- 2nd Gen Compact Door Station
- See and Talk with Visitors via PC **or** APP
- Can Connect to Intercom Systems
- Mifare Card Reader, 1 Call Button
- Can Unlock Maglocks and Electric Strikes

LTH-303m-WIFI is a modern stylish intercom device with a compact design. The size is slightly larger than a computer mouse. It is sleek and professional looking when installed.
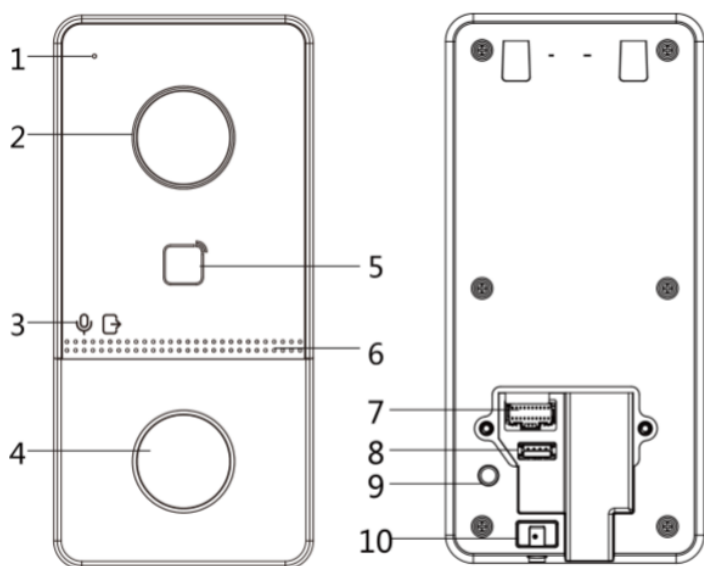
The LTH-303m-Wifi model is the same as the 302m-Wifi, the difference is that a new chipset is used and the firmware function upgrade of the WIFI programming part. So you may notice that there is a label of 302m on the quick release list, which is basically the same.

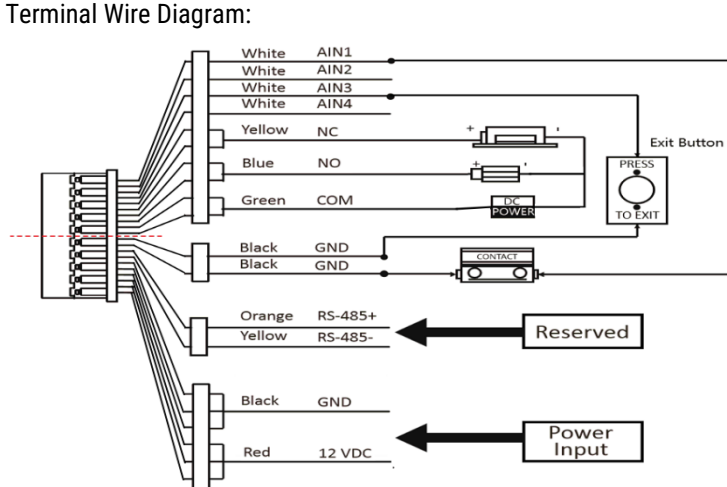From the beginning, there are three things you need to know about.

1. The White Tap Card. The tap card is designed for no network programming cards. It should not be used if you are connected to any network.
2. The SD card slot is disabled. You may notice there is a TF card slot/microSD card slot, but it doesn't have any function.
3. It is recommended to install the outdoor unit 303m and the indoor unit LCD 301GY together for a better experience.

Note: At the end of this document has some wire diagram example.

Hardware Description: (Boot up Time: ~25sec WIFI Prompt (if programmed), 30sec, Tamper Prompt (if open). **1min (READY)**)

1 Microphone	6 Loudspeaker
2 Camera	7 Terminals
3 Indicator Unlock (Green; unlock)	8 Debugging Port (no use)
4 Button (White Color; show at night)	9 TAMPER Sensor
5 Card Reading Area	10 Set Screw

Terminal Wire Diagram:

Concept

303m-Wifi   D301GY-WIFI

303m-Wifi is not defined as a doorbell device. It is defined as an __intercom__ device. the reason is simple. Traditional doorbells are trying to replace traditional doorbell push button devices. Usually, it requires AC19V and needs to be connected to the original chime device. However, if you don't have any of this issue, just install as a fresh device. Then you don't need to worry.

We recommend you to set-up

1x outdoor intercom 303m-Wifi and
1 x Indoor LCD Station D301GY-Wifi Device.

The reason is simple, the communication between mobile APP and PC is more convenient and easier.
Especially if you have 2 outdoor station situations.

About how to setup, I will explain in detail in a few pages. Note that if you also want to connect the mobile app.
Please scan the QR code from the LCD indoor unit. Not from the outdoor station itself.

In this Concept section, I will focus on the 2 Outdoor device and 1 LCD Indoor device as example.

Outdoor Extension Method and DoorPhone Method

I only telling you what the difference is in between. You decide which method is better for your situation.

Traditionally, 1x the Outdoor (Main) and Outdoor (Extension)
All the extension (up to 8) will connect to the Main Outdoor first and calling the LCD Indoor Station after.

The DoorPhone Method
is the direct linking the DoorPhone device to the LCD screen.
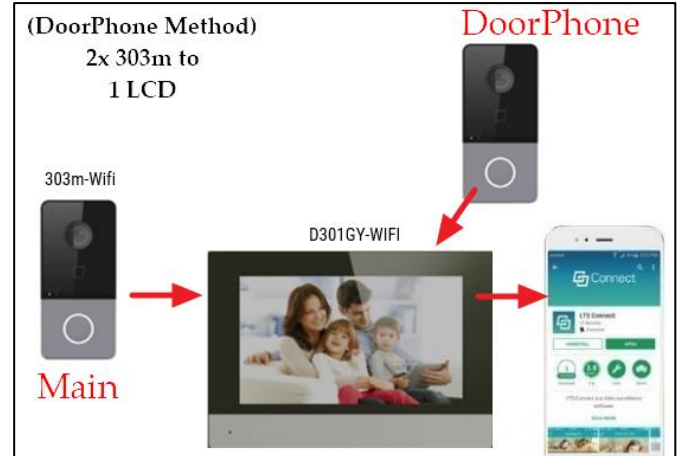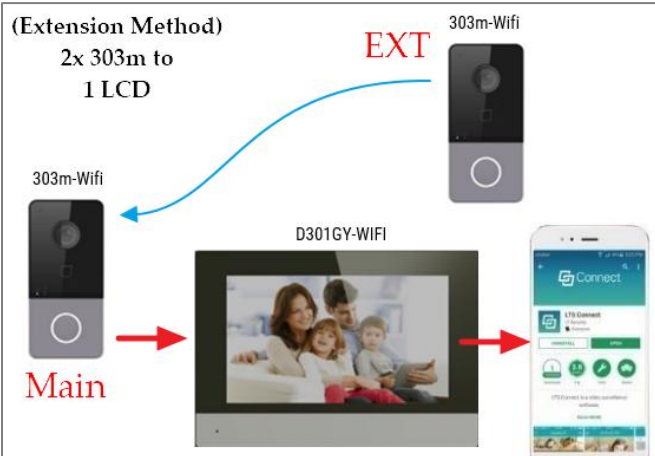
(Jimmy's Suggestion) So yes. You may have noticed the difference.
And, you probably notice there is a minor issue with the extension methods. If the master device is going down, the entire connection will be corrupted. But the DoorPhone method will continue to work even the master is down.

However, the DoorPhone method is only applicable to the case of 2 Outdoor stations. (Most installers will only use 2 outdoors)

But if you have more than 2 outdoor stations or more than 1 LCD indoor station.

I'd probably still recommend that you use traditional extension methods.

Regarding setup/pairing, I'll explain it in the next few pages. (see Page 7,8)
Now, let's go back to the basics first.

Activation is Required: LTH-303m-WIFI requires WEB / IP Portal / NVMSv3 to activate and create the password first.
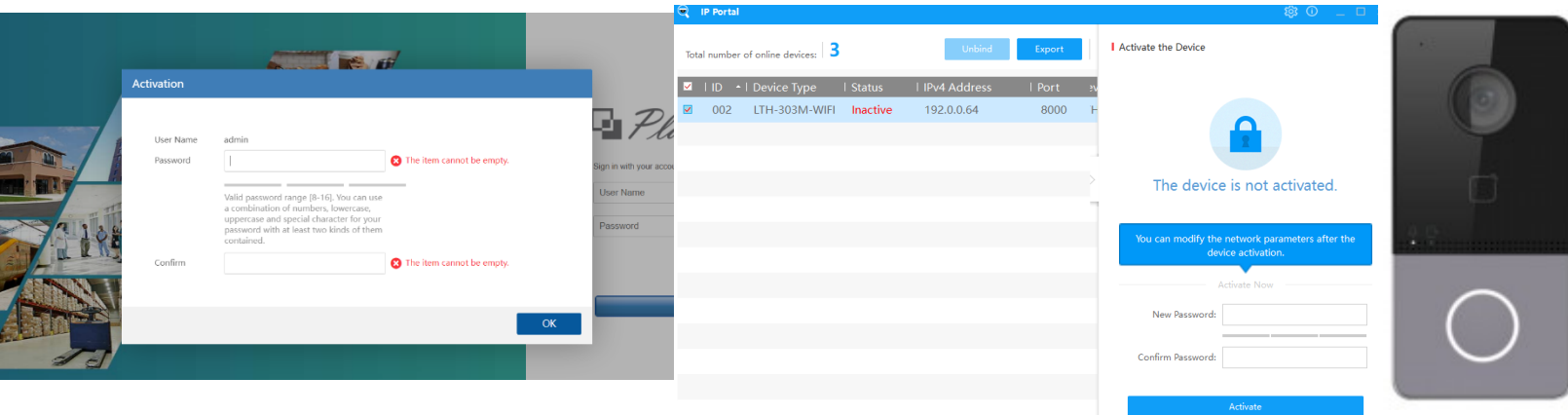
The default IP address is 192.0.0.64
1. Create admin Password & Activate.
2. Change the device IP address to connect the Internet.

Mobile App: LTS Connect

Once you are connected to the internet, you can use the Mobile app to connect and call. To use the LTS Connect App, you need to finish the following first. However, if you have the LCD Indoor Station, please see Page 5. Scan the QR code from the LCD screen instead.

1. Connect the Intercom Device to the Internet

2. Download LTS Connect and Register an account by using Phone# or Email. Get the Confirmation code from Text / Email, create LTS Account Login Password.
3. Add the QR code to this account.
   The QR code is located on the back of your device. A Verification Code is also printed there.

After you connect the intercom successfully, you can watch the Live View stream. The Microphone icon below the video steam allows you to talk 2-way with the camera without being on the call.

Use the Snapshot / Record icon to save footage onto your mobile device.
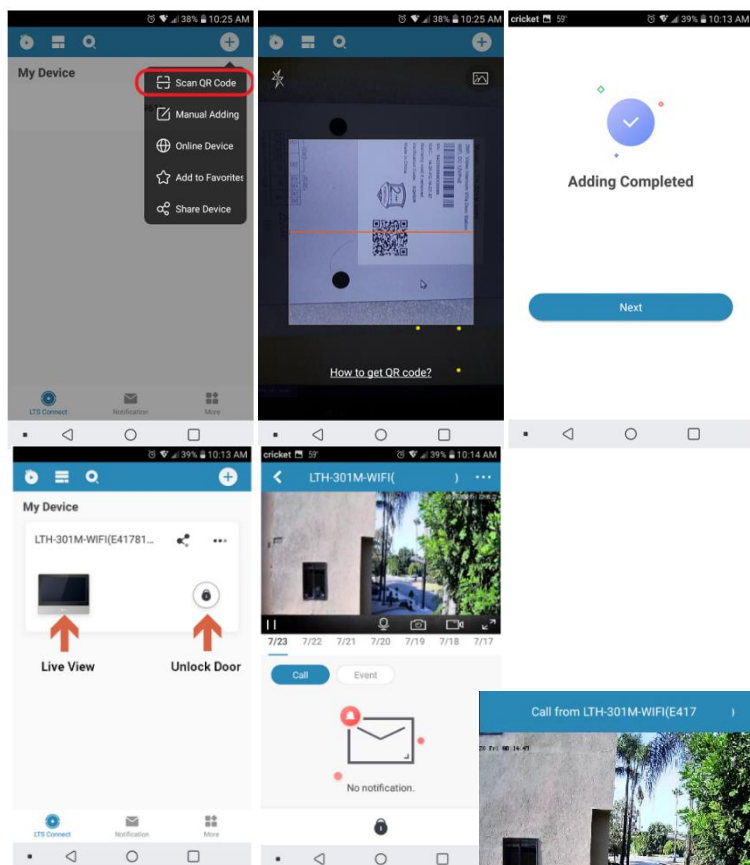
Calling Mobile App - Press the Call button

After setting up the Mobile App and connecting the intercom correctly,
when you press the Call button, it will call the mobile app by default.
If the intercom is not setup, you will get a 'Calling Failed' error message.
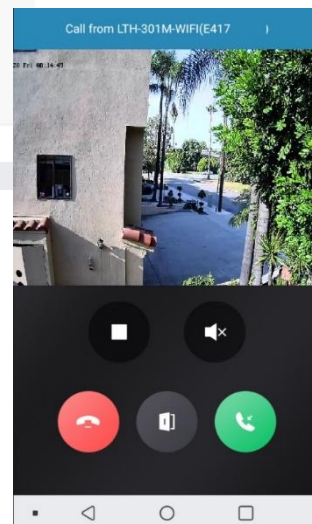
LCD Indoor Station D301GY – First Time Setup

If you have the LCD Indoor Station D301GY to setup 303m, the setup should be very simple. Please Power on the LCD indoor station first (PoE or DC12V).

