SSR 3-inch Color Screen Series User Manual

Version: 1.0

Date: September 2010

About This Manual

This manual introduces the interface and menu operations of the SSR 3-inch color screen series fingerprint recognition terminals (FRTs).

Declaration

- Functions marked with "*" in this manual are optional. For detailed functions, please refer to the actual products.
- Picture descriptions in this manual may vary slightly from actual product. Please refer to the actual product for exact descriptions.

Contents

1 Instructions for Use

1.1 Recommended Operation Steps

Step 1: Have the FRT in place and power it on.

Step 2: Select **Shift Mng** and set desired shifts.

Step 3: Select **Dept Mng** and set the department name and shifts used by the department.

Step 4: Select **User Mng → New User** to enroll fingerprints, passwords or cards and assign department, shift and privileges. Here, the individual shifts take precedence over the department shifts.

Step 5: Verify that the fingerprints, passwords or cards enrolled are available.

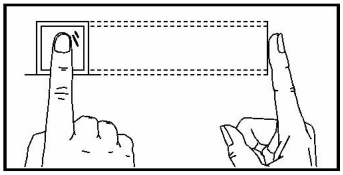
Step 6: Make sure the time on the FRT is accurate and then start attendance recording.

Step 7: Select **Report** to output statistical reports at the end of each month.

1.2 Finger Placement

Recommended fingers: The index finger, middle finger or the ring finger; the thumb and little finger are not recommended (because they are usually clumsy on the fingerprint collection screen).

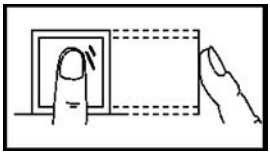
1) Proper finger placement:



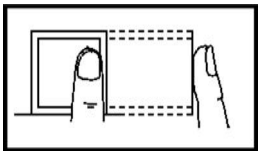
The finger is flat to the surface and centered in fingered guide.

2) Improper finger placement:

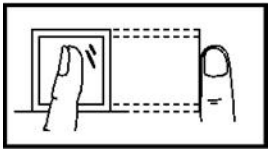
Not flat to the surface



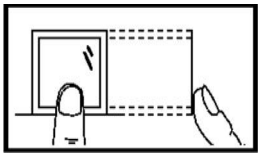
Off-center



Slanting



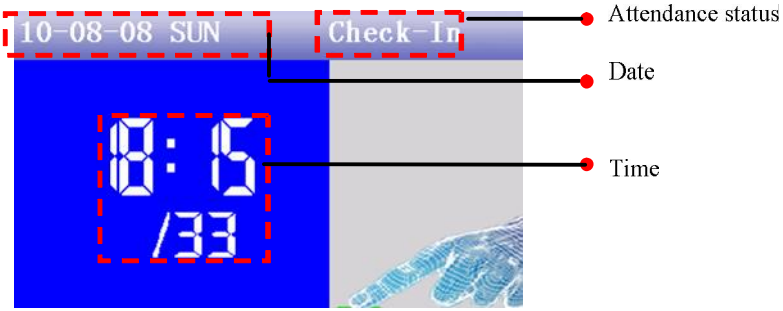
Off-center



Please enroll and verify your fingerprint by using the proper finger placement mode to avoid degradation of verification performance due to improper operations.

1.3 Main Interface

The main interface is as shown below:



Check-In: By pressing the **Status key,** you can change the attendance status and display the status in relation to the status key on the screen. For default definitions of status keys, see 9.4.1 Keyboard Definitions.

Date and Time: Display current date and time. You can change the date and time by selecting **Clock →DateTime**.

1.4 Verification Modes

On the initial interface, users can record their attendance through fingerprint, password or card verification. Users' attendance record will be stored on the FRT upon successful verification.

❖ **Fingerprint verification**

(1) 1:N fingerprint matching

In the 1:N fingerprint matching mode, the FRT compares the current fingerprint collected through the fingerprint collector with all the fingerprints stored in the FRT.

Step 1: Press your finger on the fingerprint collector in a proper way.

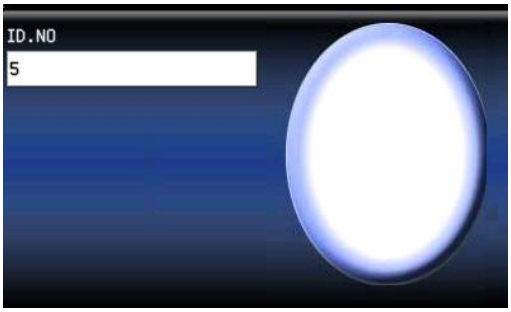
Step 2: When the system generates a voice announcement "Thank you!", the verification is complete.

When the system generates a prompt "Please try again!", go back to **step 1** and repeat everything over again.

(2) 1:1 fingerprint matching (ID + fingerprint)

In the 1:1 fingerprint matching mode, the terminal compares current fingerprint collected through the fingerprint collector with that in relation to the user ID entered through keyboard. Adopt this mode only when it is difficult to recognize the fingerprint.

Step 1: Enter a user ID through keyboard on the initial interface.



Step 2: Press your finger on the fingerprint collector in a proper way.

Step 3: When the system generates a voice announcement "Thank you!", the verification is complete.

When the system generates a prompt "Please try again!":

Please press your finger on the fingerprint collector again. By default, you are allowed to try twice after you fail for the first time. The retry times can be set

in 9.2.2 Attendance Parameters. If you still fail after trying twice, then you need to go back **Step 1** and repeat everything over again.

❖ **Password verification**

Step 1: Enter a user ID through keyboard on the initial interface and press **Enter**.

Step 2: If the prompt "Error ID. No" is displayed, the ID does not exist.

Step 3: Enter a password on the **Ent pswd** interface.

Step 4: When the system generates a voice announcement "Thank you!", the verification is complete.

When the system displays the prompt "Wrong password", re-enter a password.

By default, you are allowed to try twice after you fail for the first time. The retry times can be set in 9.2.2 Attendance Parameters. If you still fail after trying twice, then you need to go back **Step 1** and repeat everything over again.

❖ **Card verification***

Match the card number read through the sensor area with all enrolled card numbers stored in the FRT.

Step 1: Swipe your card at the sensor area and remove it after the sensor reads your card.

Step 2: When the system generates a voice announcement "Thank you!", the verification is complete.

Step 3: If your card is not enrolled, the prompt "PIN Card Not Enrolled" is displayed as follows.

Note: The card sensor area is located around the fingerprint collector or the keyboard depending on the varied product types.

1.5 Communication With Attendance Software

The FRT can be used either in offline mode or connected with a PC to download attendance record for handling by the attendance software.

The following introduces several modes of communication between the FRT and attendance software.

- **Ethernet mode:**

(1) Use of Hub (or switch, router): Connect the FRT to the network with a straight cable (used to connect the FRT and hub).

(2) Direct connection: Connect the FRT with a PC using a crossover network cable (directly connect two Ethernet terminals).

FRT settings: Select **Menu → Setup → Comm.** and set the following parameters:

IP address: The default IP address is **192.168.1.201**. You can modify the IP address as required.

Subnet Mask: The subnet mask is 255.255.255.0 by default and can be changed as required.

Gateway: The default gateway is 0.0.0.0. You can modify the gateway as required.

Net Speed: The network rate includes three options: Auto, 10M and 100M.

Password: For the password setting, see 9.1.3 Connection Settings. To enhance the security of attendance data, you can set a password for the connection between the FFR terminal and PC. Once the password is set, you can connect the PC with the FFR terminal to access the attendance data only after entering the correct password. The default password is 0 (that is, no password). 1 to 6 digits passwords are supported.

- **RS232 Mode:** Adopt the RS232 serial port cable to connect the FRT with the PC.

  FRT settings: Select **Menu → Setup → Comm.** and set the following parameters:

  Baud Rate: This parameter is used to set the baud rate for the communication between the FRT and PC. The high baud rate 115200 or 57600 is recommended for the RS232 communication to achieve high communication speed.

  RS232: This parameter is used to enable or disable the RS232 communication. If the RS232 communication mode is used, set this parameter to "ON".

Password: For the password setting, 9.1.3 Connection Settings. To enhance the security of attendance data, you can set a password for the connection between the FFR terminal and PC. Once the password is set, you can connect the PC with the FFR terminal to access the attendance data only after entering the correct password. The default password is 0 (that is, no password). 1 to 6 digits passwords are supported.

- **RS485 Mode:**

  FRT settings: Select **Menu → Setup → Comm.** and set the following parameters:

  Device ID: For the **Device ID** setting, see 9.1.3 Connection Settings. This option refers to the device ID numbered from 1 to 254.

  Baud Rate: This parameter is used to set the baud rate for the communication between the FRT and PC. The low baud rate 9600 or 38400 is recommended for the **RS485** communication to achieve stable low-speed communication.

  RS485: This parameter is used to enable or disable the **RS485** communication. If the **RS485** communication mode is used, set this parameter to "ON".

  Password: For the password setting, see 9.1.3 Connection Settings. To enhance the security of attendance data, you can set a password for the connection between the FFR terminal and PC. Once the password is set, you can connect the PC with the FFR terminal to access the attendance data only after entering the correct password. The default password is 0 (that is, no password). 1 to 6 digits passwords are supported.

- **USB Mode***

  FRT settings: Select **Menu → Setup → Comm.** and set the following parameters:

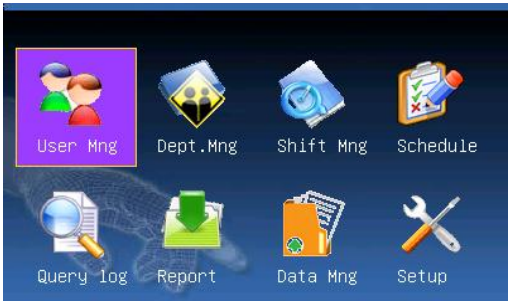
  Device ID: For the **Device ID** setting, see 9.1.3 Connection Settings. This option refers to the device ID numbered from 1 to 254.

  USB: This parameter is used to enable or disable the USB communication. If the USB communication mode is used, set this parameter to "ON".

Password: For the password setting, see 9.1.3 Connection Settings. To enhance the security of attendance data, you can set a password for the connection between the FFR terminal and PC. Once the password is set, you can connect the PC with the FFR terminal to access the attendance data only after entering the correct password. The default password is 0 (that is, no password). 1 to 6 digits passwords are supported.

1.6 Main Menu

Press **M/OK** on the initial interface to access the main menu, as shown below:



User Mng: This menu item allows you to browse user information, including their work IDs, names, fingerprints, passwords, cards, departments, shifts and purview; add, edit or delete the basic information of users.

Dept. Mng: This menu item allows you to query and edit 16 departments supported by the FRT by default.

Shift Mng: This menu item allows you to query and edit 20 shifts supported by the FRT by default.

Schedule: This menu item allows you to set attendance rules and arrange shifts for individuals or departments.

Query log: This menu item allows you to query attendance records and exceptions stored in the FRT.

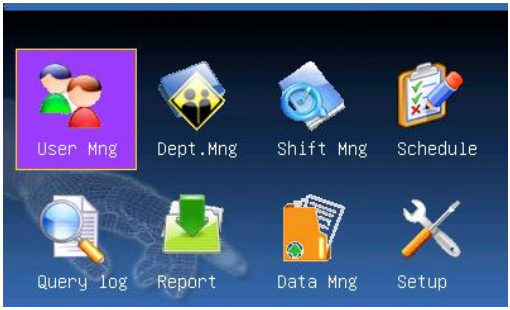
Report: This menu item allows you to output card reports and attendance reports to a USB pen drive. Reports stored in the USB pen drive can be viewed on a PC.

Data Mng: This menu item allows you to upload, download and delete the attendance data and user data stored in the FRT.

