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### **Important Safeguards and Warnings**

Please read the following safeguards and warnings carefully before using the product in order to avoid damages and losses.

#### Note:

- Do not expose the device to lampblack, steam or dust. Otherwise it may cause fire or electric shock.
- Do not install the device at position exposed to sunlight or in high temperature.
  Temperature rise in device may cause fire.
- Do not expose the device to humid environment. Otherwise it may cause fire.
- The device must be installed on solid and flat surface in order to guarantee safety under load and earthquake. Otherwise, it may cause device to fall off or turnover.
- Do not place the device on carpet or quilt.
- Do not block air vent of the device or ventilation around the device. Otherwise, temperature in device will rise and may cause fire.
- Do not place any object on the device.
- Do not disassemble the device without professional instruction.

#### Warning:

- Please use battery properly to avoid fire, explosion and other dangers.
- Please replace used battery with battery of the same type.
- Do not use power line other than the one specified. Please use it properly.
  Otherwise, it may cause fire or electric shock.

## **Special Announcement**

- This manual is for reference only.
- All the designs and software here are subject to change without prior written notice.
- All trademarks and registered trademarks are the properties of their respective owners.
- If there is any uncertainty or controversy, please refer to the final explanation of us.
- Please visit our website for more information.

#### 1 Overview

The access controller is a controlling device which compensates video monitoring and bidirectional talk. It has neat and modern design with strong functionality, suitable for commercial building, corporation property and intelligent community.

#### It has:

- It adopts slideway and lock installation design for easy installation and repair.
- It integrates alarm, access control, video monitoring, fire alarm and control module input.
- It supports 4 sets of card readers.
- It supports 9 groups of input signal (unlock button \*4, door sensor \*4, intrusion alarm \*1).
- It supports 5 groups of output control (electric lock \*4, alarm output \*1).
- RS485 port, may extend to connect to lift control module, alarm or household control module. It may connect upper device via RS485.
- FLASH storage capacity is 16M (may extend to 32M), max supports 100,000 card holders and 150,000 records.
- It supports illegal intrusion alarm, unlock overtime alarm, forced card alarm and forced setup. It also supports black-white list and patrol card setup
- It supports setup of card period, password and validity. Guest card in additional has setup of times of use.
- It supports 128 groups of schedules, 128 groups of periods and 128 groups of holiday schedule.
- Data storage during outage, built-in RTC (support DST), online upgrading.

## 2 Device Appearance

Access controller appearance and dimension are shown in Figure 2- 1 Dimension 1 and Figure 2- 2 Dimension 2. Unit is mm.

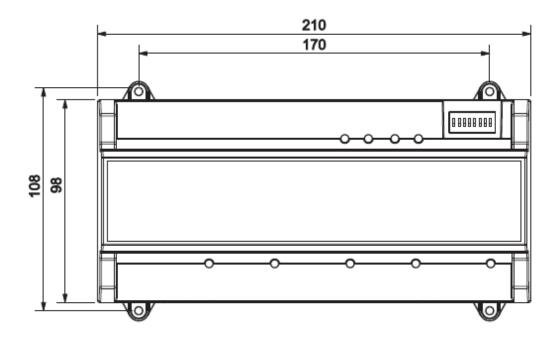


Figure 2- 1 Dimension 1

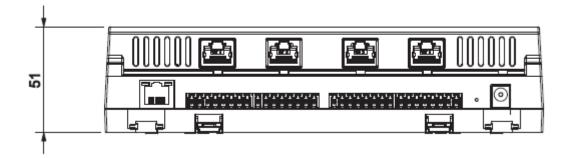


Figure 2- 2 Dimension 2

## 3 Device Installation and Uninstallation

## 3.1 Device Installation

You can install the device either:

- Fix it on wall with screw.
- Fix it on wall with bracket.

Installation 1: Fix device on wall with screw as in Figure 3-1

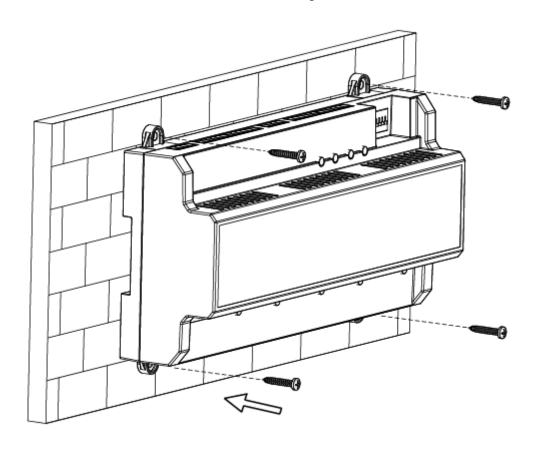


Figure 3-1

Installation 2: Fix it on wall with bracket as in Figure 3-2.

