WISENET

NETWORK VIDEO RECORDER

User Manual

SNR-73207W

CE

Overview of NVR

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SAFETY INSTRUCTION

Please carefully read the following safety instruction so as to avoid personal injuries and prevent the equipment and other connection devices from being damaged.

1. Please use the power supply enclosed or specified by the manufacturer.
   Never operate the equipment by using unspecified power supply.
2. Never push objects of any kind through openings of NVR so as to avoid electric shock or other accidents.
3. Do not put the equipment in a dusty location.
4. Do not place the equipment under the rain or humid environment like the basement.
   If the equipment is accidentally in contact with water, please unplug the power cable and immediately contact technical support.
5. Keep the surface of the equipment clean and dry.
   Use a soft damp cloth to clean the outer case of the NVR. (Do not use liquid aerosol cleaners.)
6. Do not operate if any problems are found.
   If there is a strange smell or sound from the NVR, unplug the power cable and contact technical support.
7. Do not try to remove the NVR cover to avoid electrical shock.
8. Handle with care.
   If NVR does not work properly, please contact technical support for repair or replacement.
9. Install and place the equipment in a well ventilated area. The NVR system includes a HDD, which produces large amount of heat during operation. As a result, do not block the ventilation vents (on the top, bottom, sides and the back of the NVR).
10. The power adapter should only be connected to the NVR. Do not connect it to additional equipment or else the NVR may restart repeatedly due to insufficient power.
11. Do not install near any heat sources such as radiator, stove, and other machinery or devices (including speakers) that produce large amount of heat.
12. If the provided plug does not fit your outlet, please technical support for assistance.
13. Protect the power cord from being walked on or pinched particularly at the plug level and each ends of the cord.

14. Only use attachments/accessories specified by the manufacturer.
15. Only use the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the system. When a cart is used, use caution when moving the cart and the device to avoid injury from tip-over.
16. Unplug the device during lightning storms or when unused for long periods of time.
17. Refer all servicing to qualified service personnel. Servicing is required when the device has been damaged in any way, such as power-supply cord or plug is broken, liquid has been spilled or objects have fallen onto the device, exposed to rain or moisture, does not operate normally, or has been dropped.

Standards Approvals

FC CE

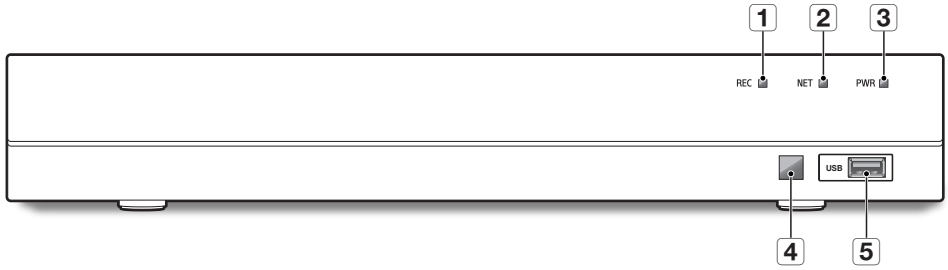
- Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

- 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.
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Overview of NVR

FRONT PANEL

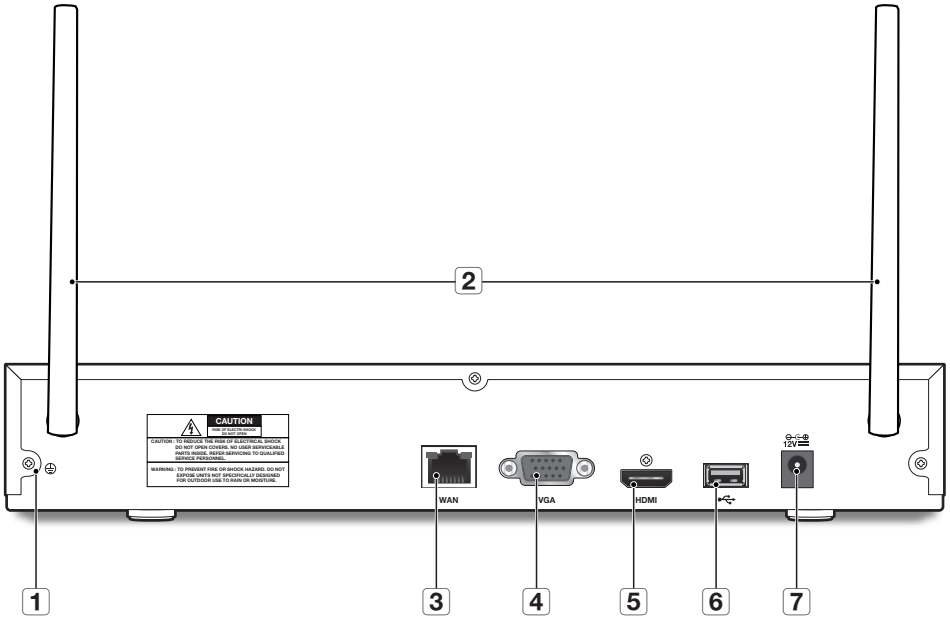
NVR is short for Network Video Recorder.



Type		Key or indicator	Identification	Functions
1	Status lamp	REC indicator	REC	If the "Red" indicator flashes, the hard drive is being read or written to. ■ The red light will illuminate when HDD is installed.
2		Network indicator	NET	Display network connection and data transfer status.
3		Power indicator	PWR	If the "Blue" indicator is on, NVR is getting power normally.
4	IR port		□	Receive IR signal from Remote Controller.
5	USB port	USB	USB	USB port

REAR PANEL

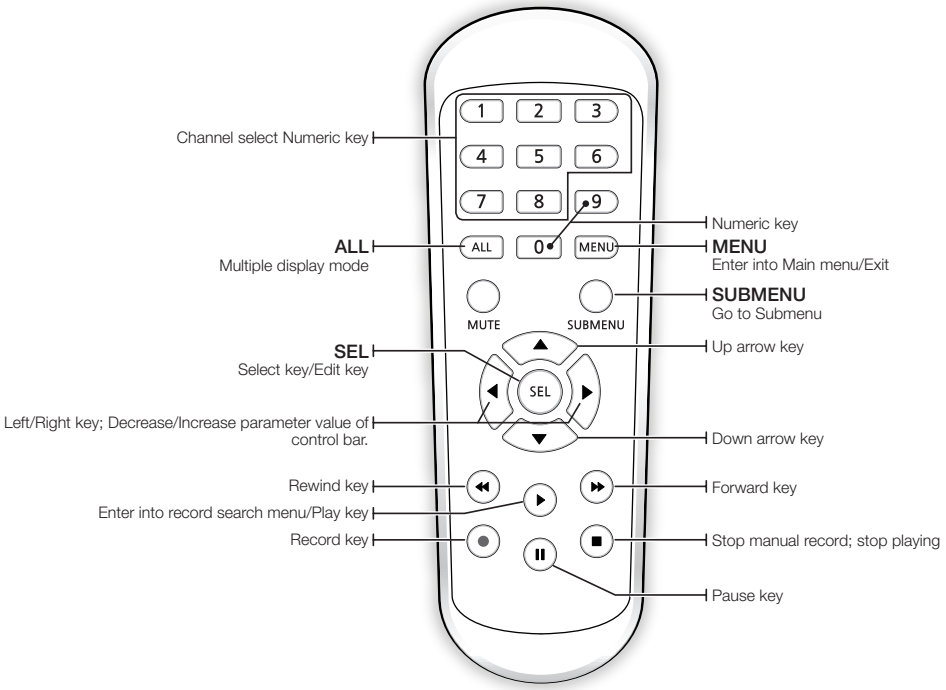
SNR-73207W



Physical Interface	Connection
1 Ground connection	A terminal to connect a separate ground cable. ■ Make sure to add a ground cable in order to use the equipment safely.
2 Antenna	Receive signal from wireless camera.
3 WAN: (RJ45) Network port	Connect with WAN, Ethernet cable.
4 VGA port	Connect with VGA display devices, such as PC monitor.
5 HDMI	Connect with HDMI display devices, such as PC monitor.
6 USB port	Connect with USB.
7 Power port	Connect with the power supply DC12V 2A, included with the device

REMOTE CONTROLLER

Operation of remote controller



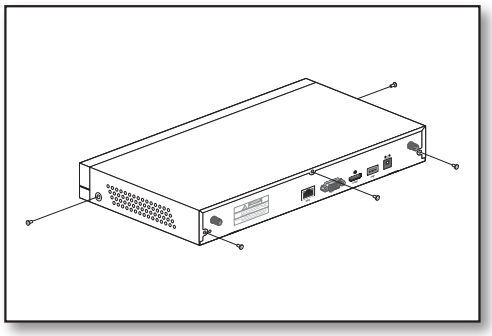
- There is no function of Mute button.
- SNR-73207W is a 4 channel NVR. Please press 1 to 4 key to select channel.

