

**LTK2800 Series**  
**Access Controller**

**Quick Start Guide**

## **Quick Start Guide**

### **About this Manual**

This Manual is applicable to access controller.

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 Disclaimer**

REGARDING TO THE PRODUCT WITH INTERNET ACCESS, THE USE OF PRODUCT SHALL BE WHOLLY AT YOUR OWN RISKS. OUR COMPANY SHALL NOT TAKE ANY RESPONSIBILITES 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.

**Regulatory 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

**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 EMC Directive 2014/30/EU, the LVD Directive 2014/35/EU, RoHS Directive 2011/65/EU.



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).



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).

**Industry Canada ICES-003 Compliance**

This device meets the CAN ICES-3 (B)/NMB-3(B) standards requirements.



### Safety Instruction

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

The precaution measure is divided into **Warnings** and **Cautions**:

**Warnings:** Neglecting any of the warnings may cause serious injury or death.

**Cautions:** Neglecting any of the cautions may cause injury or equipment damage.

	
<b>Warnings</b> Follow these safeguards to prevent serious injury or death.	<b>Cautions</b> Follow these precautions to prevent potential injury or material damage.



#### Warnings

- All the electronic operation should be strictly compliance with the electrical safety regulations, fire prevention regulations and other related regulations in your local region.
- Please use the power adapter, which is provided by normal company. The power consumption cannot be less than the required value.
- Do not connect several devices to one power adapter as adapter overload may cause over-heat or fire hazard.
- Please make sure that the power has been disconnected before you wire, install or dismantle the device.
- When the product is installed on wall or ceiling, the device shall be firmly fixed.
- If smoke, odors or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.
- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the device yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)



#### Cautions

- Do not drop the device or subject it to physical shock, and do not expose it to high electromagnetism radiation. Avoid the equipment installation on vibrations surface or places subject to shock (ignorance can cause equipment damage).

- Do not place the device in extremely hot (refer to the specification of the device for the detailed operating temperature), cold, dusty or damp locations, and do not expose it to high electromagnetic radiation.

- The device cover for indoor use shall be kept from rain and moisture.

- Exposing the equipment to direct sun light, low ventilation or heat source such as heater or radiator is forbidden (ignorance can cause fire danger).

- Do not aim the device at the sun or extra bright places. A blooming or smear may occur otherwise (which is not a malfunction however), and affecting the endurance of sensor at the same time.

- Please use the provided glove when open up the device cover, avoid direct contact with the device cover, because the acidic sweat of the fingers may erode the surface coating of the device cover.

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

- Please keep all wrappers after unpack them for future use. In case of any failure occurred, you need to return the device to the factory with the original wrapper. Transportation without the original wrapper may result in damage on the device and lead to additional costs.

- Improper use or replacement of the battery may result in hazard of explosion. Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.

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# Chapter 1 Product Description

## 1.1 Overview

LTK2800 is a powerful and stable access controller, using the logical architecture design. LTK2800 is designed with TCP/IP network interface and its signal processed with special encryption and can be run offline. Anti-tampering function is also supported.

## 1.2 Product Function

- The access controller is equipped with 32-bit high-speed processor
- Supports TCP/IP network communication, with self-adaptive network interface. The communication data is specially encrypted to relieve the concern of privacy leak
- Supports recognition and storage of card number with maximum length of 20
- The access controller can store 10 thousand legal cards and 50 thousand card swiping records
- Supports first card open-door and first card authorization function, super card and super password function, online upgrade function and remote control of the doors
- Supports Wiegand interface for accessing card reader. Wiegand interface supports W26/W34, and is seamlessly compatible with third-party card reader with Wiegand interface
- Supports various card types as normal/ disabled/ blacklist/ patrol/ guest/ duress/ super card, etc.
- Supports time synchronization via NTP, manual or automatic method
- Supports record storage function when it is offline and insufficient storage space storage alarm function
- The access controller has watchdog design
- Data can be permanently saved after the access controller is powered off



- Supports I/O linkage, and event linkage
- Supports alarm of offline event exceeding 90%
- Multiple event upload methods: channel, center group, and listening
- 500 groups of authentication code
- Anti-pass-back function

# Chapter 2 Appearance

## Component Description

### Access Controller Component Schematic Diagram

Take LTK2804 as an example, the component schematic diagram is shown below.

