M0330
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IP Camera User Manual

For

INC-M Series

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Directory

Introduction

ILDVR INC-M series megapixel IP camera integrates the traditional camera and network video technology. It adopts video and audio data collection, compression, transmission and storage together. It can be used alone with SD card record or used in a network environment. It can connect to network directly without any auxiliary device.

ILDVR IP cameras use H.264 video compression technology and G.711 audio compression technology, which maximally guarantee the audio and video quality.

Key features:

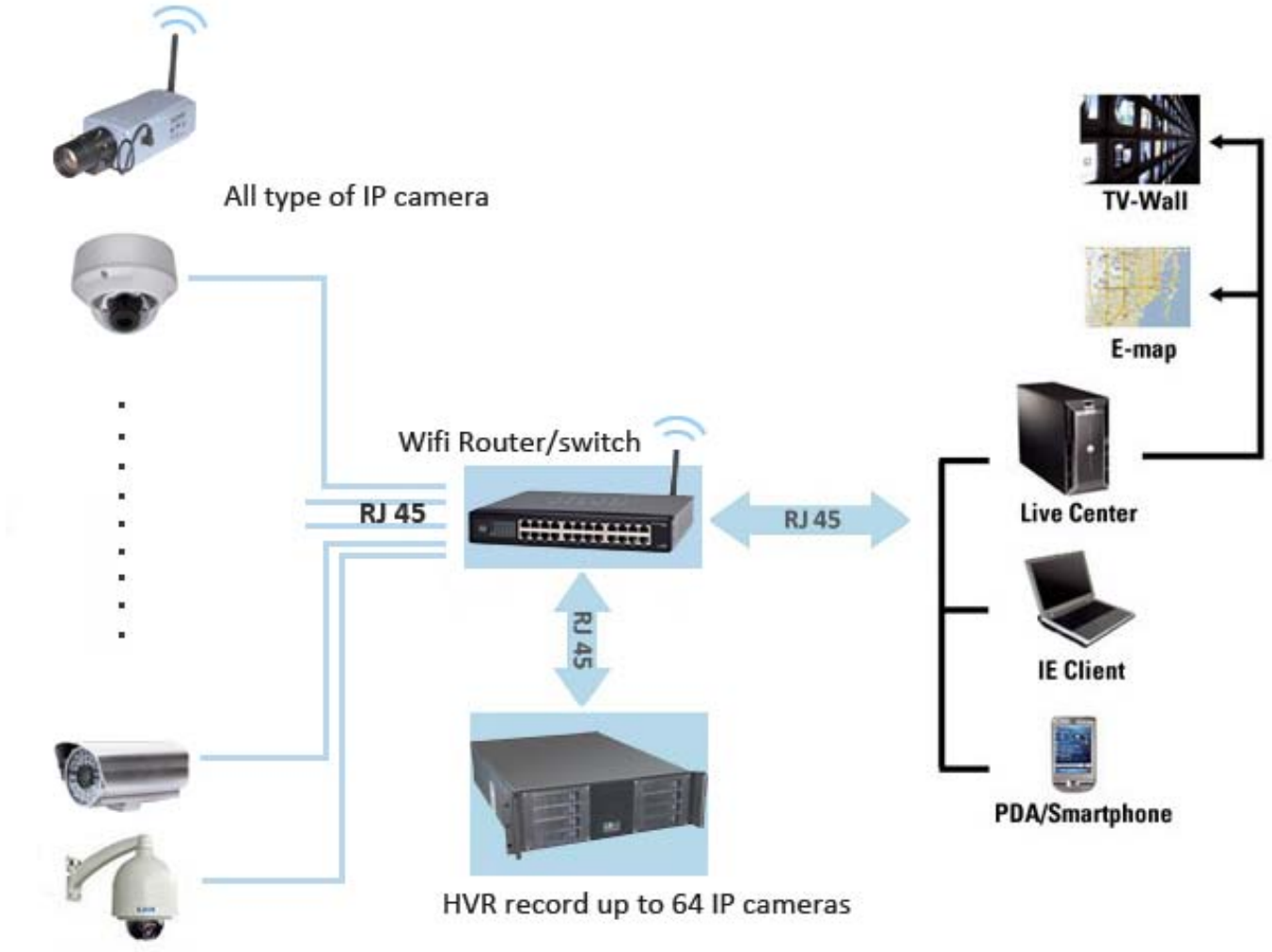
- Advanced H.264 compression with high compression ratio. Support both variable bit rate and variable frame rate.
- Real time stream full frame 1080P video 25fps@PAL/30fps@NTSC.
- Compressed video and audio are synchronous. You can select either mixed stream or only video stream.
- Support SD card local record, up to 64GB.
- Alarm Function includes sensor alarm, Motion Detection, video tampering, network offline, IP address conflict, Storage exception etc.
- Multi-level user management leads to high system safety.
- Support dynamic DNS (DDNS)
- Support Email Alarm Notification
- Remote management, maintenance and upgrade the firmware.
- Support bi-direction voice talk or one-way voice broadcast.
- Built-in web server, support IE browser preview and record.
- Multi-purpose design. Weatherproof , vandal-proof and multiple power supply: DC12V/AC24V/POE (48V)
- Wide range of product lines to meet your varied requirements.

Default settings

Default IP address is 192.168.1.200, subnet mask 255.255.255.0, gateway 192.168.1.1

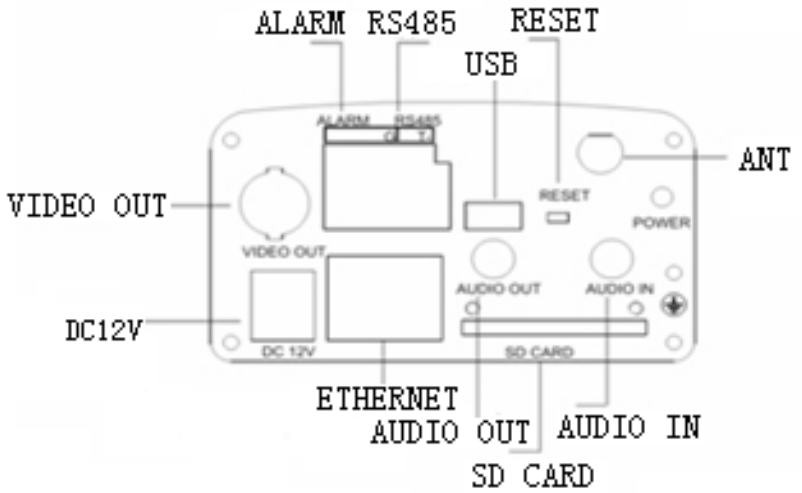
User ID is “admin”, password is “admin”, video port is “5000” and web port is “80”

Typical network connection diagram:



1 Physical Interface Description

1.1 Box Camera



Camera interface description for **INC-M2010/M2010P/M2010W**

DC12V:	Power input, DC12V/1A
ETHERNET:	Ethernet port
AUDIO OUT:	Audio Output
AUDIO IN:	Audio Input
SD CARD:	SD card slot
VIDEO OUT:	Video Output
ALARM:	Alarm input and output, 1A and 1B connect to alarm output, IN connects to alarm input, G connects to signal ground
RS485:	RS485 Control interface, left side connects to RS485 -, right side connects to RS485 +
USB:	USB interface
RESET:	Reset button, restore to factory settings, and please use this button with caution
ANT:	Wireless antenna interface
POWER:	Power Indicator Light
DC AUTO IRIS:	Auto Iris Lens interface, supports DC lens

1.2 Bullet Camera

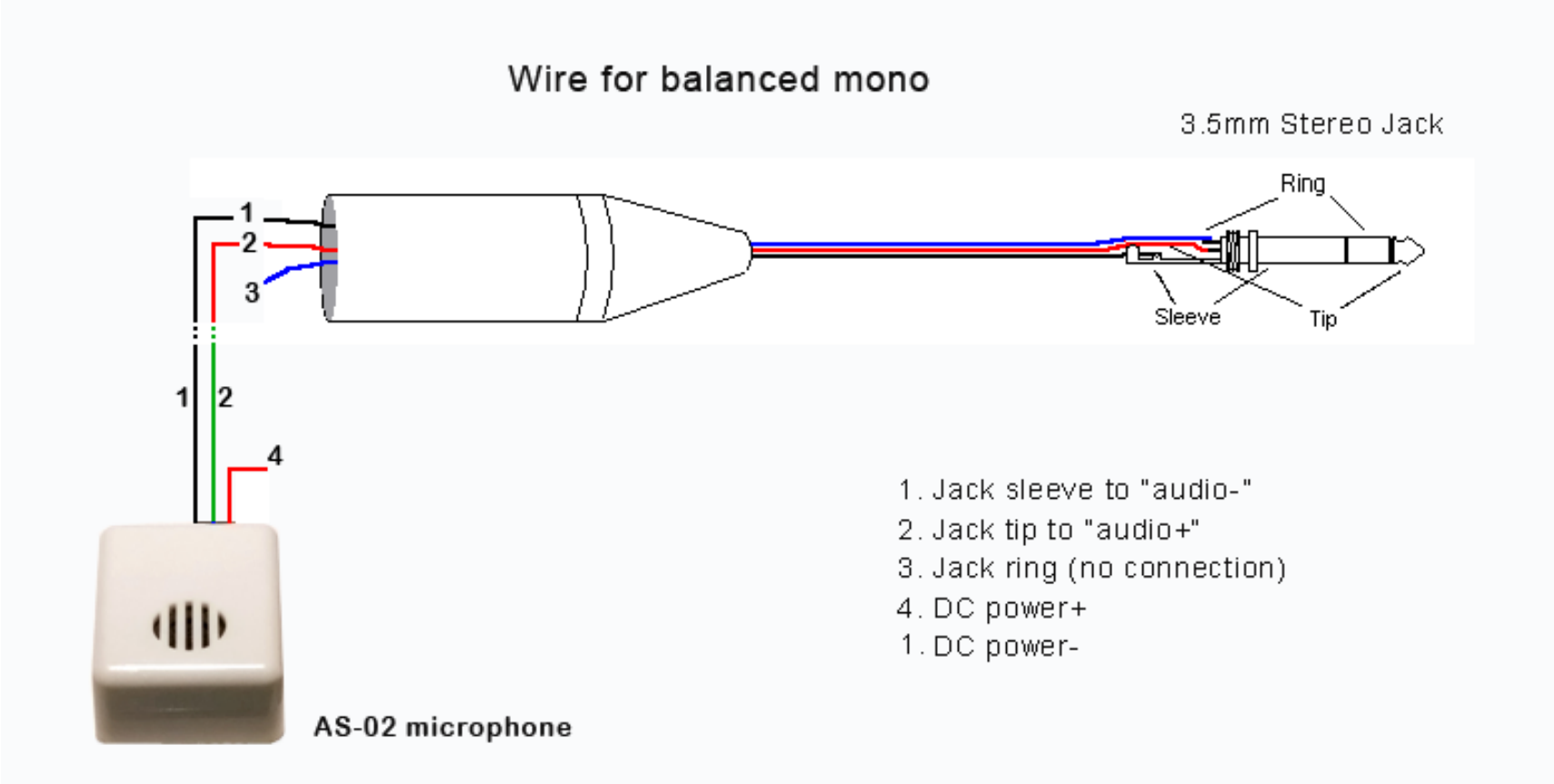
Camera interface description for **INC-M2030/M2030W**

