

User Guide

Please read this manual thoroughly before installation.

Table of Contents

Preface

Product profile

System functions

Parameters

Installation wiring

General operation

Network setup

Trouble shooting

Parts list

Software installation

Access software

Attendance software

1. Preface

First, thanks for your use of this RFID access control system. Please read this manual thoroughly before use and strictly follow the instruction of this manual to operate. This manual describes the main functions of the system and ways to operate.

This access system uses RFID technology, also called radio frequency identification, which is advanced in the world. RFID card has safe read and write features for use since its card code is unique throughout the world, and hard to copy. The use of RFID card cannot be affected by worn magnetic head, magnetic powder fallen off, and dirt resulted from long time magnetic card use. It also avoids defect card read by contamination, contact failure, and foreign goods damage resulted from the openness of the chip of contact IC card and card reader. RFID card is durable and can be used in all kinds of environment.

The system records information from each card read automatically regardless whether there is unlock instruction sent to electrolock. Supervisor can down load and select the stored information in the system through computer, review and print all the events in an easy way. Management software will make an account employee attendance then work out an attendance record form automatically.

This system provides an intelligent way to control entrance and manage employee attendance, which is suitable for route ways, business organizations, governmental institutions and residence communities that need to control personnel access.

2. Product Profile



门铃按钮: Door bell button

数字键: Numerical key

电源指示灯: Power supply LED

开门指示灯: Open LED

通讯指示灯: Communication LED

3. System Functions:

- 1). Memory capacity of 8'000 entries of access records, 1'000 user cards and passwords.
- 2). 8 restricting access time periods freely set for each day.
- 3). Three ways of opening by card read, by card read adding with password, and by card read or entering password.
- 4). Built-in and external card reader; can distinguish number of persons in and out in real time.
- 5). Use RS485 bus network communication, with simple and applicable wiring layout, max network connection is 16 controllers.
- 6). Main I/O functions: electrolock, open button, alarm, reed switch, and door bell.
- 7). Management software that integrates access controller, attendance, and personnel information.
- 8). Personalized management software interface that is easy to operate and use.
- 9). System diagram can be imported with electronic map, freely set name and position for doors.
- 10). Display name, photo, card code, and serial number of the access person in real time.
- 11). User-defined attendance regulations and shift set etc.
- 12). Automatically counts times and time length for late, leave earlier, and absent personnel.
- 13). Attendance records can be printed in report form or exported in EXCEL format.

4. Parameters:

Serial Number	Item	Specification
1	Power supply	DC: voltage $12V \pm 10\%$ Current < 100mA
2	Max Load	Alarm output: 100mA Electrolock output: 3A
3	Dimension	122mm × 78mm × 22mm
4	Weight	130g
5	Ambient Temp.	-20°C—60°C
6	RH	20%—90%
7	Memory Capacity	8000 entries of access records, 1000 user cards
8	Induction Distance	5—15CM
9	Card Type	EM or EM compatible card
10	RFID	6-digit card code
11	Access controlled Time Period	8 access restricting time periods
12	Communication Mode	RS485 Bus network
12	Transmission Rate	9600Bps
12	Card Reader	Built-in and external card reader
13	Keypad Layout	10 numerical keys and 3 function keys