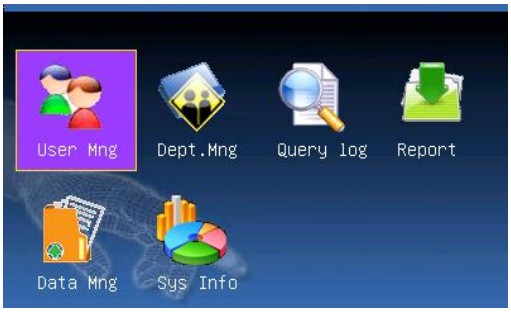
Setup: This menu item allows you to set system and attendance parameters to meet user requirements to the greatest extent in terms of functions and display.

1.7 User Purview Management

Administrators: An administrator is granted purview to operate all menus in addition to the fingerprint, password or card- based attendance recording. An administrator is entitled to the operation of all menus as shown in the following figure:



Enroller: A enroller is granted purview to operate partial menus in addition to the fingerprint, password or card- based attendance recording. A enroller is entitled to the operation of the menus as shown in the following figure:



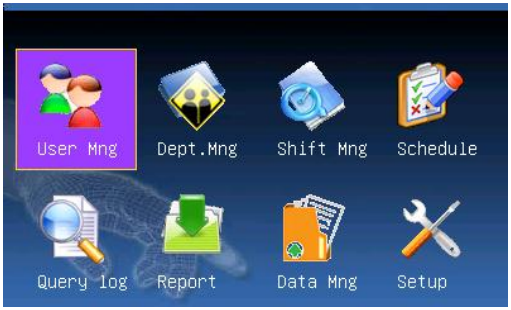
Ordinary users: An ordinary user is only allowed to record attendance through his/her fingerprint, password or card and query his/her own attendance records.

1. The FRT enables quick query of attendance records or exceptions. For detailed query operation, see Appendix10.4 Quick Query of Attendance Records.
2. After an administrator or enroller is enrolled in the FRT, the following confirmation interface will be displayed when the administrator or enroller accesses system menus.

The administrator or enroller is only allowed to access a menu upon successful confirmation.

2 User Management

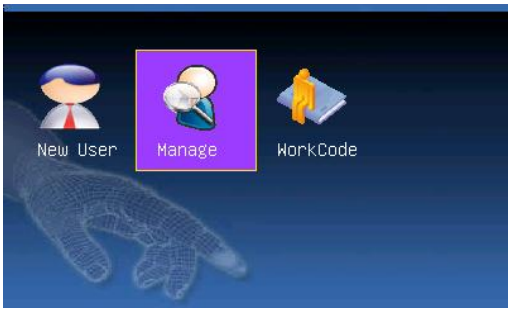
The basic information stored on the FRT includes the fingerprint, password, card number, department, shifts and management privileges. Generally the user information stored on the FRT needs to be modified in the case of the personnel changes in a company. To facilitate modification of user information, our FRT allows users to add, delete, query and modify user information conveniently.



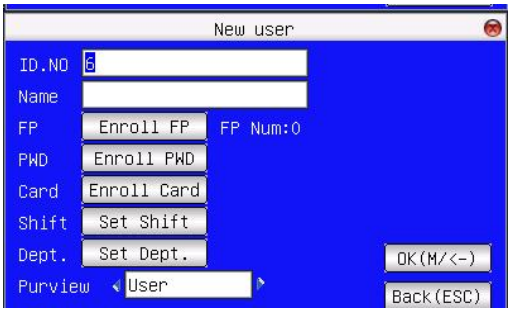
2.1 Add a User

Enroll the fingerprints, passwords or card numbers of the employees to the FRT.

Select **User Mgn** on the main menu and press **OK** to display the interface as shown below:



Select **New User** and press **OK** to display the **New User** interface as shown below:



ID.NO: Indicates the attendance ID of an employee.

Name: Enter the employee's name using the T9 input method.

FP: Indicates the enrolled fingerprint of an employee. Each employee is allowed to enroll 10 fingerprints at most.

Employee with fingerprints enrolled can use their fingerprints for attendance recording.

PWD: Indicates the enrolled password of an employee. A password may consist of 1 to 8 digits.

Employees with passwords enrolled can use their passwords for attendance recording.

Card: Indicates the card enrolled for an employee. Employees with cards enrolled can use their cards for attendance recording.

Shift: Indicates the shift set for employee.

Dept.: Indicates the department set for employee.

Purview: Indicates the privilege assigned for employee to execute menu items. Ordinary users are only allowed to record their attendance by using their enrolled fingerprints, passwords or cards. Administrators are allowed to execute all menu items in addition to recording their attendance like ordinary users.

Tip: All menu items are operational to all users in the absence of an administrator. After an administrator is set, to access menu items, a user needs to verify his/her identity as an administrator.

Example: To add a use, proceed as follows:

- **Enter a User ID:**

1) The user ID is an ID assigned by the FRT by default.

2) Press ◄ to delete the user ID assigned by the system by default. You can enter user ID by using the keypad. To delete a character, press ◄.

Tip: The spare user ID **8888** is not recommended.

- **Enter a user name ***

Enter the name of the user using the T9 input method. For detailed operation, see Appendix 10.3 T9 Input Method.

Press **OK (M/←)** or ▲/▼ to locate the cursor on the **Enroll FP** button, and then press **OK (M/←)** to enroll the fingerprint.

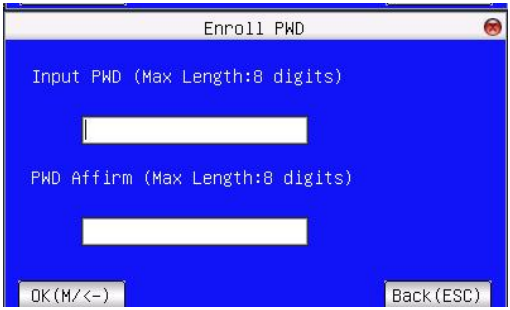
- **Enroll a fingerprint**

Place the same finger for three consecutive times on the fingerprint reader following the system prompts. If the enrollment succeeds, a prompt will be displayed.

To enroll another fingerprint after successfully enrolling one fingerprint, press **OK(M/←)** and place another finger on the fingerprint reader. The system returns to the previous interface upon successful fingerprint enrollment and displays the number of fingerprints currently enrolled after you press **ESC**.

Press ▲/▼ to move the cursor on the Enroll **PWD** button and press **OK (M/←)** to display the interface as shown below.

- **Enroll a password**



Enter the password following the system prompt and enter your password again for confirmation. A password can only consist of 1 to 8 digits. Press **OK (M/←)** to save your password, or press **Back (ESC)** to cancel.

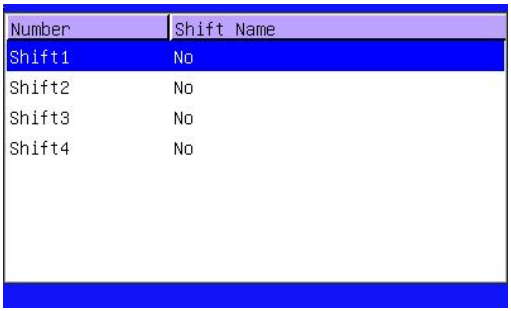
After the password is saved, the icon will be displayed on the screen, indicating that a password has been set.

- **Enroll a Card ***

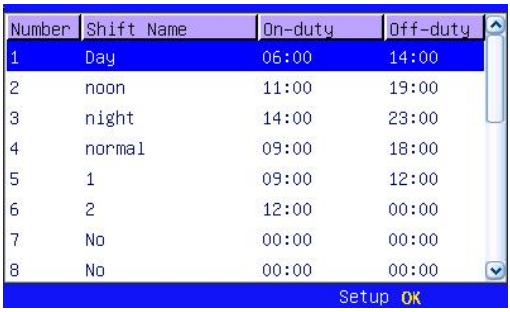
Press **OK (M/←)** or ▲/▼ to locate the cursor on the **Enroll Card** button, and then press **OK (M/←)** to enroll a card.

Swipe your card within 5 cm above the card reader area. After the FRT reads the card, press **OK (M/←)** to save the card number or **Back (ESC)** to exit without saving it. After a card number is saved, the card number will be displayed on the **Enroll Card** button.

- **Set a Shift**

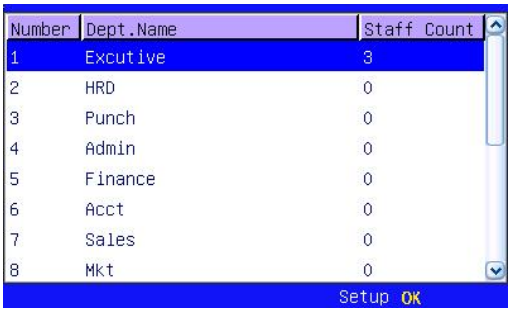


Every employee is restricted to work no more than four shifts. Shift scheduling rule: The work time of current shift must be later than that of the previous one; otherwise, the shift scheduling is invalid. Select a pending shift and press **OK** to display the shift selection interface:



Press ▲/▼ to select a shift from the list and press **OK** to finish your shift setting. To add more shifts, repeat the steps above.

- **Set a Department**



Press ▲/▼ to select a department from the list and press **OK** to finish your department setting.

Note: Before setting a department for employees, you need to perform department management. For details, see 3 Department Management.

- **Set Privilege**

Press ▲/▼ to locate the cursor at the **Purview** entry box, and then press **OK** to enter purview setting. Press ◀/▶ to select privilege and then press **OK** to confirm your selection.

Save/Exit User Enrollment

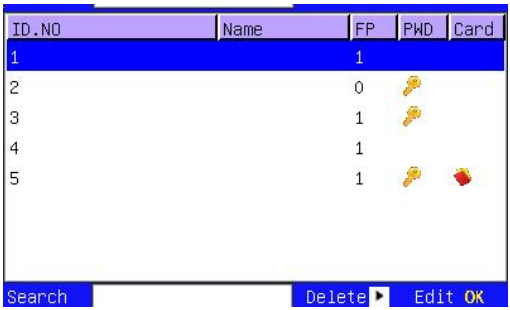
After making sure the enrollment information is correct, save it in the following two ways:

1) Press **OK (M/←)** or ▲/▼ to locate the cursor at the **OK** (M/↵) button and then press **OK** to display a prompt "Saving succeeds! Are you sure to continue input?". Press **OK** to continue or press **ESC** to exit.

2) Press **ESC** or press ▲/▼ to move the cursor to the **ESC** button and then press this button to display a prompt "The data has changed. Are you sure to save it?". Press **OK** to save the data and return to the previous menu, or press **ESC** to return to the previous menu without saving the data.

2.2 User Management

Through the user management function, you can view all user information stored in the FRT, including user name, number of fingerprint and enrolled password or card number. Furthermore, you can edit or delete a user through this function.



Note:

1) "🔒" as shown in the figure above means the user is an administrator; "🔑" means the user has already enrolled a password; "🪪" means the user has already enrolled an ID card.

2) In the event of discrepancy between the figure above and the one displayed on your FRT, please refer to the actual product.

2.2.1 Search a User

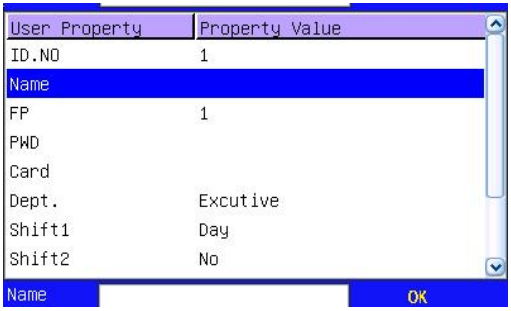
To facilitate administrators to locate a user quickly from a large number of enrolled users, the FRT enables administrators to search a user by his/her "User ID".

On the **User Mgn** interface, enter the ID of the employee to be searched and the system will automatically locate the blue cursor on the target employee. If the employee does not exist, the system will generate a prompt: "The employee does not exist".

2.2.2 Edit a User

To modify the existing user information stored on the FRT, for example, enrolling a new fingerprint, password or card to replace the previous one, you can use the **Edit user** function.