INSTALL HARD DRIVE

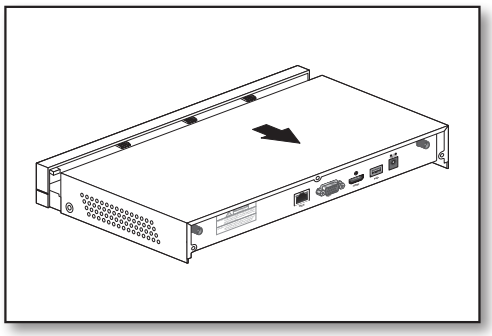
■ HDD is pre-installed. If you want to replace hard disk drive, please refer to the following instruction. Please do not remove the hard drive when NVR is operating.

Installation of Hard Drive

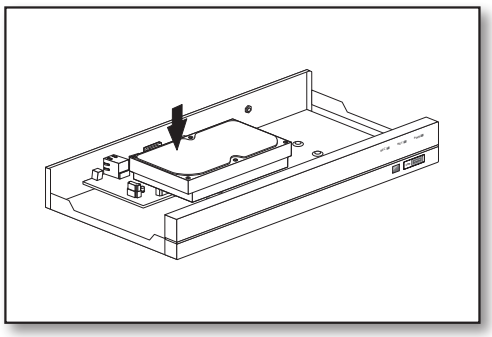
1. Using a screwdriver, remove the screws from the side and back panels.



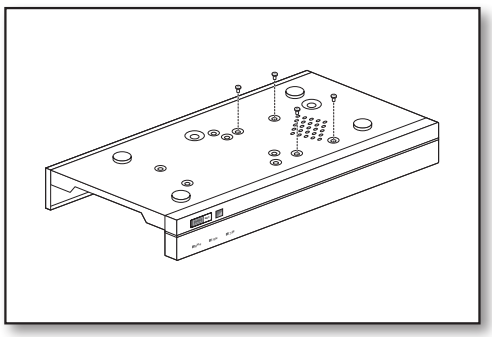
2. Remove the top cover.



3. Connect data and power cables of hard drive to the motherboard. Mount the hard drive by mounting it onto the rack and connecting the power and data cables.



4. Multiple groups of screw mounting holes are provided on the bottom of the NVR. Screw the hard drive in place according to the size of your hard drive.

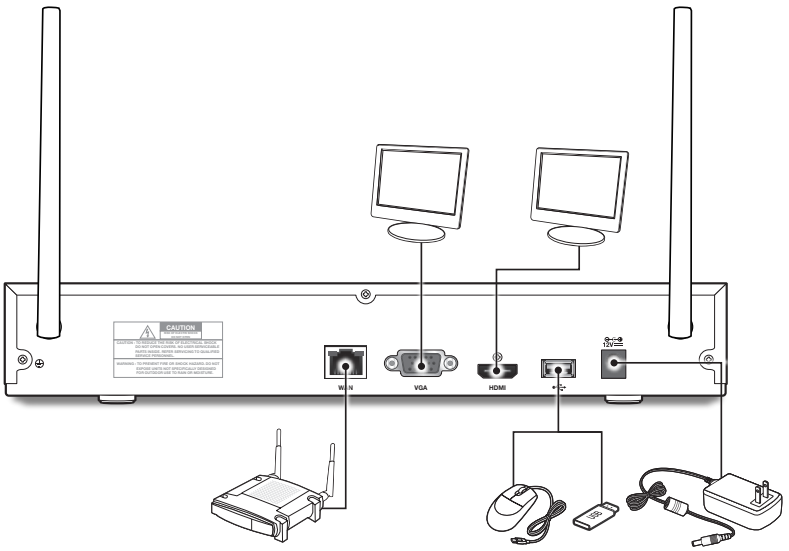


Overview of NVR

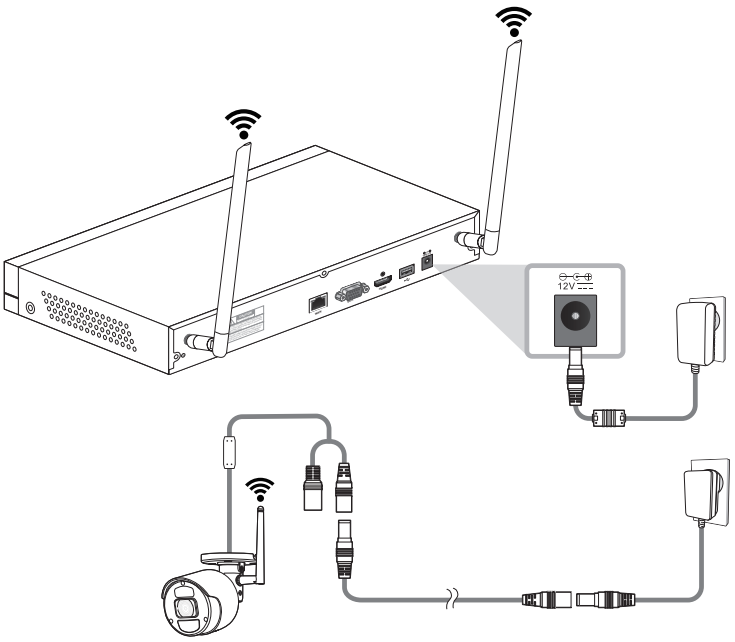
CONNECT EXTERNAL EQUIPMENT

Connect your monitor to the NVR using the VGA or HDMI video cable. Connect NVR to the power supply adapter provided. After all connections are completed, plug the NVR in to perform function checks.

- The appearance of power adaptor differs depending on sales region.



CONNECT NVR



- Images may differ depending on the model.
- Camera's shape can be different depending on AIO Kit you purchased.

NVR Boot up

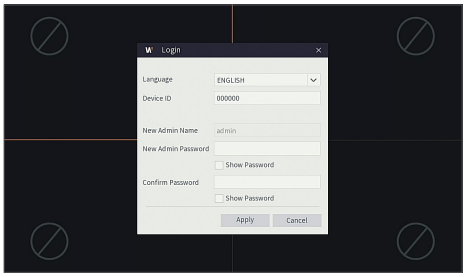
SYSTEM INITIALIZATION

After connecting the NVR power cable to wall outlet, the NVR system initializing screen will appear.

- It may take 40 seconds to start up, and the screen may beep 5~6 times.

LOGIN

1. The login dialog appears.
2. The password setting window appears for the first time. If you have changed your password, enter your new password.
3. Click the [**Apply**] button.

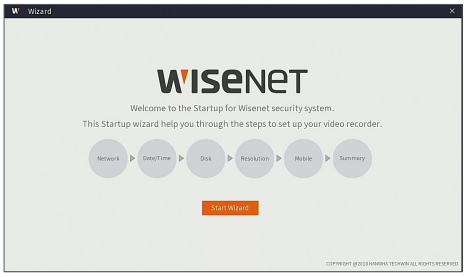


- Please create a user name and password for your device. Password MUST be 8~13 characters long. When password is 8~9 characters long, it should be with at least a combination of letters, digits and special symbols. If it is 10~13 characters long, it should be with at least a combination of two types of characters. 4 or more contiguous or repeated characters or key arrangement are prohibited, for example 1111, 1234, abcd, qwerty.

STARTUP WIZARD

After the NVR startup is complete, the startup wizard will display.

Wizard setting menu includes: Network, Date/Time, Disk, Resolution, Mobile and System summary.

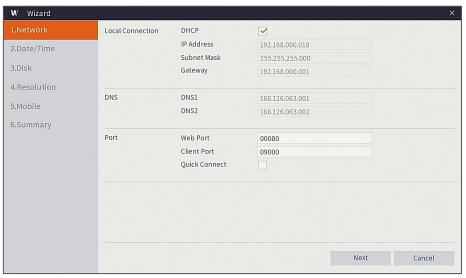


NVR Boot up

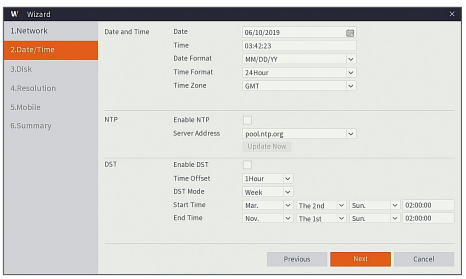
Use Virtual Keyboard

Virtual keyboard window will be displayed for input. Click on the desired characters to apply them. Press < ⇧ > to switch to input of upper-case letters.
Press < ⇧ > again to switch to input of special characters. The virtual keyboard is used in the same way as with physical keyboard.
For input of password, use letters and special characters other than <\> and <">.

