F7 Access Control Terminal

User Guide



About this Guide

This guide provides <u>User</u> instructions only. For information regarding actual <u>installation</u>, refer to the F7 Installation Guide.

User Guide Disclaimer

All functions described in this document are current as of April, 2008. However, since the F7 is always being improved upon, it is remotely possible that this document may not coincide exactly with the F7 you have purchased. Every effort has been made to ensure the information in this document is complete and consistent with the F7 you have purchased. ZK Software will not assume liability for any direct or indirect financial loss resulting from any inaccuracies or omissions found in this document.

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All the functions and uses are recommended for the F7, only. Due to continuous upgrades and customization of the products, we do not take any responsibility for any or part of the functions not present in the F7 which you purchased. Design and Specifications are subject to change without notice.

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Contents

- **I** Considerations
- **II Abbreviated Operating Procedures**
- **III Introduction to Fingerprint Recognition Technology**
- 1. User Management
 - A) Enrolling Users
 - A1) Enrolling Fingerprints
 - **B1) Enrolling Passwords**
 - C1) Enrolling Fingerprints and Passwords
 - B) Enrolling Administrators'
 - **B1) Enrolling Fingerprint**
 - **B2) Enrolling Password**
 - **B3**) Enrolling Fingerprints and Passwords
 - C) Delete
- 2. Changing Date and Time
- 3. Changing Date Format
- 4. Advanced Settings
 - A) Resetting F7
 - **B)** Deleting Attendance Logs
 - C) Clear All Data
 - D) Clear Administrators' privileges
 - E) Show Score
 - F) 1:N Fingerprint Matching Threshold
 - **G) Must Input ID**
 - H) 1:1 Fingerprint Matching Threshold
 - I) Voice

- J) Button Beep
- K) Adjust Volume
- 5. Power Management
- **6 Communications Options**
 - A) Network Connectivity
 - B) RS 232/485 Serial Connectivity
- 7 Log Options
- 8 Access Control
 - A) Time Zone (Period) Settings
 - **B)** Group Time Zone (Period) Settings
 - C) User Access Options
 - **D)** Access Combination Settings
 - E) Lock
 - F) Door Sensor Delay
 - **G)** Door Sensor Mode
 - H) Door Sensor Alarm
 - I) Duress Options
- 9 Auto Test
- 10 System Information
- 11 Maintenance

I – CONSIDERATIONS

Environmental Considerations

Do not install or operate the F7 where there is very strong light. Intense light will adversely impact the fingerprint sensor's ability to accurately read fingerprints. The F7 is primarily designed for indoor use. If it must be installed outdoors, protect it with an all-weather protective covering such as outdoor enclosures manufactured by STI USA (www.sti-usa.com).

The F7 operating temperature range is 0° to 40° C (32° to 105° F). Do not operate the F7 in very hot environments. Keep the F7 away from direct heat sources and provide adequate ventilation to prevent the F7 from overheating.

II - Abbreviated Operating Procedures

Step 1

Install the F7 and power it up.

Step 2

Enroll users by registering his/her fingerprints or passwords. If the F7 is operating in stand-alone mode (where no 3rd party access control panel exists), assign users' security privileges directly on the F7.

If using the F7 with a 3rd party Wiegand access control panel, users' security privileges will be maintained by the access control panel and NOT the F7.

Step 3

After enrolling user(s), verify his/her enrolled fingerprint(s) or password is recognized by the F7.

Step 4:

Configure the F7 communication settings. Then download the users' newly enrolled fingerprints from the F7 onto a computer. Data can be transmitted via TCP/IP or by a cross-over cable and laptop computer

Note;

We always recommend backing up the fingerprint templates on to a computer or removable media. If the F7 ever fails or is vandalized, having a "backup" eliminates the need of having to re-enroll all your users all over again. Having a "template backup" can potentially save you a lot of time.

Step 5

Verify the F7 displays the correct day and time

III – Introduction to Fingerprint Recognition Technology

Prior to operating the F7 it is essential to first understand how fingerprint recognition technology works.

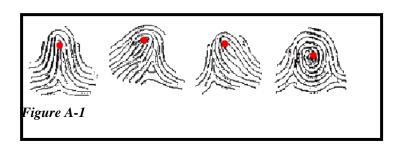
Adding and verifying fingerprints is the core function of the F7. Once a thorough understanding of fingerprint recognition technology is obtained, you'll find your experience with the F7 to be very productive and rewarding.

How fingerprint recognition technology works

When the user places his/her finger on a Fingerprint Recognition Device (i.e. F7) for the first time, the fingerprint is scanned and converted into a computer-generated "biometric template". The templates can only be recognized by each respective biometric manufacturers' devices. Also note that these "templates" are NOT actual fingerprint images. "Real" fingerprint images cannot be re-generated from these templates.

All fingerprints contain a number of unique physical characteristics called minutiae. Minutia include certain visible aspects of fingerprints such as ridges, ridge endings, and bifurcation (forking) of ridges. Most of the minutiae are found in the core points of fingerprints, and the core points themselves are found near the center of the fingerprint on the fleshy pad of the finger.

Figure A-1 shows the positions of core points within fingerprints. The core points are represented by the red dots in the figure below (*note: if this manual is printed in black and white you'll only see a thick dot near the upper ridges in the figure below):*



A core point is defined as the topmost point on the innermost upward recurring ridge line.

A user is considered "enrolled" in the F7 after his/her fingerprint(s) or password has been successfully registered in the database of the F7.

During the enrollment process, when the user places his/her finger(s) on the F7 fingerprint sensor, the F7 takes a picture of that user's finger's key minutiae points. The F7 then uses its proprietary mathematical algorithm and converts that picture into a unique mathematical template which is comparable to a 60-digit password. This unique template is then encrypted and stored in the F7 database.

IMPORTANT NOTE

Privacy issues should never become a concern when using the F7, since **NO REAL IMAGE OF A USER'S FINGERPRINT IS ACTUALLY STORED.** Instead, ONLY the minutiae-based **templates** are actually stored.

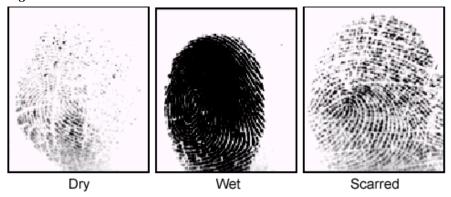
Each time a user's fingerprint is scanned, the F7 searches its database for a matching fingerprint. If the F7 finds a user's matching fingerprint, then his/her "attendance/door access" is recorded in the F7 "audit log" and will be noted in subsequent reports.

Getting Good Fingerprint Images

The quality of fingerprint images is relative to the number of minutiae points captured by the F7's sensor. Fingerprint images not possessing an adequate number of minutiae points may be unreadable. For those users whose fingerprint images lack sufficient minutia points and cannot be read by the sensor, it's advised to issue those few users a secret password, instead. You may also consider purchasing an F7 with an integrated card reader, if you prefer not assigning passwords.

Figure A-2 shows poor-quality fingerprints, characterized by smudged, faded or otherwise distorted areas on the fingerprint. These conditions can be caused by excessive dryness or wetness, excessive or insufficient pressure, or scarring of the skin at the fingertip.

Figure A-2



The F7 fingerprint matching algorithm is often capable of extracting the correct minutiae even without the benefit of a perfect print. However, the positioning of the finger and the relative moisture and pressure of the fingerprint when it is placed on the sensor are important contributing factors in achieving a good consistent fingerprint match.

Correcting wet or dry fingerprint images:

When the temperature is very cold or just after washing hands, fingerprints often become very dry. In this case, the user should moisturize his/her fingerprint simply by breathing on the fleshy pad of his/her fingertip prior to placing his/her finger on the sensor. The moisture from his/her breath transferred to his/her finger should help improve the recognition of his/her fingerprint.

Conversely, if the fingerprint is too wet, the ridges and valleys are rendered indistinguishable. The lack of recognizable minutiae causes wet fingerprints to be rejected by the F7. This can be remedied simply by swiping the finger on a clean dry towel or cloth.

How much pressure is required for a good-quality fingerprint?

If too much pressure is applied to the sensor window, the finger's ridges become pressed together and create an indistinguishable image. Applying too much pressure (similar to fingerprints that are too wet) will create a "blurred" image which the F7 sensor might not recognize. It is similar to using too much ink on a stamp; the stamp will create a smeared image which is unrecognizable.

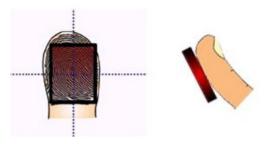
Conversely, if too little pressure is applied, the resulting image will be similar to the dry fingerprint. Similar again to a stamp, if not enough ink is used, the image will be barely recognizable.

Issues related to moisture and pressure are easily addressed. A little practice is all that is needed for users to get the feel of it.

Be sure to maintain contact with the fingerprint sensor for 2 full seconds, until the F7 responds. The F7 has both audio and visual indicators which respond when the F7 senses a finger.

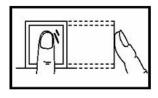
Proper Finger Placement

The user's finger should completely cover the sensor. The finger should be placed flat and in the center of the sensor. The finger should cover at least 80% of the sensor as shown below:

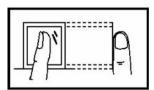


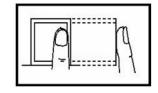
The finger should NOT be placed in the following positions:

Not flat Not centered

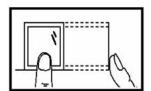


Not flat





Not centered



Identity Verification

The F7 will NOT record an employee's attendance OR allow door access UNTIL the individual's identity is verified.

The F7 uses various means to verify a user's identity:

- 1. Fingerprint Matching
- 2. Password Matching

Fingerprint Matching

The F7 supports two methods of fingerprint matching, 1:N and 1:1.

1: N Fingerprint Matching

When using **1:N** Fingerprint Matching, the F7 will place your fingerprint ("**1**") in its temporary memory and then compare it to <u>ALL</u> ("**N**") the fingerprint templates stored in the F7 database (up to 1000 templates).

By using **1:N** matching the user enjoys the convenience of not having to additionally enter his/her User ID. NO. prior to placing his/her finger on the sensor. **1:N** is basically 1-touch matching. It is the FASTEST and EASIEST method of fingerprint matching.

1: 1 Fingerprint Matching (ID. NO +fingerprint)

When too many users' fingerprints are not easily recognized by the F7, the F7 can be set to perform **1:1** fingerprint matching.

1:1 matching requires the added step of first entering the user's ID. NO. However, 1:1 matching is more consistent than 1:N matching.

Password Matching

If too many users' have difficulty with fingerprint matching, users can register with **passwords**, instead of fingerprints.

Door-Access Considerations

The F7 is designed to work as an Access Control terminal and a Time & Attendance recorder.

Door Access Control decisions are based upon "Who" the user is and "When" the user is permitted door access.

The F7 will verify "who" the user is. But "when" the user is actually permitted door access can be decided EITHER by the F7 OR a 3rd party Access Control panel.

If the F7 validates the identity of the user AND determines the user is permitted door access AT THAT PARTICULAR TIME, the door will release.

If the F7 verifies the user's identity BUT determines the user is NOT permitted door access AT THAT PARTICULAR TIME, the door will NOT release.

Basic Concepts

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

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

The two most important functions are user enrollment and user verification.

User Enrollment/Verification

Enrollment is the process of associating an ID number to the user's finger/s to create a template. This template is stored in the memory of F7 for future verification.

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

The enrollment process takes approximately 2-4 seconds.

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

Ideally, we recommend enrolling one finger from each hand so that in case of injury to one hand, the user can use the finger from the other hand as a backup. It is recommended to enroll either index fingers and/or middle fingers.

For users with extremely thin fingers, we recommend to enroll the thumb. For users whose fingers are difficult to enroll or cannot be enrolled, we recommend to enroll the password along with fingerprint.