Press ▲/▼ on the **User Mng** interface or use the search function to locate the employee to be edited, and press **OK** to display the enrolled information.



Note: The ID card enrollment function is optional.

The User ID cannot be modified, and the other operations are similar to those performed to add a user. To enroll a password or modify an existing password, press Enroll **PWD**; you can also modify departments, shifts and user rights.

2.2.3 Delete a User

The option "Delete User" is in either of the following cases to delete partial or all information of an employee from the equipment:

1) The fingerprint or password of this employee is no longer required.

2) This employee has resigned.

Press ▲/▼ on the **User Mng** interface or use the search function to locate the employee to be edited, and then press ► to display the **Del User** interface as shown below. On this interface, select **Delete User**.

Delete a user

Note: The "**Del ID Card only**" function is optional.

If a user has not enrolled a fingerprint or password, the related options are displayed in blue font and are disabled. Press ▲/▼ to locate the cursor at the desired option. After pressing **OK**, you will be prompted to confirm the deleting. Press **Back (ESC)** to return to the **User Mng** interface.

2.3 Work Code *

Employees' salaries are subject to their attendance records. Employees may be engaged in different types of work which may vary with time periods. Considering the salaries vary with work types, the FFR terminal provides a parameter to indicate the corresponding work type for every attendance record to facilitate rapid

understanding of different attendance situations during the handling of attendance data.

Operation Description

Note: The figure above may be inconsistent with your FRT. Please refer to the actual object.

Press ▲/▼ to scroll the work code row by row.

Press **M/OK** to display the work code setting menu, as shown below.

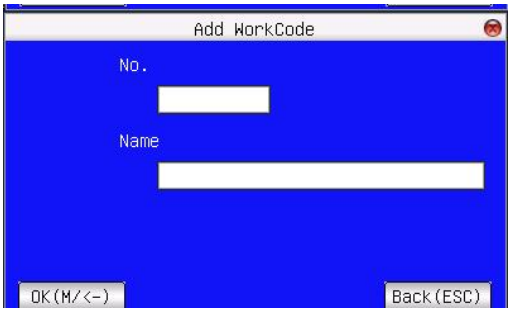
2.3.1 Set Work Codes

1) Add a work code

In the pop-out menu, press ▲/▼ to select **New** to add a work code.

No.: A digital code of the work code.

Name: The meaning of the work code.



2) Edit a work code

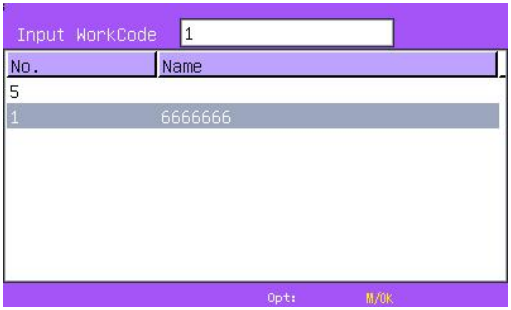
In the pop-out menu, press ▲/▼ to select **Edit** to edit the name of the selected work code with similar operation steps as described in "Add a work code".

3) Delete a work code

In the pop-out menu, press ▲/▼ to select **Delete** to delete the selected work code.

2.3.2 Use Work Codes

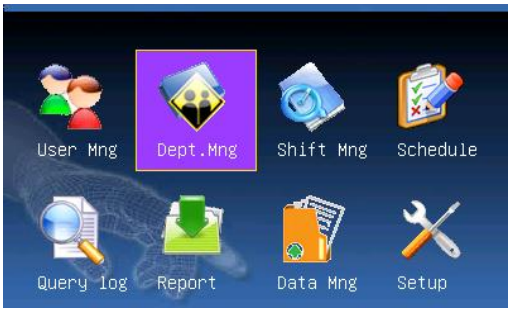
On the initial interface of the FRT, press a shortcut key (which can be set according to 9.4.1 Keyboard Definitions) to display the work code selection interface.



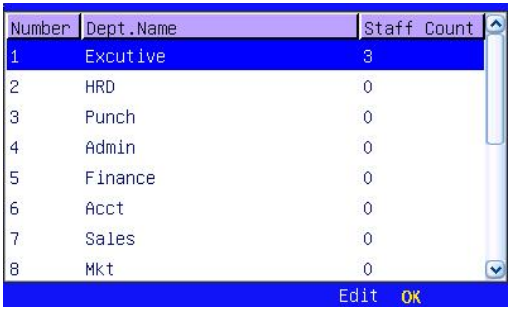
You can input a work code directly in the **Input Work Code** entry box as shown above or press ▲/▼ to select one from the list. Then press **M/OK** to save your settings and return to the main interface.

3 Department Management

The FRT enables you to establish an organizational architecture and set shifts for all departments. In the case of inconsistency between individual and department shifts, the former prevails.



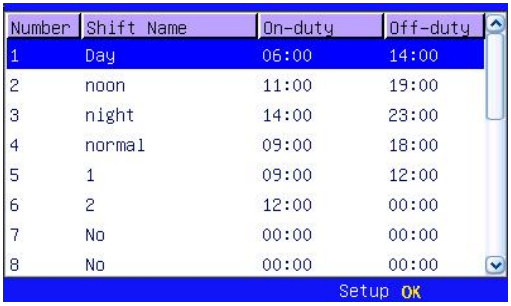
Select **Dept.Mng** from the main menu and press **OK** to display the department management interface.



The FRT provides 16 departments by default. Press ◄/► to scroll these departments page by page. Press ▲/▼ to select the desired department from the list and then press **OK** to display its setting interface.

As shown in the figure above, press ▲/▼ to select related department property and press **OK** to display an interface where you can set department name and shifts, as well as employee information.

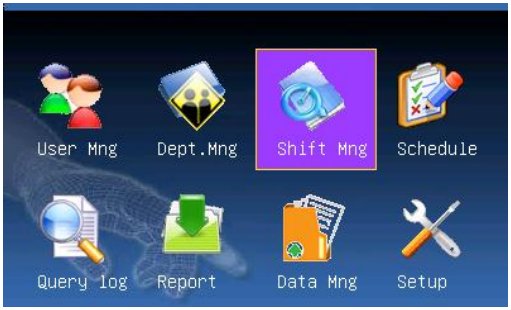
- Department name editing: Type a department name correctly using T9 input method and press **OK**. For details see Appendix 10.3 10.3 T9 Input Method.
- Employee information editing: Its operation steps are identical with user management steps. See 2.2 User Management.
- Shift setting: Press **OK** to display the shift management interface.



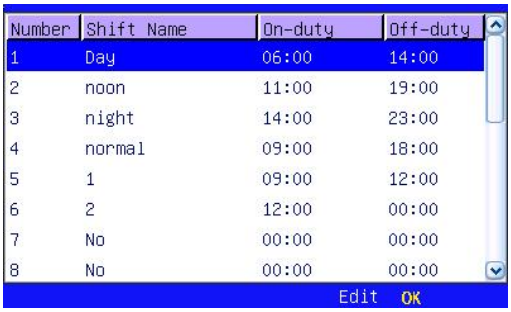
Press ▲/▼ to select a desired shift from the list and press **OK**.

Upon finishing the settings, press **ESC** to exit.

4 Shift Management



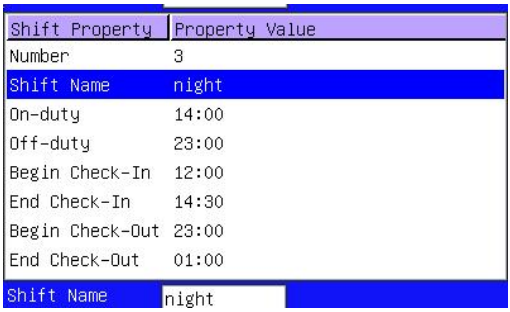
Select **Shift Mng** from the main menu and press **OK** to bring up the **Shift Mng** interface:



Number	Shift Name	On-duty	Off-duty
1	Day	06:00	14:00
2	noon	11:00	19:00
3	night	14:00	23:00
4	normal	09:00	18:00
5	1	09:00	12:00
6	2	12:00	00:00
7	No	00:00	00:00
8	No	00:00	00:00

Edit OK

The FRT by default offers 20 available shifts which can be viewed by pressing ◄/►. Through the shift management function, you can set shifts for employees. Press ▲/▼ to select a shift from the list, and press **OK** to display the shift editing interface as shown below:



Number: Indicates the sequence number automatically allocated by the FRT. The Number is not modifiable.

Shift Name: Indicates the name of the shift. A maximum of 5 Chinese characters or 10 English characters are allowed.

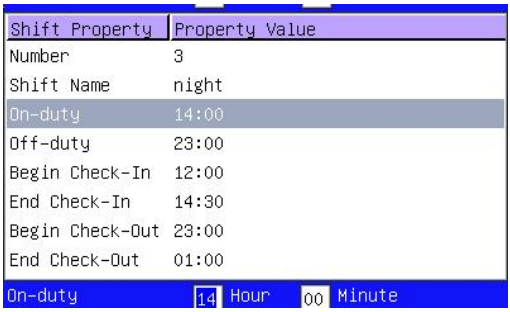
On-duty and Off-duty: Indicate the start and end time of the regular working hours at current shift.

Begin Check-in and End Check-in: Indicate the time range within which check-in is allowed. Attendance beyond the specified time range is invalid.

Begin Check-out and End Check-out: Indicate the time range within which check-out is allowed. Attendance beyond the specified time range is invalid.

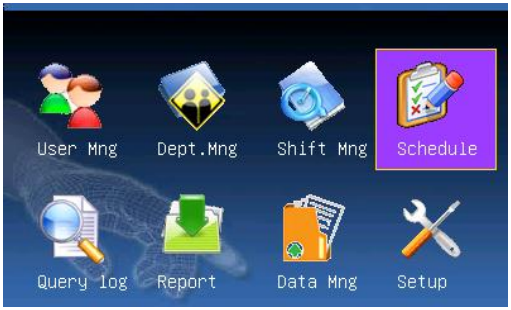
Press ▲/▼ to select a shift from the list and press **OK** to edit the shift name or set the shift time.

- Enter the shift name using the T9 input method and press OK to save your setting. For details, see Appendix 10.3 10.3 T9 Input Method.
- **Setting of On-duty**: Press ▶ to select the hour or minute to be edited and enter the desired time using the numeric keypad. Press **OK** to save your setting.



- The setting of **Off-duty**, **Begin Check-in, End Check-in, Begin Check-out** and **End Check-out**: The same as the setting of **On-duty**.

5 Scheduling



Select **Schedule** from the main menu, and press **OK** to access the **Schedule** interface:

Personal To Shift: This option is used to arrange shift schedules for the individual employee.

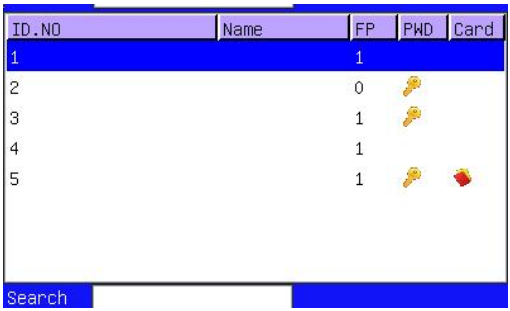
Department To Shift: This option is used to arrange shift schedules for a department if all employees in this department work the same shift.

Att.Rule: This option is used to set employee attendance rules, including the rules on time sheet exceptions such as late arrival, early departure, absence and overtime work.

