

Access Control Product RFID Series

User Manual (Professional Edition)

Version: 1.0

Date: Jan. 2013

Used for SC700 model etc.

Introduction:

This document introduces user interface and menu operations. Besides, can be bundled Access3.5 Security System is used with together. For installation, please refer to the Installation Guide.

Important Claim

Firstly thank you for purchasing this hybrid terminal product. Before use, please read this manual carefully to avoid the unnecessary damage! The company reminds you that the proper user will improve the use affect and authentication speed.

No written consent by our company, any unit or individual isn't allowed to excerpt, copy the content of this manual in part or in full, also spread in any form.

The product described in the manual maybe includes the software which copyrights are shared by the licensors including our company, Except for the permission of the relevant holder, any person can't copy, distribute, revise, modify, extract, decompile, disassemble, decrypt, reverse engineering, leasing, transfer, sub-license the software, other acts of copyright infringement, but the limitations applied to the law is excluded.

Reserve the final rights of modification and interpretation.

Due to the constant renewal of products, the company can not undertake the actual product in consistence with the information in the document, also any dispute caused by the difference between the actual technical parameters and the information in this document. Please forgive any change without notice.

Table of Contents

1. Notice for Use	1
1.1 About This Manual	1
1.2 Use of the Touch Screen	3
1.3 Touch Operations	4
1.4 Appearance of Device	5
1.5 Main Interface	6
2. Main Menu	7
3. Add User	9
3.1 Entering a User ID	9
3.1 Entering a User ID	10
3.2 Entering a Name	11
3.3 Enrolling an ID card★	12
3.4 Enrolling a Password	13
3.5 User Permissions	14
3.6 User Verification	15
3.6.1 Password Verification ★	15
3.6.2 ID Card Verification★	16
3.6.3 Multi-Card Opening Verification★	16
4. User Management	17
4.1 Edit a User	18
4.2 Delete a User	19
4.3 Query a User	20
5. Communication Settings	21

6. System Settings	23
6.1 General Parameters	23
6.1.1 Keyboard Clicks	23
6.1.1 Keyboard Clicks	24
6.1.2 Voice Prompts	24
6.1.3 Volume	24
6.1.4 Attendance	24
6.2 Display Parameters	24
6.2 Display Parameters	25
6.2.1 Language	25
6.2.2 Toolbar.....	25
6.2.3 Sleep Time (S):	25
6.3 Shortcut Definitions.....	26
6.3.1 Use shortcut keys	26
6.3.2 Shortcut Status Settings.....	27
6.4 Access Control Parameters ★	29
6.4.1 Lock Delay	29
6.4.2 Door Sensor Delay.....	29
6.4.3 Door Sensor Mode.....	29
6.4.4 Verification Types.....	30
6.5 Update	31
7. Data Management.....	32
8. Date/Time Setting	33
8.1 Set Date/Time	33
8.2 Daylight Saving Time (DLST) ★	34
9. Auto Test	36

Table of Contents

9.1 Test Screen	36
9.2 Test Voice.....	37
9.3 Test Time.....	37
9.4 Screen Calibration	38
10. USB Disk Management	39
11. System Information.....	40
12. Appendix	41
12.1 T9 Input Instructions	41
12.2 USB.....	43
12.3 Print function★.....	44
12.4 Environment-Friendly Use Description.....	46

1. Notice for Use

Avoid using the device from exposure to direct sunlight or at outdoors in summer. The working temperature ranges from 0~40°C. The heat dissipated during long-term operation may easily lead to response slowdown and verification pass rate decrease. It is recommended to use sunshades and heat sink devices for the device when using at outside.

1.1 About This Manual

- “★” Means optional functions, not all devices have this function.
- The photograph in this manual may be different from that of the real product. The actual product to prevail.
- Characteristic Feature (The Firmware application logic aspects):

(1) RFID Function

Supports IC Card, ID Card, HID Card etc.

(2) User Access Options

mainly have the following advance access control functions:

- 1、 User effective date
- 2、 User effective time period
- 3、 User multiple verification mode
- 4、 Door valid time zone
- 5、 Door open time function
- 6、 Holidays time period
- 7、 First-card normal open
- 8、 access control records of controller
9. Linkage function

The above advanced Access Control functions should bundled Access3.5

Security System. For details, please refer to *Access3.5 software user manual.*

(3) U disk Function

Support U disk uploading and downloading user data, does not support U disk download the access control records function.

(4) Support Network Communication

Through the Internet with Access Control 3.5 software communications.

(5) Attendance Function

Click Shourcut on the initial interface, the related status and function keys are displayed on the right corner of the interface for use. Including Check-In, Check-Out, Break-Out, Break-In, OT-In etc.

1.2 Use of the Touch Screen

Touch the screen with one of your fingertips or the edge of a fingernail, as shown in the following figure. A broad point of contact may lead to inaccurate pointing.