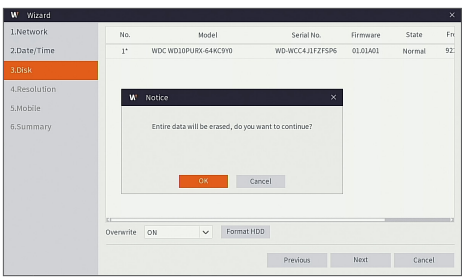
1. Network (DHCP): In DHCP mode the router will automatically assign an IP address to NVR. If the NVR fails to obtain an IP address, refer to the NVR Router Guide. If the problem still cannot be resolved, contact technical support.



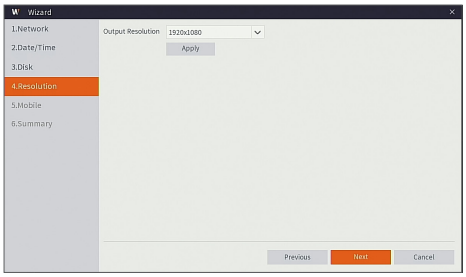
2. Date/Time: Set the date, time, date format, time, NTP, DST.



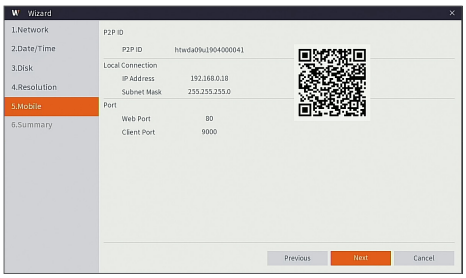
3. Disk: Any new disk connected must be formatted before use. Click on "Select" to highlight the hard drive to be formatted. Click on "Format HDD" and the user login box will appear. Enter the password to log in. Click on "OK" to format the disk when the "Entire Data Will Be Erased. Do You Want To Continue?" dialog box appears. Formatting process is complete when the progress bar is full.



4. Resolution : Select the resolution for the VGA output or HDMI output of your monitor.

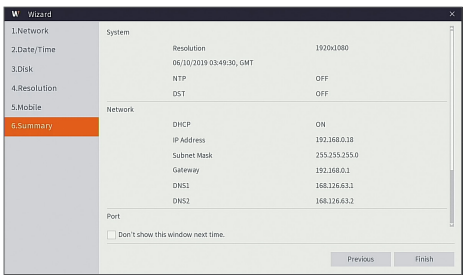


5. Mobile : If you scan a QR code using WisenetLife App, the device ID displayed in the NVR will be automatically reflected in the Mobile Viewer ID, and you can use the Mobile Viewer immediately by entering the password of the NVR.



6. Summary : Shows system and network status of NVR.

7. Click on "**Finish**" to finish setting of startup wizard.



■ You can click on "**Don't show this window next time**" if you do not wish to have the wizard setting to appear next time.

NVR Boot up

MAIN INTERFACE

In real-time preview mode: right click on any area to access the desired menu. Right click on it to open a context menu, whose menu items may vary depending on the specific condition, such as sign-in, sign-out, split screen mode and various operation conditions.

Left click on any channel to access shortcut menu, where operations such as image capture, recording and image zoom-in are available.

The video recording marks are as shown below:

● : means common Recording.

: means Motion detection recording.

PIR : means PIR detection. The PIR sensor might not work if there is a window or it rains.

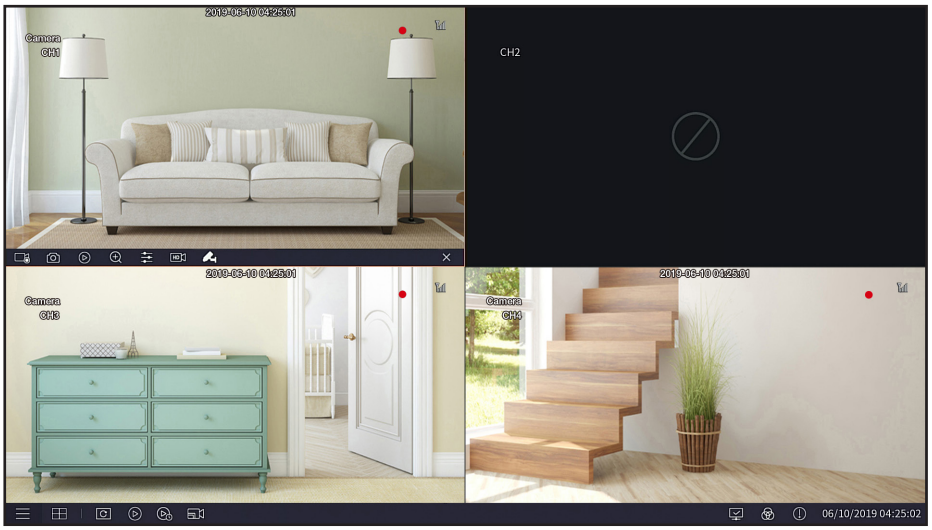
Component Name	Function
1 Channel Name	Display channel name
2 Date & Time	Display current date and time
3 The WiFi signal icon	The level of the signal, strong or weak.
4 Video Loss	Wireless Camera is off-line.
5 Manual Recording	Enable or disable manual recording
6 Manual Capture	Make a snapshot of current video
7 Instant Playback	Make playback of the last 5 minutes of the video
8 Zoom	Hold and drag mouse cursor to select a frame of current video to zoom in.
9 Color Setting	Set hue, brightness, contrast and saturation of current channel.

Component Name	Function
10 Zoom	Hold and drag mouse cursor to select a frame of current video to zoom in.
11 Pair	Do the pairing of camera and NVR. If you click the icon of each channel and press the Pair button on the camera within 30 seconds, the camera and NVR are manually paired.
12 Main Menu	Access the main menu
13 4-Channel Layout	Display four channels of video.
14 Auto SEQ	Press this button to switch the screen mode in sequence.
15 Play	Access video retrieval page.
16 Stream Switch	HD or SD optional.
17 Connection state	Displays the network connection status.
	connect fail : Not connected WAN.
	not connect : Not connected physically.
	connect success : connected WAN.
18 Manual mode	Sets manual recording mode.
19 System	System Information.

