

Access control system

USER MANUAL

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Products: _____
 Grade: _____
 Inspection: _____
 Date: _____

User Name: _____
 Telephone: _____
 Date: _____
 Serial No: _____
 Distributor: _____
 Manufacturer: _____
 Address: _____
 Telephone: _____
 Post Code: _____

Date	Faults description	Change spares Parts	Inspector

Remarks :

Please cut along the dotted line position 

----- Please cut along the dotted line position 

Quality Confirmation Q.C



Quality Certificate

Product Name:.....
 Model Number:.....
 Inspector:
 Production Date:.....

Product Warranty

- If product is used normally, any quality problem during guaranty period will receive free repair.

Guarantee Statement

- This products have one-year warranty. Any quality problem under guaranty will get free repair by this manual. (Not man-made), maintenance for life.
- Because of default use and other reasons after guaranty, will get free repair, only charge for parts.
- If product need repair, please deliver this manual and invoice copy to our company or engaged repair department.
- If take apart the case privately or damage the data sticker, will charge for repair and parts normally.
- Product which has been repacked will not belong to warranty range.

The following situation can not get free repair.

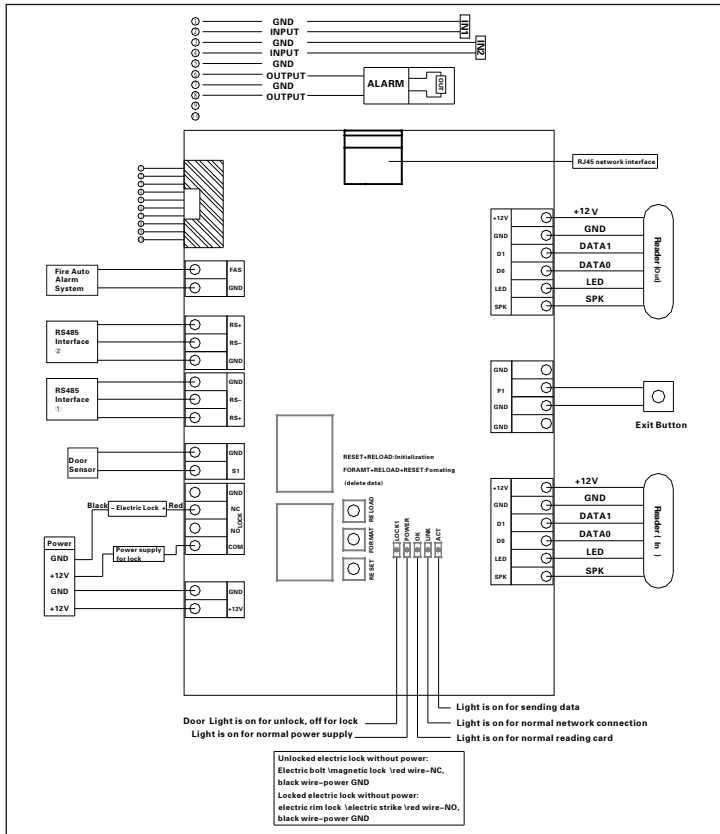
- Periodicity inspection, maintenance, repair or replaced parts caused by normal abrasion.
- Broken because of falling, extrusion, founder , affected with damp or other factitious reasons
- Destroy by nature disaster, such as flood, fire, lightning strike; or some force major.
- Machine is repaired by some unauthorized maintenance organization.
- Hereinbefore, if any change, please check with relevant stipulation.

Operation Instruction

- New product initial server IP is 192.168.0.5. Machine IP is 192.168.0.254, connect the Access Control and computer according to the initial data from the factory, and then change it through the computer.
- Initialization of Access Control (Instruction: This step is only used when the control's IP has been confused).
 1. At first, hold down "RELOAD" on the controller, and press "RESET", then the controller buzzer will make a long sound,5 seconds later, loosen "RELOAD". Await the sound stop, the initialization process is finished. After initialization step. Access controller server IP is 192.168.0.5, machine IP is 192.168.0.254 (The function will initial the parameter of server IP and machine IP)
 2. At first, hold down "RELOAD" and "FORMAT", then press "RESET", the controller buzzer will make a long sound,5 seconds later, loosen "RELOAD" and "FORMAT". Await the sound stop, formatting process is finished .After formatting step. Access controller server IP is 192.168.0.5, machine IP is 192.168.0.254 (The function will initial the parameter and delete all the data. Caution!)
- Manual update files (used for debugging system)
Make sure the controller is power on, hold down "RELOAD", then the controller buzzer will make a long sound,5 seconds later, loosen "RELOAD" and restart the controller, files resending can be finished (Notice: This function will exchange data between Controller and Server)
- After change Software parameters setting or controller hardware cable change, Should restart the machine to let that new Parameters is effective.

