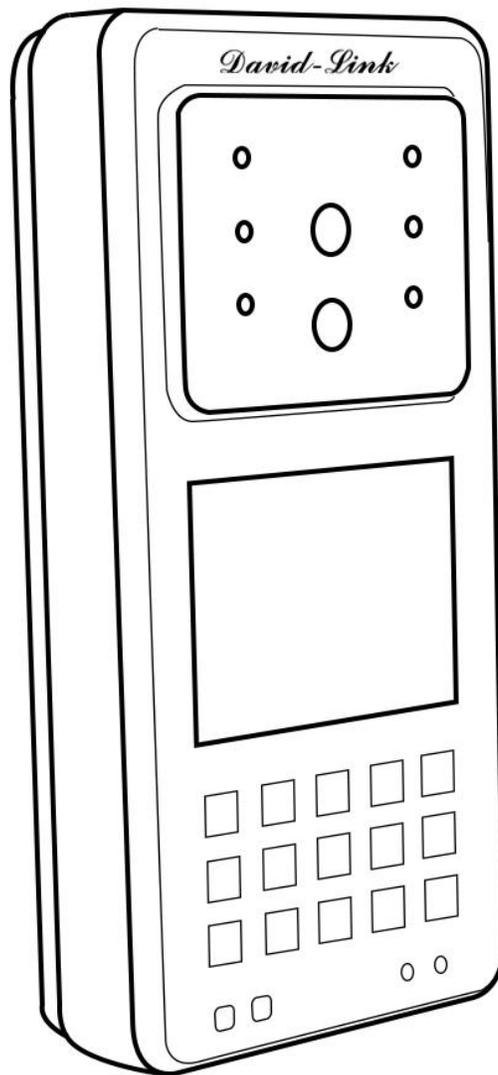


David-Link

**FD-777 FACIAL RECOGNITION
USER'S MANUAL**



For Access Control or Time & Attendance

Table of Contents

1. General Information	3-4
1.0 Notification.....	4
1.1 System Overview	4
1.2 Main Features.....	4-5
2. Basic Concepts	5
2.1 User Enrollment	5
2.2 User Verification.....	6
2.3 User ID Number	6
2.4 Start-up.....	6
3. Enrollment and Verification Procedures	7
3.1 Enrolling User	7-8
3.2 Types of Enrollment	8
3.2.1 Face Enrollment	8
3.2.2 Password Enrollment	9-10
3.2.3 Face & Password	10-11
3.3 Edit User	11-12
3.4 Delete User.....	12
4. Network Setup	13
5. Access Control	14
6. System Option	15-16
7. System Detail.....	17

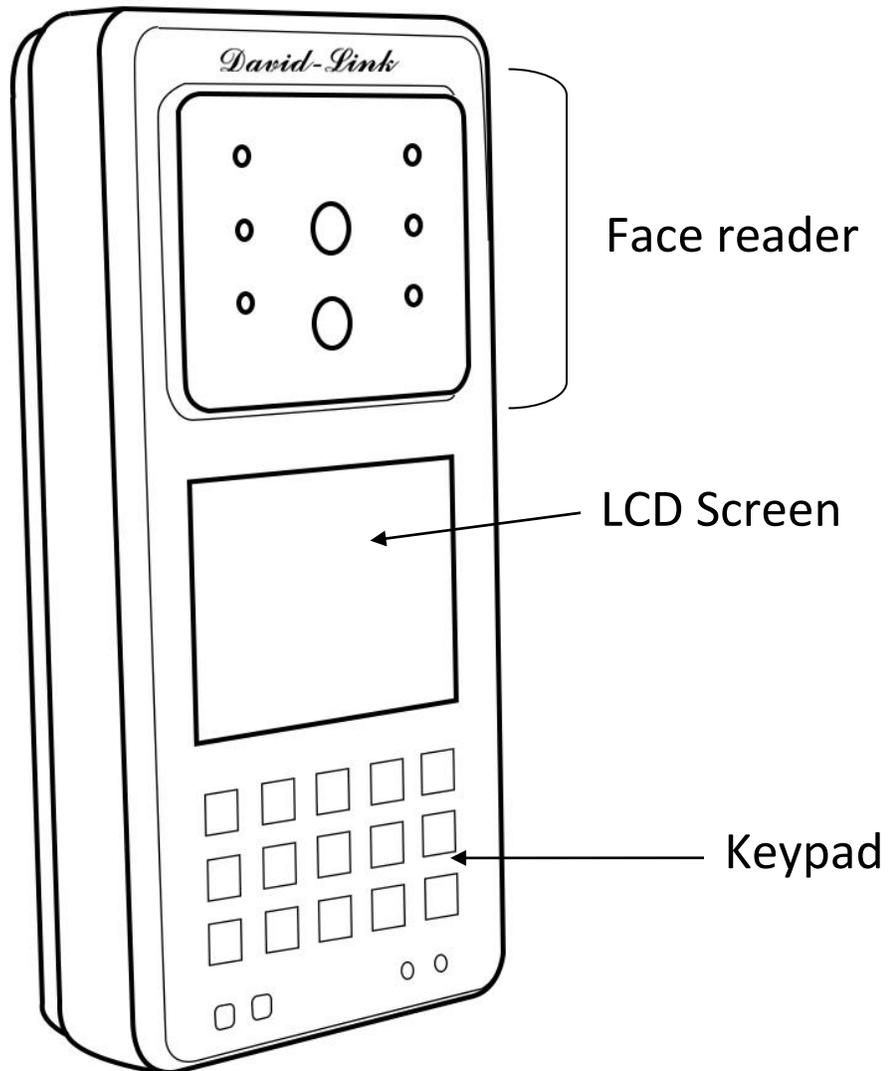
CAUTION:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