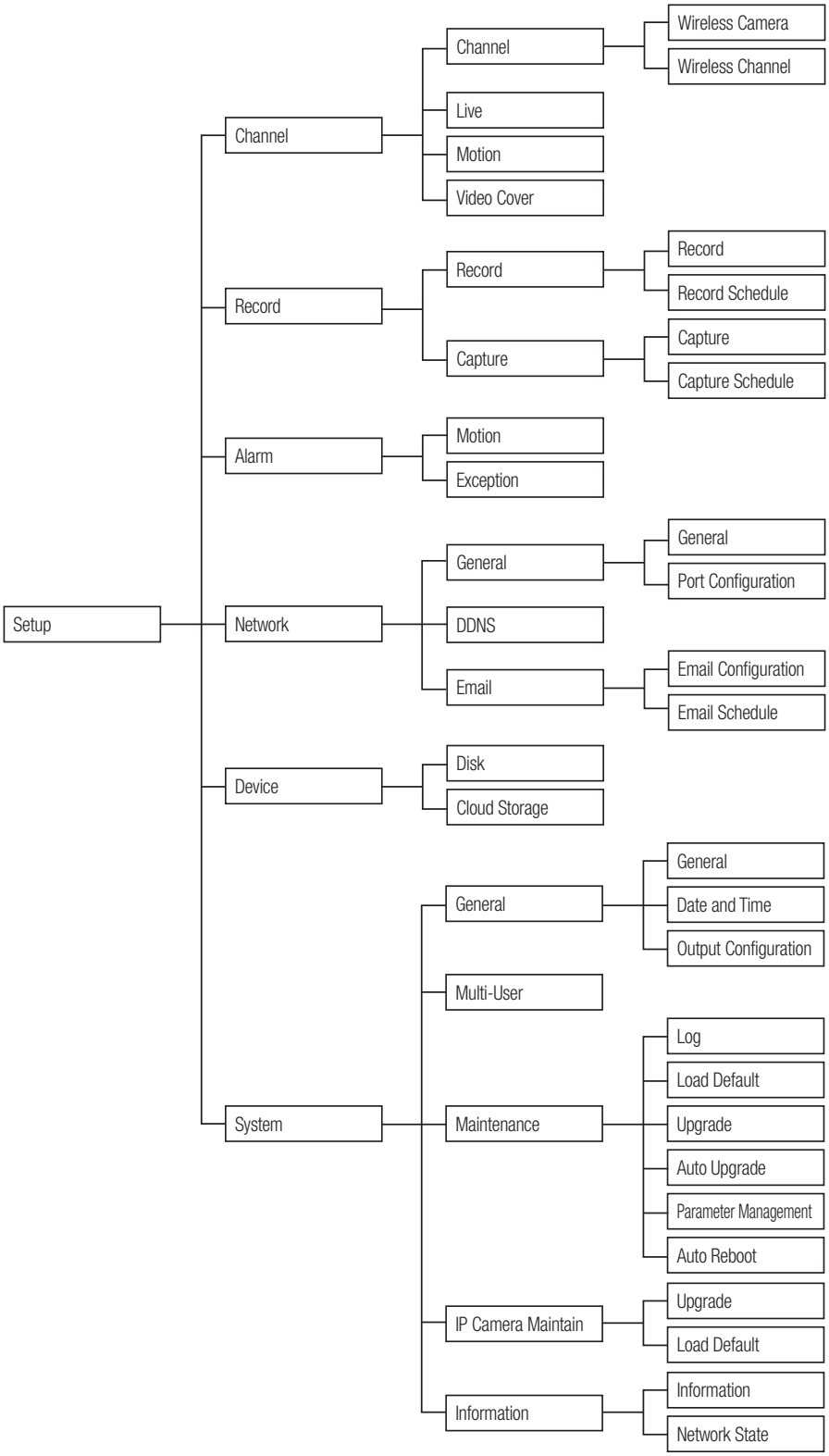
POPUP MENU

After finishing system initialization, right click the mouse on preview interface or slide the mouse to the bottom of screen to enter into Pop-up Menu. Now you could perform parameter setting and operate on Main Menu, Multi-screen, Record Search, Sequence and Brightness settings.

The options in the pop-up menu may vary slightly according to different parameter settings and application environment. The options in the menu will be explained in detail in the following chapters.



MAIN MENU GUIDE



NVR Menu

SETUP

On LIVE mode, click the mouse left button, or [Menu] button on the remote controller, or click [☰] icon on the toolbar to enter the main menu screen.

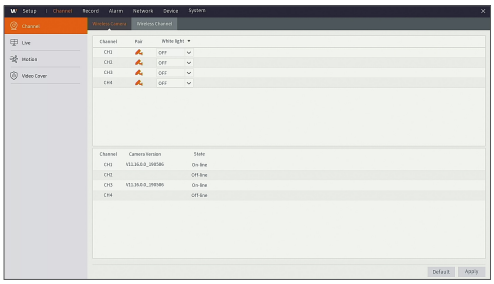
If system interface is locked, refer to page 33 to unlock by entering your password.
In Main Menu mode, you can make settings for Parameter, Record Search, Device, System, Advanced and Shutdown.

Channel

Wireless Camera

Go to "Setup" ➞ "Channel" ➞ "Channel" ➞ "Wireless Camera" to enter into the following menu.

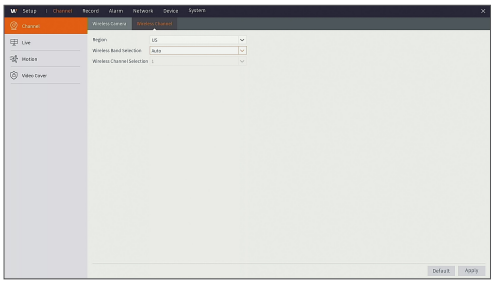
- **Channel** : Channel of wireless camera.
- **Pair** : Click the channel button to do pairing.
- **White light** : Enables the white light illuminator function of the camera.
- **Camera Version** : Wireless Camera firmware version.
- **State** : Shows the network connection status of the camera.



Wireless Channel

Go to "Setup" ➞ "Channel" ➞ "Channel" ➞ "Wireless Channel" to enter into the following menu.

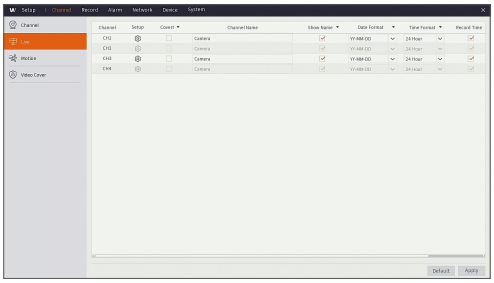
- **Region** : You can select Region.
  - US : The Americas
  - EU : Europe
  - Others : Other areas
- Wireless Band Selection : Auto or Manual optional. Auto is recommended.
  ※ If your video is interrupted and video loss occurs in the Auto mode, change it to the Manual mode, and select a channel with no interference.
- **Wireless Channel Selection** : Select the channel in the drop-down list.

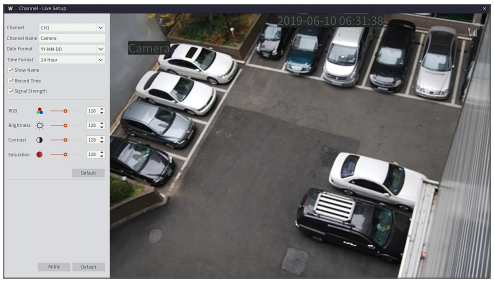


Live

Go to "Setup" ➞ "Channel" ➞ "Live" to enter into the interface.

- **Covert** : Enable/Disable Video hiding.
- **Channel Name** : Set the channel name to be displayed on the live screen.
- **Show Name** : Showing Channel name
- **Date Format** : Select the date format to be displayed on the live screen.
- **Time Format** : Select the time format to be displayed on the live screen.
- **Record Time** : Enable or disable displaying system time in recording.
- **Signal Strength** : Select whether to display the network signal strength on the live screen.
- **RGB** : Adjust the chromaticity of video
- **Brightness** : Adjust the brightness of video
- **Contrast** : Adjust the contrast of video
- **Saturation** : Adjust the saturation of video



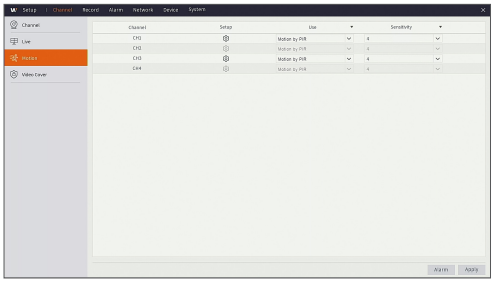


■ Click [⚙] to display the detailed setting window.

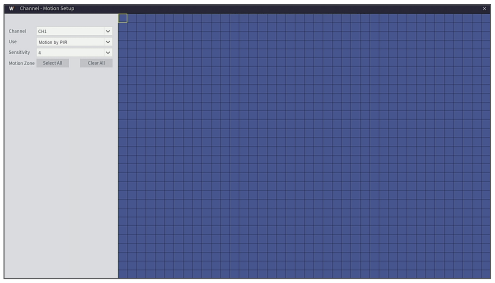
Motion

Go to "Setup" ➞ "Channel" ➞ "Motion" to enter into the interface.

- **Channel** : Select Channel.
- **Use** : Sets the use of motion detection.
  You can select either Motion only or Motion by PIR.
  When set to cloud channel on the Wisenetlife cloud web or in the Wisenetlife app, this is changed to Motion by PIR.
- **Sensitivity** : Support 1-8 level, 8 is the highest level.



- **Motion Zone** : Set an area where motion is detected.



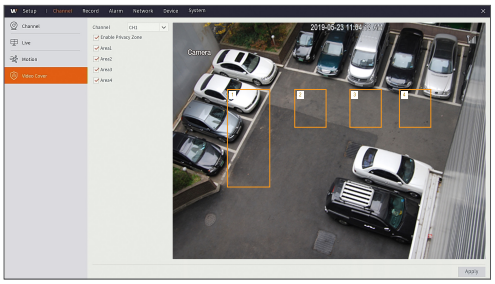
- The PIR sensor might not work if there is a window or it rains.
- Click [⚙] to display the detailed setting window.

Video Cover

Go to "Setup" ➞ "Channel" ➞ "Video Cover".

Privacy Zone is to block certain area(s) in the camera's field of view on live video of selected channel.

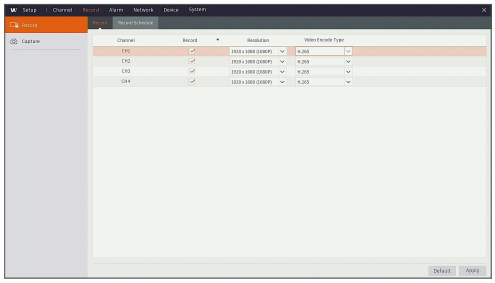
1. Click "**Enable Privacy Zone**" and select the number of the Area(s) to be blocked.
2. Adjust the position and zone of the Area(s).
   - You can adjust the range of the privacy zone by clicking and dragging the lower right corner of each area box.
3. Click "**Apply**" to save the setting.



