in access control machine.

5.1 System Option

Access System Opt, the following appears:

```
System Opt          ▼
▶ Date Time
   Language
   Fmt YY-MM-DD
................................
   Lock          150
   Unlock          1
   Adv Option
```
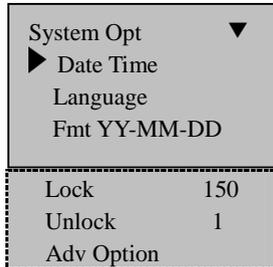
The setup facility covers four areas: System Options, Language, Lock and Advanced Options.

5.1.1 Set Current Date Time

Access Date Time, the following appears:

```
Date Time
        2006-01-02
        08:24:35
ESC            OK
```
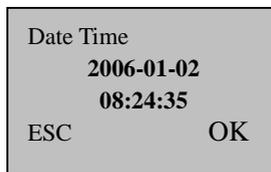
To change the date, press∨ and key, then input the correct date and time, press **[OK**]

5.1.2 Changing the Date Time Format

Access **Fmt YY-MM-DD**, press ∨and∧ key, then input the correct date and time format, press **[OK**]

```
System Option        ▼
  Date Time
  Language
▶ Fmt YY-MM-DD
```
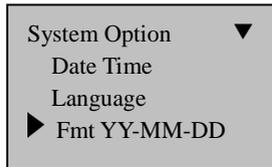
There are ten formats：**YY-MM-DD、YY/MM/DD、 YY.MM.DD、MM-DD-YY 、 MM/DD/YY 、 MM.DD.YY 、 DD-MM-YY 、 DD/MM/YY、DD.MM.YY、YYYYMMDD.**For change the Date Time display format in the initial interface.

E.g.：**YY/MM/DD** format (left) become to the **YY-MM-DD** format （right）

```
Welcome check-in
   17：37
05/08/30 Monday
```

```
Welcome Check-in
   17：37
05-08-30 Monday
```
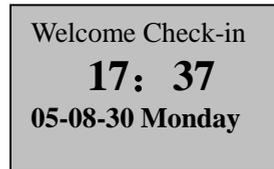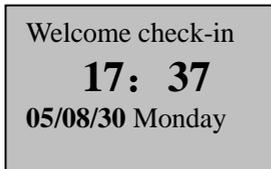
5.1.3 Changing the language★

Select the language you want and press OK, the default language is English; the screen will show in English.

```
System Opt      ▼
   Data Time
 ▶ Language      Eng
   Adv Option
```
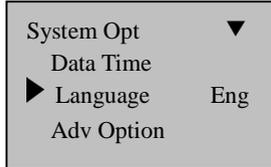
Scroll the up down key to change the type of language, the machine fully supports multinational languages, on the screen there may be display as English besides the language you favor and order.

Choose the language you want, and press OK then press ESC to exit system option, the system may prompt you to save the setup, press to confirm and change the system language setup. Be sure to restart you computer .so the setting take effect

```
System Opts     ▼
   Date Time
 ▶ Language     Eng
   Adv option
```
          English
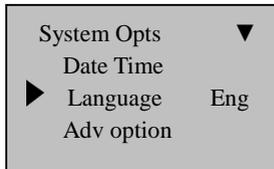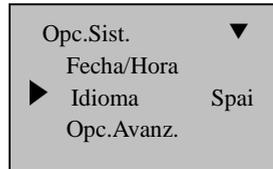
```
Opc.Sist.       ▼
   Fecha/Hora
 ▶ Idioma       Spai
   Opc.Avanz.
```
          Spain

Note：This fingerprint machine does not provide this option that follows that standard approved for use with this machine, if you need this function; please contact our market supporter or salesman.

5.1.4 Lock ★

The Lock means the duration of lock drive, fingerprint machine controls the time how long to open electronic lock. Select this option, and press OK key to enter setup, key in figure through digital key, press ESC to exit and save the setting.

This duration criterion unit is 20 ms, which max value is 254, namely 5.08seconds. "0" means this function is in closed

Note：This is an optional setup, this option only exists in the fingerprint machine that own simple Access Control function. If the fingerprint machine is a specialty Access Control machine, which contains this option.

Above parameter of the duration of lock drive follow that standard approved for use with this machine. If you want to know much more parameters. Please contact our market supporter or salesman.

5.1.5 Unlock ★

This option means how many personal can unlock, Select this "Unlock" option, and press OK key to enter setup, key in figure through digital key, press ESC to exit and save the setting.

Default value is 1, that means only one user is able to unlock when

his   verification is positive, if this value is set as 3, that means the fingerprint machine send a unlocking signal till only all three user verify successfully, the interval of each personal is on more than 30 seconds. The max value set as 5 is available.

5.1.6 About daylight save time

Summer time, also called the "daylight saving time" (Daylight Saving Time), is designted for energy conservation and a local time system, the system is used during the implementation unified time known as "daylight saving time." Usually in the early dawn of the summer day people will be ahead one hour of time, people can get up early , reducing lighting in order to make full use of resources illumination, save electricity lighting power. To back again one hour in autumn. The daylight saving time has the specific requirements in the different countries. At present there are nearly 110 world countries each year to use the daylight saving time.

In order to meet the needs of daylight saving time , we can open a specialized custom settings in the fingerprint machine, in the XX, XX-XX, XX-time hours, one hour faster, and by XX, XX-XX-XX, then slow down a time hours.

[Instructions]

machines that support this functions, enter the menu -> Option -> System Option ->   the "daylight saving time" setting.

1) Perform the options the daylight saving time can be set. shown asthe following:

```
DLST            ▼
►DLST         Y
  Date Fmt   Mode1
  Enter DLST
  Standard
```
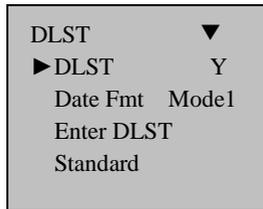
Choose the daylight saving time to"Yes", after setting completed ,press OK to save, this setting will take effect. If choice is "No", then daylight saving time function will be ineffective.