When it is the first time setup the LCD indoor station, the Start Up Wizard will help you work thru the process. Let's create the Activation Password first. Then, select the Language.
After that, it is the LCD display network IP address setting. Make sure it is not conflict with any other devices.
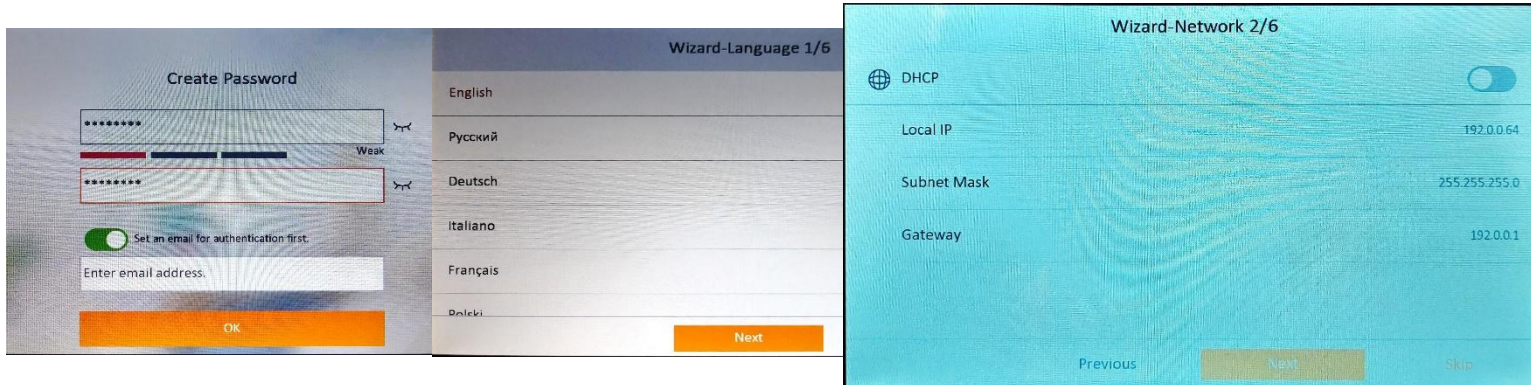
After setup the Network IP Address. It goes to the Wizard 3/6. In this 3/6 setting, you need to create the **Registration Password.**

This password will use for Linking in between each Outdoor Stations and Indoor Stations.

Next is the 4/6 setting. This is the PTCloud setting. If you want to link the mobile app, please make sure turn ON and setup the verification code. Next to 5/6
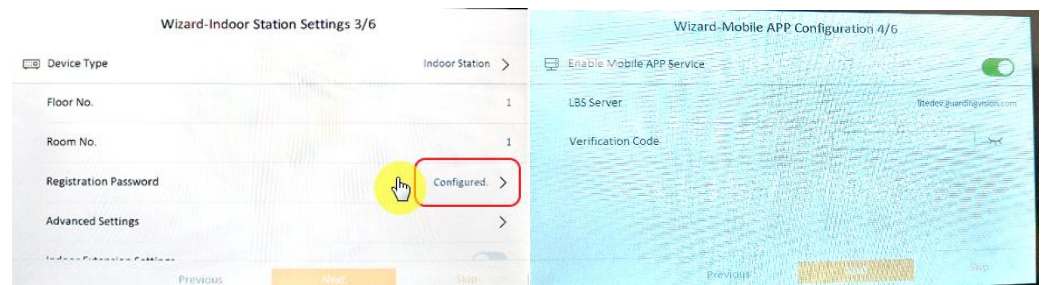
Recommend start with default setting of the outdoor station 192.0.0.64. Use the Gear icon to activate and modify the IP address.

(Reason) If you are starting with the previous active outdoor station, you may not know the outdoor is already linked with different address or other issue. So, recommend start with the default setting is wise decision.
Not: If you have more than 1x Outdoor Station, must use Windows PC NVMSv3 to program the 2nd outdoor station. LCD station only can connect 1 to 1 connection.

Make sure there is a Check mark at the beginning as selected if there is more than one outdoor device.
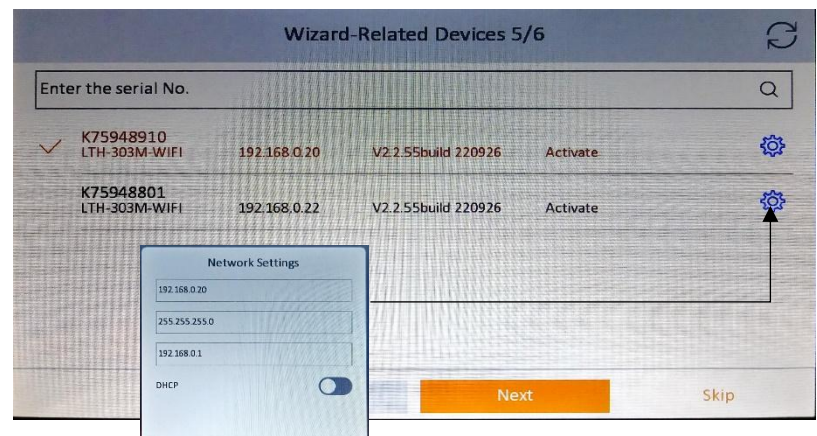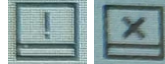
Final, make sure the Time is correct, then after waiting for 20sec. Then, it is completed.

**Congratulation,
You should be able to use it Now.**
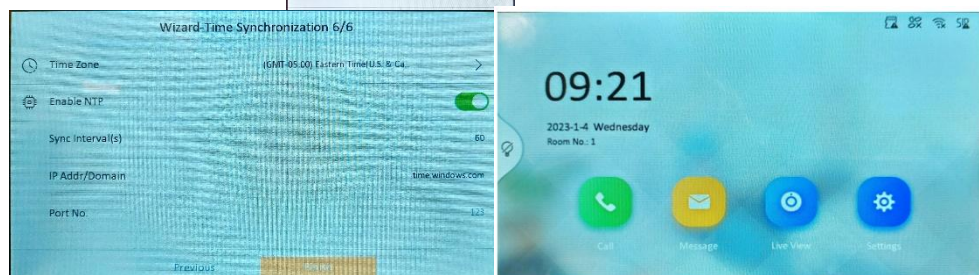
LCD Indoor Station D301GY - Status

LCD Status can help you troubleshooting makes easier.

Normal	**Authentication Fail**	**IP Conflict or Network issue**
SIP is not connected. So, no need to worry about this. That is Normal Symbol. The reason is the LCD Indoor station device is also capable to connect to the VoIP service. LTS do not provide 3rd party VoIP service.	If you see this message, I recommend you default the LCD and setup again thru the LCD panel. Or use NVMSv3 check the Main Device Management linking section. See Page8 for the trouble shoot.	Usually, IP Conflict will get able to view the Outdoor but not able Ring from the Outdoor situation. Another symbol (X). Mostly, there is a network cable issue or can't get the network signal.

Other Status Message:

1st icon
No SD Card
Here is a SD
card slot under the LCD screen. The SD card is only
supporting the Snapshot feature.
Not for the video recording.

2nd icon – Cloud is not connected.
Either you didn't enable the PTCloud or the LCD station is not able to reach to the internet.

3rd icon – Wifi connection
LCD Station is connected to Wifi or not. Currently, it only supports 2.4Ghz Wifi network connections.

4th icon – see Above describe.

Call   This LCD indoor station is not only designed for the 303m devices. You can use this Call button to contact another LCD indoor station (Intercom) and calling each-others.

Message   The message function will show previous missing call or other messages

Live View   You can use this function to monitor the Outdoor Station without anyone pressing the call button.
You also can connect to the regular IP camera (support ONVIF; but needs NVMSv3 to program it. Not support video recording)

Settings the LCD Indoor Station Basic Settings.

IMPORTANT – IF YOU WANT BIND THE QR to MOBILE APP, PLEASE ADD THE 1st LCD SCREEN QR CODE, NOT THE OUTDOOR STATION QR

Where is the LCD Mobile App QR Code?

Main Menu > Settings (Gear Icon) >
Advanced Settings (Orange color) (Look Right picture)

Tap **Configuration** > (Enter Admin Password) >
Mobile App Configuration.
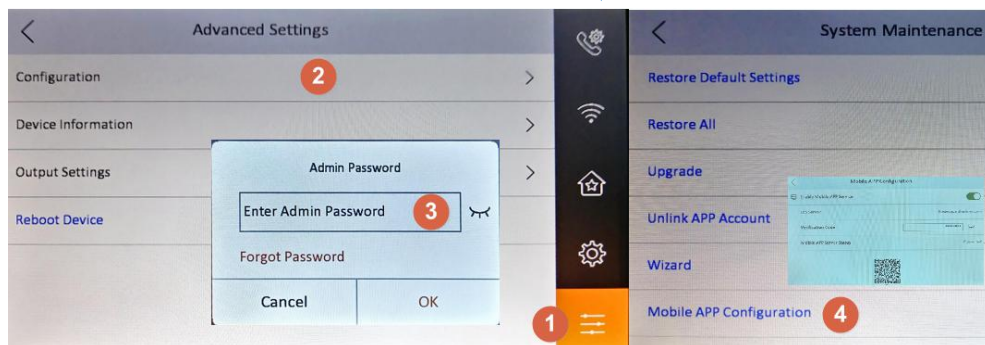
Install NVMSv3 & Adding Outdoor station (303m) & Indoor station (D301GY)

After the **NVMSv3** is installed, run the software. Go to Device Management and click 'Online Device'. You should be able to see it from the local network section at the bottom of the page.

(**NOTE**: Set the IP address correctly for your network before adding it)
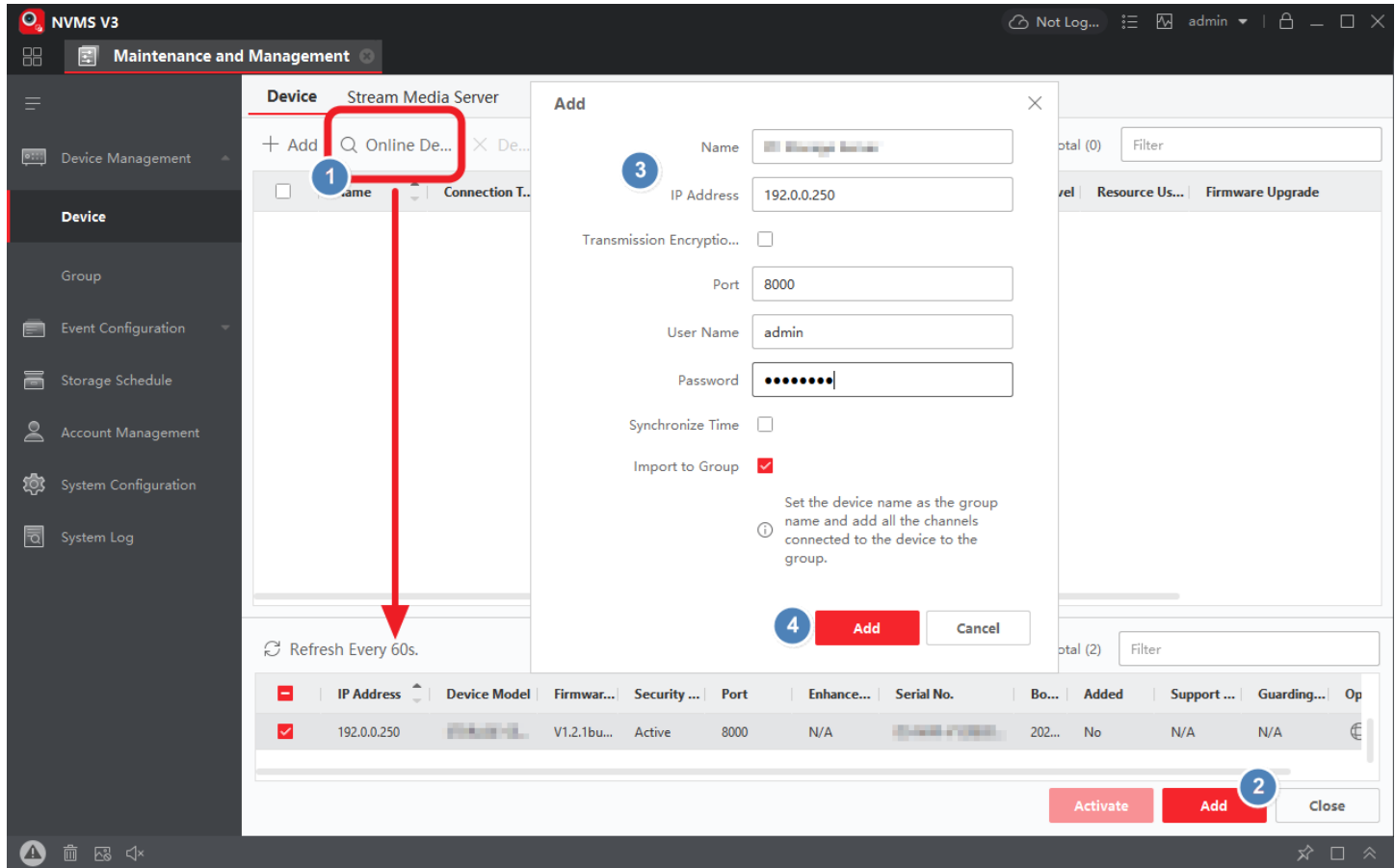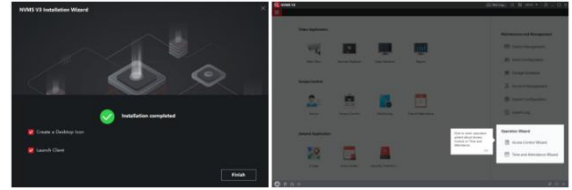
Remote Configuration

Make sure the device is **Online**.
Scroll to the right on the Device line item and you should see the configuration (operation) section.

(**NOTE**: If your screen is small and you do not want to scroll to the right side every time to access the Config button, you could customize the column (right click the header) to reduce the display column length. ie: remove the 'Firmware Upgrade' column.)

Click the Configure button.
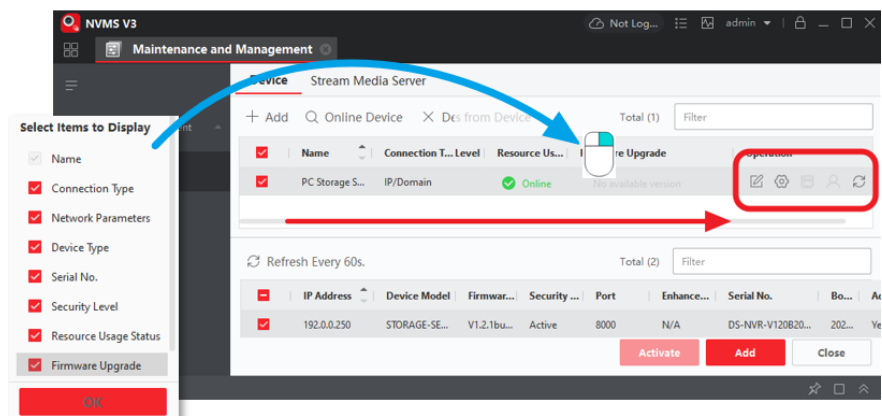
Pairing 101- Outdoor to Indoor with NVMSv3
Adding Outdoor Station into Indoor Station without using the LCD Indoor station.