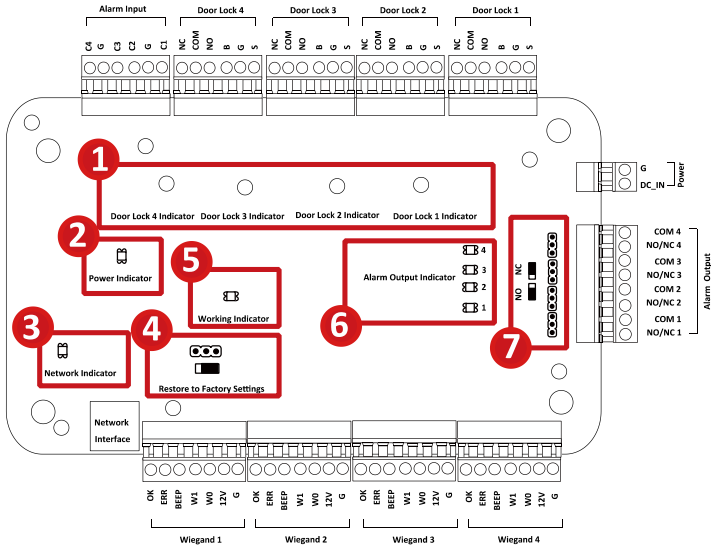


Figure 2-1 LTK2804 Component Schematic Diagram

Table 2-1 LTK2800 Component Description

No.	Component Description	
	LTK2802	LTK2804
1	Door Lock 1/2 Indicator	Door Lock 1/2/3/4 Indicator
2	Power Indicator	
3	Network Indicator	
4	Jumper Cap for Restoring Factory Settings	
5	Working Indicator	

6	Alarm Output Indicator
7	Alarm Output (NO/NC) Jumper Cap

# Chapter 3 Terminal Connection

## 3.1 LTK2802 Terminal Description

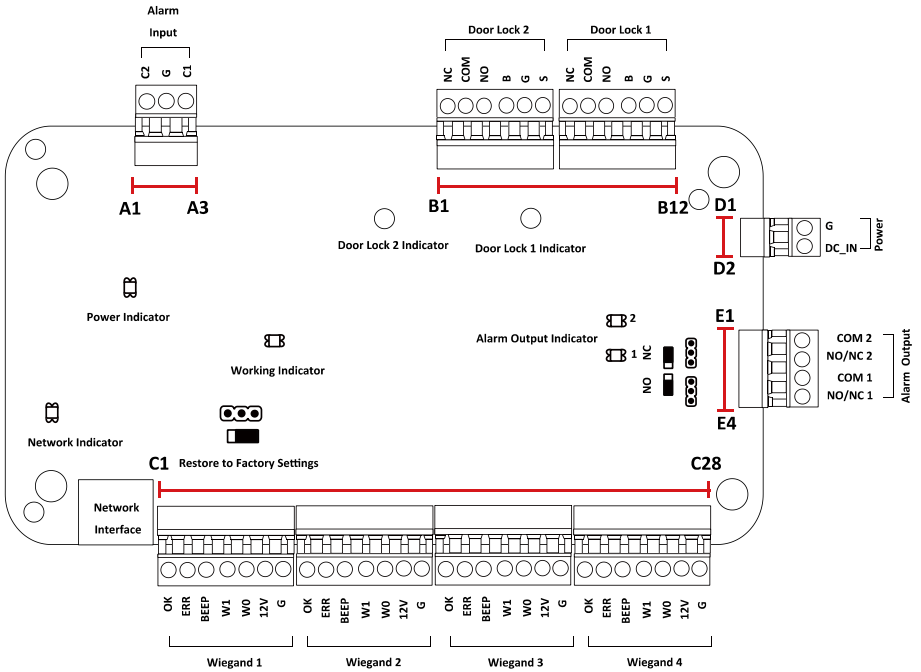


Figure 3-1 LTK2802 Terminal Description

Table 3-1 LTK2802 Port Description

No.	LTK2802		
A1	Alarm Input	IN2	Event Input 2
A2		GND	Grounding
A3		IN1	Event Input 1
B1	Door 2	NC	Door Lock Relay Output (Dry Contact)
B2		COM	