2) after the daylight saving time function is actived, it is need to configure starting and end events of daylight saving time. Set the time format conversion, There are two modes of Mode 1 and Mode 2.

If you choose a mode l that is defaulted by system: its time format shown as " the month, day   hours: minutes"

If you choose the mode 2 of the daylight saving time   "Month - Weeks- week   hours: minutes" mode.

Be allowed to input range is 1-to-6 for the number of weeks (WS), if 1 you input means the first week, said that the second week if input with 2, and so on. Allow to input range is 0 - 6 for each Week (WK), if you input 0, 1 these 0,1 respectively represent the Sunday Monday, and so on.

We take at 4:00 on September 1, 2008 (ie, in September 2008 the first week of the week 6) as an example, these two models of Mode 1 and Mode 2

```
  MM-DD 24H
   9－1    04：00


 ESC        OK
```
Mode 1

```
  MM-WS-WK   24H
  9-1-6          04：00
  WK（0： Sun 6:Sat）
 ESC           OK
```
Mode2

[Note]

1, if the begin month of the daylight saving time that you set is bigger than at the end of time, that means the setting over a year . like this : begin at 2007-9-1 4:00 and end   at 2008-4-1 4:00

2, if you choose Mode2, enter the daylight saving time is: September Sunday, the sixth week of month, this year is 2007, then upon 2008,   there is not the sixth week to check from the calendar, only the five weeks, In such circumstances, the system will assign the last Sunday of this month the corresponding time that points into the daylight saving time.

3, If it is set to enter the the daylight saving time is: September the 1th week Monday, the current year is 2008, then upon 2009, according to the calendar, the first day is Tuesday, instead of Monday, in which case , the system will automatically find the first Monday in this month

4, this funcation non-standard provided, for detail abour this function machines, please consult our business duputy or pre-sale technical supporter

5.1.7 Advance Option

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

Adv Option	▼
▶ Restore Deflt	
Del Logs	
Clear all Data	
Clr admin pri	
Show Score	
Match Thr	45
Only 1 to 1	N
1:1 thr	25
Two sensor	N
Voice	Y
No.Card Only	N
R.card Only	Y
FP Card Only	Y
Upd firmware	
Remote Auth	Y
Auth Server	
Work code	N
Button Beep	Y
AdjVol(%)	34
Print	

.

scroll "▲/▼"to up or down the screen to select the option.

■ **Restore Default:** restore all setup information to default of leave factory.

■ **Clear all Data**: delete all enrolling user information and logs.

■ **Delete Logs**: delete all logs of flash disk.

■ **Clear Admin' Privilege:** change the Administer privilege into ordinary users' option.

■ **Show Score**: whether show the quality value of fingerprint in the screen or not.

■ **Threshold:** For helping in selecting threshold level settings, see Table 1--1

■ **Only 1 to 1**: whether the staff`s ID number must be input.

■ **1:1 Threshold:** when use ID+ fingerprint to verify set the Threshold level

■ **Two Sensors:** if need to connect a external additional Sensor, choose the option as "**Yes**"
  Note: After connect with fingerprint sensor; be sure to restart the fingerprint machine, so the sensor takes effect.

■ **Sound:** whether use to phonic hint or not. If set the option as (**Yes**), the machine will send a hint sound for every operation example, after the verification is successful, the machine will say (**Thank you**), if set the option as (**No**) the machine will not send sound Hint, only utter one (**do**) sound after the verification is positive, when the verification is negative, the machine utter two (**do).**

■ **Firmware Upgrade**: if want to upgrade the firmware of machine, may use the USB flash disk or connect the machine to the PC, carry out the operation process.

Caution: The user does not random upgrade the firmware, you must be allowed by the dealer before to upgrade the firmware, voluntarily upgrade occur the question which possibly affect your normal use.

■ **No. Card**：This item is set as "Yes", only verify No. card to pass authentication. If this item is set as "NO", after verifying Card, must go on fingerprint verification**.**

■ **R.Card Only**：This item is set as "Yes" must register card on the fingerprint machine first; if this item is set as "No", need not to register card**.**

■ **FPCard Key**：After this item is set, the fingerprint machine will be able to write in password to the card which has been register in the fingerprint machine**.**

■ **Remote**：After this item set as "Yes", this fingerprint machine can be used in Remote Identification mode**.**

There are four mode to select (NL, LN NO, LO) in the fingerprint machine, these option signify different thing,

  NL, indicate that firstly perform network verification then local verification,

  LN, first perform local verification then go on network verification,

NO, indicate only go on remote verification, only remote database has fingerprint to pass verification,

NL, indicate only go on local verification, local fingerprint terminal has fingerprint to pass verification.

- **AuthServer：** : In the LAN the remote authentication Server' IP address.

- **Work Code：** This item set as "Yes". The machine prompt ask input work code while user go on authentication, then press OK to save it, if this item set as "NO", while go on normal verification.

- There are two Mode 1, Mode 2. Detailed Help Please refer to Appendix work numbers
- Ant-pass back
  The four options are: No, exit, in, out. Please refer to detailed features on the anti-passback capability in the Appendix

- **Button Beep**: whether send sound hint while press key, if set the option as (Yes), then as press the keyboard the machine will utter, if set the option as (NO), when press the keyboard the machine doesn't utter.

- **Adjust Voice:** adjust the voice volume of hint sound and keyboard sound.

- **Imdt Prt：** This item is set as RS232, when user verify successfully the fingerprint machine will export signal through serial port, if the machine connect with printer, ability to print

or view it via the super terminal.

Note: This function only support serial port (RS232) printer, the parallel interface is not to be support, the Baud rate of fingerprint machine and printer must be same with. More detail see appendix

Note：

1) **Additional fingerprint sensor** and **up grade firmware** are valid for these fingerprint machine that is provided with USB port.