DC 12V:	Power input, DC12V/3A
LAN:	Ethernet port;
Audio in:	Audio Input
Audio out:	Audio Output
RESET: (Yellow)	Reset button, restore to factory settings, please use this button with caution;
ALARM IN: (Red)	on/off alarm input
ALARM OUTA: (Orange)	on/off alarm output A
ALARM OUTB: (Purple)	on/off alarm output B
RS485 +: (Green)	RS485 control interface +
RS485 -: (Blue)	RS485 control interface –

2. Hardware Installation

2.1 Prepare Audio Connector

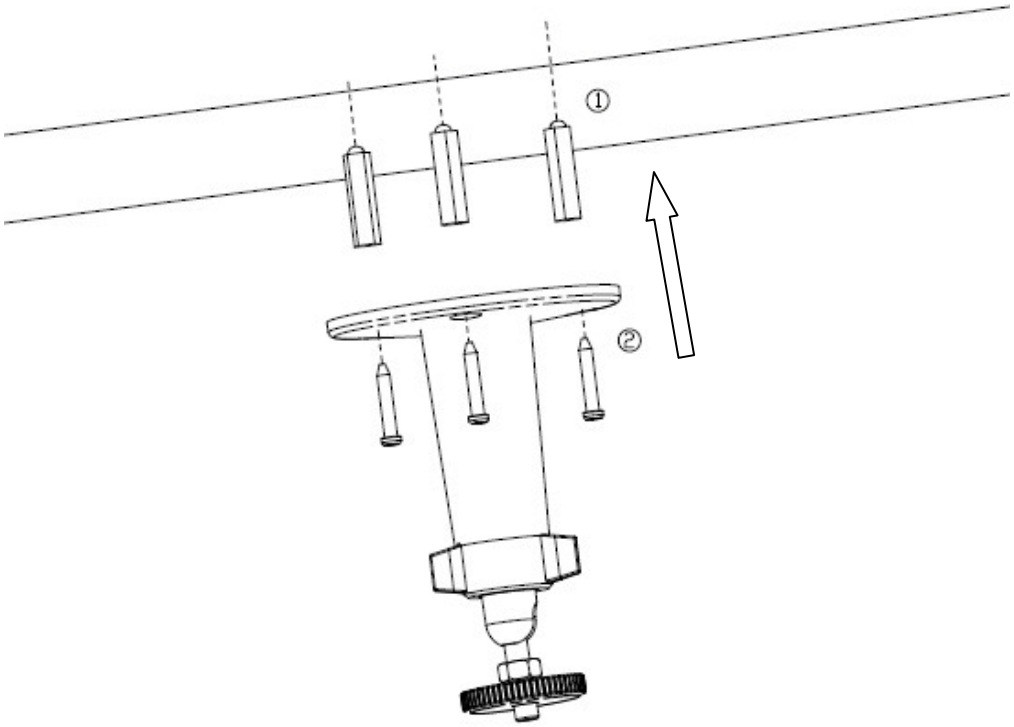
The IP cameras use standard 3.5mm Stereo Jack connector but the audio type is mono audio, please refer to the right picture to make your audio connector.



2.2 Box Camera Installation

Box camera can be fixed in both wall and ceiling, customers can choose different ways to install the camera according to their specific needs. The following section introduces the ceiling mounting, and the wall mounting follows the same way

Step 1: Fix the mounting bracket to the ceiling.



Note:
If it is wall, you need to fix the expand bolt (note: the mounting hole of the expand bolt should align with the bracket) before fixing the bracket, as step 1 in Figure 2.2.1. If the wall surface is wooden, the step 1 in Figure 2.2.1 can be ignored and you can use the self-tapping screw to fix the bracket directly. Please note that the wall on which the camera is fixed should be able to bear at least three times the weight of the bracket and the camera.

Figure 2.2.1 Fix camer mounting bracket

Step 2: Screw the camera's mounting holes to the mounting bracket, and then adjust the camera to the desired monitoring location and finally tighten the knob on bracket to secure the camera to the ceiling.

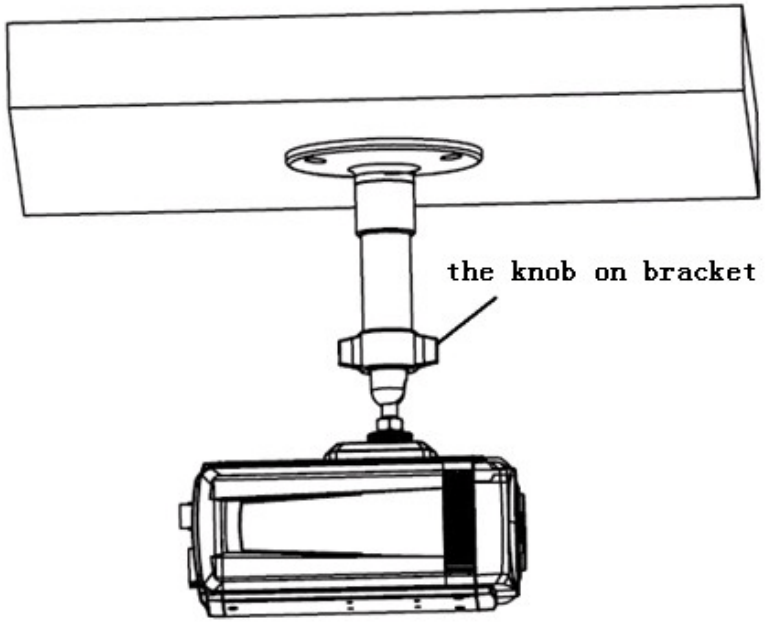


Figure 2.2.2 Fix the Camera

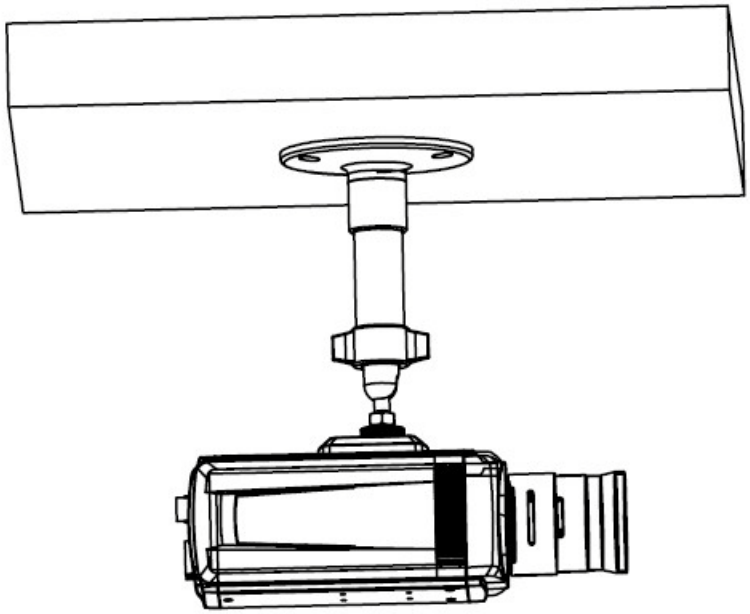


Figure 2.2.3 Mount and adjust Lens

Step 3: Mount the camera lens: connect the VIDEO OUT interface of the camera to the debugging monitor, and adjust lens focus until you have obtained the clearest video images on the monitor, and then lock the lens. If required, loosen the knob on the mounting bracket and adjust the camera lens to the desired monitoring scene, and finally tighten the knob on bracket.

2.3 Bullet Camera Installation

Please choose heavy-duty metal bracket such as ILDVR B02 bracket for bullet camera installation. You can easy adjust the B02 bracket to adapt veried installation environments. See the picture in next page.