5. Installation Wiring

1. Drawing for connection interfaces



RS485 通讯接口: Communication interface RS 485

电源、电锁、门铃接口: Power supply, electrolock, and door bell interface

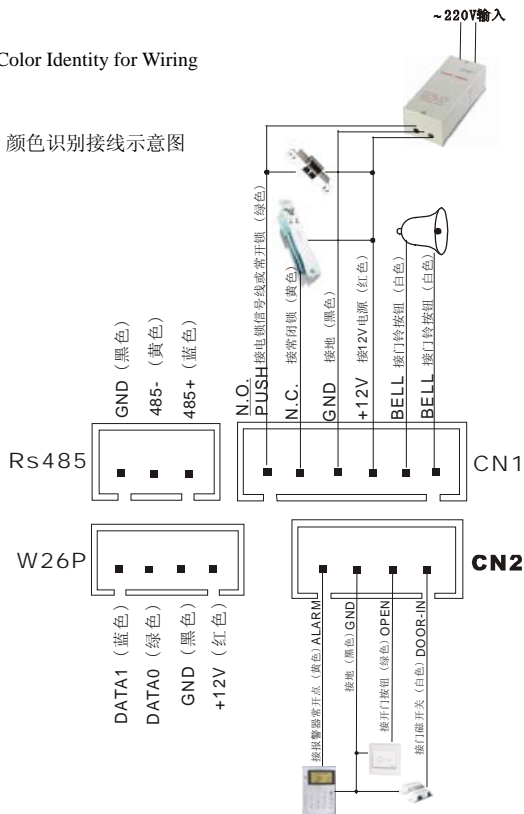
报警、门磁、开门按钮接口: Alarm, reed switch, open button interface

外接读卡器接口: External card reader interface

Warn: Cut off power supply before installation wiring. Make sure the wiring is correct before connecting power supply again!!

2. Color Identity for Wiring

1、颜色识别接线示意图



220V 输入: 220V input

黑色: Black

黄色: Yellow

蓝色: Blue

接电锁信号线或常开锁(绿色): Signal wire connecting to electrolock or normal open lock (green)

接常闭锁(黄色): To normal close lock (yellow)

接地(黑色): Grounding (black)

接 12V 电源(红色): To 12V power supply (red)

接门铃按钮(白色): To door bell button (white)

接报警器常开点(黄色): To alarm normal open point (yellow)

接开门按钮(绿色): To open button (green)

接门磁开关(白色): To reed switch (white)

External card reader: system automatically recognizes external card reader as in, while built-in card reader as out. **If there is a cross over of in and out, you can just set to Controller Read Card Out in “system setup” of the software.**

6. Controller Parameters and Operation

Instructions:

1) System initial values:

- 1). Program password: 123456
- 2). Open mode: open by card read
- 3). User card password: 1234
- 4). Door state monitoring: disabled
- 5). Open time: 6 sec
- 6). Alarm time: 2 min.
- 7). Safety mode: disabled

2) Modify Program Password:

* [Program password] # 0 [new password] # [new password]
again # *

Note: the password is any 6 digits.

3) Add User Card: * [Program password] # 1 [read card] # *

Note: If need add more than one card, read the second card directly after pressing [1] before pressing [#].

4) Delete User Card: Three ways as follows:

A. Delete all user cards: * [program password] # 2 [0 0 0 0] #
*.

B. Delete one user card: * [program password] # 2 [read card]
*.

C. Delete lost card: * [program password] # 2 [enter card code]
*.

5) Set Open Mode: Three ways as follows:

A. Open by card read: * [program password] # 3 0 0
*

B: Open by card read adding with password: * [program password] #
3 0 1 # *

C: Open by card read or password: * [program password] #
3 0 2 # *

Note: factory setting is open by card read.

6) **Set Open Time:** * [program password] # 4 X X # *

7) **Set Open Password:**

* [program password] # 5 [enter password] # [enter
password again] # *

8) **Set Door State Monitoring:**

A. Disable this function: * [program password] # 6 0 0
*

B. Enable this function: * [program password] # 6 0 1 #
*

Note: **door state monitoring should be matched with reed switches**, when this function is enabled, the following two functions can also be enabled at the same time:

A. If the user put in the correct password to open the door, then forget to close the door, the buzzer will give audible sound to note the user.

B. If the door is opened illegally, the system will activate alarm signal output, at the same time, buzzer emits sound alarm.

9) **Set Safety Mode:**

* [program password] # 7 0 0 # * to disable this
function.

* [program password] # 7 0 1 # * to read 10 invalid
cards or valid cards, then enter 4 wrong passwords successively, system is locked for 10
minutes.