2) **No. Card** is valid for the fingerprint machine that is provided with Mifare or ID Card.

3) **R.Card Only. FPCard key** only are used in fingerprint machine with Mifare function.

4) **Remote. AuthServer** only are used in RIS function of fingerprint machine.

5) **Button Beep, Adjust Voice**, only applies to these fingerprint machine which use U.are.U Fingerprint sensor.

5.2 Power Manager★

This product uses smart manage system, supports the time switch and the timetable of time switch, lock power button as well as time alternate state

5.2.1Power Option

Access Power Manage, the following appears：

Power Mng	▼
►Shutdown	N
Power On	N
Sleep	N
Bell Delay	10
Scheduled	
Idle	
Idle min	0
Lock PWRBut	N
WebMaster IP	
Time alter state	

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

■ **Shutdown:** auto shutdown follows the schedule.

Select this item .press OK key to enter following interface:

```
Shutdown

Are you sure  ?
ESC      OK
```
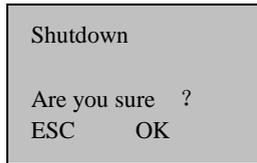
Press **Ok** key to set shutdown schedule，press **ESC** to give up.

After complete setting schedule, press OK to confirm, so this function take effect.

■ **Power on**: auto power up for the schedule ;

■ **Sleep:** automatic resting for the schedule , 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, and the system will enter the idle state.

■ **Bell delay (Time ring and the duration of ringing):**The system total has eight Bell schedule to set, according to actual need you may set time bell, when the time arrive at the appointed time, the fingerprint machine will automatically ring bell, the duration of ringing achieve assigned hour, the ringing will stop automatically.

■ **Web Master IP**：Set IP address of PC which has been

installed Web server.

■ **Adjust volume**：If you don't satisfy speaker to play MP3 value of the fingerprint machine. Can use the function to adjust it.

■ **Lock Power Button:** Set this option as (**NO**), the press the power key to shutdown the machine, if set this option as (**Yes**), the "Shutdown machine" Prompt will appear on the power manage menu, in this time the machine is no able to be shutdown, only enter the menu to choose "Shutdown machine" to realize machine off.

Note：

1.）If you have not find this Option, shutdown, Power on, it belongs to the normal state. Only some machine have the time state selection function, if you have any question, please contact our technician.

2）Web Master IP setting is valid unless the fingerprint machine own playing MP3 **function.** Please refer to (MP3 Function Introduction)

3.）**Time ring and the duration of ringing** only belong to these fingerprint machine with **Time ring and Playing MP3** function.

5.2.2 Time State Selection★

State Selection：While the Time& Attendance machine under using,

the different time period need to correspond checking state, the six state key allows the User to choose the desired state prior to clocking in/out.

These state key are set by manual, may press the corresponding key to select state you want, for convenience operation, There is another setting provided that allows state shift to be set either at IN or OUT in an state schedule table. The state schedule table features up to 4 entries.

Time State Selection: There are two fields of each state schedule table entry: time field and corresponding state mode (IN/OUT) field. When time up to the scheduled time, the fingerprint machine will automatically switch selected state   at IN or OUT by your setting in state schedule table. Currently check condition will appear on the initials interface of fingerprint machine.

How to set the time state selection

Setup time state selection

1．Enter menu**->Option->Power Manage->Attstate Fun，**such as following picture：

```
Att state Fun
      Check condition
      On check-in
Exit (ESC)   OK(OK)
```
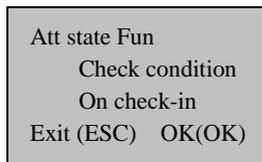
2．Press "▲/▼"key to select check state you want set, there are four state option that maybe set and four time period, that are clock on, clock off, overtime check–in , overtime check-out, press ok key

to set, now take " Clock out" to illustrate：

```
Changeoffcheckout▼
►Time1        N
 Time2        N
 Time3        N
```
```
 Time4         N
```
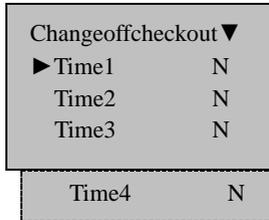
3. Choose time you want set, first select time period, press OK key, such as follow:

```
      Time 1
 Set time function？

 No(ESC)   Yes(OK)
```
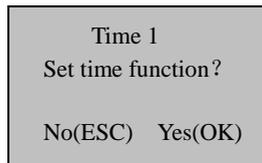
4．Press ok key enter following interface, directly input time you want via figure key：

```
Changeoff Check-Out ▼
►Time1    8：30
 Time2       N
 Time3       N
```
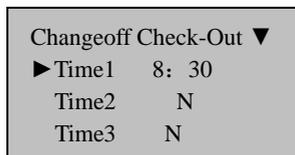
5．Press "▲/▼" key to select time you want set newly, as following picture.

6．After completing setting, Press ESC to exit, then the prompt will appear on the screen, follow the prompt, press Ok to save, press ESC key to exit.

```
          ┌─────────────────────────┐
          │   Change off check out  │
          │         Save？          │
          │                         │
          │   Invalid(ESC) Yes(OK)  │
          └─────────────────────────┘
```
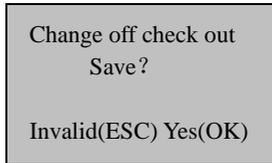
7．If this setting has been save, upon appoint time, the check state will switch clock out state.