No.	LTK2802		
B3		NO	
B4		BUTTON	Door Button Input
B5		GND	Grounding
B6		SENSOR	Door Magnetic detector
B7	Door 1	NC	Door Lock Relay Output (Dry Contact)
B8		COM	
B9		NO	
B10		BUTTON	Door Button Input
B11		GND	Grounding
B12		SENSOR	Door Magnetic detector
D1	Power	GND	DC12V Grounding
D2		+12V	DC12V Input
E1	Alarm Output 2	COM2	Alarm Relay Output 2 (Dry Contact)
E2		NO/NC2	
E3	Alarm Output 1	COM1	Alarm Relay Output 1 (Dry Contact)
E4		NO/NC1	
C1	Wiegand Card Reader 1	OK	Indicator of Card Reader Control Output (Valid Card Output)
C2		ERR	Indicator of Card Reader Control Output (Invalid Card Output)
C3		BZ	Card Reader Buzzer Control Output
C4		W1	Wiegand Head Read Data Input Data1
C5		W0	Wiegand Head Read Data Input Data0
C6		PWR	Card Reader Power Output
C7		GND	
C8	Wiegand Card Reader 2	OK	Indicator of Card Reader Control Output (Valid Card Output)
C9		ERR	Indicator of Card Reader Control Output (Invalid Card Output)

No.	LTK2802		
C10		BZ	Card Reader Buzzer Control Output
C11		W1	Wiegand Head Read Data Input Data1
C12		W0	Wiegand Head Read Data Input Data0
C13		PWR	Card Reader Power Output
C14		GND	
C15	Wiegand Card Reader 3	OK	Indicator of Card Reader Control Output (Valid Card Output)
C16		ERR	Indicator of Card Reader Control Output (Invalid Card Output)
C17		BZ	Card Reader Buzzer Control Output
C18		W1	Wiegand Head Read Data Input Data1
C19		W0	Wiegand Head Read Data Input Data0
C20		PWR	Card Reader Power Output
C21		GND	
C22	Wiegand Card Reader 4	OK	Indicator of Card Reader Control Output (Valid Card Output)
C23		ERR	Indicator of Card Reader Control Output (Invalid Card Output)
C24		BZ	Card Reader Buzzer Control Output
C25		W1	Wiegand Head Read Data Input Data1
C26		W0	Wiegand Head Read Data Input Data0
C27		PWR	Card Reader Power Output
C28		GND	

