# T-7 FINGERPRINT TERMINAL

## HARDWARE USER'S MANUAL
### Rev 1.1

# Table of Contents

# CHAPTER ONE

# INTRODUCTION

## 1.1 SUPPLIED PART LIST

1. T-7 Fingerprint Terminal               1pcs
2. 9V/1A Power Supply                          1pcs
3. RS232 Cable (1m)                            1pcs
4. Pegasus 5.0Attendance Management CD        1pcs

## 1.2 ABOUT PEGASUS T-7

The Pegasus T-7 is a flexible and reliable design to meet the market requirement for a robust and secure biometric Time & Attendance solution at a reasonable cost.    T-7 allows you to register up to 2,000 fingerprints and store up to 50,000 transactions.

## 1.3 HARDWARE SPECIFICATION

| | |
|---|---|
| Fingerprint Template Capacity | 2,000 |
| Transaction Capacity | 50,000 |
| Verification Mode | 1:1 or 1:N |
| Communication |  RS232/RS485(up to 32 channels) TCP/IP |
| Keyboard and Display | 128x64 LCD with blue back light and 16-key keypad |
| Power Supply | 9 VDC, standby current: 2.5A, operating current: 400mA |
| Identification speed | < =2 seconds |
| FRR (False Rejection Ratio) | < =0.01% |
| FAR (False Acceptance Ratio) | < =0.0001% |
| Operating Environment | Temperature: 0°C – 45°C Humidity: 20% – 80% |
| Language Support | English |
| Dimension | 189(L)*137(W)*50(H)mm |

# CHAPTER TWO

# PRODUCT OVERVIEW

## 2.1  COMMUNICATION

Pegasus T-7 Provides RS232, RS485 and TCP/IP communication interfaces and depicted below:

RS232
RS485
TCP/IP
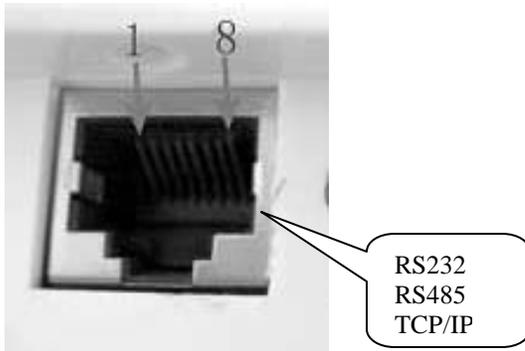
## 2.2 POWER MANAGEMENT

When T-7 is in power down mode, the device is brought into operational mode once Power Key is pressed and ready for clocking.

When the device is in operational mode, the device is brought into power down mode once Power Key is pressed and held for 4 seconds.

If the automatic power down has been set, the device will be brought into power down mode according to defined time schedule.

## 2.3 KEYPAD FUNCTIONS

| 1 | 2 | 3 | ESC |
|---|---|---|---|
| 4 | 5 | 6 | MENU |
| 7 | 8 | 9 | ? |
| ? | 0 | OK | ? |

| | |
|---|---|
| ESC | Move one level up from the menu hierarchy |
| MENU | Get into the system setting menu |
| OK | Confirm the current setting |
| ? | Move the cursor up |
| ? | Move the cursor down |
| 0...9 | Numeric keys |
| ? | Power ON/OFF switch |

## 2.4 USER MANAGEMENT

Two User roles are defined in T-7, namely manager or normal user.
- Normal users can clock on the device but can NOT access the settings.
- Managers can clock on the device as well as do system management:
    1. Register/delete normal users' fingerprints and passwords.
    2. Browser attendance records as well as other system information.
    3. Set up system configurations

## 2.5 USER ENROLLMENT

Enrollment is the process of creating an ID, assigning a password (optional) and scanning a user's fingers to create the fingerprint templates. All these associated information are stored in the device.

During user verification, the stored fingerprint templates are compared to the current scanned fingerprint to confirm the user's identity.

Enrollment takes approximately 2 seconds for each user. Up to 3 fingers can be enrolled for the same ID number. Ideally, at least one finger on each hand should be enrolled in case of injures.

## 2.6 Hardware Description

LED Indicator
Indicate the Power Status
And Operation Status

LCD Display
Show the Current Date & Time
Attendance Information

ESC Key
Cannel or return to upper
menu the menu up

Menu Key
Show the operation menu
up

Number Key
Input Number and
choose items in menu

Fingerprint Scanner
The Fingerprint scanning
area

Power Key
Power On or Power
Off the machine

？？Key
Scrolling the menu

OK Key
Confirm the operation

# CHAPTER THREE

# BASIC SETTINGS

## 3.1 SYSTEM SETTINGS

### 3.1.1    Total Number of Administrators

| Setting | Description |
|---|---|
| 1 - 10 | set total number of administrators in T-7 |
| Factory Default | 5 |

### 3.1.2    Machine  Number

| Setting | Description |
|---|---|
| 1 - 255 | set an unique address ID to  T-7 to network with multiple machines |
| Factory Default | 1 |

### 3.1.3    Baud Rate

| Setting | Description |
|---|---|
| 9600 | set the communication speed to 9,600 bps (Bit Per Second) |
| 19200 | set the communication speed to 19,200 bps |
| 38400 | set the communication speed to 38,400 bps |
| Factory Default | 38400 |

* Speed setting should be the same with PC, otherwise communication shall fail.

### 3.1.4    Language

| Setting | Description |
|---|---|
| English | set all display information in English |
| Traditional Chinese | Set all display  information in Traditional Chinese |
| Factory Default | English |

### 3.1.5    Auto Power Off

| Setting | Description |
|---|---|
| NO | auto power off function is disabled |
| 1 - 255 | Auto power off when there are no activities on the device.  The unit is in minute. |
| Factory Default | NO |

### 3.1.6  Voice Indication

| Setting | Description |
| --- | --- |
| YES | Activate the voice indication |
| NO | Inactivate the voice indication |
| Factory Default | YES |

### 3.1.7  Restore Factory Default

If OK key is pressed, all the current setting will lose and restore to the factory default settings.