Cancel the time state selection

1．Enter set alternate state interface to cancel time of set "Clock out" state

Enter menu –> option power->time alternate state, choose "Clock out": as following picture.：

```
          ┌──────────────────────────┐
          │  Changeoff checkout  ▼   │
          │  ►Time1      8：30       │
          │   Time2      N           │
          │   Time3      N           │
          ├ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┤
          │   Time4      N           │
          └ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘
```
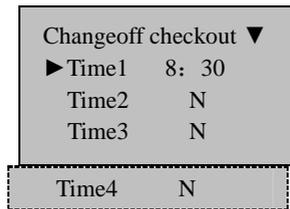
2．Select time you want cancel, take example as the time 1. Press Ok Key as follow picture.：

```
Time1
  Set time function？


ESC          OK
```

3．press **ESC to cancel** ，the time will be canceled,

```
Changeoff checkout ▼
  ►Time1      N
   Time2      N
   Time3      N
    Time4      N
```

4．After completing setting, Press **ESC** to exit, now the prompt will appear on the   machine, press **OK**to save, press **ESC** key to exit

```
Chg off check-out
      Save？

 No(ESC)   Yes(OK)
```

5．If performance saves, this option will take effect to cancel "time 1" of "Clock out"

5.3 **Communication Option**

Access Comm. Opt, the following message appears：

```
Comm. Opt           ▼
  ►Baud Rate     15200
   Dev Num          1
   DHCP             N
```

```
Net speed          Auto
IP address
Net Mask
Gateway
TCP/IP               Y
RS232                N
RS485                N
Link code            0
Extern Modem         Y
```

The machine fully supports **RS232, RS485, TCP/IP,** whether the machine are used to a Single Unit or Link to Networking, it will satisfy the user's demands

- **Baud Rate:** there are five options, 9600, 19200 38400, 57600 115200; this means the speed of communication.；

- **Machine Number**: Identity ID, the range is **1 to 255**；

- **DHCP (Dynamic Master Configuration Protocol):** whether start DHCP function in the fingerprint machine.

- **IP address:** it defaults to IP address is 192.168.1.201；

- **Net speed:** the Net default Speed is Auto, its option is 10M-F, 10M-H, 100M-F, 100M-H；

- **Net Mask**: the Net Mask default is 255.255.255.0, as you need to change it；

- **Gateway:** it default to Gateway is 192.168.1.1. As you need to change it；

- **Ethernet**: whether use TCP/IP protocol or not；

- **RS232:** whether use RS232 or not；

- **RS485:** whether use RS485 or not；

- **Link code:** it defaults to code is 0, but it can be set up.

- **Extern Modem**：This item is set as Y(es), this fingerprint machine may connect with additional Modem

- **USB** : The use of USB communication, if you use USB communications, it would be the choice is "Yes", otherwise voted "No"

Note：

1) If the fingerprint machine is provided with "Getaway" and "Sub mask", the" Ethernet" Option will not exist in it, which is defaulted as Ethernet is in opening; If the fingerprint machine is not provided with "Getaway" and "Sub mask", the "Ethernet" Option will exit in it, if you want to use Ethernet, this Option must be set as Y(es).

2) After setting，be sure to restart fingerprint machine, so the configuration take effect.

5.4 Log Options

Access Log Opt, the following message appears：

```
Log Opt          ▼
►Alm SuperLog   99
 Alm AttLog     99
 Recheck Min     0
```

- **Alarm Supervise Log**: When the remainder the Manage log capacity reached set numerical value, it will automatically sound a warning that logs were full.

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

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

5.5 Access Control Option★

<u>**Unless this fingerprint machine is provided with a professional Access Control function，this Option does not exist and is invalid, this function does not exist in the fingerprint machine which is used in T&A and Simple Access Control.**</u>

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

```
Access Option      ▼
►Define TZ/TP
  User Acc Opts
  GRP TZ/TP Define

  Access Comb
  Lock          150
  Dsen Delay     10
  Dsen. mode      N
  Dress Options
  AlarmCnt
  GroupVerType
```
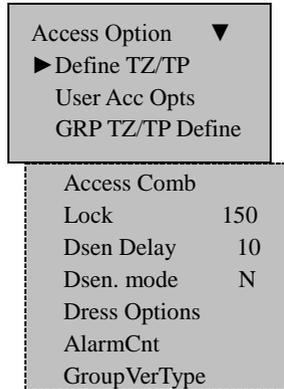
Main function in Access Options：

■ **Define TZ**: is the definition of everyday Time period that can unlock door in one week；

■ **User Access Option:** is the definition User Group, User's Time period and unlock comb；

■ **Group Time period**: is used to set group unlocking time;

■ **Access Comb** (Unlocking combination): defines different unlocking combinations, each combination is composed of different groups；

■ **Lock** (Time duration of lock drive): fingerprint scanner controls the time to open electronic lock.

- **Dsen.Delay** Some segment time which begin after open door just begin alarm;

- **Dsen. mode** there are three option that is none(NONE), normal open (NO), normal close(NC) .the none means the door Sensor doesn't apply, Normal Open is defined that Thee door can be set to a Passage Mode in the normal condition, Normal Close means that the door is close in the normal work condition..

- **Duress Alarm Option:** If the fingerprint registered has been authenticated the system will send an alarm signal to prstate someone is forced to open door. In the menu you can do to all setting.

- **Alarm Cnt** (the amount of failure to verify)**,** if times of user failure to verify equal to the value set, the fingerprint machine will send alarm signal.

- **GroupVerType:** this means user who belong to group use verification type.

Note：This option also is an optional item. It only is owned by some fingerprint access control machine, if this option is set as Y (yes), the fingerprint machine is able to perform Multi-combination verification.

5.5.1 Brief Introduction to Access Options

Access Options function option is the settings of registered user's unlocking time period and unlocking combination.

Each user's attribute is defined by one belonged grouping, use group time period and user time period. Grouping is to divide users into several groups, such as group 1, group2, etc. every group include threes time period, which is named as group time period, In group time period, user can select maximum three time periods already being set. Relationships among these three time periods are "OR" (i.e. it is only need to satisfy any one of these three time periods). In user time period, user can select maximum three time periods that has been set. Relationships among these three time periods are also "OR".

Simply put, conditions of registered user can unlock 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 Period in user time period

System defaults that new registered user belongs to group 1, default grouping combination is group 1, and default group Time Period is "1". Under the condition that group 1 and Time Period 1 are in factory default status, new registered user defaults in unlocking status (if user

changes correlative setting of Access Options, system will change according to user's modification). If the grouping that user belongs to does not include in grouping combination setting, then user can only record attendance and cannot unlock door.

