

## About this Manual

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only.

The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website.

Please use this user manual under the guidance of professionals.

## Legal Information

REGARDING TO THE PRODUCT WITH INTERNET ACCESS, THE USE OF PRODUCT SHALL BE WHOLLY AT YOUR OWN RISKS. OUR COMPANY SHALL NOT TAKE ANY RESPONSIBILITIES FOR ABNORMAL OPERATION, PRIVACY LEAKAGE OR OTHER DAMAGES RESULTING FROM CYBER ATTACK, HACKER ATTACK, VIRUS INSPECTION, OR OTHER INTERNET SECURITY RISKS; HOWEVER, OUR COMPANY WILL PROVIDE TIMELY TECHNICAL SUPPORT IF REQUIRED. SURVEILLANCE LAWS VARY BY JURISDICTION. PLEASE CHECK ALL RELEVANT LAWS IN YOUR JURISDICTION BEFORE USING THIS PRODUCT IN ORDER TO ENSURE THAT YOUR USE CONFORMS THE APPLICABLE LAW. OUR COMPANY SHALL NOT BE LIABLE IN THE EVENT THAT THIS PRODUCT IS USED WITH ILLEGITIMATE PURPOSES. IN THE EVENT OF ANY CONFLICTS BETWEEN THIS MANUAL AND THE APPLICABLE LAW, THE LATER PREVAILS.

### FCC Information

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**FCC compliance:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment should be installed and operated with a minimum distance 20 cm between the radiator and your body.

### FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

### EU Conformity Statement



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the RE Directive 2014/53/EU, the EMC Directive 2014/30/EU, the RoHS Directive 2011/65/EU.



2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: [www.recyclethis.info](http://www.recyclethis.info)



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: [www.recyclethis.info](http://www.recyclethis.info)

# Safety Instruction

These instructions are intended to ensure that user can use the product correctly to avoid danger or property loss.

## Laws and Regulations

- The device should be used in compliance with local laws, electrical safety regulations, and fire prevention regulations.

## Electricity

- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.
- The equipment shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the equipment.
- Provide a surge suppressor at the inlet opening of the equipment under special conditions such as the mountain top, iron tower, and forest.
- CAUTION: To reduce the risk of fire, replace only with the same type and rating of fuse.
- The equipment must be connected to an earthed mains socket-outlet.
- An appropriate readily accessible disconnect device shall be incorporated external to the equipment.
- An appropriate overcurrent protective device shall be incorporated external to the equipment, not exceeding the specification of the building.
- An all-pole mains switch shall be incorporated in the electrical installation of the building.
- Ensure correct wiring of the terminals for connection to an AC mains supply.
- The equipment has been designed, when required, modified for connection to an IT power distribution system.

## Battery

- Do not ingest battery. Chemical burn hazard!
- This product contains a coin/button cell battery. If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.
- Keep new and used batteries away from children.
- If the battery compartment does not close securely, stop using the product and keep it away from children.
- If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.
- CAUTION: Risk of explosion if the battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
- ATTENTION: IL Y A RISQUE D'EXPLOSION SI LA BATTERIE EST REMPLACÉE PAR UNE BATTERIE DE TYPE INCORRECT. METTRE AU REBUT LES BATTERIES USAGÉES CONFORMÉMENT AUX INSTRUCTIONS.
- Improper replacement of the battery with an incorrect type may defeat a safeguard (for

example, in the case of some lithium battery types).

- Do not dispose of the battery into fire or a hot oven, or mechanically crush or cut the battery, which may result in an explosion.
- Do not leave the battery in an extremely high temperature surrounding environment, which may result in an explosion or the leakage of flammable liquid or gas.
- Do not subject the battery to extremely low air pressure, which may result in an explosion or the leakage of flammable liquid or gas.
- + identifies the positive terminal(s) of equipment which is used with, or generates direct current. - identifies the negative terminal(s) of equipment which is used with, or generates direct current.

### Fire Prevention

- No naked flame sources, such as lighted candles, should be placed on the equipment.
- The serial port of the equipment is used for debugging only.

