

# WIRELESS KIT

## Statement

Thank you for purchasing our product! This quick user guide will talk about main usages of the product. More information can be found on our website and the help center. This user guide may contain inaccurate content due to hardware and software upgrade. It is subject to change without previous notice.

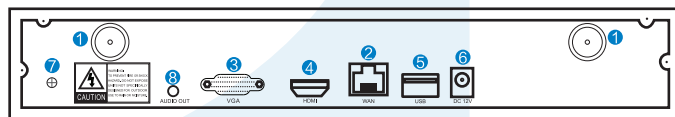


## Safety Caution

- 1 Please do not put any fluid container on the product.
- 2 Please use the product in ventilated environment and prevent blocking the vents.
- 3 Please use included power supply with the product to prevent damage to the product.
- 4 Please use the product under its standard working temperature and humidity. (advised in this manual or distributor's website)
- 5 Dust on PCB may cause short circuit. It is suggested to clean the dust on PCB timely to make the product work properly.
- 6 Please obey the regulation and policy in your country and area during the installation of this.



## NVR

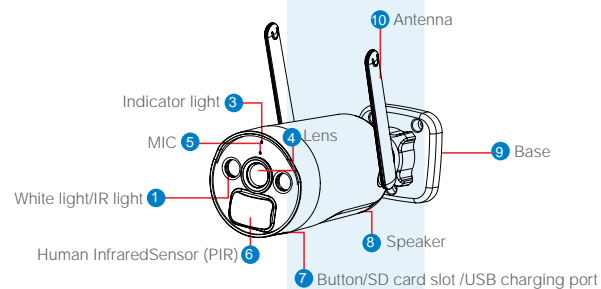


- 1 Wireless Antenna Ports: Double antennas to Wireless range;
- 2 WAN Port: Connect your NVR to Internet;
- 3 VGA Port: For viewing on VGA monitor;
- 4 HDMI Port: For viewing on HDTV;
- 5 USB Ports: For mouse and backup;
- 6 Power Input



## IPC

Mini NVR can be combined with different cameras to form a kit. The interface description below only takes common cameras as an example. Please refer to the actual interface position of the camera in the package.

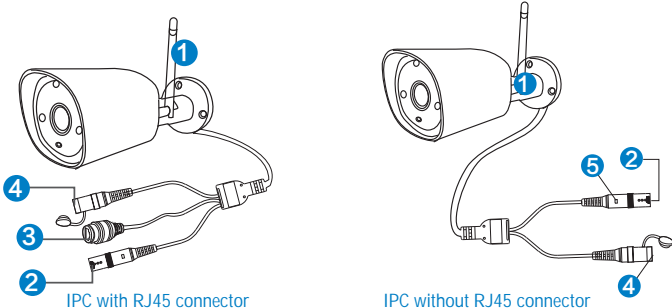


The instructions of LED light :

- Green light flashes for 2s and goes out: The device is powered on and connecting to the network
- Green light + red light is always on: The camera is being previewed remotely (privacy light)
- Green light is always on: The device is connected to the network or awakened
- Green light flashes continuously: Upgrading
- Green light flashes continuously and slowly: Charging
- Red light flashes 3 times quickly: Power off
- Red light is always on: Low battery
- The traffic light is always off: In standby

Button operation for Two-button model:

- Press and hold the on/off button for 2s when shutting down: Turn on
- Press and hold the on/off button for 2s when powering on: Power off
- Press and hold the reset button for 3s: Reset



- 1 Wireless antenna: Wireless connection with NVR
- 2 DC Port: Input power 12V 1A;
- 3 RJ45 Port: For matching code and wired connection between IPC and NVR. Anyway, there is range limitation for the wireless signal from NVR. When cameras are out of this range, they can't be connected to NVR wirelessly. Then users can use network cable to connect cameras and NVR.
- 4 Reset button: Press reset button for 5 seconds to restore factory setting and enter into matching-code mode.
- 5 Status light:  
Unbright: IPC system is not ready or abnormal  
Flash: IPC is in the code-matching state  
Long time bright: IPC and NVR have been coded, the connection status is normal  
Slow Flash: IPC is coded with the NVR, but the connection is disconnected  
**Note: In night vision mode, the device is normal for 5s, the indicator light will be turned off to prevent light interference.**



## HD Install

The system may not include hard disk depending on the kit you selected. the NVR works most 3.5" SATA HDD or 2.5" SATA HDD

- 1 Unplug your NVR from power, unscrew and remove the top cover.
- 2 Connect the SATA power and data cables from the NVR to the corresponding ports on your HDD (as shown).
- 3 Holding the hard drive and the DVR, gently turn it over and line up the holes on the hard drive with the holes on the NVR. Using a Phillips screwdriver, screw the provided screws into the holes and assemble the cover.