1. General Information

This chapter explains the outlook of David-Link FD-777 Facial Recognition Unit System and its basic functions in details.

External Overview



Keypad Function

OK: Press to confirm your settings and/or present operation

MENU: Press and hold the key for 3 seconds to enter the menu options of the device

ESC: Press to exit the menu options and/or cancel present operation

↑: Press to scroll up the menu (Check IN)

↓: Press to scroll down the menu

Number: Press number 0---9

David-Link Facial Recognition System is a simple, easy-to-use device. It can be installed at any area where access of the entries requires authority or any business environment requiring employee time & attendance. Without having to touch a thing, employees just show up to gain access or to punch in/out for work.

1.0 Notification

Do not attempt to service the device yourself. Tampering with the Device will void the 1-year limited manufacture warranty. Always follow the instructions in this user's manual.

1. Do not place the device in direct sunlight. Bright light may significantly affect face reads. The device is designed for indoor use within a temperature range of 22-130°F. **Keep the device away from heat sources.**
2. This device is intended to be used as Door Access Control and Time Management System. Do not use this device for other purposes. The device warranty does not cover defects or damages arising from improper installation, improper storage, abuse, ordinary wear-and-tear or unauthorized service.
3. Please save your data and records in USB thumb drive or in your computer periodically. David-Link is not responsible for any lost data and records from the device and software.

1.1 System Overview

FD-777 is a Door Access Control and Time Management System designed for any size of office environment with up to 500 authorized users. FD-777 verifies user's identity based on individual face matching.

1.2 Main Features

- LCD: 3.5" TFT
- Keyboard: Touchpad Keyboard
- CPU: Intel PXA255
- Color: Silver Black
- Motion Detection: Infrared
- Output: TCP/IP, USB
- Identification Angle: 360 degrees
- FRR: < 1%
- FAR: < 0.0001%

- Speed: ≤ 1 second
- Capture Time: $<0.4s$
- Match Time: $<0.01s$
- Capture Distance: 15-20 Inch
- Camera Tilt Angle: +/- 15 Degree
- Intelligent Study: Yes
- Work Mode: Online and Offline
- Identification Method: Face Read, or Password
- User Capacity: 500 Users
- Log Capacity: 50,000 Logs
- Communication: TCP/IP, RS485, USB
- USB Thumb Drive Download Function: Yes
- Language Display: English
- Name Display: English Name
- Access Control output: Wiegand 26, Normally Open/ Normally Closed
- DC/Current: 12V/3A
- Lock Group Function: YES
- Size: 141mm X 65mm X 26mm
- Operating Temperature: 22 to 130 F

2.0 Basic concepts

This section contains definitions and descriptions of David-Link Biometric Door Access Control concepts including:

