AC8000 PC Access Control System

- AC8001 TCP/IP single door controller

- AC2002 TCP/IP two door controller

Single, double & multi door access control solutions

Five typical features and advantages of circuit design and two system options

Real-time monitoring and remote control functions: Can real-time monitor all doors status, alarm status and access situation, real-time display of personnel information and photographs; online remote door open, force the door to be normal open or normal closed status; allow user to adjust the delay time and can match with the TCP/IP communication module to achieve remote control within the LAN and the Internet connection

Powerful personalized access control privilege management: 255 personalized time profile control, you can define an individual who can enter some of doors within specified months, days, weeks or hours etc. You can quickly and easily report the loss to enable or disable a certain number of cards or card. you can set the scheduled opening hours from time to time

Mass storage and anti-power-down protection structures for data: You can store 20,000 offline registration card management privilege, 100,000 records, using non-volatile flash memory chip set, the data is not lost after the power failure

Anti-static anti-lightning surge and anti-wrong Circuit connection Design: pass the international standards, 4000V 50 consecutive times imitation lightning discharge tests and pass the EMI (electromagnetic interference) and the electrical performance of quality inspection

Easy Software Interface
Windows Server, Windows XP, 7, 8 & 10 compatible. LAN/WAN connection or directly to a laptop, desktop or tablet via standard Ethernet cable creating single to multiple door control systems

Cable Requirements

- **Cable requirements**

- System schematic

The cable from card reader to controller：8 core shielded multi-strand twisted-pair cable with at least 0.3mm diameter. Maximum distance can not be more than 80mtrs - 100mtrs

The cable from exit button to controller: 2 core with at least 0.3mm diameter

The cable from lock device to controller: 2 core for power of at least 1.0mm diameter
Suggested within 50mtrs, the longest distance must not be more than 80mtrs - 100mtrs

Installation:

Installation and commissioning should be undertaken by either of the following:
1. A proven and experienced access control engineer
2. A proven and experienced IT engineer

All cables should be installed within PVC or Galvanized conduits or PVC trunking and certainly not installed near 220v AC mains cables

Although the controller has a good leak-proof anti-static electricity lightning design, the power supply cabinet must be connected to ground earth

Do not attempt removal or replacement of the controller chips, non-professional operation will lead to control damage and invalidate warranty

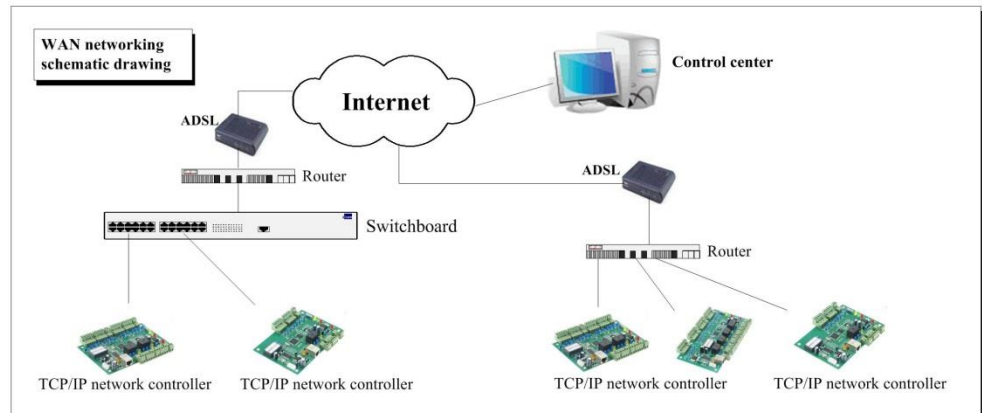Do not connect the controllers and other high current devices to the same fused spur unit

System Schematic
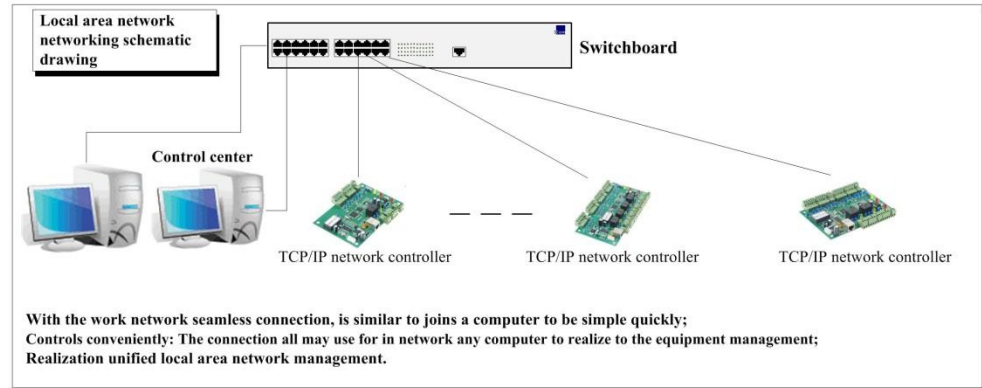
- Cable requirements

- **System schematic**

Local area network networking schematic drawing — Switchboard, Control center, TCP/IP network controller

With the work network seamless connection, is similar to joins a computer to be simple quickly;
Controls conveniently: The connection all may use for in network any computer to realize to the equipment management;
Realization unified local area network management.