When the touch screen is less sensitive to the touch, you can perform a screen calibration through the following menu operations. Press **[Menu]** -> **[Auto Test]** -> **[Calibration]** on the screen and a cross icon will be displayed. After you touch the center of the cross at five locations on the screen correctly, the system will automatically returns to the **Auto Test** menu. Press **[Exit]** to return to the **Menu** interface. For details, see the description in [9. Auto Test](#). Smear or dust on the touch screen may affect the performance of the touch screen. Therefore, try to keep the screen clean and dust-free.

1.3 Touch Operations

1. Enter numbers: Press the [User ID] key. The system will automatically display the number input interface. After entering the user ID, press [OK] to save or press [X] to cancel and return to the previous interface.



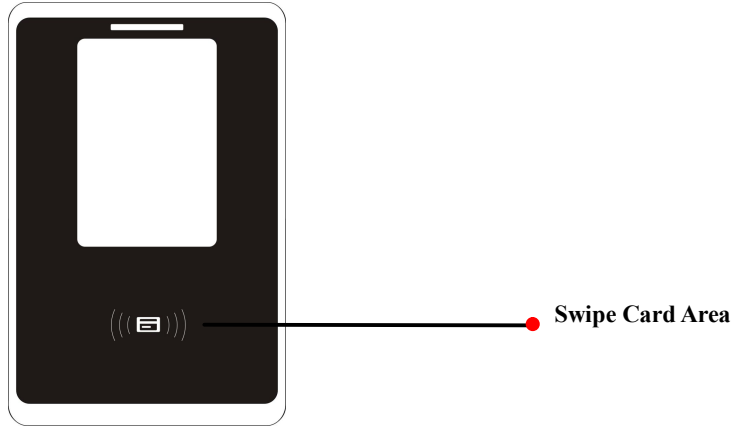
2. Enter Text: Press the [Name] key. The system will automatically display the text input interface. After entering the user name, press [X] to close the text interfaces, and then press [save] and return to the previous interface.



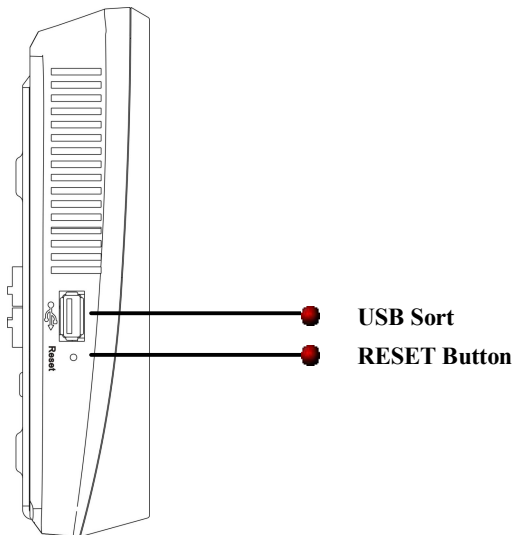
1. Notice for Use

1.4 Appearance of Device

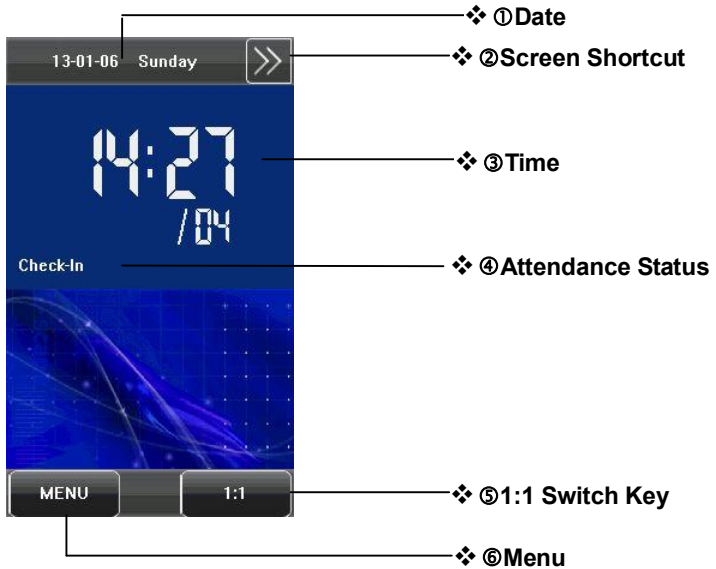
(1) Front View



(2) Side View



1.5 Main Interface



① **Date:** The current date is displayed.

② **Screen Shortcut:** Press these shortcut keys to display the attendance status.

③ **Time:** The current time is displayed. Both 12-hour and 24-hour time systems are supported.

④ **Attendance Status:** The current attendance status is displayed.

⑤ **1:1 Switch Key:** By pressing this key, you can switch to the 1:1 verification modes, and enter the digital input interface.

⑥ **Menu:** You can enter the main menu by pressing this key.

2. Main Menu

Press [**Menu**] on the initial interface to access the main menu, as shown in the following figure:



The main menu includes nine sub menus:

Add User: Through this submenu, you can add a new user and input the information on the device, including the user ID★, name, card, password, Role (permissions).

User Mgt.: Through this submenu, you can browse the user information stored on the device, including the user ID, name, card★, password, authority. Here you can also Add, Modify .Query, or Delete a user's information.