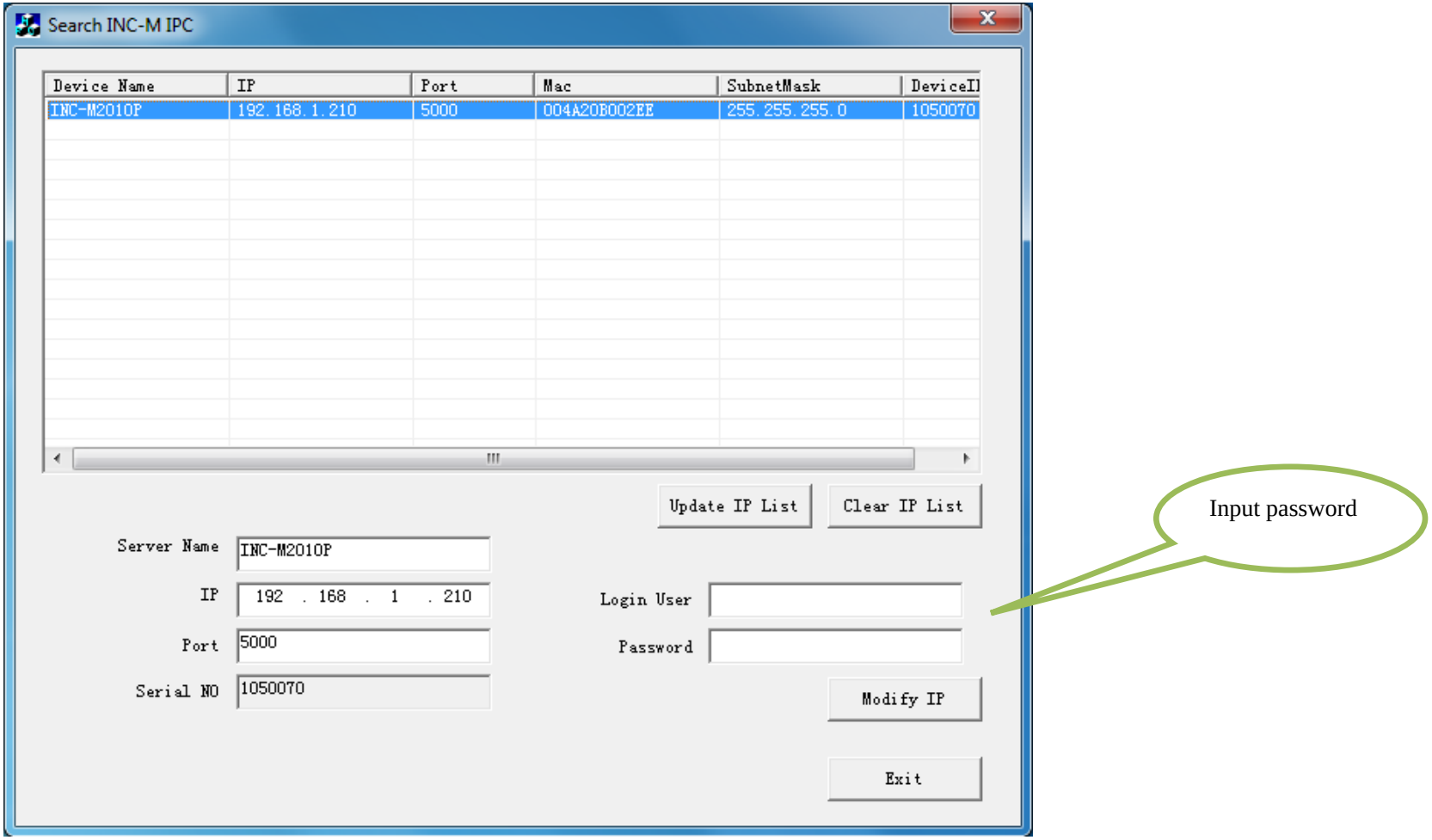
Ceiling pendant pount

Wall mount

3. Software Installation

3.1 Search and Modify IP Address

Before using IP camera, please make sure whether the default IP address of the camera fit your local network environment. If not, please click the “Search INC-M series IP” in HVR Server or Live Center program folder. You can see an interface is shown as below. In this interface, you can view device IP address, port number, subnet mask, MAC address and serial number, etc. Please input admin user name and password to modify IP address and port number. Please connect the IP camera and the PC in same network segment.

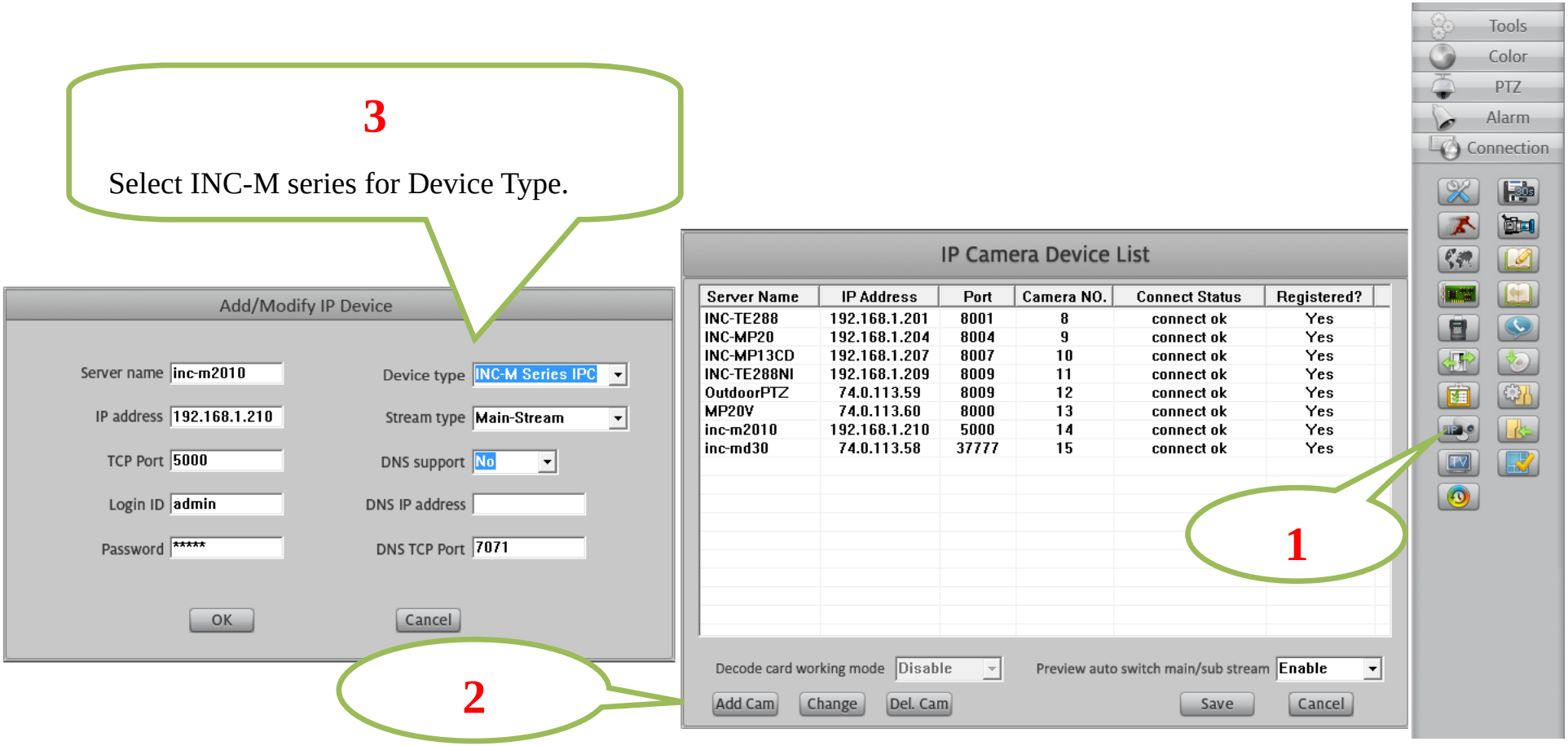


3.2 Connect to HVR Server and Live Center

In the main interface of HVR Server, click Tools icon to expand the Tool Panel, click Add/del IP camera button to bring up “IP Camera Device List” interface. In Live Center the operation is similar but the first step is to enter Local Setup interface.

For your attention:

All IP cameras must be registered in the software then it could be recorded. If you couldn't record video, please update the license file IPEncrypt.dat for HVR Server and Live Center software. You can find the update license file in software CD or download from ILDVR web site

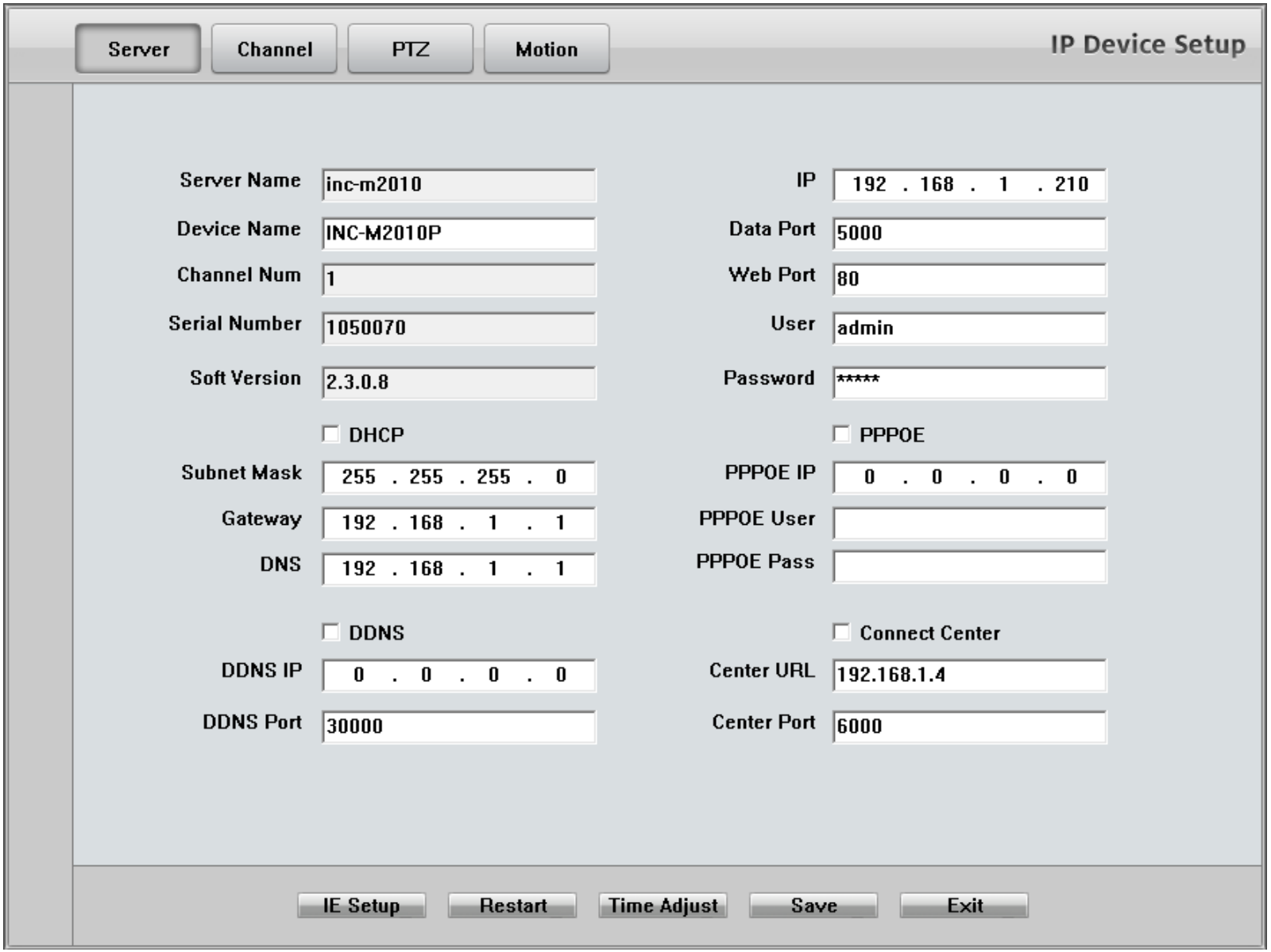


3.3 Camera System Configuration

The following operations need admin user rights to login IP camera. Please refer to above step. Right click IP Camera window to pop up right-click menu. Choose "IPcam_NetDVR_Setup" to bring up "IP Camera Setup" interface. In Live Center, entrance is "Remote Setup" then choose Server alias

In "Server" page, you change IP address, port number and reset the password of admin ID etc. If you install SD card in the camera, please format it in IE web