Special Notice: After connecting the power, Controller default setting is 'offline compare cards, real time data sending' mode. That is the controller will send data in real time when network is normal, the controller will be offline working mode when the network is unmoral status.

● Single Door Bidirectional access control connection diagram



Single Door bidirectional access control Electric lock connection diagram

There are two ways.

- a. Use Controller Power Box, as picture 1.
- b. Use Special access controller power, as picture 2.

● Pipeline Setup

According to features of access control system, the pipelines can be divided into two types: partial pipelines and systemic pipeline. Partial pipelines are the lines among readers, electric locks and push buttons: systemic pipelines mean the lines between every access controller and power line (Notice: pipelines need use galvanization pipe)

● Rules to adopt pipelines

The line between card reader and controller, suggest adopting 8 cores shield twisted-pair with at least 0.22 square millimeter wire diameter. The longest length should not be over 100m. If the distance is too long, suggest overstriking line or make two strands into one strand to supply power to readers. Line between push button and controller, suggest use 2 cores line with at least 0.3 square millimeter wire diameter. And lines between electric lock and controller use 2 cores line and at least 1.0 square millimeter wire diameter. If the line is over 50m, please consider adopt overstriking power line, the length is no more than 100m. Line between door sensor and controller, please use 2 cores line and at least 0.22 square millimeter wire diameter. If there is no need to notice the door is open or closed on-line, alarm when door is not closed for a long time and interlock as illegal entry, no need to link door sensor. Communication cable (links controller to switcher) adopt network cable, no longer than 100 m, larger distance needs higher quality cable. Suggest use brand network wire.

● Other Notes

In order to avoid nibbling by mouse, all cable routes should wrapped up by pipe, PVC pipe and galvanization pipe are both OK. Please don't link controller and other big current equipment to the same electrical outlet. The wiring end never expose too much metal, in case cause short circuit and communication default.

● Packing List

Access controller	1piece	Software installation disk	1piece
User manual	1copy	Alarm input/output cable	1piece
Qualified Certificate	1piece		

General Questions

- **Card reader read card successfully but controller can not Received data.**

Answer: Please check communication distance from reader to controller, if communication distance is over 50m , suggest adopt 8 cores shield twisted-pair , with diameter at least 0.22 Square millimeters, overstriking or two strands into one to Supply power to reader.

Secondly, check if OK lamp on access controller is normal when reading card, if not, maybe it's because the big distance lower the signal and there is no data transferred from reader to controller.

Solution is : adapt 8 cores shield twisted-pair with diameter at least 0.22 square millimeters, if the distance is too long suggest overstriking or make two strands into One.

- **Legal card read successfully but illegal relay of controller response.**

Answer: Please firstly check if the card have authority to open this door or not.

Secondly, please check if D1, D2 data lines on reader connect with read by keypad reader are the same, if the two data lines connect derectly while the two card NO. are not the same, that means the output format of keypad reader and card reader are not the same. Fourthly, renew authority of employees, maybe the operator forget this Step.

- **Electronic lock has power but can not lock.**

Answer: Firstly, please check whether connection from power supply unit to electronic lock power is correct or not, as electronic lock has cathode and anode.