WAN networking schematic drawing — Internet, ADSL, Router, Control center, Switchboard, TCP/IP network controller

Matters needing attention:

- Although the controller has good guards against the static electricity anti-radar, strikes, guards against the leakage design, but guarantees the alternating current grounding and the controller engine case good connection by all means must, also real earth.
- Reads the card, the button installment altitude is apart from the ground 1.45 meters, may carry on the appropriate readjustment according to the actual need.
- All non- conventional operation, please by all means must first links up with our engineer. Meets the controller and other big electric current equipment on the identical power supply plug.
- The controller suggested installs and so on is advantageous for the service in the weak electric-pump well

AC8001 PC Access Control System

- **AC8001 PC Access Control System**

- AC8002 PC Access Control System

Specification:

Power supply: 12V DC 3A – 220v AC
Case Size: 310mm x 340mm x 80mm
Battery back-up charger: Yes
PCB board size: 173mm x 118mm x 33mm
Circuit board power consumption: less than 100mA
Reader Input Format: Wiegand 26 (compatible with all readers under the agreement, such as Motorola, HID, EM, Mifare one, etc.).
Communication: TCP/IP
Function Description: Single door controller, enter via card reader and exit via card reader or exit button
Quantity of reader inputs: 2 (1 in, 1 out)
Output relay: 1 (N/O, C, NC contacts)
Open delay time: 1-600 seconds adjustable
Maximum number of controllers per system: Unlimited
Fire alarm input: Yes, via AC-FAB optional control board
Operating temperature: -40 to 70 degrees Celsius
Run Humidity: 10-90% RH, non-condensing
Signal output communication format and baud rate: Supports LAN, Intranet & fixed Internet WAN IP address
Maximum number of users: 20,000
Offline storage: 100,000 records
Power failure protection measures: high-speed flash memory design, and never lose data
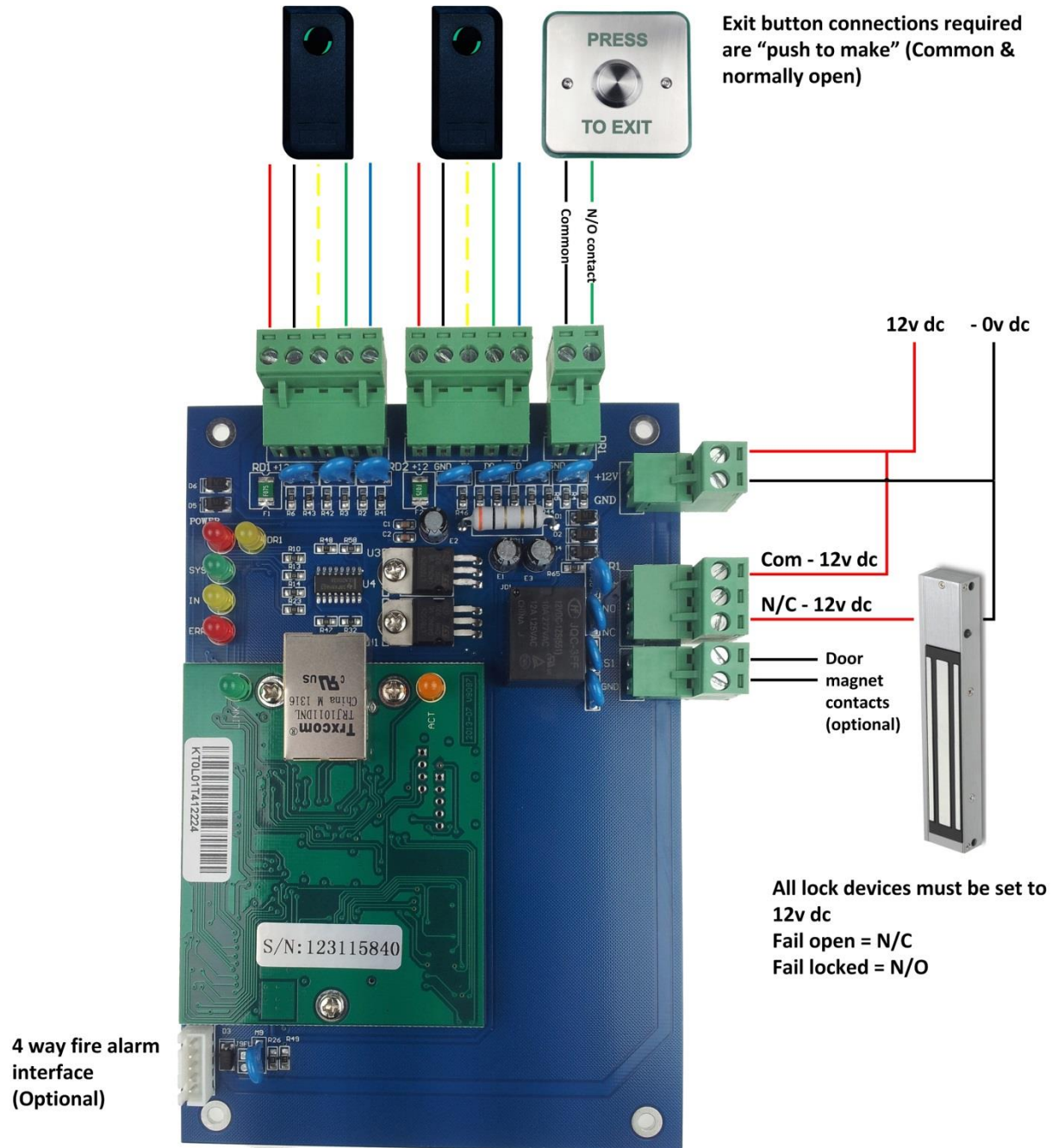**Maximum distance between card reader and the controller:** 100mtr, typical operation within 80mtr
Maximum distance for the Ethernet cable: Depends on the network cover area
Maximum distance between controller to the PC: No limit