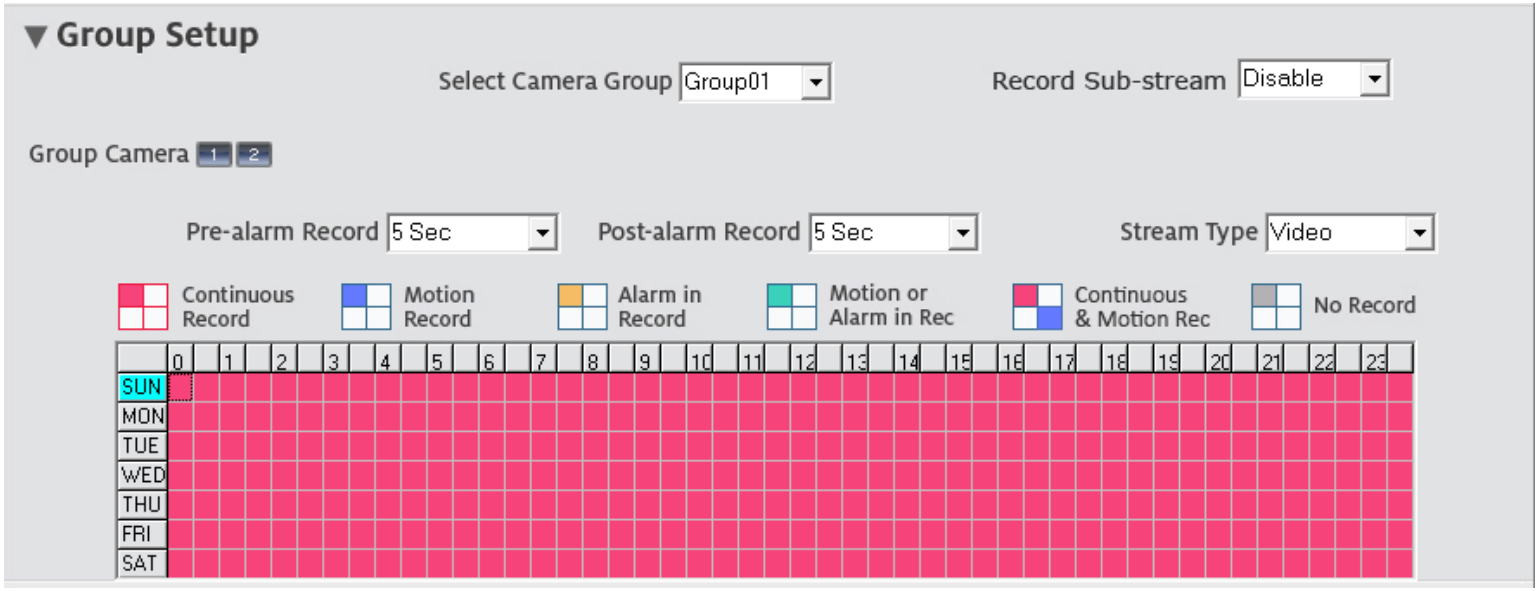
client page, otherwise it cannot be used. The device serial number is necessary for register license.



In “Channel” page you can modify video parameters and OSD information. If you need mask privacy area, please check-on the Privacy then draw a rectangle area on the image. That is the mask area. If you have SD card to record, please check-on “Enable Rec” then setup recording schedule.

3.4 Continuous Record Setup

Continuous Record means always record the video, the operation is simple. You get video connection, get video record. You just enter Camera Setup page→ Group Setup, choose camera group and cameras, click the icon “Continuous Record” then slide the mouse to set time table. The operation in Live Center is similar.



3.5 Motion Detect Alarm Record Setup

Motion Detect Record is a little bit complicated than Continuous Record because HVR system need additional signal to analyze the video stream type. So you must configure 2 places. One place is Motion Record setup in HVR system “Camera Setup” page, similar to Continuous Record setup. Another place is Motion page as below,

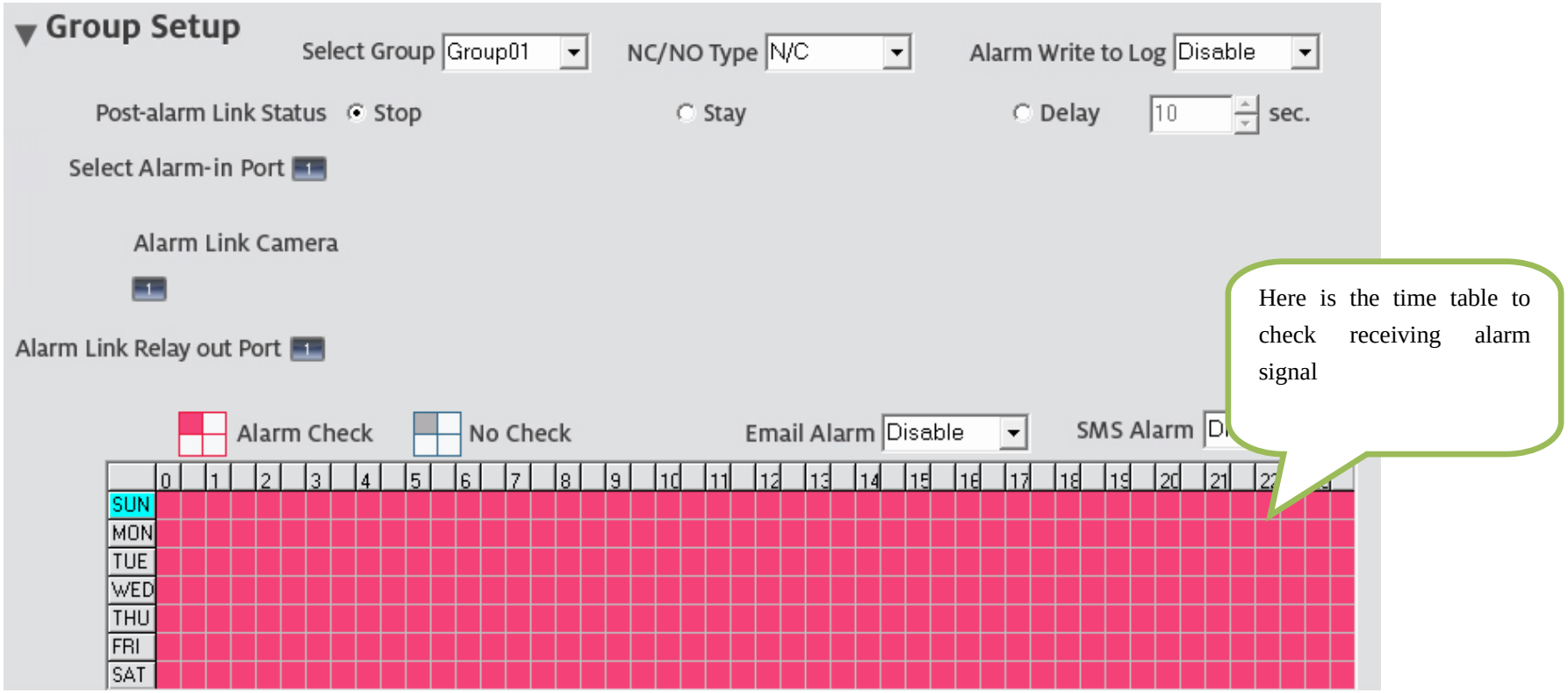
For your attention

Unlike other series IP camera, INC-M series IP camera don’t have “Upload to center” option setting.

3.6 Sensor Trigger Alarm Record Setup

Sensor Record is a kind of external alarm-in trigger record. It is more complicated than Motion Record because motion detect signal is embedded in video stream, but sensor alarm signal is a kind of external signal. You must configure 3 places to execute Sensor Record. The first place is Alarm in Record setup in HVR system "Camera Setup" page, similar to Motion Record setup.

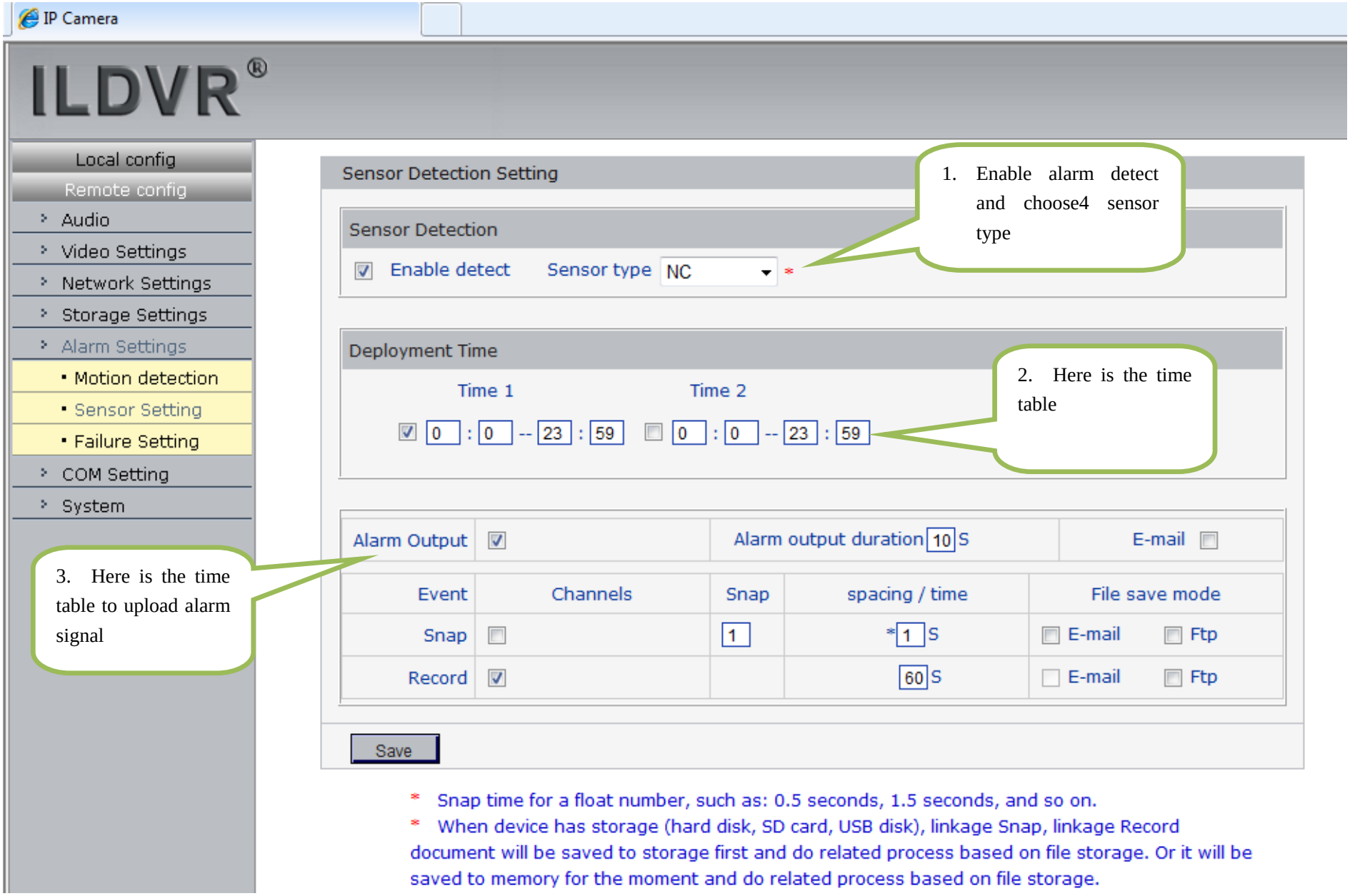
The second place is Alarm Check time table in HVR system "Alarm in & Relay out" page as below picture



The third place is Sensor Setting page in IE web client as below.