Match Threshold Levels

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

The Match Threshold Levels establishes a balance between False Acceptance Rate (FAR) and False Rejection Rate (FRR). FAR measures how often a non-authorized user is falsely recognized and granted access to the system. FRR measures how often an enrolled and authorized user, who should be granted access to the system, is denied on the basis that the system did not recognize him/her.

Note that you <u>cannot</u> set match threshold levels on a <u>per user</u> basis. The **threshold-setting is universal**, for the ENTIRE user-population.

If too many users are experiencing difficulty having his/her fingerprint(s) read, we recommend using 1:1 matching (i.e. User first enters his/her User ID, and then places his/her finger on the sensor for verification).

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

So if too many users have fingerprint(s) having difficulty being read, the match threshold level can (and should) be reduced.

Table 1—1 Suggested Match Threshold Settings

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

User ID Numbers

Each fingerprint is assigned a unique User ID Number. This ID number is used to call up the fingerprint template from the F7 database, each time the verification is requested. ID numbers can also be called up via the keypad.

Authority (status) Levels

The F7 has four authority or status levels;

1. Users

People whose identity must be verified prior to releasing the door or having his/her attendance recorded. Users have no administrative privileges.

2. Enrollers

People who are authorized **ONLY** to **enroll** new users or delete users from the system.

3. Administrator

People who can perform other operations, except set advanced options and enroll administrators.

4. Supervisors

People who have access to **ALL** functions.

Note:

Until an actual Administrator is enrolled in the system, any user can access the Menu System.

Start-up window

Plug the power adaptor to the main power supply or hit the Power button on the keypad and the following "startup window" appears on the F7.



Note:

The actual current date/time will appear.

Enrollment and Verification Procedures

This section describes how to enroll and verify users on the F7.

Note:

You normally must have Enroller, Administrator, or Supervisor status to enroll users. But until an Admin is enrolled, all users have access to all the menu functions.

Enrolling Users

The first "enroller" with a new F7 will have the capability of enrolling other users. If you will be the administrator of the F7, be sure to select "Administrator" when enrolling your fingerprint(s)".

There are three modes of enrollment;

- 1. Fingerprint enrollment
- 2. Password enrollment
- 3. Fingerprint & password enrollment

The type of enrollment to be selected depends on the environment and how easily the users' fingerprints can be read by the F7.

Fingerprint enrollment should be used when the majority of users' fingerprints can be read. This is typical of most office environments.

Password enrollment should be used for users who <u>cannot</u> be enrolled nor verified by his/her fingerprint. It is not uncommon to have some users whose fingerprints are simply too difficult for the F7 to read.

Fingerprint & Password enrollment allows users' fingerprint(s) AND password to be registered together, at the same time. Otherwise, these are normally 2 separate operations.

User Management

The User Management menu allows you to enroll and delete users and his/her respective fingerprint(s) and password. Some F7 models can also enroll/verify Prox, HID and Mifare cards (aka PIN/FP cards);

Enroll User

Enroll fingerprint
Enroll Password
Enroll Fingerprint and Password

Enroll Admin

Enroll fingerprint
Enroll Password
Enroll Fingerprint and Password

Delete

Enroll Users

Users (not including Admins, Supervisors or Enrollers) have NO "administrative" access to the F7, but can gain door access and have his/her attendance recorded.

Note:

Until an actual "Administrator" is enrolled in the F7, ALL "users" enrolled on the F7 DO "temporarily" have administrative access. Therefore it is important to enroll an "administrator" on the F7 soon after initial installation.

"Users" can enroll with three methods;

- Fingerprints
- Passwords
- Fingerprints and Passwords

Enroll Fingerprint (for Users)

To start Fingerprint enrollment, press the **M** (Menu) key on the F7.



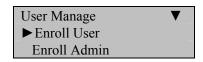
Scroll with the ▲/▼ keys and place the cursor (►) alongside User Manage



Press the **OK** key.

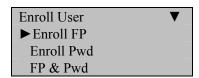


Scroll with the ▲/▼ keys and place the cursor (►) alongside Enroll User.



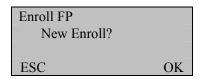
Press the **OK** key.

Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Enroll FP.



Press the **OK** key.

The F7 will prompt you;



If this is a NEW User, then press OK.

If you are enrolling an <u>additional</u> fingerprint to an <u>existing</u> user on the F7, then press the \bigcirc (cancel/ESC) key, instead.



Note:

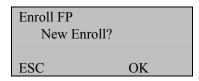
If you press **(cancel/ESC)** key, the F7 will prompt you for the existing User's ID number;



Note:

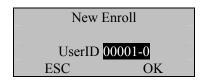
The F7 allows you to add up to 9 "backup" fingers for any of the users.

In this first example we'll assume we're enrolling a fingerprint for a NEW user to the F7.



Since we are enrolling a New User, press **OK**

The F7 will then prompt you with the next available User ID;



In this example, no user has yet been enrolled on the F7. So the next available User ID# is <u>00001</u>.

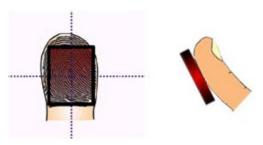
Press the **OK** key to accept <u>00001</u>, or manually key in a different number if desired.

The F7 will then prompt;



Remember the rules for proper finger placement;

The user's finger should completely cover the sensor. The finger should be placed flat and in the center of the sensor. The finger should cover at least 80% of the sensor as shown below:



The finger should NOT be placed in the following positions:

Not flat

Not centered

Not centered

Not centered

Place your finger on the sensor for a full 2 seconds.



After the F7 scans your fingerprint successfully, it will "beep" and then prompt you <u>briefly</u> with;

New Enroll 00001-1 Remove Finger ESC/Exit

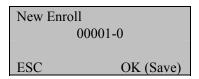
Then you'll be prompted;

New Enroll 00001-1 Second Press ESC/Exit

Remove your finger, and then place your finger on the sensor a 2^{nd} time. Again, you'll be prompted briefly;

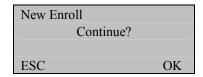
New Enroll 00001-1 Remove Finger ESC/Exit

Remove your finger, and then place your finger on the sensor a 3^{rd} and final time. You'll then be prompted;



Press the **OK** key to accept the newly enrolled finger.

The F7 will then prompt you with;

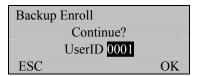


UserID <u>0001</u> has now been successfully enrolled with <u>one</u> fingerprint.

If you wish to continue enrolling additional \underline{users} , press the $\overline{\textbf{OK}}$ key and follow the same procedures.

If you're finished enrolling additional <u>users</u>, press the **C** (cancel/ESC) key.

When pressing **C** (cancel/ESC) key, the F7 will prompt you;



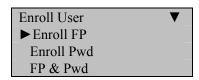
If you wish to add a "backup finger" for UserID <u>00001</u> press the OK key.

Note:

Ideally, we recommend enrolling one finger from each hand so that in case of injury to one hand, the user can use the finger from the other hand as a backup. It is recommended to enroll either index fingers and/or middle fingers.

After enrolling one or more fingerprints for UserID <u>00001</u> press the <u>C</u> (cancel/ESC) key.

You'll note pressing the **C** (cancel/ESC) key takes you back to the previous menu;



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Note:

The actual current date/time will appear.

Test the newly enrolled fingerprint by having UserID $\underline{00001}$ place his/her finger on the sensor.

If successful, the F7 will respond with an audible "*Thank you*", and the screen will display;



Note:

The F7 will make a note in its transaction log that User ID <u>0001</u> accessed the F7. This information can be used for Time & Attendance software applications and/or for door access.

Enroll Password (for Users)

Password Enrollment should be used for those few users whose fingerprints cannot be read by the F7's fingerprint sensor.

To start Password enrollment, press the \mathbf{M} (menu) key on the F7.

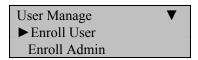


Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside User Manage



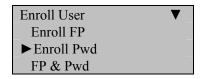
Press the **OK** key.

Scroll with the ▲/▼ keys and place the cursor (►) alongside Enroll User.



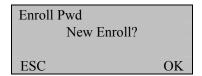
Press the **OK** key.

Scroll with the ▲/▼ keys and place the cursor (►) alongside Enroll Pwd.



Press the **OK** key.

The F7 will prompt you;



If this is a NEW User, then press **OK**

If you are adding/changing a password for an <u>existing</u> user on the F7, then press the **Q** (cancel/ESC) key.

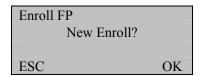


Note:

If you press **C** (cancel/ESC) key, the F7 will prompt you for the existing User's ID number;



In this first example we'll assume we're enrolling a password for a NEW user.



Since we are enrolling a New User, press OK

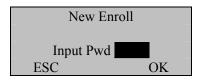
The F7 will then prompt you with the next available User ID;



In this example, no user has yet been enrolled on the F7. So the next available User ID# is <u>00001</u>.

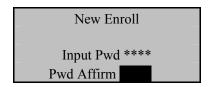
Press the **OK** key to accept 00001, or manually key in a different number if desired.

The F7 will then prompt;



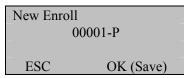
Enter a 4-digit password and then press the **OK** key.

The F7 will prompt you;



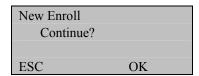
Enter your chosen 4-digit password again.

Then press the **OK** key. The F7 will then prompt you;



77

Press the OK key. The F7 will then prompt you;

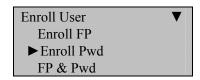


If you'd like to enroll a password for a <u>new</u> user, then press **OK**.

If you'd like to change a password for an existing user, then press **ESC**

Follow the same procedure described above for adding/changing passwords.

You'll note pressing the **C** (cancel/ESC) key takes you back to the previous menu;



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Note:

The actual current date/time will appear.

Test the newly enrolled password;

At the start-up window, have User ID <u>00001</u> **FIRST** enter his/her User ID number and **THEN** press the **OK** key.

After entering $\underline{1}$ and pressing **OK** the F7 will prompt;



Now enter the password created by User ID <u>00001</u> and then press **OK**

If successful, the F7 will respond with an audible "*Thank you*", and the screen will display;



Pin: 00001 Verified.

Note:

The F7 will make a note in its transaction log that User ID <u>00001</u> accessed the F7. This information can be used for Time & Attendance software applications and/or for door access.

Enroll Fingerprint & Password (for Users)

Note:

You can enroll users with both a fingerprint AND a password in the same step.

To start Fingerprint AND Password enrollment, press the \mathbf{M} (menu) key on the F7.



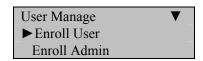
Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside User Manage



Press the **OK** key.

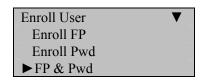


Scroll with the ▲/▼ keys and place the cursor (▶) alongside Enroll User.



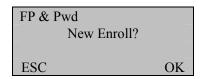
Press the **OK** key.

Scroll with the ▲/▼ keys and place the cursor (►) alongside FP & Pwd.



Press the **OK** key.

The F7 will prompt you;



If this is a NEW User, then press **OK**

If you are enrolling an <u>additional</u> fingerprint to an <u>existing</u> user on the F7, then press the \bigcirc (cancel/ESC) key.



Note:

If you press **(cancel/ESC)** key, the F7 will prompt you for the existing User's ID number;



Note:

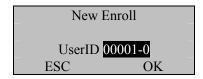
The F7 allows you to add up to 9 "backup" fingers for any of the users.

In this first example we'll assume we're enrolling a fingerprint AND password for a NEW user to the F7.



Since we are enrolling a New User, press **OK**

The F7 will then prompt you with the next available User ID;



In this example, no user has yet been enrolled on the F7, so the next available User ID# is <u>00001</u>.

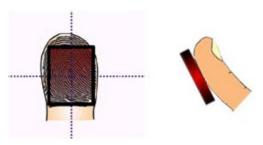
Press the **OK** key to accept <u>00001</u>, or manually key in a different number if desired.