### Hot Surface Prevention

-  CAUTION: Hot parts! Burned fingers when handling the parts. Wait one-half hour after switching off before handling parts. This sticker is to indicate that the marked item can be hot and should not be touched without taking care. For device with this sticker, this device is intended for installation in a restricted access location, access can only be gained by service persons or by users who have been instructed about the reasons for the restrictions applied to the location and about any precautions that shall be taken.

### Installation

- Install the equipment according to the instructions in this manual.
- To prevent injury, this equipment must be securely attached to the floor/wall in accordance with the installation instructions.
- Never place the equipment in an unstable location. The equipment may fall, causing serious personal injury or death.

### Power Supply

- The input voltage should conform to IEC60950-1 standard: SELV (Safety Extra Low Voltage) and the Limited Power Source. Refer to the appropriate documentation for detailed information.
- The power source should meet limited power source or PS2 requirements according to IEC 60950-1 or IEC 62368-1 standard.
- DO NOT connect multiple devices to one power adapter, to avoid over-heating or fire hazards caused by overload.
- Make sure the plug is properly connected to the power socket.

### White Light Illuminator (If supported)

- Possibly hazardous optical radiation emitted from this product.
- DO NOT stare at operating light source. May be harmful to the eyes.
- Wear appropriate eye protection or DO NOT turn on the white light when you assemble, install or maintain the camera.

## **Transportation**

- Keep the device in original or similar packaging while transporting it.

## **System Security**

- The installer and user are responsible for password and security configuration.

## **Maintenance**

- If the product does not work properly, please contact your dealer or the nearest service center.
- We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.
- A few device components (e.g., electrolytic capacitor) require regular replacement. The average lifespan varies, so periodic checking is recommended. Contact your dealer for details.

## **Cleaning**

- Please use a soft and dry cloth when clean inside and outside surfaces of the product cover. Do not use alkaline detergents.

## **Using Environment**

- When any laser equipment is in use, make sure that the device lens is not exposed to the laser beam, or it may burn out.
- DO NOT expose the device to high electromagnetic radiation or dusty environments.
- For indoor-only device, place it in a dry and well-ventilated environment.
- DO NOT aim the lens at the sun or any other bright light.
- Make sure the running environment meets the requirement of the device. The operating temperature shall be -30 °C to 60 °C (-22 °F to 140 °F), and the operating humidity shall be 95% or less (no condensing).
- DO NOT place the camera in extremely hot, cold, dusty or damp locations, and do not expose it to high electromagnetic radiation.

## **Emergency**

- If smoke, odor, or noise arises from the device, immediately turn off the power, unplug the power cable, and contact the service center.