Comm.: Through this submenu, you can set related parameters for communication between the device and PC, including the IP Address, Subnet mask, Gateway, Baud rate★, Device ID, Commn Key.

System: Through this submenu, you can set system-related parameters,

including the General, Display, Access Control Parameters★, and Update.

Data Mgt.: Through this submenu, you can perform management of data stored on the device, for example, deleting all data, clear administrator, restore to factory settings.

Date/Time: Through this submenu, you can set Date, Time, Format, and Daylight Saving Time Settings (DST)★.

Auto Test: This submenu enables the system to automatically test whether functions of various modules are normal, including the screen, voice, Time and screen calibration.

Dn/Upload: Through this submenu, you can download user information and access control data stored in the device through a USB disk.

Sys Info.: Through this submenu, you can browse the capacity records of Access Control (100,000), Users (30,000) and device information.



Any user can access the main menu by pressing the **[Menu]** key if the system does not have an administrator. If had a administrator, the device needs to verify the administrators' identity before granting them access to the main menu. To ensure device security, it is recommended to set an administrator when using the terminal initially. For detailed operations, see [**3.5 User Permissions.**](#)

3. Add User

User registration: Enroll user.

Registration ways include: Password and Card.

After opening the input method function, supporting registration user name. When a new user registers on the device, it sets the defaulted access control function at the same time. Other complex advanced access control function need bundled Access3.5 software for settings.

Press **[Add]** on the **[User Mgt.]** interface to display the **[Add User]** interface as shown below:

User ID: Enter a user ID. 1 to 9 digits user IDs are supported by default.

Name: Enter a user name. 24 characters user names are supported by default.

Card: Press an ID card can register a new user.

Password: Enroll a user's password. The device supports 1-6 digit passwords by default.

Role: Set the rights of a user. A user is set to **ordinary user** by default and can also be set to **administrator**.



3.1 Entering a User ID

The device automatically allocates an ID starting from 1 for every user in sequence. If you use the ID allocated by the device, you may skip this section.

1. Press [User ID] on the [Add User] interface to display the user ID management interface.

Tip: The user ID can be modified during initial enrollment, but once enrolled, it cannot be modified.

2. On the displayed keyboard interface, enter a user ID and press [OK]. If the message “The user ID already exists!” is displayed, enter another ID.

Tip: The device supports 1 to 9 digits user IDs by default. If you need to extend the length of current user ID numbers, please consult our commercial representatives or technical pre-sales.

3. After the user ID is entered, press [Save] to save the current information and return to the previous interface. Press [Exit] to return to the previous interface without saving the current information.



3. Add User


3.2 Entering a Name

Use T9 input method to enter the user name through the keyboard.

1. Press [Name] on the [Add User] interface to display the name input interface.
2. On the displayed keyboard interface, enter a user name and press [Enter], and then press [X].

For details of operations on the keyboard interface, see [12.1 T9 Input Instructions](#).

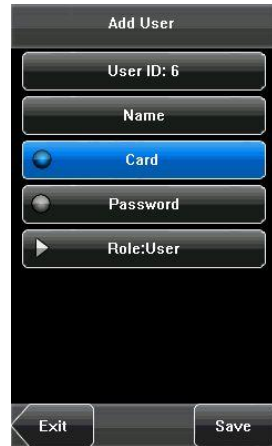
3. After the user name is entered, press [Save] to save the current information and return to the previous interface. Press [Exit] to return to the previous interface without saving the current information.

 **Tip:** The default name for device supports 1 to 24 digits (contain spaces).



3.3 Enrolling an ID card★

1. Press [Card] on the [Add User] interface to display the [Enroll Card] interface.
2. The [Punch Card!] interface pops up as shown below. Swipe your ID card properly in the swiping area. For details, see [1.4 Appearance of Device](#).
3. If the card passes the verification, the device will display a prompt message “Read Successfully! Card No.: *****”, and returns to the [Add User] interface.
4. Press [Save] to save the current information and return to the previous interface. Press [Exit] to return to the previous interface without saving the current information.



Note: The device supports Mifare card function. It is an option function, if you want to customize the Mifare card function, please consult our commercial representative or pre-sales technical support engineers.



3. Add User

3.4 Enrolling a Password

1. Press [**Password**] on the [**Add User**] interface to display the password management interface.
2. On the displayed keyboard interface, enter a password and press [**OK**]. Re-enter the password according to the system prompt and then press [**OK**].
3. After the password is entered, an interface is displayed as shown below. Press [**Save**] to save the current information and return to the previous interface. Press [**Exit**] to return to the previous interface without saving the current information.

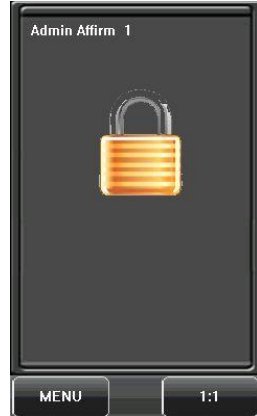


◆ **Emergency Password (8 digits):** In case of emergency, user can press [1:1] buttons on the initial interface, input “.” and press 8 digits plus #, it can be open door.