The F7 will then prompt;



Remember the rules for proper finger placement;

The user's finger should completely cover the sensor. The finger should be placed flat and in the center of the sensor. The finger should cover at least 80% of the sensor as shown below:



The finger should NOT be placed in the following positions:

Not flat

Not centered

Not centered

Not centered

Place your finger on the sensor for a full 2 seconds.



After the F7 scans your fingerprint successfully, it will "beep" and then prompt you <u>briefly</u> with;

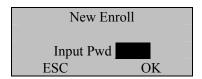
New Enroll 00001-1 Remove Finger ESC/Exit

Then you'll be prompted;

New Enroll 00001-1 Second Press ESC/Exit Remove your finger, and then place your finger on the sensor a 2^{nd} time. Again, you'll be prompted briefly;

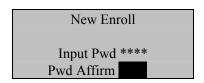
New Enroll 00001-1 Remove Finger ESC/Exit

Remove your finger, and then place your finger on the sensor a 3^{rd} and final time. You'll then be prompted;



Enter a 4-digit password and then press the **OK** key.

The F7 will prompt you;

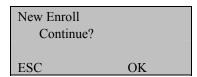


Enter your chosen 4-digit password again.

Press the OK key. The F7 will then prompt you;



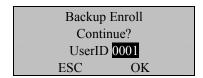
Press the **OK** key. The F7 will then prompt you;



If you'd like to enroll an additional new user, then press **OK**.

If you're finished enrolling additional users, press the C (cancel/ESC) key.

When pressing C (cancel/ESC) key, the F7 will prompt you;



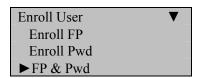
If you wish to add a "backup finger" for UserID <u>00001</u> press the OK key.

Note:

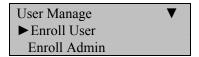
Ideally, we recommend enrolling one finger from each hand so that in case of injury to one hand, the user can use the finger from the other hand as a backup. It is recommended to enroll either index fingers and/or middle fingers.

After enrolling one or more fingerprints to UserID <u>00001</u> press the **ESC** key.

You'll note pressing the \bigcirc (cancel/ESC) key takes you back to the previous menu;



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;

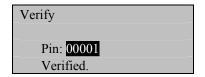


Note:

The actual current date/time will appear.

Test the newly enrolled fingerprint by having UserID $\underline{00001}$ place his/her finger on the sensor.

If successful, the F7 will respond with an audible "*Thank you*", and the screen will display;

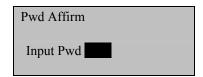


Also test the newly enrolled password;



At the start-up window, have User ID <u>00001</u> **FIRST** enter his/her User ID number and **THEN** press the **OK** key.

After entering $\underline{1}$ and pressing **OK** the F7 will prompt;



Now enter the password created by User ID <u>00001</u> and then press **OK**

If successful, the F7 will respond with an audible "*Thank you*", and the screen will display;



Note:

The F7 will make a note in its transaction log that User ID <u>00001</u> accessed the F7. This information can be used for Time & Attendance software applications and/or for door access.

Enrolling Admins

"Admins" (non-Users) fall into 3 categories;

Enrollers:

People who are authorized **ONLY** to **enroll** new users or delete users from the system. No other F7 "system" functions are accessible.

Administrator:

People who can perform other operations, except set advanced options and enroll administrators.

Supervisors:

People who have access to **ALL** functions.

Note:

Until an actual "Administrator" is enrolled in the system, ALL "users" enrolled on the F7 "temporarily" have administrative access. Therefore it is important to enroll an administrator on the F7 soon after initial installation.

Admins can enroll with three methods;

- Fingerprints
- Passwords
- Fingerprints and Passwords

Enroll Fingerprint (for Admins)

To start Fingerprint enrollment, press the **M** (menu) key on the F7.



Scroll with the ▲/▼ keys and place the cursor (►) alongside User Manage



Press the **OK** key.

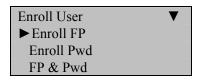


Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside Enroll Admin.



Press the **OK** key.

Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Enroll FP.



Press the **OK** key.

The F7 will prompt you;



Scroll with the $\blacktriangle/\blacktriangledown$ keys to choose the "authority status" of the Admin you are enrolling.

3 types of "Admins" to choose from;

Enrollers:

People who are authorized **ONLY** to **enroll** new users or delete users from the system. No other F7 "system" functions are accessible.

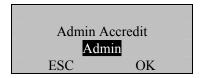
Administrator:

People who can perform other operations, except set advanced options and enroll administrators.

Supervisors:

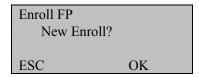
People who have access to **ALL** functions.

Scroll with the $\blacktriangle/\blacktriangledown$ keys to choose the "authority status" of the Admin you are enrolling (i.e. Enroller, Admin or Supervisor).



Press the **OK** key after selecting "Admin type".

The F7 will prompt you;



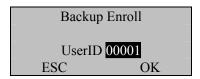
If this is a NEW "Admin", then press **OK**

If you are enrolling an <u>additional</u> fingerprint to an <u>existing</u> Admin on the F7, then press the \bigcirc (cancel/ESC) key



Note:

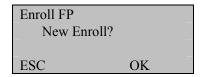
If you press (cancel/ESC) key, the F7 will prompt you for the existing Admin's ID number;



Note:

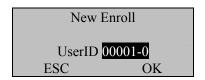
The F7 allows you to add up to 9 "backup" fingers.

In this first example we'll assume we're enrolling a fingerprint for a NEW Admin.



Since we are enrolling a New Admin, press OK

The F7 will then prompt you with the next available User ID number;



In this example, no Admin has yet been enrolled on the F7, so the next available User ID# is $\underline{00001}$.

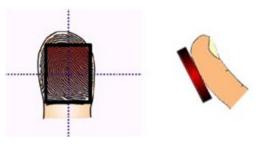
Press the **OK** key to accept <u>00001</u>, or manually key in a different number if desired.

The F7 will then prompt;

New Enroll 00001-0 Place Finger . . . ESC/Exit

Remember the rules for proper finger placement;

The user's finger should completely cover the sensor. The finger should be placed flat and in the center of the sensor. The finger should cover at least 80% of the sensor as shown below:



The finger should NOT be placed in the following positions:

Not flat

Not centered

Not centered

Not centered

Place your finger on the sensor for a full 2 seconds.



After the F7 scans your fingerprint successfully, it will "beep" and then prompt you <u>briefly</u> with;

New Enroll 00001-1 Remove Finger ESC/Exit

Then you'll be prompted;

New Enroll 00001-1 Second Press ESC/Exit

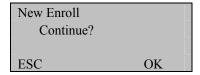
Remove your finger, and then place your finger on the sensor a 2^{nd} time. Again, you'll be prompted briefly;

New Enroll 00001-1 Remove Finger ESC/Exit Remove your finger, and then place your finger on the sensor a 3rd and final time. You'll then be prompted;



Press the **OK** key to accept the newly enrolled finger.

The F7 will then prompt you with;

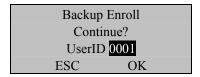


UserID <u>00001</u> has now been successfully enrolled with <u>one</u> fingerprint.

If you wish to continue enrolling additional Admins, press the **OK** key and follow the same procedures.

If you're finished enrolling additional Admins, press the **C** (cancel/ESC) key.

When pressing **©** (cancel/ESC) key, the F7 will prompt you;



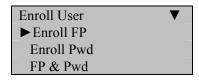
If you wish to add a "backup finger" for UserID <u>00001</u> press the **OK** key.

Note:

Ideally, we recommend enrolling one finger from each hand so that in case of injury to one hand, the user can use the finger from the other hand as a backup. It is recommended to enroll either index fingers and/or middle fingers.

After enrolling one or more fingerprints to UserID <u>00001</u> press the <u>C</u> (cancel/ESC) key.

You'll note pressing the **C** (cancel/ESC) key takes you back to the previous menu;



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Note:

The actual current date/time will appear.

Test the newly enrolled fingerprint by having UserID $\underline{00001}$ place his/her finger on the sensor.

If successful, the F7 will respond with an audible "*Thank you*", and the screen will display;



Note:

The F7 will make a note in its transaction log that User ID <u>00001</u> accessed the F7. This information can be used for Time & Attendance software applications and/or for door access.

Enroll Password (for Admins)

Password Enrollment should be used for those few Admins whose fingerprints cannot be read by the F7's fingerprint sensor.

To start Password enrollment, press the **M** (menu) key on the F7.

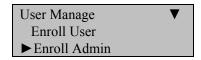


Scroll with the ▲/▼ keys and place the cursor (►) alongside User Manage



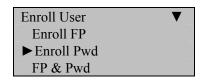
Press the **OK** key.

Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside Enroll Admin.



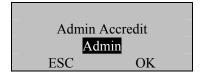
Press the **OK** key.

Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Enroll Pwd.



Press the **OK** key.

The F7 will prompt you;



Scroll with the $\blacktriangle/\blacktriangledown$ keys to choose the "authority status" of the Admin you are enrolling.

There are 3 types of "Admins" to choose from;

Enrollers

People who are authorized **ONLY** to **enroll** new users or delete users from the system. No other F7 "system" functions are accessible.

Administrator

People who can perform other operations, except set advanced options and enroll administrators.

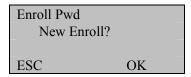
Supervisors

People who have access to ALL functions

Scroll with the $\blacktriangle/\blacktriangledown$ keys to choose the "authority status" of the Admin you are enrolling.



Press the **OK** key after selecting "Admin type".



If this is a NEW Admin, then press **OK**

If you are adding/changing a password for an <u>existing</u> Admin on the F7, then press the **©** (cancel/ESC) key.

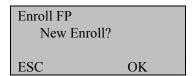


Note:

If you press **(cancel/ESC)** key, the F7 will prompt you for the existing Admin's ID number;

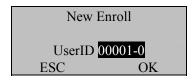


In this first example we'll assume we're enrolling a password for a NEW Admin.



Since we are enrolling a New User, press OK

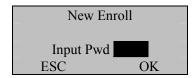
The F7 will then prompt you with the next available User ID;



In this example, no user has yet been enrolled on the F7, so the next available User ID# is <u>00001</u>.

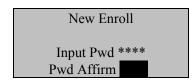
Press the **OK** key to accept <u>00001</u>, or manually key in a different number if desired and then press **OK**

The F7 will then prompt;

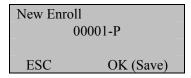


Enter a 4-digit password and then press the **OK** key.

The F7 will prompt you;

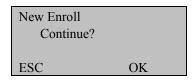


Re-enter the very same 4-digit password and then press the **OK** key. The F7 will then prompt you;



107

Press the OK key. The F7 will then prompt you;

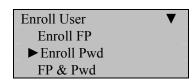


If you'd like to enroll a password for a new or existing Admin, then press **OK**.

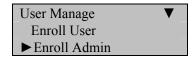
If you'd like to change a password for an existing Admin, then press (cancel/ESC) key

Follow the same procedure described above for adding/changing passwords.

You'll note pressing the **C** (cancel/ESC) key takes you back to the previous menu;



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



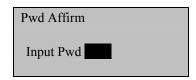
Note:

The actual current date/time will appear.

Test the newly enrolled password;

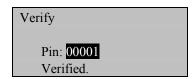
At the start-up window, have User ID <u>00001</u> **FIRST** enter his/her User ID number and **THEN** press the **OK** key.

After entering $\underline{1}$ and pressing **OK** the F7 will prompt;



Now enter the password created by User ID <u>00001</u> and then press **OK**

If successful, the F7 will respond with an audible "*Thank you*", and the screen will display;



Note:

109

The F7 will make a note in its transaction log that User ID 0001 accessed the F7. This information can be used for Time & Attendance software applications and/or for door access.

Enroll Fingerprint & Password (for Admins)

Note:

You can enroll Admins with both a fingerprint AND a password in the same step.

To start Fingerprint AND Password enrollment, press the \mathbf{M} (menu) key on the F7.



Scroll with the ▲/▼ keys and place the cursor (►) alongside User Manage



Press the **OK** key.