# 3.2 LTK2804 Terminal Description

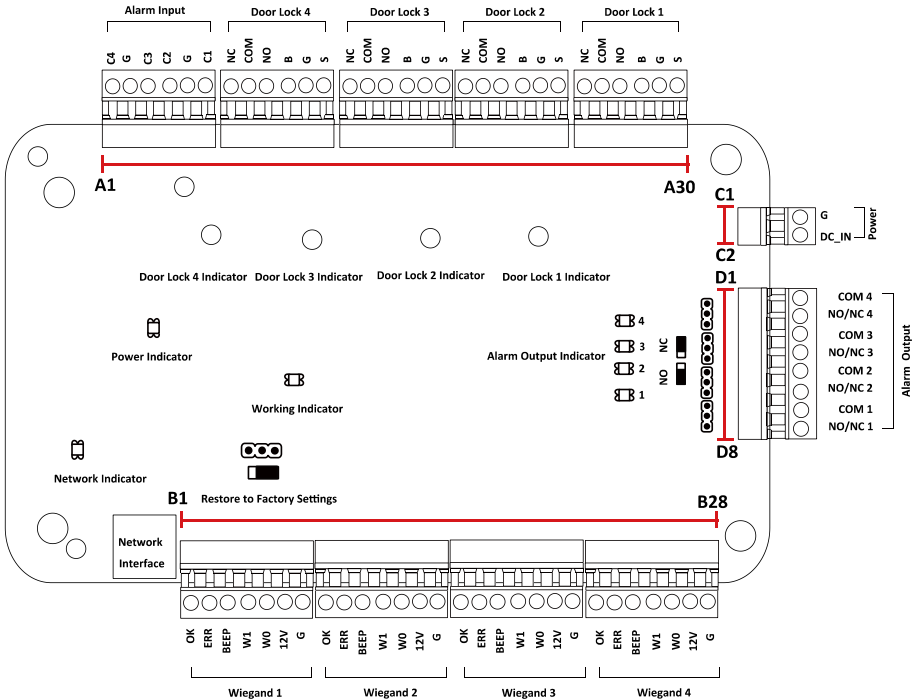


Figure 3-2 LTK2804 Access Controller Terminals

Table 3-2 LTK2804 Port Description

No.	LTK2804		
A1	Alarm Input	IN4	Event Input 4
A2		GND	Grounding
A3		IN3	Event Input 3
A4		IN2	Event Input 2
A5		GND	Grounding
A6		IN1	Event Input 1

No.	LTK2804		
A7	Door 4	NC	Door Lock Relay Output (Dry Contact)
A8		COM	
A9		NO	
A10		BUTTON	Door Button Input
A11		GND	Grounding
A12		SENSOR	Door Magnetic detector
A13	Door3	NC	Door Lock Relay Output (Dry Contact)
A14		COM	
A15		NO	
A16		BUTTON	Door Button Input
A17		GND	Grounding
A18		SENSOR	Door Magnetic detector
A19	Door 2	NC	Door Lock Relay Output (Dry Contact)
A20		COM	
A21		NO	
A22		BUTTON	Door Button Input
A23		GND	Grounding
A24		SENSOR	Door Magnetic detector
A25	Door 1	NC	Door Lock Relay Output (Dry Contact)
A26		COM	
A27		NO	
A28		BUTTON	Door Button Input
A29		GND	Grounding
A30		SENSOR	Door Magnetic detector
B1	Wiegand Card Reader 1	OK	Indicator of Card Reader Control Output (Valid Card Output)
B2		ERR	Indicator of Card Reader Control Output (Invalid Card Output)
B3		BZ	Card Reader Buzzer Control Output



No.	LTK2804		
B4		W1	Wiegand Head Read Data Input Data1
B5		W0	Wiegand Head Read Data Input Data0
B6		PWR	Card Reader Power Output
B7		GND	
B8	Wiegand Card Reader 2	OK	Indicator of Card Reader Control Output (Valid Card Output)
B9		ERR	Indicator of Card Reader Control Output (Invalid Card Output)
B10		BZ	Card Reader Buzzer Control Output
B11		W1	Wiegand Head Read Data Input Data1
B12		W0	Wiegand Head Read Data Input Data0
B13		PWR	Card Reader Power Output
B14		GND	
B15	Wiegand Card Reader 3	OK	Indicator of Card Reader Control Output (Valid Card Output)
B16		ERR	Indicator of Card Reader Control Output (Invalid Card Output)
B17		BZ	Card Reader Buzzer Control Output
B18		W1	Wiegand Head Read Data Input Data1
B19		W0	Wiegand Head Read Data Input Data0
B20		PWR	Card Reader Power Output
B21		GND	
B22	Wiegand Card Reader 4	OK	Indicator of Card Reader Control Output (Valid Card Output)
B23		ERR	Indicator of Card Reader Control Output (Invalid Card Output)
B24		BZ	Card Reader Buzzer Control Output
B25		W1	Wiegand Head Read Data Input Data1
B26		W0	Wiegand Head Read Data Input Data0