Note: New HDD have to be formatted before recording.  
To get better Wireless signal, it had better place the NVR in open area and high position.



## System connection and installation

This system is standalone with embedded Linux Operating System in the NVR. Just like a desktop PC, need to hook a screen to the NVR to enter the OS. Any TV, monitor with VGA or HDMI input should work for it.

- 1 Install antennas for cameras and the NVR;
- 2 Connect a screen to the NVR via its HDMI or VGA port (HDMI and VGA cable not included);
- 3 Plug the NVR to power (use bigger 12V 2A power adapter);
- 4 Plug cameras to power (use smaller 12V 1A power adapters);
- 5 Within seconds, you should see camera's images on the screen;
- 6 Plug the mouse (included) to a USB port on back of NVR. You shall then be able to operate on the system.

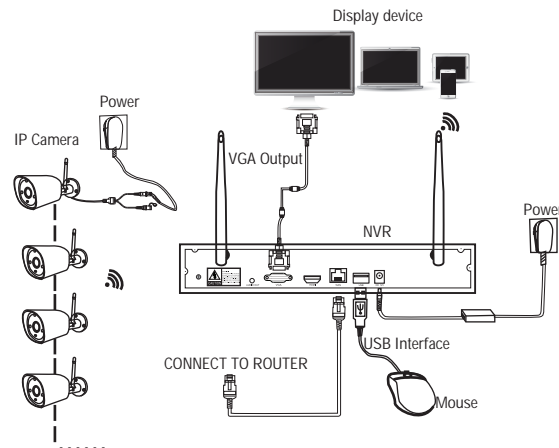
In the OS you can find fullest functionalities including live view, record, playback, video backup and all settings.

Default ID: admin Password: none (means leaving the password empty, just click login).

Tips: To protect your privacy, please set your password at earliest convenience. Right click the mouse → Go to System Setup → System Admin → User Management to set password.

## System wiring diagram

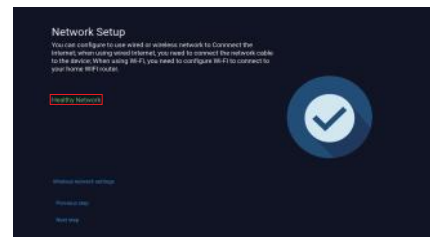
Note: Wireless NVR can't be connected to Wireless router wirelessly at present. They can be only connected by network cable.



## Configure WNVR on TV or Monitor

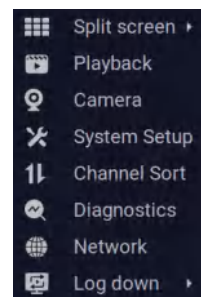
After powering on, please follow the steps of the setup wizard to complete the settings of language, network, time, view real-time screen, password, hard disk and download APP and device. If you see the prompt "Network status is good!" in the network setup wizard interface, it means your recorder has successfully connected to the Internet.

(Tips: If there is no Internet near your video recorder device, you can also choose to use it without connecting to the Internet. This method will make it impossible to use the mobile APP to watch the video from a long distance.)



## Menu bar

Right-click and you'll go to the main menu, right-click again to exit the menu or go back.



- Split screen selection: Change the view state, you can choose to view multiple or single cameras.
- Video playback: Enter the video playback interface to play the recorded video.
- Camera Settings: View the settings related to the added camera.
- System Settings: Manage all system settings.
- Channel Sort: Adjust the camera channel sorting order.
- Device Diagnosis: Diagnose camera status, signal and firmware version.
- Network Settings: View your device's network connection.
- Exit the system: logout, restart, shutdown functions.

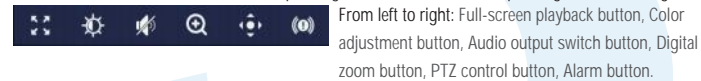
## System Settings

Right click on the mouse → select System Settings: You can modify system → related settings.

- General settings: Set language, display resolution, audio volume and view firmware information.
- Camera settings: All camera settings, alarm settings, recording settings.
- Date/Time: Set device time, date and time zone information.
- Network settings: Network connection to router settings, wireless channel settings.
- Device Diagnosis: Device and added camera status detection and diagnosis.
- Storage settings: View hard disk or TF card information and format.