## 3.2 EVENT SETTINGS

### 3.2.1 Administrative Event Full Warning

The machine will give a "FULL" warning signal when the administrative event buffer is below the set threshold.

| Setting | Description |
|---|---|
| NO | There's no warning if there's no administrative event buffer left, and no further administrative events will be logged. |
| 1 - 255 | |
| Factory Default | 100 |

### 3.2.2 Attendance Event Full Warning

The machine will give a "FULL" warning signal when the attendance event buffer is below the set threshold.

| Setting | Description |
|---|---|
| NO | There's no warning if there's no attendance event buffer left, and no further attendance events will be logged. |
| 1 - 1500 | |
| Factory Default | 1000 |

### 3.2.3 Valid Attendance Time Interval

If this time interval is set, only ONE attendance event will be logged if there are multiple attendance events within this time interval for the same user.

| Setting | Description |
|---|---|
| NO | All attendance events will be counted as valid one. |
| 1 - 255 | |
| Factory Default | NO |

## 3.3   MENU HIERARCHY

There are three kinds of menus:
1. Operation Menu
2. Setting Menu
3. Status Menu

### 3.3.1  First Level Menu Items

The first level menu items show up when MENU key is pressed if there's no available administrators, affirmation will be done otherwise.

```
┌──────────────┐
│    MENU      │
└──────┬───────┘
       │
       │        ┌─────────────────┐
       ├────────│ 1. Enroll       │
       │        └─────────────────┘
       │        ┌─────────────────┐
       ├────────│ 2. Delete       │
       │        └─────────────────┘
       │        ┌─────────────────┐
       ├────────│ 3. Download     │
       │        └─────────────────┘
       │        ┌─────────────────┐
       ├────────│ 4. Time Set     │
       │        └─────────────────┘
       │        ┌─────────────────┐
       ├────────│ 5. Settings     │
       │        └─────────────────┘
       │        ┌─────────────────┐
       └────────│ 6. Info View    │
                └─────────────────┘
```
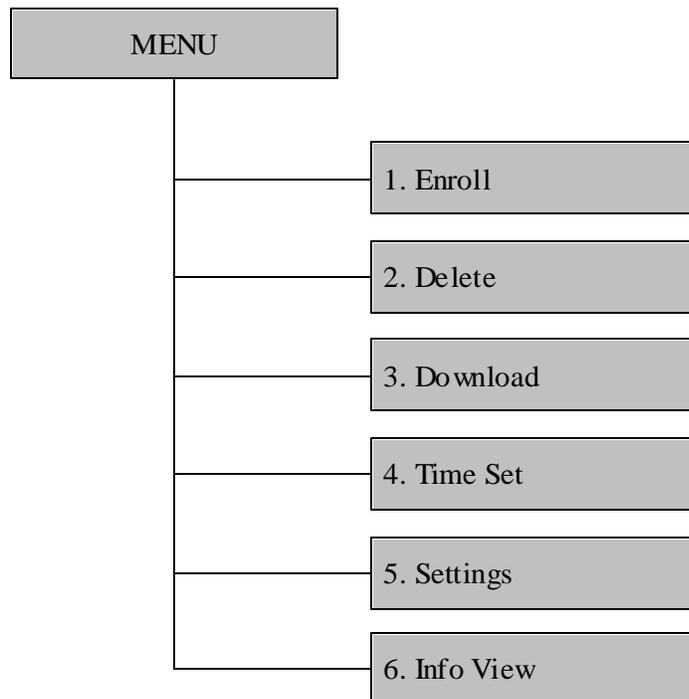
### 3.3.2  Second Level Menu Items

User Registration Management
The Item "Enroll" includes 4 Sub Items which are "User Enroll", "Manager Enroll", "Sec Level Set" and "USB Upload"
The Sub Items will show up after user select "Enroll" ,which under the first level menu, and Press "OK".

```
┌─────────────────┐
│     Enroll      │
└─────────────────┘
         │
         │          ┌─────────────────────┐
         ├──────────│ 1. User Enroll      │
         │          └─────────────────────┘
         │          ┌─────────────────────┐
         ├──────────│ 2. Manager Enroll   │
         │          └─────────────────────┘
         │          ┌─────────────────────┐
         ├──────────│ 3. Sec Level Set    │
         │          └─────────────────────┘
         │          ┌─────────────────────┐
         └──────────│ 4. USB Upload       │
                    └─────────────────────┘
```
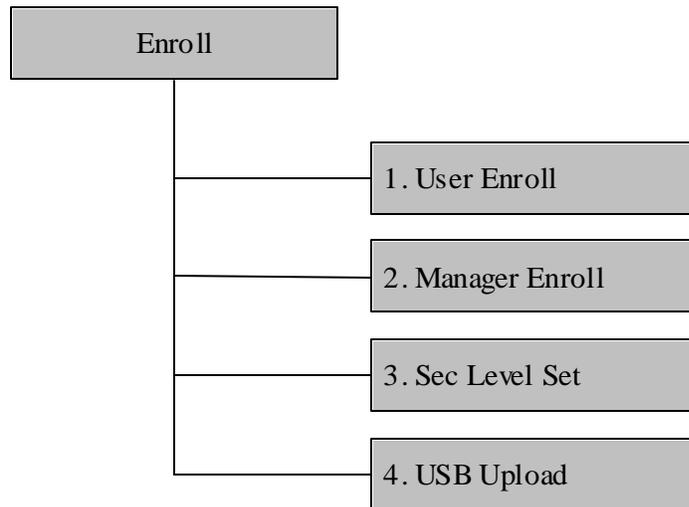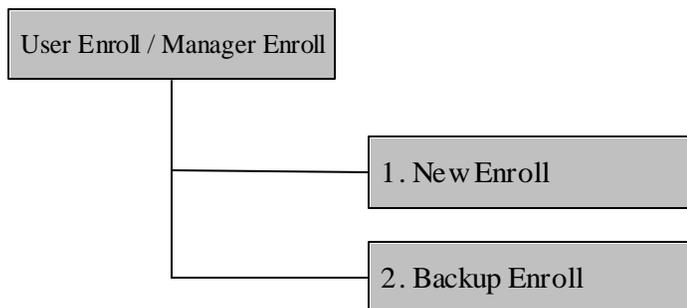
Select the level of user registration (User Enroll / Manager Enroll) and Press "OK". The Third Level Menu Items show up as the figure below. "New Enroll" is for new user registration. "Backup Enroll" is for enrolling *"Backup Record" of registered user.

```
┌──────────────────────────────────┐
│ User Enroll / Manager Enroll     │
└──────────────────────────────────┘
         │
         │          ┌─────────────────────┐
         ├──────────│ 1. New Enroll       │
         │          └─────────────────────┘
         │          ┌─────────────────────┐
         └──────────│ 2. Backup Enroll    │
                    └─────────────────────┘
```

(*p.s.: "Backup Record" means the $2^{nd}$ or $3^{rd}$ Finger Print template, Password and ID card".