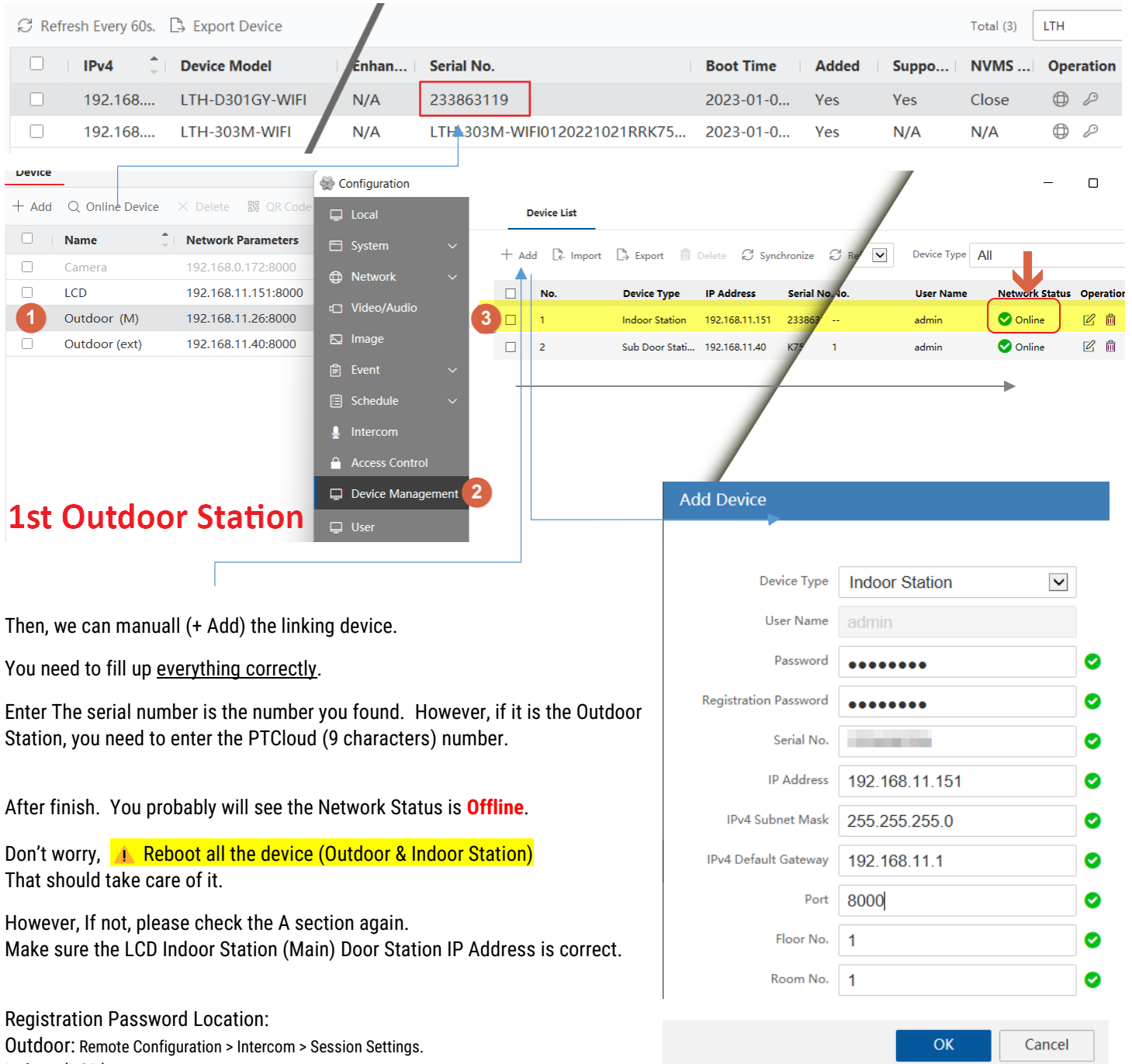If you have the LCD panel but not able to program it from the device itself. Then, this section should be important to you.

I separate A B section in here. Make sure indoor/outdoor device are the default setting.
If you already have any device is not default, check B section for the trouble shooting.
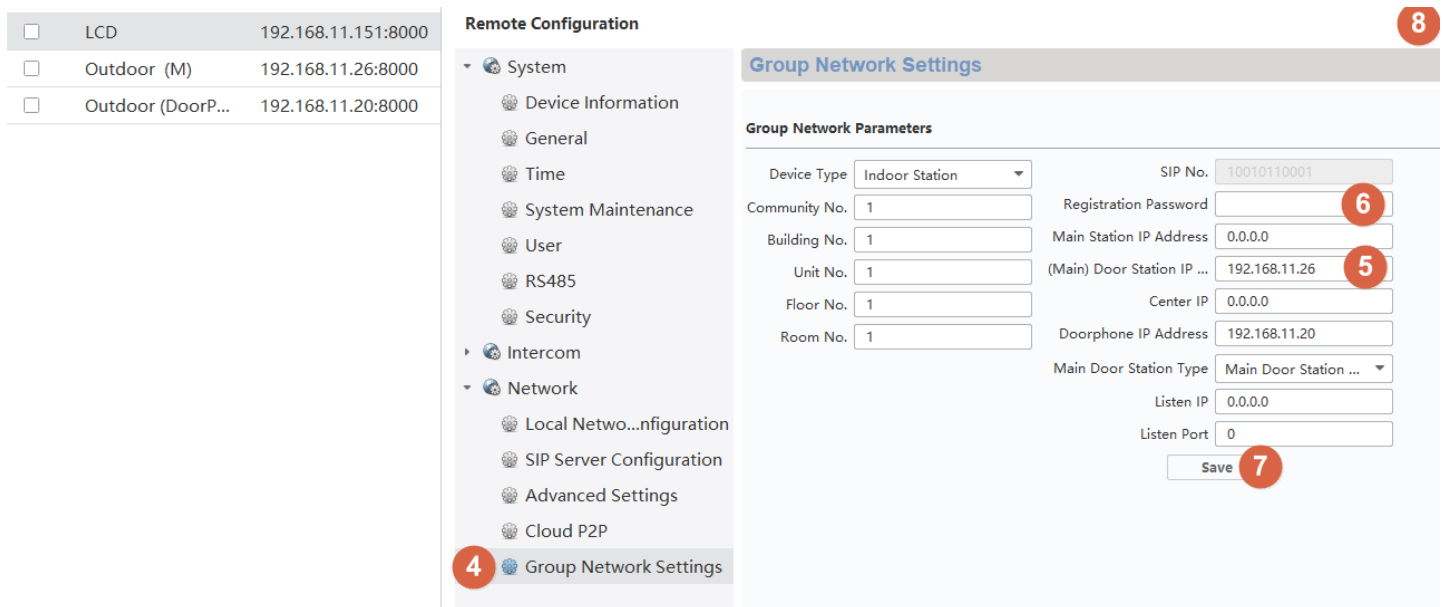
> Example: IP Address define as below
>
> **LCD** indoor station   192.168.11.151
> Outdoor Station (M)   192.168.11.26

A Section (LCD)   (Both Indoor/Outdoor Station are default setting. IP address is already setup)

1. Let's program the LCD device first.

☐	LCD	192.168.11.151:8000
☐	Outdoor (M)	192.168.11.26:8000
☐	Outdoor (DoorP...	192.168.11.20:8000

Remote Configuration

⑧

- ▾ 🌐 System
  - 🌐 Device Information
  - 🌐 General
  - 🌐 Time
  - 🌐 System Maintenance
  - 🌐 User
  - 🌐 RS485
  - 🌐 Security
- ▸ 🌐 Intercom
- ▾ 🌐 Network
  - 🌐 Local Netwo...nfiguration
  - 🌐 SIP Server Configuration
  - 🌐 Advanced Settings
  - 🌐 Cloud P2P
  - **④** 🌐 Group Network Settings

Group Network Settings

Group Network Parameters

Device Type	Indoor Station ▾	SIP No.	10010110001
Community No.	1	Registration Password	**⑥**
Building No.	1	Main Station IP Address	0.0.0.0
Unit No.	1	(Main) Door Station IP ...	192.168.11.26 **⑤**
Floor No.	1	Center IP	0.0.0.0
Room No.	1	Doorphone IP Address	192.168.11.20
		Main Door Station Type	Main Door Station ... ▾
		Listen IP	0.0.0.0
		Listen Port	0
		Save **⑦**	

2. Go to the LCD Remote Configuration
3. Then, you should see above picture **Remote Configuration Panel** as example.

4. Go to Network > Group Network Settings. (Note: if you see it in differently, please check you are using the NVMSv3, or it is the latest firmware first)
5. Enter the Outdoor Station IP address. Example: 192.168.11.26
6. Create a Registration Password. If you have no idea, example: abcd1234
7. Save it
8. Then, Close the Panel.

Then, it should be working for now.
However, if not work, **Reboot ALL(Indoor&Outdoor)** the device try first.
Otherwise, see the B Section

Please check the LCD Status
More detail, see Page 5

```
09:21
2023-1-4 Wednesday
Room No.: 1
```

> ## How to Factory Default the unit?
>
> For all Access Control / Intercom device, use Maintenance > **Restore all = Factory Default**
>
> 🖥 Configuration
>
> | 🖥 Local | Upgrade & Maintenance |
> | --- | --- |
> | 🗄 System ⌃ | |
> | System Settings | **Reboot** |
> | Maintenance | Reboot |
> | Security | **Restore Parameters** |
> | User Management | Default |
> | 🌐 Network ⌄ | Restore All |
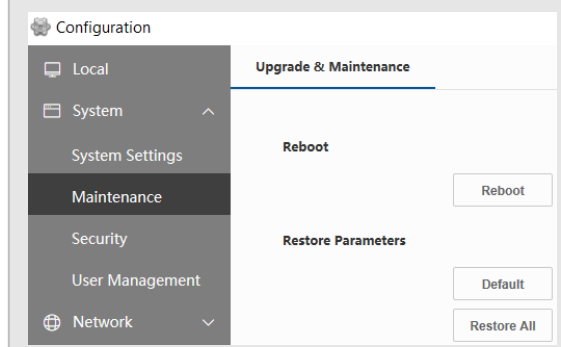
Pairing 101- Outdoor to Indoor with NVMSv3
Adding Outdoor Station into Indoor Station without using the LCD Indoor station.

B Section (Link from the Outdoor Station)

Usually, when you finish the Section A method, then it should be automatically creating the linking as right (yellow section).
The reason if not work because you need to make sure the outdoor is success connected it **(Online)**.
If you don't see the (Yellow Section) Linking section, you need to manually add it.
But before adding it, please find out the LCD Indoor Station Serial Number. **(You need it)**

1st Outdoor Station

Then, we can manuall (+ Add) the linking device.

You need to fill up underline everything correctly.

Enter The serial number is the number you found. However, if it is the Outdoor Station, you need to enter the PTCloud (9 characters) number.

After finish. You probably will see the Network Status is **Offline**.

Don't worry, ⚠️ Reboot all the device (Outdoor & Indoor Station)
That should take care of it.

However, If not, please check the A section again.
Make sure the LCD Indoor Station (Main) Door Station IP Address is correct.

Registration Password Location:
Outdoor: Remote Configuration > Intercom > Session Settings.
Indoor (LCD): Remote Config. > Network > SIP Server Config.
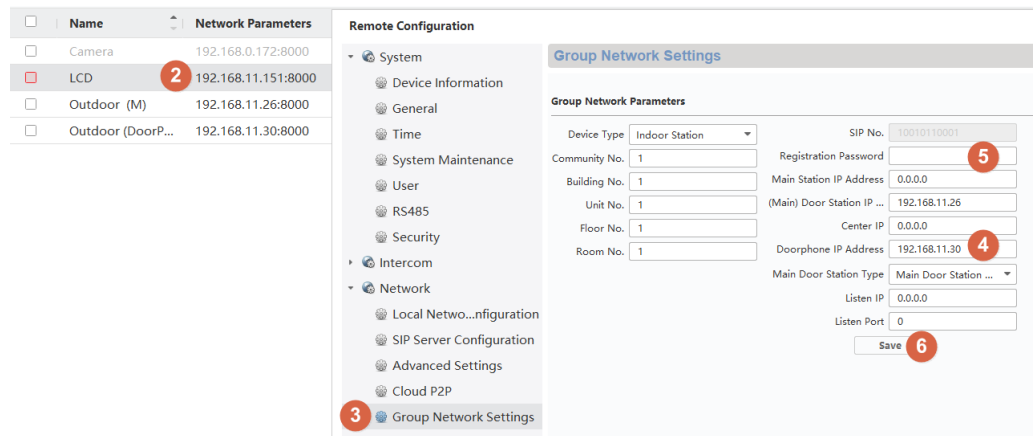
Pairing 201 – (DoorPhone) 2 Outdoor Station to Indoor with NVMSv3

I believe you already success connected the 1x Outdoor Station with the 1x LCD Indoor station.
Now, let's try connecting 2x Outdoor Station into 1x LCD indoor station. (See Page 2 - Concept)

DoorPhone Method

1. Make sure the 2nd Outdoor Station is activated and IP address set correctly. But make sure everything as default
(no setting changes)

2. Go to LCD Indoor Station.
Remote Configuration

3. Network > Group Network Settings

4. Enter 2nd Outdoor Station IP address

5. Create Registration Password. If you have no idea about this, try abcd1234

6. Save it and Close the Panel.

⚠ Reboot all the device (Outdoor & Indoor Station) (Bootup time 1mins+)

Then, it should be Done.

Trouble shooing Reference:

The LCD config panel will automatically switching 2nd Outdoor Station from the Villa Door Station to the DoorPhone mode after Saving.
At the meantime, add it into the 1st Outdoor Station Device Management list (see below picture).
You do not need programming the 2nd Outdoor Station. If you did program before adding, please default it before trying this method.
In the 1st Outdoor Station Device Management, please check the Online Status.

To make sure the 1st Outdoor station Connection Status is Online after the Reboot.
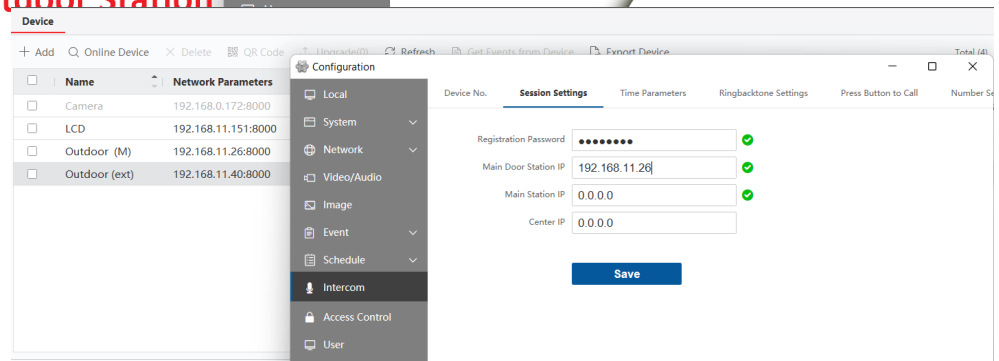
If it is not online, try reboot first (all of them). Make sure wait at least 1mins. Even there is a beep or prompt already. You still need to wait for 30sec after then try.