3.5 User Permissions

There are two types of permissions of users: the **Ordinary users** and **administrators**. Ordinary users are only granted the rights of password or card verification. Administrators are granted access to the main menu for various operations apart from having all the privileges granted to ordinary users.

1. On the [Add User] interface, press [Role: User] to change the user to an administrator.
2. After the modification is done, the interface is as shown below. Press [Save] to save the current information and return to the previous interface; press [Exit] to return to the previous interface without saving the current information.



3.6 User Verification

After enrollment, you can verify validity that registered fingerprints or ID card or password on the initial interface.

3.6.1 Password Verification ★

In the password verification mode, the device compares the password entered with that in relation to the user ID.

1. Press [1:1] on the screen to enter the password verification mode.
2. Enter the user ID and then press the "Key" icon to enter the password verification mode. If the prompt "Unregistered user!" is displayed, the user ID does not exist.
3. Enter the password and press the "OK" icon to start the password comparison.
4. If the verification is successful, the device will prompt "Verified", otherwise the device will prompt "Verify fail" and return to password input interface.



3.6.2 ID Card Verification★

Only the products with a built-in ID card module support the ID card verification.

- 1) Swipe your ID card on the card swipe area by adopting the proper way.
- 2) If the verification is successful, the device will prompt “Verified”.
- 3) If the verification is not successful, the device will prompt “Not Enrolled”.




3.6.3 Multi-Card Opening Verification★


The device off line state, unable to set multi-card verification, it should be connecting the Access3.5 Software to operate. For more information, please see the “Multi-Card Opening” sections in *Access3.5 Software Manual*.

4. User Management

User Management: Manage the registered users. Browse the user information, including the user ID, Name, ID card★, Password, Role (Permission). Through this interface to Add, Query, Edit or Delete the basic information of users.

Press [User Management] on the main menu interface to display the user management interface.

 This user is an administrator.

 **Note:** The users are listed in alphabetical order by last name. If you press a user name, you can access the editing interface of this user to edit or delete the related user's information.



4.1 Edit a User

Press a user name from the list to enter the [User Info] interface.

The User ID cannot be modified, and the other operations are similar to those performed in add a user. You can modify user name, password, and the management rights, re-enroll ID card.

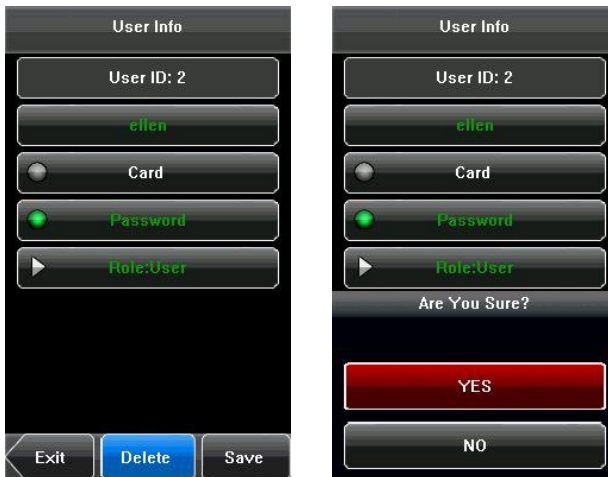
For example: Change the user rights from Administrator to ordinary user. As shown below.



4.2 Delete a User

On the [User Info] interface, you can delete all or partial user information.

1. Press [Delete] to delete a user.
2. On the displayed interface, click [YES] to delete the current user or [NO] to return to the previous interface.
3. On the [User Info] interface, press [Name] or [Password] to delete the related user information and to re-enroll the new information follow the device prompt.

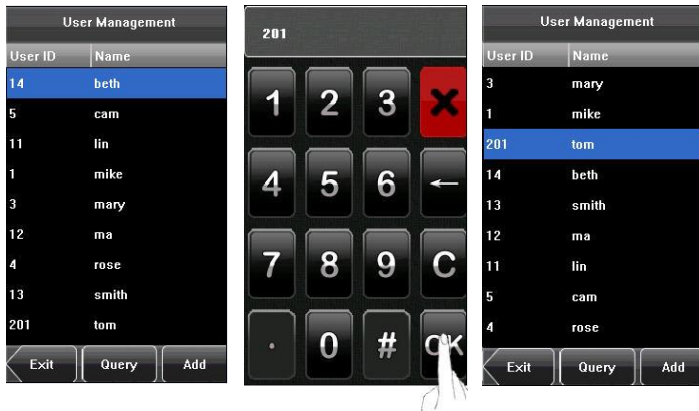


4.3 Query a User

To facilitate administrators to locate a user quickly from a large number of enrolled users, the device enables to query by “User ID”.

User ID Query:

1. Press [Query] on the [User Management] interface to display the User ID query interface.
2. Enter the user ID on the displayed interface, and click [OK] to locate the cursor on the desired user.



5. Communication Settings

You can set related parameters for the communication between the device and PC, including the **IP address**, **Gateway**, **Subnet Mask**, **Device ID**, and **Comm Key**.



IP Address: The IP address is 192.168.1.201 by default and can be changed as required.