The registration method shows up after "New Enroll" or "Backup Enroll" is selected.

```
┌─────────────────────────────┐
│ New Enroll / Backup Enroll  │
└─────────────────────────────┘
           │
           │        ┌──────────────────┐
           ├────────│ 1. Finger        │
           │        └──────────────────┘
           │        ┌──────────────────┐
           ├────────│ 2. Password      │
           │        └──────────────────┘
           │        ┌──────────────────┐
           └────────│ 3. Card          │
                    └──────────────────┘
```
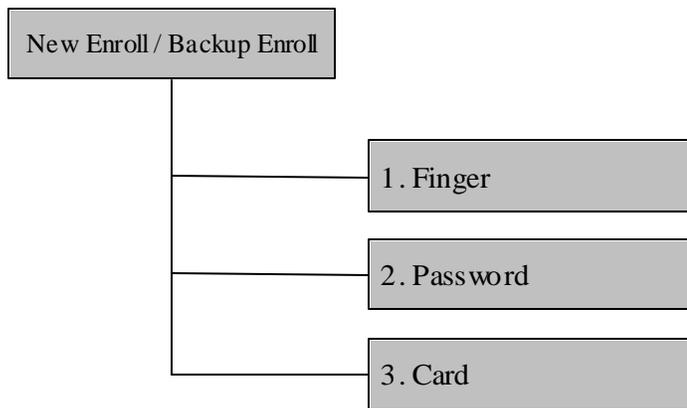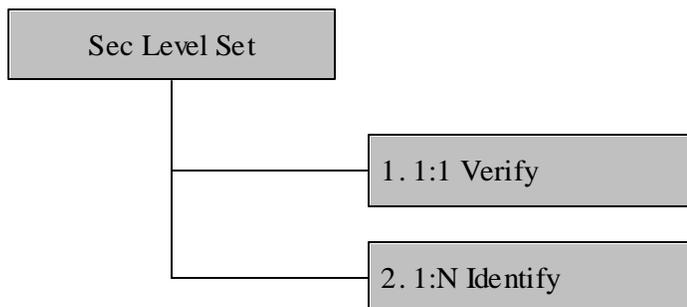
"Sec Level Set"
    There are 2 options under "Sec Level Set" which are "1:1 Verify" and "1:N Identify".
    "1:1 Verify" - Compare the user's fingerprint and the fingerprint template stored in card. (Optional Setting depends on the model)
    "1:N Identify" – Compare the user's fingerprint with the fingerprint template of all registered user stored in machine.

```
┌─────────────────────────────┐
│ Sec Level Set               │
└─────────────────────────────┘
           │
           │        ┌──────────────────┐
           ├────────│ 1. 1:1 Verify    │
           │        └──────────────────┘
           │        ┌──────────────────┐
           └────────│ 2. 1:N Identify  │
                    └──────────────────┘
```

"USB Upload"
The Backup of Menu Setting can be uploaded from USB storage device to the FringerPrint Machine. (Optional Setting depends on the model)
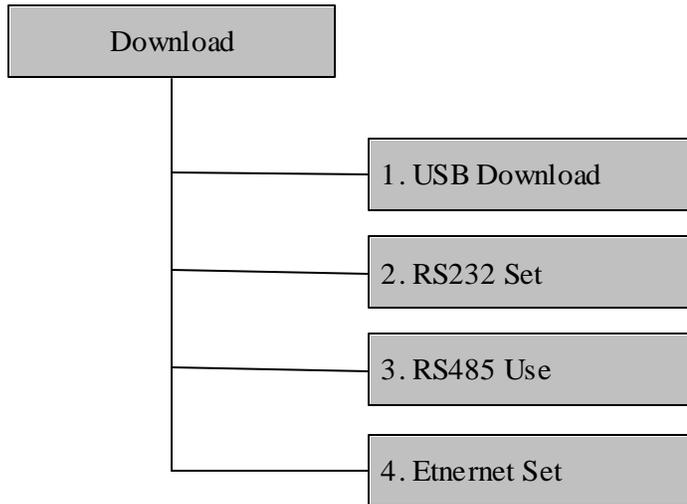
16

## Delete User

The "Delete Menu" shows up after select "Delete" under the First Level Menu and pressed "OK". Enter the UserID by number or direction key. Press "OK" to confirm the deletion.

```
        Delete

  ID          00001
  ESC          ENTER
```

## Data Download

The Sub Items show up after select "Download" user First Level Menu.

```
        Download


                        1. USB Download


                        2. RS232 Set


                        3. RS485 Use


                        4. Etnernet Set
```
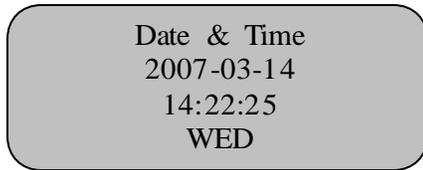
USB Download

There are two options under the "USB Download", which are "GLog" and "Enroll Data".(Optional Function depends on the model)

"Glog"            Attendance Record Download
"Enroll Data"     Fingerprint Template Download

Time Setting

The Time Setting Menu shows up after select "Time Set" under the First Level Menu and pressed "OK".

```
          Date  &  Time
           2007-03-14
            14:22:25
             WED
```

Move the cursor location by direction key. Enter the correct value by number key.
(The weekday value is generated by machine automatically).

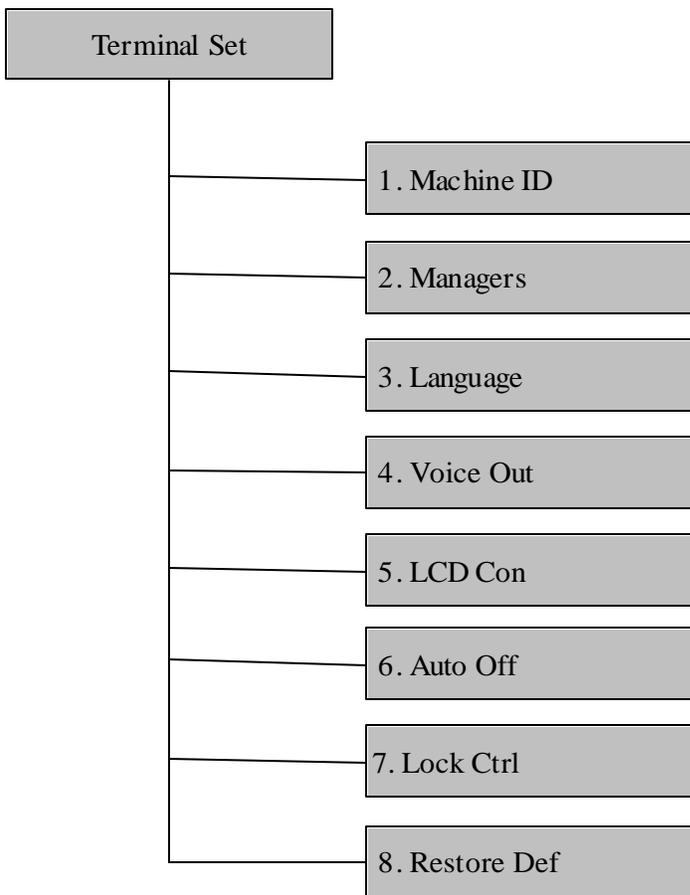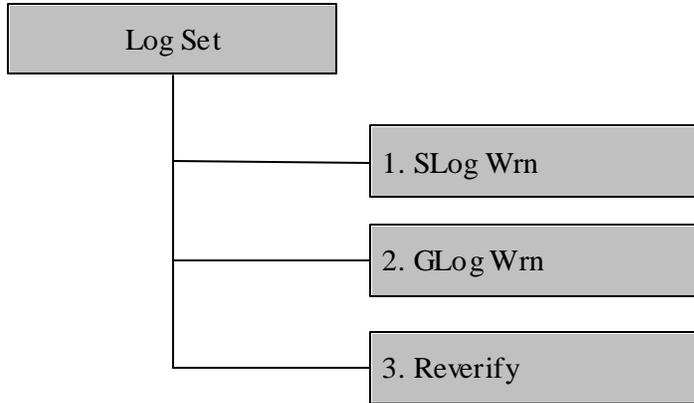### 3.3.3  "Setting" configures the major function of T-7.