Wiring Diagram for AC8001

Exit button connections required are "push to make" (Common & normally open)

PRESS TO EXIT

Common

N/O contact

12v dc   - 0v dc

+12V

GND

Com - 12v dc

N/C - 12v dc

Door magnet contacts (optional)

POWER

SYS

IN

ERR

Trxcom

China M 1316

TRJ101DNL

KT0L01T412224

S/N: 123115840

4 way fire alarm interface (Optional)

All lock devices must be set to 12v dc
Fail open = N/C
Fail locked = N/O

AC8002 PC Access Control System

AC8002 PC Access Control System

Specification:

Power supply: 12V DC 3A – 220v AC
Case Size: 310mm x 340mm x 80mm
Battery back-up charger: Yes
PCB board size: 183mm x 118mm x 33mm
Circuit board power consumption: less than 100ma
Reader Input Format: Wiegand 26 (compatible with all readers under the agreement, such as Motorola, HID, EM, Mifare one, etc.).
Communication: TCP/IP
Function Description: Single door controller, enter via card reader and exit via card reader or exit button
Quantity of reader inputs: 2 (2 in, 2 out)
Output relay: 2 (N/O, C, NC contacts)
Open delay time: 1-600 seconds adjustable
Maximum number of controllers per system: Unlimited
Fire alarm input: Yes, via AC-FAB optional control board
Operating temperature: -40 to 70 degrees Celsius
Run Humidity: 10-90% RH, non-condensing
Signal output communication format and baud rate: Supports LAN, Intranet & fixed Internet WAN IP address
Maximum number of users: 20,000
Offline storage: 100,000 records
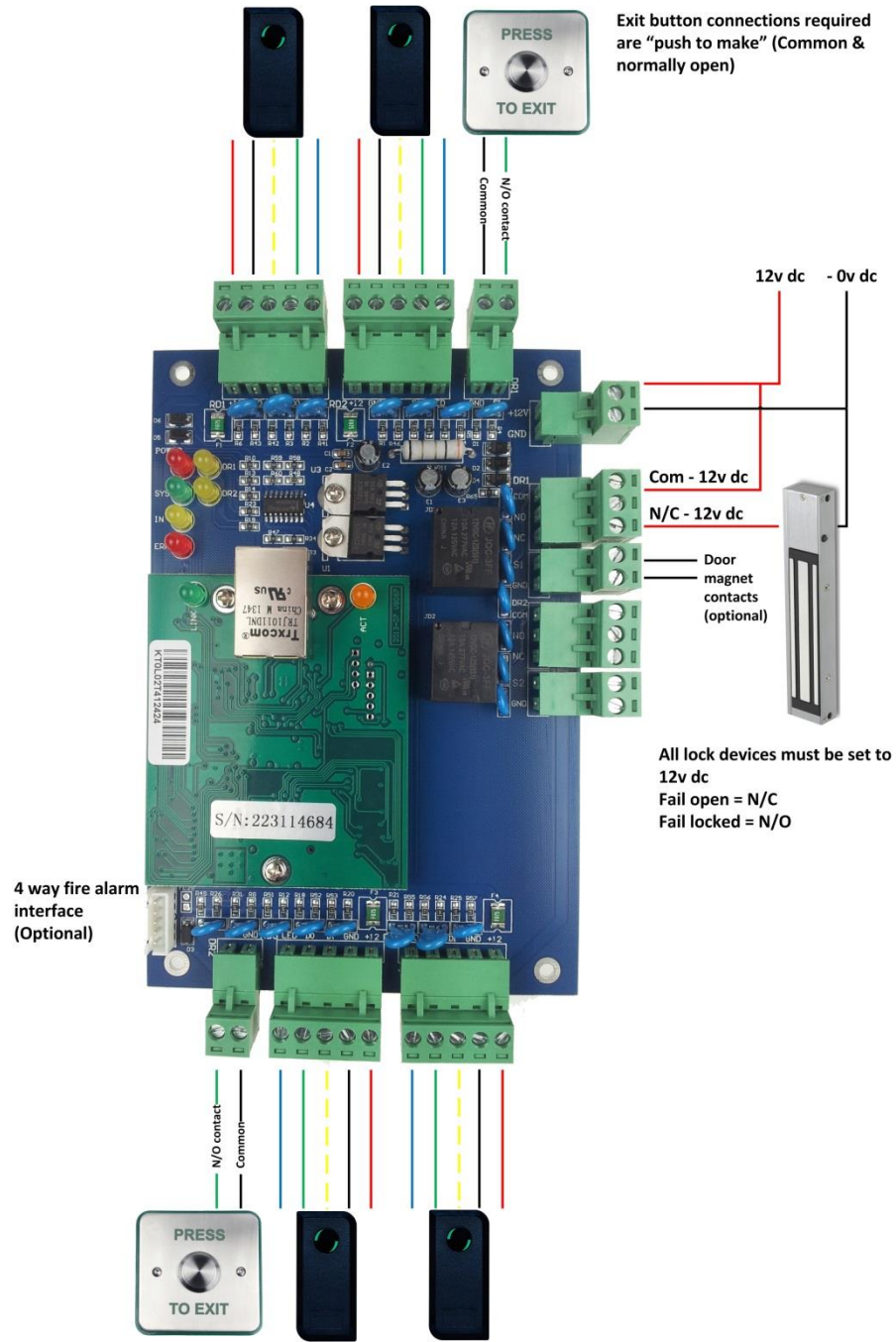**Power failure protection measures:** high-speed flash memory design, and never lose data
Maximum distance between card reader and the controller: 100mtr, typical operation within 80mtr
Maximum distance for the Ethernet cable: Depends on the network cover area
Maximum distance between controller to the PC: No limit