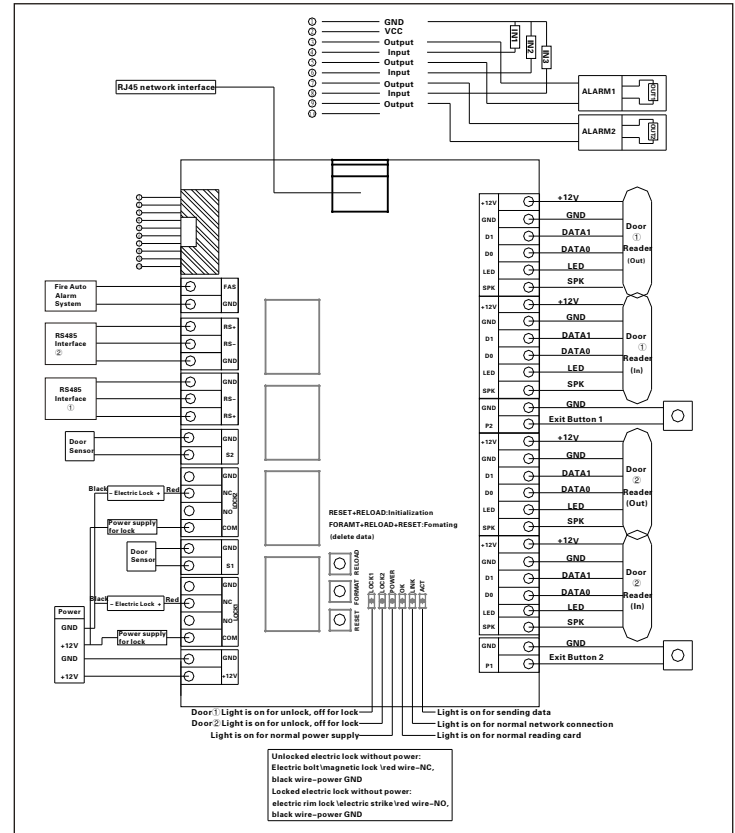
Secondly, please check if the open door button is ON all the Time.

Thirdly, check the distance between power supply and electronic lock, if the distance is too long and cable is too thin, this makes door can not lock. (Connection is standard or not, for instance, electronic lock wire is thick enough or not, distance from controller to electronic lock les than 50m please adopt 1.0 power line, more than 50m, please adopt over 2.0. In addition, never suggest use net wire as power wire of electronic lock)

Fourthly, please check upper magnet and nether magnet are on right Position; the gap between them is Too big or not.

TCP/IP Two Doors Bidirectional Access Controller

- **Two Door Bidirectional access control connection diagram**

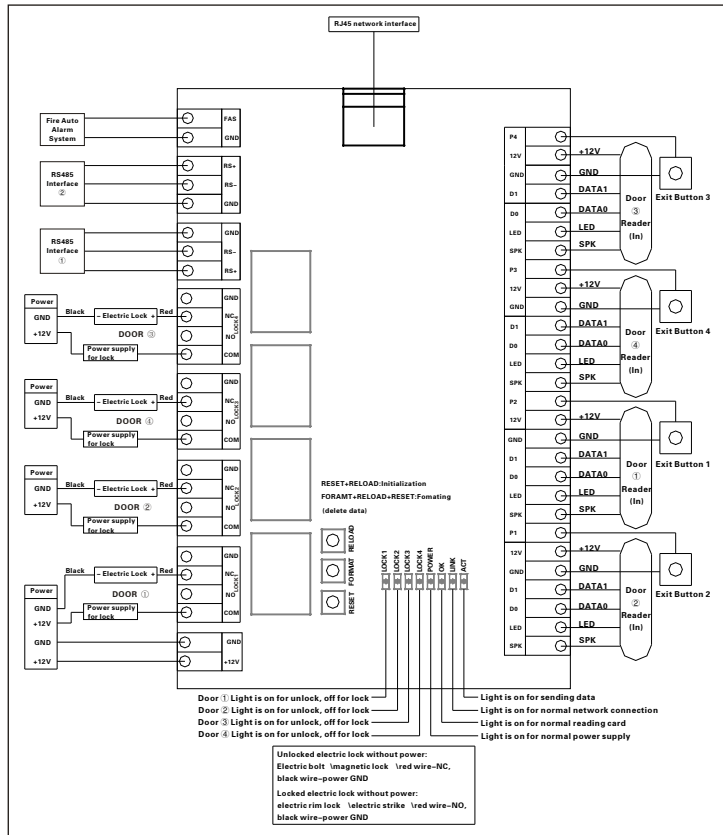


Two Door bidirectional access control Electric lock connection diagram

There are two ways.

- Use Controller Power Box, as picture 1.
- Use Special access controller power, as picture 2.