There are two items under "Setting", which are "Terminal" and "Log".

```
┌─────────────────┐
│    Settings     │
└────────┬────────┘
         │
         │        ┌─────────────────────┐
         ├────────│ 1. Terminal         │
         │        └─────────────────────┘
         │        ┌─────────────────────┐
         └────────│ 2. Log              │
                  └─────────────────────┘
```
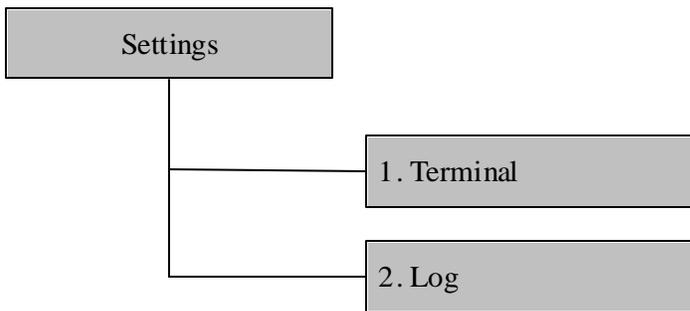
"Terminal" configures the settings of machine operation.
"Log" configures the settings of data logging

The sub items are shown below.

```
┌─────────────────┐
│  Terminal Set   │
└────────┬────────┘
         │        ┌─────────────────────┐
         ├────────│ 1. Machine ID       │
         │        └─────────────────────┘
         │        ┌─────────────────────┐
         ├────────│ 2. Managers         │
         │        └─────────────────────┘
         │        ┌─────────────────────┐
         ├────────│ 3. Language         │
         │        └─────────────────────┘
         │        ┌─────────────────────┐
         ├────────│ 4. Voice Out        │
         │        └─────────────────────┘
         │        ┌─────────────────────┐
         ├────────│ 5. LCD Con          │
         │        └─────────────────────┘
         │        ┌─────────────────────┐
         ├────────│ 6. Auto Off         │
         │        └─────────────────────┘
         │        ┌─────────────────────┐
         ├────────│ 7. Lock Ctrl        │
         │        └─────────────────────┘
         │        ┌─────────────────────┐
         └────────│ 8. Restore Def      │
                  └─────────────────────┘
```

```
┌─────────────────────────┐
│        Log Set          │
└────────────┬────────────┘
             │
             │      ┌─────────────────────────┐
             ├──────│   1. SLog Wrn           │
             │      └─────────────────────────┘
             │
             │      ┌─────────────────────────┐
             ├──────│   2. GLog Wrn           │
             │      └─────────────────────────┘
             │
             │      ┌─────────────────────────┐
             └──────│   3. Reverify           │
                    └─────────────────────────┘
```

Machine ID:   The Unique ID of the machine on the same communication channel.

Managers:     The maximum number of machine administrator.

Language:     The language of operation menu. T-7 supports 2 languages which are Traditional Chinese and English.

Voice Out:    Enable or disable the function of voice indication.

LCD Con:      The contrast of between the display and back-light.

Auto Off:     The machine will shut down after a certain idle time. (The function is disable on the default setting).

Lock Ctrl:    The duration of Open door signal.

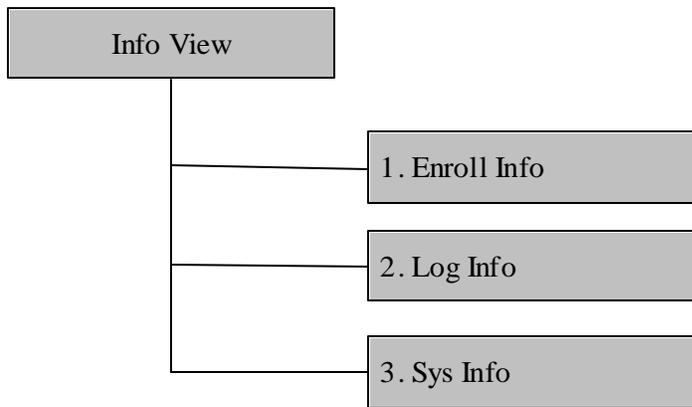Restore Def:  Restore all settings which under "Settings" to factory default setting.

Slog Wrn:     To set the limit of residue system log memory. If the number of residue system log memory reach the limit. Warning occurred. (All administrators' operation is record as system log.)

Glog Wrn:     To set the limit of residue attendance record memory. If the number of residue attendance record memory reach the limit. Warning occurred

Reverify:     The duration of 2 successful attendances which from the same fingerprint. All duplicate attendance record doesn't be recorded.


Detail Information

"Info View" shows the registration code, records, manufacturer and firmware version.
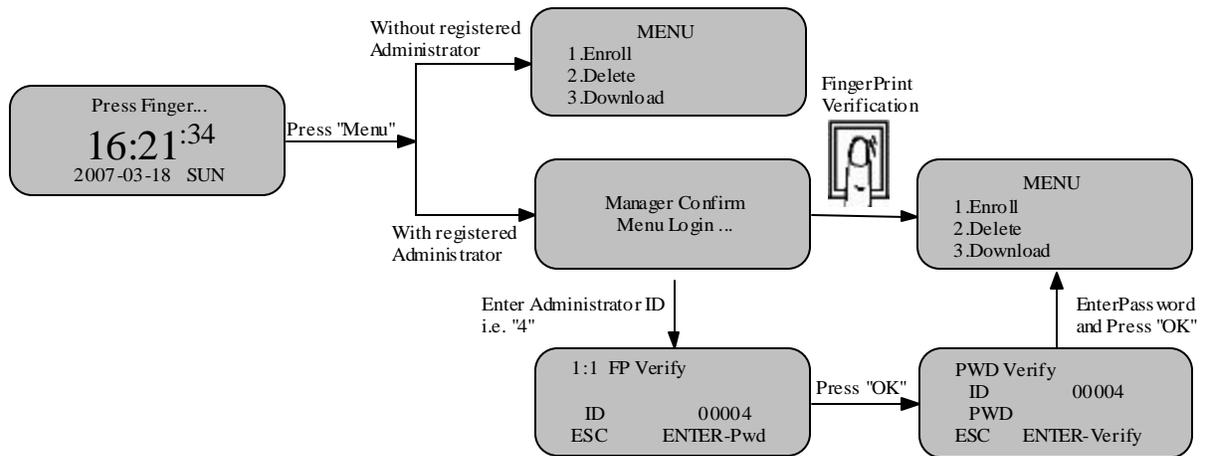The sub items are shown below.

```
┌─────────────────────┐
│     Info View       │
└──────────┬──────────┘
           │
           │      ┌──────────────────────────┐
           ├──────│ 1. Enroll Info           │
           │      └──────────────────────────┘
           │
           │      ┌──────────────────────────┐
           ├──────│ 2. Log Info              │
           │      └──────────────────────────┘
           │
           │      ┌──────────────────────────┐
           └──────│ 3. Sys Info              │
                  └──────────────────────────┘
```