## Channel Toolbar

Move the left mouse button to the corresponding channel, and the toolbar at the bottom of the pop-up channel will be activated. Click the corresponding icon to enable the corresponding function settings.



## Recording settings

Right click on the mouse → select camera settings → select recording mode on the right side of the interface

### 1 Camera working mode

The battery camera includes three modes: Best power saving, best video recording, and always video recording;

The constant power camera includes two modes: constant recording and event recording; the specific mode function introduction is entered into the setting interface for detailed viewing, and the corresponding working mode is selected according to the usage scene of your device.



### 2 Smart detection settings

Right click on the mouse button → select camera settings → enable smart detection on the right side of the interface, click smart detection settings. You can set the camera's detection area, sensitivity level, detection type (humanoid), humanoid frame switch and other functions;

### 3 Smart detection period setting

Right-click on the mouse → select camera settings → detect time period settings on the right side of the interface.

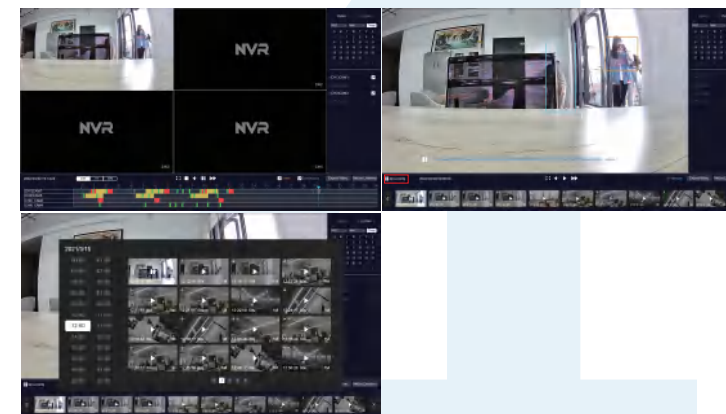
Within the designated time frame, the device will conduct detection recording. You may customize the recording schedule to suit your needs, such as enabling 24-hour smart detection and alarm or setting up specific time periods for recording. When the recorder detects the hard drive, the default setting to record 24/7 continuously.



## Video Playback

1. Right-click on the video preview interface and enter the playback interface, it will automatically start retrieving the video of the day (default video playback);
2. Select the video playback type (video playback or smart playback), select the date and channel, and select the recording type (movement, timing, humanoid), and the recording will be retrieved in real time;
3. Function introduction:

- 1 Button description: Play: Fast forward 2 times, 4 times, 8 times; Switch between 1 and 4 channels; Play in full screen;
- 2 Timeline: You can click 24h, 1h, 30m in the lower left corner to switch the unit of the time axis. In the area with the video time axis, click the left mouse button to start playback from the time the mouse clicked.
- 3 Smart playback: Click the video thumbnail below to play the video recording, and select the options of human shape, and mobile recording to view only the corresponding type of video clips (Note: SD card video recording does not support intelligent playback).
- 4 All recordings: Click on all recordings to display the required recording clips of the current channel, and you can select the recordings in the corresponding time period to play.

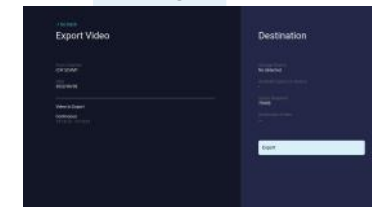


## Video Backup

You can use a USB flash drive to backup videos, which is easy and convenient.

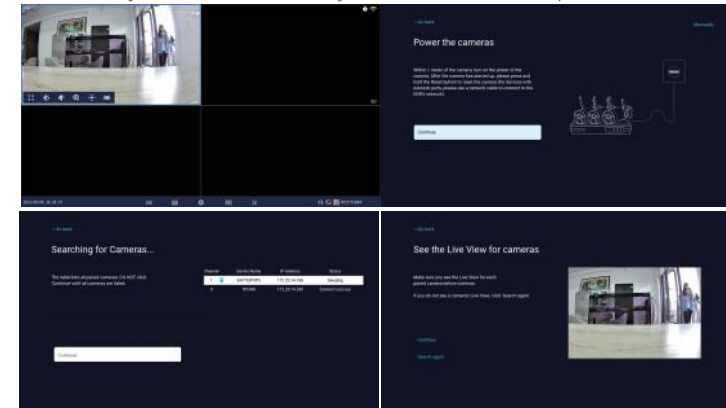
In the video playback interface, select the channel window that needs to be backed up → click the backup video button in the lower right corner → insert the U disk → select the export folder → click export.

