

This reading material is for internal training purposes. For all legal warnings and instructions, please refer to the official access control user manual. Please visit our LTS website for more information. LTK3500S is defined as the Terminal, not the doorbell.



Main Features

- 1920x1080p@30fps High Definition.
- 50,000 Cards Record, 200,000 Events.
- Unlock Door Remotely Using LTS Connect.
- Anti-Passing Back
- Support Wi-Fi 2.4G
- Support MicroSD Card (Class 10, up to 128GB)
- LTS NVR Compatible
- IP65

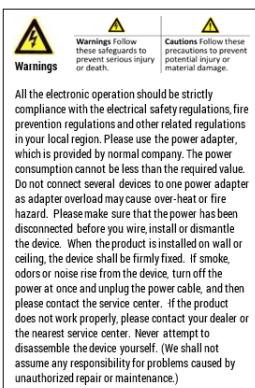
IMPORTANT

This device uses DC12V/1A only.
Do not share this power with any other devices.
Take a photo of the back-panel sticker before install. You will need this when pairing to the LTS-Connect App. Check that the device powers up and that the firmware is up to date before installing.



Before installation:

1. This device only supports 12VDC, not PoE. Also, do not share the power with other devices.
2. Take a picture of the LTK3500S Back-panel **Sticker** first. It is required for the LTS-Connect.
3. Mobile App is LTS-Connect. (Do not use NVMS7000 App)
4. Internet connection may be required.
5. Programming software is PC NVMS7000, supports Windows PC only.
6. First 3 pages for the hardware installation; the rest of the pages are for software setup (copied from LTK28xx manual)



Installer License Requirements for Business environments:

Low Voltage Installation – C7 License

Fire Alarm – C10 License

Your State/City license requirements may vary.

Please note, LTS is not responsible for any issues related to installer license requirements.

California

Low Voltage Specialty License Types:

Low-Voltage Systems C-7

Electrical Contractor
(includes Fire Alarm installations) **C-10**

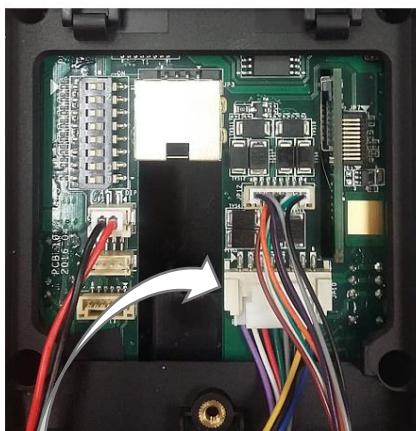
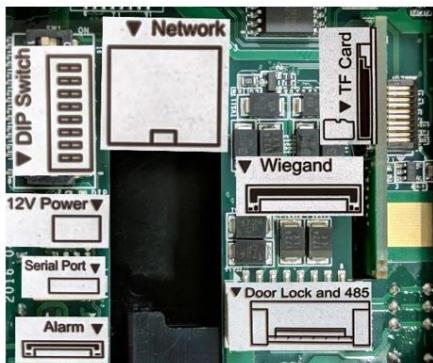
Fire Protection Contractor C-16

Lock and Security Equipment Contractor C-28

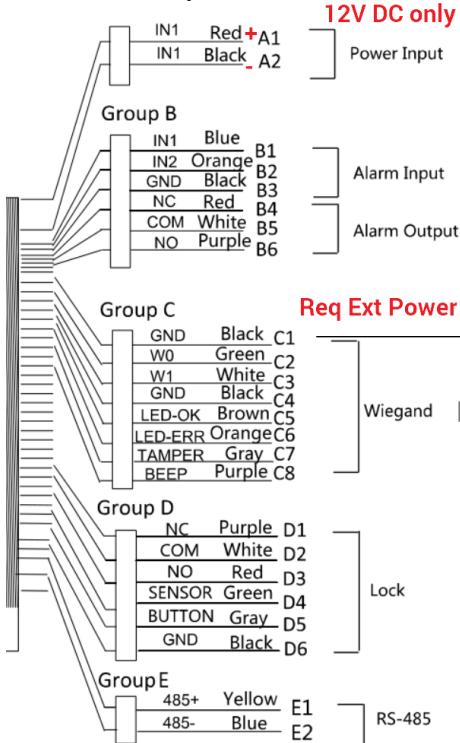
Solar C-46

Connection / Wiring:

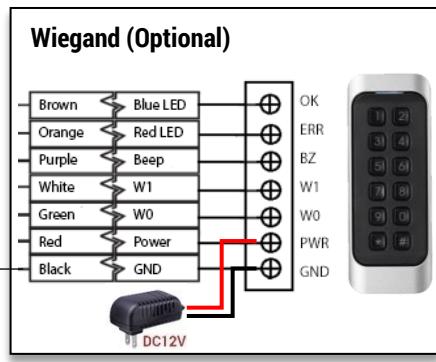
There are no cables installed permanently to the back panel of the device.
 Please manually plug in the cables that are required for your installation.



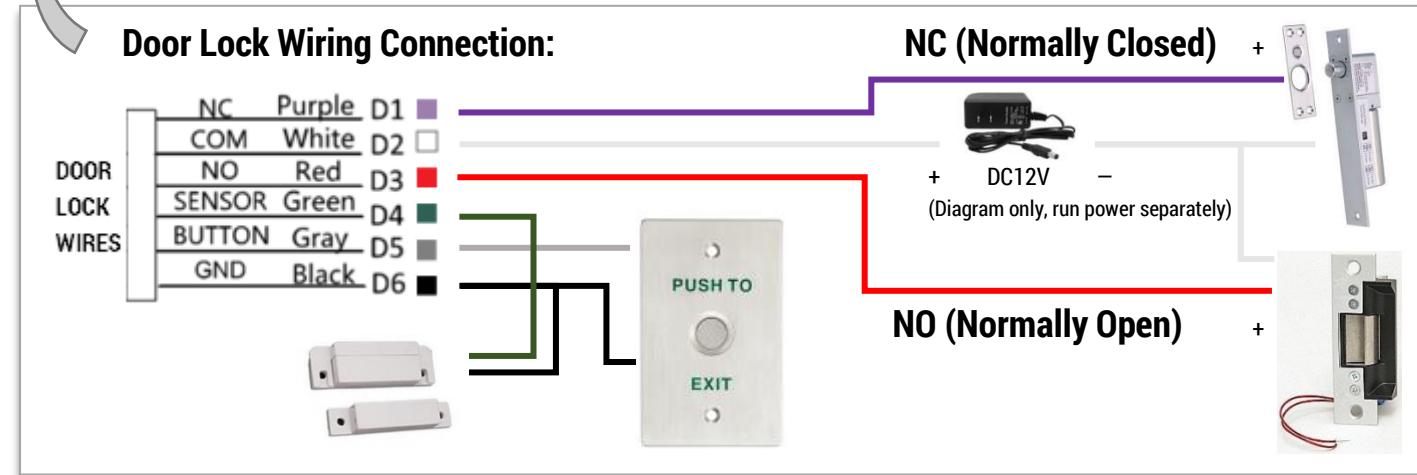
All Wires Description:



- 1-5 RS485 Address (Check User Manual)
6. OFF Terminal Mode ON Card Reader Mode
7. Card Reader Mode Only.
OFF (10 digits key#) ON (8 digits)
8. (see User Manual)



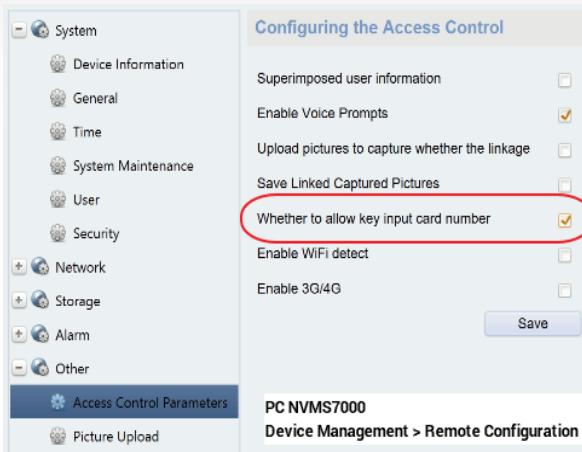
Door Lock Wiring Connection:



Note:

Troubleshooting:

(1st Edit: Perry; 2nd Edit: Eric)



Configuring the Access Control

Superimposed user information

Enable Voice Prompts

Upload pictures to capture whether the linkage

Save Linked Captured Pictures

Whether to allow key input card number

Enable WiFi detect

Enable 3G/4G

Save

PC NVMS7000
Device Management > Remote Configuration

Setup for the Stand-Alone Terminal Note:

(1st Edit: Perry; 2nd Edit: Jimmy)

Activate the device, assign an IP address, and add into NVMS7000 first. By default, LTK3500s is set to terminal mode. The front reader only supports 34-Bit Wiegand (10 digit) input. It can also support an additional Wiegand card reader if needed. A Wiegand or RS-485 card reader can be added as an exit reader or the entry reader (keypad). These readers are not limited to 34-Bit Wiegand, but it makes little sense to have the 2 devices not running the same protocol. Please remember that separate power must be provided to the card reader.

By default, the LTK3500S does not support authentication with the keypad. You must enable this in the remote configuration of the device. To enable this function, go to PC NVMS7000. Device Management > select LTK3500s device > Remote Configuration. Go to Other > Access control Parameters > Whether to allow key input

Q: Message: "The room number cannot be empty, please input the room number" when a card is swiped.

A: The card has not been added to the device yet. Check that the card has been added to a profile, place the profile into the permission and apply the permission to the device.

Q: The App makes me create a new password when I've already made one for it.