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

Gateway: The gateway is 0.0.0.0 by default and can be changed as required.

Device ID: This parameter is used to set the ID of device from 1 to 254.

Comm. Key: To enhance the security of attendance data, you can set a password for the connection between the device and PC.

Once the password is set, you can connect the PC with the device to access the attendance data only after entering the correct password. The default password is 0 (that is, no password).

Once a password is set, you need to enter this password before connecting the PC software with the device; otherwise, the connection is unsuccessful. 1 to 6 digits passwords are supported.

i

Considering the massive data including the fingerVein or RFID templates stored in the device, it is recommended to transfer the data between the device and PC over network to enhance the transfer speed.

6. System Settings

Through the [System] menu, you can set system-related parameters, including the General, Display, Access Control Set★, and Firmware Update.



6.1 General Parameters



6.1.1 Keyboard Clicks

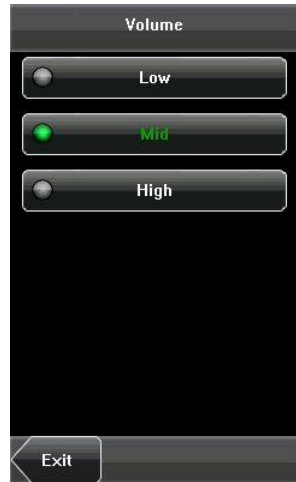
This parameter is used to set whether to generate beep sound in response to every keyboard touch. Select “ON” to enable the beep sound, and select “OFF” to mute.

6.1.2 Voice Prompts


This parameter is used to set whether to play voice prompts during the operation of the device. Select “ON” to enable the voice prompt, and select “OFF” to mute.

6.1.3 Volume

This parameter is used to adjust the volume of voice prompts.



6.1.4 Attendance

This parameter is used to open the attendance function and it displayed  icon on the initial interface.



6.2 Display Parameters

6.2.1 Language

This parameter is used to display the current language used by the device. For multilingual-capable devices, you can switch between different languages through this parameter. Then you should restart the device.

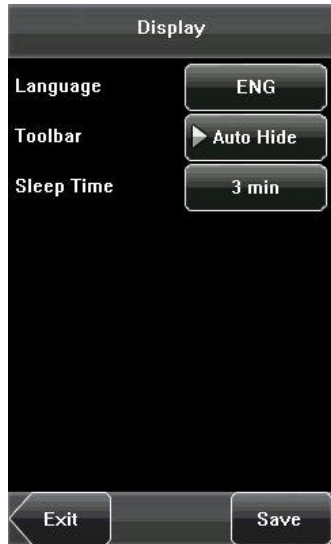
6.2.2 Toolbar

This parameter is available for display Shortcut Keys Status on the initial interface when Attendance function is opened. User can choose “Auto Hide” or “Unhide”.

If the Attendance function is closed, this parameter function is invalid.


6.2.3 Sleep Time (S):

This parameter is used to specify a period after which the device is put in sleep mode if no operation within this period. You can wake up the device from sleep by pressing any key or touching the screen. Numerical ranges 1 ~ 30minutes, 3 min by default.



6.3 Shortcut Definitions

6.3.1 Use shortcut keys

Click  on the initial interface, and the related status and function keys are displayed on the right corner of the interface for use.

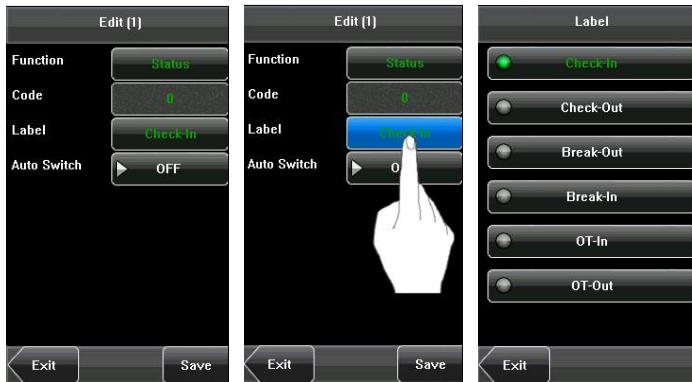


6. System Settings

6.3.2 Shortcut Status Settings

Click [MENU] -- [System] -- [Shortcut Def.], the user according to need to set up shortcut key for state key.

(1) Click the **Status**, enter the edit screen of the status key, as shown in figure 1 below; click the **Label** box, as shown in figure 2 below; enter the **Label** screen, as shown in figure 3 below; click the row of the label (six options for the status) to change it to the corresponding label; the user can modify the label of the status key according to practical needs.



(2) The **Code** cannot be modified; it is changed accordingly with the selected label of the status key. Select **Auto switch**, and select “On”, as shown in figure 1 below.