(Reminder: U disk format currently only supports U disk in FAT32/exFAT format for backup, and video files are packaged once an hour)



## Add IP Camera (IPC)

- 1). Automatically add: The wireless camera that is shipped together with the recorder equipment, just connect the power supply, wait for a period of time, the recorder will automatically add the camera, and you can view the successfully added camera screen in the preview interface.





## 2). Manually add:

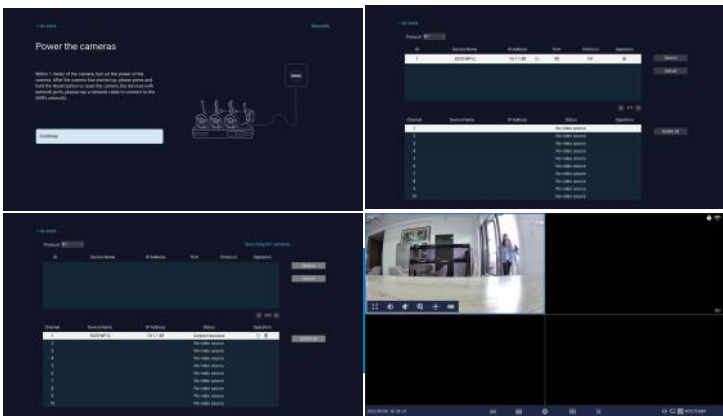
Step 1: Click the "+" icon at the bottom of the preview interface.

Step 2: Reset the camera or connect the camera to the recorder with a network cable, click Next.

Step 3: After the camera to be added is found in the waiting list, click Next.

Step 4: Check the video screen of the camera, after confirming that the camera has been added successfully, click Next to enter the preview interface.

(Tips: When adding a camera, please try to place the camera and the recorder as close as possible)



## APP remote viewing video

## 1 Download and install

You can search for "EseeCloud" in App Store, App Store and other application markets to download. Or scan the QR code below to download.

Note: Apple mobile phone system requires

IOS system 9.0 or above.

Android mobile phone system requires Android 5.1 or above.



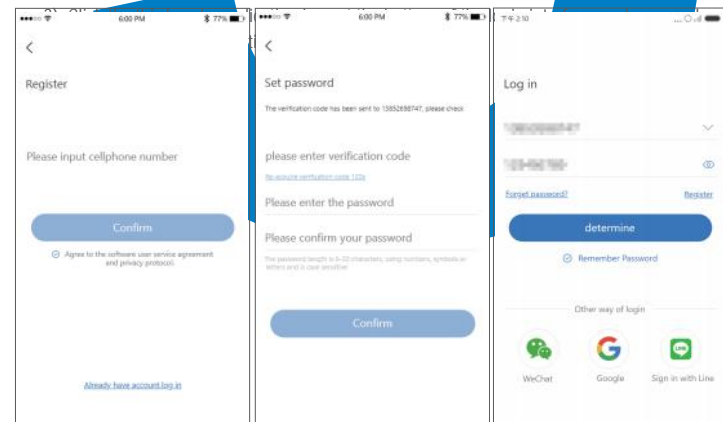
EseeCloud

APP download

## 2 Registration and Login

1). Click Register, input your mobile phone number/email, input the verification code, and complete the registration;

2). Enter your registered mobile phone number and password on the login interface, and click Login;

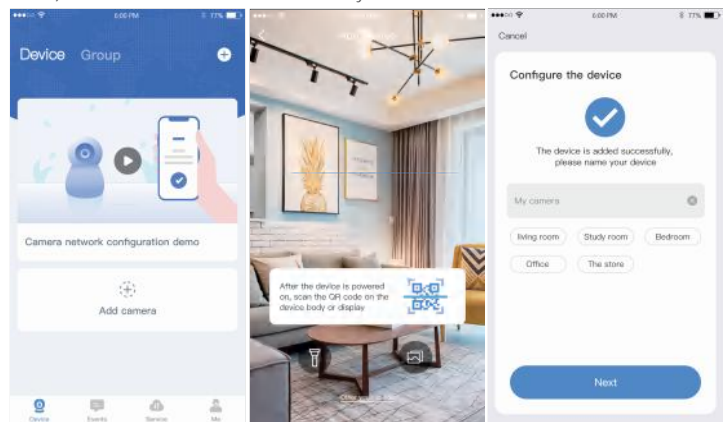


## 3 Add device

1). Click "+" on the device list interface to add a camera;