Wiring Diagram for AC8002

Exit button connections required are "push to make" (Common & normally open)

12v dc   - 0v dc

Com - 12v dc

N/C - 12v dc

Door magnet contacts (optional)

All lock devices must be set to 12v dc
Fail open = N/C
Fail locked = N/O

4 way fire alarm interface (Optional)

PRESS TO EXIT

PRESS TO EXIT

N/O contact

Common

S/N:223114684

DOOR ENTRY ONLINE

SPECIALISTS IN ACCESS CONTROL SOLUTIONS

AC8000 System Software

- <u>Basic system functions</u>

- <u>System extended function</u>

- <u>AC-FAB Fire alarm board</u>

- <u>Time & attendance</u>

- <u>Online patrol</u>

Combination of advance and compatibility using Windows Server, XP, Vista and Windows 7, 8 & 10 operating system

Multi common stable communication way - TCP/IP or directly in to a laptop, desktop or tablet via Ethernet connection

Safe "Easy-style" software interface

Volume Settings "allows customers to use the system more efficiently"

"WYSIWYG" Customizable report query, export to Excel, and print mode

Data back-up

Detailed operation log

"Multi-User Manager" feature
Real-time prompts by color and sound

Password protection

Interface locking

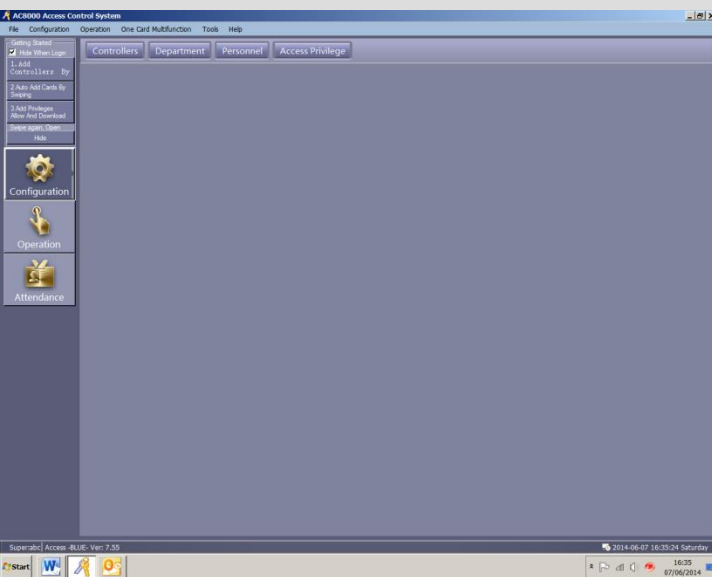Specified card reader to privileged card

Data inheritability after card loss report

Long holiday profile

Time profile
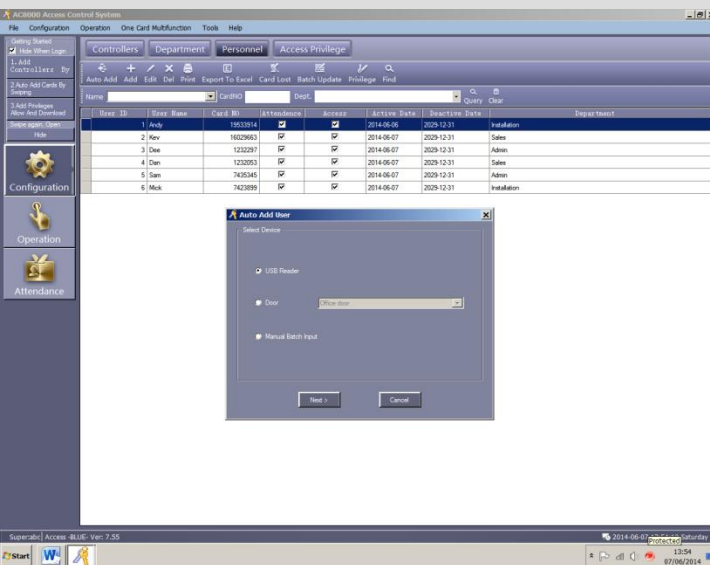
Fire alarm input

Time & attendance

Basic System Functions

- **Basic system functions**

- **System extended function**

- AC-FAB Fire alarm board

- Time & attendance

- Online patrol

Basic Function
• 20,000 cards Permissions
• 100,000 offline records
• Flexible privilege management
• Time privilege management
• Offline operation
• Real time monitor, photo display, door status display
• Real time extraction
• Force to close and open door
• Remote open
• Interface locking
• Time span linkage
• Small amount privilege individual revision and uploading