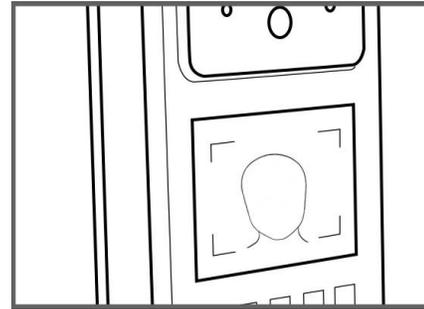
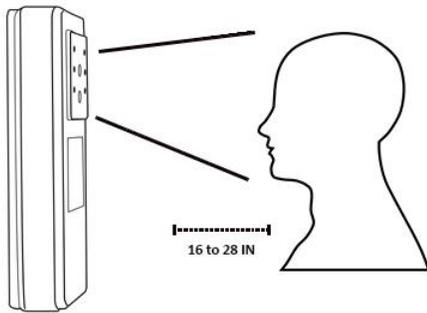
- User Enrollment
- User Verification
- Match Threshold Levels
- User ID Numbers
- Authority (Status) Levels

2.1 User Enrollment

During user verification, face scan is compared with the matching stored template to confirm user's identity. The enrollment process takes approximately 0.4 seconds.

2.2 User Verification

Verification process starts when a user enters an ID number, positions face aligned with the camera, or inputs a password combination for comparison with the stored template. The proper distance for face detection is 16 to 28 inches from the FD-777 and make sure face is within the capture zone on the screen.

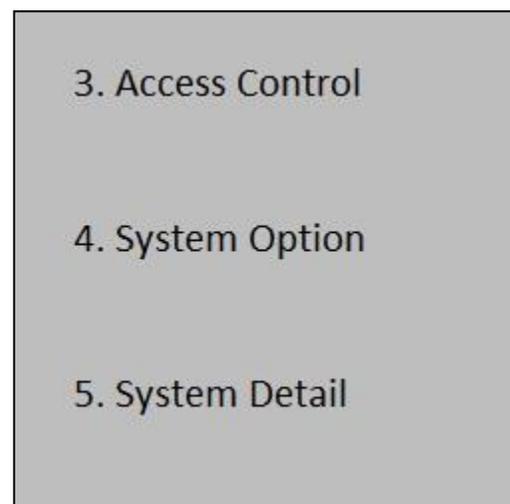
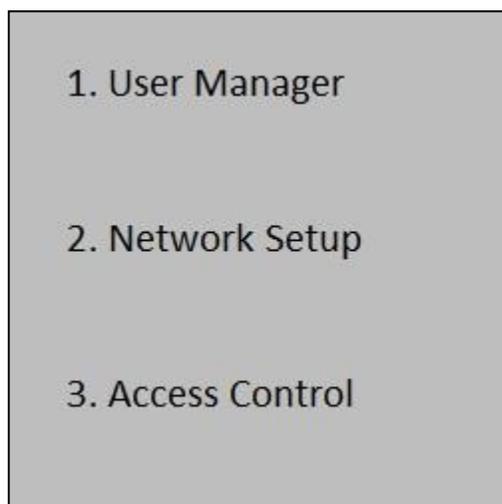


2.3 User ID number

A user is assigned with a User ID Number. This ID number is matched with a user's identity and the matching Face scan template during verification process. An ID number is assigned sequentially based on availability; however, one can choose any ID number as desired.

2.4 Start-up

Once the unit is plugged up to a power source it will automatically show the camera view with the time and date at the bottom of the screen. Press **[MENU]** and the following will appear:



3.0 Enrollment and Verification Procedures

This section provides step-by-step user enrollment and verification processes.

The following topics are included:

- Enrolling User
- Testing an Enrollment
- Verifying Your Identity
- Hints for Successful Enrollments

3.1 Enrolling User

If this is the first enrollment in the new system, everyone is allowed to enroll himself/herself in to the system

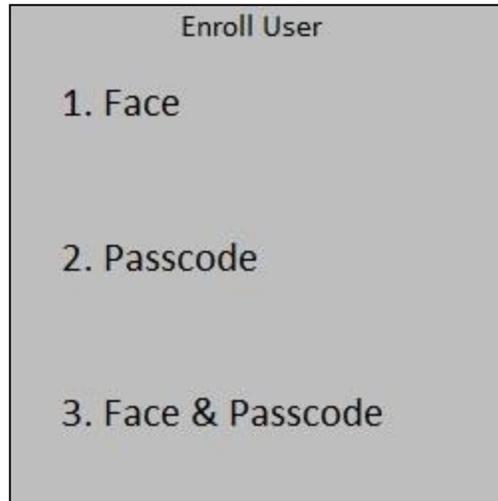
There are three verification method options for a new user enrollment: **Face read**, **Password**, or the **combination** of the above two.