A: Make sure the firmware has been updated on the LTK3500S.

Q: The LTK3500S does not respond or do anything at all when I swipe a card, it only Beeps one time.

A: The device has been set into Card Reader mode, toggle Dip Switch #6 into the down position. You will need to power cycle the unit after any dip switch changes.

Q: Why does the LTK3500S require a separate power supply?

A: To ensure the LTK3500S does not have any power fluctuations.

Q: Can the LTK3500S be integrated with the LTK28xx Access Controller device?

A: Yes

Q: Can the LTK3500S be integrated with an LTS NVR/DVR?

A: Yes. But, make sure the NVR/DVR firmware is after 2017.

Q: If I connected the LTK3500S to the NVR, can I unlock the door from the NVR?

A: Due to security reasons, you cannot unlock the remote door from the NVR. There are 2 ways to remote unlock the door; Either the LTS-Connect App or the PC NVMS7000 (Locally).

Q: Which Mobile App is used for the LTK3500S??

A: LTS-Connect. Please download the app from the App store for your mobile device. NVMS7000 is not recommended as it has no unlock feature for the LTK3500S.

Q: What is the remote access method for the LTK3500S?

A: For security reasons, the LTK3500S uses PTCloud (P2P) technology for remote access. IP/Domain is not supported.

Q: Where is the QR Code for adding to PT Cloud?

A: Only found on the back of the unit. (See picture to the right)

Q: How to default the 3500S setting back to inactivate?

A: use PC NVMS7000 (Restore All = Factory Default)

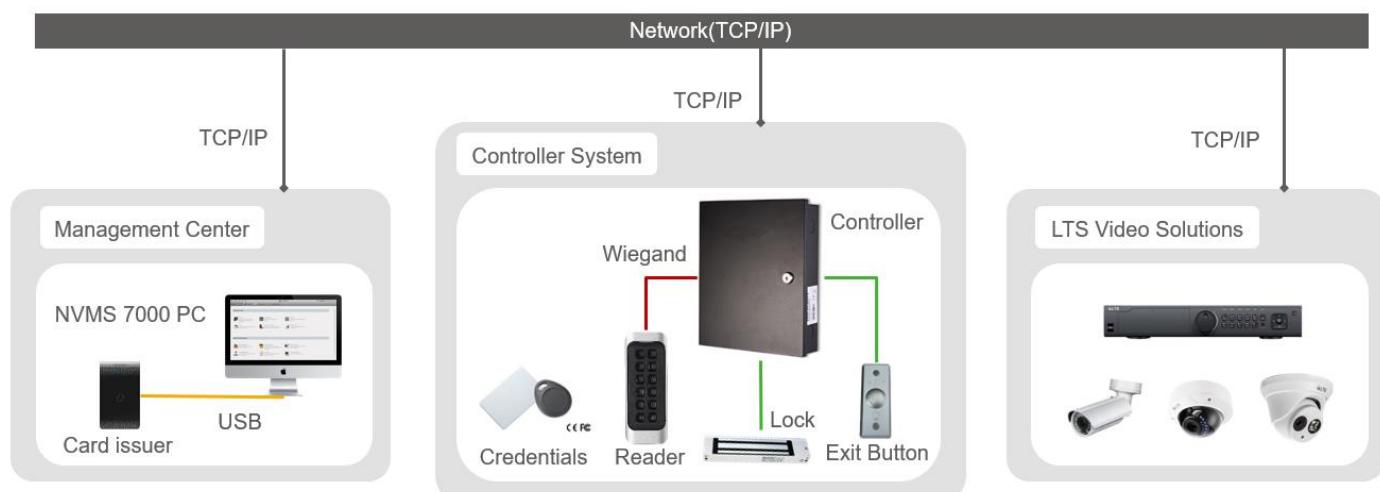


Software

Access Control Software: NVMS7000



This Setup section is copied from the LTK28xx quick guide. So, please don't be focus on miss-match pictures or labels. Get the idea that will be fine.



Access Control Software: NVM7000

Note:

1. Device Activation (setting a password) is required.
2. The latest version of NVMS7000 required
3. Software supports Microsoft Windows 7/8/10 only
4. Supports Local Network Configuration.
5. Max. 16 controllers / 64 doors
6. Max. 10,000 users and 10,000 Cards



Activation: There are two ways to Activate the Controller.

1. NVMS7000.
2. IP Portal Software ([Download Link](#))

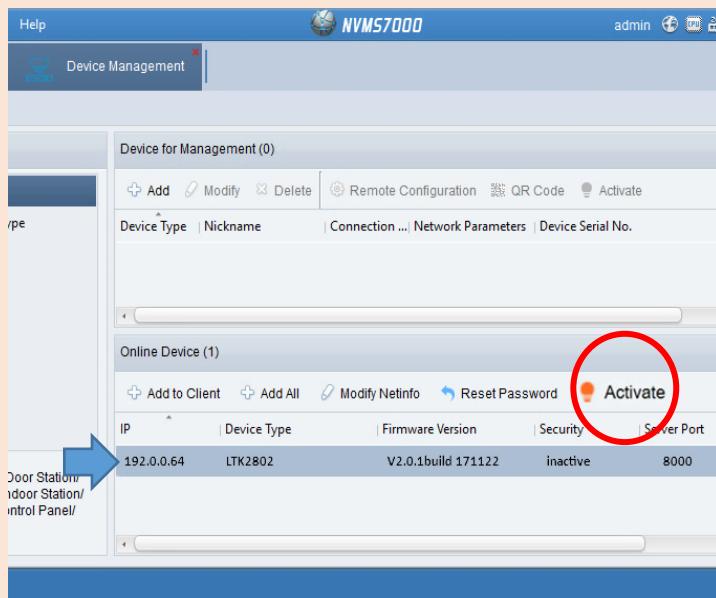
For NVMS7000 Activation:

Go to Control Panel > Device Management

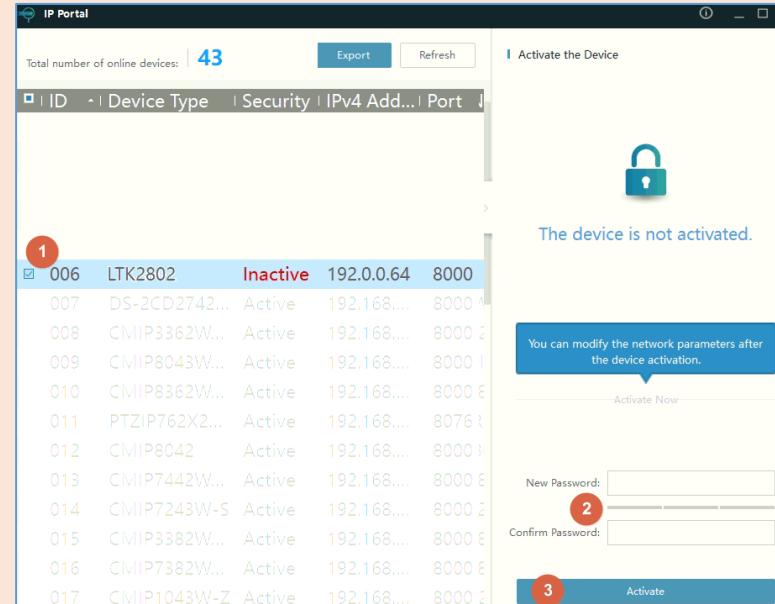
Find the Controller on the bottom list, Highlight and **Activate**

Enter Valid Password and click OK

NVMS7000 Software



IP Portal Software



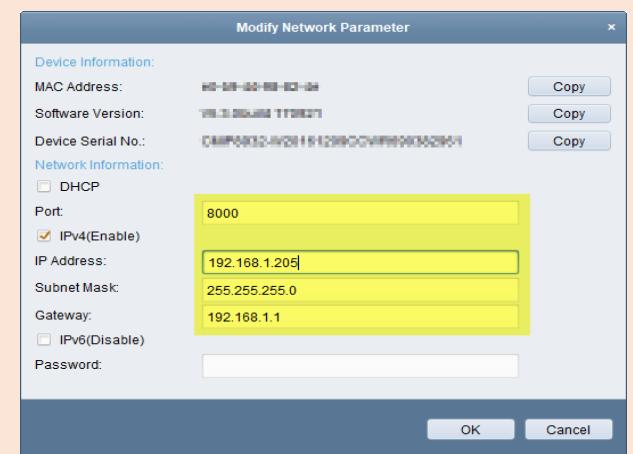

STRONG PASSWORD RECOMMENDED –

We highly recommend that a strong password is created (using a minimum of 8 characters, including uppercase letters, lowercase letters, numbers, and/or special characters) to increase the security of your device(s).

We also recommend changing your password regularly, especially in the high security system. Resetting the password monthly or weekly can help better protect your device(s).