• Quick search of people inside doors
• Quick location of people

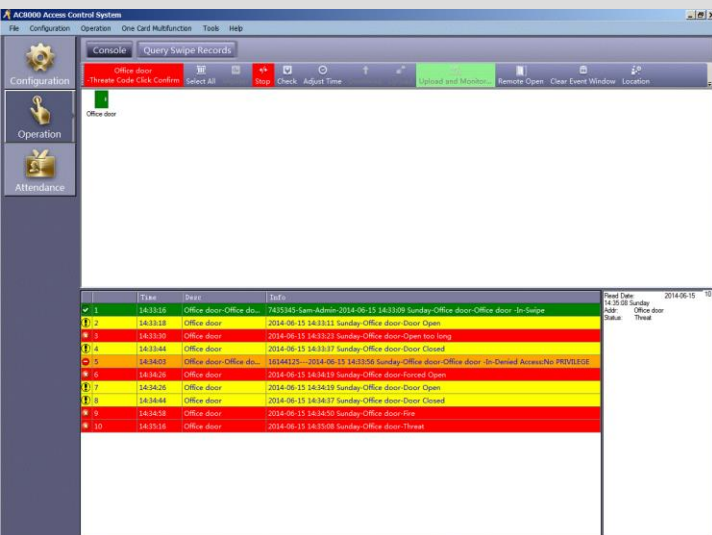| Extended Function |
|---|
| •Card+password |
| •Open door by manual input of card number + password |
| •Super password |
| •Fire alarm and emergency unlock |
| •Linkage output |
| •Illegal intrusion alarm |
| •Alarm for long time door open |
| •Duress alarm |
| •Alarm for invalid card swipe |
| •Anti passback, anti tail gate |
| •Interlock |
| •Timing normal open, timing normal close |
| •Record for unlock by exit button |
| •Timing extraction |
| •Timing uploading |
| •Can swift to community management interface directly |
| •Emergency close |
| •Operator sub-sector management |
| •Active log query |
| •Electronic map |
| •Open and close door by read card |
| •First card open door |

AC-FAB Fire Alarm Board

- Basic system functions

- System extended function

- **AC-FAB Fire alarm board**

- Time & attendance

- Online patrol

The **AC-FAB** (Fire Alarm Board) is an add-on module for the AC8000 PC Access Control System designed to provide a fire alarm and alarm signal output via the software. Certain features will require an RFID keypad and locking device fitted with door monitoring contacts

It has a simple software interface that can be configured to your own requirements supporting one manual Normally Open trigger input for a fire alarm system, four timer relay outputs from 0 – 6000 seconds, all providing Normally Open and Normally Closed contacts that can be connected to external sounders or flashing beacons, four standard triggering options and six triggering options that can be programmed to activate one or all four relays
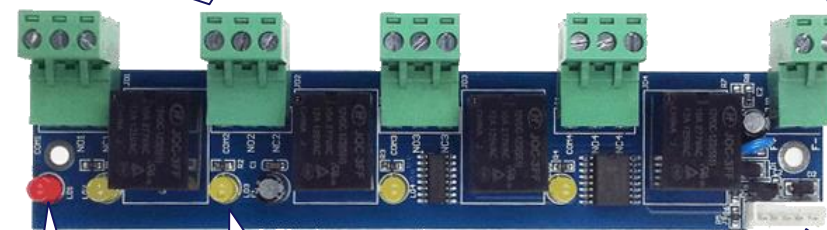
It supports and registers via the software an emergency threat PIN code (Keypad is required for this), if the door is open too long, door forced open, invalid card used, fire alarm and forced lock