No.	LTK2804		
B27		PWR	Card Reader Power Output
B28		GND	
C1	Power	GND	DC12V Grounding
C2		+12V	DC12V Input
D1	Alarm Output 4	COM4	Alarm Relay Output 4 (Dry Contact)
D2		NO/NC4	
D3	Alarm Output 3	COM3	Alarm Relay Output 3 (Dry Contact)
D4		NO/NC3	
D5	Alarm Output 2	COM2	Alarm Relay Output 2 (Dry Contact)
D6		NO/NC2	
D7	Alarm Output 1	COM1	Alarm Relay Output 1 (Dry Contact)
D8		NO/NC1	

**Note:**

- The Alarm input hardware interface is normally open by default. So only the normally open signal is allowed. It can be linked to the buzzer of the card reader and access controller, and the alarm relay output and open door relat output.
- For single-door access controller, the Wiegand card reader 1 and 2 respectively correspond to the entering and exiting card readers of door 1. For two-door access controller, the Wiegand card reader 1 and 2 respectively correspond to the entering and exiting card readers of door 1 , and the Wiegand card reader 3 and 4 respectively correspond to the entering and exiting card readers of door 2. For single-door access controller, the Wiegand card reader 1, 2, 3 and 4 respectively correspond to the entering card readers of door 1, 2, 3, and 4.

# Chapter 4 External Device Wiring

## 4.1 Card Reader Wiring

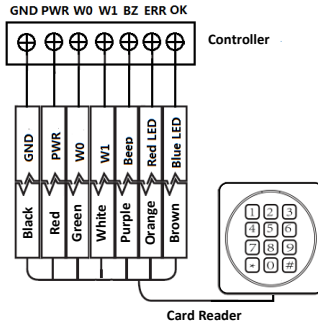


Figure 4-1 Wiring diagram of Wiegand card reader



**Note:**

You must connect the OK/ERR/BZ, if using access controller to control the LED and buzzer of the Wiegand card reader.

For 1800 series card reader, the wiring diagram is shown below.