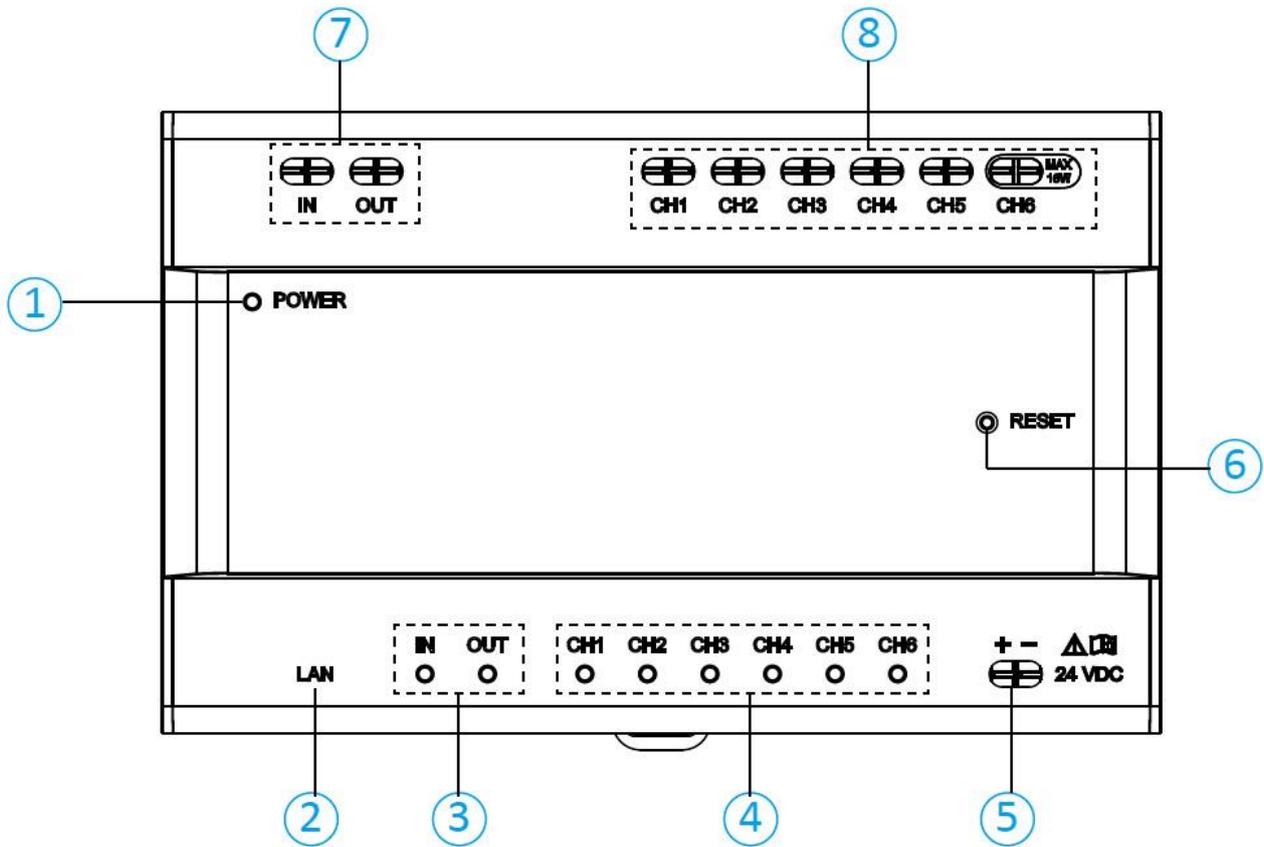
## **Time Synchronization**

- Set up device time manually for the first-time access if the local time is not synchronized with that of the network. Visit the device via Web browse/client software and go to time settings interface.

## **Reflection**

- Make sure that no reflective surface is too close to the device lens. The IR light from the device may reflect back into the lens causing reflection.