1st Outdoor Station

If it still doesn't work, make sure 2nd Outdoor Station Registration Password and IP address are matching the 1st Outdoor Station. Or try default the 2nd Outdoor Station try this method again. If it still not working, then you have different issue. (like firewall issue)
You may contact the LTS Support Line for more assist.

Suggest checking the LCD Status.
(see Page 5)

Pairing 201- (Extended Mode) 2 Outdoor to 1 Indoor LCD

Outdoor Station Extension is the traditional method.   You probably need to use this method if you have more than 2 Outdoor/Indoor Station devices.
To use this method. You need to program the 2nd Outdoor Station first. (see page 2 Concept)

Villa Door Station Extension Method

Go to the Remote Configuration > Intercom > Device No.   Change **Door Station No** (from 0 main) to 1. After Save, it will require reboot the device.
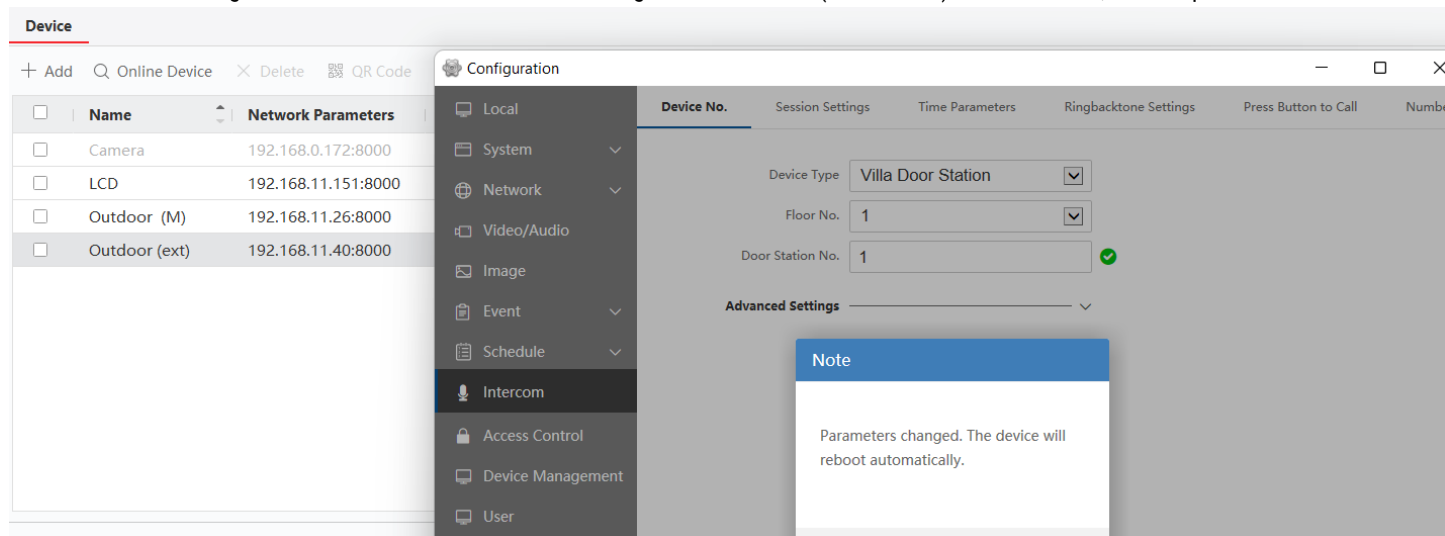
After reboot, you need change the setting again.   2nd Outdoor Station (Remote Configuration) > Intercom > Session Settings

2nd Outdoor Station. (see right pic)
Enter the 1st Outdoor Station
Registration Password and the
Main Door Station IP address.

Save and close the panel

Then, open the 1st Outdoor Station
Panel. **Remote Configuration >
Device Management**

**Most time, the 2nd outdoor
station will not automatically add
it. You need to add it manually**
and fill up everything and make sure it is there and Online
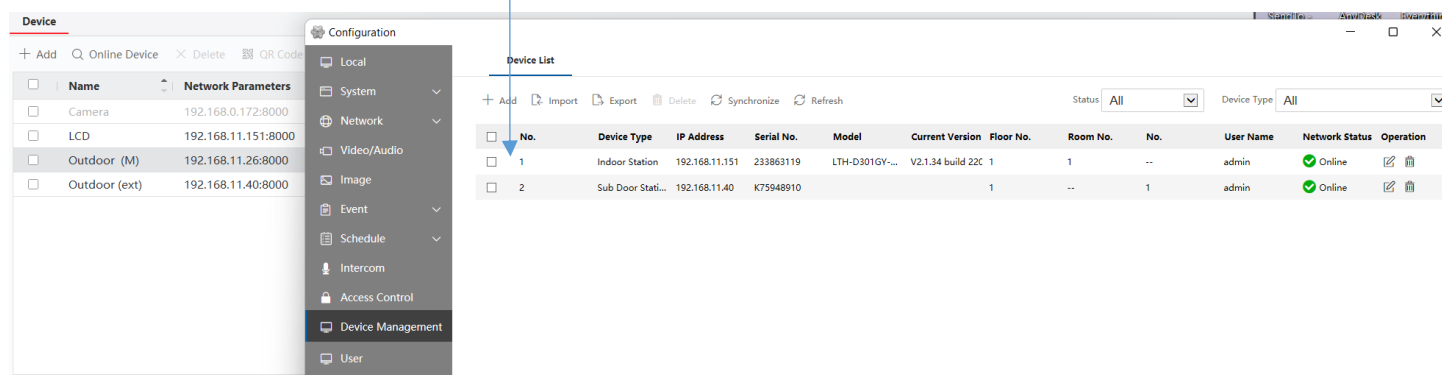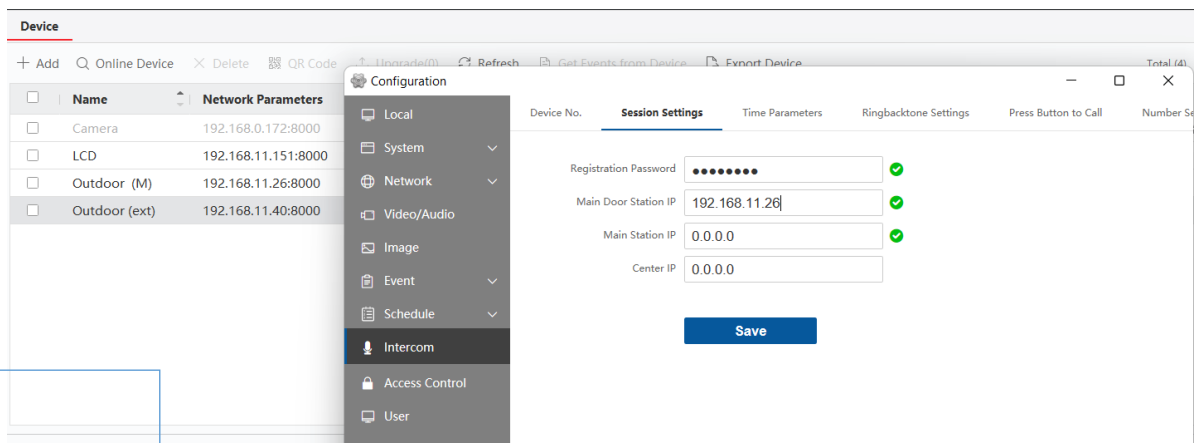
If it is not Online, you need to Reboot all the device and check again. (Remember bootup time 1mins even you heard some prompt already)

If there is any one device temporarily offline, then it will not show online. You must make sure every setting is correct, then it will be online.

Calling / Answering

When you answer from the LCD indoor station, you will see there are three buttons.

Green to answer, Red to reject and Blue to unlock.
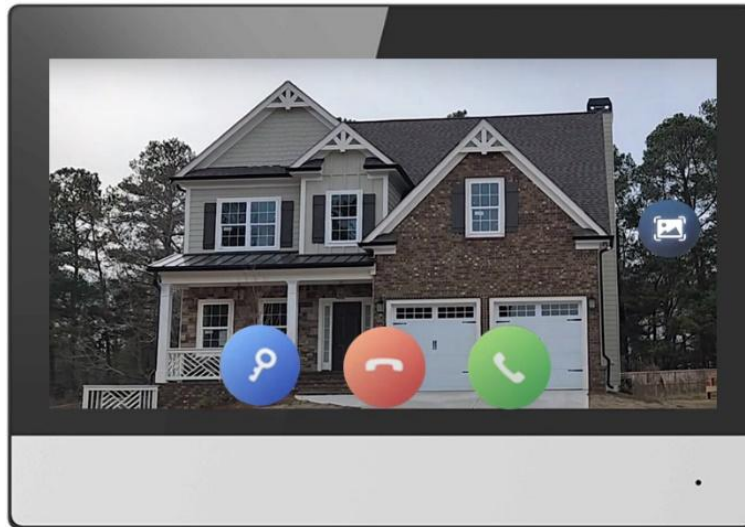
You can use the Picture icon on the Right Center to take a Snapshot.

The snapshot will be saved into the SD card if you have one.

Mobile App / Answering / Unlock

When you answer from the Mobile App. This is the Screenshot looks like.
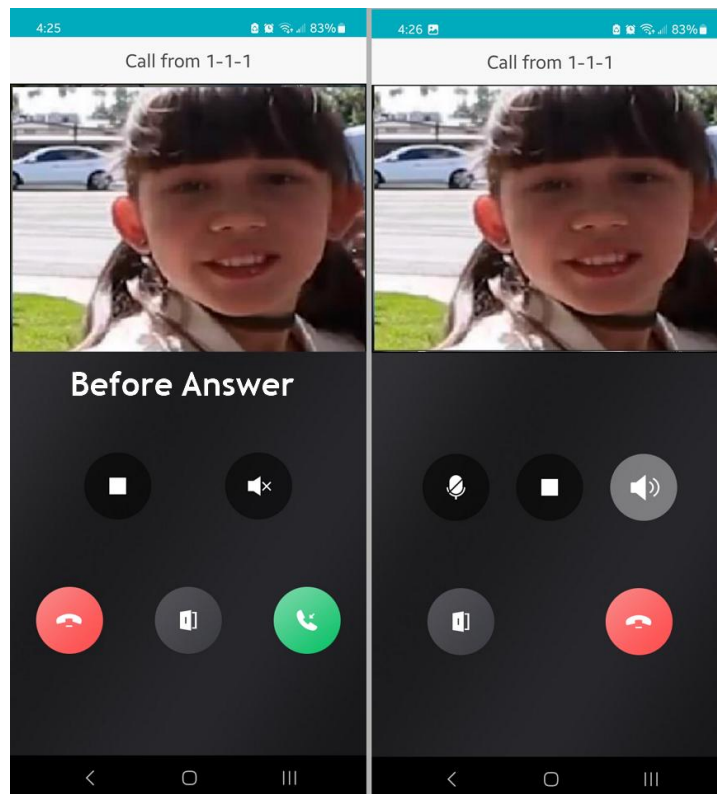
Call from the LCD Indoor Station   TO   NVMSv3
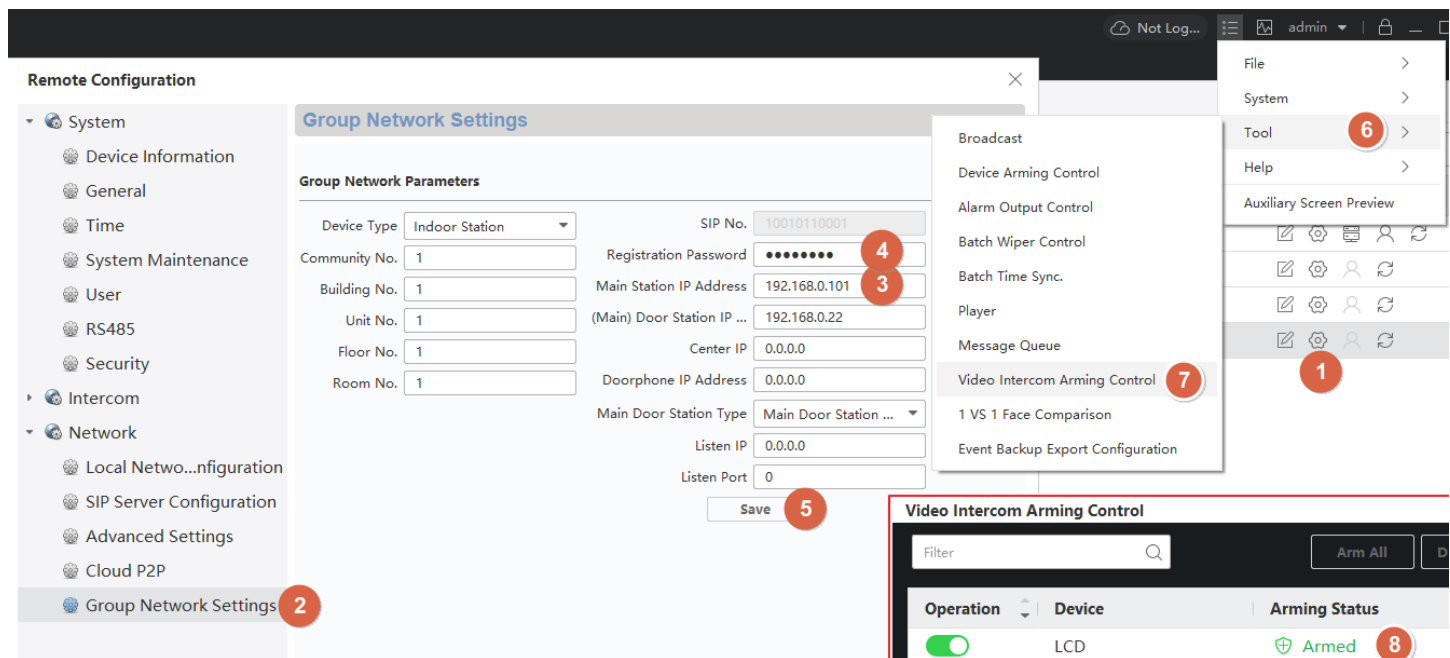
Turn On Call Management Center button