● Four Door Bidirectional access control connection diagram

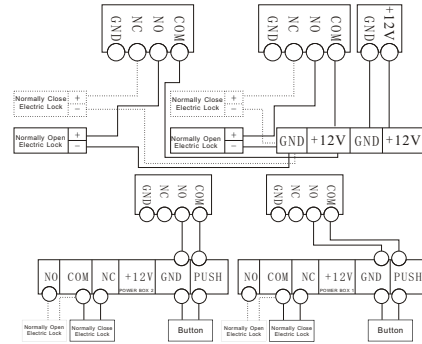


Four Door bidirectional access control Electric lock connection diagram

There are two ways.

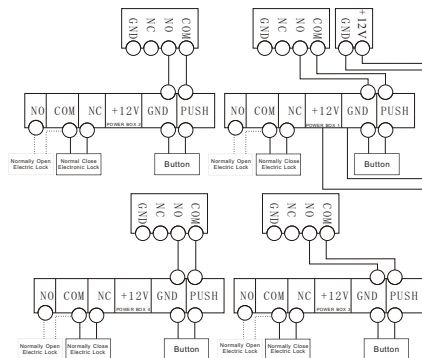
- a. Use Controller Power Box, as picture 1.
- b. Use Special access controller power, as picture 2.

Push button connect P1, P2, P3, P4, GND Port,
 Please connect with PUSH end and GND end on power
 supply unit directly according to Picture 2.



P1

[Use Controller Power Box]



P2

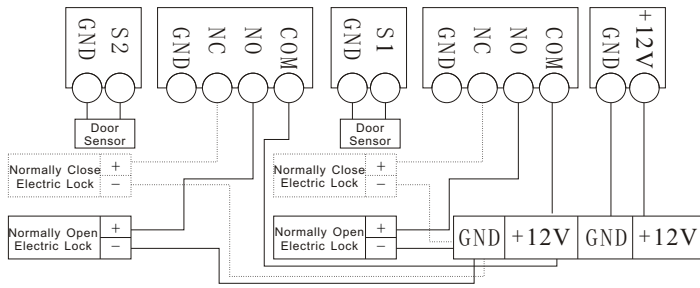
[Use Special access controller power]

Two Doors Bidirectional Access Controller

Door sensor connection: GND+S1, S2 Port.

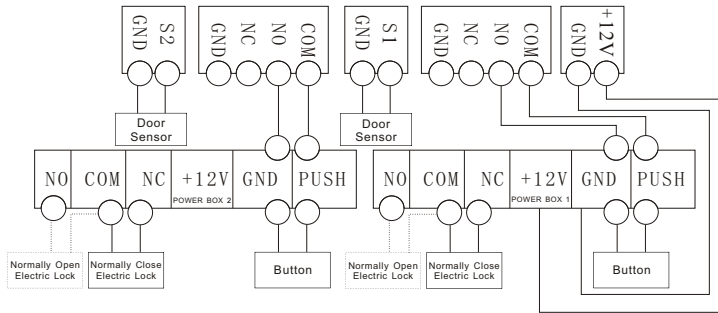
Push button connect P1, P2, GND Port,

Please connect with PUSH end and GND end on power supply unit directly according to Picture 2.



P1

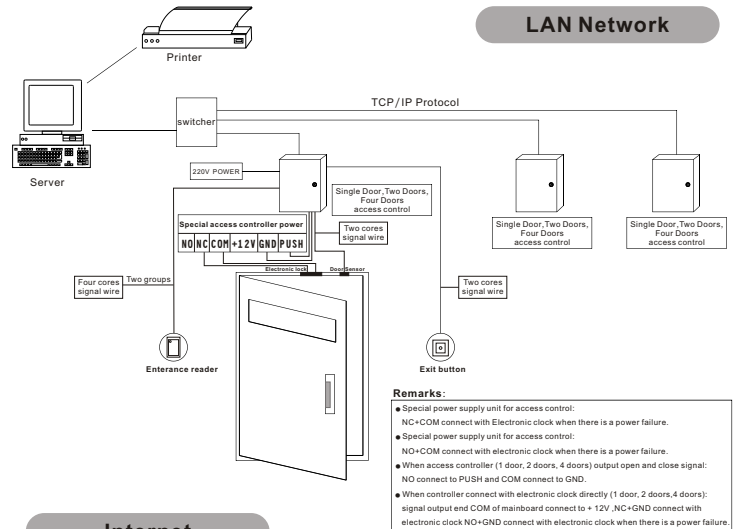
[Use Controller Power Box]