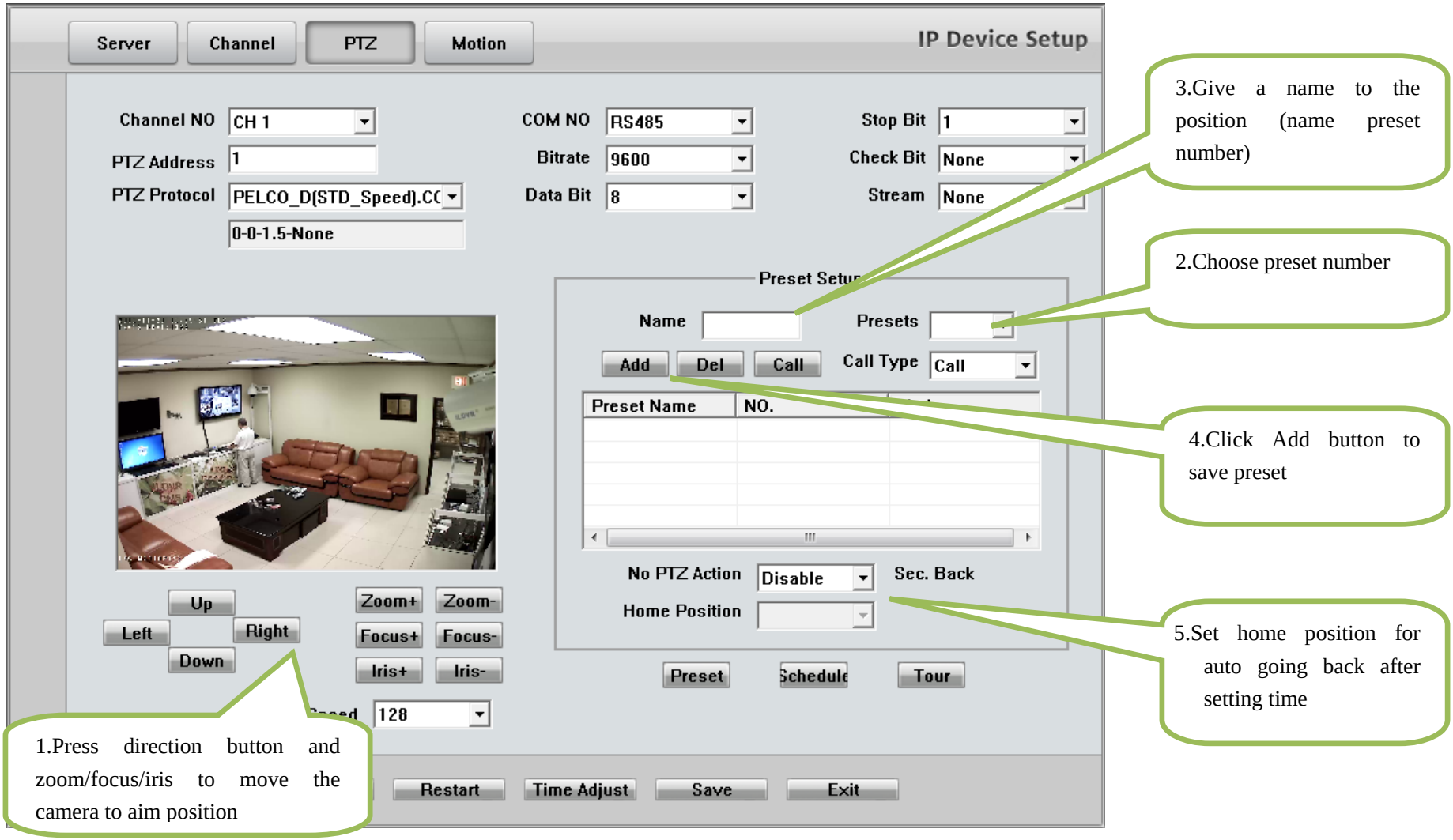
For your attention:

Unlike other series IP camera, INC-M series IP camera don't have "Upload to center" option setting.


IP Camera
ILDVR®
Local config
Remote config
Audio
Video Settings
Network Settings
Storage Settings
Alarm Settings
Motion detection
Sensor Setting
Failure Setting
COM Setting
System
Sensor Detection Setting
Sensor Detection
Enable detect
Sensor type
NC
1. Enable alarm detect and choose4 sensor type
Deployment Time
Time 1
Time 2
0 : 0 -- 23 : 59
0 : 0 -- 23 : 59
2. Here is the time table
Alarm Output
Alarm output duration 10 S
E-mail
Event
Channels
Snap
spacing / time
File save mode
Snap
1
*1 S
E-mail
Ftp
Record
60 S
E-mail
Ftp
3. Here is the time table to upload alarm signal
Save
* Snap time for a float number, such as: 0.5 seconds, 1.5 seconds, and so on.
* When device has storage (hard disk, SD card, USB disk), linkage Snap, linkage Record document will be saved to storage first and do related process based on file storage. Or it will be saved to memory for the moment and do related process based on file storage.

3.7 PTZ Operation

You can mount INC-M camera on external PTZ driver by RS485 connection to make it working as an IP Speed Dome. Please setup preset position, auto-spot plan and preset tour in this page. No like analog PTZ which saves preset in camera system, the IP PTZ saves preset in local computer, so if you use another PC to control same IP PTZ, you should do same setting again in that PC. Comparing analog PTZ and IP PTZ, the setup procedure is very different, but the operations of call preset are exactly same.



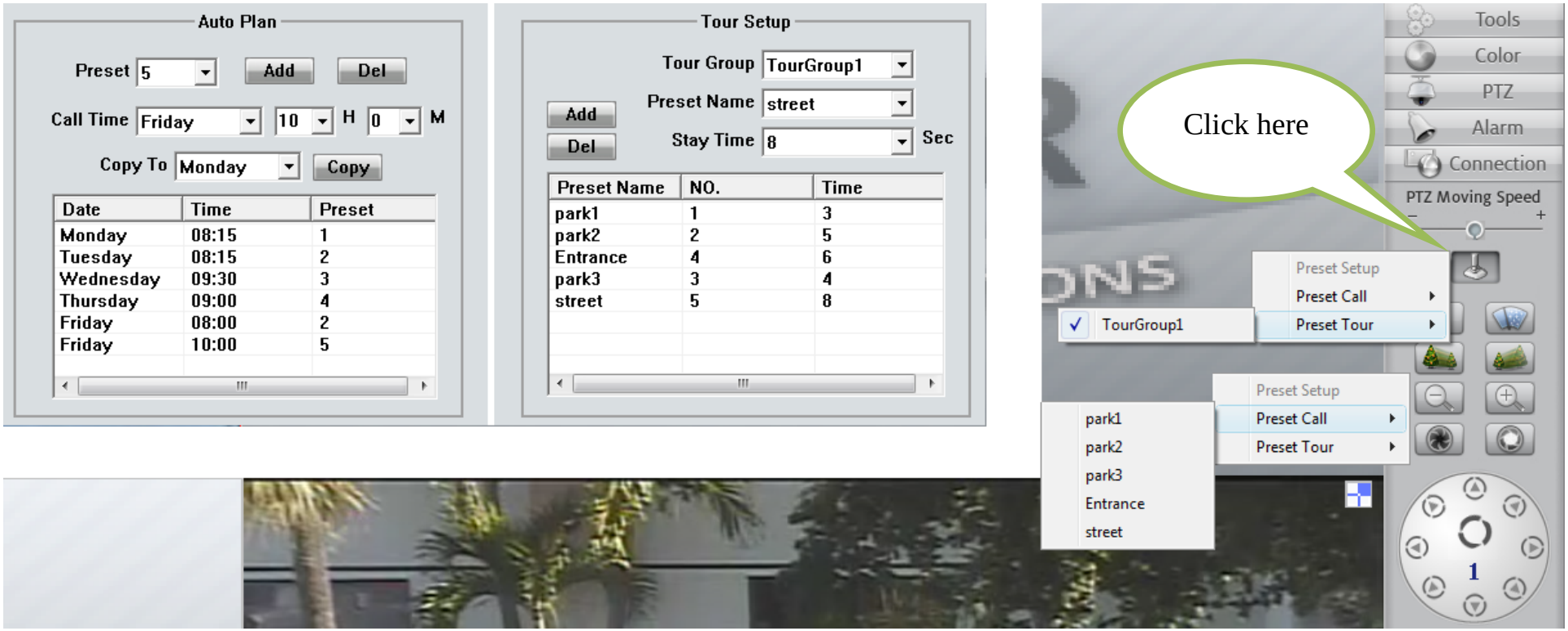
Auto Plan:

Auto Plan means HVR software automatically call the preset position by a scheduled time table. When the system time reach, the IP speed dome will auto move to preset position. You can save up to 64 moments and one preset could be used multiple times.

Tour Group:

Tour Group means you can put different preset position in a sequential group, each preset position could be defined a staying time (stay there without moving). When you execute a Tour, the IP camera will continuously move according to the sequence and time table saved in the group. You can save up to 8 groups.

In main interface of HVR Server or Live Center, click “Preset Operation” button to bring up preset menu then choose call preset or tour preset.