* [program password] # 7 0 2 # * to read 10

invalid cards or valid cards, then enter 4 wrong passwords successively, system activates alarm signal output.

10) Controller Initialization:

If set program password is forgotten, you can use jumper switch "RESET" at the main board to restore factory setting. First, power off. Then set jumper switch to "ON" position. Power on. Shift the jumper switch back to "OFF" position after three beeps of the buzzer, now factory setting is restored.

WARN: since use of this function will cause loss of previously set parameters, user card information, and all current data, please use this function cautiously!!

7. Network Setup:

This product uses RS485 bus network, additionally configured with RS485/RS232 communication converter.

- 1) When operate with a multi controller network, wiring as follows:

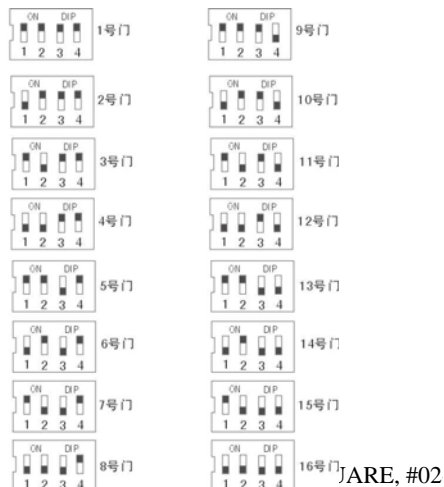


转换器: converter

两芯屏蔽线最长不超过 1200 米: max length of the two-core shielded wire is no more than 1200 meters.

最长不超过 2 米: no more than 2 meters

- 2) Address code setting: there should be no more than 16 online controllers for this system. Default setting for all the controllers are for Door #1. Toggle switch SW1 on the main board should be set to different positions when installing in order to identify different door number in the same network:



3) Connecting controller to communication converter: 485+ (blue wire) at controller connected to 485+ at converter. 485- (yellow wire) at controller connected to 485- at converter.

4) Resistance set for communication terminal RS485:

When long distance communication is to be realized through RS485 communication, its impedance matching should be carried out by terminal resistance, thus make communication smoother, and ensure data accuracy. In the whole network, only the controller that is the farthest away from the computer should be fit with terminal resistor, Jumper caps JPI for all the other controllers should be totally pulled out.

8. Trouble Shooting

- 1) Indicators not on, and no display: no power supply connection or power voltage is out of order.
- 2) Buzzer alarms all along: anti dismantling switch is loosened, or door state monitoring is set without connecting reed switch.
- 3) Card read distance is too close: the distance between controller and card reader is too close, there may be metal shield around the controller or card reader, or power voltage in out of order.
- 4) Card reader not read card: wrong wiring or incompatible card reader is used.
- 5) Controller can not be connected to PC: check wiring, make sure the serial communication port of PC is in use, communication port is set correctly, use bus connection, and use terminal resistance correctly.
- 6) If there is issue that cannot be solved, contact your provider immediately.

9. Parts List

Access controller: 1 piece

Disk (management software for access and attendance): 1 piece

User's manual: 1 piece

Patch cord: 1 set (4 pieces)

Screw accessories: 1 bag

Acceptance certificate: 1 piece

10. Software Installation

1) Operation Environment:

Hardware: PC of Pentium 586 or above, memory above 32M, hard disk space more than 100M, monitor whose resolution is no less than 800X600, there is vacant serial communication port.

OS system: windows98/XP/2000 of simplified Chinese version (win2000 needs to install W2Ksp3.exe).

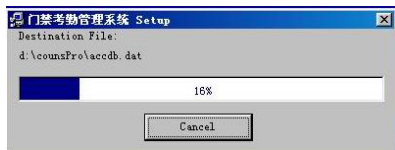
2) Software Installation:

Run \KS2800\setup.exe under disk directory to enter installation mode, the following window pops out.