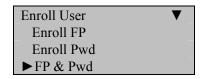


Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside Enroll Admin.



Press the **OK** key.

Scroll with the ▲/▼ keys and place the cursor (►) alongside FP & Pwd.



Press the **OK** key.

The F7 will prompt you;



Scroll with the $\blacktriangle/\blacktriangledown$ keys to choose the "authority status" of the Admin you are enrolling.

Recall, there are 3 types of "Admins" to choose from;

Enrollers

People who are authorized **ONLY** to **enroll** new users or delete users from the system. No other F7 "system" functions are accessible.

Administrator

People who can perform other operations, except set advanced option and enroll administrators.

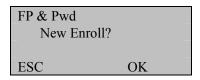
Supervisors

People who have access to ALL functions

Scroll with the \triangle/∇ keys to choose the "authority status" of the Admin you are enrolling.



Press the **OK** key after selecting "Admin type" (i.e. Enroller, Admin or Supervisor)



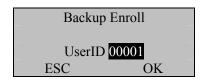
If this is a NEW Admin, then press OK

If you are enrolling an <u>additional</u> fingerprint to an <u>existing</u> Admin, then press the (cancel/ESC) key.



Note:

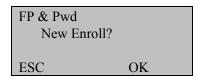
If you press (cancel/ESC) key, the F7 will prompt you for the existing User's ID number;



Note:

The F7 allows you to add up to 9 "backup" fingers for any of the users.

In this first example we'll assume we're enrolling a fingerprint AND password for a NEW Admin to the F7.



Since we are enrolling a New Admin, press OK

The F7 will then prompt you with the next available User ID number.



In this example, no user has yet been enrolled on the F7, so the next available User ID# is <u>00001</u>.

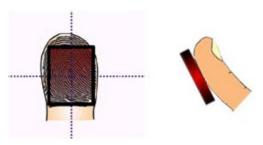
Press the **OK** key to accept <u>00001</u>, or manually key in a different number if desired.

The F7 will then prompt;



Remember the rules for proper finger placement;

The user's finger should completely cover the sensor. The finger should be placed flat and in the center of the sensor. The finger should cover at least 80% of the sensor as shown below:



The finger should NOT be placed in the following positions:

Not flat

Not centered

Not centered

Not centered

Place your finger on the sensor for a full 2 seconds.



After the F7 scans your fingerprint successfully, it will "beep" and then prompt you <u>briefly</u> with;

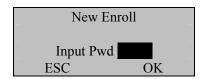
New Enroll 00001-1 Remove Finger ESC/Exit

Then you'll be prompted;

New Enroll 00001-1 Second Press ESC/Exit Remove your finger, and then place your finger on the sensor a 2nd time. Again, you'll be prompted briefly;

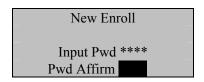


Remove your finger, and then place your finger on the sensor a 3^{rd} and final time. You'll then be prompted;

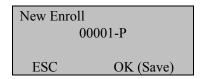


Enter a 4-digit password and then press the **OK** key.

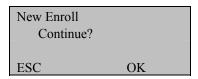
The F7 will prompt you;



Re-enter the very same 4-digit password and then press the **OK** key. The F7 will then prompt you;



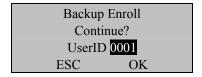
Press the OK key. The F7 will then prompt you;



If you'd like to enroll an additional new Admin, then press **OK**.

If you're finished enrolling additional Admins, press the (cancel/ESC) key.

When pressing **C** (cancel/ESC) key, the F7 will prompt you;



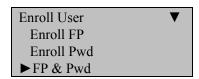
If you wish to add a "backup finger" for UserID <u>00001</u> press the **OK** key.

Note:

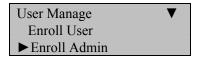
Ideally, we recommend enrolling one finger from each hand so that in case of injury to one hand, the user can use the finger from the other hand as a backup. It is recommended to enroll either index fingers and/or middle fingers.

After enrolling one or more fingerprints to UserID <u>00001</u> press the <u>(cancel/ESC)</u> key.

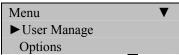
You'll note pressing the **C** (cancel/ESC) key takes you back to the previous menu;



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Note:

The actual current date/time will appear.

Test the newly enrolled fingerprint by having UserID $\underline{00001}$ place his/her finger on the sensor.

If successful, the F7 will respond with an audible "*Thank you*", and the screen will display;

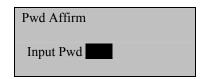


Also test the newly enrolled password;



At the start-up window, have User ID <u>00001</u> **FIRST** enter his/her User ID number and **THEN** press the **OK** key.

After entering $\underline{1}$ and pressing **OK** the F7 will prompt;



Now enter the password created by User ID <u>00001</u> and then press **OK**

If successful, the F7 will respond with an audible "*Thank you*", and the screen will display;



Note:

The F7 will make a note in its transaction log that User ID <u>00001</u> accessed the F7. This information can be used for Time & Attendance software applications and/or for door access.

Deleting Users

Note:

You can delete fingerprints, passwords or an entire user.

Deleting old/unused fingerprint templates makes room for new fingerprint templates.

Deleting may be necessary when:

- A user's fingerprint is no longer recognized (possibly caused by injury) or his/her password has been forgotten.
- The user is no longer employed and his/her fingerprint(s)/password and user information need to be deleted from the S900 for security purposes.

To perform Deletion, press the **M** (menu) key on the F7.



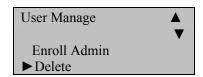
Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside User Manage



Press the **OK** key.

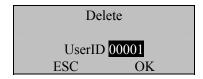


Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Delete.



Press the **OK** key.

The F7 will prompt you with the Delete menu;



Enter the User ID whose information you'd like to delete. Then press **OK**.

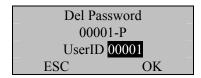
The F7 will then prompt;



Press **OK** to delete fingerprint <u>00001-0</u>.

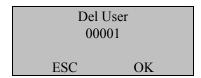
If the user has additional fingerprints enrolled, the F7 will prompt you with the choice of deleting each individual fingerprint enrolled by the user (i.e. <u>00001-1</u>, <u>00001-2</u>, etc).

If the user also has a password enrolled, after deleting all the fingerprints for that particular user, the F7 will then prompt you with;



Press **OK** to delete the password.

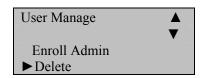
The F7 will then prompt with;



If you're 100% positive you wish to delete this user, then press **OK**

If you change your mind, press the C (cancel/ESC) key.

Pressing either the $\overline{\mathbf{OK}}$ key or $\overline{\mathbf{C}}$ (cancel/ESC) key returns you to the previous menu;



Continue pressing the **©** key until you return to the Start-Up window;



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

Options

The Options Menu allows access to the following functions & settings;

System Options

Setting Date Time

Date format (i.e. YY-MM-DD)

Advanced Options

- Reset
- Delete Attendance/audit logs
- Clear All Data (templates and logs)
- Clear Admin privileges
- Show Score
- Match Threshold
- Must Input ID
- 1:1 Threshold (35)
- Voice
- Button Beep

Advanced Options (cont.)

• Volume Adjustment

Power Management

Communications Options

- Ethernet
- RS 232/485

Logging Options

Access Options

Auto Test

- LCD test
- Voice test
- FP reader
- Key test
- RTC test

Changing Date and Time

Press the **M** (menu) key on the F7.

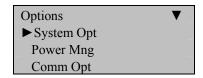


Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside "Options"





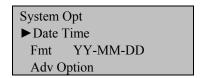
The Options Menu will appear;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside System Opt;

Press the **OK** key.

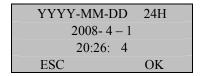
The following screen appears;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Date Time.

Press the **OK** key.

The following screen appears;



Scroll with the \triangle/∇ keys to change either the year, month, day or time.

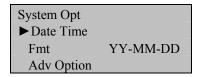
Use the keypad to change the current value(s).

Note:

Time is in military (24-hour) format.

Press the \overline{OK} key to accept changes, or the \overline{C} (cancel/ESC) key to cancel and return to the previous menu.

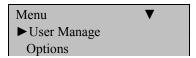
Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

Changing Date Format

The following "date formats" are available;

YY.MM.DD MM-DD-YY MM/DD/YY MM.DD.YY DD-MM-YY DD/MM/YY DD.MM.YY YYYYMMDD

Press the **M** (menu) key on the F7.



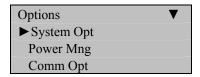
Scroll with the ▲/▼ keys and place the cursor (►) alongside Options



Press the \overline{OK} key.



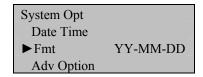
The Options Menu will appear;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside System Opt.

Press the **OK** key.

The following screen appears;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Fmt. Press the $\bigcirc K$ key.

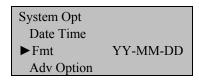
Notice **YY-MM-DD** becomes highlighted. The screen now allows you to change the "format" of the date;



Use the scroll \triangle/∇ keys to change the date format.

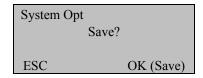
Press the **OK** key to accept changes.

Notice the date format YY-MM-DD will no longer be highlighted and you're free again to scroll through the menu.



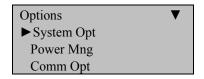
Press the **C** (cancel/ESC) key when finished.

You'll then be prompted;



Press the $\overline{\textbf{OK}}$ key to accept changes, or the $\overline{\textbf{C}}$ (cancel/ESC) key to cancel and return to the previous menu.

Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Press C (cancel/ESC) key



Press **ESC**



Note:

The actual current date/time will appear.

Advanced Settings

The following Advanced Settings are available;

Reset Opts:

Restores all default factory settings.

Does NOT delete user fingerprints/passwords or transactions/audit logs.

Del Att Logs:

Clears attendance/transaction log but NOT user fingerprints/passwords.

Clear all Data:

Deletes BOTH user data and tattendance/audit log.

Clr Admin Pri:

Change the rights of ALL administrator(s) to a normal user.

Show Score:

Display the score of the quality of the fingerprint match.

1:N Fingerprint Match Threshold:

Changes fingerprint-matching "sensitivity"

Must Input ID:

Disable 1:N matching (users MUST first enter user ID number prior to placing finger on sensor)

1:1 Fingerprint Match Threshold

Changes fingerprint-matching "sensitivity"

Voice

Option to turn voice prompts "on" or "off"

Button Beep

Option to turn audio beep "on" or "off"

Adjust Volume

Resetting F7

Note:

Resetting will erase system changes, but will NOT erase users' fingerprints/passwords nor attendance/audit logs.

Press the M (menu) key on the F7.



Scroll with the **△**/**▼** keys and place the cursor (**▶**) alongside Options





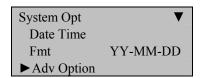
The Options Menu will appear;



Scroll with the ▲/▼ keys and place the cursor (►) alongside System Opt.

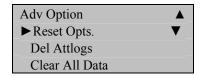
Press the **OK** key.

The following screen appears;



Scroll with the ▲/▼ keys and place the cursor (▶) alongside Adv Option.

The Advanced Options menu will appear;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Reset Opts.

Note:

You will NOT be prompted whether you wish to proceed or cancel!

Once you press **OK**, all system changes will be erased and the F7's original factory settings will replace any changes you may have made.

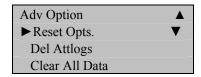
However, all user data and attendance/audit logs will remain unchanged.

Press the **OK** key if you wish to erase all system changes.

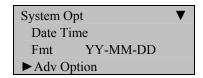
The F7 will prompt;



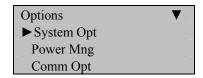
The Advanced Options menu will return;



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

Deleting Attendance/Audit Logs:

Note:

Although ALL the attendance/audit logs will be deleted, users' fingerprints and passwords are NOT deleted during this operation.

Press the M (menu) key on the F7.



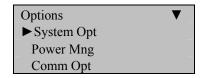
Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.



Press the **OK** key.



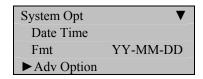
The Options Menu will appear;



Scroll with the ▲/▼ keys and place the cursor (▶) alongside System Opt.