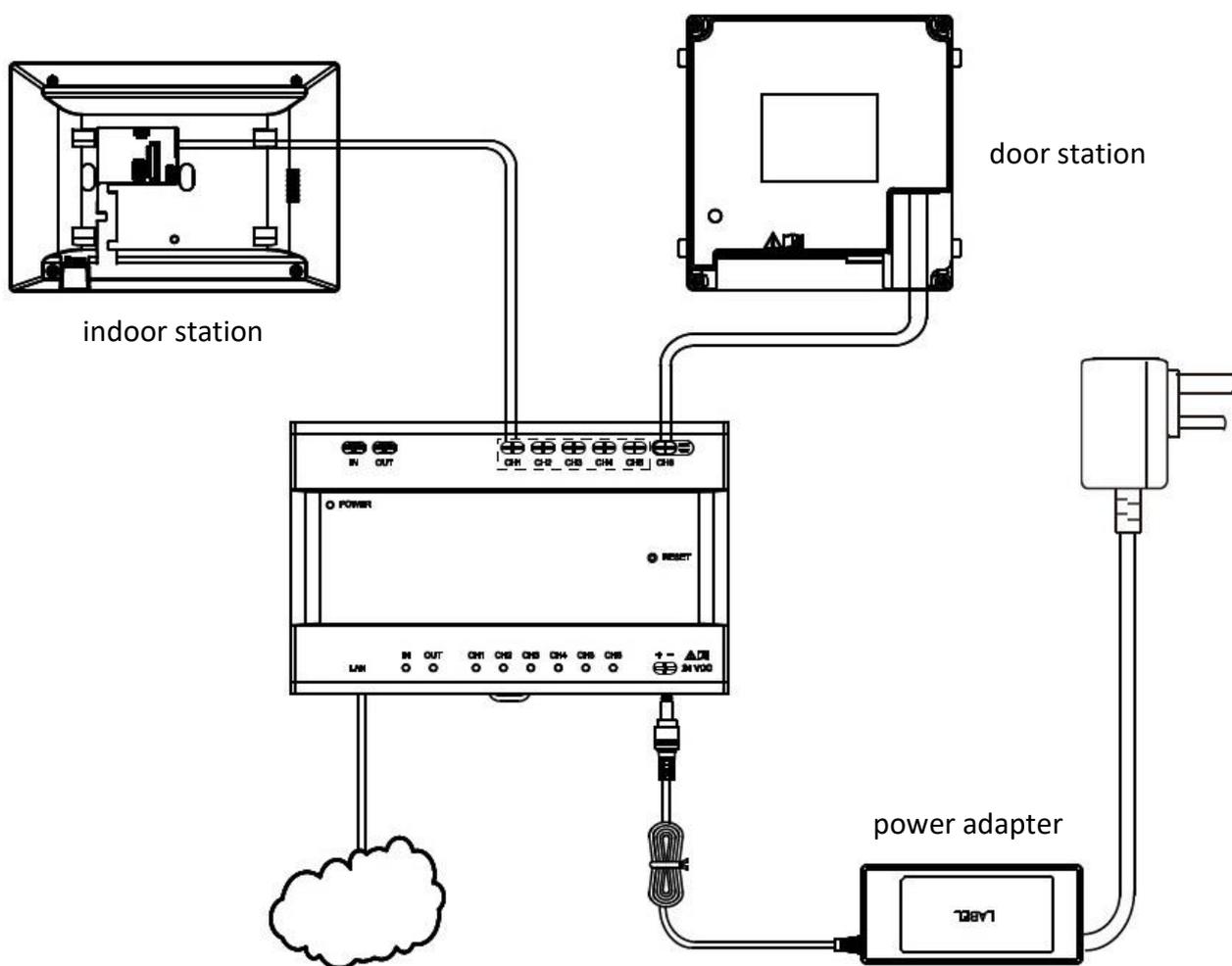
## Chapter 1 Appearance



1	power indicator
2	network interface
3	cascade network indicator
4	network indicator

5	power input
6	reset button
7	cascade interface
8	terminals

## Chapter 2 Wiring



Wire the devices with power supply cables as picture shown.

The door station should be connected to CH6 of the video/audio distributor with two-wire cables. The indoor station should be connected to any terminal of CH1 to CH5 of the video/audio distributor with two-wire cables.

**Caution: Make sure all the related equipment is power-off during the installation.**

The power output of CH1 to CH5: 24 VDC, max. 6 W.

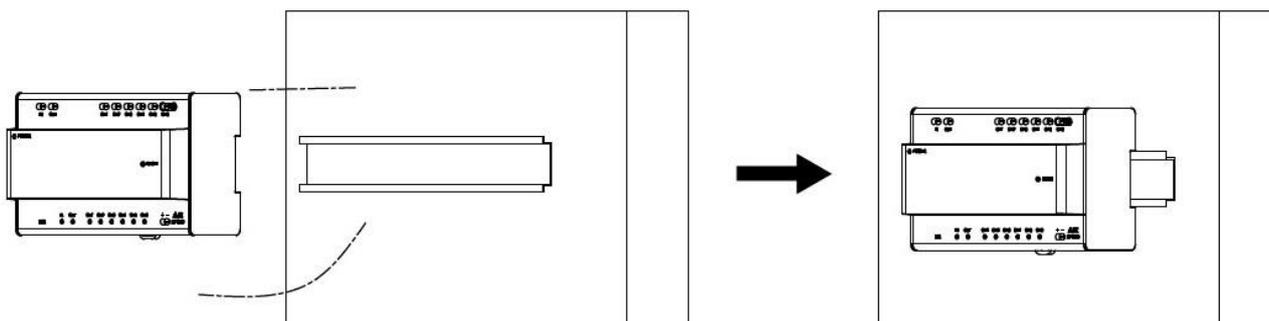
The power output of CH6: 24 VDC, max. 16 W.