5.5.2 Verification Flow of Access Options
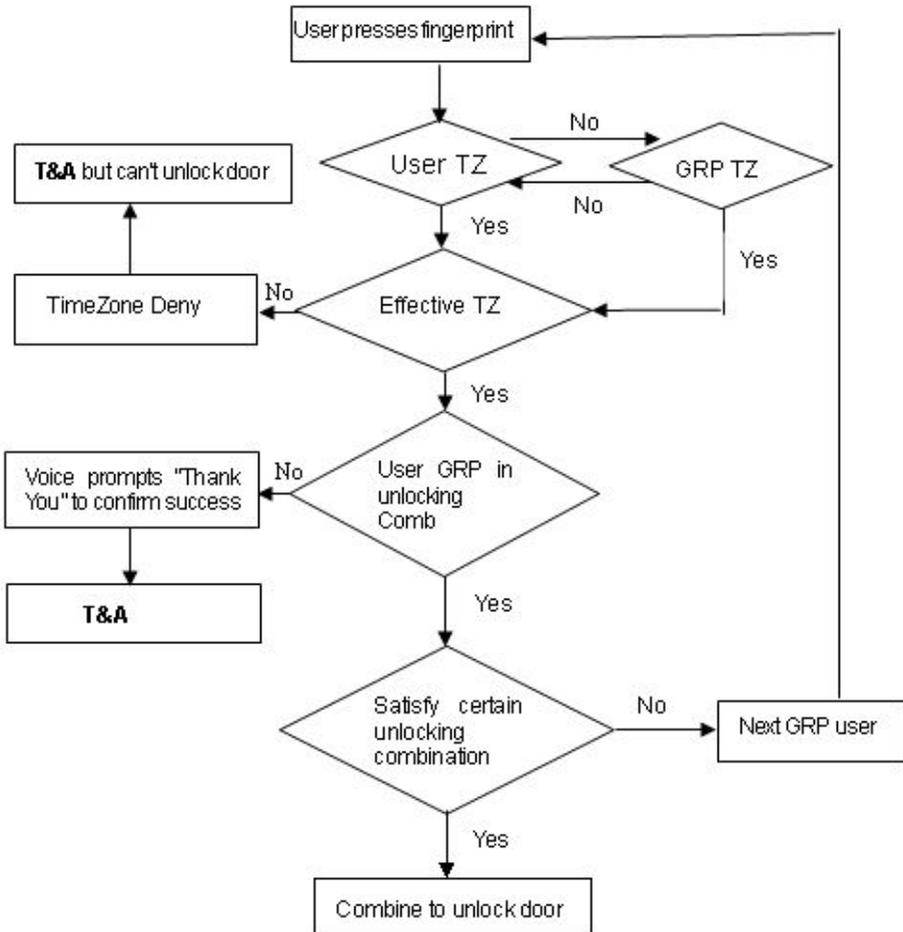
5.5.3 Function Description

5.5.3.1 Definition of Time Period

Time period is the minimum time period unit of Access Options. Whole system can be defined with maximum 50 time periods. And 7 time regions (i.e. one week) can be set in each time period. Each time region is effective time period in 24 hours of a day. Each user can own maximum 3 time periods. Relationships among these three time periods are "OR". It is effective as long as the time to verify that can meet one of these three time periods. Each time period format of time period is HH:MM-HH:MM and its format is according to 24-hour mode and accurate to minute. This option can only be configured by the User Administrator or the Super Administrator.

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

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

Note: System defaults that time period of serial number 1 is all-day open, the new register user belong to the group1 and own the serial number1 time period, so the new registered user default can unlock door).

The setting procedure of time period is follow. .

1） Enter "Define TZ" and screen displays as follows：

```
Define TZ
      Time Period No
            1
ESC               OK
```
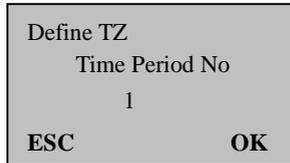
Press "OK" to enter setting of time period 1 and screen displays as follows：

```
Def Time Period    1  ▲
  Sun 00:00-23:59
  Mon 00:00-23:59
  Tue 00:00-23:59

      Wed   00:00-23:59
      Thu   00:00-23:59
      Fri   00:00-23:59
      Sat   00:00-23:59
```
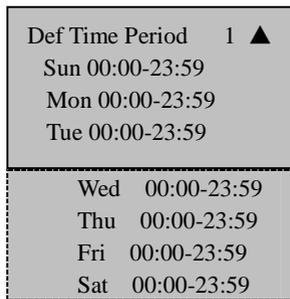
Definition of time period 1 above is all-day open, i.e. factory default status.

2） For example: Time period can be redefined,

E.g.: Definition of time period 1 is:
Saturday and Sunday are break, and don't allow to enter.
Working time of Monday to Friday is allowed to enter.
Working hour: 08:30-18:00

Setting is as follows：

```
Def Time Period    1  ▲
  Sun     23:57-23:56
  Mon 08:30-18:00
  Tue     08:30-18:00

  Wed     08:30-18:00
  Tue     08:30-18:00
  Fri     08:30-18:00
  Sat     23:57-23:56
```

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

5.5.3.2 Definition of Grouping Function

An Access Group allows for users to be given standard access for the workplace. Different departments may have different access privileges and some corporation's employers who are on shift duties, and may need different access levels for each shift, depending upon their time of entry and exit from the workplace. To fasten the procedure of giving access privileges, it can now be done for groups, instead of individuals to simplify the process and give it more transparency.