Press the **OK** key.

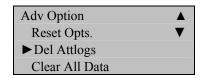
The following screen appears;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Adv Option.

Press the **OK** key.

The Advanced Options menu will returns;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Del Attlogs.

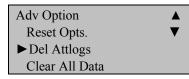
Press the **OK** key if you wish to erase all the attendance/audit logs.

The F7 will prompt;



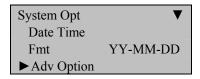
Press the \mathbf{OK} key to accept or \mathbf{C} (cancel/ESC) key to cancel.

The Advanced Options menu returns;

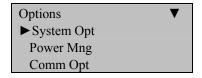


143

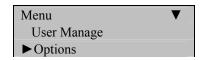
Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

Clear all Data

Note:

ALL user fingerprints, passwords AND attendance/audit logs will be deleted.

Press the M (menu) key on the F7.

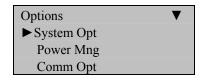


Scroll with the ▲/▼ keys and place the cursor (►) alongside Options





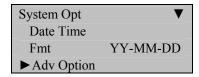
The Options Menu will appear;



Scroll with the ▲/▼ keys and place the cursor (▶) alongside System Opt.

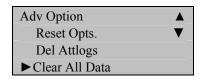
Press the **OK** key.

The following screen appears;



Scroll with the ▲/▼ keys and place the cursor (►) alongside Adv Option

The Advanced Options menu will appear;



Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside Clear All Data.

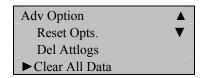
Press the **OK** key if you wish to erase all users' fingerprints, passwords and attendance/audit logs.

The F7 will prompt;

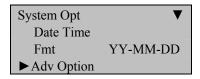


Press the **OK** key to accept or **C** (cancel/ESC) key to cancel.

The Advanced Options menu will return;



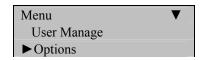
Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

Clear Administrators' Privileges

Note:

This option will revoke all "Administrative authority" from Admins and convert them to "normal users".

This function gives ALL "users" unrestricted access to the F7's menu system. Therefore we strongly suggest converting a previously enrolled Admin BACK to an Admin as soon as possible".

Press the M (menu) key on the F7.

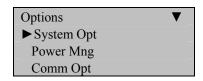


Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.





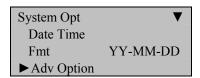
The Options Menu will appear;



Scroll with the ▲/▼ keys and place the cursor (►) alongside System Opt.

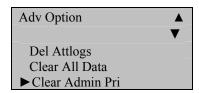
Press the **OK** key.

The following screen appears;



Scroll with the ▲/▼ keys and place the cursor (▶) alongside Adv Option.

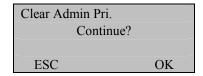
The Advanced Options menu will appear;



Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside Clear Admin Pri.

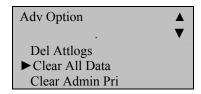
Press the **OK** key if you wish to revoke "Administrative privilege" to all Admins and convert them to normal "users".

The F7 will prompt;

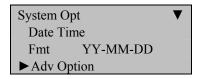


Press the **OK** key to accept or **C** (cancel/ESC) key to cancel.

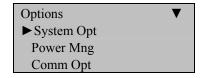
The Advanced Options menu will return;



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

Show Score

Note:

Display the score of the quality of the fingerprint match.

Press the M (menu) key on the F7.



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options;





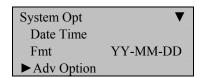
The Options Menu will appear;



Scroll with the ▲/▼ keys and place the cursor (►) alongside System Opt.

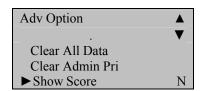
Press the **OK** key.

The following screen appears;



Scroll with the ▲/▼ keys and place the cursor (▶) alongside Adv Option.

The Advanced Options menu will appear;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Show Score.

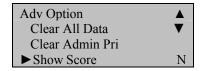
Press the **OK** key.

Notice the Y / N in Show Score becomes highlighted;

Use the scroll \triangle/∇ keys to enter either Yes or No.

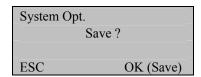
Press the **OK** key after making the necessary change.

Notice, \mathbf{Y} / \mathbf{N} will no longer be highlighted and you're free again to scroll through the menu;



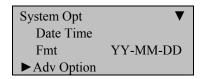
Press **OK** again.

The F7 will prompt;

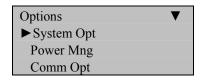


Press **OK** to accept or press **C** (cancel/ESC) key to cancel.

The System Options menu will return;



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Press **ESC**



Welcome Check-In HH:MM MM/DD/YY DAY

Note:

The actual current date/time will appear.

1:N Fingerprint Match Threshold

Note:

This feature allows you to change the sensitivity of the fingerprint sensor when performing 1:N (many) fingerprint matching.

Press the **M** (menu) key on the F7.

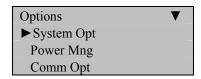


Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.





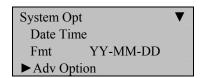
The Options Menu will appear;



Scroll with the ▲/▼ keys and place the cursor (►) alongside System Opt.

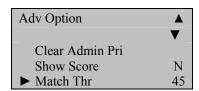
Press the **OK** key.

The following screen appears;



Scroll with the ▲/▼ keys and place the cursor (▶) alongside Adv Option.

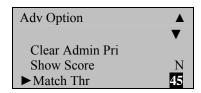
The Advanced Options menu will appear;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Match Thr.

Press the **OK** key.

Notice the 45 in Match Thr becomes highlighted;



Use the keypad or scroll \triangle/∇ keys to change the threshold setting.

Lessening the threshold lessens the sensitivity of the sensor when reading "difficult" fingerprints.

If the F7 is having difficulty reading most users' fingerprints, then consider lessening the threshold in 5-unit increments until the vast majority of users' fingerprints can be read consistently.

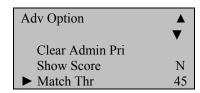
If lessening the threshold doesn't help improve "fingerprint reads", consider issuing PIN numbers for those users having difficulty having his/her fingerprints read by the F7.

Table 1—1 Suggested Match Threshold Settings

FRR	FAR	1:N (Many)	1:1
High	Low	45	25
Middle	Middle	35	15
Low	High	25	10

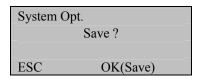
After changing the threshold, press the **OK** key.

Notice, the Match Threshold Number 45 will no longer be highlighted and you're free again to scroll through the menu;



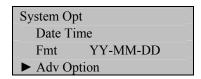
Press **OK** again.

The F7 will prompt;

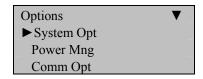


Press **OK** again.

The System Options menu will return;



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

Must Input ID

Note:

This feature disables <u>1:N</u> Fingerprint Matching and places the F7 in <u>1:1</u> Fingerprint Matching mode.

Although <u>1:1</u> Fingerprint Matching requires the extra step of FIRST entering a user's ID number prior to scanning his/her finger, <u>1:1</u> Fingerprint Matching is more consistent than 1:N (many) fingerprint matching.

Press the **M** (menu) key on the F7.

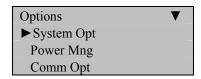


Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.





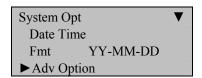
The Options Menu will appear;



Scroll with the ▲/▼ keys and place the cursor (►) alongside System Opt.

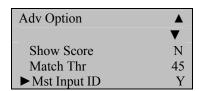
Press the **OK** key.

The following screen appears;



Scroll with the ▲/▼ keys and place the cursor (▶) alongside Adv Option.

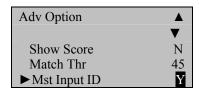
The Advanced Options menu will appear;



Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside Mst Input ID.

Press the **OK** key.

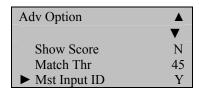
Notice the Y or N for Mst Input ID becomes highlighted;



Use the scroll \triangle/∇ keys to enter either Yes or No.

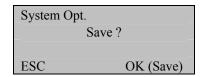
Press the **OK** key after making the necessary change.

Notice, $\overline{\mathbf{Y}}$ or $\overline{\mathbf{N}}$ will no longer be highlighted and you're free again to scroll through the menu;



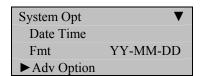
Press **OK** again.

The F7 will prompt;

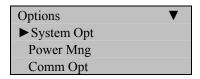


Press **OK** to accept or press **C** (cancel/ESC) key to cancel.

The System Options menu will return;



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

1:1 Fingerprint Match Threshold

Note:

This feature allows you to change the sensitivity of the fingerprint sensor when performing **1:1 fingerprint matching**.

Press the **MENU** key on the F7.

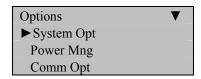


Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.





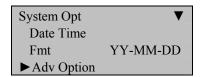
The Options Menu will appear;



Scroll with the ▲/▼ keys and place the cursor (►) alongside System Opt.

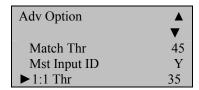
Press the **OK** key.

The following screen appears;



Scroll with the ▲/▼ keys and place the cursor (▶) alongside Adv Option.

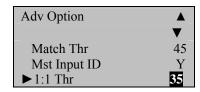
The Advanced Options menu will appear;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside 1:1 Thr.

Press the **OK** key.

Notice the 35 in Match Thr becomes highlighted;



Use the keypad or scroll $\blacktriangle/\blacktriangledown$ keys to change the threshold setting.

Note:

Lessening the threshold lessens the sensitivity of the fingerprint sensor.

If the F7 is having difficulty reading most users' fingerprints, then consider lessening the threshold in 5-unit increments until the vast majority of users' fingerprints can be read consistently.

If lessening the threshold doesn't help improve "fingerprint reads", consider issuing PIN numbers for those users having difficulty having his/her fingerprints read by the F7.

Table 1—1 Suggested Match Threshold Settings

FRR	FAR	1:N (many)	1:1
High	Low	45	25
Middle	Middle	35	15
Low	High	25	10

After changing the threshold, press the **OK** key.

Notice, the Match Thr number 35 will no longer be highlighted and you're free again to scroll through the menu;

Adv Option	A
	▼
Match Thr	45
Mst Input ID	Y
▶1:1 Thr	35

Press **OK** again.

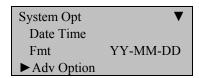
The F7 will prompt;

```
System Opt.
Save ?

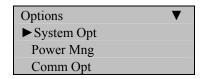
ESC OK (Save)
```

Press **OK** again.

The System Options menu will return;



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

Voice

Note:

This option allows you to turn voice prompts "on" or "off".

Press the **M** (menu) key on the F7.



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.





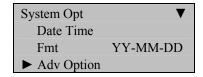
The Options Menu will appear;



Scroll with the ▲/▼ keys and place the cursor (►) alongside System Opt.

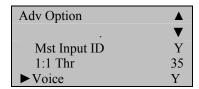
Press the **OK** key.

The following screen appears;



Scroll with the ▲/▼ keys and place the cursor (►) alongside Adv Option.

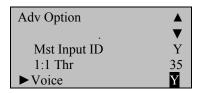
The Advanced Options menu will appear;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Voice.

Press the **OK** key.

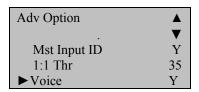
Notice the Y or N for Voice becomes highlighted;



Use the scroll \triangle/∇ keys to enter either Yes or No.

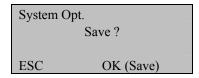
Press the **OK** key after making the necessary change.

Notice, Voice \overline{Y} or \overline{N} will no longer be highlighted and you're free again to scroll through the menu;



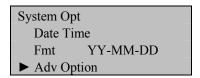
Press **OK** again.

The F7 will prompt;



Press \overline{OK} to accept or press \overline{C} (cancel/ESC) key to cancel.