Size: 158mm x 43mm x 15mm

Four x alarm output relays proving normally open/closed contacts

Fire alarm input. Normally open trigger to activate

Power LED

Relay active LED

Connection port to the AC8000 controller

Time & Attendance

- [Basic system functions]
- [System extended function]
- [AC-FAB Fire alarm board]
- **Time & attendance**
- [Online patrol]

Reports can be exported daily or during certain periods of detailed attendance statistical reports. Report formats can be defined. Statements can be exported to an Excel file and can be easily checked by sub-sectors or situation or individual

Detailed daily attendance reports can display the working hours, whether a late arrival or early departure is made and how long for the late arrival or early departure

Statistical reports can show you not only the times of late arrival/early departure, but also the number of minutes accumulated of late arrival/early departure. It can show you the number of days absent from work, times of clocking in, times of leaving and so on. Statistical reports support both vertical and horizontal printing

Support normal shift, setting is very easy and applicable. Supports both work and non work, or just half day working on Saturday. There are two options for normal shift clocking: twice a day and forth a day. Supports flexible attendance, such as within how many minutes late is "not late"

Support shifts (3 shifts a day, or multi shift a day). Shift arrangement is flexible. Support shift cross for late night/early morning

Support leaving, business trip and holiday settings. Accurate to half day

Support 99 shifts. Clocking can be twice a day, forth a day, sixth a day or eighth a day

Support two kinds of overtime work: Extended overtime work after normal work time; specify a time point as the beginning of overtime work after normal work time. Overtime work accurate to half an hour

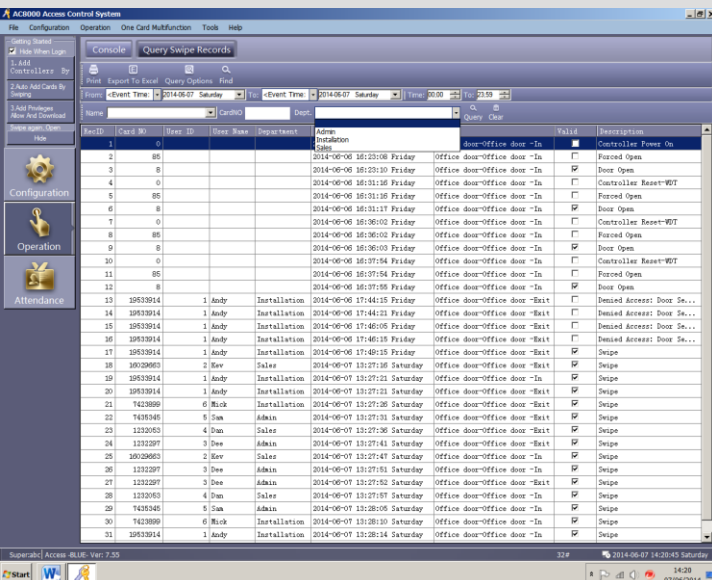Time & attendance is an additional function, but it does not support the below functions:
No pay management module, does not support arbitrary irregular attendance at work
Does not support on work card reading while off work without card reading attendance
Does not support piece work attendance
Does not support automatic access privilege change with a shift schedule
Does not support automatic shift schedule

DOOR ENTRY ONLINE

SPECIALISTS IN ACCESS CONTROL SOLUTIONS

On-line Patrol (patrol and examine , Sign in)

- [Basic system functions](#)

- [System extended function](#)

- [AC-FAB Fire alarm board](#)

- [Time & attendance](#)

- **[Online patrol](#)**

You can specify who is the inspection officer, you can specify which door is the inspection point, the operator can set out their own inspection line and inspection tasks

Can generate detailed reports and statistics. Reports can be printed or exported to Excel files, you can check sub-sectors, personnel and printing query by date

Inspection report in detail, showing inspection dates, inspection names of the members planned inspection time, the actual inspection time, patrol site name, patrol the road names and so on
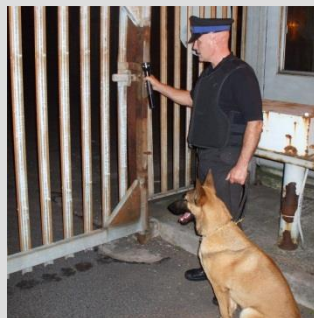
Statistical reports can be displayed to a month (certain period), the number of early or late for inspection by members of other statistical information on the number of undetected

By real-time monitor capabilities, real-time observation of inspection staff who will arrive at what location

This is a management software and does not support the following features：

Does not support real-time alerting or alarm/s in the morning, undetected late or other abnormal alarms, it only reports a statistical report after that
Inconvenient access points in the establishment and new patrol points often require the need to set or change any of the local patrol Point/s