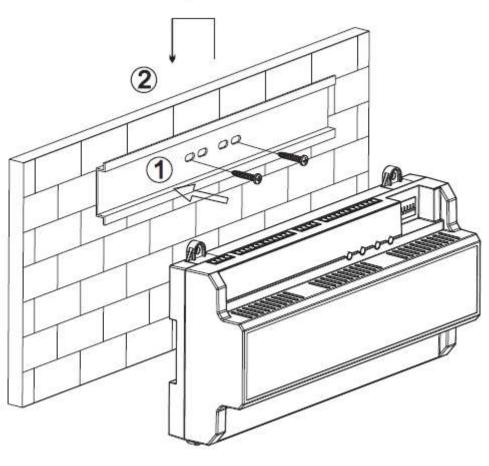


Figure 3-2

#### Installation steps:

- Step 1. Fix bracket on wall with screw.
- Step 2. Fasten the device into slot on bracket and pull device downward until it is in place.

### 3.2 Device Uninstallation

Uninstallation method for installation 2 is shown in Figure 3-3.

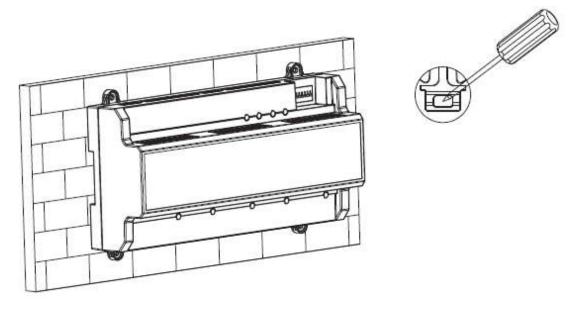


Figure 3-3

### Uninstallation method:

- Step 1. Face screwdriver toward the slot and press it to fasten.
- Step 2. Do it again for second slot, and you can take the device down.

## 4 Port

Device ports are illustrated in Figure 4-1.

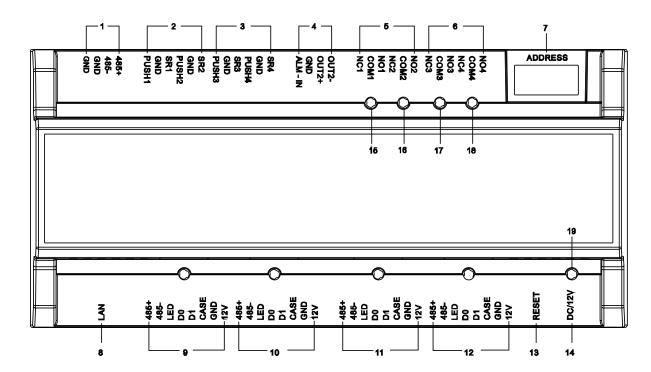


Figure 4- 1

### Ports are defined as:

No.	Port	No.	Port
1	RS485 communication,	8	TCP/IP, software platform port
	software port		
2	No.1, 2 doors unlock	9	No.1 door card reader
	+door sensor		
3	No.3, 4 doors unlock	10	No.2 door reader
	+door sensor		
4	Alarm input/output	11	No.3 door reader
5	No.1, 2 doors lock	12	No.4 door reader
	control output		
6	No.3, 4 doors lock	13	Reset
	control output		
7	Dial-up switch	14	DC 12V power port

No.	Note
15	Lock status indicator
16	
17	
18	
19	Power indicator

## 4.2 Cabling

Cabling ports of No.1 to 7 are shown as Figure 4-2.

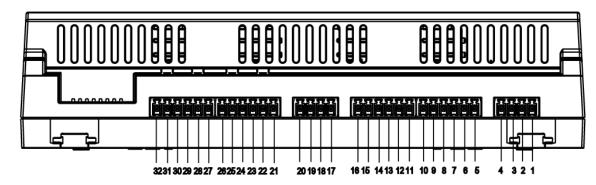


Figure 4- 2

Cabling ports of "RS485 communication" are as follows:

Port	No.	Cabling Port
485	1	GND
Communication	2	GND
	3	485-
	4	485+

Cabling ports of "Unlock+Door sensor" are as follows:

Port	No.	Cabling Port	Note
Unlock+Door	5	PUSH1	No.1 door's unlock button
Sensor	6	GND	No.1 door's unlock button
			and door sensor
	7	SR1	No.1 door's door sensor
	8	PUSH2	No.2 door's unlock button
	9	GND	No.2 door's unlock button
			and door sensor
	10	SR2	No.2 door's door sensor
	11	PUSH3	No.3 door's unlock button