The System Options menu will return;



Continue pressing the (cancel/ESC) key until you return to the Start-Up window;



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

Button Beep

Note:

You can turn the audio **beep** "on" or "off" when pressing the F7 keypad.

Press the **M** (menu) key on the F7.

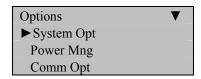


Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.





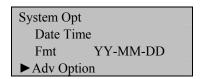
The Options Menu will appear;



Scroll with the ▲/▼ keys and place the cursor (►) alongside System Opt.

Press the **OK** key.

The following screen appears;



Scroll with the ▲/▼ keys and place the cursor (▶) alongside Adv Option.

Press the **OK** key.

The Advanced Options menu will appear;

179



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Button Beep.

Press the **OK** key.

Notice the Y or N for Button Beep becomes highlighted;



Use the scroll \triangle/∇ keys to enter either Yes or No.

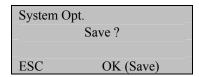
Press the **OK** key after making the necessary change.

Notice, Button Beep \mathbf{Y} or \mathbf{N} will no longer be highlighted and you're free again to scroll through the menu;



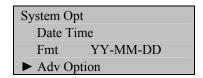
Press **OK** again.

The F7 will prompt;



Press **OK** to accept or press **C** (cancel/ESC) key to cancel.

The System Options menu will return;



Continue pressing the (cancel/ESC) key until you return to the Start-Up window;



Press C (cancel/ESC) key



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

Adjust Volume

Press the M (menu) key on the F7.



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.





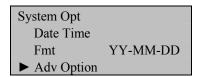
The Options Menu will appear;



Scroll with the ▲/▼ keys and place the cursor (►) alongside System Opt.

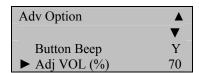
Press the **OK** key.

The following screen appears;



Scroll with the ▲/▼ keys and place the cursor (▶) alongside Adv Option.

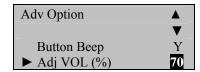
The Advanced Options menu will appear;



Scroll with the ▲/▼ keys and place the cursor (►) alongside Adj VOL.

Press the **OK** key.

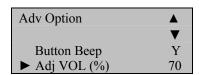
Notice the 70 in Adj VOL becomes highlighted;



Use the keypad or scroll $\blacktriangle/\blacktriangledown$ keys to adjust the volume.

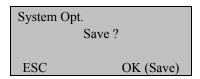
After changing the volume, press the **OK** key.

Notice, the Volume % 70 will no longer be highlighted and you're free again to scroll through the menu;



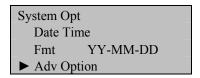
Press **OK** again.

The F7 will prompt;

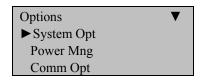


Press **OK** again.

The System Options menu will return;



Continue pressing the (cancel/ESC) key until you return to the Start-Up window;



Press $\overline{\mathbf{C}}$ (cancel/ESC) key



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

Power Management

There are various power modes which can be selected;

Shut down schedule:

Turn off the power at pre-defined times.

Power on schedule:

Turn on the power at pre-defined times.

Sleep schedule:

Enable sleep mode at pre-defined times. Press any key to bring the F7 out of sleep mode.

Idle

This setting determines if the F7 should remain **idle** indefinitely or if it should enter "Sleep Mode" after a specified period of time.

Idle Minute:

This setting determines how long the F7 can remain "idle" prior to entering "sleep mode".

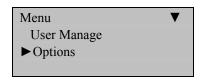
Lock Power (Yes or No)

Set Shutdown Schedule

Press the **M** (menu) key on the F7.



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options;





The Options Menu will appear;



Scroll with the ▲/▼ keys and place the cursor (►) alongside Power Mng.

Press the **OK** key.

The following screen appears;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Shutdown.

You'll then be prompted;



Press the **OK** key to schedule the Shutdown Function.

Notice the 23:59 in Shutdown becomes highlighted;



Use the scroll $\blacktriangle/\blacktriangledown$ keys and keypad to change the **hour** and **time** the F7 should **Shutdown**.

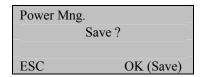
Press the **OK** key after making the necessary change.

Notice the **23:59** in Shutdown will no longer be highlighted and you're free again to scroll through the menu;



Press the C (cancel/ESC) key

The F7 will prompt;

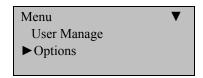


Press **OK** to accept or press **C** (cancel/ESC) key to cancel.

The Options menu will return;



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

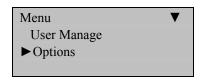
191

Set Power On Schedule

Press the **M** (menu) key on the F7.



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options;





The Options Menu will appear;



Scroll with the ▲/▼ keys and place the cursor (►) alongside Power Mng.

Press the **OK** key.

The following screen appears;



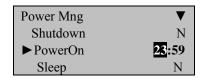
Scroll with the ▲/▼ keys and place the cursor (►) alongside PowerOn.

You'll then be prompted;



Press the **OK** key to schedule the PowerOn Function.

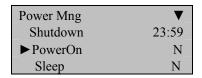
Notice the 23:59 in PowerOn becomes highlighted;



Use the scroll $\blacktriangle/\blacktriangledown$ keys and keypad to change the **hour** and **time** the F7 should **Power On**.

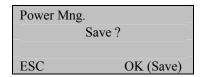
Press the **OK** key after making the necessary change.

Notice the **23:59** in PowerOn will no longer be highlighted and you're free again to scroll through the menu;



Press the C (cancel/ESC) key.

The F7 will prompt;

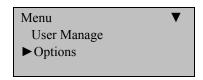


Press **OK** to accept or press **C** (cancel/ESC) key to cancel.

The Options menu will return;



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

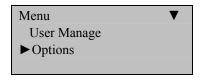
195

Set Sleep Schedule

Press the \mathbf{M} (menu) key on the F7.



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options;





The Options Menu will appear;



Scroll with the ▲/▼ keys and place the cursor (►) alongside Power Mng.

Press the **OK** key.

The following screen appears;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Sleep.

You'll then be prompted;



Press the **OK** key to schedule the Sleep Function.

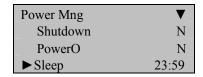
Notice the 23:59 in Sleep becomes highlighted;



Use the scroll $\blacktriangle/\blacktriangledown$ keys and keypad to change the **hour** and **time** the F7 should **Sleep**.

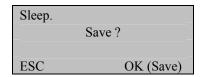
Press the **OK** key after making the necessary change.

Notice the **23:59** in Sleep will no longer be highlighted and you're free again to scroll through the menu;



Press the C (cancel/ESC) key.

The F7 will prompt;

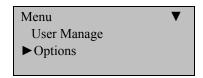


Press **OK** to accept or press **C** (cancel/ESC) key to cancel.

The Options menu will return;



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

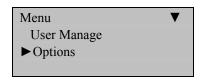
199

Set Idle to Off or Sleep

Press the **M** (menu) key on the F7.



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options;





The Options Menu will appear;



Scroll with the ▲/▼ keys and place the cursor (▶) alongside Power Mng.

Press the **OK** key.

The following screen appears;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Idle.

Notice the 23:59 in Sleep becomes highlighted;



Use the scroll \triangle/∇ keys to change the **Idle** mode to **Sleep** or **Off**.

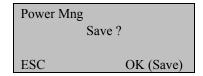
Press the **OK** key after making the necessary change.

Notice the **SLP/OFF** in Idle will no longer be highlighted and you're free again to scroll through the menu;



Press the **C** (cancel/ESC) key.

The F7 will prompt;



Press $\overline{\textbf{OK}}$ to accept or press $\overline{\textbf{C}}$ (cancel/ESC) key to cancel.

The Options menu will return;



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Press C (cancel/ESC) key



Note:

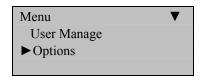
The actual current date/time will appear.

Set Idle Minutes

Press the **M** (menu) key on the F7.



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options;





The Options Menu will appear;



Scroll with the ▲/▼ keys and place the cursor (▶) alongside Power Mng.

Press the **OK** key.

The following screen appears;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Idle Min.

Notice the 0 in Idle Min becomes highlighted;



Use the scroll $\blacktriangle/\blacktriangledown$ keys to change the **Idle Minutes**.

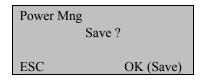
Press the **OK** key after making the necessary change.

Notice the **0** in Idle Minutes will no longer be highlighted and you're free again to scroll through the menu;



Press the C (cancel/ESC) key.

The F7 will prompt;

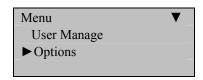


Press **OK** to accept or press **C** (cancel/ESC) key to cancel.

The Options menu will return;



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Press C (cancel/ESC) key



Note:

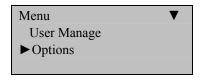
The actual current date/time will appear.

Lock Power

Press the **M** (menu) key on the F7.



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options;





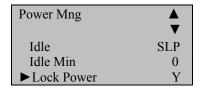
The Options Menu will appear;



Scroll with the ▲/▼ keys and place the cursor (►) alongside Power Mng.

Press the **OK** key.

The following screen appears;



Scroll with the ▲/▼ keys and place the cursor (▶) alongside Lock Power.

Notice the Y in Lock Power becomes highlighted;



Use the scroll \triangle/∇ keys to change the **Y** or **N** in **Lock Power**.

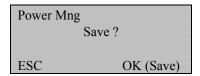
Press the **OK** key after making the necessary change.

Notice the \mathbf{Y} in Lock Power will no longer be highlighted and you're free again to scroll through the menu;



Press the C (cancel/ESC) key.

The F7 will prompt;

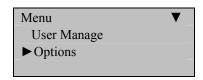


Press \mathbf{OK} to accept or press \mathbf{C} (cancel/ESC) key to cancel.

The Options menu will return;



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window;



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

Communication Options

Note:

The F7 can communicate via the Network (Ethernet) or RS 232/485.

Press the M (menu) key on the F7.



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.





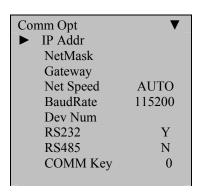
The Options Menu will appear;



Scroll with the ▲/▼ keys and place the cursor (►) alongside Comm Opt.

Press the **OK** key.

The following communication settings are available;



Network (Ethernet) Connectivity

The following settings are available:

Machine IP address:

Default IP is 192.168.1.201. This can be modified, but do NOT use an IP address already being used by another device on the same network.

Subnet mask:

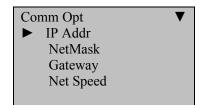
Default mask 255.255.255.0. This can be modified.

Gateway address:

Default gateway address is 0.0.0.0. This can be modified.

Network speed:

Notice three available options (Automatic, 10M and 100M).



To change Network settings begin at start-up and press the \mathbf{M} (menu) key on the F7.



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.



Press the **OK** key.



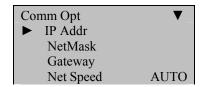
The Options Menu will appear;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Comm Opt.

Press the **OK** key.

The following Network Communication settings are available;

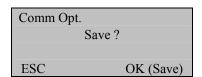


Scroll with the \triangle/∇ keys to place the cursor in the desired field and change the communication setting as desired.

Press **OK** after modifying the desired communication settings.

When finished, press the C (cancel/ESC) key.

You'll be prompted;



Press **OK** again.

The Options menu will return;



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window.



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

RS232/485 Serial Connectivity

The following settings are available;

Baud rate:

Choose either 9600, 19200, 38400, 57600, 115200.

RS232:

Enable or disable RS 232 communication.

RS485:

Enable or disable RS 485 communication.

COMM Key:

Secure the Serial connection with a Key (password). The default value is set to 0.

Dev Num:

Assign each F7 a unique Device Number ranging from 1-255. This device number is also the <u>site code</u> if the F7 is using a Wiegand communication protocol with a 3rd party access control panel.

Comm Opt	▼
► BaudRate	115200
Dev Num	
RS232	Y
RS485	N
COMM Key	0

To change RS 232/485 settings begin at start-up and press the $\overline{\mathbf{M}}$ (menu) key on the F7.