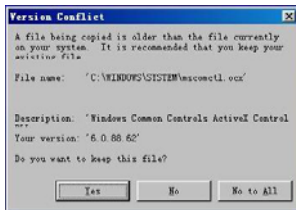


When installation directory setup is completed, press the computer icon button at the upper left corner to continue installation. You'd better install according default directory.

In installation process, you can press “Exit Setup” to exit installation process, or press “Continue” to go to next step.



If there is notification as below occurs during installation, the cause may be that there are some files that are out of date compared with the current ones, please choose “YES”. The system will notify when installation is completed. Then press “OK” to exit.



3) Software uninstall: before uninstalling and deleting, **you'd better make a backup copy of accdb90.dat** that is under installation directory, **this file contains all the data and settings of this system.** Click open My Computer\Control Panel, double click Add and Delete Program, find Attendance Management System, press button Add/Delete, if there is notification, press YES.

11. Access Control

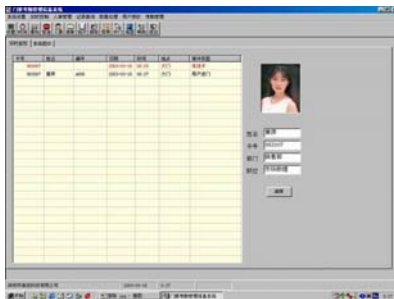
1) Log in the system,; click Start Menu, select Program\ Attendance \ Attendance Management System, dialog box below illustrated:



System default user: Administrator, password: "system".



When use for the first time, the system will prompt to enter according company name that will be kept in System State Bar. The main interface after entering the system is as below.

Real time monitoring:



System chart:



2) Auto search for new controllers: when detected new controller, the system will show an icon of a controller  in the electronic map of system chart. In following uses, if the icon is illustrated as , it means this controller is not connected to the system, now please check all the connections.

3). Personnel information management: if there is personnel information needs to add, you must add department and title in advance, select “Personnel information management”/“Department Management”, the following dialog box pops out.



Press “Add”, then enter the need-to-be added name of the department in “Name” field, and press “Save”. If you need to modify a department name, press “Edit” after selecting this department.

Select “Personnel information management”/“Title management”, a dialog box pops out as below, operate as above mentioned.



Select “Personnel information management”/“Personnel Management”, a dialog box pops out as below:



You can enter search conditions in the upper part of the dialog box to have a probable personnel search. If no information entered and press “Search” directly, all the personnel information will be displayed.

Press “Add”, you can put in personnel information in the following dialog box, after correction confirmation, press “Save”. If there is photo, press button “Photo” and select the right path to import the bmp format picture:



4) Set Access Authority:

After entering personnel information, you can set access authority for each person (for card), meaning whether someone has the authority to access a door. Press “System Setup”/ “Set Access Authority”, the following dialog box pops out:



Select any available controller on the left, an authorized personnel list who can access this entrance immediately displayed on the right. If need to add new authorized person (also card), press “Authorize”, the following dialog box is displayed:



You can search for the person who needs to be authorized according to his name and card code or department. If entering no information and press “Search” directly, all the personnel information will be displayed. Tick the person who needs to be authorized in the check box with “√” before his name, then press “OK”. **If need to set access forbidden time period for this person, double click this person then set in the popped out dialog box.**

5) Set Date and Time:

If there is controller time error, operate in this way, press “System Setup”/“Date and Time”, the following dialog box pops out:



Date and

at computer time.

6) Set Open Password:

Enter password in the following dialog box (4-6 digit) sending to the selected controller. The next step is setting open mode in Parameter Setting to “Open by Card Read or Password” to enable this password’s open function.



7) Set System Parameters:

Select “System Setup”/“System Parameters”, a dialog box is displayed as follows:



Default setting of the above parameters: program password: 123456; open mode: open by card read; door state monitoring: disabled; open time: 6 sec; alarm time: 2 min.; safety mode: disabled; off-days functions: disabled. Users can define them according to his own requirements.