Enroll Info:     To show the information about user registration such as the number of registered user, number of registered administrator, number of fingerprint template, number of registered password and number of registered ID Card.

Log Info        To show or operate the machine record such as number of attendance record, number of system log, attendance record of user, system log of administrator, and delete all record.
Sys Info:        To show hardware information which includes Manufacturer, Machine Name, Release Date,. Serial Number, Engine Version and Soft Version.

## 3.4 Machine Operation for administrator
## 3.4.1 To show the First Level Menu

```
                                  Without registered      ┌─────────────────────┐
                                  Administrator            │        MENU         │
                                      ┌──────────────────▶ │ 1.Enroll            │
                                      │                     │ 2.Delete            │
                                      │                     │ 3.Download          │
┌─────────────────────┐              │                     └─────────────────────┘
│   Press Finger...    │ Press "Menu" │
│                      │──────────────┤
│   16:21:34           │              │                     ┌─────────────────────┐
│   2007-03-18  SUN    │              │                     │  Manager Confirm    │
└─────────────────────┘              │                     │  Menu Login ...     │
                                      └──────────────────▶ │                     │
                                  With registered           └─────────────────────┘
                                  Administrator
```

FingerPrint Verification

MENU
1.Enroll
2.Delete
3.Download

Enter Administrator ID
i.e. "4"

EnterPassword and Press "OK"

```
┌─────────────────────┐                  ┌─────────────────────┐
│  1:1  FP Verify     │  Press "OK"      │  PWD Verify         │
│                     │─────────────────▶│     ID      00004   │
│     ID      00004   │                  │     PWD             │
│  ESC     ENTER-Pwd  │                  │  ESC     ENTER-Verify│
└─────────────────────┘                  └─────────────────────┘
```

If the "manager confirm" is requested on the operation and the user didn't enroll any administrator, please shut down the machine and contact with retailer.

If confirmation is fail, "Illegal" is shown and request the reconfirmation.

```
┌─────────────────────┐              ┌─────────────────────┐
│  FP  Identify       │              │  FP  Identify       │
│                     │─────────────▶│                     │
│     Take Off ...    │              │     Again  Press ...│
│     Illegal!        │              │                     │
└─────────────────────┘              └─────────────────────┘
```
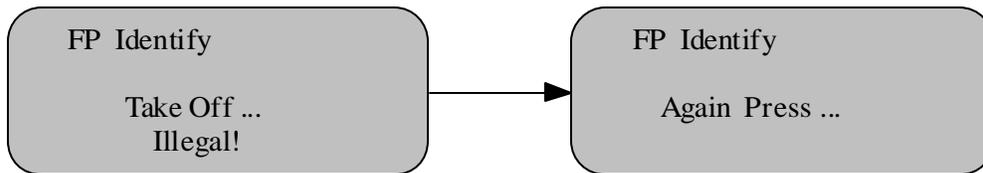
## 3.4.2 Machine Management

New User Registration / New Administrator Registration

Step 1 Enter the First Level Menu (Refer to Page.)

Step 2 Press "1" to choose "Enroll"

```
              MENU
        1.Enroll
        2.Delete
        3.Download
```

Step 3 Press "1" to choose "User Enroll" for normal user registration

Or

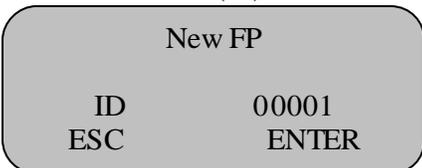Press"2" to choose "Manager Enroll" for administrator registration

```
        Level  Selection
        1.User Enroll
        2.Manager Enroll
        3.Sec Level Set
```
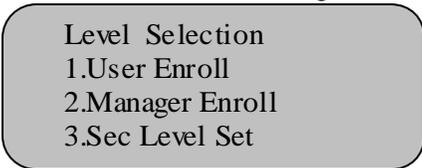
Step 4 Press "1" to choose "New Enroll"

```
        Enroll Method
        1.New Enroll
        2.Backup Enroll
```
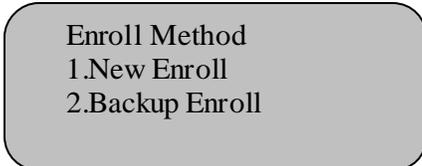
Step 5 Press "1" to choose "Finger" for Fingerprint Enrolling.
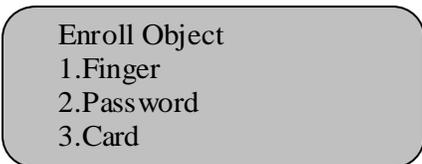
```
        Enroll Object
        1.Finger
        2.Password
        3.Card
```

Step 6 Enter the User ID (i.e) 00001 and Press "OK".

```
              New FP


         ID          00001
        ESC          ENTER
```

Step 7.Show you finger on the window

```
            Press Finger!
               First
```

Step 8.Show you finger on the window again

```
          Press Finger!
          Second
```

Step 9.Show you finger on the window again

```
          Press Finger!
          Third
```

Successful Registration

Step 10 Press "ESC' to quit the registration process.

```
          New FP

          More New?
    ESC            ENTER
```
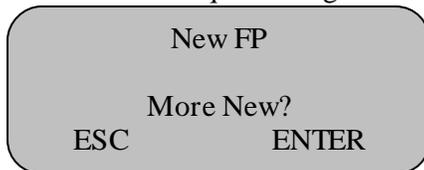
Enrolled User Registration (Backup Enroll)
T-7 allow administrator enroll 2 more fingerprint temple, password and Card for the same user as Backup.