Port	No.	Cabling Port	Note
	12	GND	No.3 door's unlock button
			and door sensor
	13	SR3	No.3 door's door sensor
	14	PUSH4	No.4 door's unlock button
	15	GND	No.4 door's unlock button
			and door sensor
	16	SR4	No.4 door sensor

### Cabling ports of "Alarm Input/Output" are as follows:

Port	No.	Cabling Port	Note
Alarm	17	ALA-IN	Alarm input
Input/Output	18	GND-	
	19	OUT+	Alarm output
	20	OUT-	

### Cabling ports of "Lock output control" are as follows:

Port	No.	Cabling Port	Note
Lock Control	21	NC1	No. 1 door outage unlock
Output	22	COM1	No. 1 lock power 12V input
	23	NO1	No. 1 door outage lock off
	24	NC2	No. 2 door outage unlock
	25	COM2	No. 2 lock power 12V input
	26	NO2	No. 2 door outage lock off
	27	NC3	No. 3 door outage unlock
	28	COM3	No. 3 lock power 12V input
	29	NO3	No. 3 door outage lock off
	30	NC4	No. 4 door outage unlock
	31	COM4	No. 4 lock power 12V input
	32	NO4	No. 4 door outage lock off

Cabling ports of card reader are shown in Figure 4-3.

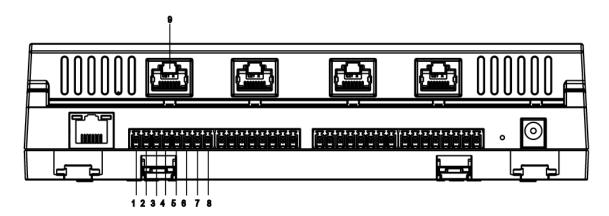


Figure 4-3

Cabling ports of "No. 1 entry card reader" are as follows. It is same for "No.1 door's card reader", "No.2 door's card reader", "No.3 door's card reader" and "No.4 door's card reader".

Port	No.	Cabling Port	Note
No.1	1	485+	485 card reader
Entry	2	485-	
Card	3	LED	Wiegand card reader
Reader	4	D0	
	5	D1	
	6	CASE	
	7	GND	Card reader power
	8	12V	

#### 4 RJ45 cables' colors are defined as follows:

No.	Cabling Port	Color
9	485+	White-orange
	485-	Orange
	LED	White-green
	D0	Blue
	D1	White-blue
	CASE	Green
	GND	White-brown
	12V	Brown

## 4.3 System Structure

The access controller, lock, card reader and etc. combine a system as in Figure 4-4.

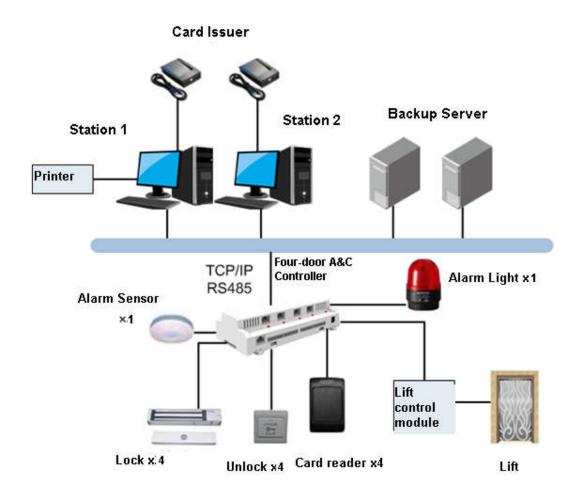


Figure 4-4

# **5 Technical Specification**

Parameter	Specification
Processor	32 bit ARM processor
Storage Capacity	16M
Max User	100,000
Max Record	150,000
Card Reader	Wiegand, RS485
Communication Port	
Platform	TCP/IP, RS485
Communication Port	
Input Card Reader	4 groups
Quantity	
Working Power	Rated power 10-15VDC, rated current 0.75A
Schedule	128
Period	128
Holiday	128
Unlock Mode	Card, card+password, password, card or password,
	card+fingerprint, fingerprint+password, fingerprint or
	card or password, by period.
Cross-segment	Support
Network	
Dual-door Lock	Support
Real-time Monitoring	Support
Alarm Activation	Support
Vandal-proof Alarm	Support
Illegal Intrusion Alarm	Support
Unlock Overtime	Support
Alarm	
Forced Card and	Support
Password Setup	
DST and Time Sync	Support
Online Upgrading	Support

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