Record

Go to "Setup" ➞ "Record" ➞ "Record" ➞ "Record" to enter into the interface.

- **Record** : Enable/disable record
- **Resolution** : Set the desired recording resolution.
- **Video Encode Type** : Select the video compression method.



Record Schedule

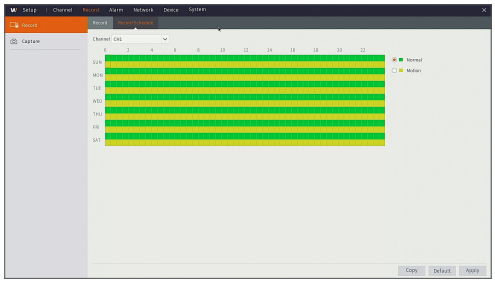
Go to "Setup" ➞ "Record" ➞ "Record" ➞ "Record Schedule" to enter recording schedule for the NVR.

Schedule interface

Select the channel and the date to be set.
One week's schedule can be set.

The record schedule of the current channel can be copied to any other channel or all channels.

After selecting either "Normal" or "Motion", click the boxes you want or drag over multiple boxes of the time you want to fill/unfill the selected boxes with color. The color-filled boxes indicate that the Record Schedule of the selected channel is set.

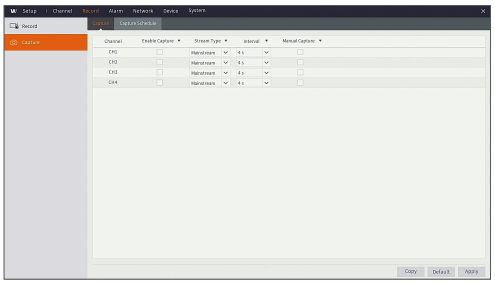


- In the Record menu and Record Search menu, when no colors are presented, it means there are no recordings during that time;
- "Green" stands for normal record and "yellow" stands for motion record.

Capture

Go to "Setup" ➞ "Record" ➞ "Capture" ➞ "Capture".

- **Channel** : Select capture channel
- **Enable Capture** : Enable/Disable auto capture.
- **Stream Type** : Select MainStream or SubStream.
- **Interval** : 4s / 8s / 25s / 1Min / 10Min / 30Min / Hour
- **Manual Capture** : Enable/Disable manual capture



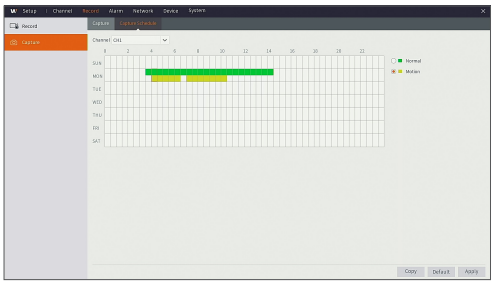
■ You can click on the icon [ ] in the live window to manually capture the image with your mouse.

Capture Schedule

Go to "Setup" ➞ "Record" ➞ "Capture" ➞ "Capture Schedule".

- **Normal** : Conventional capture setting
- **Motion** : Motion detect capture setting

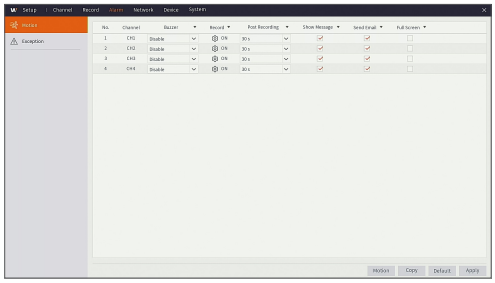
After selecting either "Normal" or "Motion", click the boxes you want or drag over multiple boxes of the time you want to fill/unfill the selected boxes with color. The color-filled boxes indicate that the Capture Schedule of the selected channel is set.



Alarm

Motion

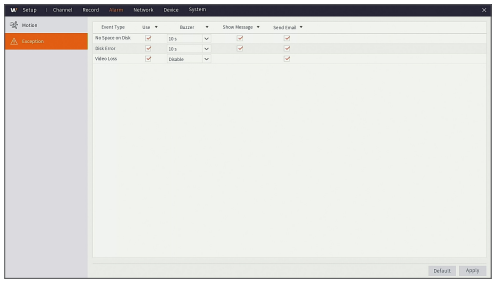
Go to "Setup" ➞ "Alarm" ➞ "Motion" to enter into the interface.



- **Buzzer** : When detecting object moving, buzzer makes alarms (disable, 10 seconds, 20 seconds, 40 seconds and 60 seconds).
- **Record** : When object motion is detected, the record channel setting will be activated.
- **Post Recording** : After the alarm finishes, the duration time of the alarm recording can be set as 30 seconds, 1 minute, 2 minutes and 5 minutes.
- **Show Message** : Messages will be displayed on the screen when moving object is detected and alarms are made.
- **Send Email** : When moving object is detected, send Email to the specified Email address.
- **Full Screen** : When moving object is detected, messages will be displayed in full screen.

Exception

Go to "Setup" ➞ "Alarm" ➞ "Exception" to enter recording schedule for the NVR.



- **Event Type** : Support three abnormal types: No Space on Disk, Disk Error and Video Loss.
  - No Space on Disk : Alarm will appear when there is no free space in the HDD of the NVR.
  - Disk Error : Alarm will appear when the HDD does not work due to damage, power failure.
  - Video Loss : When the NVR fails to receive video signals due to some problems (camera damage,wireless signal is weak, power failure), the alarm will appear.
- **Use** : Active alarms for abnormal situations.
- **Buzzer** : How long the buzzer will sound (10s, 20s, 40s, 60s).
- **Show Message** : You can set show message on the screen when alarm is detected.
- **Send Email** : Select to send Email to specified Email address when abnormal events appear.

Network

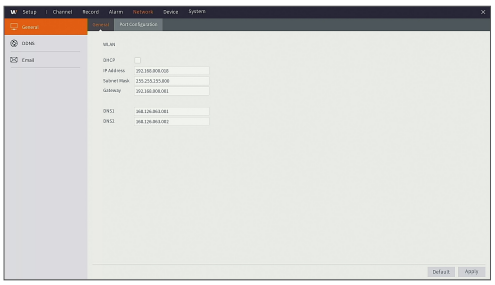
General

Go to "Setup" ➞ "Network" ➞ "General" ➞ "General" to enter the interface.

Select the network connection option (DHCP, Static) to set the port. User can view and do the recording, playback or backup of the video remotely.

Take DHCP as an example. In this mode, the router automatically assigns IP address for the NVR. After restarting the NVR or DHCP server, the IP address obtained by the NVR may be different. As a result, you need to check the IP address and port numbers before remote access to the NVR every time. The operation procedure is as follows:

1. Select DHCP, click Save and restart the NVR. Input Client Port and Web Port (the two ports must be different).

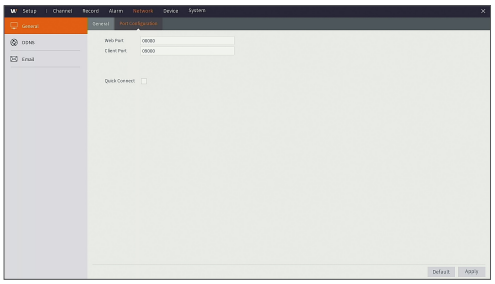


For Static and DHCP, after setting the IP address for the NVR, the extranet port shall be mapped in the router before visiting NVR through public network.

- Save the setting to apply the changes made. If there are multiple NVRs in a LAN, make sure their MAC addresses are different.

Port Configuration

Go to "Setup" ➞ "Network" ➞ "General" ➞ "Port Configuration" to enter the interface.

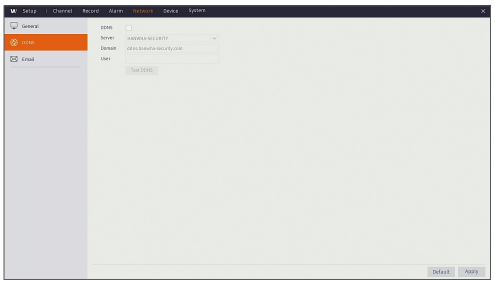


- **Web Port** : This is the port that you will use to log in remotely to the NVR (e.g. using the Web Client). If the default port 80 is already taken by other applications. Please change it. http://Public network IP: Web port number (such as 80)
- **Client Port** : This is the port that the NVR will use to send information through. If the default port 9000 is already taken by other applications, please change it.
- **Quick Connect** : If you want to log in remotely (WAN) to the NVR using Web Client, you need to complete the port forwarding. Enable this option if your router supports the Quick Connect. You need to enable Quick Connect both, on NVR and router. In this case, you do not need to configure manually port forwarding on your router. If your router does not support Quick Connect, make sure the port forwarding is completed manually. (Web port and Client port)

DDNS

Go to "Setup" ➞ "Network" ➞ "DDNS" to enter into the menu interface.