## 3.4.3 Password Registration

Step 1 Enter the Menu "Enroll Object"
Step 2 Press"2" to choose "Password"

```
    Enroll Object
    1.Finger
    2.Password
    3.Card
```

Step 3 Enter the User ID (i.e) 00001 and Press "OK".

```
          New PWD

      ID          00001
    ESC           ENTER
```
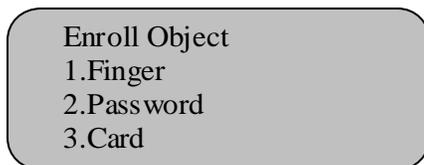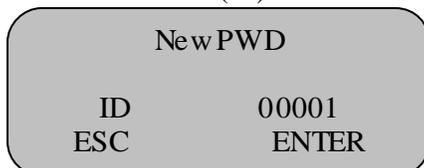
Step 4 Enter the Password (4 digits) and Press "Enter"

```
        New PWD
   ID            00001
   PWD In
  ESC            ENTER
```

Step 5 Re-enter the password to confirm.

```
    PWD    Confirm
    PWD    ReInput!
   PWD     In
```

Successful Registration
Step 6 Press "ESC" to quit the registration process.

```
       New PWD

       More New?
  ESC            ENTER
```

### 3.4.4 ID Card Registration (Optional function for special model)

Step 1 Enter the Menu "Enroll Object"

Step 2 Press "3" to choose Card

```
Enroll Object
1.Finger
2.Password
3.Card
```
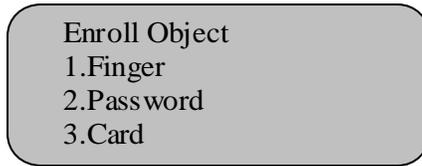
Step 3 Enter the User ID (i.e) 00001 and Press "OK".
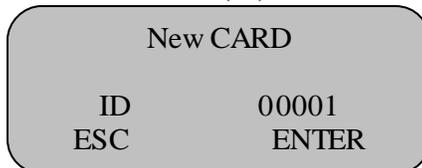
```
New CARD


   ID          00001
ESC            ENTER
```

Step 4 Please show Card on the detecting area.
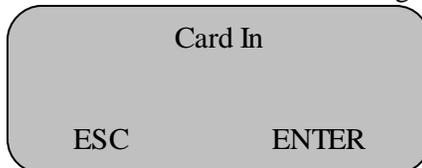
```
Card In



ESC            ENTER
```

Step 5 Card ID is shown on the screen and Press "OK" to confirm.
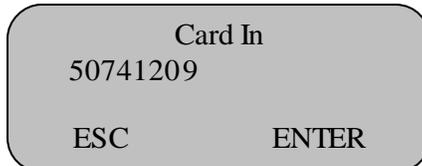
```
Card In
50741209

ESC            ENTER
```

Successful Card Registration

Step 6 Press "ESC" to quit the registration process.
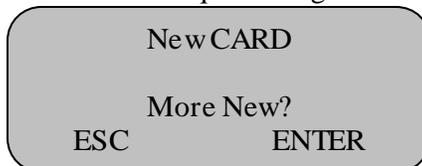
```
New CARD

More New?
ESC            ENTER
```

## 3.4.5 Delete User

Step 1 Enter the First Level Menu (Refer to Page.)
Step 2 Press "2" to choose "Delete"

```
        MENU
   1.Enroll
   2.Delete
   3.Download
```

Step 3 Enter the User ID and Press "OK"
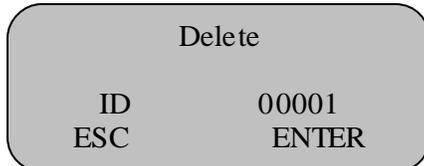
```
        Delete

    ID          00001
  ESC           ENTER
```

Step 4 Press "OK" to confirm
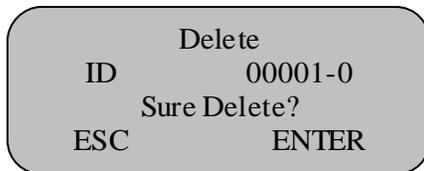
```
         Delete
    ID          00001-0
       Sure Delete?
  ESC           ENTER
```

Successful Deletion

If any backup record belong the deleted User ID, the alert of deletion of backup record will show on the screen.
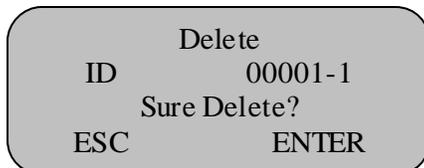
```
         Delete
    ID          00001-1
       Sure Delete?
  ESC           ENTER
```

The type of record is indicated by the last digit.
   "0" means $1^{st}$ Fingerprint template.
   "1" means $2^{nd}$ Fingerprint template
   "2" means $3^{rd}$ Fingerprint template
   "P" means Password
   "C" means Card

## 3.5 Attendance Log and System Log Management
## 3.5.1 Query Attendance Log
Step 1 Enter the First Level Menu (Refer to Page.)
Step 2 Press"6" to choose "Info View"

```
        MENU
    4.Time Set
    5.Settings
    6.Info View
```

Step 3 Press "2" to choose "Log View"

```
        Info View
    1.Enroll Info
    2.Log Info
    3.Sys Info
```

Step 4 Press"3" to choose "GLog View"

```
        Log View
    1.GLog          0
    2.SLog          0
    3.GLog View
```

Step 5 Press "OK" to query all attendance log. (In order by time)
        Or
        Enter the User ID to query a certain user 's record. Press"OK"

```
    Glog  View


       ID          00000
    ESC            ENTER
```

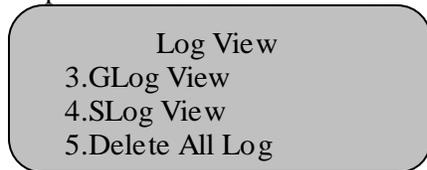Step 6 Press " ? " or " ? " to view the previous or next record.

```
                        C-00022
    Glog  View          N-00001
        07/03/10 13:23 V_F

           00001
    ESC            ENTER
```

| C | ? | total amount of attendance record |
| | | (C-00022 means there are 22 records) |
| N | ? | **the sequence of attendance record** |
| | **(N-00001 means it is the first record)** | |
| **V_F** | **?** | **by fingerprint** |
| **V_P** | **?** | **by password** |
| **00001** | **?** | **User ID of the current record** |
| **07/03/10 13:23** | **?** | **attendance time** |

## 3.5.2 Query the System Log

Step 1 Enter the Menu "Log View"

Step 2 Press"4" to choose "SLog View"

```
        Log View
   2.SLog           0
   3.GLog View
   4.SLog View
```

Step 3 Press "OK" to query all system log. (In order by time)

       Or

       Enter the User ID to query a certain user's system log. Press"OK"

```
   Slog  View


      ID           00000
   ESC          ENTER
```