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.



Press the **OK** key.



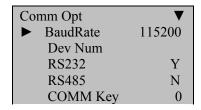
The Options Menu will appear;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Comm Opt.

Press the **OK** key.

The following RS 232/485 Communication settings are available;

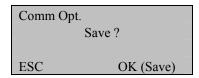


Scroll with the \triangle/∇ keys to place the cursor in the desired field and change the communication setting as desired.

Press **OK** after modifying desired communication settings.

When finished, press the \mathbb{C} (cancel/ESC) key.

You'll be prompted;

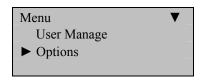


Press **OK** again.

The Options menu will return;



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window





Note:

The actual current date/time will appear.

Log Options

The F7 has 3 logging options:

Alarm Superlog:

Alarm Attendance Log:

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

Recheck Minute:

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

Press the **M** (menu) key on the F7.



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.



Press the **OK** key.



The Options Menu will appear;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Log Opt.

The following screen appears;







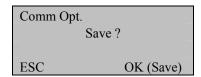
Scroll with the ▲/▼keys to place the cursor in the desired field.

Press **OK** and modify your desired settings.

Enter your preferred Serial communication settings.

When finished, press the C (cancel/ESC) key

You'll be prompted;



Press **OK** again.

The Options menu will return;



Continue pressing the \mathbf{C} (cancel/ESC) key until you return to the Start-Up window



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

Access Control

In addition to acting as an attendance recorder, the F7 is also an access control terminal.

Using the F7 with 3rd Party Door Control Panels:

WHEN THE F7 IS USED WITH A 3RD PARTY ACCESS CONTROL PANEL, THE F7'S <u>SOLE</u> FUNCTION IS VERIFYING THE IDENTITY OF THE USERS.

AFTER IDENTITY IS VERIFIED, THE F7 SENDS A 26-BIT WIEGAND SIGNAL TO THE 3RD PARTY CONTROL PANEL PROVIDING ONLY USER-ID MATCH CONFIRMATION.

IT IS THE 3RD PARTY PANEL AND <u>NOT</u> THE F7 WHICH CONTROLS DOOR ACCESS IN THIS CONFIGURATION.

THEREFORE, WHEN USING THE F7 WITH A 3RD PARTY DOOR CONTROL PANEL, REFER ALL ACCESS-RELATED QUESTIONS TO THE 3RD PARTY CONTROL PANEL MANUFACTURER AND NOT ZK SOFTWARE.

F7 as a STAND-ALONE Door Controller

The F7 has five main Access Control Options:

Time Zone (Period) Settings:

Define time periods for which doors-access is normally granted or denied (i.e. Weekdays, Weekends, 9-5 day shift, Shift 2, Midnight Shift, holidays, etc).

Group Options:

Create Groups containing users with the same Access Rights.

Assigning time zones (periods) to Groups:

Assign the time zones (periods) to the group based on the Groups' access rights.

Access Combinations

Allow door-access ONLY when multiple authorized-users/Admins are present. No single User/Admin can access the door UNLESS another authorized User/Admin is present.

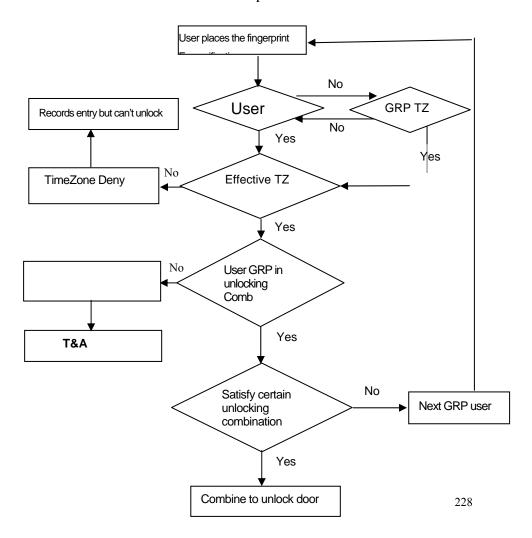
Lock:

Set how long the door-lock remains opened after an authorized user/Admin opens the door.

DSen. Delay:

The **D**oor **Se**nsor **Delay** determines how long to keep the door unlocked, after an authorized user opens the door.

Verification Flow of Access Options



Time Zone (Period) Settings

A **Time Zone** (Period) is a user-defined period of time in which the door normally remains accessible or inaccessible to specified users or groups of users.

Examples of **time zones** (periods) include work shifts, work days, weekends, holidays, annual company closings, etc.

The F7 can store up to **50 time zones (periods).**

Each user can be assigned up to 3 different time zones (periods).

If a user belongs to "multiple" time zones (periods), then he/she has door-access during all those time zones (periods) assigned to him/her.

Example:

Time Zone (Period) 1 (TP No. 1) is weekend-access ONLY.

Time Zone (Period) 2 (TP No. 2)) is weekday-access ONLY.

If a user belongs to **<u>BOTH</u>** TP1 and TP2, in effect he/she has access all 7 days of the week

Time Zones (Periods) use an "OR" Logic.

Every time zone (period) has a **START** and **END** time.

Time zones (periods) adhere to the format **HH:MM** - **HH:MM**

Time zones (periods) are based on a <u>24-hour clock</u> (no AM or PM).

229

To <u>prohibit</u> users for a 24-hour period, create the following Time Zone (Period):

23:59 - 23:58.

This means there is no door access starting at 11:59pm until 11:58 the following day. The door is ALWAYS <u>IN</u>ACCESSIBLE, even though the user is enrolled in the F7.

To allow <u>unrestricted</u> door access for a 24-hour period, create the following Time Zone (Period):

00:00-23:59

This means there is unrestricted access starting at Midnight until 11:59 PM. The door is ALWAYS ACCESSIBLE to users enrolled on the F7.

How to create Time Zones (Periods):

Press the M (menu) key on the F7.



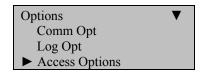
Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.



Press the **OK** key.

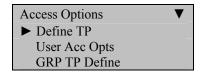


The Options Menu will appear;



Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside Access Options.

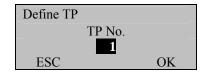
The Options Menu will appear;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Define TP.

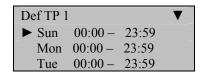
Press the **OK** key.

The Define TP screen will appear;



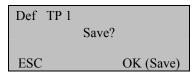
Press **OK** to accept Time Zone (Period) number **1** (TP 1).

The following Time Zone (Period) screen displays;

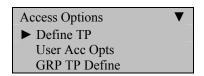


Scroll with the \triangle / ∇ keys and use the OK key and keypad to program the <u>start</u> and <u>end</u> times for the various days of the week.

When finished, press the (cancel/ESC) key until you're prompted with the following screen;

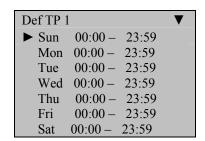


Press the **OK** key and you'll return to the Access Options menu;



Time Zone (Period) Examples;

Example: Restricting Door Access to Weekdays only:

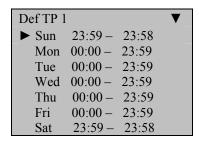


In the above figure, notice each day is programmed with 00:00-23:59. This means the doors are accessible to authorized users ALL THE TIME.

But if your operating hours are typically Monday-Friday 9am to 5pm, it is unlikely that your employees will need door access on the weekends.

233

Therefore, you might consider creating a "weekend time zone/period" in which **Mon-Fri** is 00:00-23:59 BUT **Sat and Sun** are 23:59-23:58.



It is also a good idea to create a Time Zone (Period) during which all the doors remain INACCESSIBLE. This is typical of a holiday, in which case your employees will not need door access.

Example: Restricting Door Access completely

Def TP 2	2	▼
► Sun	23:59 - 23:58	3
Mon	23:59 - 23:58	3
Tue	23:59 - 23:58	3
Wed	23:59 - 23:58	}
Thu	23:59 - 23:58	3
Fri	23:59 - 23:58	3
Sat	23:59 - 23:58	3

In the above figure, each day is programmed with 23:59 – 23:58. This means the doors are NOT accessible to authorized users ALL THE TIME.

If your employees have 2 different work shifts, you might consider a Time Zone (Period) for each work shift;

Example: Restricting door access to "Shift 1 employees"

If Shift 1 employees work 9 a.m. to 5 p.m. and Shift 2 employees work 5 p.m. to 1 a.m., then consider creating Time Zone (Period) $\underline{2}$ (TP 2) for Shift 1 employees.

This will deny door access to Shift 1 employees AFTER 5:00pm during the week. Shift 1 employees will also be denied door access all weekend long.

Def TP 2	2	•
► Sun	23:59 - 23:58	
Mon	09:00 - 17:00	
Tue	09:00 - 17:00	
Wed	09:00 - 17:00	
Thu	09:00 - 17:00	
Fri	09:00 - 17:00	
Sat	23:59 - 23:58	

Group Time Zone (Period) Settings

IMPORTANT - ALWAYS Create Time Zones (Periods) FIRST

Individual Users can be assigned to **Groups.** This saves time since Group Access Rights only need to be programmed ONCE. Then, as users are added to the F7, all you need do is assign them to his/her respective **Groups**. It then becomes unnecessary to program individual Access Rights when enrolling new users.

How to create Groups:

Press the M (menu) key on the F7.



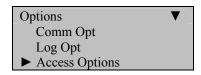
Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.



Press the **OK** key.

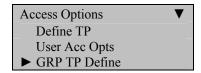


The Options Menu will appear;



Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside Access Options.

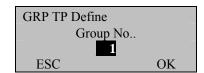
The Options Menu will appear;



Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside GRP TP Define.

Press the **OK** key.

The Define TP screen will appear;



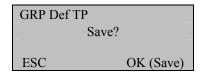
To accept Group No 1, press the **OK** key.

The following screen appears;

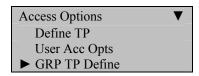


Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside the time zone (period) for which you're adding a Group No.

When finished assigning Groups to Time Zones (Periods), press the cancel/ESC) key.



Press the $\overline{\mathbf{OK}}$ key to accept, or $\overline{\mathbf{C}}$ (cancel/ESC) key to cancel and return to the previous menu.



User Access Options

After a User has been enrolled, you can later define his/her "Door Access Rights" by assigning them to Groups, which are defined by Time Zones (Periods);

How to create Groups:

Press the M (menu) key on the F7.

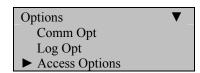


Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside Options.





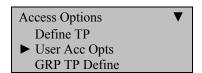
The Options Menu will appear;



Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside Access Options.

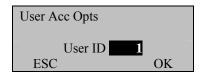
Press the **OK** key.

The Options Menu will appear;

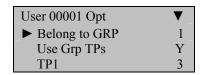


Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside User Acc Opts.

The User Access Options screen will appear;

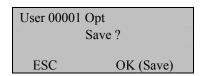


Press **OK** change User ID <u>0001</u>'s Door Access Options.

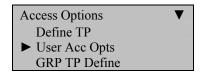


Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside the value you wish to change.

Indicate which Group Number that User ID <u>00001</u> will belong to and if the time zones (periods) associated with Group Number 1 will apply to User ID <u>00001</u>.



Press the \overline{OK} key to accept, or \overline{C} (cancel/ESC) key to cancel and return to the previous menu.



Access Combination Settings

The F7 can also be configured so that 2 to 5 users need to present his/her authorized fingerprints prior to the door releasing. This is called "Multi-User Combination:

Multi-User Combination provides the highest level of door security, and is common when protecting "critical assets" or protecting the safety of the public:

Typical Multi-User Combination applications include:

- Financial Assets (bank vaults, safes, etc)
- Bio hazardous waste (hospitals).
- Utility plants (i.e. nuclear)
- Weapons Systems

If only ONE of the users of a Multi-User Combination group attempts access to the door without the others, the door will NOT release.

How to create Groups:

Press the **M** (menu) key on the F7.

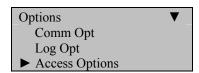


Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.