User may set DDNS in any one of the above 3 network connection types after applying dynamic domain service. User may remotely access the NVR through domain by using browser in the form of http://applied domain: mapped HTTP port number. When using DDNS domain name to access the NVR, user must confirm that the port can be normally connected to current IP on the public network and the settings for server address/host name/user/password/ setting should be consistent with the NVR local setting.

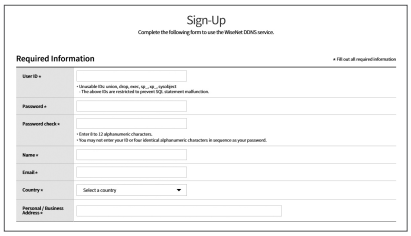


- **Server** : Select dynamic domain name server provider. Available domain name servers (HANWHA-SECURITY, DDNS_3322, DYNDNS, NO_IP, CHANGEIP, DNSEXIT)
- **Domain**: dynamic domain name of the host obtained from dynamic domain name service provider upon registration, for example, http://ddns.hanwha-security.com/snb5000
- **User** : The user name registered upon application for dynamic domain name.
- **Password**: The password set upon registration.
  Click on "Test DDNS". If connection succeeds, it will be indicated that "DDNS Test is Successful!"
  Perform remote access to the NVR by using dynamic domain name, for example, http://ddns.hanwha-security.com/snb5000:HTTP port number (e.g. 19010)

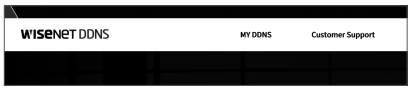
REGISTERING WITH DDNS

To register your product with the Wisenet DDNS

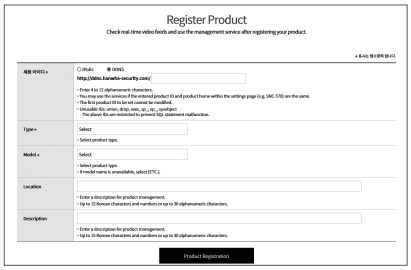
1. Visit the Wisenet DDNS web site (http://ddns.hanwha-security.com) and sign in with a registered account.



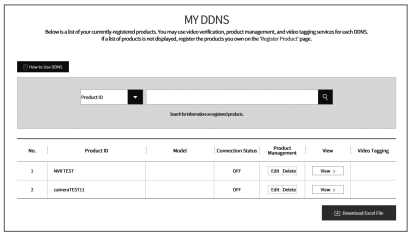
2. From the top menu bar, select <**MY DDNS**>.



3. Click the [**Register Product**] tab.
4. Select DDNS button.
5. Enter the product ID.



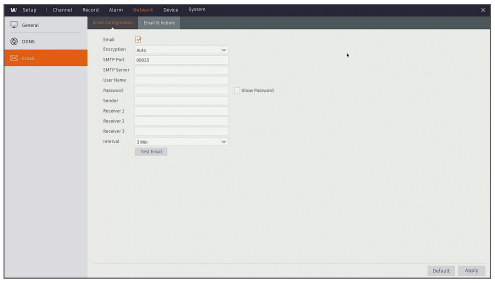
6. Select a <**Type**> and specify the <**Model**>.
7. Specify the product location with a description if necessary.
8. Click [**Product Registration**].
   The product will be added to the product list that you can check.



Email

Email Configuration

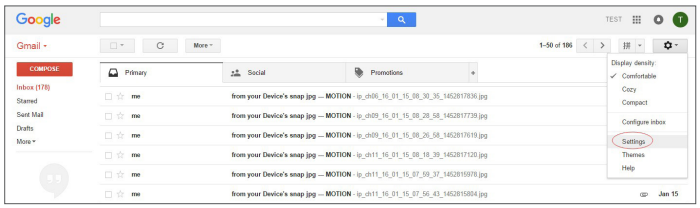
Go to "Setup" ➞ "Network" ➞ "Email" ➞ "Email Configuration" to enter into the menu interface. Receive or Send NVR alarm Email and set parameters like Email address, SSL, Email Enable, and Interval.



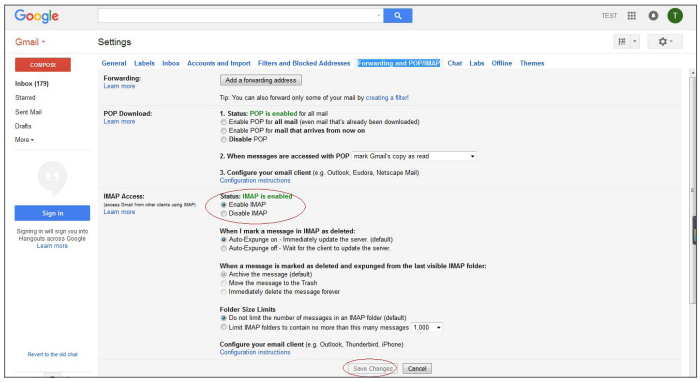
- **Encryption**: Disable, SSL, TLS and Auto optional. Auto means it can detect the encryption type automatically. It is recommended to set the encryption type as Auto.
- **SMTP Port**: Mail sending port used by SMTP (Simple Mail Transfer Protocol). Server is generally Port 25 or Port 465 when SSL is used by Gmail.
- **SMTP Server**: Enter the address of the server for the mailbox in use.
- **User Name**: Enter a server to connect to. For example, email "aaa@gmail.com" should correspond to server "smtp.gmail.com"
- **Password**: Enter the password of the SMTP server user.
- **Sender**: Sender's mail address, which must correspond to the server used. For example, mailbox "aaa@gmail.com" should correspond to server "smtp.gmail.com".
- **Receiver 1/2/3**: Recipient's mail address, used to receive alarm image and message from NVR side. If system alarms continually and sends email images frequently, save the images to another location or remove them, so as to avoid excessive space occupation and thereby affect your normal use of mailbox.
- **Interval**: A mail will be sent every three minutes by default. If the time interval for mail notification is set too short, email server may deem mails as junk mails, so they cannot be transferred normally.

Mailbox Setting:

For example, if you are using Gmail, sign in to the GMAIL mailbox. https://mail.google.com



Click on "settings--Forwarding and POP/IMAP"



Click on "Enable IMAP--Save Changes"

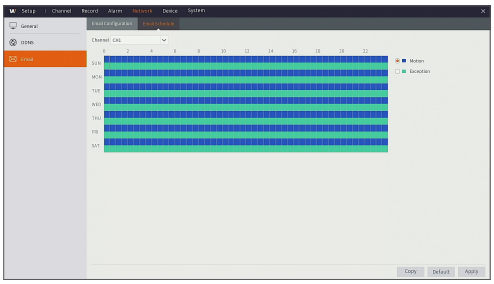
E-mail Schedule

Go to "Setup" ➞ "Network" ➞ "Email" ➞ "Email Schedule" to make Email schedule.

Select the channel and the date to be set.
One week's schedule can be set.

The record schedule of the current channel can be copied to any other channel or all channels.

After selecting either "Motion" or "Exception", click the boxes you want or drag over multiple boxes of the time you want to fill/unfill the selected boxes with color. The color-filled boxes indicate that an email will be sent when motion is detected or an exception occurs on the selected channel.



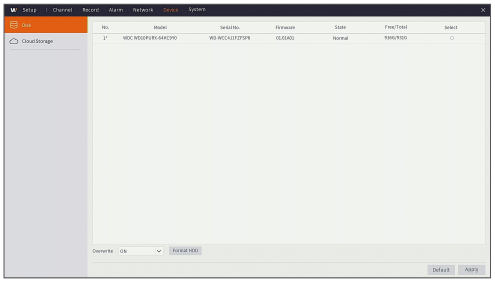
- Blue stands for Motion: Email will be sent in case of object motion;
- Green stands for System: Email will be sent in case of System, e.g. No Space on Disk, Disk Error, Video loss, etc.