We therefore recommend you to choose a professional Off-patrol software system instead of using on-line Patrol System
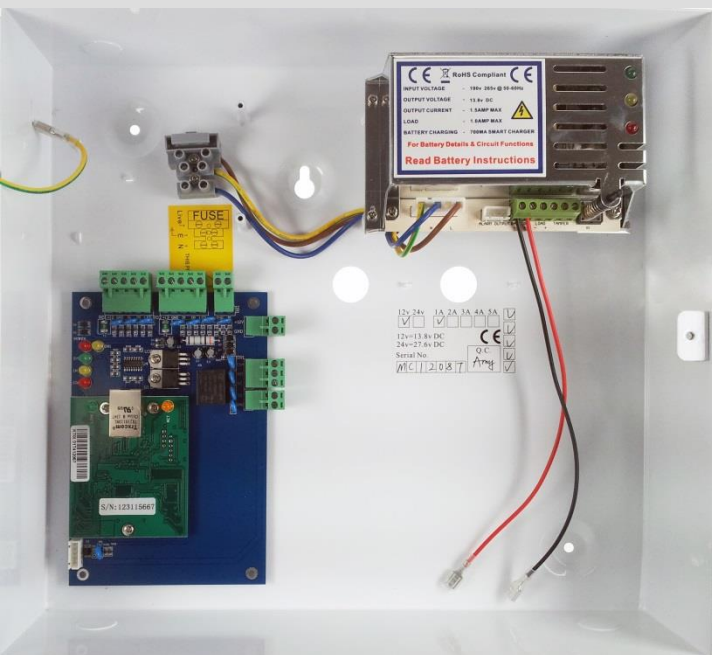
AC8000 PC Access Control Power Supply

PC Access Control Power Supply

Specification:

Size: 310mm x 340mm x 33mm

Material: Mild steel & white powder coated

Power：30－50W – 220v

Output Voltage：13.8v DC

Rated current：3A

External battery specifications：7AH 12v DC

Depleted battery voltage protection: 9V

Switch mode: 13.8 volt dc regulated

Battery charging output with battery deep discharge protection (Electronic)

LED Indication: For mains input, battery output and short circuit protection

Anti tamper: On board tamper protection

Vented enclosure: For heat dissipation

Entry point: Multiple cable entry point

Card & Keypad Readers

- **SR2W card reader**

- BTS-01F card/keypad reader

- R3 Vandal resistant card reader

- R3K Vandal resistant card/keypad reader

- USB Desktop card reader

SR2W - Standard EM-RFID 125khz 64 bit Proximity card reader

Epoxy resin filled: Yes

ABS: Plastic body

IP rating: IP66. Internal or external use

LED indication: Yes

Colour: Black

Voltage: 12v DC input

Current: 40ma

Reading range: 20mm - 60mm

Card type: EM-HID cards and/or key fobs

Fitting: Surface mount

Size: 103mm x 48mm x 20mm

BTS-01F Card Reader with Keypad

- [SR2W card reader](#)

- [BTS-01F card/keypad reader](#)

- [R3 Vandal resistant card reader](#)

- [R3K Vandal resistant card/keypad reader](#)

- [USB Desktop card reader](#)

BTS-01F - Standard EM-RFID 125khz 64 bit Proximity card reader with keypad

Epoxy resin filled: Yes

ABS: Plastic body

IP rating: IP66. Internal or external use

Back lit: No

LED indication: Yes

Colour: Charcoal Black

Voltage: 12v DC input

Current: 40ma

Reading range: 20mm - 60mm

Card type: EM-HID cards and/or key fobs

Fitting: Surface mount

Size: 108mm x 88mm x 32mm

R3 Vandal Resistant Card Reader

- SR2W card reader

- BTS-01F card/keypad reader

- R3 Vandal resistant card reader

- R3K Vandal resistant card/keypad reader

- USB Desktop card reader

R3 - Standard EM-RFID 125khz 64 bit Proximity card reader

Epoxy resin filled: Yes

Cast alloy: 1mm Cast alloy body

IP rating: IP66. Internal or external use

LED indication: Yes

Colour: Silver

Voltage: 12v DC input

Current: 100ma

Reading range: 20mm - 60mm

Card type: EM-HID cards and/or key fobs

Fitting: Surface mount

Size: 128mm x 82mm x 28mm

R3K Vandal Resistant card Reader With Keypad

- [SR2W card reader](#)

- [BTS-01F card/keypad reader](#)

- [R3 Vandal resistant card reader](#)

- **[R3K Vandal resistant card/keypad reader](#)**

- [USB Desktop card reader](#)

R3K - Standard EM-RFID 125khz 64 bit Proximity card reader with keypad

Epoxy resin filled: Yes

Cast alloy: 1mm Cast alloy body

IP rating: IP66. Internal or external use

Back lit: Yes, facia

LED indication: Yes

Colour: Silver

Voltage: 12v DC input

Current: 100ma

Reading range: 20mm - 60mm

Card type: EM-HID cards and/or key fobs

Fitting: Surface mount

Size: 128mm x 82mm x 28mm

DOOR ENTRY ONLINE

SPECIALISTS IN ACCESS CONTROL SOLUTIONS

USB Desktop Card Reader

- [SR2W card reader](#)