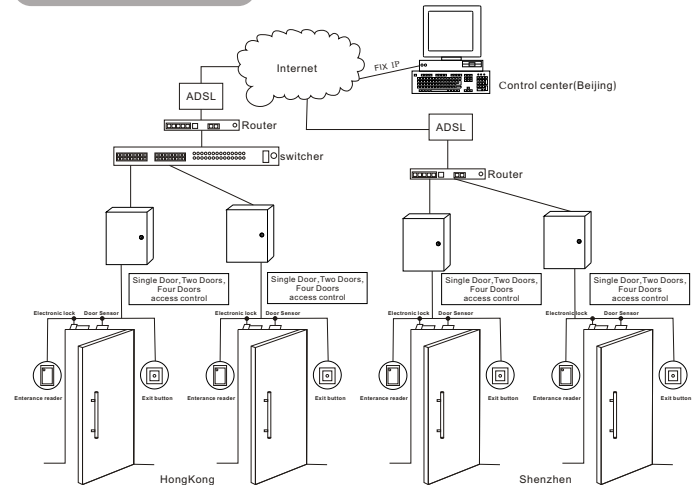
P2

[Use Special access controller power]

TCP/IP Network Structure



Internet



Operation Instruction

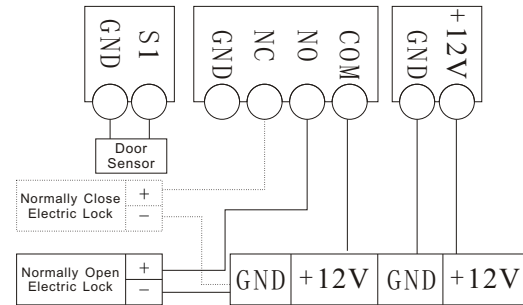
- Connect the machine by the switch which can switch RS485 to RS232, then connect the controller with computer by changing the software.
- Formatting of Access Controller

At first, hold down "RELOAD" and "FORMAT", then press "RESET", the controller buzzer will make a long sound, 5 seconds later, loosen "RELOAD" and "FORMAT". Await the sound stop, formatting process is finished .
(The function will delete all the data Caution!)
- Multiple machines can be used as "hand in hand" networking, but it can not exceed 32 machines which be connected to per bus, the advantage of this networking is that if one or more machines work error, it can't impact the communication of others.
- The function of Door Sensor Alarm and Alarm Input is only effective for hardware, software don't have these alarm records.
- The GND of 485 terminal is not necessary to be connected, but we suggest to remain it while wiring, if the communication is disturbed by environment, for example, if there has non-communication, it maybe a effective way to connect all the GND of the boards by this wire. But for some occasions, it is not good to connect all GND, so it is just suggested to be remained as a debugging tool.

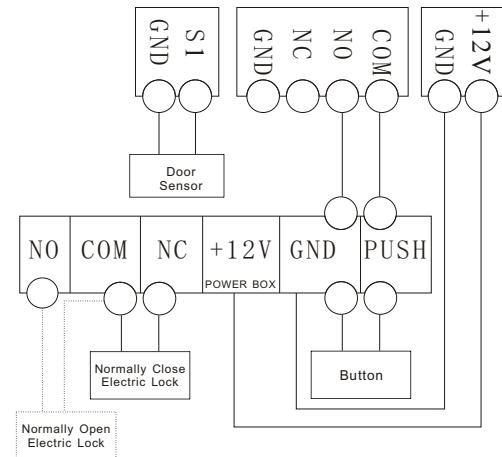
Door sensor connection: GND+S1 Port.

Push button connect P1 , GND Port,

Please connect with PUSH end and GND end on power supply unit directly according to Picture 2.



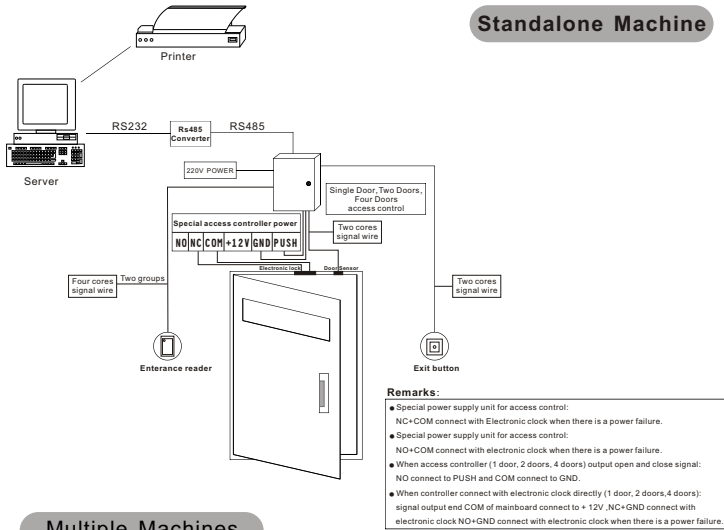
P1 [Use Controller Power Box]