Device

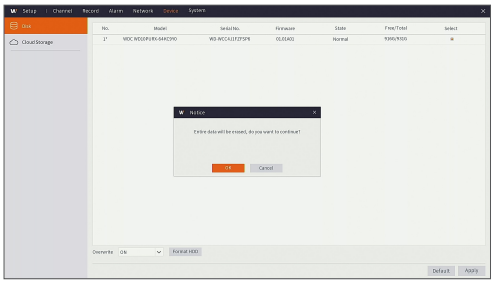
Disk

Go to "Setup" ➞ "Device" ➞ "Disk" to enter into the interface.

When HDD is connected, the system will automatically detect if the HDD is OK or not; if the HDD needs to be formatted, select the HDD and format it. If the system detects the HDD is OK, the HDD status will be shown as "Normal".

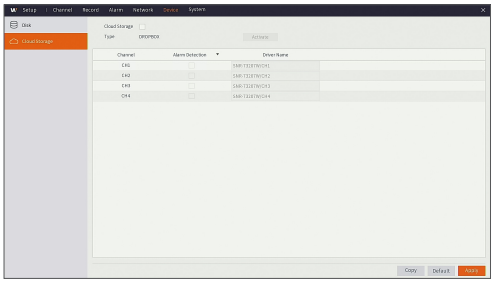


- **No.** : Number of HDD connected to system.
- **Model** : Displays HDD model name.
- **Serial NO.** : Displays the HDD serial number.
- **Firmware** : Displays the HDD firmware version.
- **State** : It shows the current status of the HDD. It will be available only when the HDD is "Normal".
- **Free/Total** : Remaining or total space of the HDD.
- **Select** : Check this to select the HDD to format.
- **Overwrite** : When set to ON and the hard drive is full, the NVR will overwrite the oldest files on the hard drive. When set to OFF and the hard drive is full, the NVR will stop recording.
- **Format HDD** : Format HDD for the first use.



■ Recording can only be performed when the HDD is in "Normal" state.

Cloud Storage



- **Cloud Storage** : It can upload the captured pictures to Dropbox at normal time, or when motion detection happens.

1) To use the cloud backup, you need to register your email first. For the detail, please refer to the page 24.
2) Register an account on https://www.dropbox.com/.
3) Configure network to ensure NVR is under network.
4) Configure Cloud: Enable Cloud and set the channel. Enable Motion Detection to have it capture pictures when motion detection happens.
5) Driver Name refers to the name created in the folder of Dropbox and the name can be defined by the user, e.g. CloudNVR000. The folder is to store captured pictures from the NVR.
6) Click [Activate Cloud] to activate Cloud and Email for the user verification will be sent. Click the link in the email and then log in to your dropbox account, and click permit. NVR cloud storage function will be activated. If you have logged in your dropbox account before Cloud storage activation, then no need to relogin. Just click Permit to complete the activation. Please finish the activation within 3 minutes. After activation is completed, you can use the Cloud storage function.
7) Click the icon at the upper-left of dropbox account interface to view the folder made in the 5th step.
8) Open the Dropbox folder to view the NVR captured pictures.

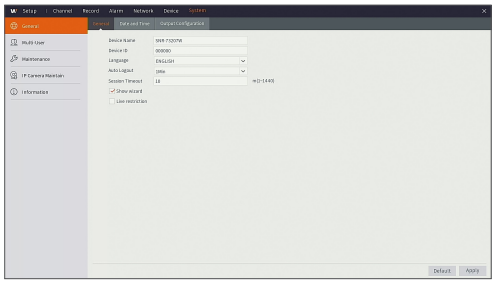
System

General

Go to "Setup" ➞ "System" ➞ "General" ➞ "General" to enter into the interface.

User may set Device Name, Device ID, Language, Auto Logout, Session Timeout and Show Wizard on this page.

- Session Timeout : The session is disconnected after a set period of time.
- Live restriction : If you want to use the permission setting of Live View when turning the power on/off, please check.

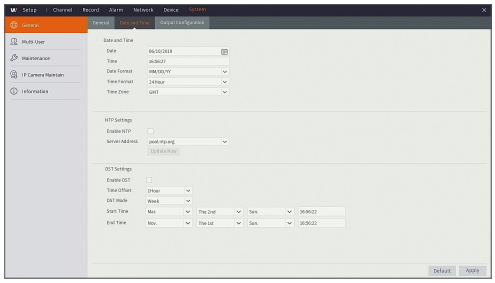


Date and Time

Go to "Setup" ➞ "System" ➞ "General" ➞ "Date and Time".

Date and Time

User may set Date, Time, Date Format, Time Format and Time Zone.



NTP Settings

- **Enable NTP** : Enable/Disable NTP function.
- **Server Address** : Select NTP server (time.windows.com, time.nist.gov, pool. ntp.org).

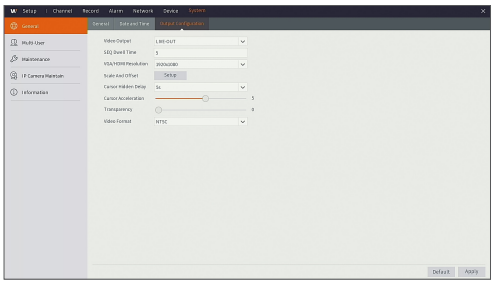
■ When NTP function is set to "Enable", system will calibrate the system time at every 00:07:50 and every start-up.

DST Settings

Enter into the interface to set DST, Time Offset, Start Time and End Time.

Output Configuration

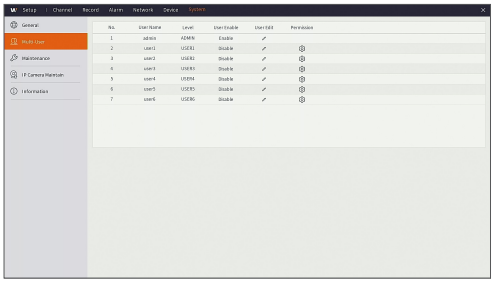
Go to "Setup" ➞ "System" ➞ "General" ➞ "Output Configuration" to enter into the interface.



- **Video Output** : Live Output
- **SEQ Dwell Time** : Sequence time is set 5 seconds by default. User may set it as required up to 300 seconds
- **VGA/HDMI Resolution** : For VGA output or HDMI output, the optional resolution includes 1024×768, 1280×1024, 1440×900, 1280×720, 1920×1080
- **Scale and Offset** : Sets the scale and offset.
- **Cursor Hidden Delay** : Sets the Cursor Hidden Delay time.
- **Cursor Acceleration** : Sets the cursor speed.
- **Transparency** : Adjust menu transparency in the range of 0-128.
- **Video Format** : Sets the NTSC or PAL.

Multi-User

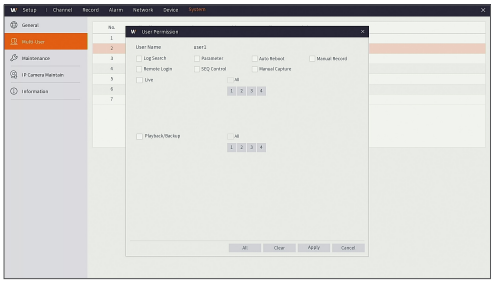
Go to "Setup" ➞ "System" ➞ "Multi-User" to enter into the User interface.



It supports up to seven users, including one administrator and six users. Click [✎] button to enter into the [User Edit] interface to input user name and password.

User Name consists of 8 characters. Password MUST be 8~13 characters long. When password is 8~9 characters long, it should be withat least a combination of letters, digits and special symbols. If it is 10~13 characters long, it should be with at least a combination of two types of characters. 4 or more contiguous or repeated characters or key arrangement are prohibited, for example 1111, 1234, abcd, qwerty.

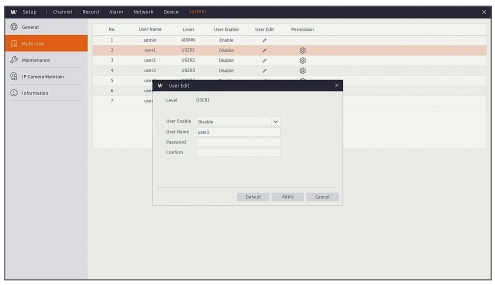
Set user password. Administer is authorized to set user common user"s authority.



- **Log Search** : Allow you check all the system logs.
- **Parameter** : Allow you set all the parameters.
- **Auto Reboot** : Allow you to update firmware, reboot and shutdown the NVR.
- **Manual Record** : Allow you manually start/stop record.
- **Remote Login** : Allow you remotely login NVR.
- **SEQ Control** : Allow you sequence live screens for all the channels.
- **Manual Capture** : Allow you to manually take a snapshot
- **Live** : Tick-select the ENABLE "√" option and select a channel and the user is allowed to view all the live images in the selected channel.
- **Playback / Backup** : Tick-select the ENABLE "√" option and select channel for playback/backup, the user is allowed to playback/backup the record in the selected channel.