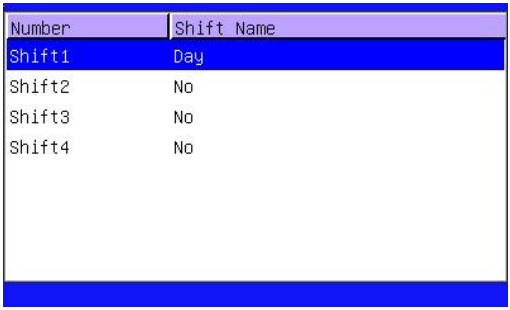
Operation Description

Personal To Shift:

Select **Personal To Shift** on the **Schedule** interface, and press **OK** to display the following interface:

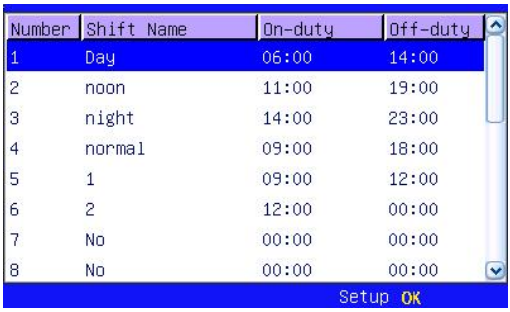


Select the desired employee from the list by pressing ▲/▼ or using the search function (see 2.2.1 Search a User). Then press **OK** to access the shift scheduling interface:



Every employee is restricted to work no more than four shifts, where cross-day shift is allowed. Shift scheduling rule: The start time of current shift must be later than the end time of the previous; otherwise, the shift scheduling is invalid.

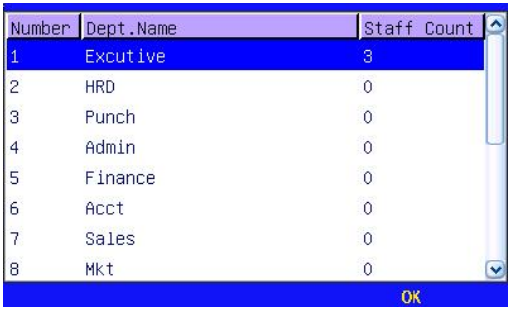
Select a pending shift and press **OK** to display the shift selection interface:



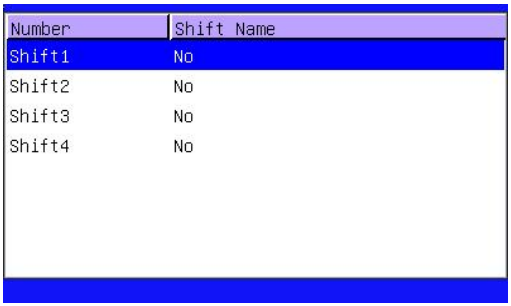
Press ▲/▼ to select a shift from the list and press **OK** to finish the shift scheduling. To add more shifts, repeat the steps above.

- **Department To Shift:**

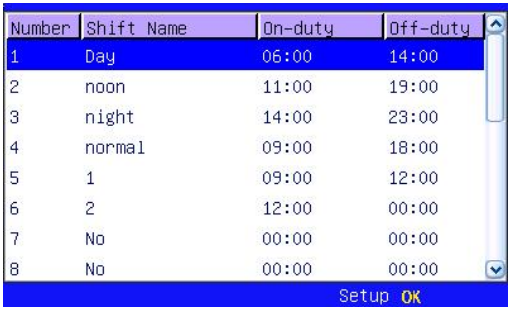
Select **Department To Shift** on the **Schedule** interface, and press **OK** to display the following interface:



Press ▲/▼ to select a department from the list, and press **OK** to display the following interface:

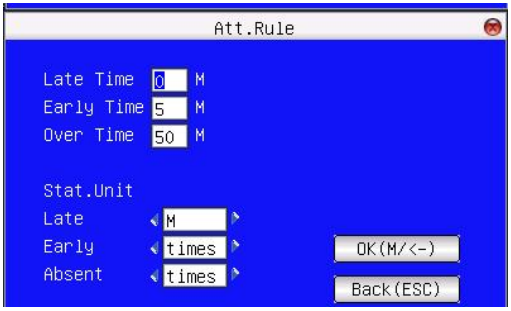


Press ▲/▼ to select a desired shift and press **OK** to access the shift scheduling interface. Shift scheduling rule: The start time of current shift must be later than the end time of the previous; otherwise, the shift scheduling is invalid.



Press ▲/▼ to select a desired shift from the list and press **OK**.

Att. Rule:



Late Time: Check-in beyond this time range is deemed a late arrival. Default: 5 minutes.

Early Time: Check-out before this time range is deemed an early departure. Default: 5 minutes.

Over time: Refers to the time period after which overtime is earned. Default: 60 minutes.

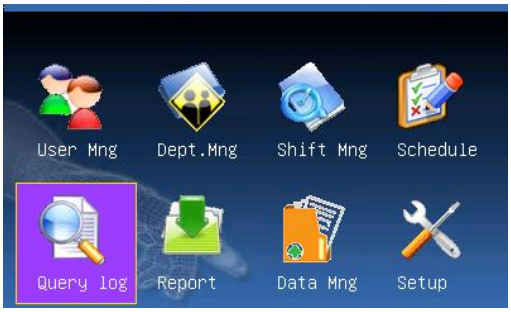
For example, when **Over Time** is set to 60 minutes and the off-duty time is 18:00, if an employee checks out at 18:50, then the time period from 18:00 to 18:50 will not be counted as overtime. If the employee checks out at 19:10, the time period from 19:00 to 19:10 will be counted as overtime because overtime is earned only 60 minutes after check-out.

Stat.Units: Late arrivals and early departures can be calculated by hour, second and times. Absence can be calculated by hour, second, times and day.

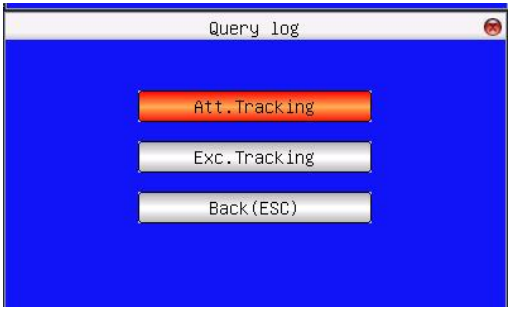
Move the cursor to the desired option by pressing ▲/▼. Enter a desired value in the entry box by using the keypad. Press ◄/► in the scroll box to switch to the desired value. After finishing the setting, press **OK** to save your settings and return to the previous interface. Press **ESC** to cancel your settings and return to the previous interface.

6 Attendance Log Query

After successful check-in, employee's attendance records are saved on the FRT. With the **Query log** function, you can easily query these attendance records and exceptional records.

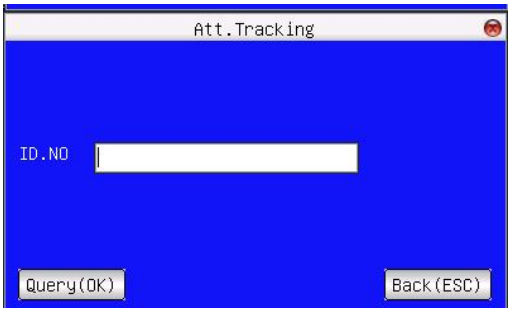


Select **Query log** from the main menu, and press **OK** to display the **Query Log** interface:

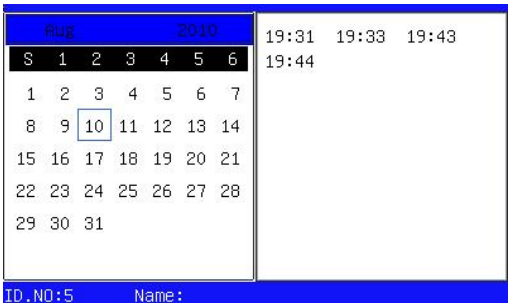


- **Att.Tracking**: This option is used to view all the attendance records of an employee on the specified date.

  Select **Att.Tracking** and press **OK** to display the following interface:



Input the work ID of an employee and press **OK** to display the following interface:

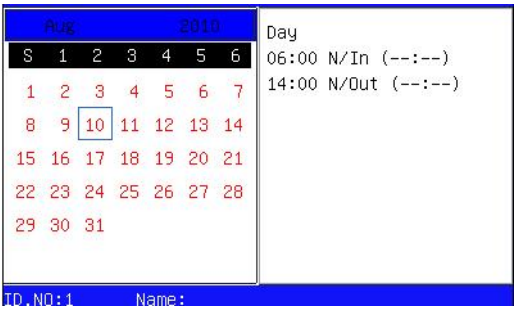


The default query date is current day. To query the records on other dates, press ▲/▼/◀/▶.

Note: When the number of logs exceeds the number that can be displayed on a single screen but is less than 100, press **OK** to switch to the record box to scroll up and down through these logs. If the number of logs exceeds 100, only the first 100 logs are displayed.

Exc.Tracking: Display the exceptional records according to employee shifts.

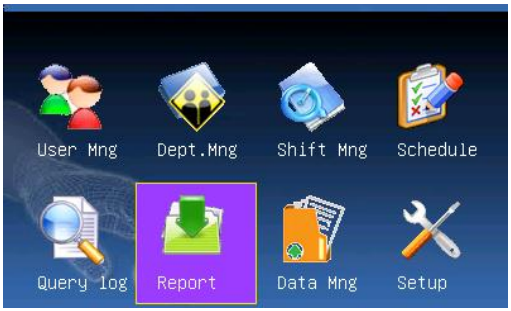
To query exceptional records, proceed in the same way as attendance record query. The query results are displayed as shown below:



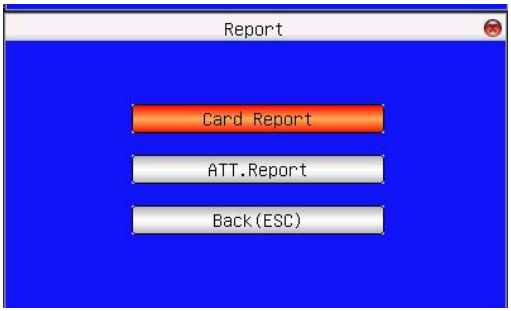
The dates in red on the left window denote exceptional records (such as late arrivals, early departures or absence).

7 Output Report

Import the generated report to a PC though a USB disk, and print it out.



Select **Report** from the main menu, and press **OK** to display the **Report** interface:



- **Card Report**

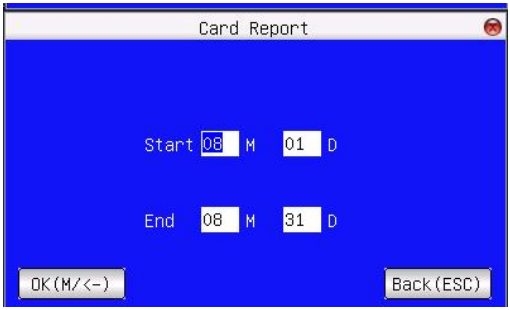
  This report lists all the original attendance records of all employees in current month, that is, the successful verification time of all employees is logged in the card report, but no statistics regarding these records are collected here.

  Operation steps:

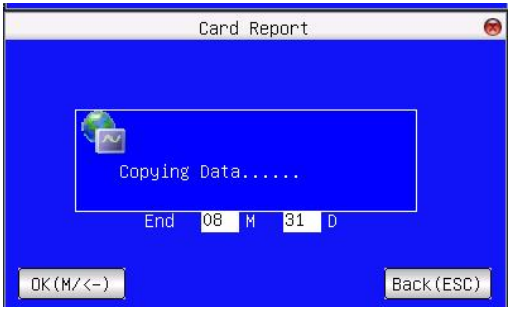
  1) Insert a USB disk into the USB slot.

  2) Select **Report–>Card Report**, and make sure the report is output to the USB disk.

3) Input the start and end dates of the reports to be queried.



4) The system displays the prompt "Copying Data……".



5) Wait until the system displays the prompt "Download Complete!". Then press **OK** and remove the USB disk. Now, the file **X(Y)attloghtm.htm** is saved in the USB disk (where "X" indicates device ID; "Y" indicates date range.)