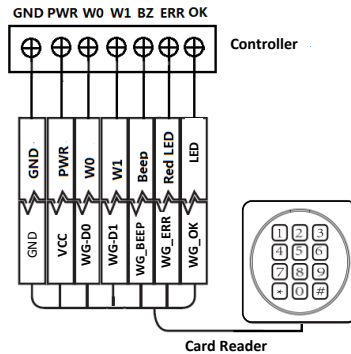


Figure 4-2 Wiring diagram of 1800 series card reader

## 4.2 Installing Door Lock

### 4.2.1 Installation of Cathode Lock

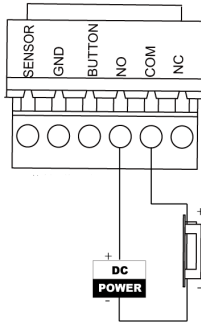


Figure 4-3 Wiring diagram of cathode lock

### 4.2.2 Installation of Anode Lock

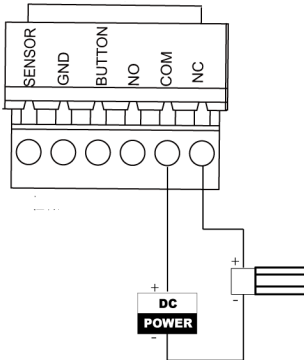


Figure 4-4 Wiring diagram of anode lock

### 4.3 Connecting the External Alarm Device

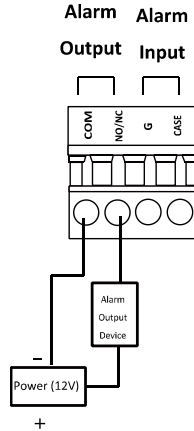


Figure 4-5 External Alarm Device Connection

### 4.4 Door Button Wiring Diagram

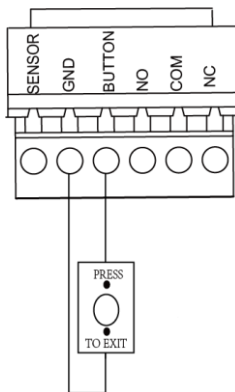


Figure 4-6 Power Button Connection

## 4.5 The Connection of Magnetics Detection

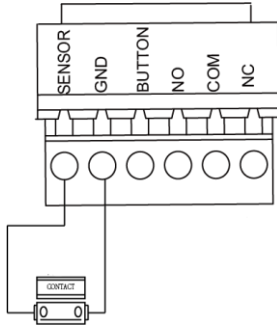


Figure 4-7 Magnetics Connection

## 4.6 Connecting Power Supply

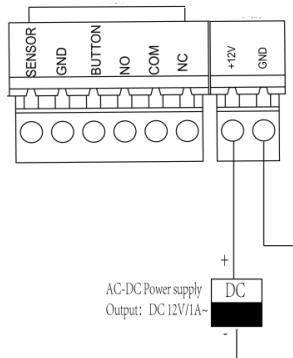


Figure 4-8 Power Supply Connection

# Chapter 5 Settings

## 5.1 Initializing the Hardware

**Steps:**

1. The jumper cap jumps from Normal to Initial.
2. Disconnect the power and restart the access controller, the controller buzzer buzzes a long warning.
3. After the buzzer stops, jump the jumper cap back to Normal.
4. Disconnect the power and restart the access controller.

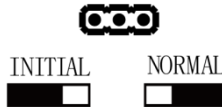


Figure 5-1 Initialization Dial-up



**Note:**

The initializing of the hardware will restore all the parameters to the default settings and all the device events are wiped out.

## 5.2 Relay Input NO/NC

**Alarm Relay Output Status**

Alarm Relay Output Normally Open

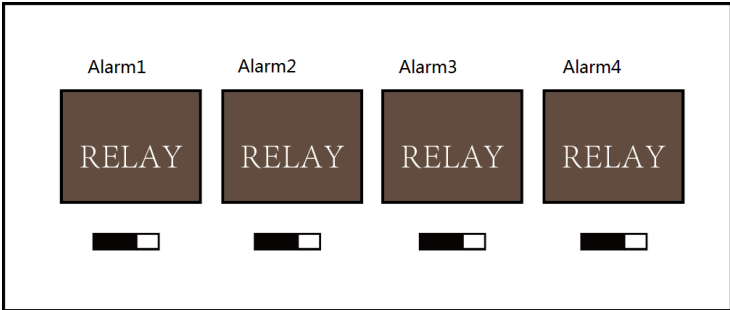


Figure 5-2 Alarm Relay Output Normally Open

Alarm Relay Output Normally Closed

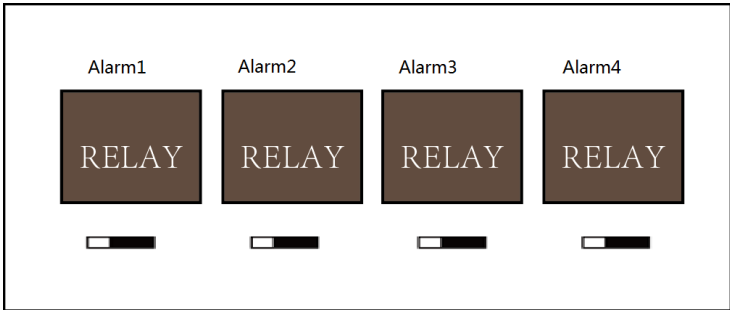


Figure 5-3 Normally Closed Status



### Work Flow of Software

For detailed information, please see the user manual of the client software.

Refer to the following work flow:

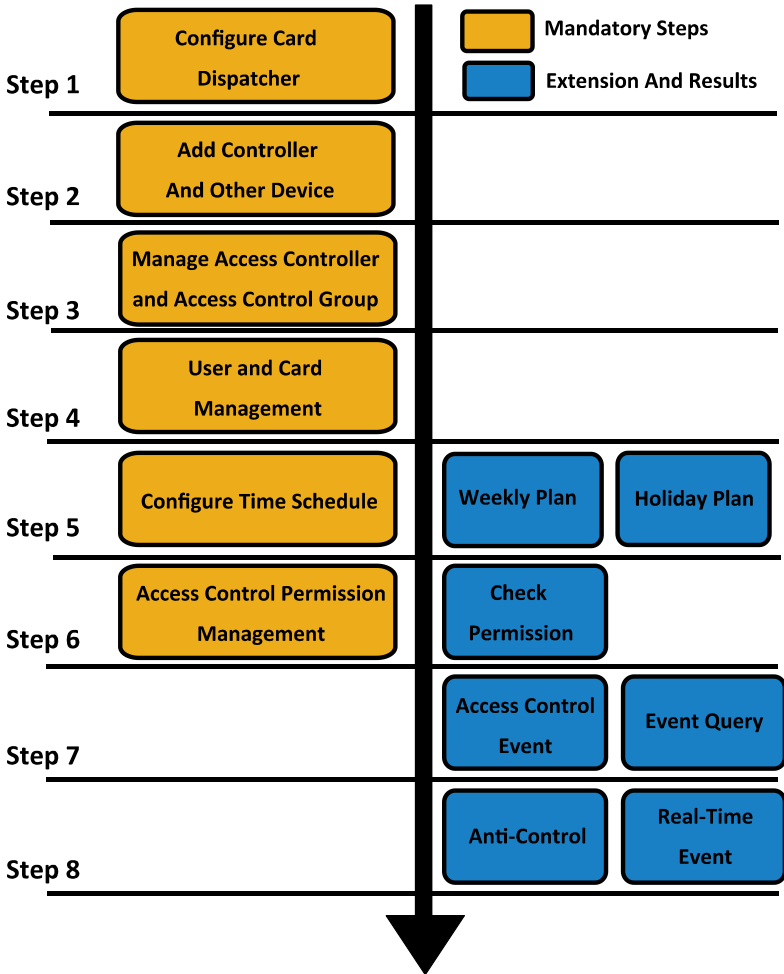


Figure 5-4 Software Client Work Flow

# Chapter 6 Activating Device

## ***Purpose:***

You are required to activate the control panel first before you can use the control panel.

Activation via IP Portal, and Activation via client software are supported.

## 6.1 Activation via IP Portal Software

IP Portal software is used for detecting the online device, activating the device, and resetting the password.

Get the IP Portal software from the supplied disk or the official website, and install the IP Portal according to the prompts. Follow the steps to activate the control panel.

### ***Steps:***

1. Run the IP Portal software to search the online devices.
2. Check the device status from the device list, and select an inactive device.

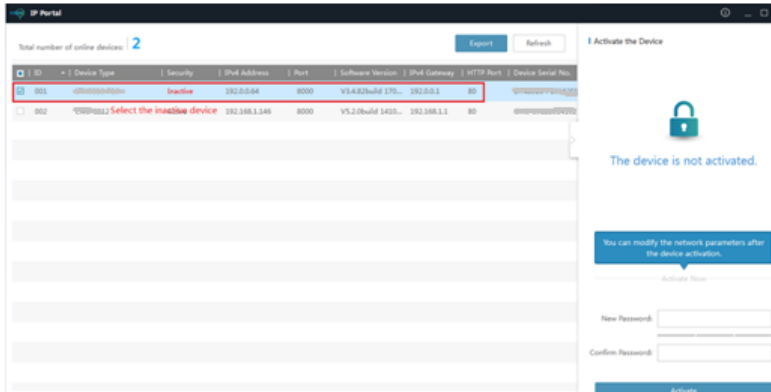


Figure 6-1 IP Portal Interface

3. Create a password and input the password in the password field, and confirm the password.



**STRONG PASSWORD RECOMMENDED**— *We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.*

4. Click **Activate** to activate the device.
5. Check the activated device, you can change the device IP address to the same network segment with your computer by either modifying the IP address manually or checking the checkbox of Enable DHCP.

**Modify Network Parameters**

Enable DHCP

Device Serial No.:

IP Address:

Port:

Subnet Mask:

Gateway:

IPv6 Address:

IPv6 Gateway:

IPv6 Prefix Length:

HTTP Port:

Security Verification

Admin Password:

**Modify**

Figure 6-2 Modify Network Parameters Interface

6. Input the password and click the **Modify** button to activate your IP address modification.

## 6.2 Activation via Client Software

The client software is versatile video management software for multiple kinds

of devices.