Face read enrollment is ideal because it allows you to be hands free and less likely to obtain germs from multiple people touching the product.

To start the enrollment process, press **[Menu]**, choose the **User Manager** option and press **[OK]**, the following is displayed:



Press **[OK]** at the **Enroll User** option to start the user enrollment and the following three options will appear:



3.2 Types of Enrollment

3.2.1. Face Enrollment

1) Select **Face**, then press **[OK]**, the following message is displayed:



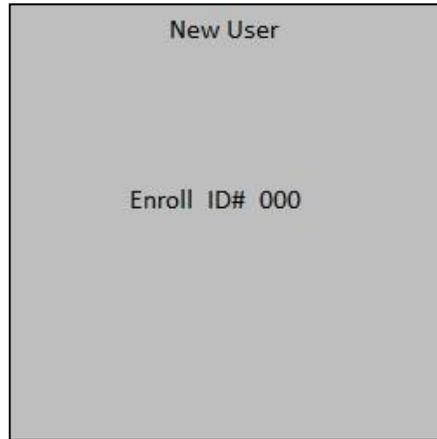
2) Press **[OK]** for new user enrollment and allow the scanner to read the users face and process.

Note: Allow your face to be within the box in the screen.

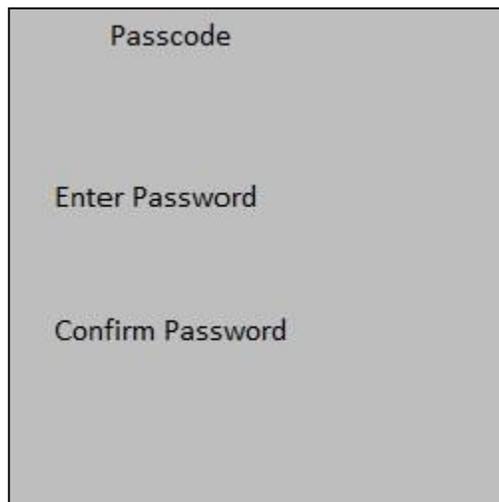
3) When you have successfully been enrolled in the device it will return to the enroll user menu

3.2.2 Password Enrollment

1) Select **Passcode**, then press **[OK]**, the following message appears:



2) Input the **Enroll No.** (Range: 001 to 999) or simply press **[OK]** to use the first available Enroll No. in the device, the following message appears:



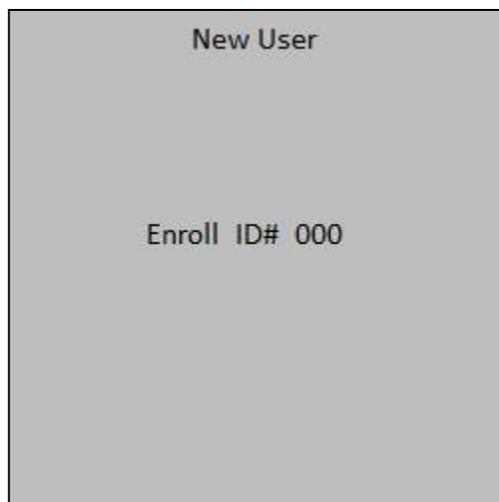
4) Input the password (up to 5 digits) then Input the password again then press **[OK]**, the following message appears:



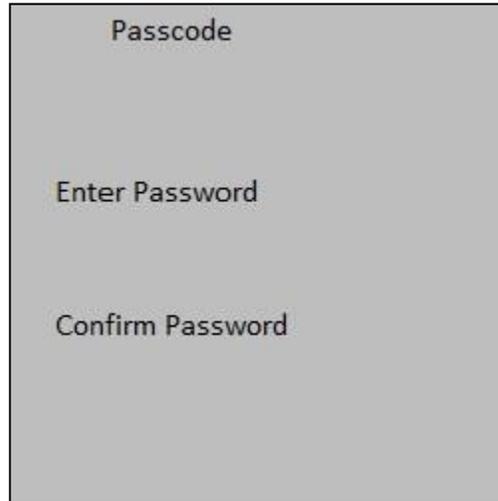
Press **[OK]** to save the enrolled data then you may repeat the same processes again for another enrollment.