Open the file **X(Y)attloghtm.htm** on the PC, and the card report is displayed as shown below (If an employee has attendance record on a specific date, then his/her attendance time will be displayed below that date) :

Company Name:999

Date:08-01 to 08-31

ID=464	ID.NO:1	Name:		Dept.:Excutive												
Date	08-01	08-02	08-03	08-04	08-05	08-06	08-07	08-08	08-09	08-10	08-11	08-12	08-13	08-14	08-15	08-16
Time			19:11	01:57 01:57				00:14 00:15 01:02		20:52						
Date	08-17	08-18	08-19	08-20	08-21	08-22	08-23	08-24	08-25	08-26	08-27	08-28	08-29	08-30	08-31	
Time																

ID=464	ID.NO:3	Name:		Dept.:Excutive												
Date	08-01	08-02	08-03	08-04	08-05	08-06	08-07	08-08	08-09	08-10	08-11	08-12	08-13	08-14	08-15	08-16
Time								00:16 01:02 01:34								
Date	08-17	08-18	08-19	08-20	08-21	08-22	08-23	08-24	08-25	08-26	08-27	08-28	08-29	08-30	08-31	
Time																

ATT.Report (Statistical Report of Attendance)

The statistical report of attendance displays the queried employees' attendance records in specified periods and calculates their attendance, so as to facilitate payroll settlement based on their attendance data.

FRT supports collection of department or individual based attendance statistics or attendance statistics of all employees to facilitate user query.

ALL: Output the exceptional attendance statistics of all employees.

Dept.: Only output the exceptional attendance statistics of a specific department.

Personal: Only output the exceptional attendance statistics of a specific employee.

Operation steps:

1) Insert a USB disk into the USB slot.

2) Select **Report–>ATT. Report.**

3) Input the start and end dates of the reports to be queried.

4) The system displays the prompt "Copying Data……".

5) Wait until the system displays the prompt "Download Complete!". Then press **OK** and remove the USB disk. Now four files are saved in the USB disk (where "X" indicates device ID; "Y" indicates date range)：

   X(Y)_summary.htm
   X(Y)attendance_per_employee.htm
   X(Y)daily_attendance.htm
   time_card.xml

Open the four files above through the web browser on PC, as shown below:

999

Date:08-01 to 08-31

ID.NO	Name	Dept.	Actual-Time	Late	Early	Work Duration	OT	Working day
1		Excutive	0.0(H)	0.0(M)	0(times)	0.0	0.0	0
3		Excutive	0.0(H)	0.0(M)	0(times)	0.0	0.0	0

Make Form:

999

M: 08

Employee	ID.NO: 1		Name:		Excutive						
Date	1	2	3	4	5	6	7	8	9	10	11
Time	/ /	/ /									
Abnormal	Absent	Absent									
Date	12	13	14	15	16	17	18	19	20	21	22
Time											
Abnormal											
Date	23	24	25	26	27	28	29	30	31		
Time											
Abnormal											

Statistic	Actual-Time	Late	Early	Work Duration	OT	Working day		
	0.0	0.0	0(times)	0.0	0.0	0		

Stat.Unit:Late--M Early--times Real-Time--H Actual-Time--H Work Duration--H

Exc.Stat

999

Date:08-01 to 08-31

Date	ID.NO	Name	Dept.	Shift	On-duty Off-duty	Check-in Time Check-out Time	Abnormal	Work Duration	OT
08-01	1		Excutive	Day	06:00 14:00		Absent	0.0	0.0
08-02	1		Excutive	Day	06:00 14:00		Absent	0.0	0.0
01-01	1		Excutive	Day		06:45 06:45	Early	9320.40	94560.0
01-01	1		Excutive	Day		11:26	Absent	9320.40	0.0
01-01	1		Excutive	Day		11:26	Absent	9320.40	0.0
01-01	1		Excutive	Day		11:26	Absent	9320.40	0.0
01-01	1		Excutive	Day		11:26	Absent	94657.2	0.0
01-01	6			Day	00:46		Late(559240.6M Early	94638.0	0.0

Name: User ID: 1 Dept: Excutive Period: 2010-08-01 To 2010-09-32 Rate:

Date	Day		Shift 2		Shift 3		Shift 4		Total	Comment
	In1	Out1	In2	Out2	In3	Out3	In4	Out4		
2010-08-01										
2010-08-02										
									131939.74	
									0.0	

Total Working Days:0 Day

Total Lates:0.00 Minutes

Total Early Departure:0.08 Minutes

Total Overtime:94560.00 Hours

Name: User ID: 1 Dept: Excutive Period: 2010-08-01 To 2010-09-32 Rate:

Date	Day		Shift 2		Shift 3		Shift 4		Total	Comment
	In1	Out1	In2	Out2	In3	Out3	In4	Out4		
									0.0	

Total Working Days:0 Day

Total Lates:0.00 Minutes

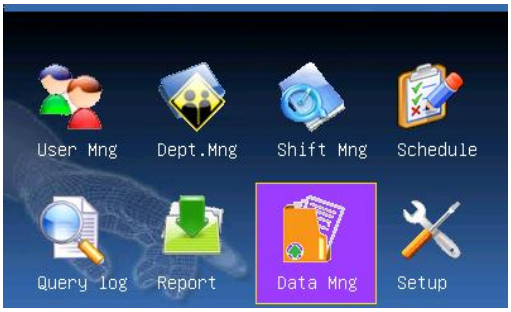
Total Early Departure:0.00 Minutes

Total Overtime:0.00 Hours

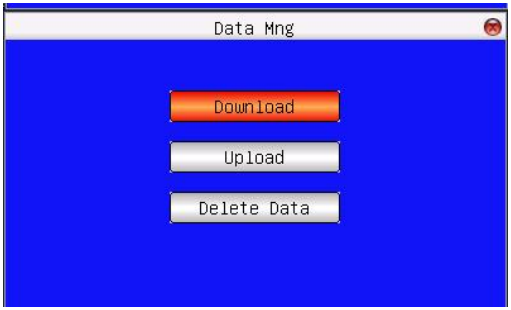
Name: User ID: 6 Dept: Period: 2010-08-01 To 2010-09-32 Rate:

8 Data Management

Through a USB disk, you can import user information and attendance data from an FRT to the related software or other fingerprint recognition devices. Data management includes data uploading, downloading and deleting.

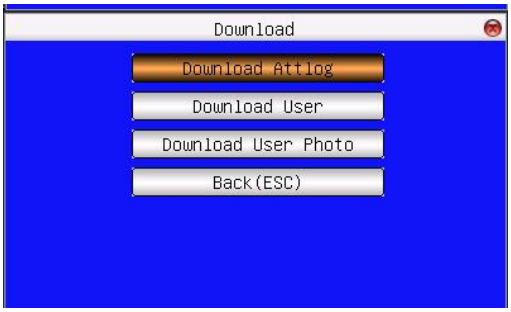


Select **Data Mng** from the main menu and press **OK** to display the **Data Mng** interface:



- **Download**

  Select **Download** on the **Data Mng** interface, and press **OK** to display the Download interface:



Download ATTlog: This option is used to store or import the attendance records from the FRT into the related attendance software through a USB disk.

Download User: This option is used to store or import the user information from the FRT into the related attendance software through a USB disk.

Download User Photo*: This option is used to download user photos from the FRT into a USB disk.

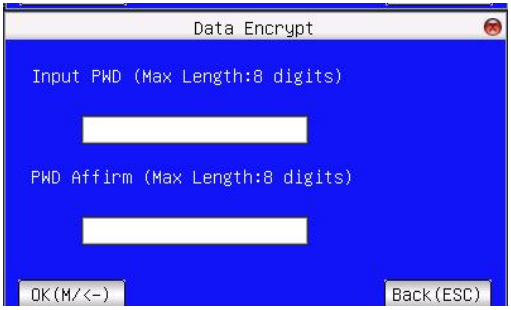
Note: Only some FRTs support downloading of user photos.

1. Download Attendance Logs

1) Insert a USB disk into the USB slot of an FRT through a mini USB cable.

2) Select **Download Attlog** by pressing ▲/▼ on the **Download** interface.

3) **Data Encrypt:**



Press ▲/▼ to move the cursor to the desired entry box. Input the password through the keypad. A password consists of eight digits at most.

4) Press **OK(M/←)** and the system displays the prompt "Downloading, please wait…". When downloading is complete, the system displays the prompt "Attendance logs are downloaded successfully."

5) Press **ESC** to return to the initial interface, and remove the USB disk. The file **X_attlog.dat** (where "X" indicates the device ID) is stored in the USB disk.

2. Download User Data

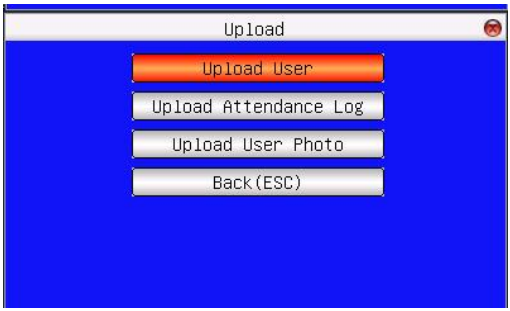
Insert a USB disk into the USB slot, and select **Download User** by pressing ▲/▼. The files **user.dat** (user information) and **template.dat** (fingerprint template) will be downloaded to the USB disk.

3. Download User Photos

Insert a USB disk into the USB slot and press the **Download User Photo** button. A folder with the name of "photo" is automatically created in the USB disk, and all downloaded user photos are stored under this folder.

Upload

Select **Upload** on the **Data Mng** interface, and press **OK** to display the **Upload** interface:



Uphold User: This option is used to upload user information and fingerprint templates from the USB disk to the FRT.

Upload Attendance Log: This option is used to upload the attendance data from the USB disk to the FRT.

Upload User Photo: This option is used to upload user photos stored in the USB disk.

Note: Only some FRTs support uploading of user photos.

1. Upload User Data

Insert a USB disk into the USB slot, and select **Upload User** by pressing ▲/▼. Then press **OK(M↵)** to upload the files **user.dat** (user information) and **template.dat** (fingerprint template) to the FRT. If these two files are inexistent in the USB disk, the system will display the prompt "Copied data error".

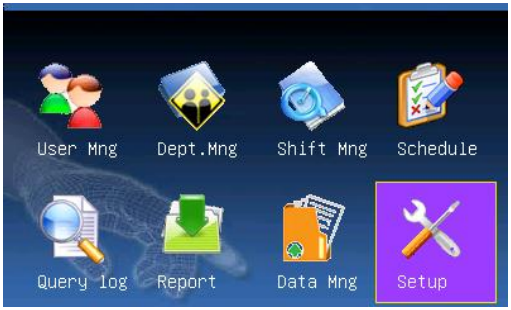
2. Upload Attendance Logs

Insert a USB disk into the USB slot, and select **Upload Attendance Log** by pressing ▲/▼. Then press **OK(M↵)** to upload the file **X_attlog.dat** (where "X" indicates device ID) to the FRT.

3. Upload User Photos

See Appendix 10.6 10.6 Photo ID Function **.

9 Setup



Select **Setup** from the main menu and press **OK** to display the **Setup** interface.

Comm.: Through this submenu, you can set related parameters for communication between the FRT and PC, including the IP address, gateway, subnet mask, baud rate, device ID, and communication password.

Param.: Through this submenu, you can set system parameters and attendance parameters to meet user requirements to the greatest extent in terms of functions, display, and attendance.

Reset: Through this submenu, you can restore the keyboard settings, alarm settings and other parameters to factory defaults..

Indivi.: Through this submenu, you can customize keyboard, voice, and alarm to meet your individualized demands.

Clock: The date and time of the FRT must be set accurately to ensure the accuracy of attendance time.

Auto Test: This submenu enables the system to automatically test whether various modules work normally, including the screen, voice, keyboard, collector, and clock tests.

Update: You can upgrade the firmware program of the FRT by using the upgrade file in the USB disk through this submenu.

Sys info: This menu item allows you to check the storage status as well as version information of the FRT.