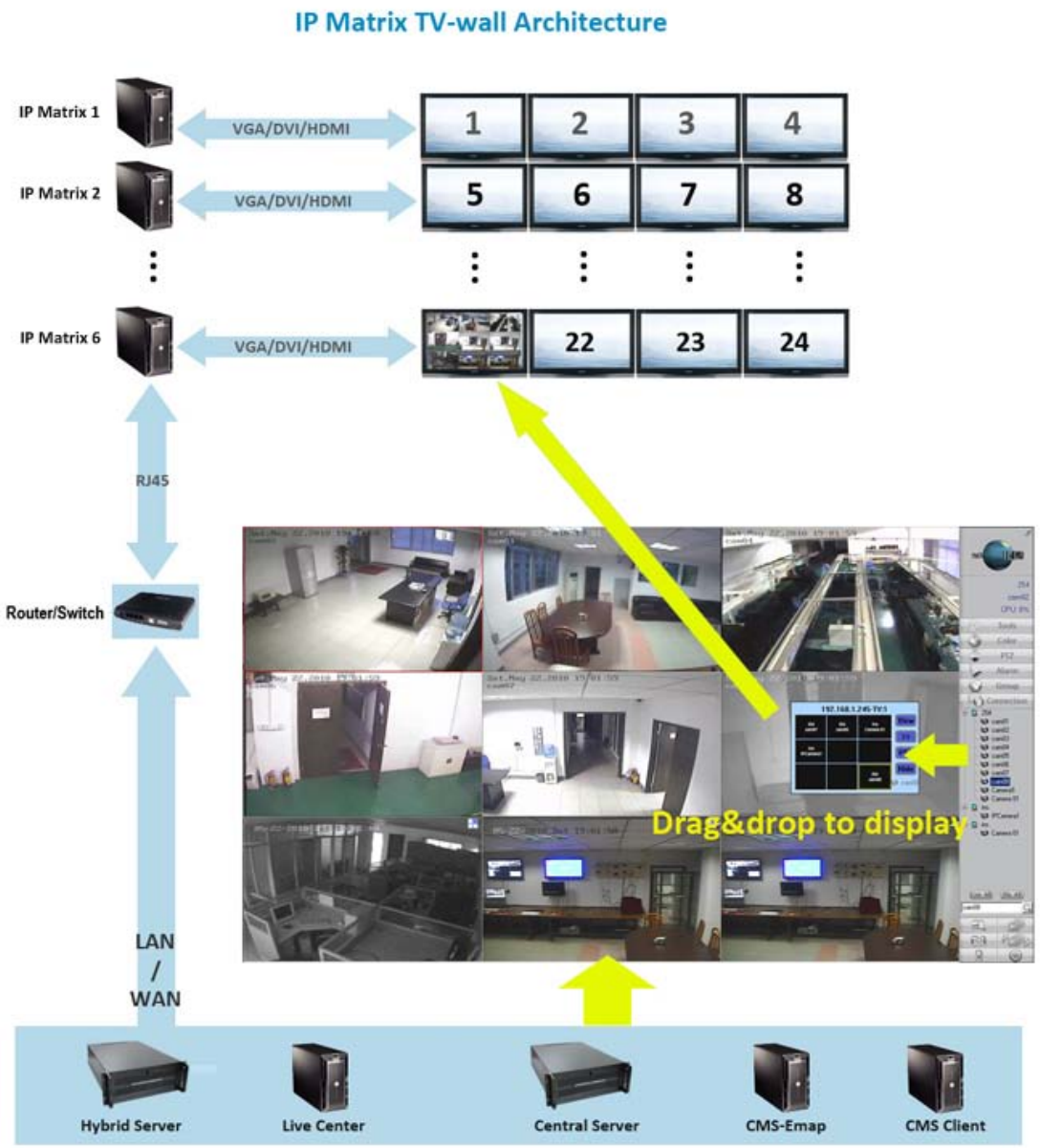
3.8 Display on TV-wall

For large surveillance system the TV-wall is important and necessary. IP camera cannot be integrated into traditional matrix system. ILDVR free software IP Matrix offers innovative TV-wall solution.

All ILDVR software support IP matrix operation, one computer running HVR Server / Live Center / CMS supports up to 6 IP Matrix TV-client.

One computer running IP Matrix software supports 4 monitor outputs, each monitor can display up to 16 windows (cameras). That means one IP Matrix can display max. 64 cameras simultaneously

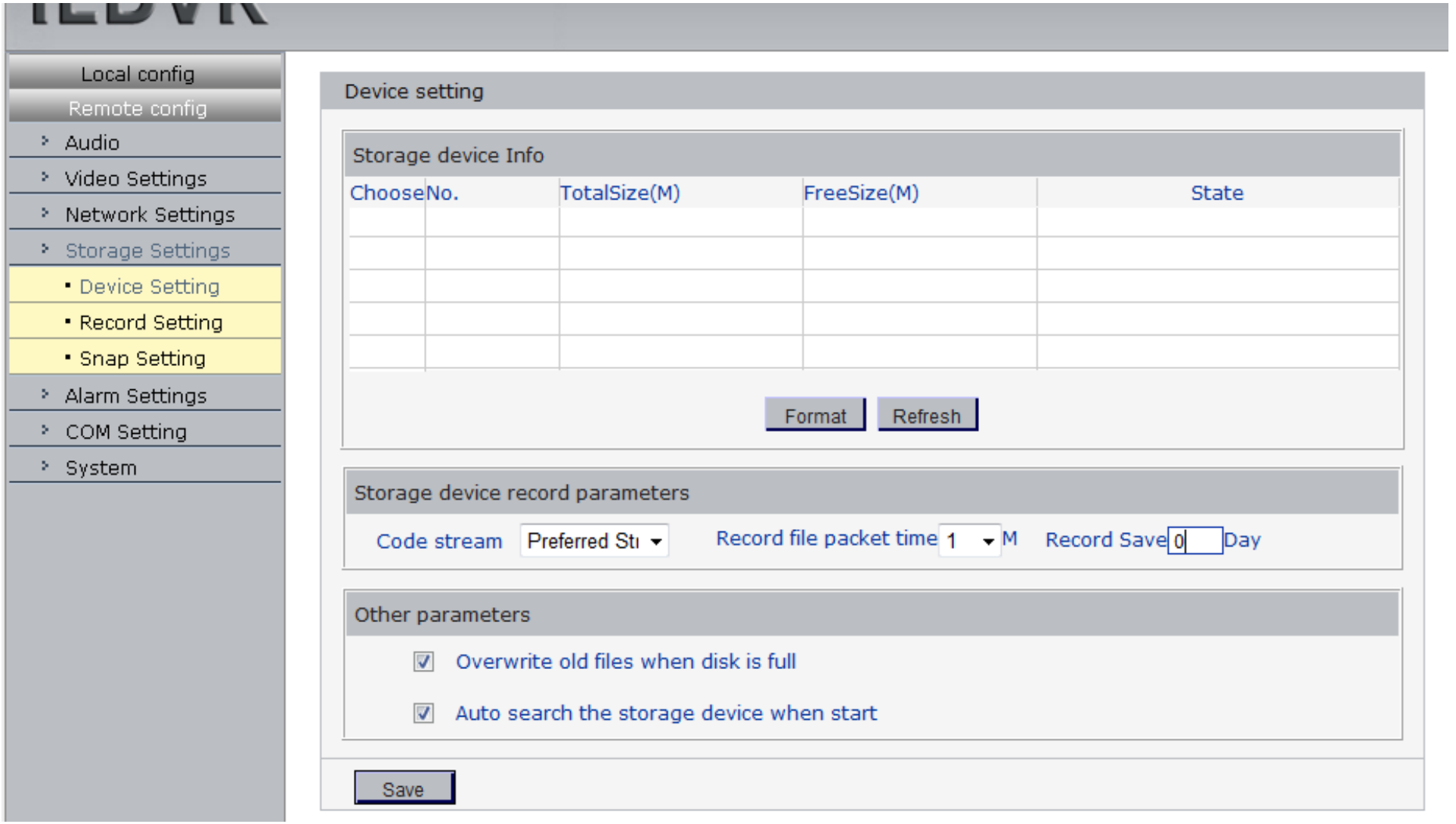
In IP matrix, each video window can be put multiple cameras by switch viewing.



4. Advanced Operations

4.1 SD Card Local Record Setup

If you install SD card into IP camera to record video locally, you must login by IE to finish setup. Please follow these operation steps in next page.

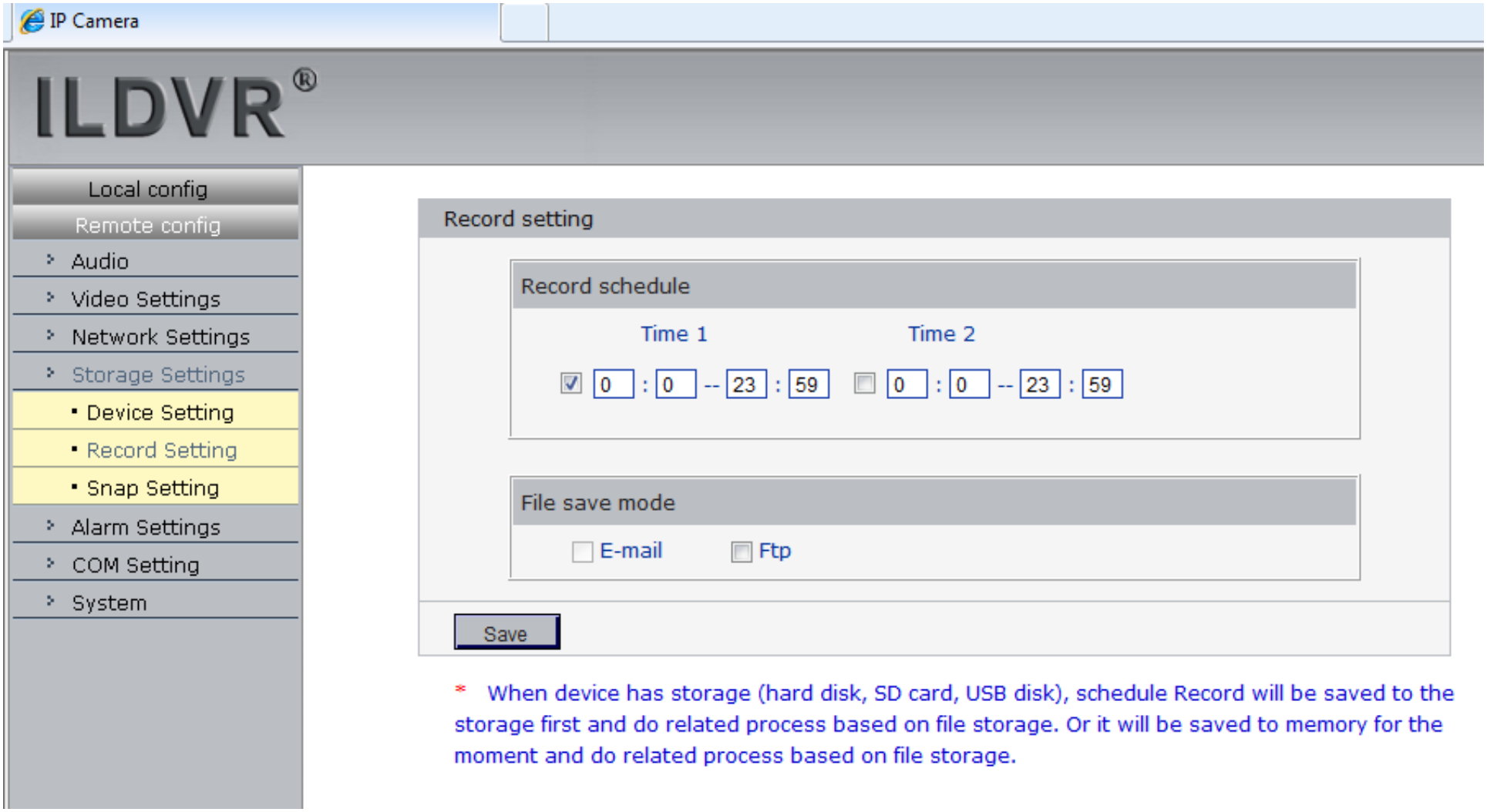


a. Format SD card in “Device Setting” page.

b. Set record schedule in “Record Setting” page.