Warn: since the use of “Restore Factory Settings” will cause loss of all previously set parameters, user card information, and all current data, also the

controller has to be registered again, please use this function cautiously!

8) Set Communication Port: Select the right communication port in the following dialog box, the system default is port 1. If need to set communication port again, the system should be restarted.



9) Emergency State:

If there is fire or burglar, this system has the function of emergency open or close.



In emergency state, this window can not be closed.

10) Data Down Load:

If need to review events record or account attendance, you should down load data from the system first.

There are three ways to do this:



11) Data Backup and Restoration:

To prevent system accident or evilly intended damage, you should have data bank backup regularly. If damage occurs, this system then can be reinstalled and data to be restored.

12) Clear Data:

To prevent the data bank becomes too heavy, this system provides data clear function, including clearing historical data and clearing controller data. Clear historical data means clearing data in the system data bank. **Only data three months before the current computer time can be cleared.** Clear controller data includes clear all event records or clear events records before some day.

13) Record Search:

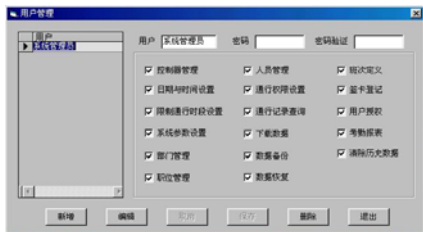
If need to search record, you should down load data from controller first. You can search for all event records, also can search according to card code, name, location (controller), and time scope. Under above conditions, you can search according to: persons in, persons out, alarm, no open in normal close period and invalid cards:



Above searched result can be printed in report form, also can be exported in EXCEL format.

14) User Authorization:

This system provides multi user operation with different authority. Press “User Authorization”, the following dialog box is displayed:



Operators can add users and authority according to his own situation, “system administrator” can only modify password, he can not delete or modify authorization.

12. Attendance Management:

1) This attendance software provides a totally new way for recording attendance: just set attendance regulations after the software installation is completed, no need do any more setting in the course of use. The software can automatically adjust system time, down load data, account attendance results, and work out many kinds of attendance report forms.

2) Regulation Setting:

Select “Attendance Management”/ “Regulation Setting”, a dialog box pops out as below:



User can set according to his own attendance regulations.

3) Card signing registration: select “Attendance Management”/ “Card Signing Registration”, the following dialog box pops out:

If Attendance records are not corresponding to the truth (such as an employee on business, asked for leave, and the system can not read card in case of power failure, the system will automatically recognize these as absence from duty), you can use this function to correct this result. Additionally, over work time also needs to sign card.



4) Search Attendance Record and Print Report Form:

Press “Attendance Management”/“Search and Report Form”, a dialog box as below is displayed:

The screenshot shows a web browser window titled "考勤记录查询" (Attendance Record Query). The interface includes a search criteria section with the following fields:

- 报表类型 (Report Type): 考勤明细列表 (Attendance Detail List)
- 日期范围 (Date Range): 2004年11月1日 (2004 Nov 1) to 2004年11月2日 (2004 Nov 2)
- 查询选项 (Query Options): 按员工 (By Employee), 部门 (Department), and 员工 (Employee)

Below the search criteria is a table with the following columns: 姓名 (Name), 部门 (Department), 日期 (Date), 上班 (Work), 下班 (Off), 迟到 (Late), 早退 (Early Exit), 加班 (Overtime), 缺勤 (Absent), 病假 (Sick Leave), 产假 (Maternity Leave), 公差 (Business Trip), 其他 (Other), 出勤 (Attendance), and 备注 (Remarks). The table is currently empty.

At the bottom of the window, there are five buttons: 查询 (Query), 重新统计 (Re-calculate), 打印 (Print), 导出 (Export), and 退出 (Exit).

User can search or print detailed report form, summation report form, late and leaving earlier report form according to department and employees. The report form can also be exported in EXCEL format.