9.1 Communication Settings

Relevant communication parameters of FRT need to be set based on the applied communication mode during data transmission between FRT and PC. When the FRT is communicating with a PC, the prompt "**Communicating…**" will be displayed on the screen and in this case no FRT operation is recommended.

Note: You need to check the **Network** settings and make sure the communication parameters are the same with those on software communication interface before connecting the FRT with a PC.

9.1.1 Network Settings

When the FRT communicates with the PC over Ethernet, you need to check the following settings:

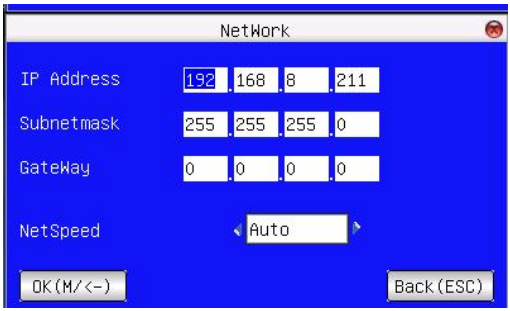
IP Address: The default IP address of the FRT is 192.168.1.201 and can be changed as required. The IP address of FRT and that of the PC should be different.

Subnet mask: The default subnet mask of the FRT is 255.255.255.0 and can be changed as required.

Gate Way: The default gateway of the FRT is 0.0.0.0. If the FRT and the PC are not located on the same network segment, you need to set their gateway.

Net Speed: The network rate includes three options "Auto", "10M" and "100M" and is subject to the rate setting of the LAN where the FRT is located.

Operation Description



Press ▲/▼ or ◀/▶ to move the cursor to the entry box and enter the desired value by using the keypad. When locating the cursor at **Net Speed**, press ◀/▶ to switch to the desired value. After finishing the settings, you can press **OK (M/←)** to save your settings and return to the previous interface, or press **Back<ESC>** to cancel your settings and return to the previous interface.

9.1.2 Serial Port Settings

When the FRT communicates with a PC over a serial port (RS232/RS485), you need to check the following settings:

Baud rate: This parameter is used to set the baud rate for the communication between the FRT and PC. It includes five options: 9600, 19200, 38400, 57600, and 115200. The high baud rate is recommended for the RS232 communication to achieve high communication speed, while the low baud rate is recommended for the RS485 communication to achieve stable low-speed communication.

RS232: This parameter is used to enable or disable the RS232 communication. If the RS232 communication mode is used, set this parameter to "ON".

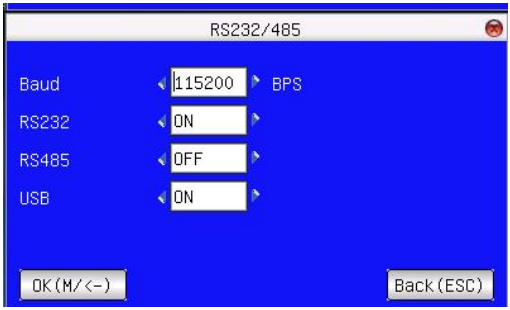
RS485: This parameter is used to enable or disable the RS485 communication. If the RS485 communication mode is used, set this parameter to "ON".

USB: This parameter is used to enable or disable the USB communication. If the USB communication mode is used, set this parameter to "ON".

RS232 and RS485 communications cannot be activated concurrently.

Note: Only some FRTs support the USB communication.

Operation Description



Press ▲/▼ to move the cursor to the desired option and press ◀/▶ to switch to the desired value. After finishing the setting, you can press **OK (M/←)** to save your settings and return to the previous interface, or press **Back (ESC)** to cancel your settings and return to the previous interface.

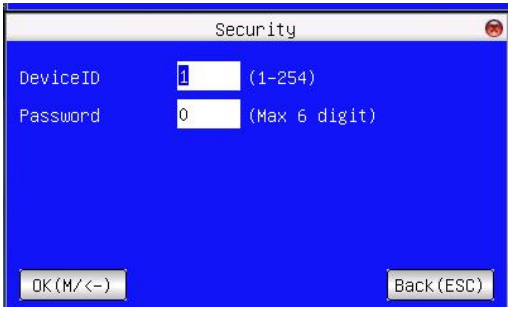
9.1.3 Connection Settings

When the PC communicates with the FRT over RS232/RS485, the device ID of the FRT needs to be set.

Device ID: This parameter is used to set the ID of FRT from 1 to 254. If the RS232/RS485 communication is adopted, you need to enter the device ID on the software communication interface.

Password: To enhance the security of attendance data, you can set a password for the connection between the FRT and PC. Once the password is set, you can connect the PC with FRT to access the attendance data only after entering the correct password. The default password is 0 (that is, no password) and can be reset. 1 to 6 digits password is supported.

Operation Description

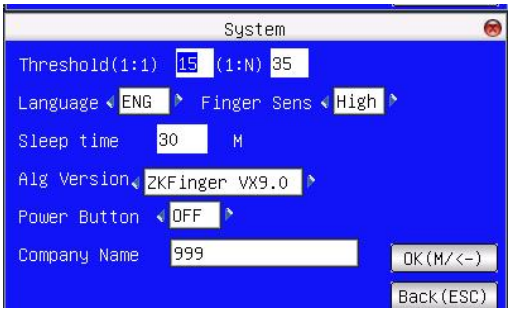


Press ▲/▼ to move the cursor to the entry box. Enter the desired value by using the keypad. After finishing the setting, you can press **OK (M/←)** to save your settings and return to the previous interface, or press **Back (ESC)** to cancel your settings and return to the previous interface.

9.2 Parameter Settings

Set system parameters to meet user requirements to the greatest extent in terms of functions and display.

9.2.1 System Parameters



Threshold (1:1): This option is used to set the extent of matching between an input ID/fingerprint and that stored in templates in the ID and fingerprint identification mode.

Threshold (1:N): This option is used to set the extent of matching between an input ID/fingerprint and all those stored in templates.

The recommended thresholds are as follows:

FRR	FAR	Match threshold	
		1: N	1: 1
High	Low	45	25
Medium	Medium	35	15
Low	High	25	10

Language: This option is used to select the display language on the FRT interface.

Finger Sens: This option is used to set the fingerprint collection sensitivity. It is recommended to use the default value "**Medium**". When dryness results in slow reactions of the fingerprint collector, you may set this option to "**High**" to enhance the fingerprint collector's sensitivity. When high humidity results in illegible fingerprint images, you may set this option to "**Low**".

Sleep time: This parameter is used to specify a period after which the FRT is put in sleep mode if not operated within this period. You can wake up the FRT from sleep by pressing any key or touching the screen.

Alg Version: This parameter is used to select the fingerprint algorithm version between 9.0 and 10.0. Please select the algorithm version with caution because the fingerprint templates of these two algorithm versions are incompatible.

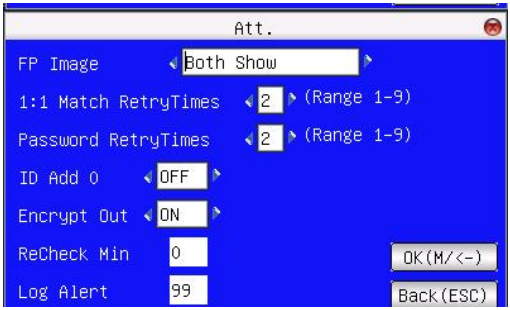
Power Button: This parameter is used to set whether to lock the power button. Select "ON" to disable the power button. If you select "OFF" and press the power button, the FRT will be shut down in three seconds.

Company Name: This parameter is used to set the name of the company.

Operation Description

Move the cursor to the desired option by pressing ▲/▼. Enter a desired value in the entry box by using the keypad. Press ◄/► in the scroll box to switch to the desired value. After finishing the setting, press **OK (M/←)** to save your settings and return to the previous interface, or press **Back (ESC)** to cancel your settings and return to the previous interface.

9.2.2 Attendance Parameters



FP Image: This parameter is used to set whether to display the fingerprint image on the screen during fingerprint enrollment or matching. It includes four options: **Neither Show**, **Both Show**, **Match Show** and **Enroll Show**.

1:1 Match RetryTimes: This parameter is used to set the retry times in the event of failure of 1:1 verification due to absence of fingerprint enrollment or improper finger placement, so as to avoid repetitive operations. (Range: 1–9)

Password RetryTimes: This parameter is used to set the retry times in the event of failure of password verification. (Range: 1–9)

ID Add 0: This parameter is used to set whether to prefix 0 to the ID of a newly added user.

For example, if the FRT supports 9 digits user ID number and you enter **2** as the ID of a new user, the FRT will automatically prefix eight zeros to **2.** Thus the new ID number is 000000002.

Note: You can only switch **ID Add 0** to "OFF" when there is no user on the FRT; otherwise, the following message box will be displayed:

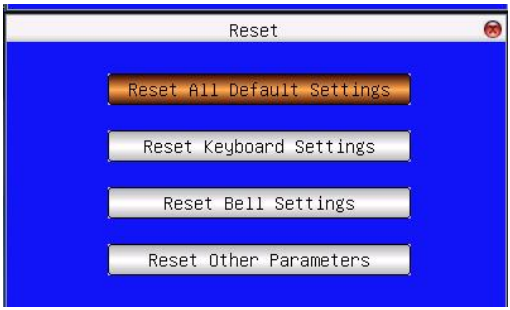
Encrypt Out: This parameter is used to encrypt the data when using a USB disk to download the attendance data after the operation of U disk encryption. Only after the decryption can you upload the attendance data.

ReCheck Min: If a user's attendance record already exists and the user signs in again within the specified period (unit: minute), his/her second attendance record will not be stored. (Value scope: 0–60 minutes. **0**: Save all the records passing the verification.))

Log Alert: When the available space is insufficient to store the specified number of attendance records, the FRT will automatically display a warning message. (Value scope: 1─99. 0: No warning message is displayed when the free space is zero.))

9.3 Restore Settings

Restore the FRT communication settings, system settings and other parameters to factory defaults.



Reset All Default Settings: Restore all parameter settings on the FRT to factory settings.

Reset Keyboard Settings: Only restore the keyboard settings to factory defaults.

Reset Bell Settings: Only restore the bell settings to factory defaults.

Reset Other Parameters: Only restore the communication settings, system parameters and interface settings to factory defaults.

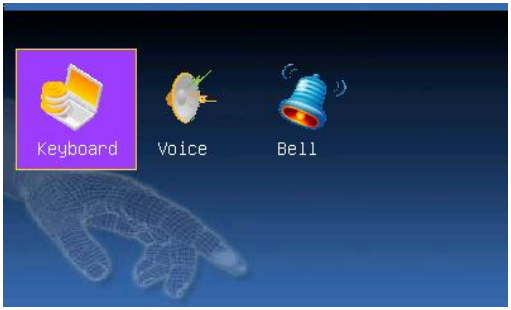
Operation Description

Move the cursor to the desired button by pressing ▲/▼. Press **OK (M/←)** to start the operation and the system displays the prompt "Are you sure to restore factory defaults?" Press **OK (M/←)** to confirm or press **Back (ESC)** to cancel.

Note: The user information and attendance data will not be deleted from the FRT after the restoring of settings.

9.4 Individualized Settings

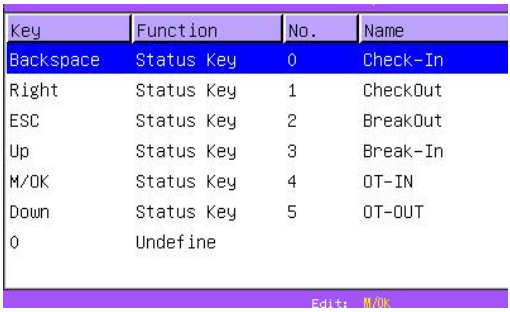
Individualization: Perform individualized settings on keyboard, voice, and alarm to meet user demands.