LCD > Settings > > Shortcut Settings > Call Management Center
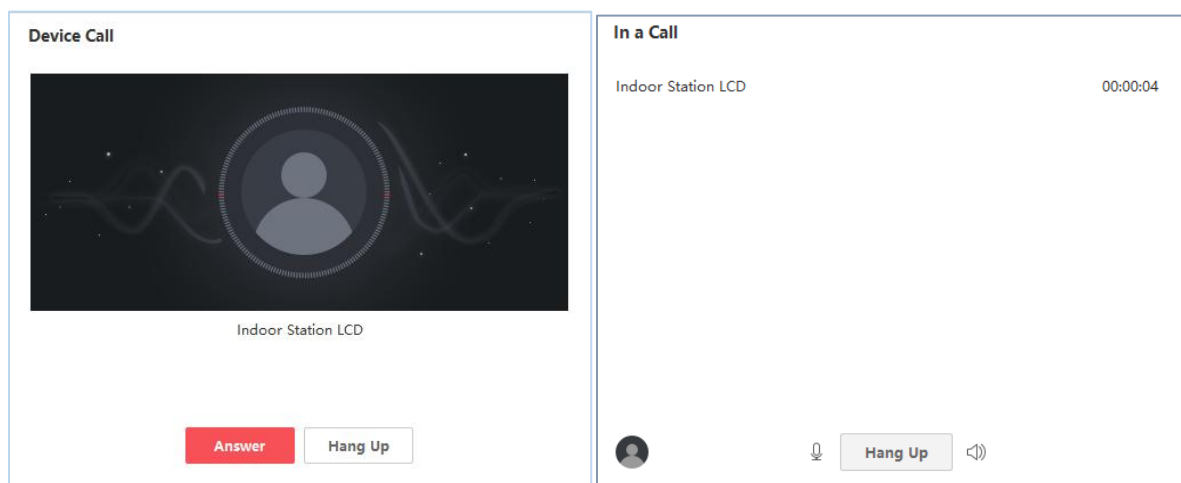
NVMSv3 Device Management

1. Go to LCD Indoor Station **Remote Configuration**
2. **Group Network Settings**
3. Enter the (NVMSv3) Main Station IP Address
4. enter the Registration Password
5. Save and Close the Panel
6. Go to **Menu** on the top > **Tool > Video Intercom Arming Control**

(Remember: LCD Indoor Station doesn't have Camera)

Call from Outdoor Station to NVMSv3

We rarely using this method, but just in case some customers want to do this way if you don't have the LCD indoor station. Remember, we always recommend the LCD indoor station is more convenient.
To use this method, you must turn on Windows PC with NVMSv3 all the time.

The Outdoor Station Press button is pointing to the LCD indoor station by default. Therefore, you need to redirect the button press to the NVMSv3 (Center)

1. Go to NVMSv3 Device Management
    Pick Outdoor Station >
    Remote Configuration

2. Select Intercom
3. Press Button to Call
4. Change Schedule to **TemplatePlan1**
5. Save
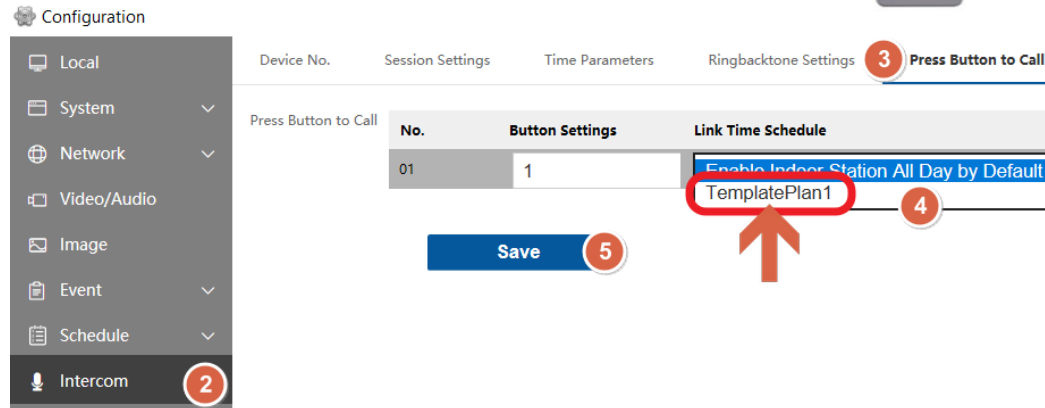
Now, we need to change the Schedule Setting

But first maximize the panel

1. Maximize the Panel
    Otherwise, you can't see the (8) Save button.

2. Schedule > Video Intercom
3. Select TemplatePlan1

4. Tap the **Center** icon

5. Draw the Time Bar
    (make sure its orange color) you may tap in the middle of the time bar to setup precise time.

6. Use **Copy** icon to apply all weekdays.

7. Scroll Down.
    Otherwise, you wont able to see the Save button

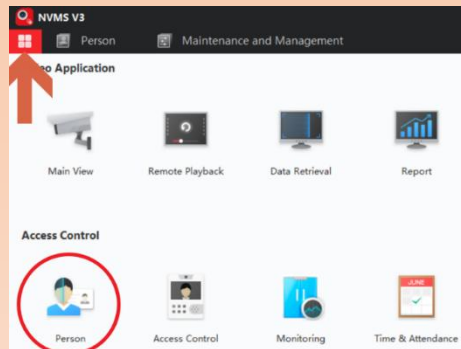8. **Save**
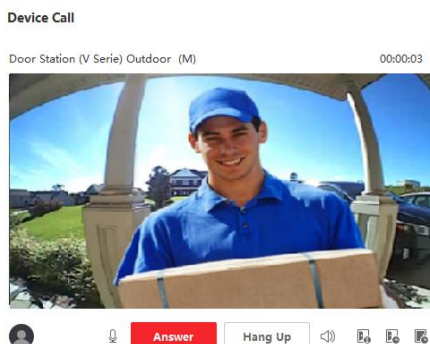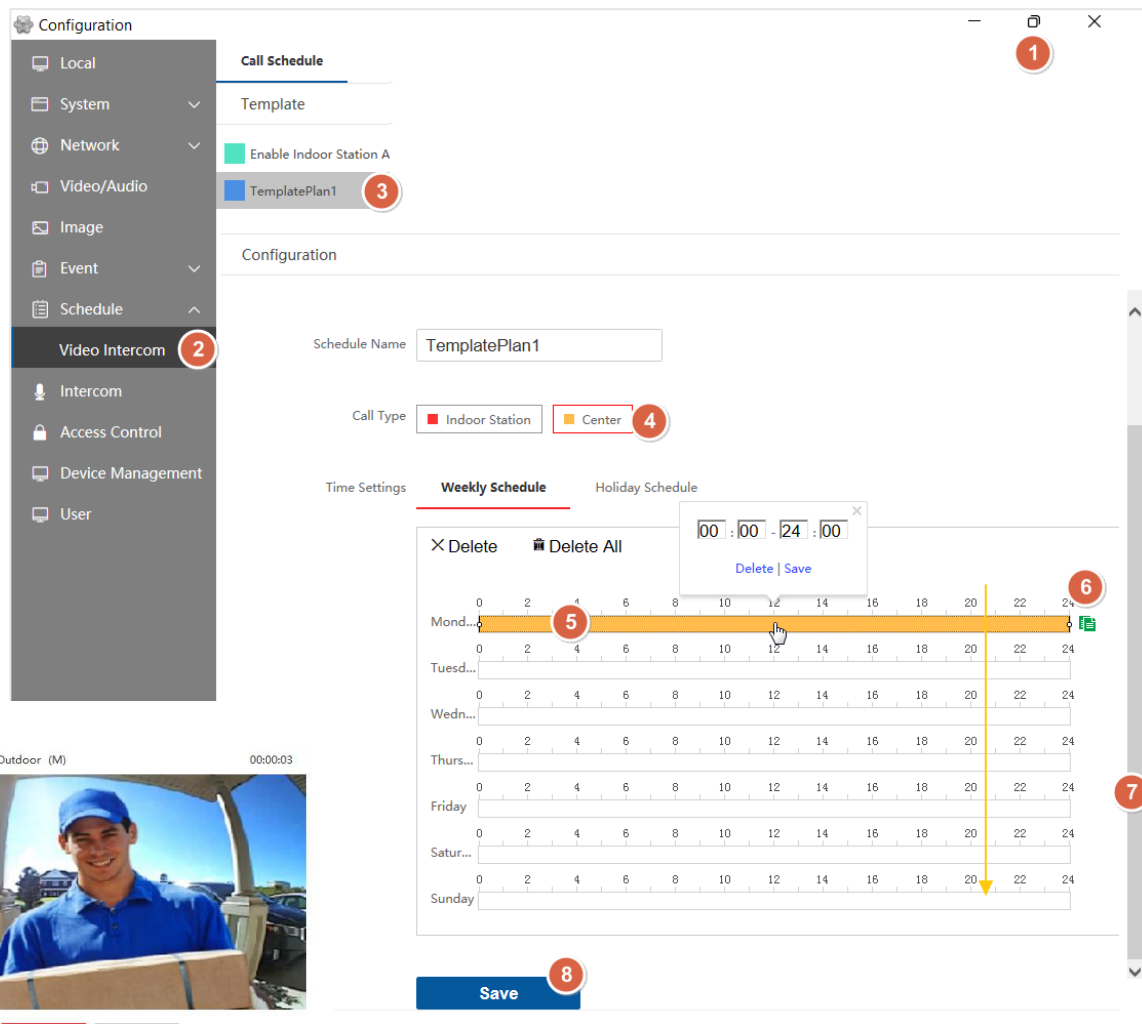
Now Try it.

NVMSv3

Access Control Client Software:

NVMSv3 (PC Only)   **Version Min Req: NVMS V3(V3.8)**
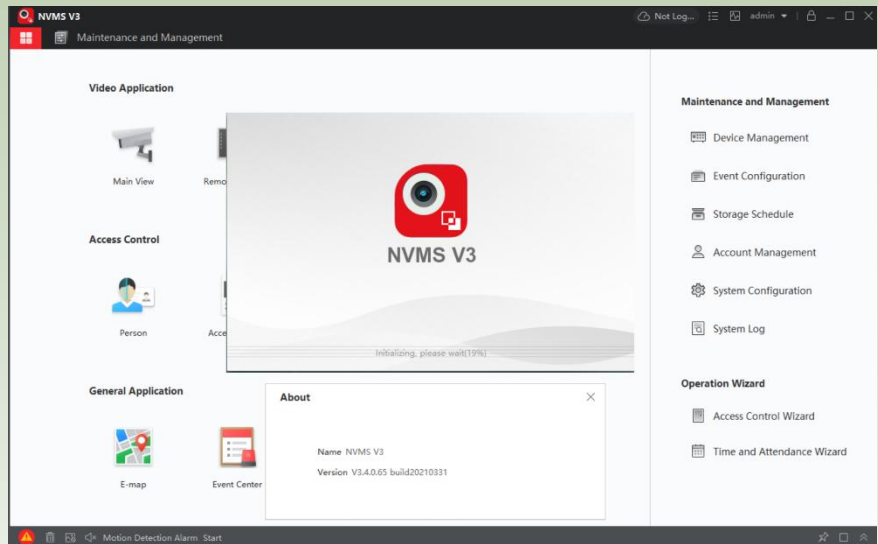
Add Card / Add Person   (Structure)

Menu > Person
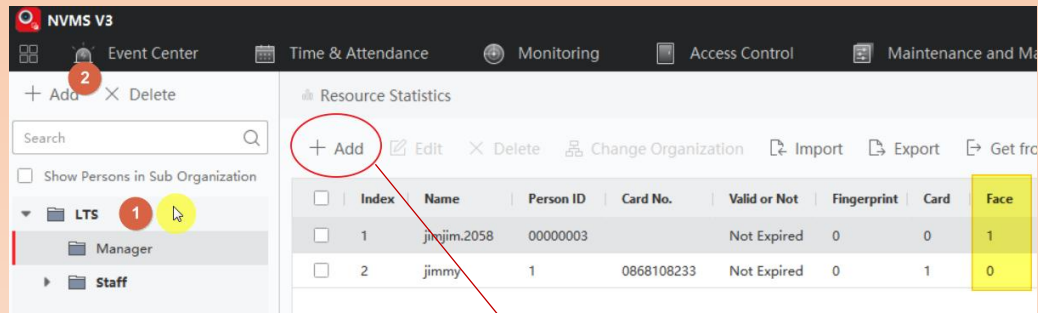
1. Please rename the Root structure to an appropriate name.

2. Click the root folder and click Add can create a department-level structure.
   For Example: click on **"LTS"** > Add > give a department/group folder name **"Manager"**.
   (Note) recommend only create 1 level group folder structure. Please don't create a group folder under another group folder.

(Note) Create a clear understand structure.

If you only have less than 10 people in the database, then this may not really matter to you. But, if you have more people in there, then a clear structure that makes a lot of different the management easier in the future.

Especially, when you try to program whole group to a different permission. All you need to do is select the whole group folder and apply to it, rather than you pick each person one by one to assign different permission manually.

3. Click + Add to set up your first person.
   1. **Add a person's name** first.

   2. **Add Picture.**
      Click Head picture, you can upload a picture, take the photo from
      PC desktop camera, or capture from LTK3410MF device (Remote Collection).