Get the client software from the supplied disk or the official website, and install the software according to the prompts. Follow the steps to activate the control panel.

### Steps:

1. Run the client software and the control panel of the software pops up, as shown in the figure below..

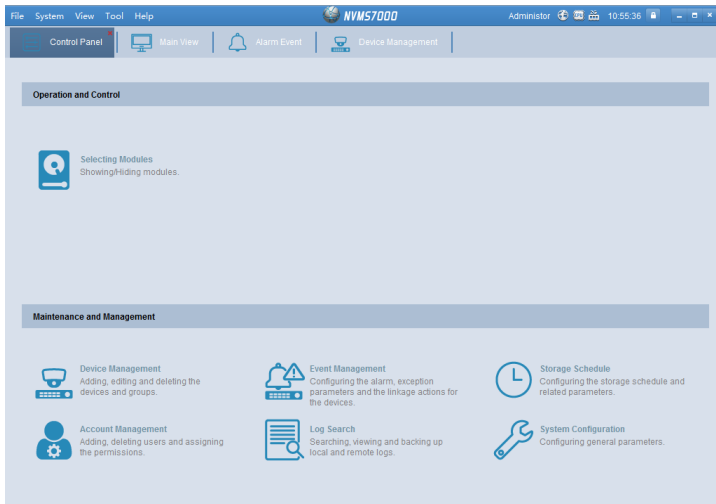
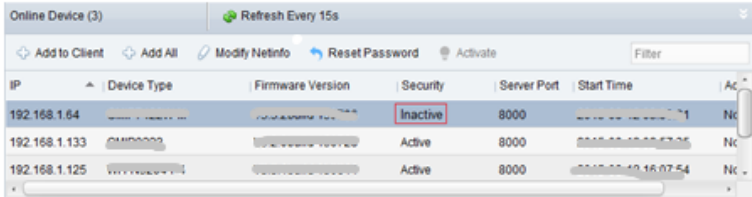


Figure 6-3 Control Panel Interface

2. Click the **Device Management** to enter the Device Management interface.
3. Check the device status from the device list, and select an inactive device.



IP	Device Type	Firmware Version	Security	Server Port	Start Time	Ac
192.168.1.64			Inactive	8000		1
192.168.1.133			Active	8000		
192.168.1.125			Active	8000		

Figure 6-4 Device List

4. Click the **Activate** button to pop up the Activation interface.
5. In the pop-up window, create a password in the password field, and confirm the password.



**STRONG PASSWORD RECOMMENDED**– *We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.*



Figure 6-5 Setting Password Window

6. Click **OK** button to activate.
7. Click the **Modify Netin for** button to pop up the Network Parameter Modification interface.

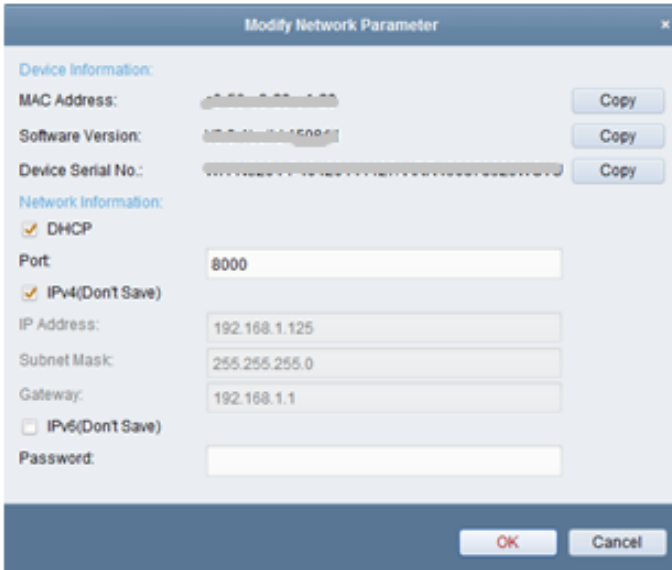


Figure 6-6 Modify Network Parameters Window

8. Change the device IP address to the same network segment with your computer by either modifying the IP address manually.
9. Input the password and click the **OK** button to save the settings.