Setup Controller Local IP Address

Before adding the device, the IP address needs to be programmed first.
Click Modify Netinfo and set up the local network IP address



Add Controller / Naming

1. Click Add
2. Choose IP/Domain
3. Enter Controller Nickname, IP, User & Password.

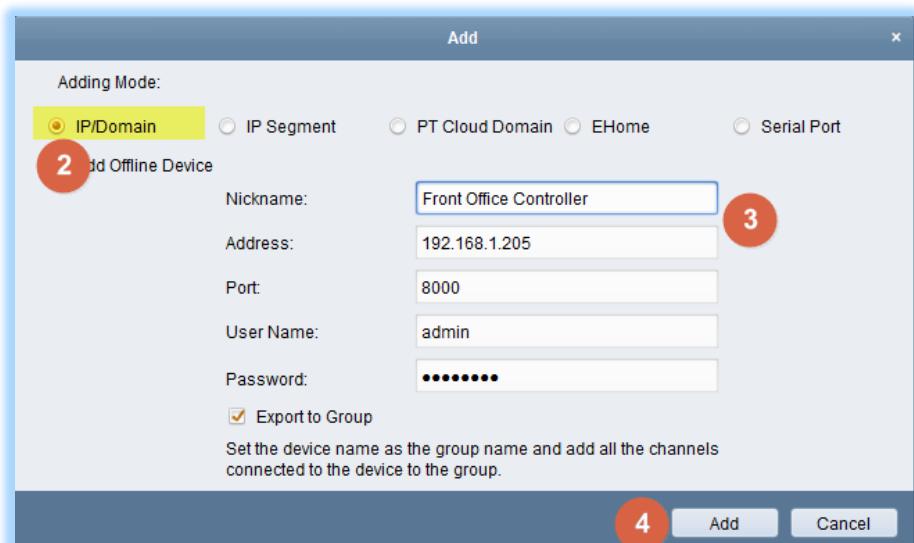
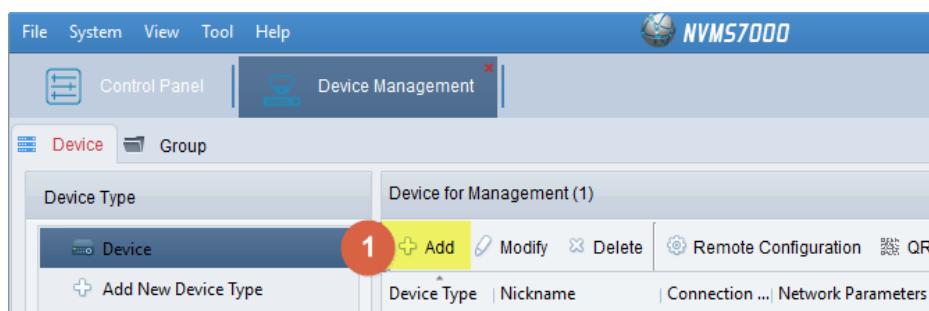
* Important *

Please make an appropriate nickname.

It helps to label the controller if you have more than one. (See Page 10)

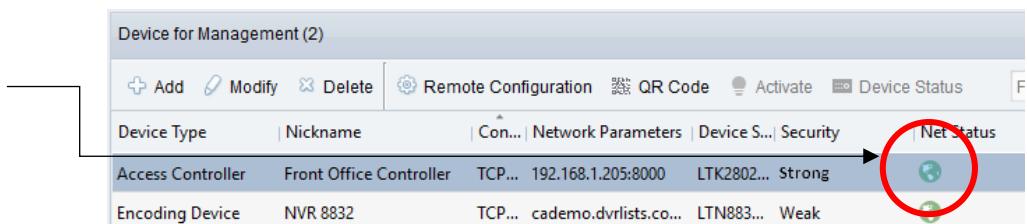
Make sure to enter the correct password before clicking Add. The password is the password that was chosen in the Activation step". The wrong password will cause the 'Export to Group' to fail. If you enter the wrong password when you are adding the device, delete the device and re-add'

4. Click Add when finished.



Check Connect Status:

NetStatus shows Green color. (Ready)



If it is not connected, please double check the connection or setting again.

Sync Time



Controller's Time may not be accurate when the controller is first set up.

Please synchronize the time before use.

Manual time change currently disabled.

Synchronization requires Internet access with NTP server.

Device for Management (2)
Add | Modify | Delete | **Remote Configuration** | QR Code | Activate
Device Type: Access Controller | Nickname: Front Office Controller | Con... | Network Parameters | Device S... Sec...
TCP... 192.168.1.205:8000 LTK2802...

Check DNS

Highlight Controller, click **Remote Configuration** to open the controller settings:

Check **Network > Advanced Settings**.

Make sure DNS set correctly.

If it is 0.0.0.0, change to 8.8.8.8. Click **Save**.

Configuring the Advanced Network Settings
DNS1 IP Address: 8.8.8.8
DNS2 IP Address: 8.8.4.4
Save

System
Device Information
General
Time
System Maintenance
User
Security
Network
General
Advanced Settings
Alarm

Enable NTP

Go to **System > Time**.

Checkmark **Enable NTP**

Enter **Server Address** (if empty): time.windows.com

NTP Port: 123

Sync Interval: 60

(After Sync Successful, you may change Interval to 1440

avoid Sync too often)

Check that DST Settings are correct, **Save**

[\(Link\)](#)

Configuring the Time Settings (e.g., NTP, DST)
Time Zone
Select Time Zone: (GMT-08:00) Pacific Time (US & Canada), Tijuana
Enable NTP
Server Address: time.windows.com
NTP Port: 123
Sync Interval: 60 Minute(s)
Enable DST
Start Time: March Second Week Sun 1:00
End Time: November First Week Sun 1:00
DST Bias: 60 min
Save

System
Device Information
General
Time
System Maintenance
User
Security
Network
Alarm
Other
Operation
Status

Reboot

Go to **System > System Maintenance > Reboot** After reboot, controller time should be correct. Please double check the status bar message.

Check Time



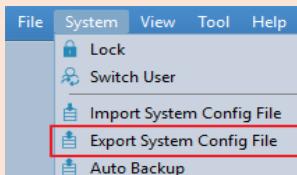
How to check the Controller Current Time?

Go to the bottom section under Device Management. The Controller Start Time = Current Time. Press refresh & check.

IP	Device Type	Firmware Version	Security	Server Port	Device Serial No.	Start Time
192.168.1.205	LTK2802	V2.0.1build 171122	Active	8000	LTK2802201711...	2018-03-10 10:20:49

Important, Backup the Settings!

Backup Settings becomes more important when you try to program the Access Control.
Always back up the settings! Backup (Export) settings are located in the System bar option"



Use Export System Config File to backup your settings file INCLUDING the Access Control Database, Permission and Attendance settings, as well as other vital information. Please remember to keep this file secure.
Use Import System Config File to restore the settings.

Auto Backup is a new feature. The settings back are backed up according to a set schedule.

Label / Name (Door):

Clearly labeling the different access control components will make the job easier when you try to set up or manage the system after the system has been installed.



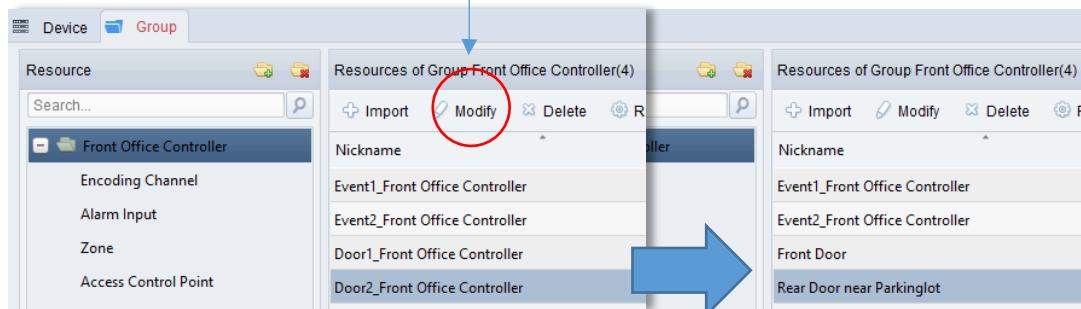
Labeling/ Naming Door

Device Management > Group.

Highlight the door device, click **Modify**.

By default, it is named as Door#_(Controller Name)

It is recommended to change the default name to a more appropriate name.



For example:

Door1 to Front Door

Door2 to Back Door

From the picture on the right, the importance of clear labels is shown.

Add Module

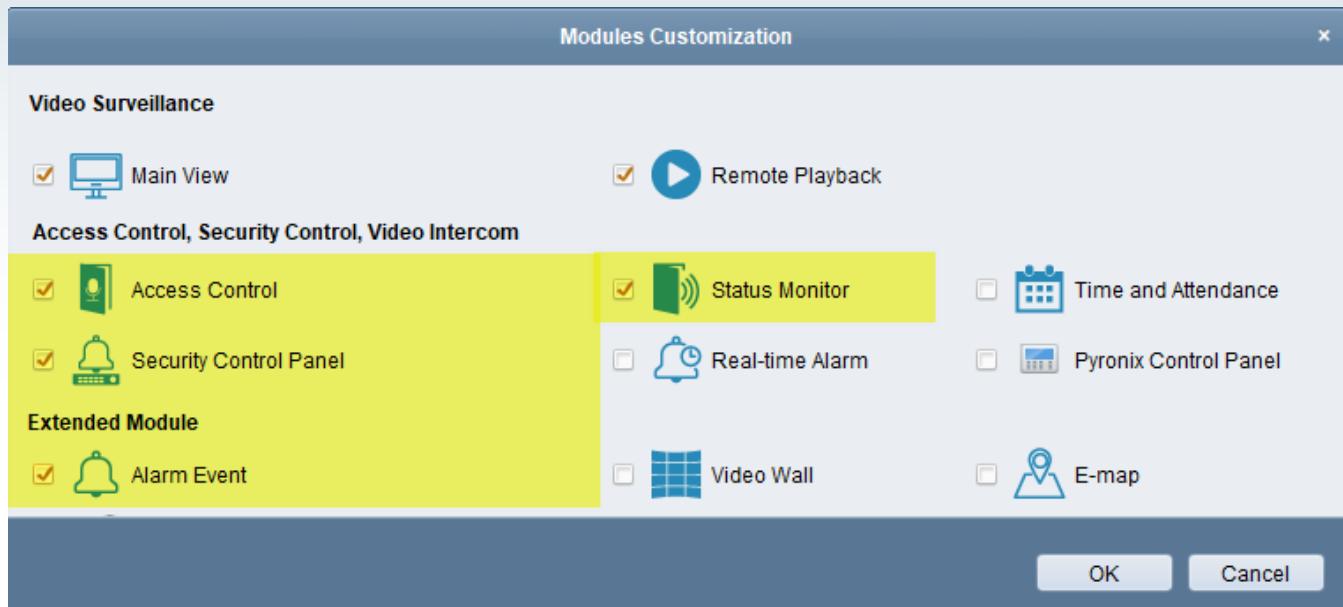
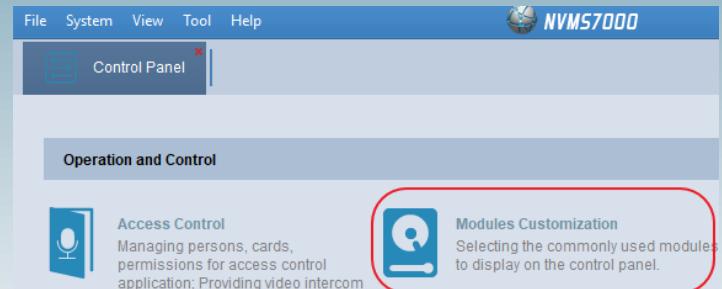