9.4.1 Keyboard Definitions

You can define shortcut keys for different functions, such as attendance status or query shortcuts. On the main interface of the FRT, press corresponding keys and the attendance status will be displayed or the function interface will be rapidly displayed.

Operation Description



Press ▲/▼ to view the definitions of shortcut keys row by row.

Edit the chosen shortcut keys by pressing OK (M/←).

9.4.1.1 Settings of Shortcut Keys

Choose a shortcut key and press **OK (M/←)** to display the editing interface.

Function: This option is used to set the function of shortcut keys, including the status key, work code and short message query.

The following options will appear after selecting the status key:

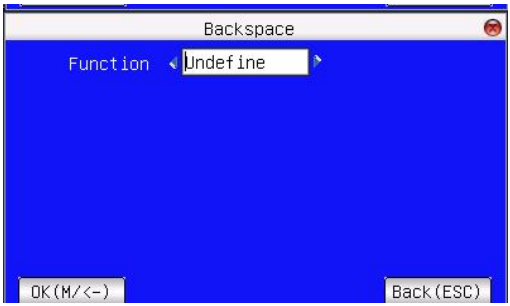
NO.: This option is used to assign a number to a status key to facilitate query of statistics.

Name: This option is used to indicate the name of the status key.

Auto Switch: This option is used to automatically switch the attendance status at the specified time point.

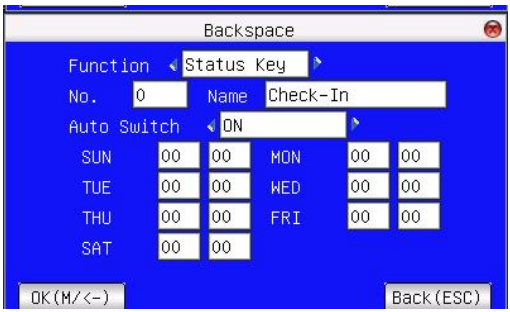
Operation Description

1. Set the function key



Press ◀/▶ to define **Backspace** as a shortcut key for query of work code or short message.

2. Set the status key

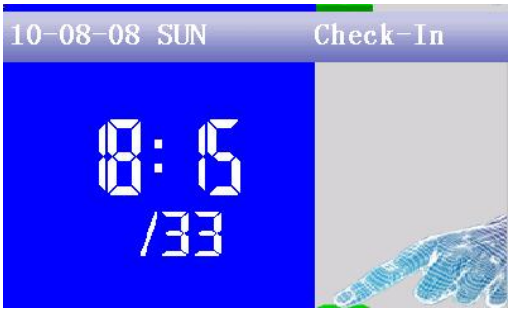


Switch among the entry boxes of different options by pressing ▲/▼. Input a desired value by using the keypad or select one by pressing ▲/▼. After finishing settings, you can press **OK (M/←)** to save your settings and return to the previous interface, or press **Back(ESC)** to cancel your settings and return to the previous interface.

9.4.1.2 Use of Shortcut Keys

1. Status Key

Right-click on the main interface to display the user status on the top right corner.

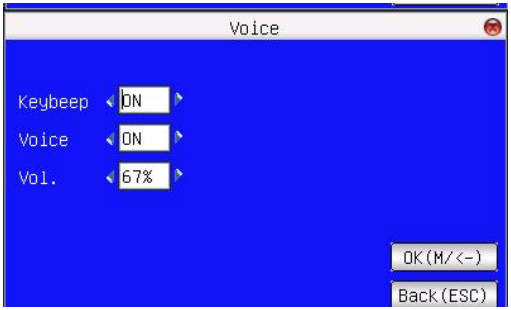


2. Shortcut Keys

For example, set **0** as the work code.

Press **0** on the main interface to display the **Input WorkCode** interface.

9.4.2 Voice Settings



Key beep: This parameter is used to set whether to generate beep sound in response to every keyboard click. Select "ON" to enable the beep sound in response to every keyboard click, and select "OFF" to mute.

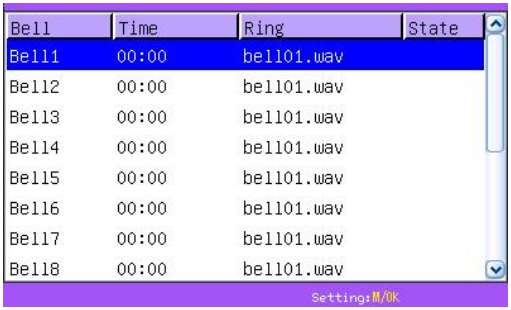
Voice: This parameter is used to set whether to play voice prompts during the operation of the FRT. Select "ON" to enable the voice prompt during operation, and select "OFF" to mute.

Volume(%): This parameter is used to adjust the volume of voice prompts.

9.4.3 Bell Settings

Lots of companies need to ring their bells to signal the start and end of work shifts, and they usually manually ring their bells or use electric bells. To lower costs and facilitate management, we integrates the time bell function into the FRT. You can set the alarm time and duration for ringing the bell based on your requirements, so that the FRT will automatically play the selected ring tone, and stop playing the ring tone after the set duration.

Operation Description:



Press ▲/▼ to view the bell settings row by row.

Press **M/OK** to display the **Bell Edit** interface.

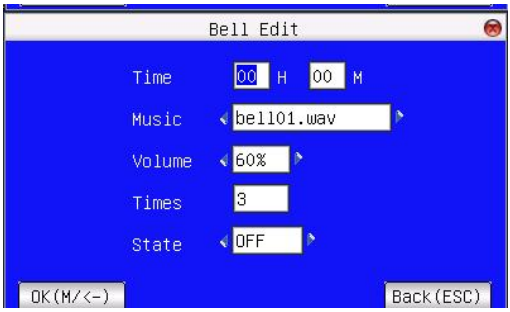
Time: This parameter is used to set a time point of the selected date when the FRT automatically plays a bell ring tone.

Music: This parameter is used to set the bell ring tone.

Volume: This parameter is used to set the volume of ring tone.

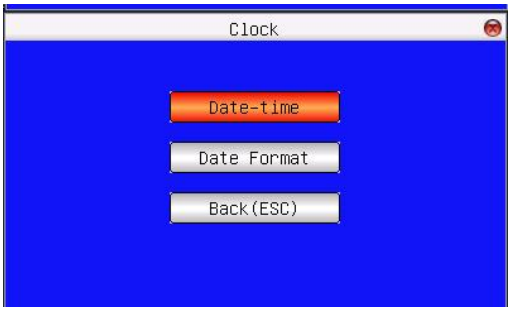
Times: This parameter is used to set the ring times.

State: This parameter is used to set whether to enable the bell.



Switch among different entry boxes by pressing ▲/▼. Input a desired value by using the keypad or select one by pressing ▲/▼. After finishing settings, you can press **OK (M/←)** to save your settings or press **Back (ESC)** to cancel your settings.

9.5 Clock

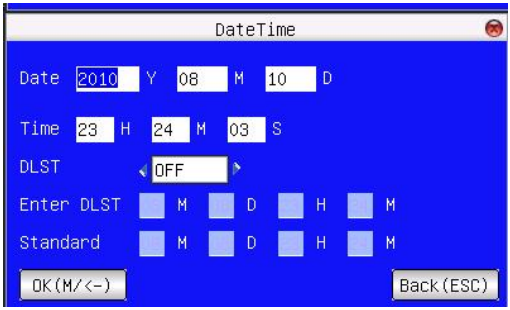


9.5.1 Date and Time Settings

The date and time of the FRT must be set accurately to ensure the accuracy of attendance time.

Set related options on the **DateTime** interface:

Operation Description



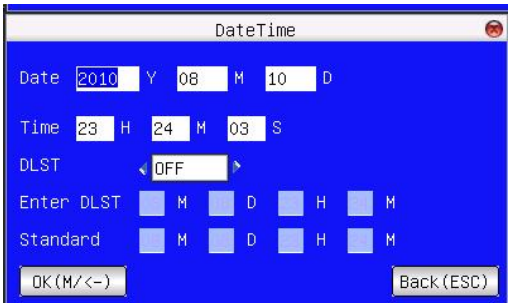
Press ▲/▼ to switch among several entry boxes. Enter the desired value by using the keypad. After finishing settings, you can press **OK (M/←)** to save your settings and return to the previous interface, or press **ESC** to cancel your settings and return to the previous interface.

9.5.2 Daylight Saving Time Setting

The Daylight Saving Time is a widely used system of adjusting the official local time forward to save energy. The uniform time adopted during the implementation of this system is known as the DLST. Typically clocks are adjusted forward one hour in the summer to make people early to bed and early to rise so as to make full use of illumination resources and save electricity. Clocks are adjusted backward in autumn. The specific DLST regulations vary with countries.

To meet the DLST requirement, the FRT supports the DLST function to adjust forward one hour at ×× (Hour): ×× (Minute) ×× (Day) ×× (Month) and backward one hour at ×× (Hour): ×× (Minute) ×× (Day) ×× (Month).

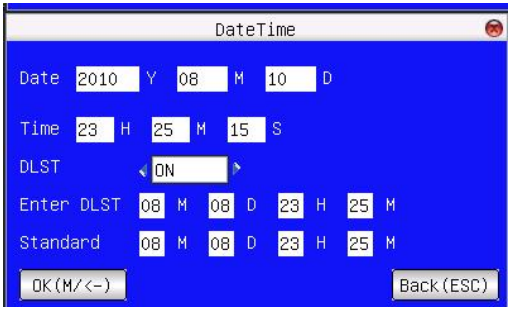
Operation Description



1) Set the **DLST** option to "ON" .

2) Enter the start and end time of DLST.

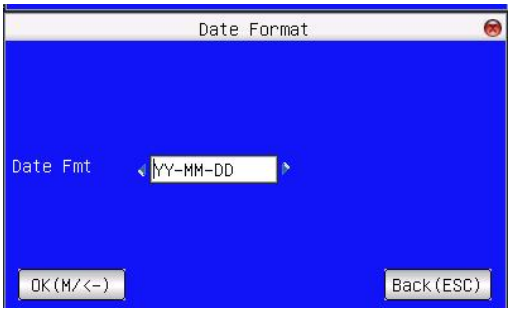
For example, adjust the clock forward one hour at 08: 00 on April 1st, and backward one hour at 08: 00 on October 1st.



3) Press **OK (M/←)** to save your settings, or press **ESC** to exit without saving your settings.

9.5.3 Set Date Format

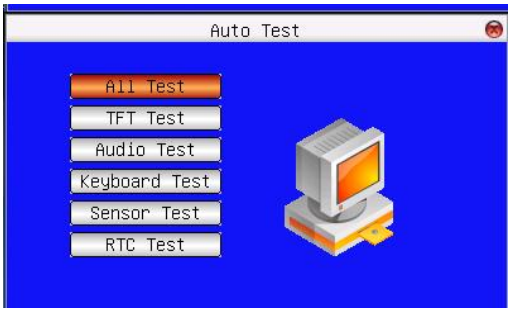
Set the date format on the interface of FRT.



Select a desired date format by pressing ◀/▶. The FRT supports 10 date formats: YY-MM-DD, YY/MM/DD, YY.MM.DD, MM-DD-YY, MM/DD/YY, MM.DD.YY, DD-MM-YY, DD/MM/YY, DD.MM.YY and YYYYMMDD.

9.6 Automatic Test

The FRT can automatically test whether various modules work normally so as to help the operators rapidly locate the possible faulty module. The tests include the TFT display, audio, keyboard, sensor, and RTC tests.



Press ▲/▼ to select the desired option, and then press **OK/(M/←)** to start the test.

All Test

The FRT automatically performs the TFT display, audio, keyboard, sensor, and RTC tests. During the test, press **OK/(M/←)** to continue or press **ESC** to exit.

TFT Test

The FRT automatically tests the display effect of the color TFT display by displaying full color, pure white and pure black and checks whether the screen displays properly.

During the test, press **OK/(M/←)** to continue or press **ESC** to exit.