Step 4 Press " ? " or " ? " to view the previous or next record.

```
                    C-00022
   Slog  View       N-00001
     07/03/10 13:23 E_U

   00004         00001
   ESC          ENTER
```

| | | |
|---|---|---|
| E_U | ? | Normal user registration |
| E_M | ? | Administrator registration |
| E_DF | ? | Delete Fingerprint template |
| E_DP | ? | Delete Password |
| D_L | ? | Delete all record |
| S_T | ? | Time Setting |
| S_S | ? | System Setting |

### 3.5.3 Delete all Record

Step 1 Enter the Menu "Log View"
Step 2 Press "5" to choose "Delete All Log"

```
            Log View
     3.GLog View
     4.SLog View
     5.Delete All Log
```

Step 3 Press"OK" to confirm the deletion

```
      AllLog Delete

        AllLog Delete?
   ESC            ENTER
```
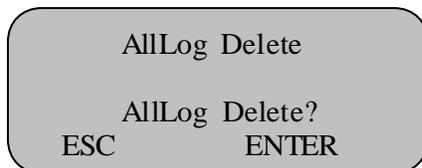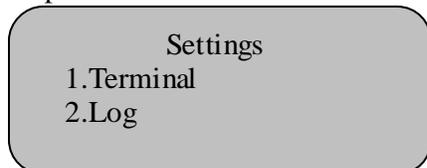
Successful Deletion

### 3.5.4 Settings
Follow the steps below to access Terminal Setting Menu.
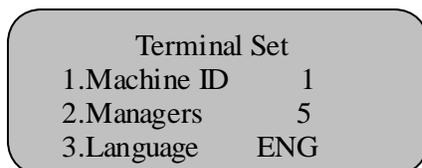Step 1 Enter First Level Menu
Step 2 Press"6" to choose "Setting"

```
             MENU
     4.Time Set
     5.Settings
     6.Info View
```
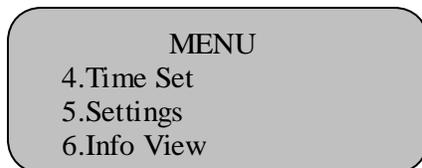
Step 3 Press"1" to choose Terminal

```
            Settings
     1.Terminal
     2.Log
```

### 3.5.5 Machine ID
The machine ID of each machine on the same channel should be unique . (No matter Using RS485 or TCP/IP protocol).
Step 1 Press "1" to choose Machine ID

```
          Terminal Set
     1.Machine ID        1
     2.Managers          5
     3.Language      ENG
```

Step 2 Enter the NEW ID with range between 1-255    (i.e "2") and press "OK" to confirm.

```
            Terminal Set
    1.Machine ID        2
    2.Managers          5
    3.Language      ENG
```

### 3.5.6 Managers

Step 1 Press "2" to choose "Managers"

```
            Terminal Set
    1.Machine ID        1
    2.Managers          5
    3.Language      ENG
```

Step 2 Enter the maximum no. of machine administrator (i.e. 6) and press "OK" to confirm.

```
            Terminal Set
    1.Machine ID        1
    2.Managers          6
    3.Language      ENG
```

### 3.5.7 Language

Step 1 Press"3" to choose "Language"

```
            Terminal Set
    1.Machine ID        1
    2.Managers          5
    3.Language      ENG
```

Step 2 Press " ? " or " ? " to choose Language and press " OK" to confirm.

```
            Terminal Set
    1.Machine ID        1
    2.Managers          6
    3.Language     TCHN
```

### 3.5.8 Voice Indication

Step 1 Press"4" to choose "Voice Out"

```
            Terminal Set
    4. Voice Out      Yes
    5. LCD Con        47
    6. Auto Off       No
```

Step 2 Press " ? " or " ? " to enable or disable the function
      Yes     –   Enable
      No      –   Disable
      Press " OK" to confirm.

```
            Terminal Set
4. Voice Out       No
5. LCD Con         47
6. Auto Off        No
```

### 3.5.9 LCD Contrast

Step 1 Press"5" to choose "LCD Con"

```
            Terminal Set
4. Voice Out       Yes
5. LCD Con         47
6. Auto Off        No
```

Step 2 Enter the contrast value and press "OK" to confirm
         ("0" – Blank Display, "63" – Black Display)

### 3.5.10 Auto Power Off

Step 1 Press"6" to choose "Auto Off"

```
            Terminal Set
4. Voice Out       Yes
5. LCD Con         47
6. Auto Off        No
```

Step 2 Press " ? " or " ? " to disable the function or set the delay time (1 – 255mins)

### 3.5.11 Relay Output Signal (Not for X628U)

Step 1 Press "7" to choose "Lock Ctrl"

```
            Terminal Set
6.Auto Off         No
7.Lock Ctrl        5s
8.Restore Def
```

Step 2 Press " ? " or " ? " to disable the function or set the delay time (1 – 16s)

### 3.5.12 Restore Factory Setting

Step 1 Press "8" to choose "Restore Def" and confirm the restoring.

```
            Terminal Set
6.Auto Off         No
7.Lock Ctrl        5s
8.Restore Def
```

All setting under terminal settings will be recovered to default factory setting.
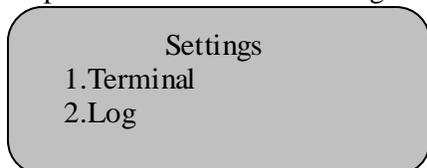(Except System Log and Attendance Log)

### 3.5.13 Log Management
Follow the steps below to access Log Setting Menu.
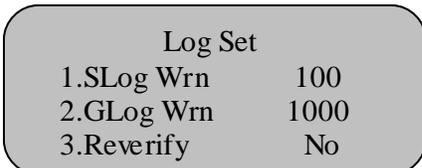Step 1 Enter First Level Menu
Step 2 Press"5" to choose "Setting"

```
        MENU
    4.Time Set
    5.Settings
    6.Info View
```

Step 3 Press"2" to choose "Log"
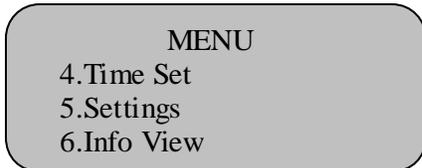
```
        Settings
    1.Terminal
    2.Log
```

### 3.5.14 System Log Warning
Step 1 Press"1" to choose "SLog Wrn"

```
        Log Set
    1.SLog Wrn      100
    2.GLog Wrn     1000
    3.Reverify       No
```

Step 2 Enter the number of residue system log memory (1 – 255) before the warning occur.
    And press "OK" to confirm.
    (i.e. "100" means the warning will occur if the residue system log memory reach 100.)