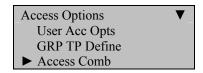
The Options Menu will appear;



Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside Access Options.

Press the **OK** key.

The Access Options Menu will appear;



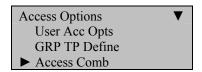
Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside Access Comb.

The User Access Options screen will appear;

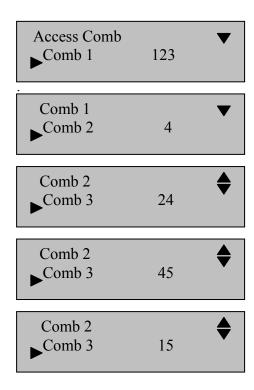


Scroll with the $\blacktriangle/\blacktriangledown$ keys and indicate which combinations of "Groups" will be necessary to clock-in, prior to the door releasing.

Press the $\overline{\textbf{OK}}$ key to accept, or $\overline{\textbf{C}}$ (cancel/ESC) key to cancel and return to the previous menu.

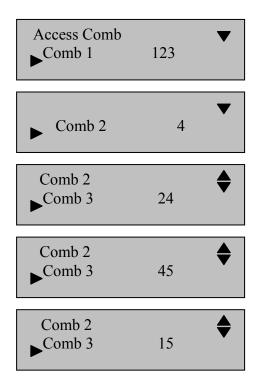


Examples of Unlocking/Access Combinations;



The above illustrates 5 **combinations**;

- 123 is a combination.
- 4 is a combination.
- 24 is a combination.
- 45 is a combination.
- 15 is a combination.



Combination 1:

When any users belonging to Group 1, Group 2 and Group 3 are all present, the door will only release when all 3 Group members place his/her fingers on the F7 CONSECUTIVELY.

Combination 3:

When any 2 users belonging to Group 4 and Group 5 are BOTH present, the door will only release when BOTH users place his/her fingers on the F7.

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Lock

The Door "lock" Control Setting determines how long the door will remain OPEN (unlocked) after a user has successfully gained access.

Press the **M** (menu) key on the F7.

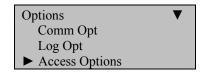


Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.





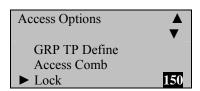
The Options Menu will appear;



Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside Access Options.

Press the **OK** key.

The Access Options Menu will appear;

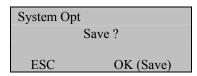


Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Lock.

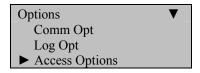
Note the default is 150 ms (about 7 seconds).

If you wish to change, press \mathbf{OK} and indicate how long the door should remain opened.

Press **OK** again, and then press **C** (cancel/ESC) key.



Press the $\overline{\mathbf{OK}}$ key to accept, or \mathbf{C} (cancel/ESC) key to cancel and return to the previous menu.



Door Sensor Delay

The Door Sensor Delay determines how long the door will remain OPEN after a user opens the door.

Press the M (menu) key on the F7.

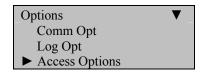


Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.





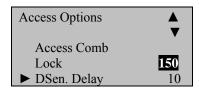
The Options Menu will appear;



Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside Access Options.

Press the **OK** key.

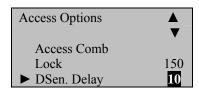
The Access Options Menu will appear;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside DSen Delay.

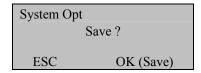
Note the default is 10.

If you wish to change, press **OK**.

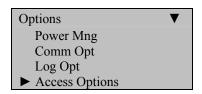


Change the Door Sensor delay and press the **OK** key.

Press **OK** again, and then press **C** (cancel/ESC) key.



Press the $\overline{\textbf{OK}}$ key to accept, or $\overline{\textbf{C}}$ (cancel/ESC) key to cancel and return to the previous menu.



Door Sensor Mode

Dsen. Mode has 3 options;

No - No use door magnistor

NC - When the door is open, the lock is open.

None - When the door is closed ,the lock is closed

Press the M (menu) key on the F7.

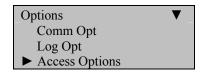


Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside Options.





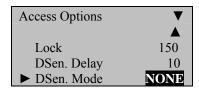
The Options Menu will appear;



Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside Access Options.

Press the **OK** key.

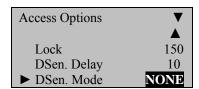
The Access Options Menu will appear;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside DSen Mode.

Note the default is **NONE**.

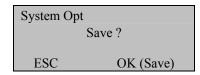
If you wish to change, press **OK**.



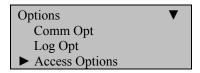
Use the scroll \triangle/∇ keys to change Mode to No or NC.

When finished, press the **OK** key.

Press $\overline{\textbf{OK}}$ again, and then press $\overline{\textbf{C}}$ (cancel/ESC) key.



Press the $\overline{\textbf{OK}}$ key to accept, or $\overline{\textbf{C}}$ (cancel/ESC) key to cancel and return to the previous menu.



Door Sensor Alarm

The Door Sensor Delay determines how long the door will remain OPEN until the F7 sends an alarm.

Press the M (menu) key on the F7.

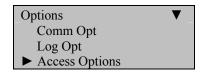


Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.





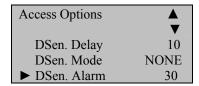
The Options Menu will appear;



Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside Access Options.

Press the **OK** key.

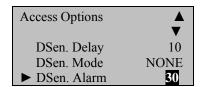
The Access Options Menu will appear;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside DSen Alarm.

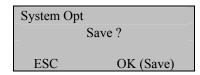
Note the default is 30.

If you wish to change, press **OK**.

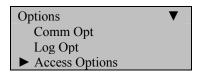


Change the Door Sensor Alarm and press the **OK** key.

Press **OK** again, and then press **C** (cancel/ESC) key.



Press the $\overline{\textbf{OK}}$ key to accept, or $\overline{\textbf{C}}$ (cancel/ESC) key to cancel and return to the previous menu.



Duress Options

The F7 provides users a **Duress** ("manual alarm") button.

If a user has registered a "duress finger," a manual alarm can be triggered when the F7 recognizes the "duress" finger.

Any user can have a **Duress** finger registered.

Note that the **Duress** finger does not open the door. It only sends an alarm signal.

Press the M (menu) key on the F7.



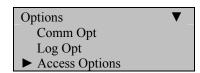
Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.



Press the **OK** key.



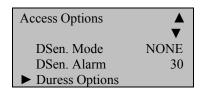
The Options Menu will appear;



Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside Access Options.

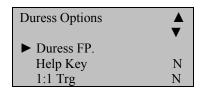
Press the **OK** key.

The Access Options Menu will appear;



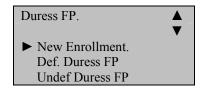
Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Duress Options. Then press **OK**.

The Duress Options menu will appear;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Duress FP and press $\bigcirc K$.

The Duress FP menu will appear;



You have the following choices;

New Enrollment

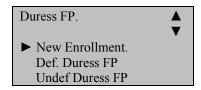
If you're adding a Duress fingerprint to an EXISTING User who currently has no duress fingerprint.

Define Duress Fingerprint

If you're adding "Duress" to an EXISTING User's already-enrolled fingerprint.

Undefine Duress Fingerprint

If you're REMOVING "Duress" from an EXISTING User's already-enrolled fingerprint. This will not delete the fingerprint. But it will no longer have "duress".



New Enrollment;

If your adding a "Duress Fingerprint", select New Enrollment and press **OK.**

Then add a fingerprint (enrolling fingerprints is previously covered in the beginning chapters of the User Guide).

Define Duress Fingerprint;

If you're adding/defining Duress to an <u>existing</u> User's already-enrolled fingerprint then select "Def Duress FP" and press **OK**

Then indicate which user ID you'll be adding Duress and press OK

Then indicate which finger will receive "duress status" by either pressing **OK** or **C** (cancel/ESC) key as you scroll through the User's fingerprints.

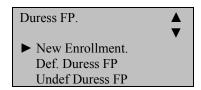
Undefine Duress Fingerprint;

If you're REMOVING Duress from an existing User's already-enrolled fingerprint, then select "Undef Duress FP" and press **OK**

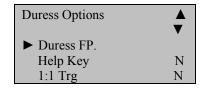
Then indicate which user ID you'll be removing Duress and press OK.

Then indicate which finger will LOSE Duress by either pressing **OK** or **C** (cancel/ESC) key as you scroll through the User's fingerprints.

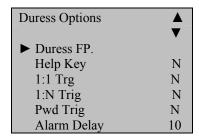
Press the $\overline{\textbf{OK}}$ key to accept, or $\overline{\textbf{C}}$ (cancel/ESC) key to cancel and return to the previous menu.



Press **ESC**



Other Duress Options;

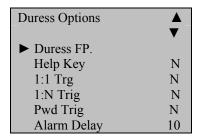


Note that you can indicate whether or not a "Duress Alarm" can be triggered by;

- A Help Key
- 1:1 fingerprint match
- 1:N Fingerprint match
- Password match

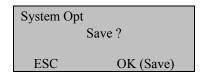
You can also indicate how long an alarm should delay when a "Duress condition" occurs.

Scroll with the \triangle/∇ keys and use the **OK** key and key pad to change values.

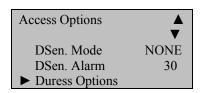


Press **OK** again, and then press **C** (cancel/ESC) key.

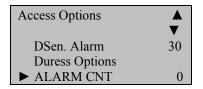
You'll then be prompted;



Press the $\overline{\mathbf{OK}}$ key to accept, or $\overline{\mathbf{C}}$ (cancel/ESC) key to cancel and return to the previous menu.



ALARM CNT



Auto Test

This menu allows you to test various components of the F7;

Run ALL Tests

LCD Test

Does the display appear normal?

Voice Test

Scroll through and listen to pre-recorded prompts by pressing the **OK** key.

Fingerprint Reader

Does the display indicate the fingerprint reader is OK?

Key Test

Does each key pressed on the keypad coincide with the key displayed on the screen?

Real Time Clock (RTC) Test

Does the display indicate the RTC is OK?

Press the \mathbf{M} (menu) key on the F7.



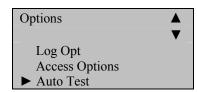
Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Options.



Press the **OK** key.



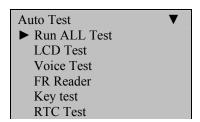
The Options Menu will appear;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Auto Test.

Press the **OK** key.

The following screen appears;



Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside the feature you'd like to test and press the $\bigcirc K$ key.

After testing, press the C (cancel/ESC) key.

The Options menu will return;



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window.



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

System Information

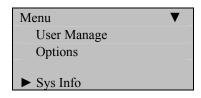
This menu allows you to review various systems on the F7;

- Number of users enrolled
- Number of fingerprints enrolled
- Number of entries in the attendance/audit log
- Number of Admins (inc Enrollers & Supervisors) enrolled
- Number of passwords users are enrolled
- Number of S Logs
- Amount of free space available;
 - o Available fingerprint entries
 - o Available attendance log entries
 - o Available S Log entries
- Device Info

Press the M (menu) key on the F7.



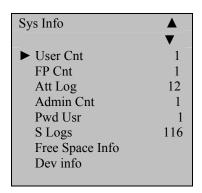
Scroll with the \triangle/∇ keys and place the cursor (\triangleright) alongside Sys Info.



Press the **OK** key.



The Sys Info screen will appear;



Scroll with the $\blacktriangle/\blacktriangledown$ keys and place the cursor (\blacktriangleright) alongside the system information you'd like to review, and then press the ОК key. After reviewing, press the O (cancel/ESC) key.

The Options menu will return;



Continue pressing the **C** (cancel/ESC) key until you return to the Start-Up window.



Press C (cancel/ESC) key



Note:

The actual current date/time will appear.

Maintenance

Cleaning

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

The following is a suggested guide:

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

Cleaning the Keypad and Display

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

Cleaning the Optical Platen

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

Warning:

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