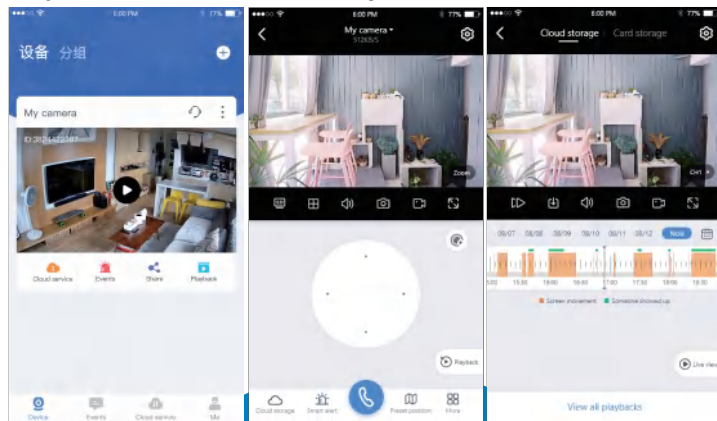
2). Scan the ID QR code on the recorder (click the QR code icon in the lower right corner of the preview interface);

3). Set the device name to add successfully.



## View video screen and video playback

Device List Click the device card to enter the video preview interface, select View Playback to view the channel video recording of the recorder.



(Tips: Please make sure that your video recorder is connected to the Internet when using the EseeCloud APP to add and view the video recorder screen)



## Expand Wireless Coverage

Wireless connection is simple and convenient, but wireless is not everything! Because of the wireless characteristics, in some complex scenarios, there is a signal attenuation situation after passing through obstacles. By placing the antenna reasonably, using antenna extension cable, auto repeater, and camera cascade, the four methods can bypass obstacles and extend the signal transmission distance.

Note:

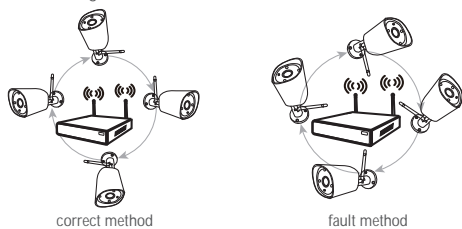
- 1 The wireless repeater and repeater cannot enhance the signal strength of the wireless NVR kit, but can extend the distance of the signal relay or turn;
- 2 Only when the repeater and repeater cameras are properly placed can the purpose of increasing the wireless transmission distance be achieved;
- 3 Wireless repeater, repeater and 3m signal extension cord are three ways to increase the coverage of wireless signal, which can be selected and used according to the actual scenes;
- 4 Manual repeater settings need to ensure that the wireless connection is unlocked in order to ensure the success of the setup, it is recommended to determine the repeater solution according to the actual use scenario, and place the camera near the NVR and set the repeater before installing the camera.

## Repeater adjust the antenna radiation direction

As can be seen from the bar antenna gain chart as shown on the right, the signal coverage of the antenna is similar to an apple. The antenna is located in the center of the apple, and the signal around the antenna is strong. The upper and lower ends of the antenna are recessed, and the signal is weak.

According to the signal transmission characteristics of the antenna, in order to ensure the optimal image transmission effect of the wireless NVR Kit, it is required:

1. The antennas of the NVR and IPC should be placed in a high and open place, and not near the walls, metal, glass and other obstacles, which will affect the signal's outward divergence.
2. The antenna of the IPC should be placed in parallel with the NVR antenna as much as possible so that the respective maximum radiation direction angles are opposite to form the maximum signal coverage, as shown in the figure below.



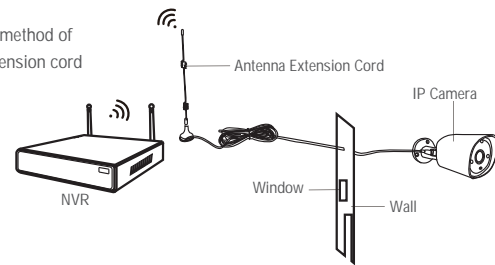
correct method

fault method

## Use antenna extension cord to reduce wall penetration and improve signal

Notes: When a camera shows a weak signal due to wall blocking, you can remove the original antenna, replace the antenna extension cord, and drill a hole in the wall to pass the antenna extension cord through the wall or bypass the wall, Just place it in a place where it has strong signal!