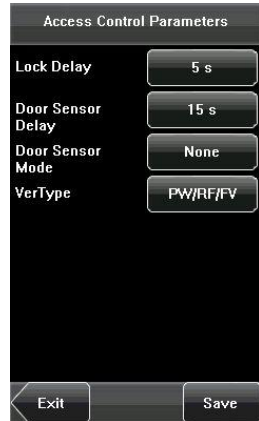


(3) Click the time box after “week”, as shown in figure 2 above, to enter the time setting screen, as shown in figure 3 above. Click the key on the touch screen to set the time; click **[OK]** to save and return to the edit screen. Choose **[Save]** to save the setting.

6. System Settings

6.4 Access Control Parameters★

You can click [MENU]--[System]--[Access Settings] to set the parameters of the Lock Delay, Door sensor delay, Door sensor mode, Verification Type etc.



6.4.1 Lock Delay

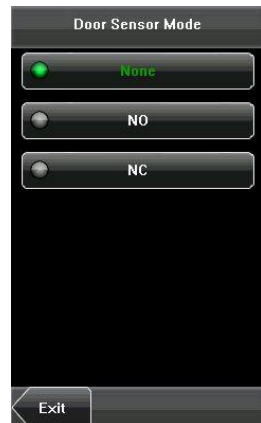
The time duration of electronic lock works from open to close when user's verification succeeds (In case the door is closed).

“S (second)” is chosen as the unit of lock driver duration, and you can set it 1~10s.

If set the duration to“0”, means Lock driver duration is closed. Normally, we do not suggest set it is “0” .

6.4.2 Door Sensor Delay

Indicates the delay for checking the door sensor after the door is opened. If door sensor state is inconsistent with the normal state set by the door sensor switch, an alarm will be triggered, and this period of time is regarded as the “door sensor delay”. (Value scope: 1-99 seconds)



6.4.3 Door Sensor Mode

Includes the None, Normally Open (NO), and Normally Closed (NC) modes. “None” indicates that the door sensor switch is not used. “NO” indicates that

the door sensor is open in the normal state. “NC” indicates that the door sensor is closed in the normal state.

6.4.4 Verification Types

The device supports various Verification Types, the details as following:

Password or ID card (PW/RF), Password (PW), Promixity Card(RF), Password plus ID card (PW&RF).

Besides, user can enter Menu to choose the verification type what your need.

The paths: MENU → System → Access Control Parameters → VerType.



6. System Settings

6.5 Update

You can upgrade the device firmware by using the upgrade file in the USB disk through this function.



If you need the firmware upgrade file, please contact our technical support personnel. Generally the firmware upgrade is not recommended.

7. Data Management

Through the [Data Mgt.] menu, you can perform management of data stored on the device, for example, delete all data, clear administrator, restore the device to factory settings.



Delete All Data: Delete all the information of enrolled personnel, including their ID card or Password records.

Clear Administrator: Change all administrators to ordinary users.

Restore to Factory Settings: Restore all parameters on the device to factory settings.



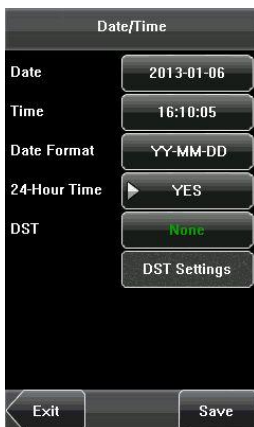
Note: The employee information records will not be deleted during restoration to factory settings.

8. Date/Time Setting

8.1 Set Date/Time

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

1. Press **[Menu]** on the initial interface to display the main menu interface.
2. Press **[Time/Date]** on the main menu interface to display the time setting interface.
3. Select the desired date and time by pressing the parameter.
4. Press **[Save]** to save the current information and return to the previous interface. Press **[Exit]** to return to the previous interface without saving the current information.



8.2 Daylight Saving Time (DLST)★

DLST, also called Daylight Saving Time, is a system to prescribe local time in order to save energy. The unified time adopted during the system date is called “DLST”. Usually, the time will be one hour forward in summer. It can make people sleep early and get up early. It can also reduce lighting to save power. In autumn, the time will be recovered. The regulations are different in different countries. At present, nearly 110 countries adopt DLST.

To meet the demand of DLST, a special option can be customized on our RF Card Time & Attendance recorder. Make the time one hour forward at XX (minute) XX (hour) XX (day) XX (month), and make the time one hour backward at XX (minute) XX (hour) XX (day) XX (month) if necessary.

Operation:

Select the DLST mode first. Including Mode 1, Mode 2 and None, the default setting is None.

1. Click [None] to display the DLST mode selecting interface.
2. Select the DLST mode and return to the Date/Time interface:



3. Click [DST settings], enter the DLST edit interface.

8. Date/Time Setting

Mode1		Mode2	
DST Settings		DST Settings	
StartDate	12-31	StartMonth	9
StartTime	15:32	StartWeek	1
EndDate	08-31	StartWeek	Saturday
EndTime	23:00	StartTime	06:00
		EndMonth	4
		EndWeek	6
		EndWeek	Sunday
		EndTime	23:00
Exit	Save	Exit	Save

4. After setting, click [Save] to complete and return.

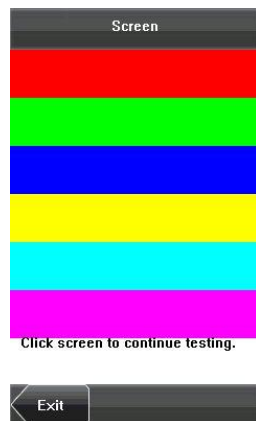
9. Auto Test

The auto test enables the system to automatically test whether functions of various modules are normal, including the Test Screen, Voice, Time and Calibration.