Grouping function can divide users into group, and can also combine different groups into different unlocking combinations;

the grouping function can combine many unlocking combinations. System ability to define total 5 groups: group 1, group 2, group 3, group 4 and group 5. New registered user by default belongs to group 1, and first uses time period of group, but the user can be allocated into other group, selected serial number of Time period already being set in group Time group Time, after user resets the belonged group, the user uses default time period of correlative group. So default time period of each group should be defined first.

Note: time period of system defaults that group 1 selects serial number "1" of time period. (E.g. new registered user default can unlock door)

The setting procedure of Access Group is follow.

1) Enter "GRP 1 TZ Define " and screen displays as follows:：
2) Press **OK** to enter.

```
┌─────────────────────────────┐
│  GRP TZ Define    ▲         │
│        Group No             │
│           1                 │
│  ESC              OK        │
└─────────────────────────────┘
```
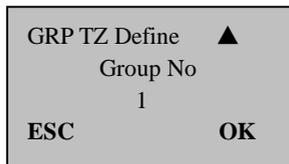
3) There are 3 time periods in GRP TZ Define. Relationships among these 3 time periods are "OR".

```
GRP 1Delt TZ    ▲
  TZ1           1
  TZ2           8
  TZ3          40
```

4) Group 1 is effective in time periods of 1, 8 and 40, and can also select other defined time periods

Enter "GRP 2 Dflt TZ " and screen displays as follows：

5) Setting of time period of group 2：

```
GRP TZ Define    ▲
       Group No
          2
ESC              OK
```

6) Press OK to enter.
   Group 2 is effective in time periods of 2, 10 and 36, and can also select other defined time periods.

```
GRP Dflt TZ     ▲
  TZ1           2
  TZ2          10
  TZ3          36
```

7) On the analogy of this, time periods of each group can be defied according to actual requirements. Whole system can define time periods of maximum 5 groups.

5.5.3.3 User Acc Opts

User Access Options is to process correlative setting according to user's requirements，which include: To belong to grouping setting, use group time period and user time period.

Enter this menu to check certain user's Access Options status.

■ **Grouping**: divides registered users into several groups, is easy and convenient to manage.

■ **Use GRP TZs** (Use group time period): whether the user uses default time period of belonged group.

■ **User time period**: is user to set user's unlocking time and select serial number of time period already being set.

Note:

Relationships between use group time period and user time period.

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

If **use group time period** is "**Yes**", then user time period will automatically be assigned the value of serial number of time period of belonged group (group time period should be set in advance).

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

The following example is to distribute user 00001 and 00002 to group 1 and group

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

```
User Acc Opts      ▲

  Enroll ID：    00001
ESC                    OK
```
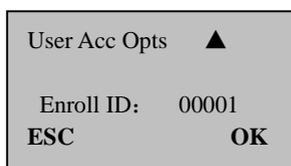
Press "**OK**" to enter Option menu of **use group time period**. Press "UP" and "DOWN" keys and select "**Yes**". User 00001 is effective in time periods of 1, 8 and 48； " Allow Group" is set as Yes, we suppose that the Group 1 verifying type is password(ability to set it under **GroupVerType** of **Access Control Option**)Screen displays as follows，

```
User 00001Opt   ▲
  Belong to GRP       1
  Use GRP TZs         Y
  TZ1                 1

  TZ2                 8
  TZ3                40
  Type               FP
  GroupVerType        Y
```
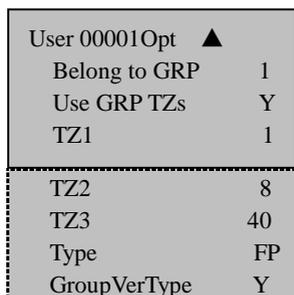
User of serial number 00001：

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

User use GroupVer Type, In spite of user has chosen any individual verifying type; all take only Group verifying type as the criterion.

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

```
┌─────────────────────────┐
│ User Acc Opts    ▲       │
│                         │
│  Enroll No：   00002    │
│ ESC            OK       │
└─────────────────────────┘
```
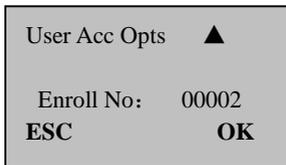
Press **OK** to enter，

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

GroupVerType is set as NO，so user use type (individual Verifying type)as following figure.

```
┌─────────────────────────┐
│ User 00002Opt   ▲       │
│   Belong to GRP     2   │
│   User GRP TZs      N   │
│   TZ1               1   │
│  ┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄┄   │
│   TZ 2              20   │
│   TZ3                   │
│   Type             FP   │
│   GroupVer type     N   │
└─────────────────────────┘
```
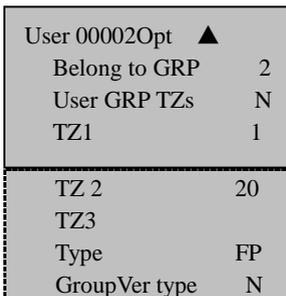
User of serial number 00002：

1）User's belonged grouping is "2", it uses user time period and does not use group time period, i.E. it is effective in time periods of 1 and 20

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

2）user use individual Verifying type, namely use fingerprint verifying type

5.5.3.4 Access Comb

Unlocking combination is the direct representation of controlling unlocking. E.g., 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, and 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).