3.2.3 Face & Password

1) Select **Face & Password**, then press **[OK]**, the following appears:



2) Input the **Enroll No.** (Range: 001 to 999) or simply press **[OK]** to use the first available Enroll No. in the device, the following message appears:



3) Input your password and repeat it to confirm and allow the scanner to read the users face and process.

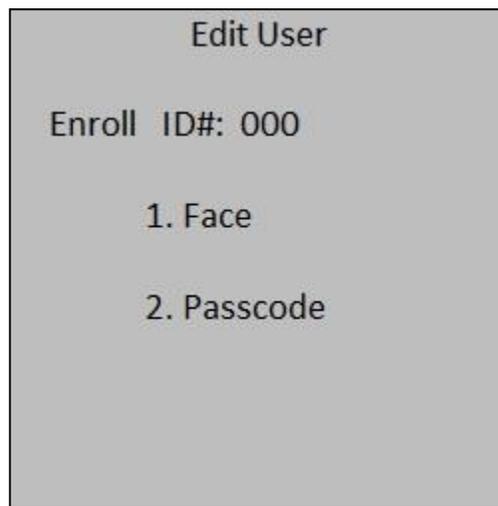
Note: Allow your face to be within the box in the screen

3.3 Edit User

1) Select **Edit User**, then press **[OK]**, the following appears:



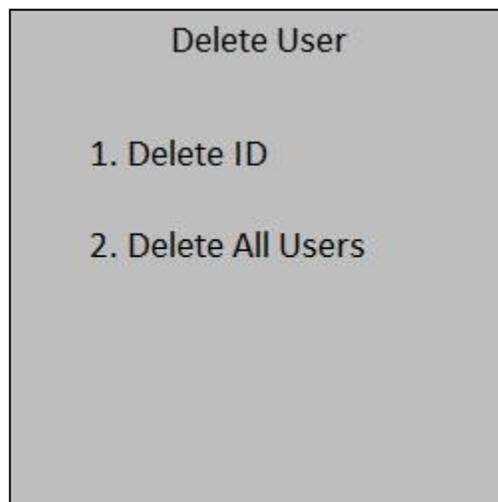
2) Input the **Enroll No.** (Range: 001 to 999) or simply press **[OK]** to use the first available Enroll No. in the device, the following message appears:



3) Two options will appear and the user must select one: **Face** or **Password**. First option selects **Face** and press **OK** and allow the scanner to scan the users face. It will then return to the User Manage menu. Second Option select **Password** and press **OK** and Input the password (up to 5 digits) then press **[OK]**. It will then return to the User Manage menu.

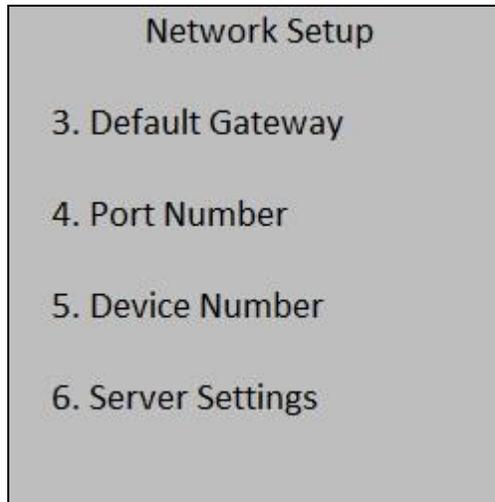
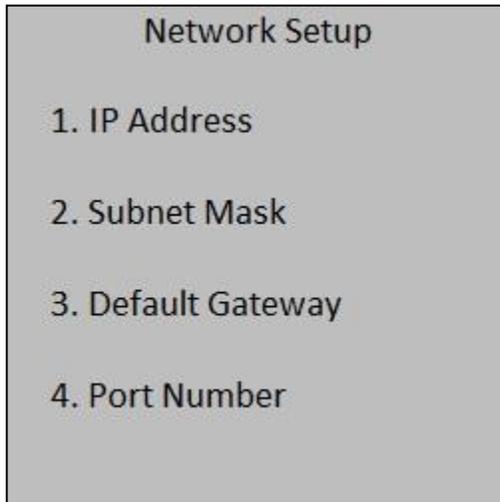
3.4 Delete User

1) Select **Delete User**, then press **[OK]**, the following appears:



2) It will give you two options to either choose **Delete ID** or **Delete All Users**. **Delete ID** will allow you to delete the individual user ID. **Delete All Users** will allow you to delete all the users that are logged into the system.