      Add Card. Add the Mifare Tap Card or assign a card number become as the punch access number (number must be unique)
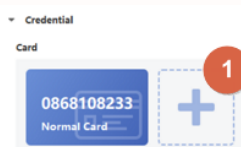
      1. Click + to Add
      2. Click Settings
      3. Click Card Reader
      4. Select Remote Device   OK
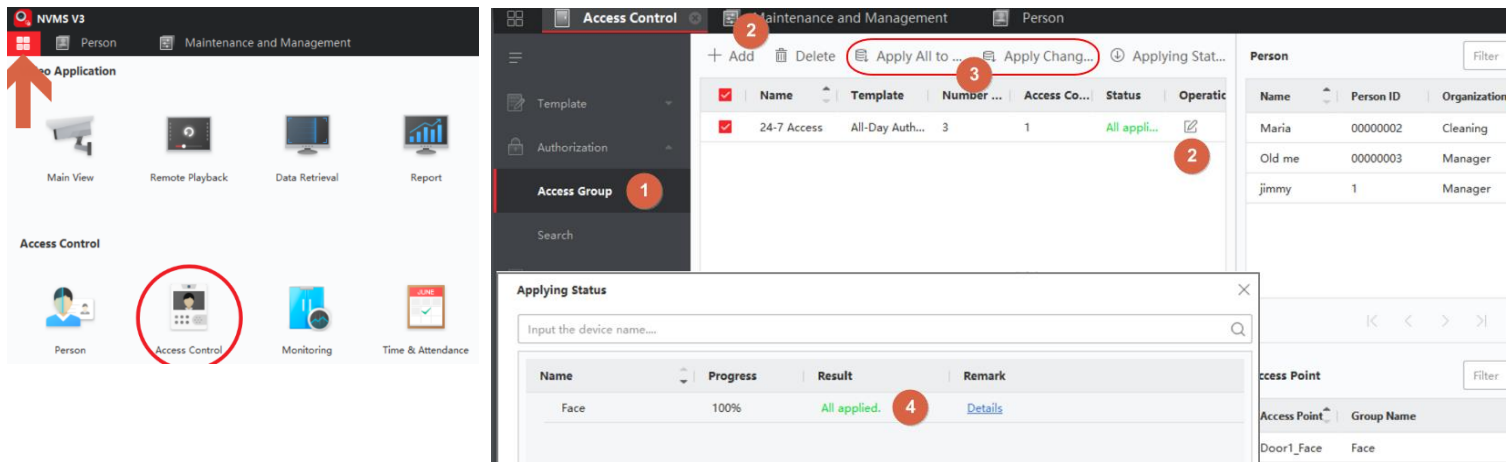   5. Click Read and go to the device Tap the Card to scan it.
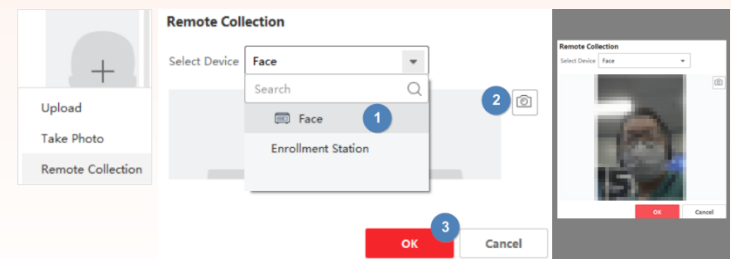
Access Group (aka Permission)

You need to assign the person to the access group, to let the door allows you to open.

i.   After click Add (2), you should see the dialog box on the right.
ii. Make sure to give an appropriate name. In Example, I named **24-7 Access.**

iii. If it uses a different Time **Template**, please select the correct schedule. (You need to declare it in the Template section first. See next page)

iv. Add Person to the Right side.
     OR you can select Group Folder to add all people at once.

v.   Add Access Point (Door) to the right-side panel.

vi. Click **Save** when finished.
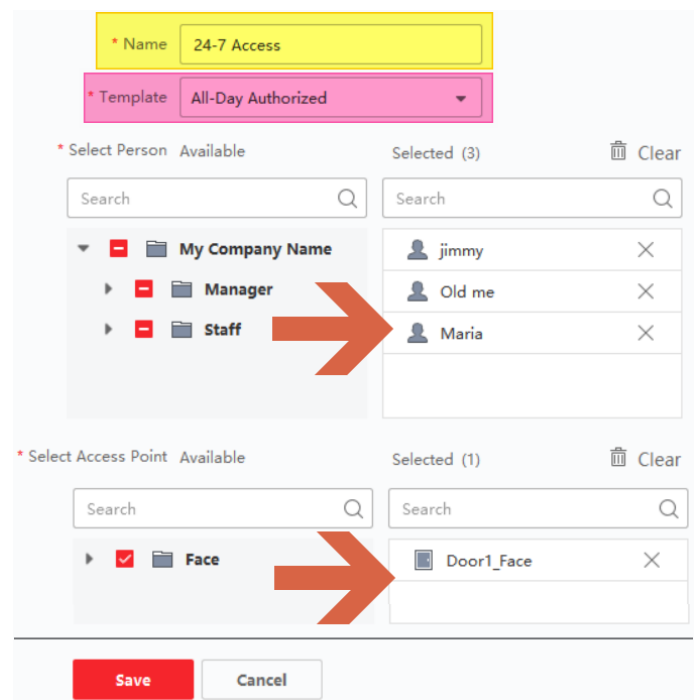
We are almost done with the Person/Permission Programming.

You need to click Apply to the device.

There are two different kinds of applications.
Apply Changes – Only apply the Change section to the device.
Apply All to the device – Apply all settings (aka Manual Override) to the device, even all the data has already existed and same.
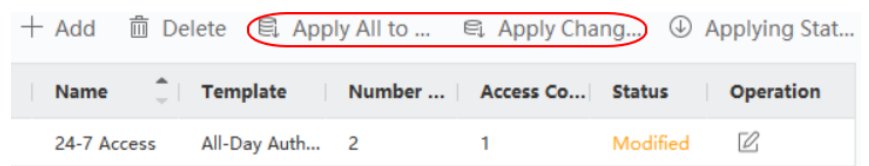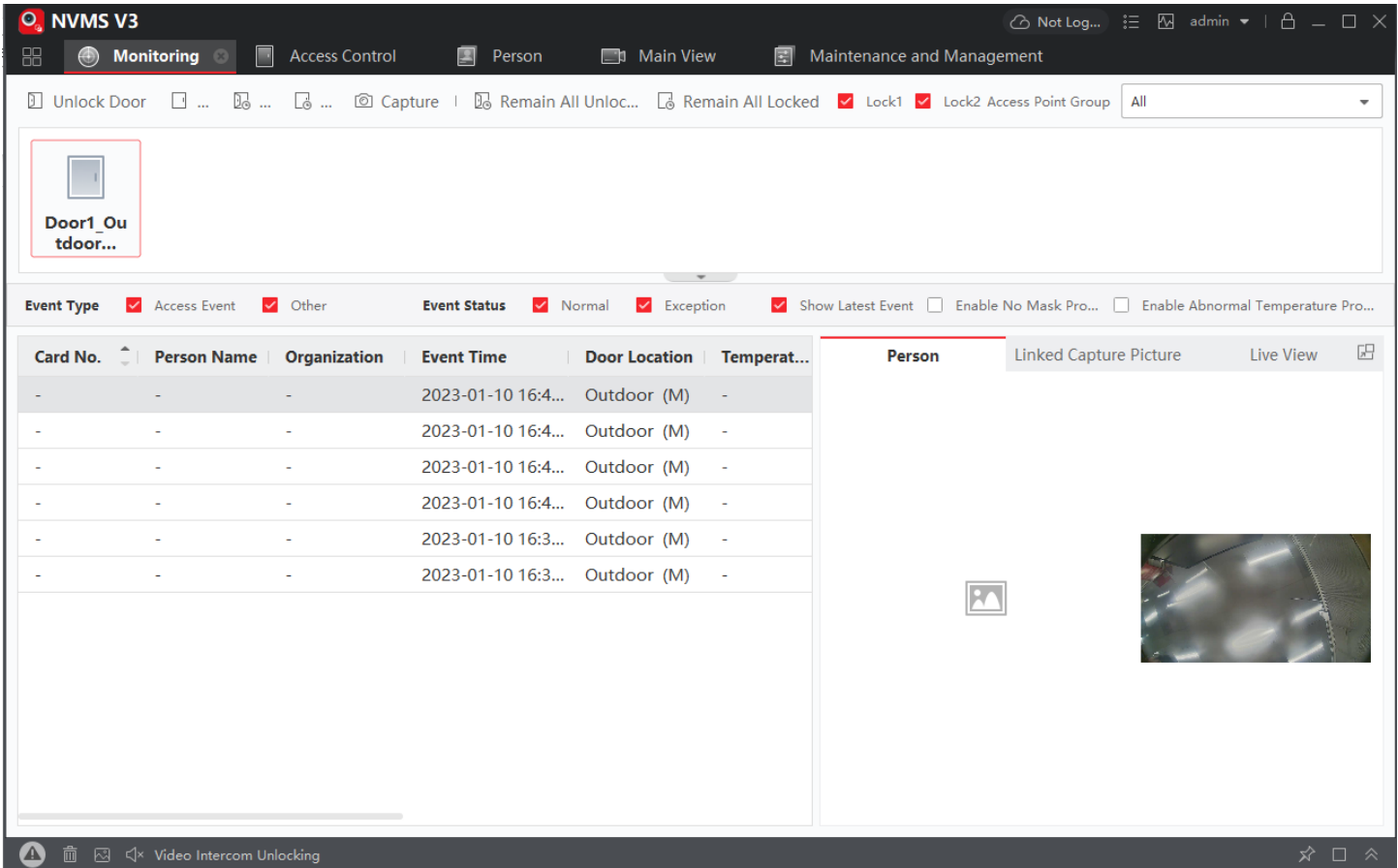
Congratulation, now you can Test the result.   Use the Facial to access or use the keycard to unlock it.

Monitoring – Open Door from the NVMSv3

You only can open the door for a moment. Can't do remain unlock.
If you want to remain unlocked feature, please consider Door Access Controller 2802/2804 device.
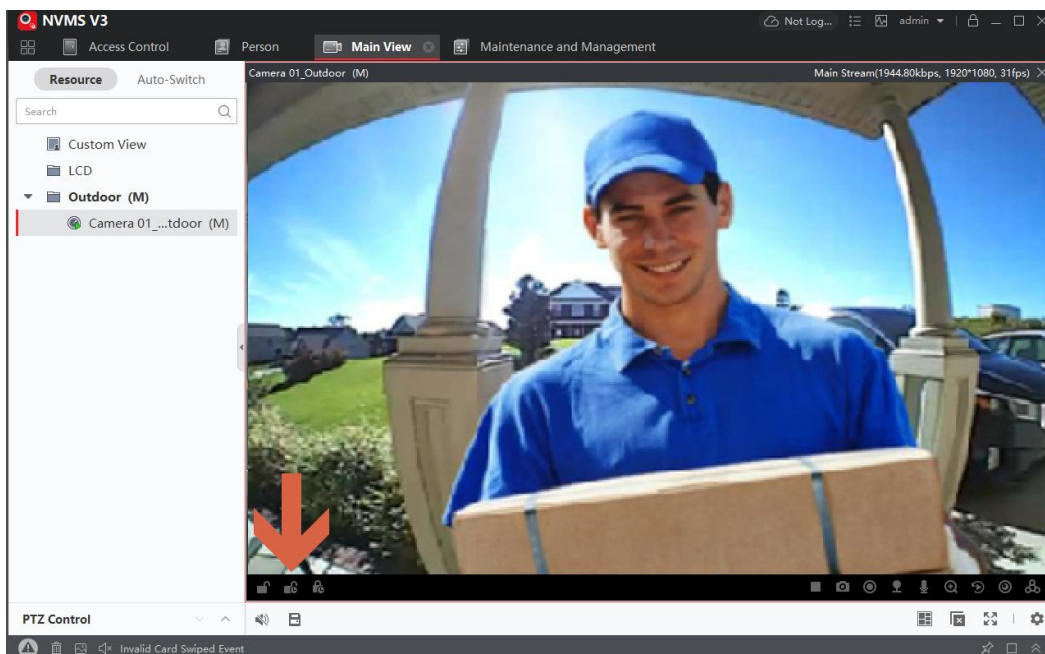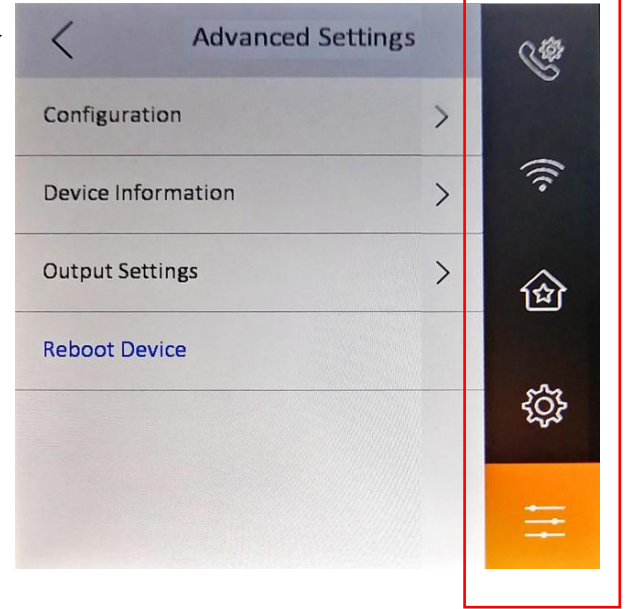

You also can unlock the door from the Outdoor Station Main View (LiveView).
(Note: You should look the Outdoor Station, not the LCD Indoor Station. Because it doesn't camera & door with the LCD.)
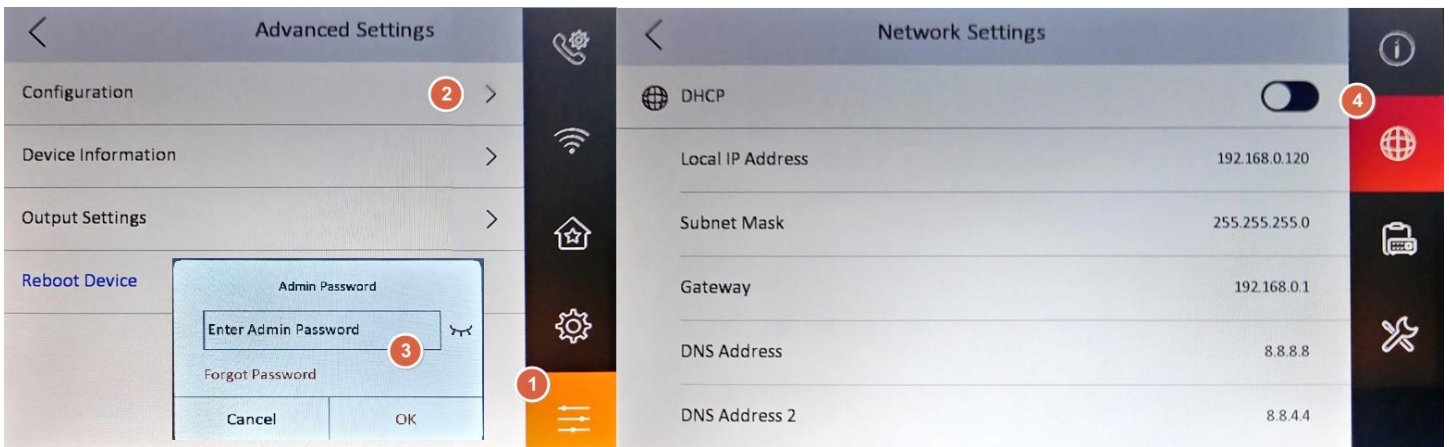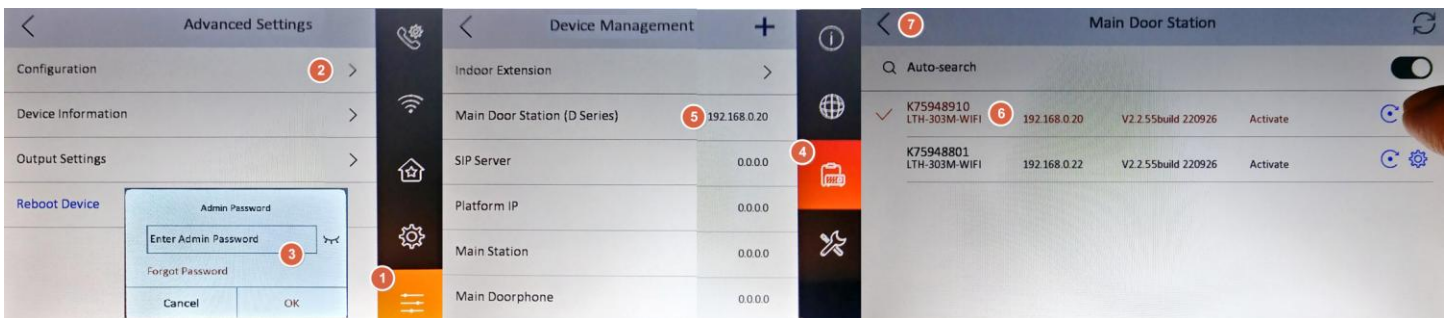
LCD Indoor Station Reference