The setting procedure of Access Combination is follow：

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

   Comb 4
   Comb 5
   Comb 6
   Comb 7
   Comb 8
   Comb 9
   Comb 10
```
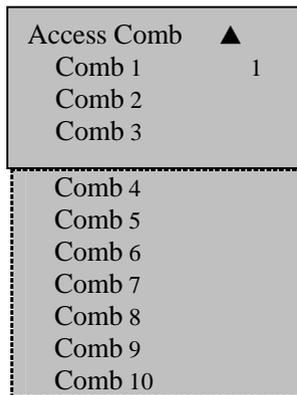
When do not process setting yet (i.e. factory default status), system

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.：

For example：

```
┌─────────────────────────────────┐
│ Access Comb    ▲                │
│   Comb1            123           │
│   Comb  2            4           │
│   Comb  3           24           │
├ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐│
│   Comb 4            45           │
│   Comb 5            15           │
│   Comb 6                         │
│   Comb 7                         │
│   Comb 8                         │
│   Comb 9                         │
│   Comb 10                        │
└ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘│
```

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 period 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 period 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 period is effective in which at least one user in each group pass 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 period is effective in which at least one user in each group pass verification together, then door can be unlocked.

Note:

Time periods that cannot pass verification

- ✧ **User time period does not select serial number of time period.**
- ✧ **Group time period does not select serial number of time period.**

✧ **Time in which user passes verification does not include any time period that is set by user.**
 ✧ **Time period is defined as forbidden.**

If time period that user sets is the time period that cannot pass verification.

 ✧ **When meet combination 2 above, user who displays prompt of "Invalid Time period 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 period 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 period. 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, and 45 as combination.

5.5.3.5 Lock

The Lock means the duration of lock drive, System requires to set fingerprint machine to control the time how long to open electronic lock, setting to "0" is close. Close lock control function. One quantity unit is 20ms; maximum value can be set as 254, i.e. 5.08s. Select this item and press "OK" to enter Options. Then press digit keys to input corresponding digits. Finally press "ESC" to exit and save setting.

5.5.3.6 DSen. Delay

DSen. Delav : Some segment time which begin after open door just begin alarm;

Press "MENU" enter main interface;

Select "Options", Press "OK" to enter;

Select "Acc Opts", Press "OK"to enter menu ;

Press UP or Down to enter , select DSen. Delav, display as follows:

```
Access Option        ▲
                     ▼
   Access Comb
   Lock            150
 ▶ Dsen Delay       10
```

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

5.5.3.7 DSen. Mode

DSen. Modes include three ：**No**, **NC, None**；**No:** No use door sensor; **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"， press "ok" enter menu；

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

```
Access Option      ▲
  Dsen delay      10
▶ Dsen mode       NO
  Duress options
```

Press **OK**， select option， press Up or Down key to change the condition of DSen. Mode.

5.5.4 Dress Options

Press "MENU"key to enter main interface；

Choose "Option"， Press"OK"key to enter the Option Menu

Select "Access Option"， Press OK to enter Menu；

Press "▲" and "▼" to scroll up or down the screen to select the

option.：

```
Access Option      ▲
  Dsen .delay    10
  Dsen .mode     NO
▶ Duress options
```
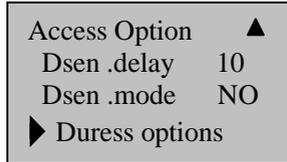
The Duress alarm option includes that duress fingerprint management. Seeking help key, alarm by1:1 validate, alarm by 1: N validate. Alarm by verifying password and alarm delay etc.

5.5.4.1 The duress fingerprint management

Use newly to enroll specialties fingerprint or define an enrolled fingerprint as the duress fingerprint, the system will trigger an alarm signal when this fingerprint has been authenticate through fair and foul.

Enter the duress alarm option, Press "▲" and "▼"to scroll up or down the screen to select the "Duress F P", Press "ok" to enter ：

```
Duress FP          ▼
▶ New Enr
  Def. duress
  Undef duress FP
- - - - - - - - - - - - - -
Undef all
- - - - - - - - - - - - - -
```
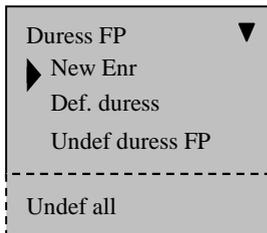
Newly enroll duress fingerprint (New Enr.)：Enroll new fingerprint as the duress fingerprint.

Define the duress fingerprint (Def.duress)：Change the enrolled fingerprint to the duress fingerprint.

Cancel the duress fingerprint (Undef duress FP): Cancel the single duress fingerprint.

Cancel all(Undef all) ：Cancel all duress fingerprints

5.5.4.2 Seeking help by key

Enter the duress alarm option, press up or down key to scroll, choose the "help key"

```
Duress Option          ▼
▶ Help Key
  1：1 trig      N
  1：N trig        N
```
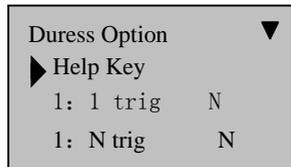
If the seeking helps by key (help key) option is defined as "y". Keep hold to press the "▼" key (more than 3 sec.), the machine will trigger appeal signal, keep hold to press "▼"key (no more than 3 sec.) and place finger or input ID No. After the authentication is positive, the system will trigger the alarm signal. If the help key option is set as "N", well then it is invalid when the "▼"key is pressed.

5.5.4.3 the mode of validation alarm

The fingerprint machine fully supports three verification modes:

1:1 match, **1: N match**, **Password authentication**, and here you can choose one or other several verification way for the duress alarm, when a user uses the option is defined as Yes, the system will produce alarm signal

```
Duress Option      ▲
  Duress FP
  Help Key
▶ 1: 1 Trig      N

   1: n Trig     N

   PWD Trig      N

   Alarm delay   10
```

5.5.4.4 Alarmdelay

Defining automated alarm time：When the duress alarm happen and the system do not directly trigger alarm signal immediately, but can define a period time until automatically trigger alarm signal (0-255sec.)

```
Duress Option      ▲
  1： N trig       Y
  Pwd trig         Y
▶ Alarm delay     10
```

5.5.5 How to set the number of failure to verify

This option is a optional item, it only exist access control machine, if times of user failure to verify equal to the value , the fingerprint machine will send alarm signal, the set step is follow.