Audio Test

The FRT automatically tests whether the voice files are complete and the voice quality is good by playing the voice files stored in the FRT.

During the test, press **OK/(M/←)** to continue or press **ESC** to exit.

Keyboard Test

The FRT tests whether every key on the keyboard works normally.

Press any key (except **OK/(M/←)** and **ESC**) on the **Keyboard Test** interface to check whether the pressed key matches the key displayed on screen. The keys are dark-gray  before pressed, and turn dark-red  after pressed.

Press **ESC** to exit the test.

Sensor Test

The FRT automatically tests whether the fingerprint sensor works properly by checking whether the fingerprint images are clear and acceptable.

When the user places his/her finger following the finger place guide, the collected fingerprint image is displayed on the screen in real-time.

Press **ESC** to exit the test.

RTC Test

The FRT tests whether its clock works properly by checking the stopwatch of the clock.

Press **OK (M/←)** to start counting, and press it again to stop to check whether the counting is accurate.

Press **ESC** to exit the test.

9.7 Firmware Upgrade

You can upgrade the firmware program of the FRT by using the upgrade file in the USB disk through this parameter.

Note: If you need firmware upgrade files, please contact our technical support engineers. Generally it is not recommended to upgrade the firmware.

Operation Description

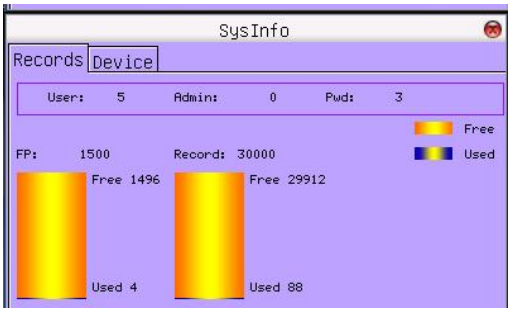
Insert the USB disk containing upgrade files into the USB slot of the FRT, and then press the firmware upgrade option. The FRT will automatically identify the upgrade files and start upgrade. A prompt will be given no matter whether the upgrade succeeds or not.

9.8 System Information

You can check the storage status as well as version information of the FRT through the **Sys info** menu item.

Records:

The number of enrolled users, administrators and passwords is displayed on the **Records** table; the total fingerprint storage capacity and occupied capacity as well as the total attendance storage capacity and occupied capacity are graphically displayed respectively, as shown in the following figure:



Device Information:

The device name, serial number, version information, vendor and date of manufacture are displayed on the **Device** table.

10 Appendix

10.1 USB

1. USB Host

   The FRT is used as the USB Host to externally connect with a USB disk for data exchange.

   The conventional fingerprint readers transfer data only through the RS232, RS485 or Ethernet. Mass of data transfer may take a long time due to the restriction of physical conditions. The FRT is far outperforms than any other previous transfer modes in terms of data transfer rate. Insert a USB disk into the USB slot on the FRT, download data to the USB disk, and then connect the USB disk to a computer to import the data to the computer. Further, the FRT also supports the exchange of user information and fingerprint data between two devices, which helps resolve the difficulty of conventional cable connection for data transfer between the FRT and computers.

   For the operations of the FRT used as the USB host, see 8 Data Management.

2. USB Client*

   Connect the FRT with a PC as the mobile storage device, and transfer the data stored in the FRT to the PC through the USB connection cable.

   When the FRT is used as the USB Client, the USB communication options will be displayed in the FRT communication setting menu. For details, see 9.1Communication Settings.

10.2 Scheduled Bell

Lots of companies need to ring their bells to signal the start and end of work shifts, and they usually manually ring their bells or use electric bells. To save costs and facilitate management, we integrates the scheduled bell function into the FRT. The

options **Bell Delay** and **Bell Time Segment** are available on the FRTs that support the scheduled bell function. There are eight time segments available every day of a week. You can set the ring time as required. The FRT will automatically ring at the specified time every week and stop the ring after the ring duration times out.

There are two types of ring modes:

1) Ring the bell through the speaker on the FRT.

2) Connect an electric bell to the FRT. The FRT will send a relay signal to trigger the electric bell at the specified time.

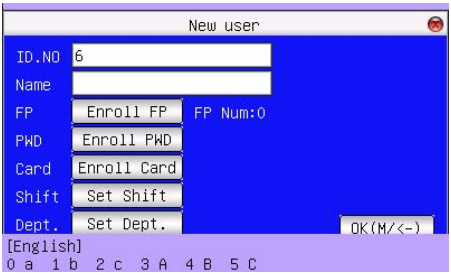
The SSR 3-inch color screen FRT supports the first mode.

10.3 T9 Input Method

As an intelligent input method, T9 input method is famous for the quick and efficient character input. The FRT supports the input of English letters and symbols. Every of the number keys 0–9 is distributed with three or four English letters, for example, key 1 has three letters A, B, and C. You only need to type the key once on which the desired letter resides, all the corresponding upper-case and lower-case letters come up. You can choose the desired letter by pressing the numeric key. T9 input method also supports the input of some symbols. You can type user and shortcut key names using T9 input method.

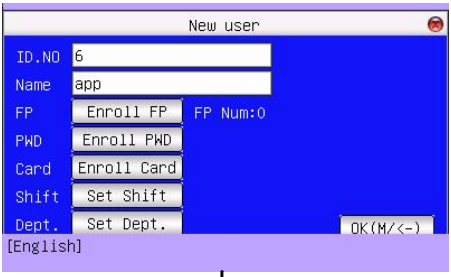
For example: To input a user name “app”, proceed as follows:

Press ► to activate the T9 input method, and then switch between English and Symbol by pressing ► to select English.



Input “2” to get the first letter and press “0” to “a”.

Press **OK**



Input the other letters “pp” in the same way

After entering the letters, press **ESC** to exit.

10.4 Quick Query of Attendance Records

This function allows ordinary users to query their own attendance records of current day to make sure whether there is any missing record or time error so as to inform administrators to record exceptions in time.

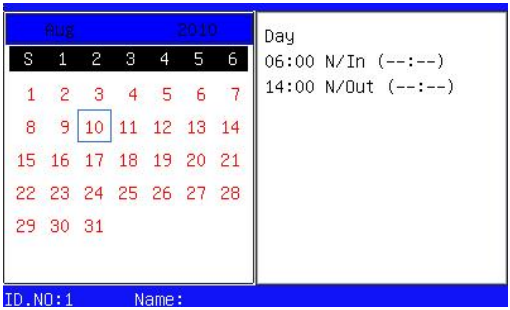
Operation Description

Two modes:

Mode 1: The system displays all attendance records of an employee on current day if the employee presses M/**OK** within 10 seconds upon successful fingerprint or password verification.

Mode 2: If an administrator or enroller presses **M/OK,** the system will display the administrator or enroller verification interface. If an ordinary user presses **M/OK**, the system will display the attendance records of this user on current day.

For example, after successful fingerprint matching, the employee with user ID of 4 can view his/her attendance records of current day after pressing **M/OK**.



Note: If the queried employee has been assigned shifts, the system will display exceptional records; otherwise, the system will display the attendance records.

Press ▲/▼/◀/▶ to query the attendance records or exceptional records of other dates.

Press **ESC** to return to the initial interface.

10.5 EM Read-only Card *

To accommodate the market demand for the currently popular RF cards, we have developed the FRT with built-in non-contact RF EM card reader module. By integrating the EM read-only card, the FRT can be conveniently consolidated into the existing telephone, canteen POS and access control system. The FRT supports

three verification modes including the fingerprint, password, and card verifications to meet the diversified customer needs.

The FRT supports thick (1.88 mm), thin (0.88 mm) and medium-thickness (1.05 mm) ID/EM cards with working frequency of 125 kHz and **card reading distance of 5m.**

10.6 Photo ID Function *

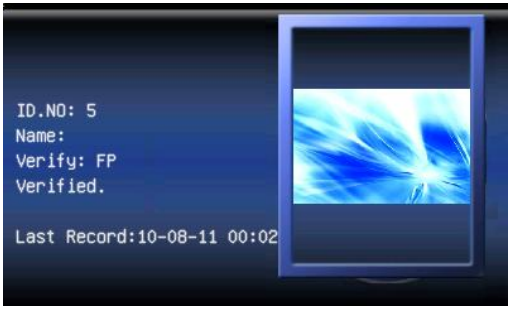
Some FRTs also support the Photo ID function. The Photo ID function is used to display the photo enrolled by a user or stored in a USB disk on the screen in addition to such information as the user ID and name.

1) Create a folder with the name of "photo" in the USB disk, and store user photos under this folder.

2) The user photos must be in JPG format and named after their IDs. For example, for the user with user ID of 154, the photo name must be 154.jpg.

3) Insert this USB disk into the USB slot of FRT, and upload user photos on the **Data Mng** interface. The size of a photo must not exceed 20K.

4) User photos can be displayed upon successful verification.



5) To download user photos, select **Data Mng->Download->Download User Photo** and a new folder named "photo" will be created in the USB disk. All the downloaded user photos are saved in this folder.

10.7 About the human rights privacy statement

Dear Customers:

Thank you for choosing the multi-biometric product we design and produce. As one of the global famous fingerprint identification biometric technologies and services, we pay much attention to the compliance with the laws related to human rights and privacy in every country while constantly performing research and development.

We hereby make the following statements:

1. All of our fingerprint recognition devices for civil use merely captures the features points of fingerprints instead of the fingerprint images, and therefore no privacy issues are involved.
2. The features points of fingerprints collected by our products cannot be used to recover the original fingerprint images, and therefore no privacy issues are involved.
3. We, as the equipment provider, shall not be held legally accountable, directly or indirectly, for any consequences arising due to the use of our products.
4. For any dispute involving the human rights or privacy when using our products, please contact your employer directly.

Our fingerprint products for police use or development tools support the collection of the original fingerprint images. As for whether such a type of fingerprint collection constitutes an infringement of your privacy, please contact the government or the final equipment provider. We, as the original equipment manufacturer, shall not be held legally accountable for any infringement arising therefore.

Note: The law of the People's Republic of China has the following regulations regarding the personal freedom:

1. Unlawful arrest, detention or search of citizens of the People's Republic of China is prohibited; infringement of individual privacy is prohibited.
2. The personal dignity of citizens of the People's Republic of China is inviolable.

3. The home of citizens of the People's Republic of China is inviolable.
4. The freedom and privacy of correspondence of citizens of the People's Republic of China are protected by law.

At last we stress once again that biometrics, as an advanced recognition technology, will be applied in a lot of sectors including e-commerce, banking, insurance and legal affairs. Every year people around the globe suffer from great loss due to the insecurity of passwords. The fingerprint recognition actually provides adequate protection for your identity under a high security environment.

10.8 Environment-Friendly Use Description

The environmental protection use period marked on our products is the safety period of our products used under the conditions specified by this manual without toxic and harmful substances leaking happened

The environmental protection use period marked on our products does not include the easy wear and tear components required to be replaced regularly such as the battery etc. The battery's environmental protection use period is 5 years.

The toxic and harmful substances or element names and the content table

Part name	The toxic and harmful substances or elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr6 +)	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
SMD resistor	×	○	○	○	○	○
SMD capacitor	×	○	○	○	○	○
SMD inductance	×	○	○	○	○	○
SMD diode	×	○	○	○	○	○
ESD components	×	○	○	○	○	○
Buzzer	×	○	○	○	○	○
Adapter	×	○	○	○	○	○

Screw	○	○	○	×	○	○

○：Indicate that the content of the toxic and harmful substance contained in all homogeneous materials of this part is in the limitation requirement stipulated in SJ / T 11363-2006.

×：Indicate the content of the toxic and harmful substance contained in at least one homogeneous material of this part is beyond the limitation requirement stipulated in SJ / T 11363-2006.

Note: The 80% product has adopted the manufacture with non-toxic and harmless environmental protection materials, the non-toxic and harmless substances or elements instead of the toxic and harmful substances or elements contained can not be achieved because of the current technology and economic constraints.