- [BTS-01F card/keypad reader](#)

- [R3 Vandal resistant card reader](#)

- [R3K Vandal resistant card/keypad reader](#)

- **[USB Desktop card reader](#)**

USB Desktop card reader

Is an optional accessory for the AC8000 PC access control systems for adding card/s or key fob/s into the system more quickly and conveniently, especially for conditions with many card users

If you do not require the USB card reader, you can add cards or key fobs into the system by entering the card number manually or you can use a door reader to add the cards/key fobs

Please note: You will require the USB card reader if programming key fobs

Parameter index:

Communication: USB – 'Plug n Play'

Power supply: USB direct power supply (5VDC <100AN)

Output format: Computer standard keyboard format; Wiegand 26 standard 8 digits card number

Input format: Compatible with both EM ID card and Mifare one card

Reading distance: 1-6cm (this is the real distance, sensing distance is related with card type)

Work temperature: -40℃ to 70℃

Relative humidity: 0-95%

Size: 106mm x 82mm x 25mm

RFID Cards & Key Fobs

EM RFID cards and key fobs

Standard Proximity EM-RFID 125khz 64 bit key fob for any access control system using this frequency

Colour: Blue

Supplied: Pack of 10

Size: 34mm x 27mm x 6mm

Standard Proximity EM-RFID 125khz 64 bit contactless card for any access control system using this frequency

Colour: White plain

Printable: Yes

Supplied: Pack of 10

Size: 54mm x 85mm x 0.8mm

Standard Proximity EM-RFID 125khz 64 bit contactless card for any access control system using this frequency

Colour: White plain

Printable: No

Supplied: Pack of 10

Size: 54mm x 85mm x 1.8mm

DOOR ENTRY ONLINE

SPECIALISTS IN ACCESS CONTROL SOLUTIONS

15 Different exit buttons available

• Flush mount architrave
  2mm stainless steel facia (85mm x 39mm x 2mm)

• 28mm stainless steel button

• Flush mount architrave dome style
  35mm wide dome button

• Surface mount option (Single gang)
  85mm x 85mm x 42mm

• Surface mount option (Architrave)
  85mm x 39mm x 43mm

• Standard plastic

• Emergency break glass switch
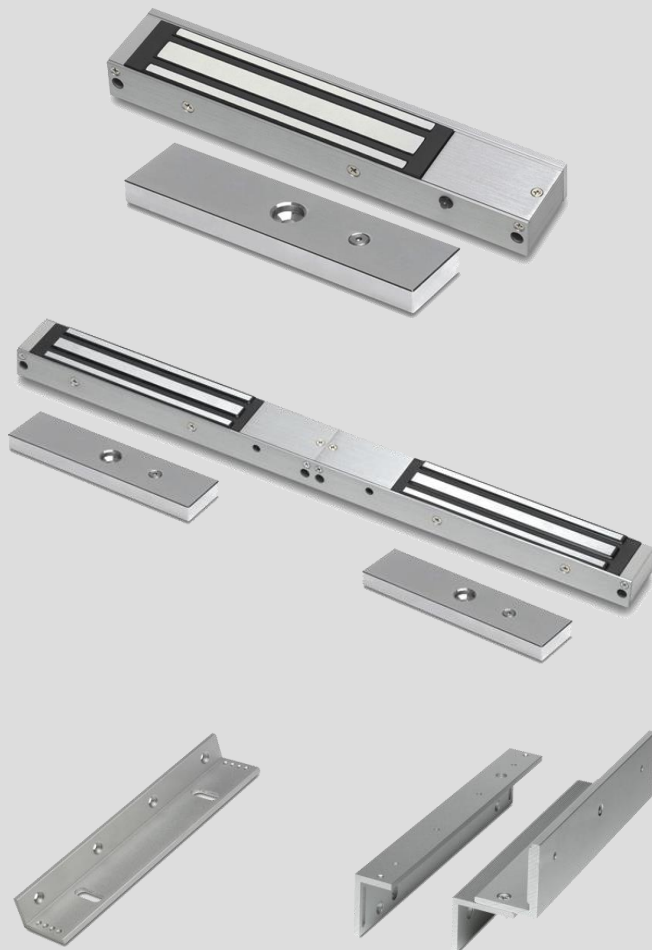 Protection cover option

• DDA

• Key switch

Magnetic Lock & Brackets

Magnetic locks - Single, double, internal or external available

For either inward or outward opening doors

Surface mount slim line magnetic lock

12v/24v dc selectable

272kg (600lbs) holding force

500ma @ 12v dc - 250ma @ 24v dc

Magnet size: 250mm x 42mm x 26mm

Armature plate size: 185mm x 38mm x 12mm

Adjustable 'L' bracket for outward swing doors

Adjustable 'ZL' bracket for inward swing doors