4.0 Network Setup



1) Press **[MENU]**, select “**Network Setup**”, press **[OK]**, the following appears:

- **IP address:** Enter the IP address according to your networking options. The default IP address is 192.168.1.204
- **Subnet Mask:** Networking connection with the device setup.
- **Default Gateway:** Networking connection with the device setup.
- **Port Number:** TCP communication port, the default setting is 5005.
- **Device Number:** The following will show the device number of the unit

5.0 Access Control

Select "Access Control", the following will show the Server IP address of the unit and if the Real-Time is on or off.

- 1) **Define Time Zone:** Define the time and date allowed for access.
- 2) **Define Group Time Zone:** Define multiple time and date combinations allowed for access.
- 3) **Access Options:** Group selected users to different time zones.
- 5) **Unlock Group:** Define and authorize access for a combination of different groups of users
- 6) **Lock delay:** Given time period in seconds, the lock is released after a user's identity is

Confirmed

Define Time Zone Not only that you can restrict access for different users, now you can set up to 50 Time Zones to restrict more on entry access during different time of the day. Each Time Zone consists of up to 7 different time periods (one week). Each user can be applied to up to 3 Time Zones, meaning even the user is registered on the device, he/she can be granted access only within specified times zones.

Note: System default time period setting allows a registered user to access the door for entire day.

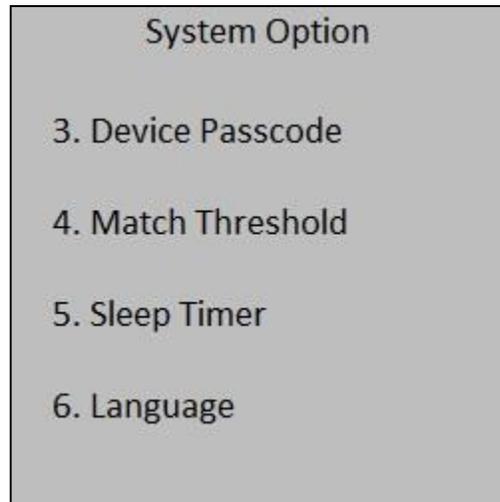
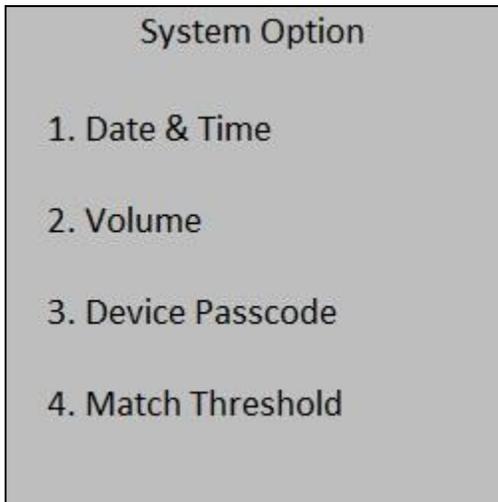
Define Group Time Zone function (up to 5 groups) categorizes users into groups; and Combine different groups into up to three (3) Time Zones.

Select **Access Options** to check a user's access control setup status. You can also set up the Group Time Zone/Time Zone for each employee here.

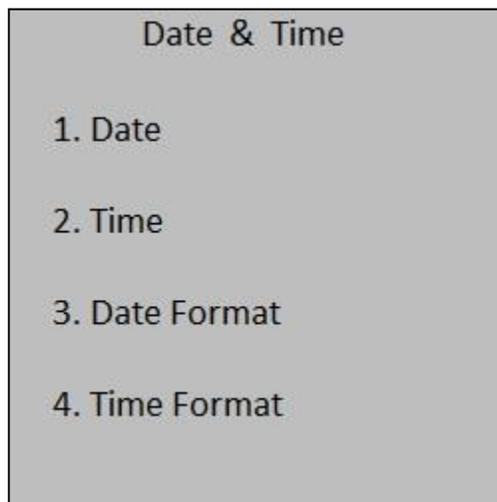
- **Belong Group:** Categorize users in to different groups.
- **Time Zone:** Apply up to three (3) different Time Zones.