Reboot

Settings > Advance Settings > Reboot Device

LCD Network IP Address Setting


Change Outdoor Station Selection

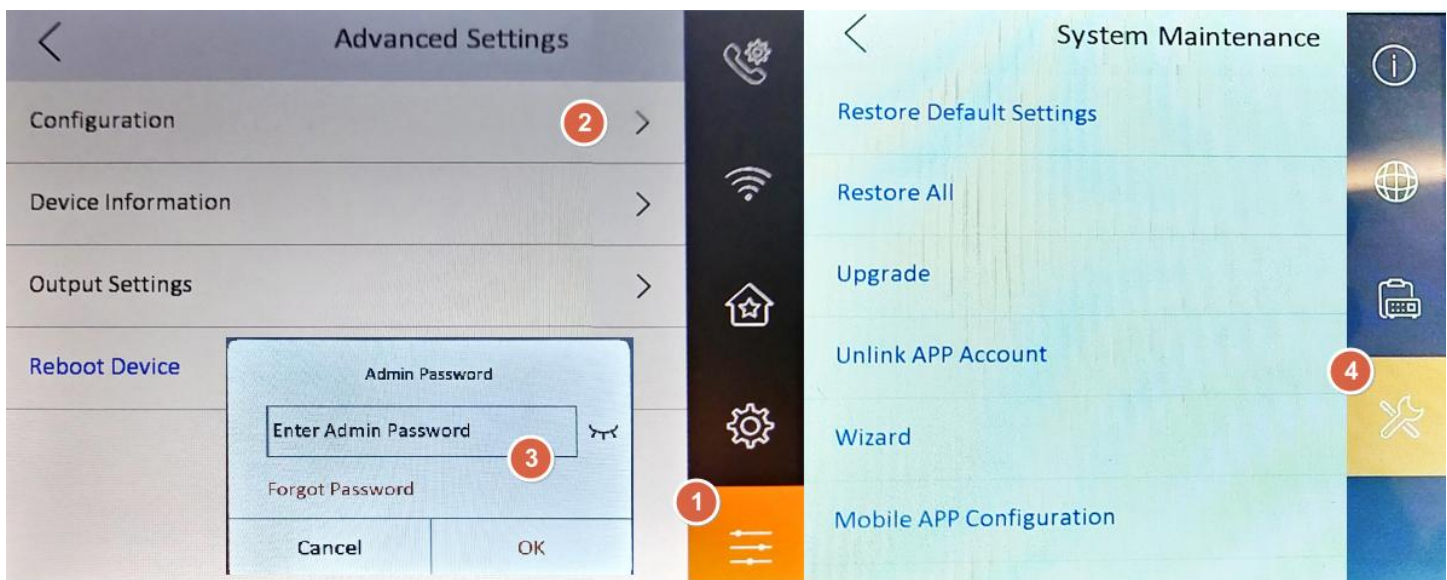**(Important) Make sure Go back to (7) to take effect.**

(troubleshoot) If you try to select the same address as before, please go to modify network IP address. Change the address and change it back again.
If the outdoor Station still can't Ring, please reboot Indoor & Outdoor station (REBOOT ALL)

Connect IP Camera to the LCD Indoor Station
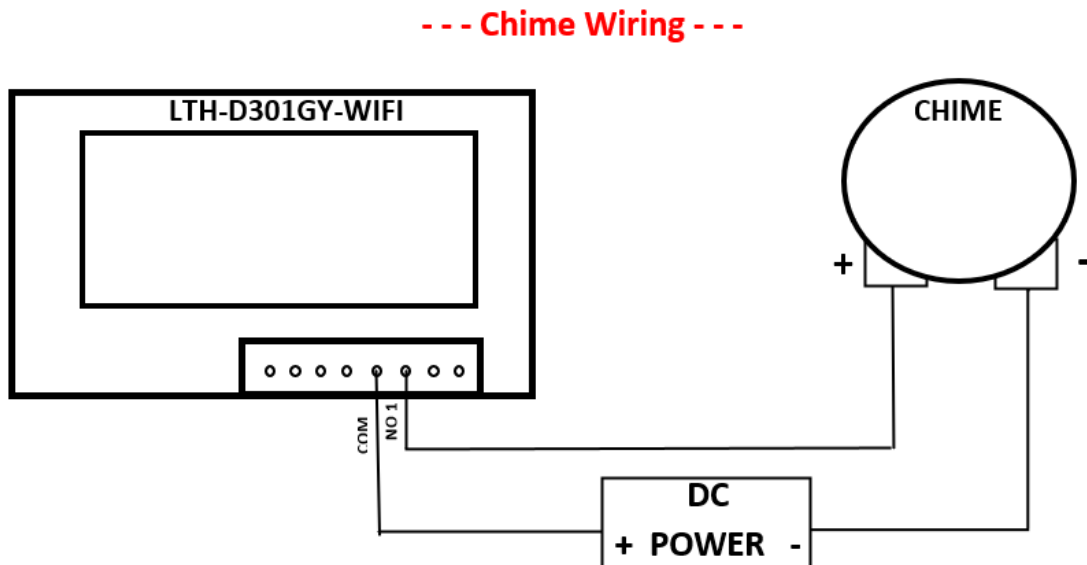
Recommend use ONVIF
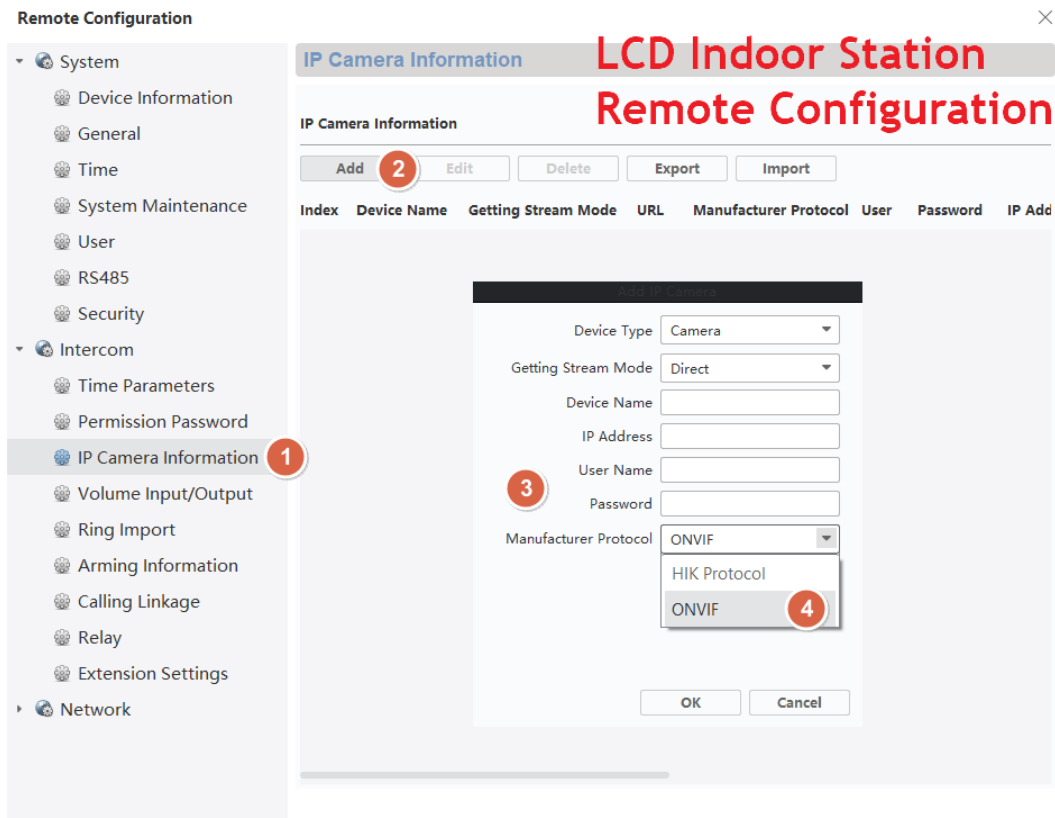
System Maintenance
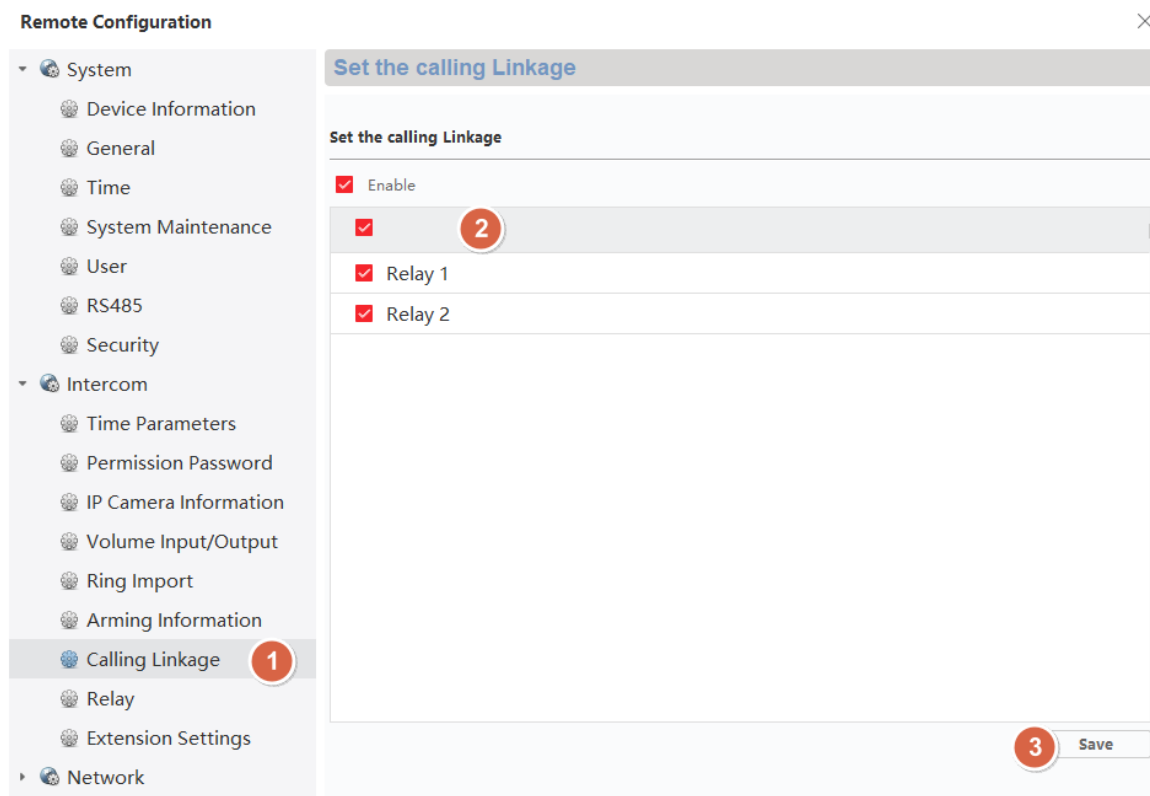
Other Reference: (Wiring Diagram)

Adding Chime System to the LCD Indoor Station

If you like to link the D301GY Indoor Station to the regular Chime system (DC). You can follow this method.
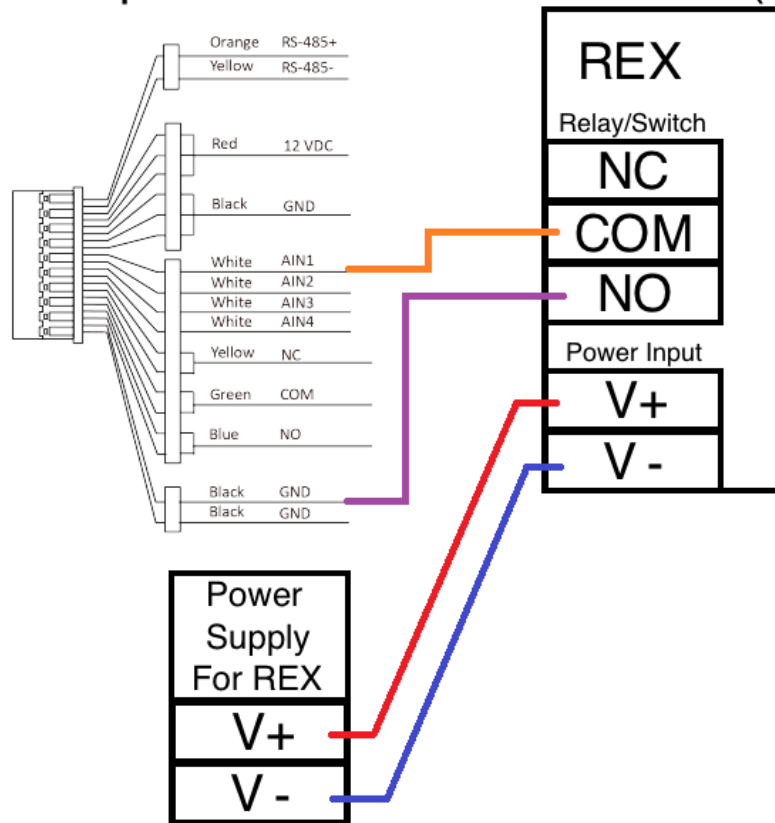

Go to NVMSv3, Device Management

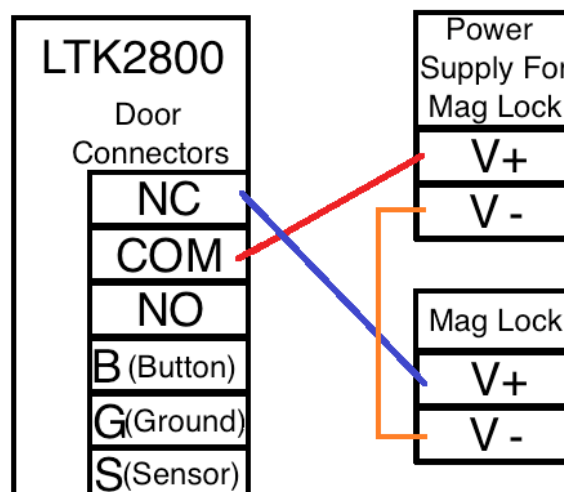## Open the LCD Indoor Station Remote Configuration.