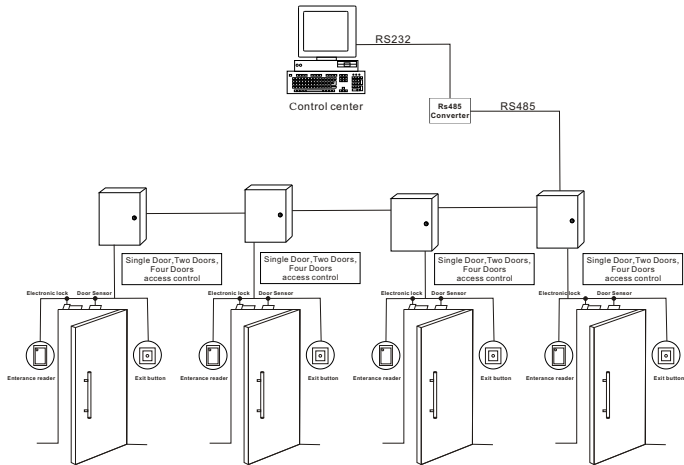
P2 [Use Special access controller power]

RS485 Network Structure

Standalone Machine

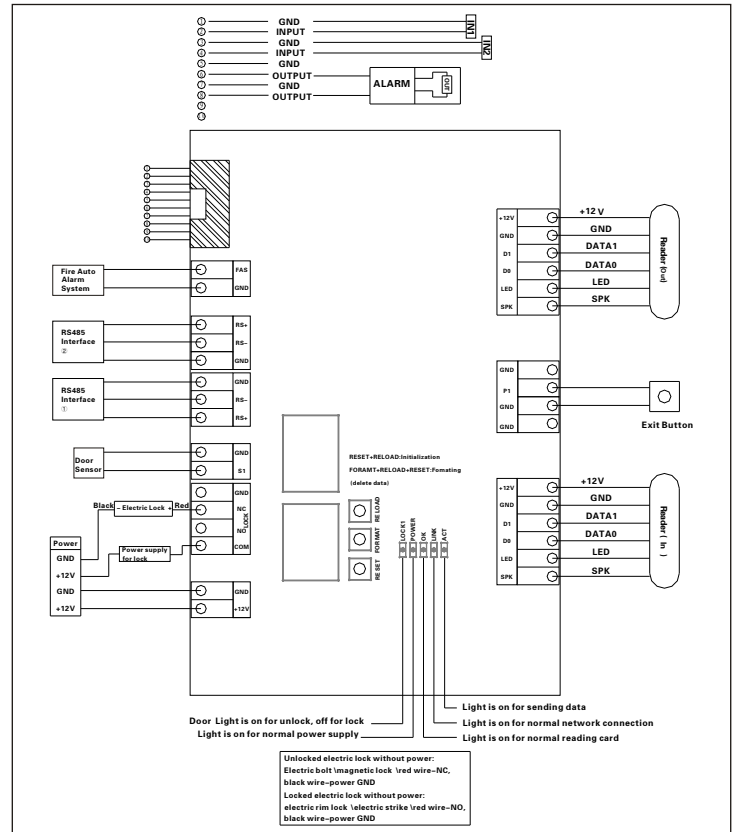


Multiple Machines



RS485 Single Door Bidirectional Access Controller

Single Door Bidirectional access control connection diagram



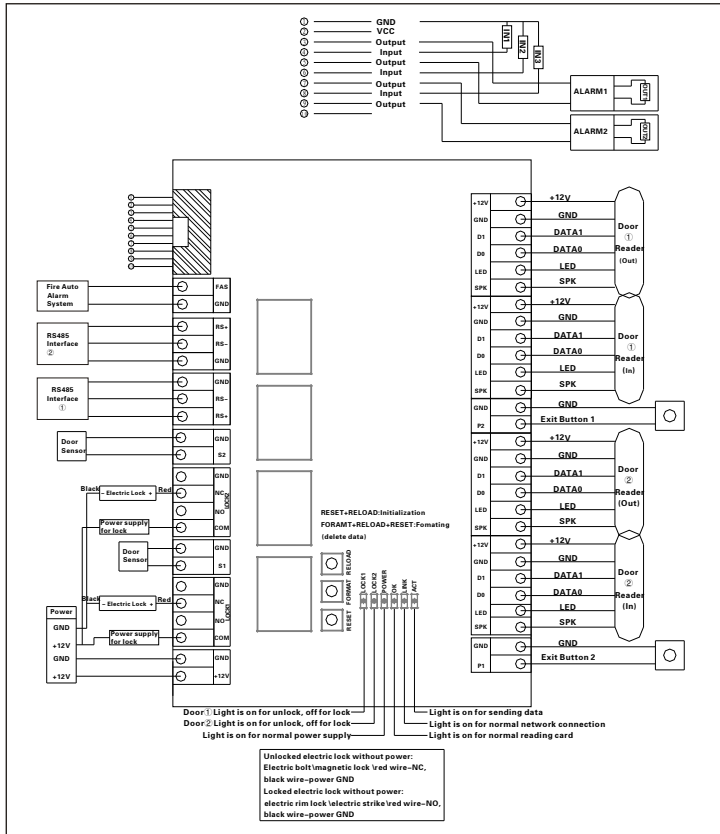
Single Door bidirectional access control Electric lock connection diagram

There are two ways.

- Use Controller Power Box, as picture 1.
- Use Special access controller power, as picture 2.

RS485 Two Doors Bidirectional Access Controller