Adding Access Control Modules

Control Panel > Modules Customization



Access Control
Status Monitor
Alarm Event



Note: Only the latest version of NVMS7000 (PC) supports Access Control

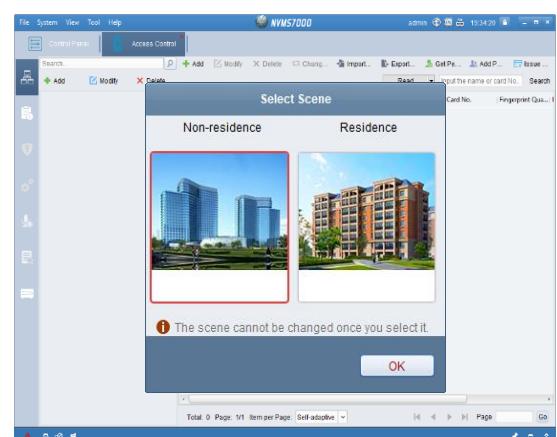
Scene Selection

Upon opening the access control tab in the newest version of NVMS7000, the software will prompt you the following Scene question:

Non-residence or Residence.

The wizard sets help pre-program based on the scenario.

Note: Once the scene is selected, it cannot be changed, unless NVMS7000 is uninstalled and then re-installed to reset the setting. Also, When you select Non-Residence mode, you cannot configure the Attendance Rule when adding a person





Guideline / Directions:

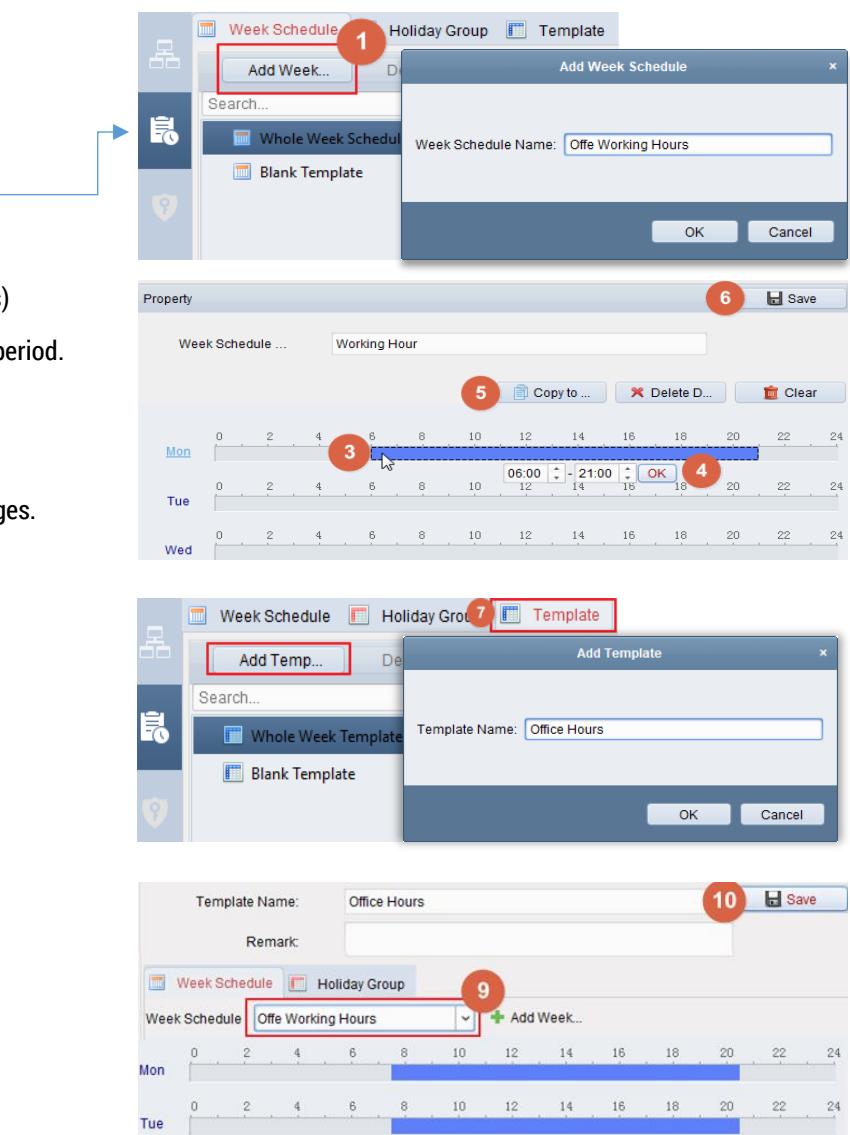
1. Create Working Hour Template
2. Define the Wiegand Reader Working Hour
3. Create Organization Structure and Level
4. Create Personal Account, Card# and working hours
5. Define the Access Permission
6. Final, Test it and use Status Monitor to check the status.

Tutorial Video: <https://www.youtube.com/watch?v=v2d5atg3h1I>

Define Working Hour / Template

Open Access Control > Schedule & Template

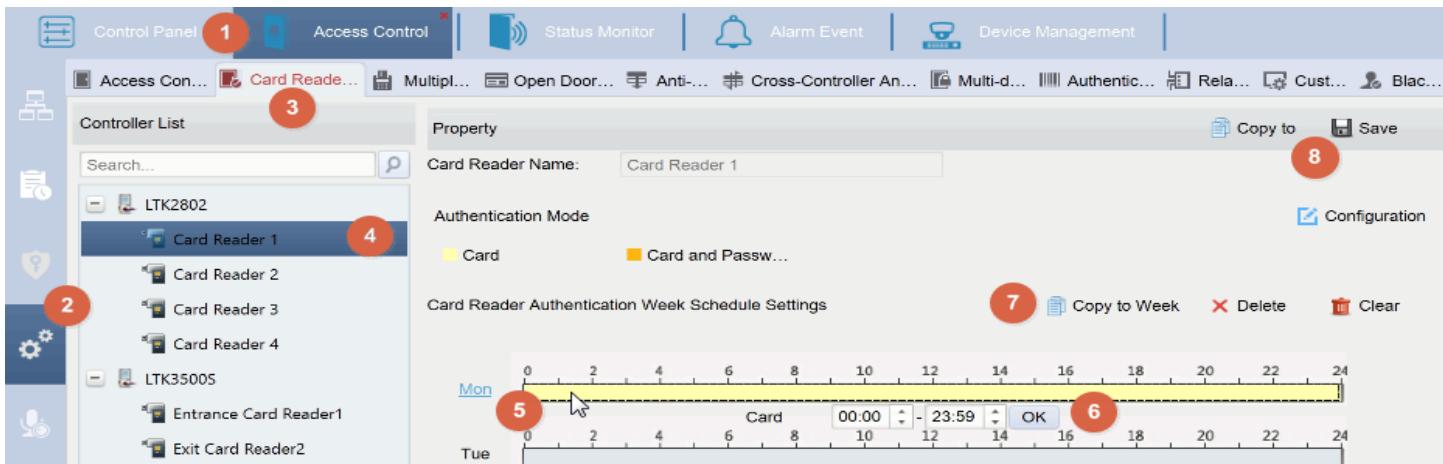
1. Select Week Schedule, Click **Add Week...**
2. Define Schedule Name (Example; Office Working Hours)
3. On the weekly schedule, draw a line to define the time period.
4. Define it more precisely and click **OK**.
5. use **Copy to...** to apply the timeline to other weekdays.
6. click the **Save** button on the top right to keep the changes.
7. Switch to the Template > **Add Temp...**
8. Define Template Name (For example; Office Hours)
9. Select Week Schedule you created.
10. Click the **Save** button in the upper right corner.



Program Wiegand Reader Schedule

Program Card Reader Authentication (For more detail, read Ch 6.8.2 in User Manual)

1. Go to Access Control >
2. Advanced Function >
3. Card Reader Authentication
4. Select Reader first.
5. Drag and Draw to define the timeline.
6. Click the time bar to enter or edit a more precise timeframe, click OK
7. Use Copy to Week. That will copy the current highlight to others. Use Delete to erase, or Clear to reset all.
8. Final, click **Save** to keep the setting. Or, use **Copy to** setting to other Readers.



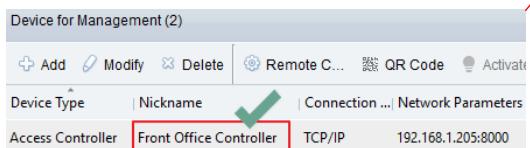
Define the Reader Parameter

Access Control Parameter

Most times, you don't need to change the Access Control Parameter.