### 3.5.15 Attendance Log Warning
Step 1 Press"2" to choose "GLog Wrn"

```
        Log Set
    1.SLog Wrn      100
    2.GLog Wrn     1000
    3.Reverify       No
```
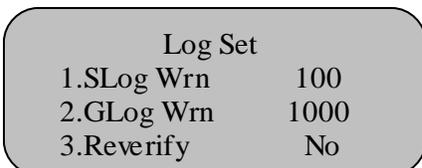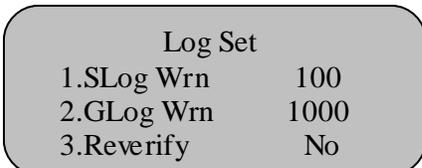
Step 2 Enter the number of residue attendance record (1 - 1500) before the warning occur.
    And press "OK" to confirm.
    (i.e. "1000" means the warning will occur if the residue attendance log memory reach 1000)

### 3.5.16 Reverify
Step 1 Press"3" to choose "Reverify"

```
        Log Set
    1.SLog Wrn      100
    2.GLog Wrn     1000
    3.Reverify       No
```
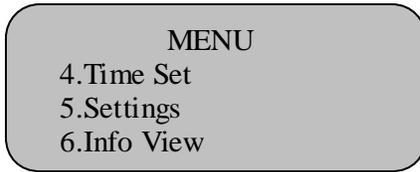
Step 2 Press " ? " or " ? " to disable the function or set the duration between 2 successful attendance (1 – 255mins)

### 3.5.17 Log Query

Follow the steps below to access Information View Menu.

Step 1 Enter First Level Menu

Step 2 Press"6" to choose "Info View"

```
            MENU
   4.Time Set
   5.Settings
   6.Info View
```

### 3.5.18 Enroll Info

It shows all amount of Enrolled record storage such as the number of enrolled user, the number of enrolled administrator, enrolled fingerprint template, enrolled password and enrolled card.

Step 1 Press"1" to choose "Enroll Info"

```
          Info View
   1.Enroll Info
   2.Log Info
   3.Sys Info
```
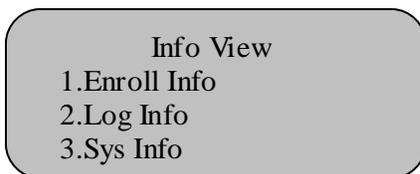
Step 2 Press " ? " or " ? " to view the information

# CHAPTER FOUR
# QUICK SETUP GUIDE

## 4.1 Hardware

### ? 4.1.1 Power on/off T-7

1.  Connect the bundled Power Adaptor to a 220V/110V socket.
2.  Connect the T-7, and then press Power Button to power on T-7.
3.  Hold the Power Button for 2 seconds to power off T-7.
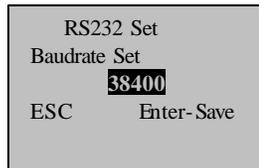
### ? 4.1.2 Computer Connection

There are there ways to establish the connection between T-7 and Computer.

#### A. Through RS232

1.  Press "MENU" to enter menu. Press 3>>2>>1

```
      Download
  1? USB Download
  2?  RS232 Set
  3? RS485 Use      On
```
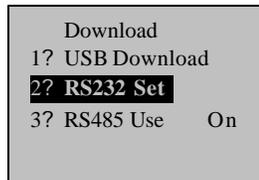
2.  Set the baud rate to 38400 by pressing ? or ? and then press "OK" to save.

```
      RS232 Set
  Baudrate Set
            38400
  ESC        Enter-Save
```

3.
4.  Power off T-7.
5.  Connect RS232 cable to the 9-pin port or connect the bundled RJ45-RS232 cable to the RJ45 port on T-7.
6.  Connect the other end of RS232/ RJ45-RS232 cable to computer COM-PORT.
7.  Power on T-7.

#### B. Through RS485

1.  Press "MENU" to enter menu. Press 3>>3
2.  Set "RS485 Use" to "On"pressing ? or ? and then press "OK" to save. **(Note: T-7 can either enable RS485 connection or TCP/IP connection at the same time)**

```
      Download
  1? USB Download
  2? RS232 Set
  3? RS485 Use      On
```

3.  Power off T-7.
4.  Connect RS485 cable to the RJ45 port on T-7. (Note: please refer to **5. RJ45 Port Pin Assignment** for details of the required RS485 cable)
5.  Connect the other end of RS485 cable to a RS232/RS485 Converter
6.  Connect the other end of RS232/RS485 to computer COM-PORT.
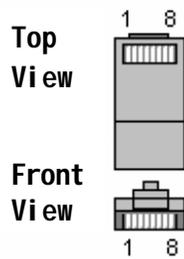7.  Power on T-7.

## C. Through TCP/IP

1. Press "MENU" to enter menu. Press 3>>4>>1 to enter IP setup page.

```
        IP Address

192. 168.  001 . 224
ESC        ENTER-Save
```
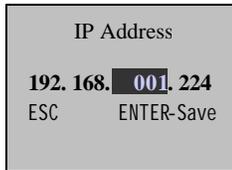
2. Configure the IP according to your network settings. The default IP of T-7 is 192.168.1.224. Please make sure that the IP of T-7 is within the same network with your computer. Thus, if IP of your computer is 192.168.001.xxx, then IP of T-7 must be 192.168.001.xxx also.

3. Power off T-7.

4. Connect computer directly with Ethernet 10/100Base-T Crossover Cable, or connect to network Hub/Switchwith Ethernet 10/100Base-T Straight Thru Cable.

5. Power on T-7.

6. Pin Assignment refer to below diagram

**RJ45 Port Pin Assignment**

| Pin | Function |
|---|---|
| 1 | TCP---TX+ |
| 2 | TCP---TX- |
| 3 | TCP---RX+ / RS485A |
| 4 | RS485B |
| 5 | GND |
| 6 | TCP—RX |
| 7 | RS232---R |
| 8 | RS232---T |

Top View

Front View

## 4.2 Software
## 4.2.1   Packing List

| | |
|---|---|
| Finger Print Machine | x1 |
| 9V/1A Power Adapter | x1 |
| RJ45-RS232 Connection Cable | x1 |
| Software CD-Rom | x1 |

## 4.2.2 Fingerprint Registration

1.  Connect the Power Adapter to T-7 and power socket, power on T-7.
2.  Press "MENU", and followed by 1>>1>>1>>1 to enter staff finger print registration page.
3.  Input the user ID and then place the finger on scanner for three times.
4.  Press "MENU", and followed by 1>>2>>1>>1 to enter manager finger print registration page.
5.  Once there is a user registered as Manager, the menu function will be locked. Thus no one can access to menu without manager authentication.

## 4.2.3 Software Installation

1.  Put the Software CD-Rom into CD/DVD Drive of Computer.
2.  Browse the root directory of the CD-ROM, and then double click on the Setup File in Pegasus 5.0 Folder.
3.  The installation Wizard will guide you through out the whole installation process.
4.  Please Read the Software manual for instructions on how to use the software   .

# The End

Thank You for Purchasing T-7