Installation method of antenna extension cord

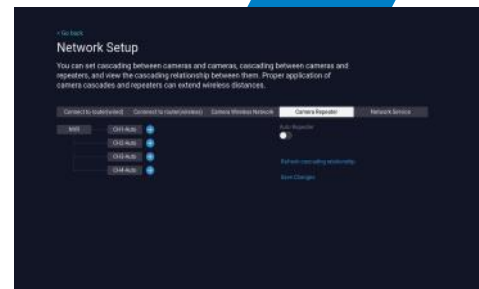


## Use the camera repeater or repeater reasonably to make the signal relay or turn to extend the wireless distance

Auto repeater is the cascading between cameras and cameras, and wireless repeater is the cascading between cameras and repeaters. When the position between the camera and the camera cannot be cascaded in an actual scene, it is a good choice to place a sensorless repeater between the video recorder and the camera. (The packaged product does not include a wireless repeater)

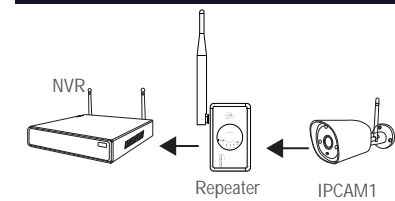
## Description of repeater setting interface

Repeater supports both auto repeater and manual repeater. Right click mouse → Video management → Repeater settings. Enter the repeater settings interface. On this page, you can view the repeater and repeater topology diagrams, and set the repeater. In the interface, NVR indicates this wireless NVR, CHx-Auto indicates cameras that support auto repeater, CHx indicates cameras that support manual repeater only, x indicates camera channel number: RPX-Auto indicates repeater that supports wireless repeater, router indicates a repeater that only supports manual relay, and x indicates the serial number of the repeater. There is an "Auto repeater" switch in the upper right corner of the repeater setting interface. It is off by default and can be turned on by the user according to actual needs.



## Wireless repeater use

When the repeater and camera on the repeater setting interface display "RPX-Auto" and "CHx-Auto", the repeater and camera support wireless repeater. The wireless repeater does not need to be set. If the camera CH1 is too far away to connect to the NVR, you only need to place a wireless repeater at a reasonable position between the camera and the recorder, as shown in the figure below:



Repeater IPCAM1

Note: To use a wireless repeater, the repeater must first be paired to the wireless NVR. Press and hold the wireless repeater for 10 seconds. When the NVR status light flashes quickly, it will automatically pair with the NVR without any sense when approaching the wireless NVR. After successful pairing, the NVR status light is always on.

## Auto repeater use

When "CHx-Auto" is displayed on all cameras in the repeater setting interface, the cameras support the automatic repeater function. Check the "Auto Repeater" in the upper right corner and click the "Apply" button below to enable the auto repeater function. After the auto repeater function is turned on, when the signal of individual cameras is not good, it will automatically find the cameras with nearby signals, select the optimal channel, and repeater automatically without user settings. As shown in the figure below, CH4-Auto automatically repeater to CH3-Auto:



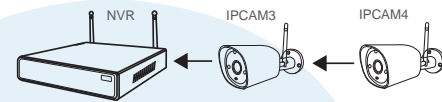
## Manual repeater use

When the auto repeater performance is not perfect, if the customer needs, you can set the manual repeater yourself. All cameras and repeaters support manual repeater function. As shown in the following figure, cascade IPCAM4 to IPCAM3 as an example:

1 First uncheck the "Auto Repeater" switch in the upper right corner of the repeater setting interface, and click the "Apply" button below to turn off the auto repeater.

2 IPCAM3 and IPCAM4 are plugged and play. Click the "+" sign behind channel CH4, select camera channel CH1, click Apply to make the settings effective, and then click the Refresh button to update the repeater relationship diagram to see if the settings are successful.

3 To delete repeater, move the mouse over the CHx (x is the channel number) to be deleted, left click mouse to delete, and then click the "Apply" button to confirm the deletion.



## Warning

## Notes:

Device will not in guarantee if caused by below reason:

- 1 Accident; negligence; disaster; mis-operation.
- 2 Do not conform to the environment and conditions, such as power improper, working temperature too high or too low, lightning stroke, ect.
- 3 Ever be maintained by other center which not belong to the real factory.
- 4 Goods already sold more than 12 months.



## FCC Warning

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, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. NOTE: 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. Radiation Exposure Statement This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.



## CAUTION!

## CAUTION!

The Federal Communications Commission warns the user that changes or modifications to the unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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.