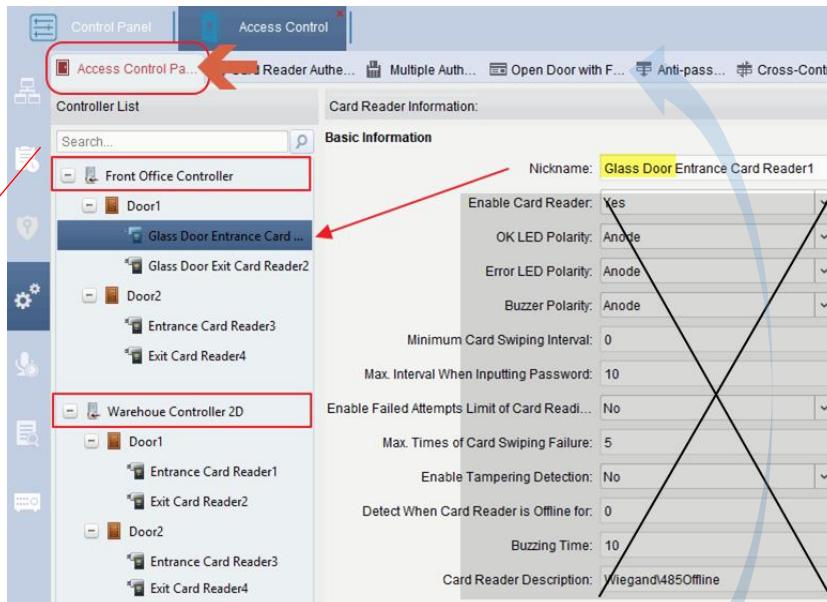
Change Controller's name:

The setting to change the Controller's name is found in the Device Management setting



Change Wiegand Reader's name:

Changing the Wiegand Reader's display name is not necessary, but it is helpful for certain situations to clarify the Wiegand Reader's location.



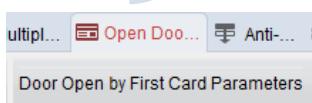
Open Door with First Card *Purpose:* You can set multiple first cards for one access control point.

After the first card swipes, the controller allows multiple persons to access the door or other authentication actions. The first card mode contains **Remain Open with First Card**, **Disable Remain Open with First Card**, and **First Card Authorization**.

Remain Open with First Card, Disable Remain Open with First Card

The door remains open for the configured time duration after the first card swipes until the remain open duration ends.

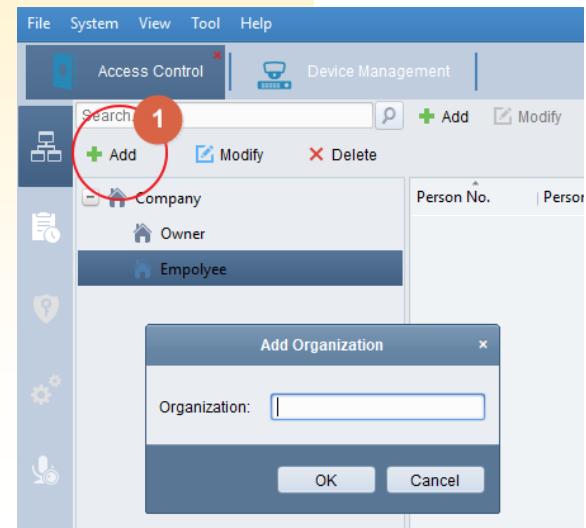
First Card Authorization: All authentications, except for the authentications of super card, duress card, and duress code, are allowed only after the first card authorization.



Create Organization & Department

Open Access Control > Person & Card

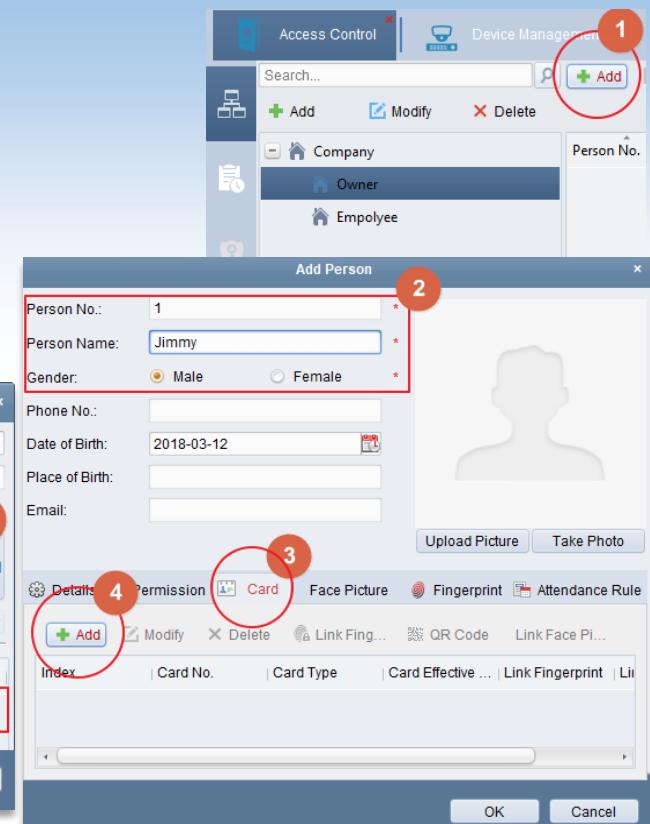
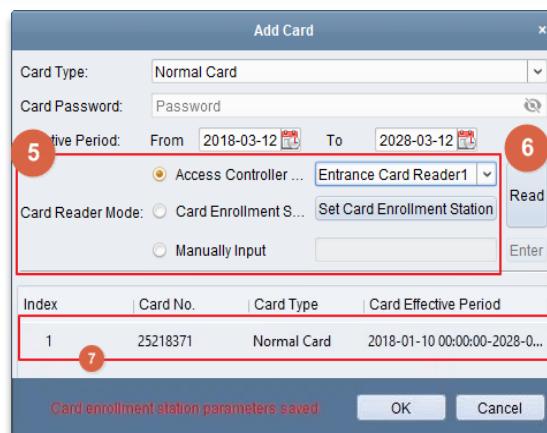
1. Click **Add** to create the Organization, click **OK**
2. Click **Add** again and create another department.
For Example:



Create User Account:

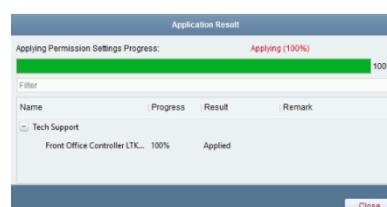
Open Access Control > Person & Card

1. Click **Add** to create a personal account.
2. Enter Personal information (* required)
3. Click **Card** for the card registration
4. Click **Add** to add/scan the Card



5. Select Access Reader
6. Click **Read**
7. Swipe Card, click **OK**
8. Final, click **OK** to finish adding Person.

9. If the data is changed, it will automatically prompt for the data Synchronization. Choose **Apply Now**, or **Apply Later** to postpone.



LTKE100ME
Plug and Play USB Mifare
Card Reader

3 ways to scan / issue the card.

1. Access Controller
Use Wiegand Reader to Scan
2. Card Enrollment (LTKE100ME)
Use USB Reader to Scan
3. Manually input

Permission

In the Permission module, you can add, edit, and delete access control permissions, as well as applying the permission settings (data synchronization) for the device permissions to take effect.

1. Go to Access Control > Permission

Note: Each door can only support up to 4 permissions in the list

2. Click Add

3. Define Permission Name

4. Select Template

5. Select User, click > to add

6. Select Door, click > to add

7. Click OK to finish.

8. If Data is changed, System will automatically prompt for data synchronization. **Apply Now** or, click **Apply Later** wait until final.

Or, You can find those buttons on the toolbar.

Working Hour Template

Reader Defining

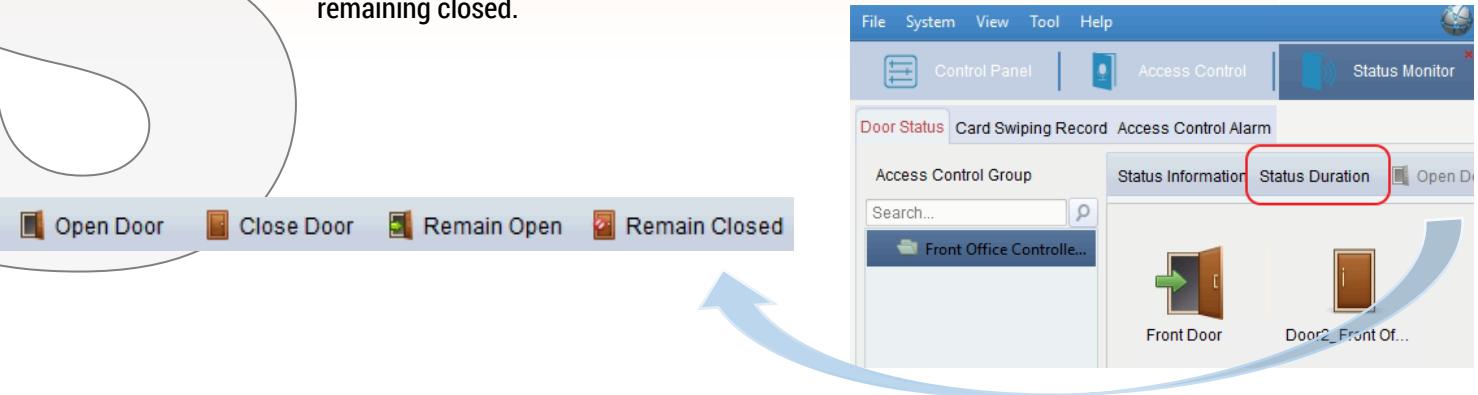
Organization & Level

Create User Account

Permission Defining

Status Monitor

Purpose: The Status Monitor provides a way to manually control the status (or lock) for all the access control points (doors), including opening door, closing door, remaining open, and remaining closed.