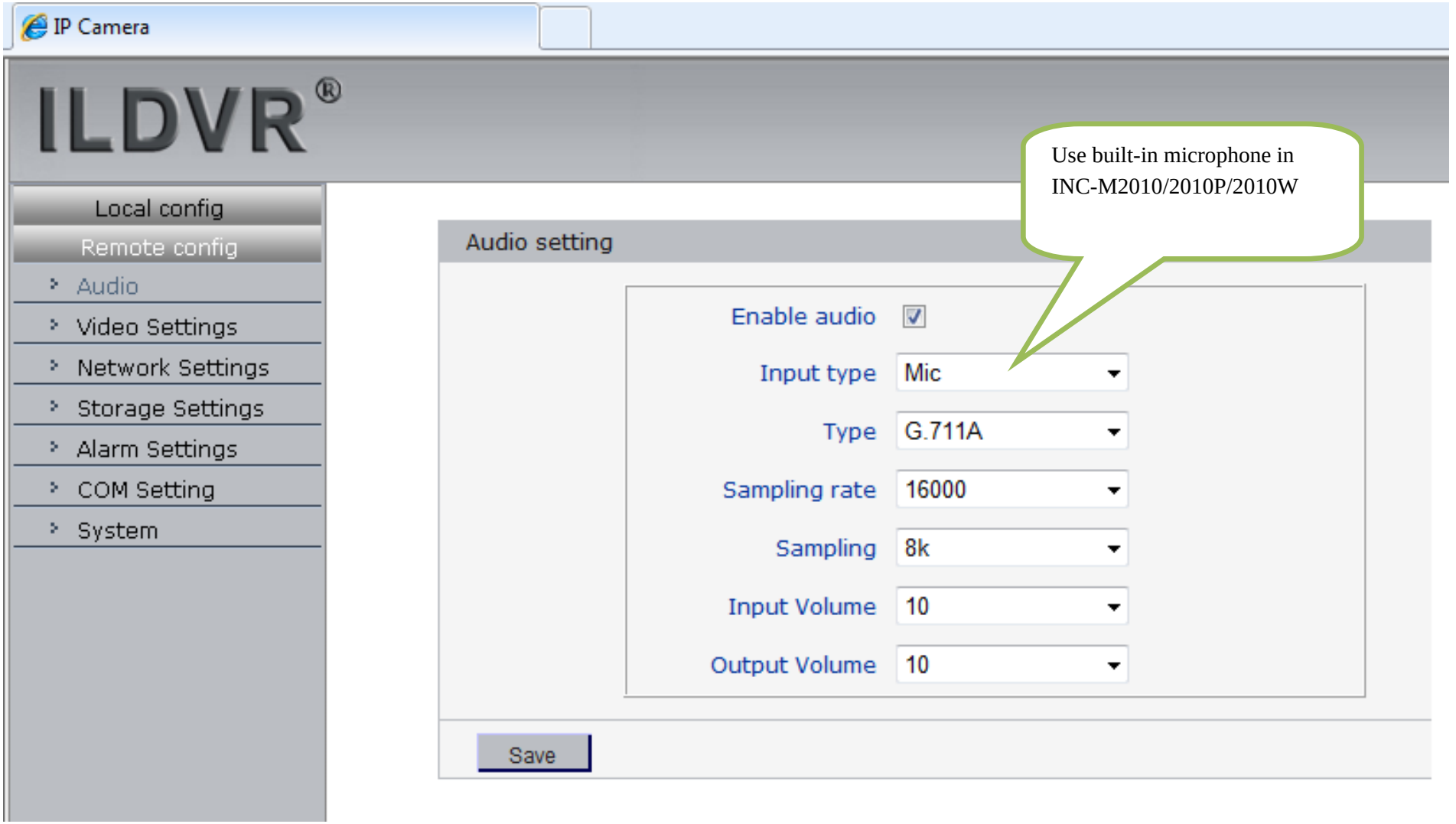
c. If you want motion record, please go to “Motion Detection” page to setup schedule

d. If you install external sensor, please go to “Sensor Setting” page to setup schedule.



4.2 Audio Chat to IP Camera

From right-click menu choose “Audio Chat to IP Device” to initialize a remote talk between PC to IP camera. This feature needs microphone (audio pickup) and speaker (earphone) to support in both ends. If no audio device can be detected, the “End Talk” dialog might pop up but you can have audio.

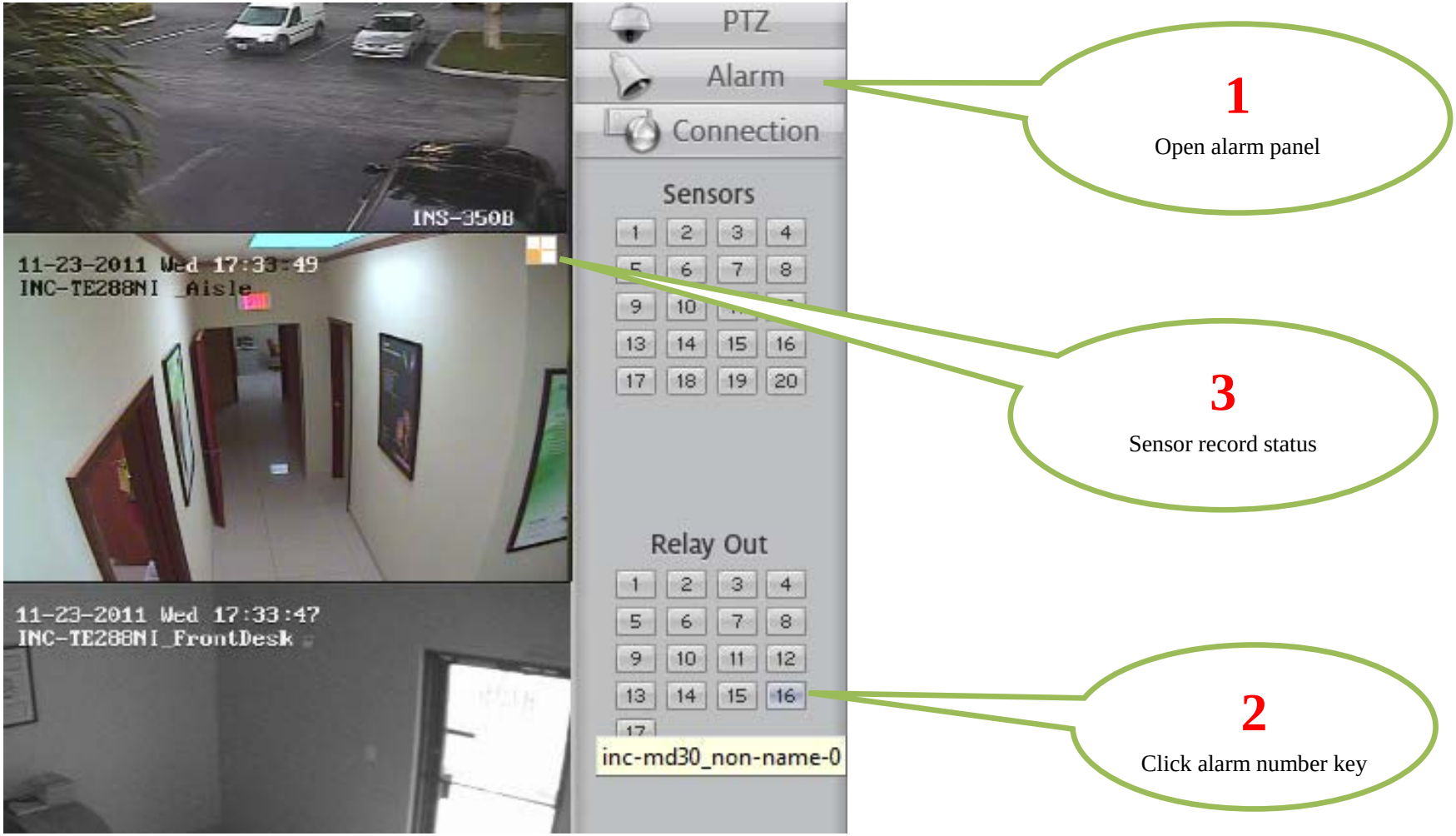


4.3 Mobile Phone Access Viewing

After you connect IP Camera to HVR Server, you can use your mobile phone to login HVR Server to view the real time image. HVR Server support most mainstream mobile phone in the market. The operation system includes iPhone, Android, Blackberry, Windows Mobile and Symbian. For Blackberry, Windows Mobile and Symbian mobile phone, user can directly login to HVR Server to download client software and install. For iPhone, Android mobile phone user should go to online app store to download client software. Please refer to HVR user manual for more details