```
Access Option      ▼
   Duress Option
 ►Alarm Cnt
   GroupVerType
```
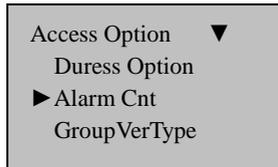
■ Press (MENU) to enter main interface.

■ Select "option" then press "OK", Press "▲" and "▼"to scroll up or down the screen to select Alarm **Cnt**.

■ Press OK and Input the value you want, the system provides with 0-9 digit to select, 0 means this function is invalid.

■ Press **OK** key. And exit

5.5.6 Group Verification★

This option also is an optional item. It only is owned by some fingerprint access control machine, if this option is set as Y(yes), the fingerprint machine will able to perform Multi-combination verification, its set step is follow.

Press "OK", Press "▲" and "▼"to scroll up or down the screen to select Group VerType, show as follow picture.

```
GroupVerType
▼
►1      FP / PW / RF
 2      FP / PW / RF
    4       FP / PW / RF
    5       FP / PW / RF
```
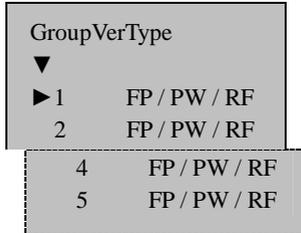
Press "▲/▼" key to choose group, press OK to local at this line, Press "▲/▼" key to select verifying type of this group, after completing. Press OK to confirm, press ESC to exit, the system will prompt whether save revised item, press OK to save it.

5.6 Auto Test

Access auto test, the following message appears：

```
Auto Test      ▼
►Run all test
 Flash test
 LCD test
     Voice test
     FP test
     Key test
     RTC test
     MP3 test
```
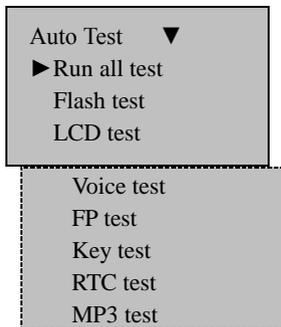
In the option, you can run system machine test. When the machine broken down, it can analyze the cause of the machine's fault and the machines were quickly and easily maintained. It tests the **Memory**, **LCD**, and **Sound**, **Fingerprint sensor**, **keypad** and **clock**. In the course of test, you should guarantee the stability of the power. Otherwise, the system's hardware was probably damaged; especially it runs the memory test.

6.How to Manage USB Flash Disk★

Choose USB flash disk management in the menu; press [OK], the following appears：

> Pen Drive Mng ▼
> ►Download AttLog
> Download User
> Upload User
>
> Download SMS
> Upload SMS
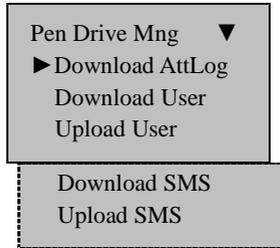
The USB flash disk can be used to download the attendance data, and download and upload employee data、SMS.

6.1 Download the attendance data

1） Plug the USB flash in the USB slot

2） Press the Menu button to enter the "USB flash disk management" menu , Press "▲" and "▼"to scroll up or down the screen to select the "Download AttLog",

> PenDrive Mng ▼
> ►Download AttLog
> Download User
> Upload User

3）Press "ok" to go on downloading data, after operation finish, this interface show as follow.

4) Press "ESC" key to exit initial interface，Take out U flash disk，The files X_attlog.dat (attendance log), X_oplog .dat (management log), and X_user will be saved in the USB flash disk(X is a symbol of machine No.

Copy   data
successfully！
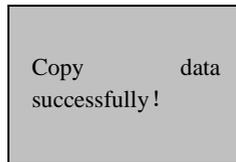
Note: It will show data copy successful when operation is finish. If it indicates No USB Disk or Please insert the USB Disk and make an examination.

6.2 Download Staff Data

The operation is similar with that of the attendance data, the file of User data (user data) and Template. data（fingerprint template）will be saved in the USB flash disk. These files shall be uploaded and downloaded at same time; it will show data copy successful when operation is finish. If it indicates NO USB Disk or Please insert the USB Disk and make an examination.

6.3 Upload Staff Data

Select Pendrive Management. Press "▲" and "▼"to scroll up or

down to select the "Upload Staff Data", Press "OK" key to perform this operation, the two file, Userdat. Template, in the U flash disk will be uploaded to fingerprint machine at same time.

6.4 Download SMS★

The operation is similar with that of the attendance data, enter **Pendrive Managemen**t, Press "▲" and "▼"to scroll up or down to select the "Download SMS", Press OK key to perform this operation, after finishing, show whether the operation is successful.

6.5 Upload SMS★

After set Short Message where is under the software, "External program"-> "Short message". Select "External program"-> "U flash disk management"-> "Export Short Message"-> "Export SMS to U flash disk", after export SMS successfully. Plug the U flash disk into fingerprint machine. Select item from fingerprint machine via "Menu"->"Pendrive Mng" -> "Upload SMS". Send the customized SMS to the fingerprint machine.

Note：These functions are only available to the fingerprint machine which own USB flash disk function. If you want to use these functions, please contact our market supporter or salesman.

7.System Information

Through system Information you can view machine all information，
Access [Menu] to Sys Info, press [OK], the following appears：

```
Sys Info        ▼
►User Cnt    206
 FP Cnt     173
 Att Log    8046

 Admin Cnt    2
 Pwd User    30
 Super Logs   263
 Free Space Inf
 Dev Info
```

The follow table illustrates what LCD showing item means

- ■ **User Cnt**: The total amount of use has been enrolled.

- ■ **FP Cnt**: The total amount of fingerprint.

- ■ **Att log** : The record of attendance which have been stored in the system

- ■ **Admin Cnt**: The total amount of administer who has been registered in the system.

- **Pwd User**: The total amount of user who use password to achieve authentication.

- **Free space info**: the remainder log capacity, how long reach set numerical value.

- **Dev Info**: About this machine information.

- **Firmware Ve**r: The version of the machine firmware.

- **Alg version**: The version of the fingerprint identification algorithm.

- **Serial Num**: Manufacture serial number.

- **Manu time**: Manufacture time.

- **S Logs**: Supper administrator's logs.

- **Vendor**: This machine's manufacture

- **Machine Name**: This machine's name.

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