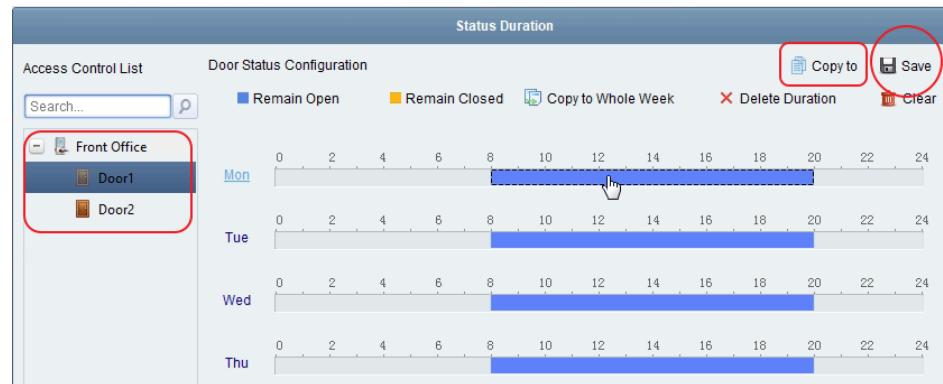


Status Duration:

Purpose:

Status Duration allows you to set an access control point (door) to remain open or remain closed according to a defined schedule.

In the Door Status module, click the Status Duration button to enter the Status Duration interface.



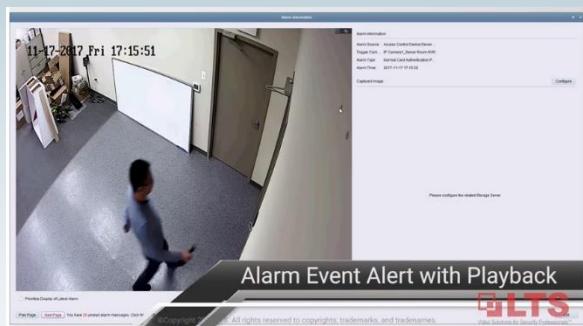
Card Swiping Record:

The logs of card swiping records of all access control devices will display in real time. You can view the details of the card swiping event, including card No., person name, organization, event time, etc. You can also click the event to view the cardholder details, including person No., person name, organization, phone, contact address, etc.

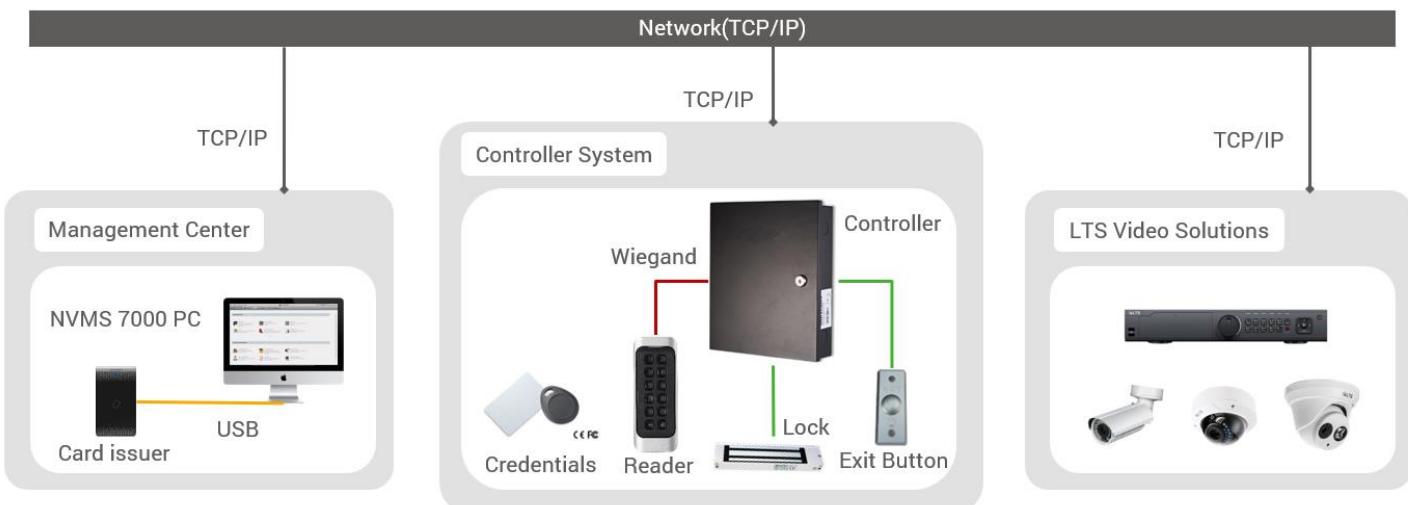
Note: please remember only one local connection can receive the log. 2nd Connect may or may not get the instance.

Card No.	Person Name	Organization	Event Time	Door Position	Direction	Authentication ...	C
03859699	Eric Gonzalez	LTS/Sales	2018-03-13 10:3...	Front Office Co...	Enter	Invalid Card	
03859699			2018-03-13 10:3...	Front Office Co...	Enter	Invalid Card	
03859699			2018-03-13 10:3...	Front Office Co...	Enter	Invalid Card	
6264352866	Jimmy	LTS/Tech Support	2018-03-13 10:3...	Front Office Co...	Enter	Legal Card Aut...	
123456			2018-03-13 10:2...	Front Office Co...	Enter	Invalid Card	
123456			2018-03-13 10:2...	Front Office Co...	Enter	Invalid Card	
09425517	Perry Chung	LTS/Tech Support	2018-03-13 10:2...	Front Office Co...	Enter	Legal Card Aut...	
09425517	Perry Chung	LTS/Tech Support	2018-03-13 09:5...	LTK2802:Exit Ca...	Exit	Legal Card Aut...	
09425517	Perry Chung	LTS/Tech Support	2018-03-13 09:5...	LTK2802:Entranc...	Enter	Legal Card Aut...	
09425517			2018-03-13 09:5...	LTK2802:Entranc...	Enter	Invalid Card	
09425517	Perry Chung	LTS/Tech Support	2018-03-13 09:5...	LTK2802:Entranc...	Enter	Invalid Card	
09425517	Perry Chung	LTS/Tech Support	2018-03-13 09:5...	LTK2802:Entranc...	Enter	Invalid Card	
09425517	Perry Chung	LTS/Tech Support	2018-03-13 09:4...	LTK2802:Entranc...	Enter	Invalid Card	
03859699	patrick	Its	2018-03-12 09:2...	Front Office Co...	Enter	Legal Card Aut...	
03859699	patrick	Its	2018-03-12 09:2...	Front Office Co...	Exit	Legal Card Aut...	
03859699	patrick	Its	2018-03-12 09:2...	Front Office Co...	Enter	Legal Card Aut...	

Video Verification



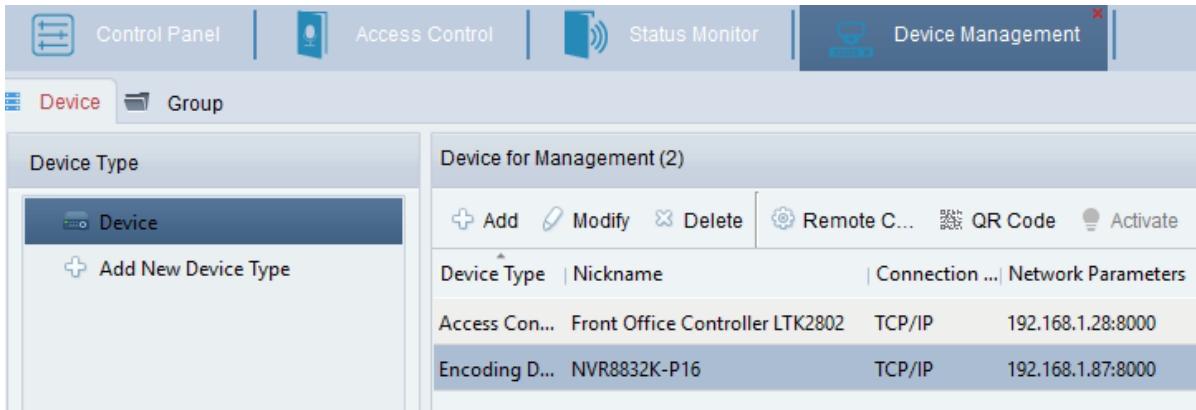
- Enroll Credentials
- Manage Controllers
- Video Verification



Setup LTS NVR/DVR/IPC in the Device Management first.

Video verification is only possible once you have a video device configured in Device Management.

The video Device requires storage capability to be able to recall and display a video event that is linked to an access control event.