6.0 System Option

Select **System Option**, the following message appears:



1) Select "Date & Time" and the following will appear:

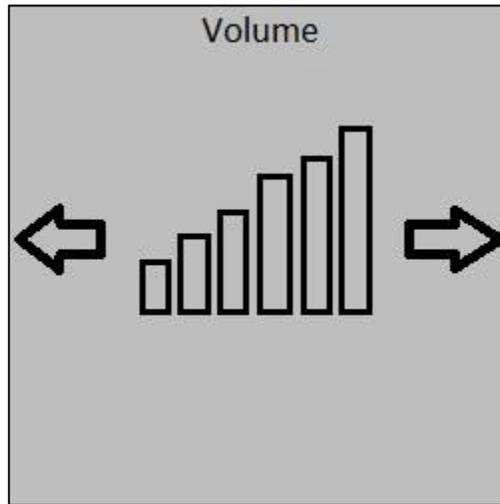


Select **Date** and it will allow you to change the date that appears on the screen.

To change the date, press  and . Then input the correct numbers on the keypad. Finally, press **[OK]** to complete.

Select **Time** and it will allow you to change the time that appears on the screen.

To change the time, press  and . Then input the correct time on the keypad for time settings. Finally, press **[OK]** to complete.



2) Select “**Volume**” and the following will appear:

To change the volume, press  or  then press **[OK]** to complete

3) Select “Device Passcode” and it will allow you to create a five digit passcode. Once passcode is created repeat it to confirm and press **[OK]**

4) Select “**Match Threshold**” and it will allow you to set a match threshold level for the unit.

Match Threshold Levels establishes a balance between False Acceptance Rate (FAR) and False Rejection Rate (FRR). FAR is the frequency of a non-authorized user is falsely recognized and granted access to the system. FRR the frequency of an enrolled and authorized user, who should be granted access to the system, is denied on the basis that the system did not recognize. FAR and FRR affect each other. Lower FAR yields to higher FRR.

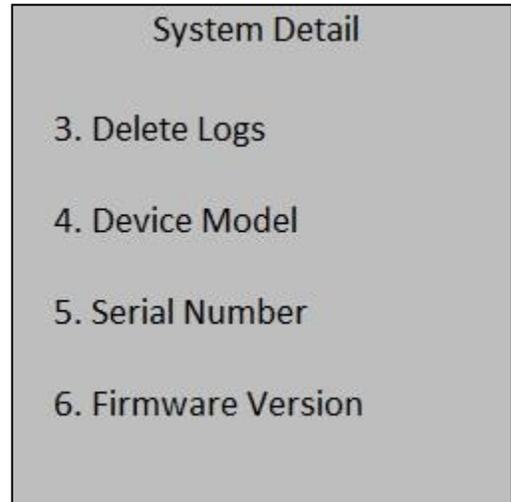
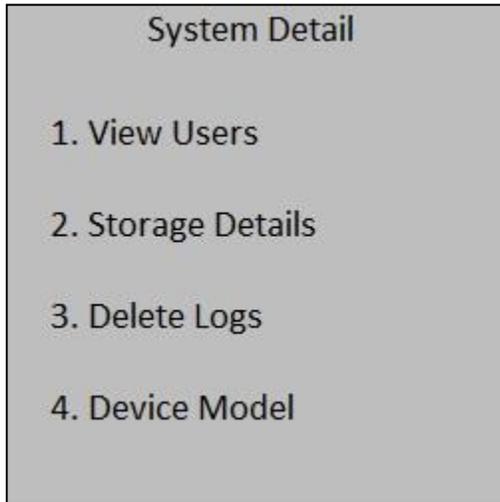
You can set match threshold levels on a per-use basis. The higher the threshold is set, the higher the security is ensured; however, it is recommended to leave this setting as default, threshold value = 3, since the default threshold is commonly accepted as the balance of FAR and FRR rate.

5) Select “**Sleep Timer**” to set a timer for the unit to turn off automatically. Set the timer using the keypad and press **[OK]**.

6) Select “**Language**” and it will allow you to change the language in the unit.

7.0 System Detail

Press [MENU], select “System Detail”, press [OK], the following appear



- **View Users:** Allows you to view how many users are enrolled into the system
- **Storage Details:** Allows you to view the available space in your system
- **Delete Logs:** This option will ask to confirm to delete all logs
- **Device model:** This will display the device model of the device
- **Serial Number:** This will display the serial number of the system
- **Firmware Version:** This will display the firmware version of the system