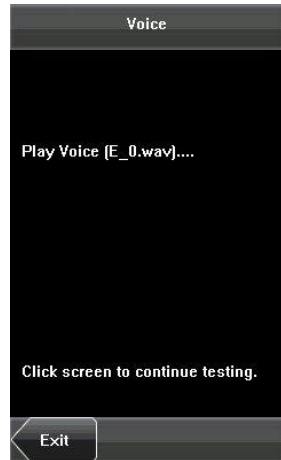
9.1 Test Screen

The device 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. You can continue the test by touching the screen or exit it by pressing [Exit].



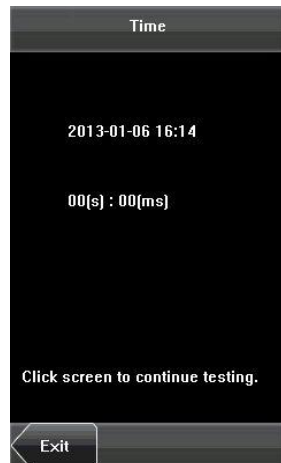
9.2 Test Voice

The device automatically tests whether the voice files are complete and the voice quality is good by playing the voice files stored in the device. You can continue the test by touching the screen,



9.3 Test Time

The device tests whether its clock works properly by checking the stopwatch of the clock. Touch the screen to start counting, and touch it again to stop to check whether the counting is accurate. Press [Exit] to exit the test.

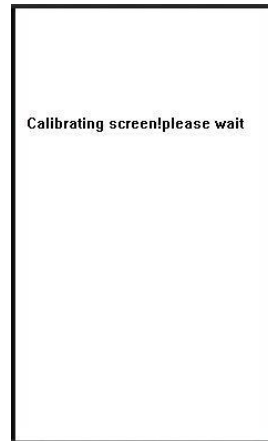


9.4 Screen Calibration

You can perform all the menu operations by touching the screen with one of your fingers or a touch pen. When the touch screen is less sensitive to the touch, you can perform a screen calibration through menu operations.

The Screen Calibration Operation:

- (1) Press [Menu] on the initial interface to display the main menu interface.
- (2) Press [Calibration] on the [Auto Test] interface to display the screen calibration interface.
- (3) Touch the center of the cross “+”.
- (4) Repeat Step 3 following the move of the “+” icon to different locations on the screen.
- (5) Touch the center of the cross at five locations on the screen correctly. When the message “Calibrating screen, pls wait.....” is displayed on screen, the calibration succeeds and the system automatically returns to the main menu. If the calibration fails, the system recalibration will start from Step 3.



10. USB Disk Management

Through the [Dn/Upload] menu, you can download user information and attendance data stored in a USB disk to related software.



- 1. Download User:** Download all the user information from the device to a USB disk.
- 2. Upload User:** Upload the user information stored in a USB disk to the device.

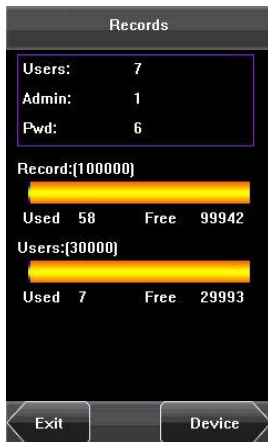


11. System Information

You can check the storage status and version information of the device through the [System Information] option.

Records: The numbers of Access Control records and enrolled users are displayed on the [Records] interface; the total storage capacity and occupied capacity are graphically displayed respectively.

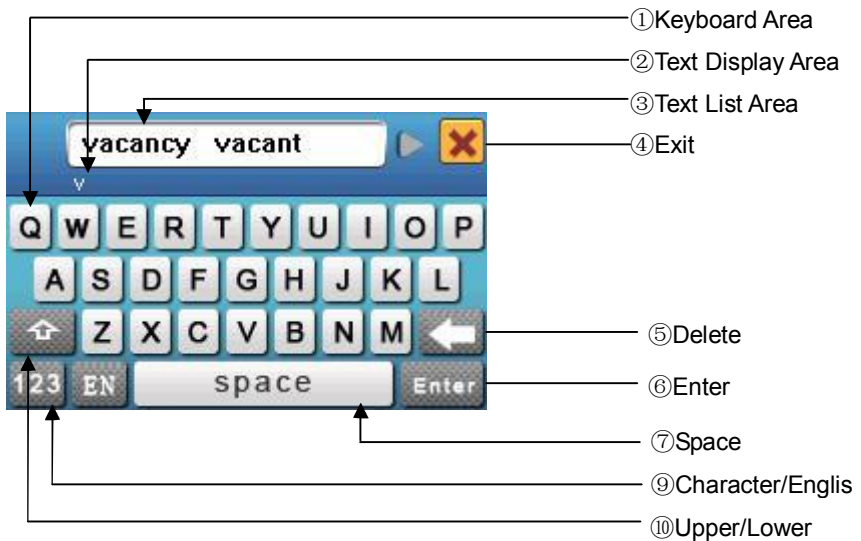
Device: The device name, serial number, version information, vendor and date of manufacture are displayed on the [Device] interface.