Two Door Bidirectional access control connection diagram



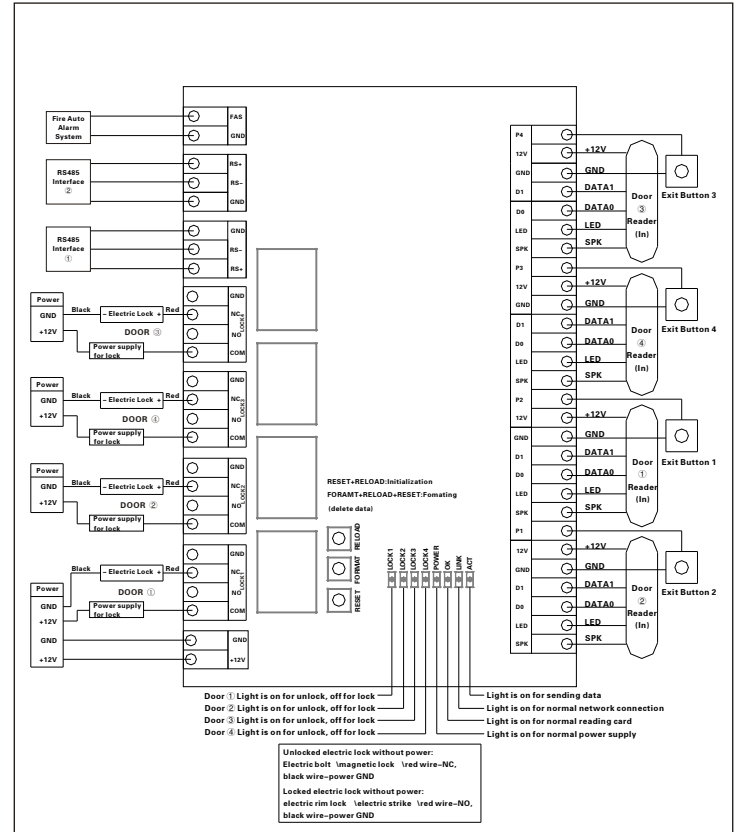
Two Door bidirectional access control Electric lock connection diagram

There are two ways.

- Use Controller Power Box, as picture 1.
- Use Special access controller power, as picture 2.

RS485 Four Doors Unidirectional Access Controller

Four Door Bidirectional access control connection diagram



Four Door bidirectional access control Electric lock connection diagram

There are two ways.

- Use Controller Power Box, as picture 1.
- Use Special access controller power, as picture 2.