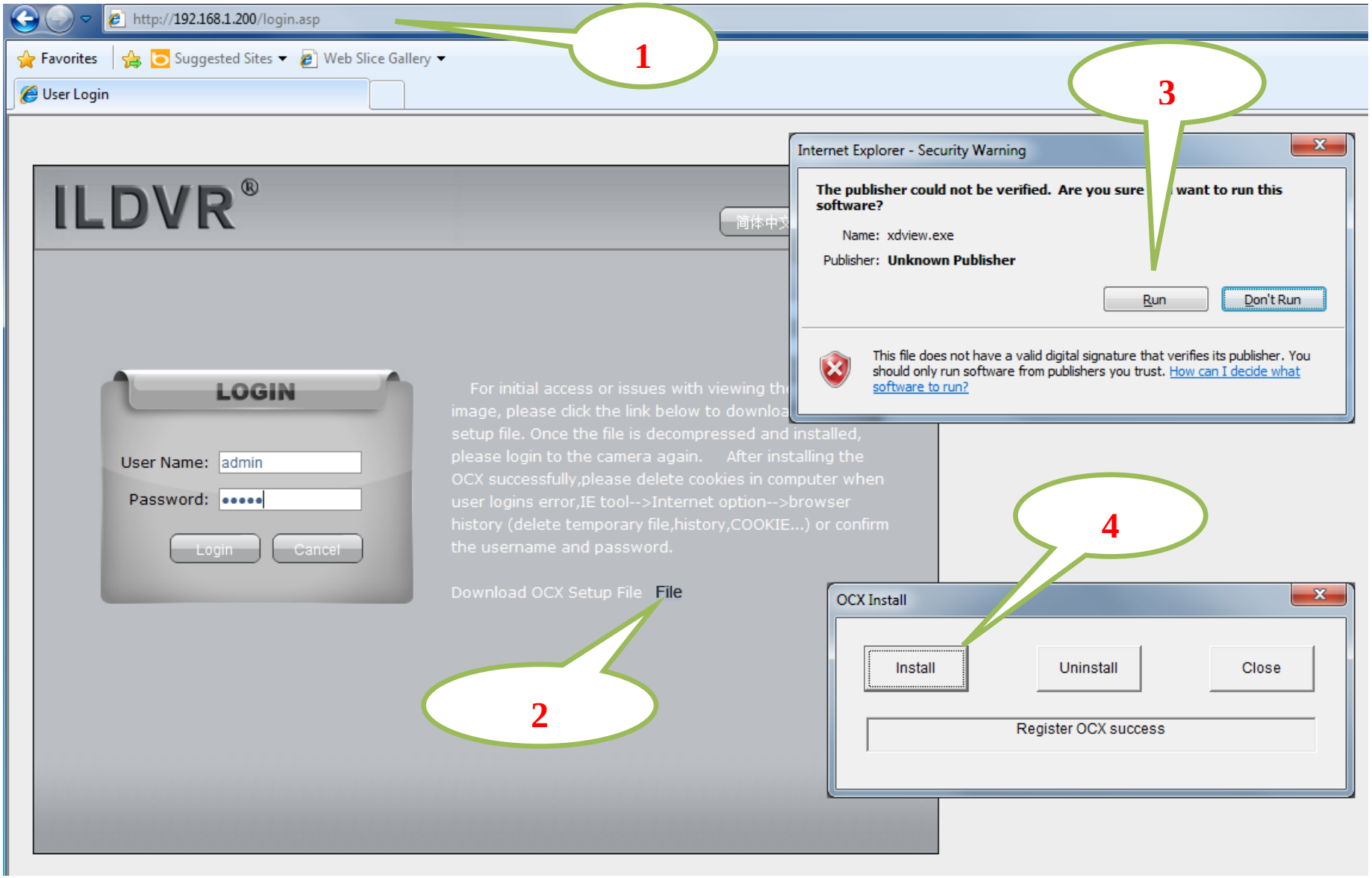
4.4 Manually Trigger Alarm-out

Manual trigger alarm out (relay out) can be widely used to integrate other electrical device such as open a door, turn of light, etc.



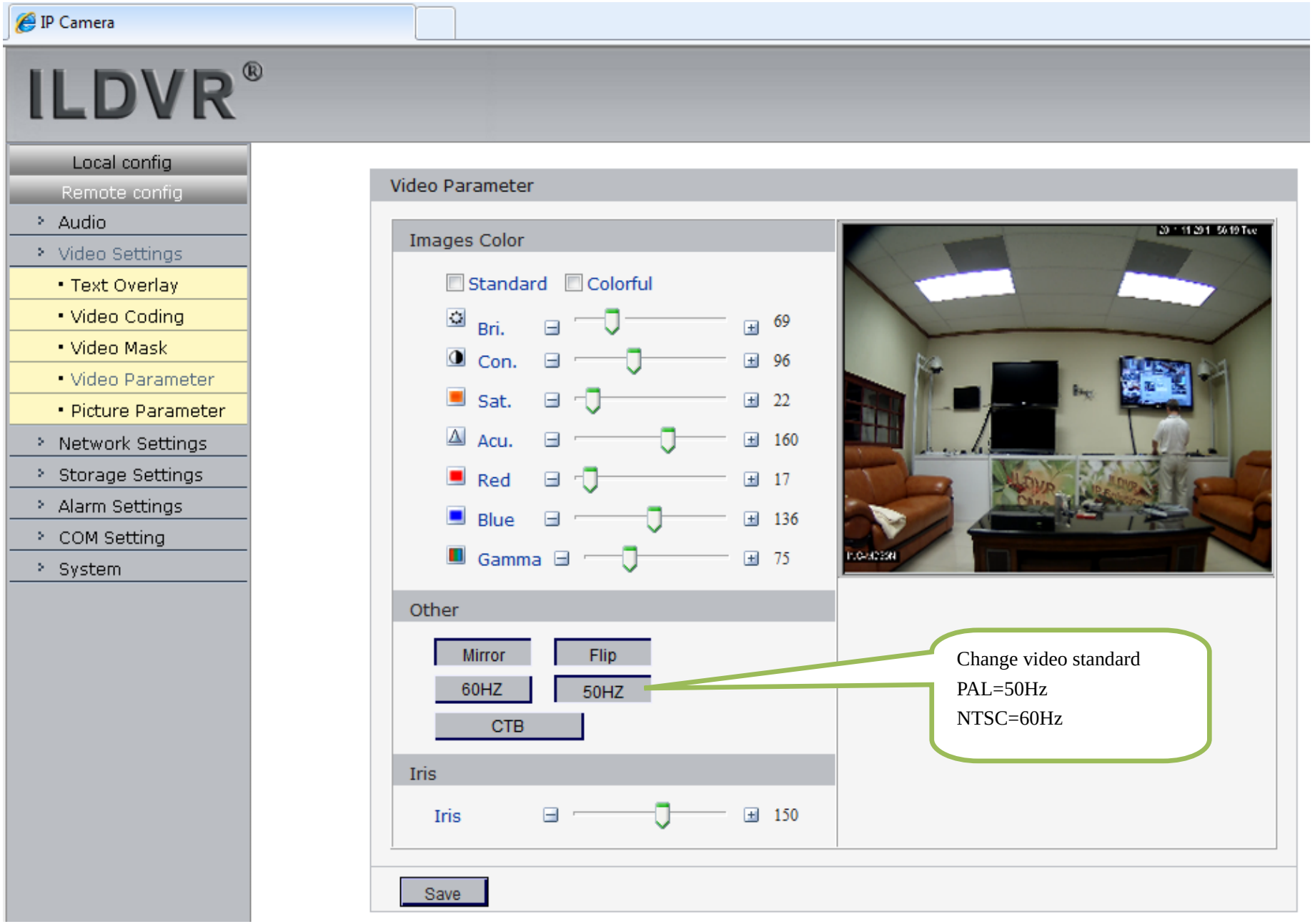
4.5 IE Web Client Operation

All IP cameras have built in web server. You can use Internet Explorer directly login to IP camera by input camera's IP address or domain name. At first time connecting to IP camera, you will be prompted to install ActiveX Control (Add-on). Refer to following illustration

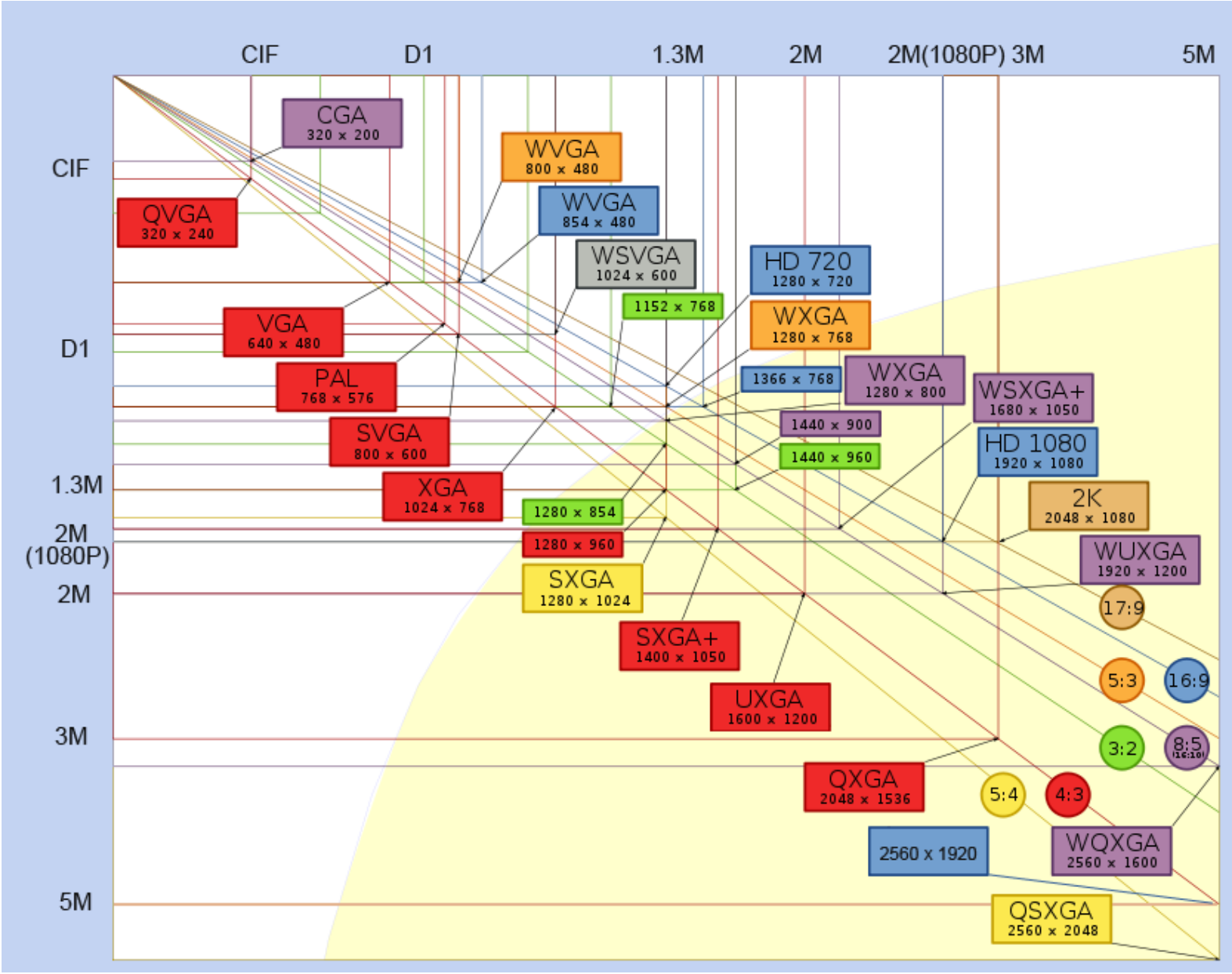


Main interface of IE web client

Most of the configuration jobs could be done in ILDVR software interface, but some advanced operation must be finished through IE interface. Such as Sensor Alarm setting, User Management and Restore system to factory default settings. The following picture is a sample configuration page inIE web client.


IP Camera
ILDVR®
Local config
Remote config
Audio
Video Settings
Text Overlay
Video Coding
Video Mask
Video Parameter
Picture Parameter
Network Settings
Storage Settings
Alarm Settings
COM Setting
System
Video Parameter
Images Color
Standard
Colorful
Bri. 69
Con. 96
Sat. 22
Acu. 160
Red 17
Blue 136
Gamma 75
Other
Mirror
Flip
60HZ
50HZ
CTB
Iris
Iris 150
Save
Change video standard
PAL=50Hz
NTSC=60Hz

The following illustration shows the terms of different image resolutions.



Technical Support Information

Please fill in this form in order to get prompt technical service in case of emergency!

Item	Description
IP Device Model Name	
IP Device serial number	
Firmware Version	
Purchasing date	
Dealer’s Contact info	**Company name:** **Technical Engineer:** **Tel:** **Fax:** **Email:**