Similar Wiring Diagram

LTH-301M-WIFI
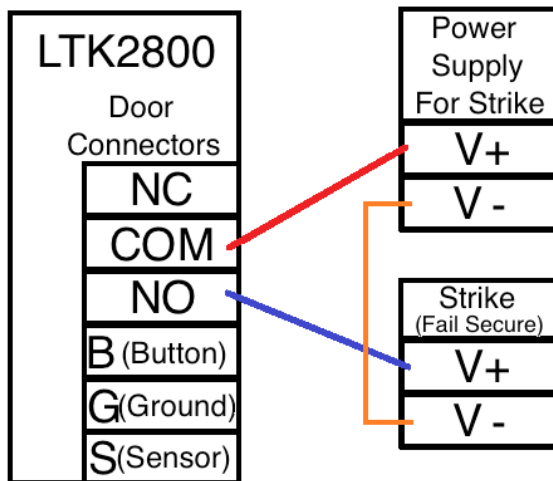### Connecting To A
Request To Exit Motion Sensor (REX)

Wire	Signal
Orange	RS-485+
Yellow	RS-485-
Red	12 VDC
Black	GND
White	AIN1
White	AIN2
White	AIN3
White	AIN4
Yellow	NC
Green	COM
Blue	NO
Black	GND
Black	GND

REX

Relay/Switch
- NC
- COM
- NO

Power Input
- V+
- V -

Power Supply For REX
- V+
- V -

Connect TO Mag Lock (Similar Diagram FOCUS on NC/NO wire)

LTK2800
Door Connectors
- NC
- COM
- NO
- B (Button)
- G (Ground)
- S (Sensor)

Power Supply For Mag Lock
- V+
- V -

Mag Lock
- V+
- V -

Similar Wiring Diagram
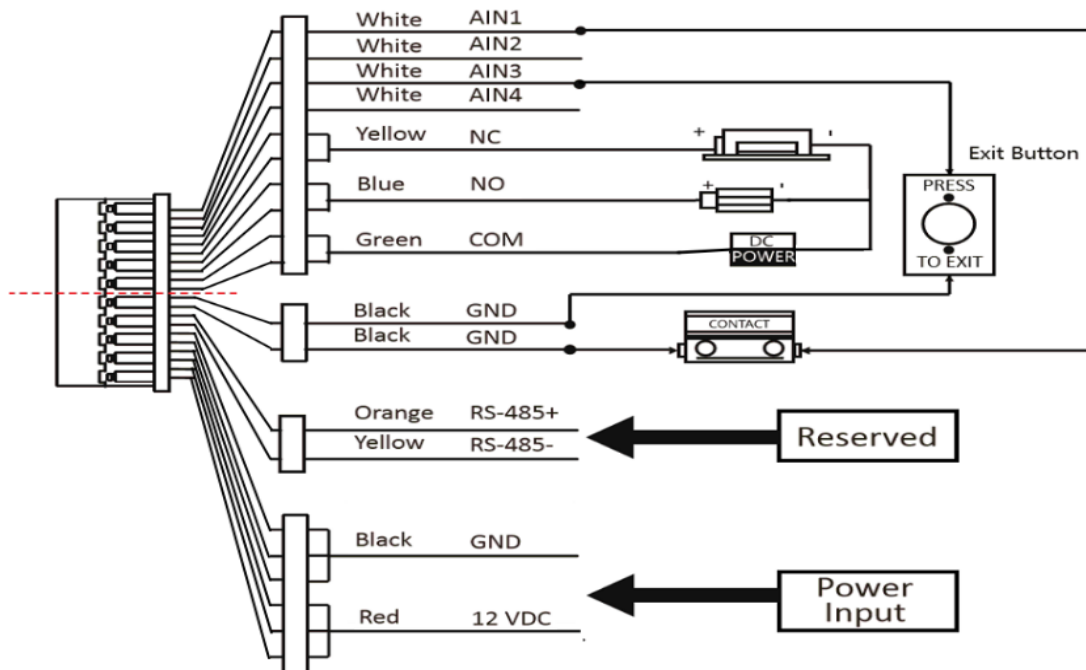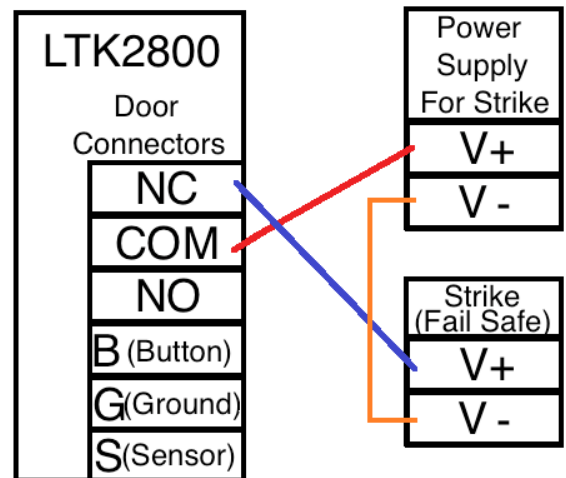
NO Strike

LTK2800 Series Connecting To A Fail Secure Strike

NC Strike

LTK2800 Series Connecting To A Fail Safe Strike

Other Reference:
Notice the Different in between Intercom Class device and Door Access Controller Class Device

But What is that mean?

That means the Intercom Class device when you use the Tap Card Swipe. **You Can NOT do these**
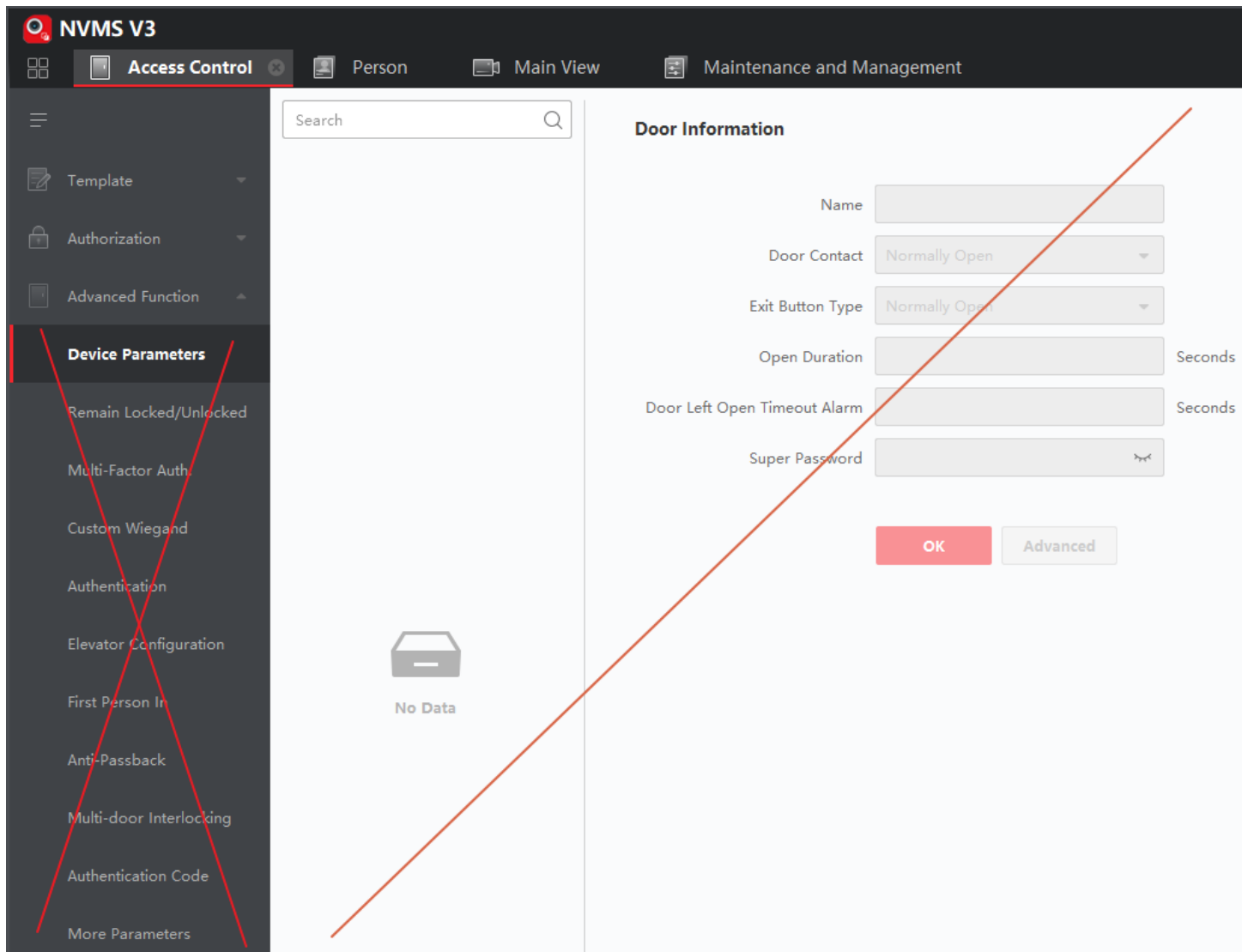
Define **Automatic Open Door Schedule.** (no)

Define first person card swipe-in to **Open Door all the time**. (no)

Link to another device (like Access Door Controller).   Swipe to open two doors (no)

Define Punch number to open door (no)

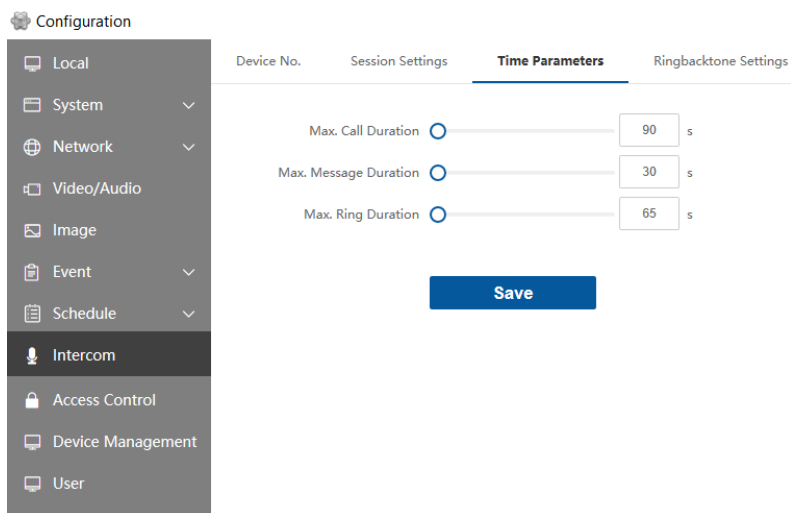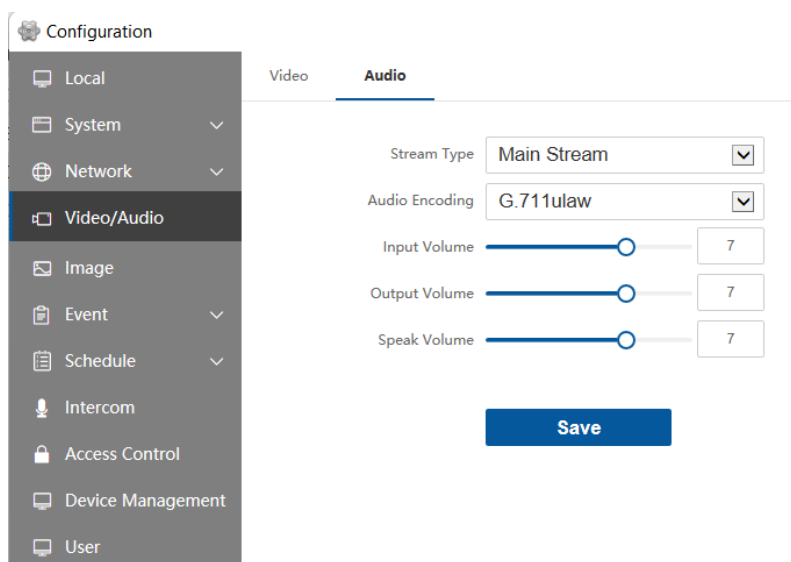Connect additional Keypad (no), (RS485 function removed in the config panel)

Etc…

If you need all these features, please consider Door Access Controller

FAQ

1. Q: Where can I find the user manual?
   A: The LTS website or the knowledgebase page area.
   https://www.ltsecurityinc.com/amfilerating/file/download/file_id/3633/

2. Q: How do I factory default the device?
   A: There is no physical default button for the LTH-303m device.
   You may go to the Web interface or go to the NVMSv3 Remote configuration,
   under **Maintenance** > **Restore All**.

3. Q: What is the Mobile App name for LTH-303m-Wifi Device?
   A: LTS Connect.   Download from the Google / Apple Store.

4. Q: Why does the LED button does not light up?
   A: The LED only lights up when the device detects it is dark out.

5. What is the TF/SD card slot (memory card slot) for?
   A: It is a reserved slot that currently does not have a function.

6. Is the camera ONVIF compatible?
   A: Yes

7. Q: Why is there an alarm sound when the device is powered on?
   A: It is a Tamper Alarm. The LTH-303m requires the metal Tamper Plate to be installed. If it installed correctly, the alarm will not sound when powered up.

8. Q: How do I change the Microphone / Speaker Volume?
   A: Through the NVMSv3 or the Web Interface (see picture)

9. Q: How do I change the max call duration?
   A: Through the Web Interface (see 2nd picture)

10. Q: Why can I see the video and talk back but I can't unlock the door or Ring?

    A: Network issue. Either not enough bandwidth or IP conflicted. Please check Page 7, 8