12. Appendix

12.1 T9 Input Instructions

The device supports to input English characters, numbers and symbols. Press related button to input text. For example, press [Name] to display the text input interface, as shown in the figure:



To enter a name, proceed as follows:

1. Press [Name] on the [Add] interface, as shown in figure below.
2. Enter the letter characters, and a list of characters in relation to the letter is presented in the text display area.
3. If the desired character is displayed in the text display area, press this character or click [Enter]. And this character is at the same time displayed on the [Name] button. Enter next character by repeating Step2.
4. After finishing the entry of name, press [X] to exit the keyboard interface and return to the previous interface.



12.2 USB

1. USB Host

The devices may be used as USB host to exchange data with external U-disk. The data transmission speed is quick, the traditional product only supports the Ethernet way for data transmission, when as a result of physical condition limit, data quantity big, and the data transmission cost quite long time. But the USB data transmission is quicker than any of the former transmission mode, may complete downloading data by U disk in a short period of time, like this greatly enhances the efficiency.

The operational steps of USB Host equipment please refer to [10. USB Disk Management](#).

2. USB Client

The product will be as removable storage devices data will transfer to a PC via connectedly USB cable.

When the device is as a USB Client, the device communication settings menu will have USB communications options. Please refer to [5. Communication Settings](#) for details.

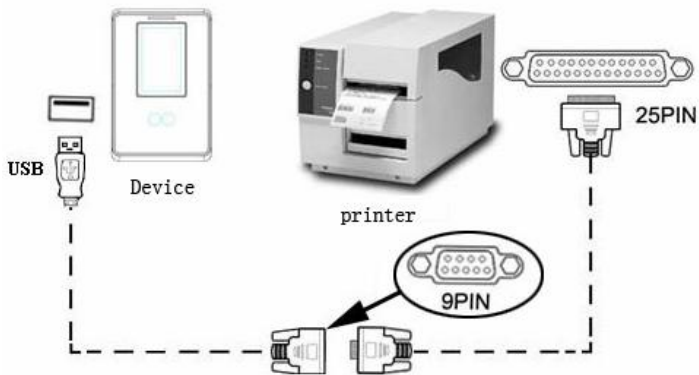
12.3 Print function★

◆ External printer

[Explain]

This device is available only for USB interface export. To connect serial port printer, first use USB cable to transport to RS232. After the printer is connected, direct printing is available. The output content can be viewed through HyperTerminal.

[Connection]



<p>Use USB cable to transport to RS232 and connect the printer to RS232.</p>	<table border="0"> <tr> <td>Device</td> <td></td> <td>printer</td> </tr> <tr> <td>2 TXD</td> <td><-----></td> <td>3 RXD</td> </tr> <tr> <td>3 RXD</td> <td><-----></td> <td>2 TXD</td> </tr> <tr> <td>5 GND</td> <td><-----></td> <td>7 FG</td> </tr> </table>	Device		printer	2 TXD	<----->	3 RXD	3 RXD	<----->	2 TXD	5 GND	<----->	7 FG
Device		printer											
2 TXD	<----->	3 RXD											
3 RXD	<----->	2 TXD											
5 GND	<----->	7 FG											
<p>RS232 Pin-line order</p>	<p>The diagram shows a trapezoidal 9-pin connector with pins numbered 1 through 9. Pins 1 and 5 are at the top edge, and pins 6 and 9 are at the bottom edge.</p>												

12. Appendix

[Instructions]

In the device menu, enter **Menu**→**Comm.** → **Comm.** and select the print mode. There are 6 print modes to choose.



12.4 Environment-Friendly Use Description



The Environment Friendly Use Period (EFUP) marked on this product refers to the safety period of time in which the product is used under the conditions specified in the product instructions without leakage of noxious and harmful substances.

The EFUP of this product does not cover the consumable parts that need to be replaced on a regular basis such as batteries and so on. The EFUP of batteries is 5 years.

Names and Concentration of Toxic and Hazardous Substances or Elements

Parts Name	Toxic and Hazardous Substances or Elements					
	Pb	Hg	Cd	Cr6+	PBB	PBDE
Chip resistor	×	○	○	○	○	○
Chip capacitor	×	○	○	○	○	○
Chip inductor	×	○	○	○	○	○
Chip diode	×	○	○	○	○	○
ESD components	×	○	○	○	○	○
Buzzer	×	○	○	○	○	○
Adapter	×	○	○	○	○	○
Screws	○	○	○	×	○	○

○: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.

×: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials for this part is above the limit requirement in SJ/T11363-2006.

Note: 80% of the parts in this product are manufactured with non-hazardous environment-friendly materials. The hazardous substances or elements contained cannot be replaced with environment-friendly materials at present due to technical or economical constraints.