## Chapter 3 Installation

### Before You Begin

- Make sure the device in the package is in good condition.
- Make sure all the related equipment is power-off during the installation.
- Check the product specification for the installation environment.

### Wall Mounting



1. Fix the DIN rail onto the wall.

**Note:** You are required to utilize a matching DIN rail.

2. Press the red clip upward and lock it to the DIN rail.

## Chapter 4 Tips for Cables and Installation

### Cables and Wiring

- When there are multiple cores in one parallel line, only one pair of closed cores are allowed to transmit signal. It is not allowed to use multiple pair of cores in one cable to transmit signal.
- When using parallel lines, it is suggested to use those with shielding layer. If dual core or multiple core parallel lines without shielding layer are routed, stability of signal transmission can be affected. You need to run a test before installation.
- Impedance of cable should not be over suggested value, or distributor cannot transmit enough power to indoor station or door station.
- Strong electricity and weak electricity cannot be wired in the same route, they need to be wired separately and the distance should be more than 0.5 meter.
- All the cables used need to follow the restriction in the following table.

## Device Installation

- Installation environment (temperature, moisture etc.) needs to follow requirements in specification or power output can be affected.
- Power consumption of modular door station (main module and sub modules) should be less than 12W. Please reach local technical support if you are not sure about power consumption of each module. Door station should be connected to CH6 of the video/audio distributor. If modular door station is connected to any terminal of CH1 to CH5, up to 3 sub modules can be connected.
- Indoor station should be connected to any terminal of CH1 to CH5 of the video/audio distributor.
- Up to 15 video/audio distributor can be cascaded. If more distributors are needed, you should cascade network switch supporting 1000Mbps. The whole 2-wire system can have up to 500 devices.
- Indoor station needs to use firmware released after October, 2019.

Routing path	Twisted pair			
	24AWG (0.2mm <sup>2</sup> , 9Ω/100m)	20AWG (0.5mm <sup>2</sup> , 3.5Ω/100m)	18AWG (0.8mm <sup>2</sup> , 2.5Ω/100m)	16AWG (1mm <sup>2</sup> , 1.5Ω/100m)
Cascade distributors	Transmission distance ≤ 60 m	Transmission distance ≤ 60 m	Transmission distance ≤ 60 m	Transmission distance ≤ 50 m
Two distributors	Transmission distance ≤ 60 m	Transmission distance ≤ 60 m	Transmission distance ≤ 60 m	Transmission distance ≤ 50 m
Distributor door station	Transmission distance ≤ 35 m	Transmission distance ≤ 60 m	Transmission distance ≤ 60 m	Transmission distance ≤ 50 m
Distributor indoor station	Transmission distance ≤ 35 m	Transmission distance ≤ 100 m	Transmission distance ≤ 100 m	Transmission distance ≤ 100 m

Routing path	Parallel lines			
	24AWG (0.2mm <sup>2</sup> , 9Ω/100m)	20AWG (0.5mm <sup>2</sup> , 3.5Ω/100m)	18AWG (0.8mm <sup>2</sup> , 2.5Ω/100m)	16AWG (1mm <sup>2</sup> , 1.5Ω/100m)
Cascade distributors	N/A	Transmission distance ≤ 35 m		N/A
Two distributors	N/A	Transmission distance ≤ 35 m		N/A
Distributor door station	N/A	Transmission distance ≤ 35 m		N/A
Distributor indoor station	Transmission distance ≤ 50 m	Transmission distance ≤ 100 m	Transmission distance ≤ 100 m	Transmission distance ≤ 100 m