Event Management

Link Video Device to the Access Control



Go to **Maintenance and Management** > **Event Management**

Go to **Access Control Event Tab**

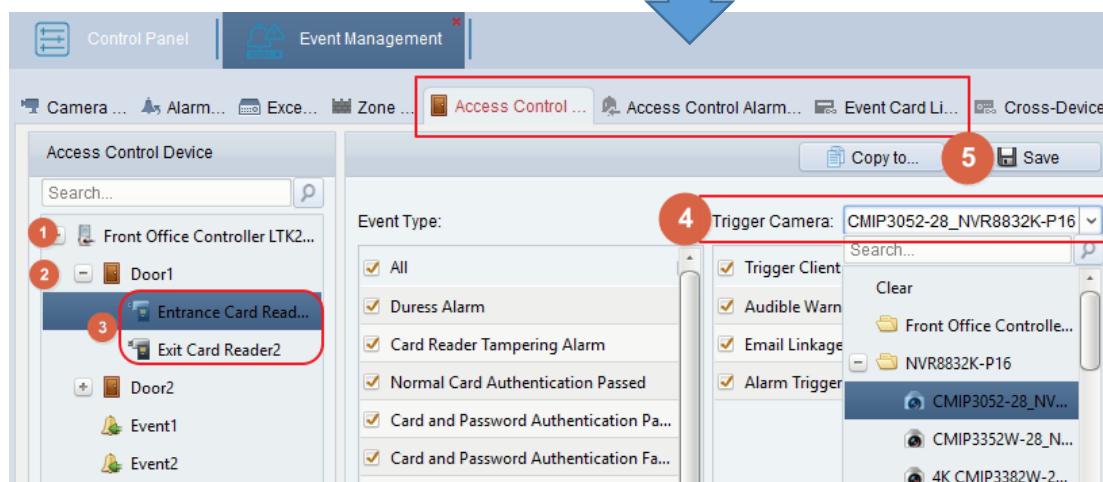


There are 3 tabs that are related to Access Control:

[Access Control Event](#) [Access Control Alarm Input](#) [Event Card Linkage](#)

Access Control Event
contains three sets of events:

1. Controller
2. Door
3. Reader
 - Link to 1 Channel Video
 - NVR/DVR
 - IPC
 - Doorbell
4. Click the **Save** button to save the settings



Each Video Device must have Recording Enabled. If there is no recording available on the system, you will only see Live View and would not see linked event playback

Access Control Alarm Input

Purpose: The access control alarm inputs can be linked to several actions (e.g., alarm output, host buzzer) when it is triggered.

Note:

The linkage here refers to actions performed in the client software NVMS7000 triggering an action on the controller.

Host Buzzer: The audible warning of the controller will be triggered.

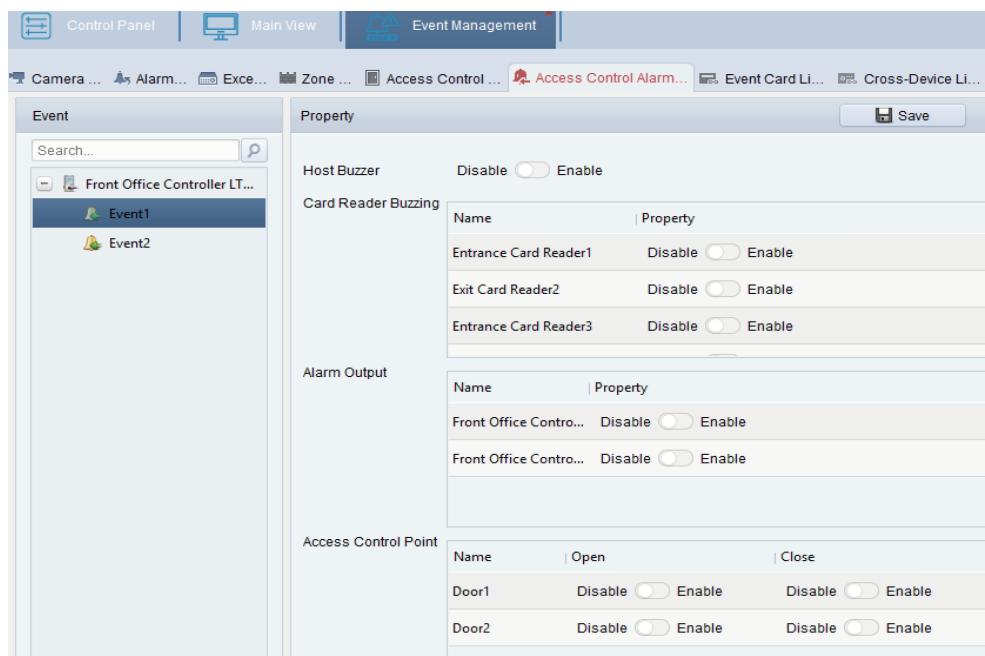
Card Reader Buzzer: The audible warning of the card reader will be triggered.

Alarm Output: The alarm output will be triggered for notification.

Access Control Point (Open/Close): The door will be open or closed when triggered.

Note: The Door cannot be configured as open and closed at the same time.

Click the **Save** button to save the settings



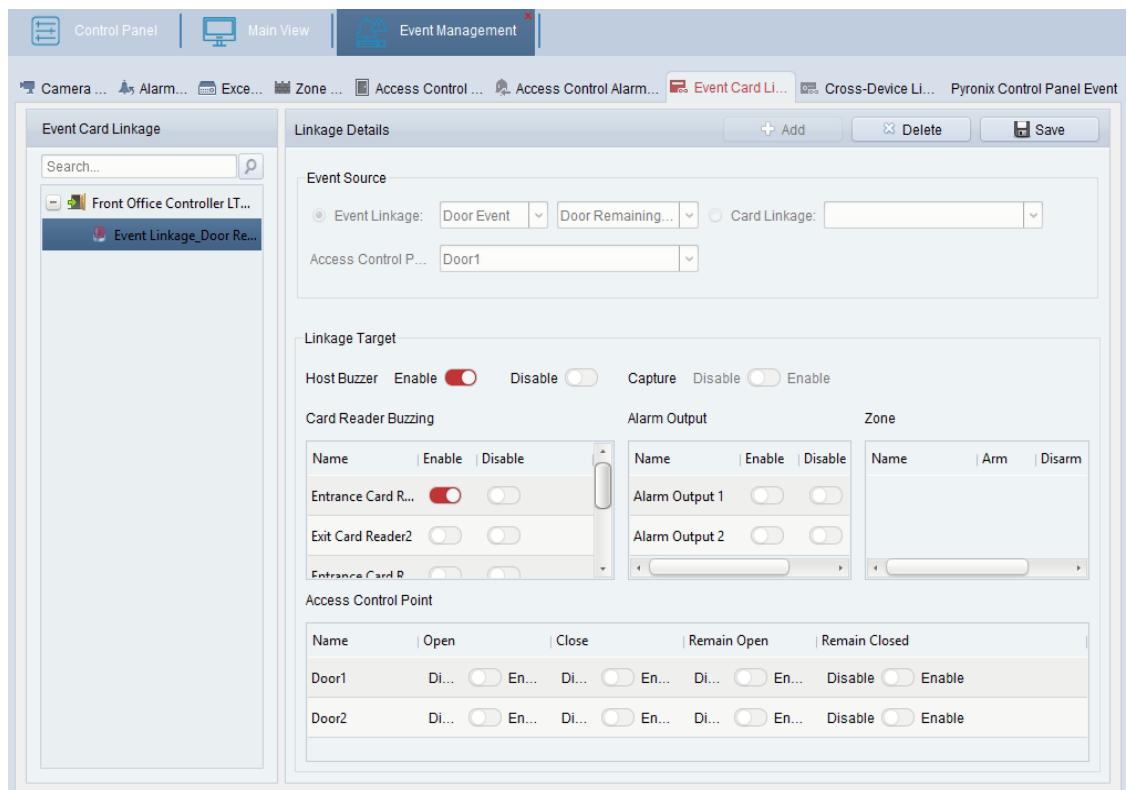
Event Card Linkage

The Event Card Linkage provides a way for the controller to perform an action (e.g., alarm output, host buzzer, etc.) when a specified event occurs.

The linkage here refers to an event triggering an action on the Controller.

Click **Add** to enable this feature.

For further explanation and setup for this feature, please refer to Page 86 in the User Manual



Alarm Event / Log Search / Video Live View



The Alarm Event Module contains the current day's Alarm/Event entries.



There are two ways to open it.

1. From the bottom panel.
(Displays only several entries)

In...	Alarm Time	Alarm Source	Alarm Details	Alarm Content	Live View	Send E...	Note
177	2018-03-14 17:11:42	Access Control Device:Front Of...	Front Office Controller LTK2802	NTP Auto Time Synchronization			
185	2018-03-14 17:26:41	Access Control Device:Front Of...	Front Office Controller LTK2802	NTP Auto Time Synchronization			
197	2018-03-14 17:41:41	Access Control Device:Front Of...	Front Office Controller LTK2802	NTP Auto Time Synchronization			
204	2018-03-14 17:46:47	Access Control Device:Front Of...	Door1	Unlock Door			

Alarm Event Motion Detection Video/Audio Exception Alarm Input Device Exception VCA Alarm Access Control Alarm Other Alarm

2. Or, Control Panel > Alarm Event to open it. (Open in full window)

In...	Alarm Time	Alarm Source	Alarm Details	Alarm Content	Live View	Send E...	Note
177	2018-03-14 17:11:42	Access Control Device:Front Of...	Front Office Controller LTK2802	NTP Auto Time Synchronization			
185	2018-03-14 17:26:41	Access Control Device:Front Of...	Front Office Controller LTK2802	NTP Auto Time Synchronization			
197	2018-03-14 17:41:41	Access Control Device:Front Of...	Front Office Controller LTK2802	NTP Auto Time Synchronization			
204	2018-03-14 17:46:47	Access Control Device:Front Of...	Door1	Unlock Door			

Alarm Information

Alarm Information:
Alarm Source: Access Control Device Server
Trigger Cam: IP Camera4_Server Room NVR
Alarm Type: Normal Card Authentication P...
Alarm Time: 2018-03-14 17:46:47

Captured Image: Configure

Please configure the related Storage Server

Tip:

If there seems to be an excess in NTP Auto Time Synchronization entries, The NTP Sync time can be adjusted to lower how often the time is synced with the NTP server. We recommend this setting to be set to 1440 to have the controller sync the time once per day (Refer to Page 10 of this document).

Tip: Automatic Popup Alarm Notification Window

To set the Alarm Notification window to automatically pop up in the NVMS7000 when a linked event is triggered:

Got to Control Panel > System Configuration > General, checkmark Enable Alarm Triggered Pop-up Image

System Configuration

Set frequently used parameters (e.g., log expiry date, alarm pop up image, etc.).

General

- Live View and Playback
- Image
- File
- Toolbar
- Alarm Sound
- Email
- Video Intercom
- Access Control

Log Expiry Date: A Month

Network Performance: Normal

Maximum Mode: Maximize

Enable Auto-login

Pop up Security Prompt When Using Default Password

Enable Alarm Triggered Pop-up Image

Pop Up Alarm Image for Minimized Client When Alarm Triggered Pop-up Image Enabled

Pop Up Error Message When Email Settings are Empty

Auto Time Adjustment: 00:00:00

Enable Keyboard and Joystick

Registration Management Server Port: 7660

Alarm Management Server Port: 7300

Default Value Save

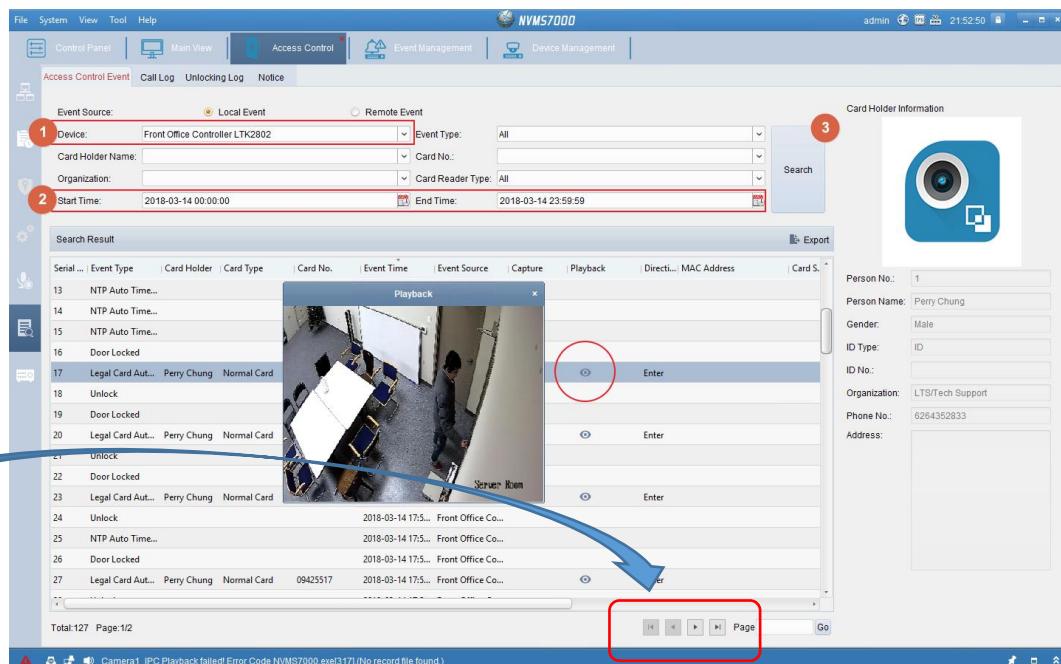
Alarm Event / Log Search / Video Playback

Go to Access Control > Log Search

1. Select Device
2. Set Start Time & End Time.
3. Click Search
4. If you see the Playback icon available, you can click the icon to playback the linked video footage.

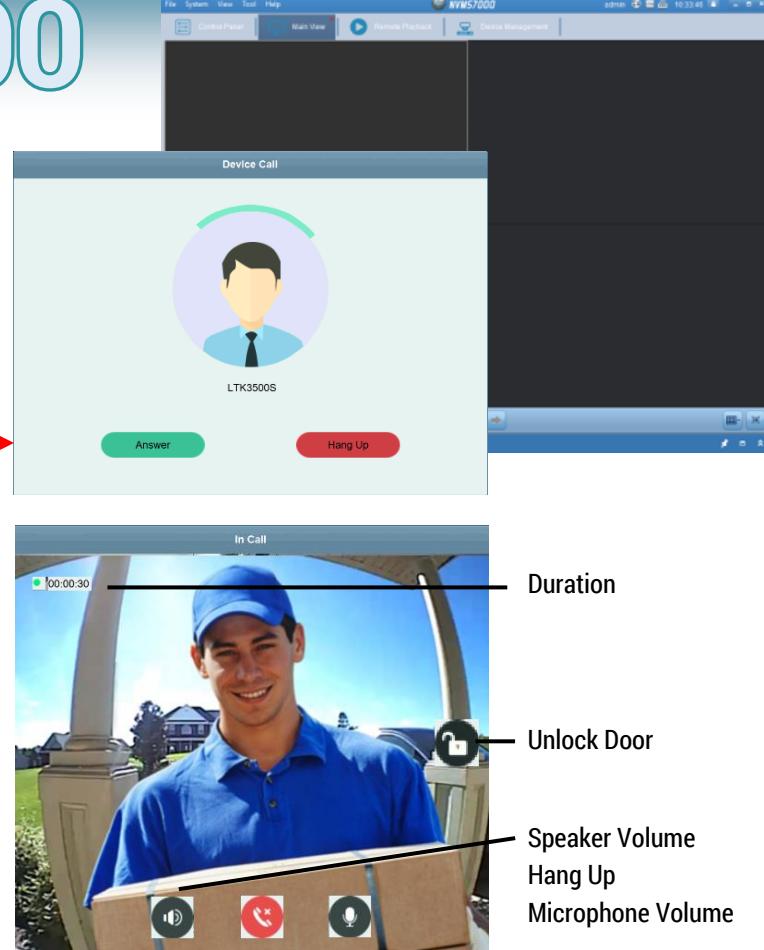
Note:

If your NVMS7000 window size is less than 1440x900. The scrollbar on the bottom of the window needs to be moved to the right in order to see the Playback Column.



PC-NVMS7000

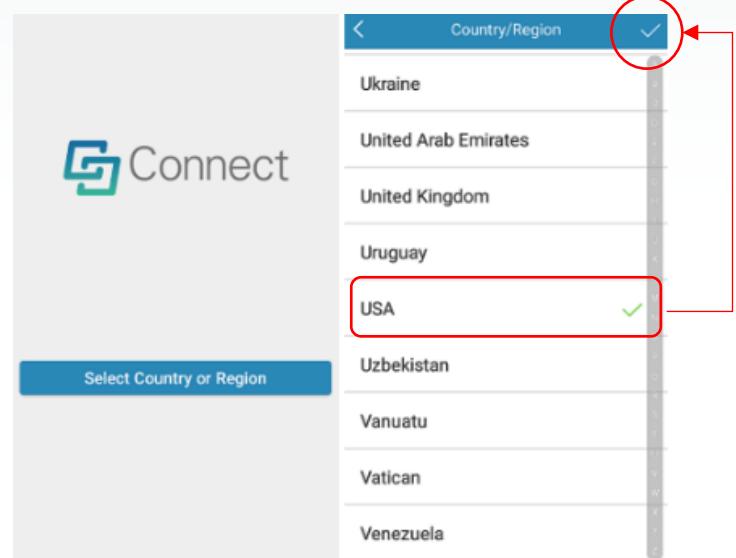
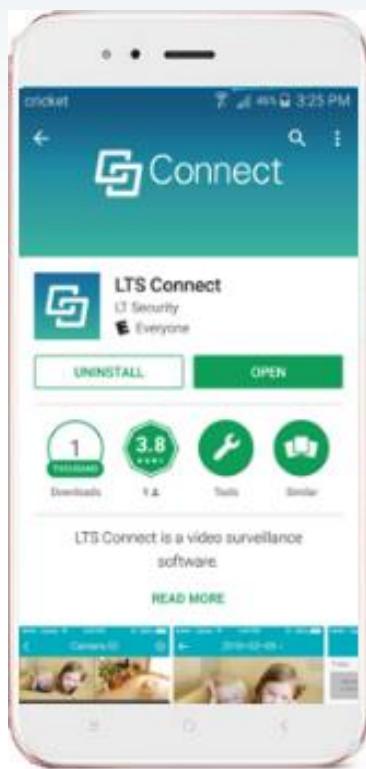
LTK3500S Video Calling

LTS-Connect

Mobile App: LTS-Connect

(Google / Apple)



LTS-Connect

1. Download the LTS-Connect App.
2. Click the 'Select Country or Region' button and set to USA .
3. Click the Login button (the top login button)
4. Enter your login info and password. Click Login
If you don't have an account, please register one first.
Recommend using an Email address to register an account.
5. Click (+) to Add the device. (or, use the top right +)
6. After Scanning the QR code (see Page 1) and click Add to finish.
7. Press the Call LTS-Connect button to test. (the Bell Button).

Note: LTK3500S does not support account sharing due to security reasons.



After successful login to the LTK3500S, click the device in PT-Cloud. Click the LTK3500S device. Tapping on the lock icon brings up a password prompt for unlocking the door. For the first time using the unlock feature, the LTK3500S will require you to create a new password for unlocking (default is the verification code). To change the password after it's been set, go into the settings of the LTK2500S.

Tapping on the Door icon will access the log info.
Tapping on the Gear icon will access the Settings.

For all other functions, please check the LTS-Connect Quick Guide.