User Edit

User may enable or disable the function or set password.

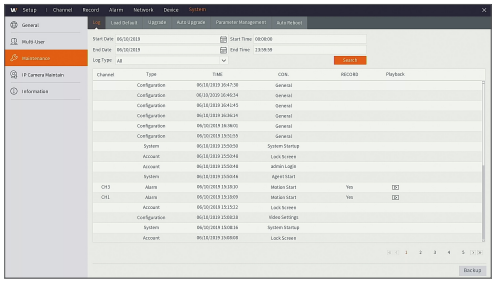


Maintenance

Log

Go to "Setup" ➞ "System" ➞ "Maintenance" ➞ "Log".

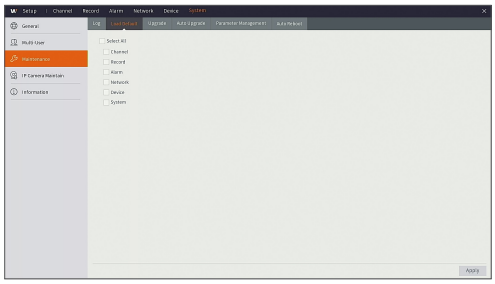
User may search log information in different period of time. Click "Backup" to save all the log information.



Load Default

Go to "Setup" ➞ "System" ➞ "Maintenance" ➞ "Load Default" to enter into the interface.

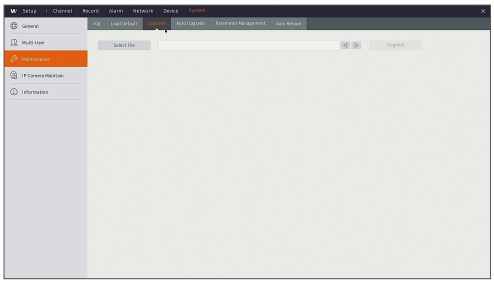
If [Load Default] is selected, you can initialize the system to the ex-factory default. Click "Load Default" and select items to be restored. You can restore the Channel, Record, Alarm, Network, Device, System of wireless NVR to ex-factory default.



Upgrade

Go to "Setup" ➞ "System" ➞ "Maintenance" ➞ "Upgrade" to enter into the interface.

Click Upgrade to enter the Device interface and select the updating file in USB to execute.

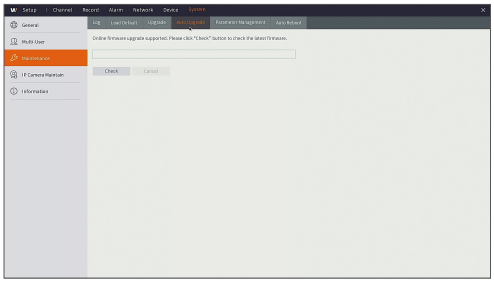


- Do not take out the USB memory or cut off the power during upgrading. When the update is done, system will be automatically restarted. After about 5 minutes, the upgrading will be finished. It is recommended to load ex-factory default after upgrading.
- To upgrade the firmware using a USB memory stick, at least 100 MB of free space is required in the USB memory stick.
  If firmware doesn't update with a memory stick of USB 3.0 type, then try using that of USB 2.0 type.

Auto Upgrade

Go to "Setup" ➞ "System" ➞ "Maintenance" ➞ "Auto Upgrade" to enter into the interface.

Click Check to check if there is a newer firmware on remote network upgrade server.

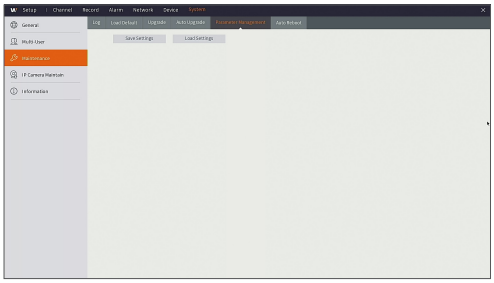


- To use the Auto Upgrade feature, The network of the NVR must be connected online. please refer to the page 22.

Parameter Management

Go to "Setup" ➞ "System" ➞ "Maintenance" ➞ "Parameter Management" to enter into the interface.

- **Save Settings** : Save the set parameters of user's NVR to the removable storage device.
- **Load Settings** : Load parameters in the removable storage device to NVR.

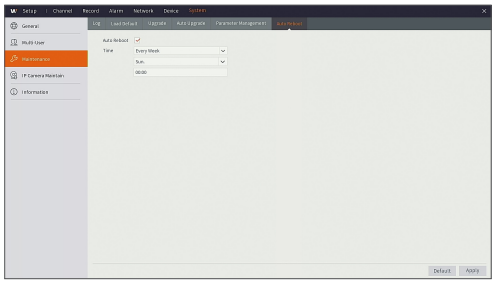


- To save or load Prameters, a USB flash drive or a mobile storage device with a USB interface must be connected to the USB port of the NVR.

Auto Reboot

Go to "Setup" ➞ "System" ➞ "Maintenance" ➞ "Auto Reboot" to enter into the interface.

Enable the auto maintenance function to reboot system regularly at every day/week/month. When Auto Reboot is enabled, NVR should be in the main interface and no user operation.



- The auto maintain function can be effective only when NVR returns back to Preview mode with no any operation within the set auto maintain time.

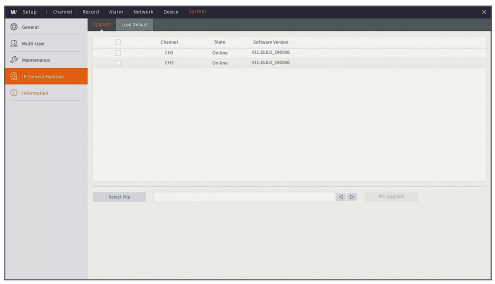
IP Camera Maintain

Upgrade

Go to "Setup" ➞ "System" ➞ "IP Camera Maintain" ➞ "Upgrade" to enter into the interface.

Click to do firmware upgrade of Wireless Camera.

1) Select the camera you want to upgrade.
2) Select the updating file in USB to execute.
3) Click "IPC Upgrade" to do firmware upgrade of Wireless Camera.



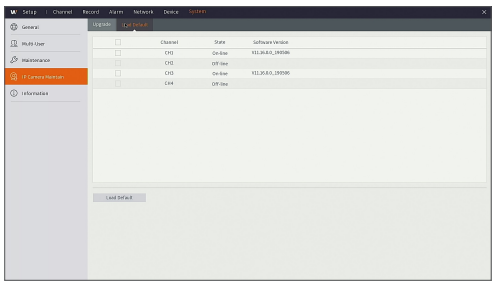
- Do not take out the USB memory or cut off the power during upgrading.

Load Default

Go to "Setup" ➞ "System" ➞ "IP Camera Maintain" ➞ "Load Default" to enter into the interface.

You can initialize the system to the ex-factory default. Select channel to be restored and Click "Load Default".

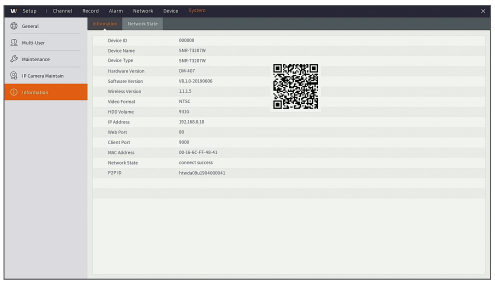
You can restore the color settings, motion detection on/off, motion detection sensitivity and motion detection area of wireless camera to ex-factory default.



Information

Information

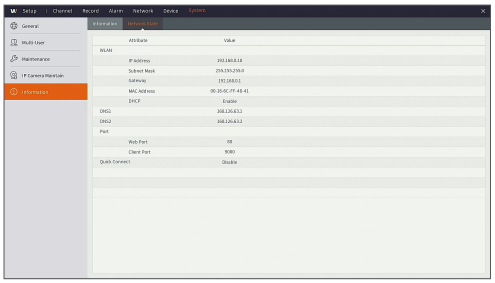
Go to "Setup" ➞ "System" ➞ "Information" ➞ "Information" to enter into the interface.



Network State

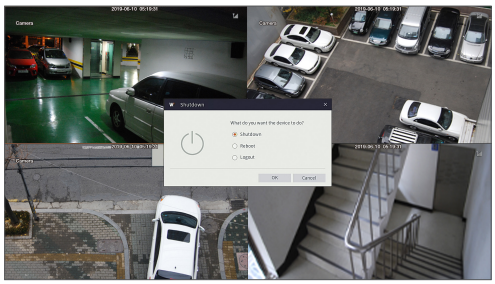
Go to "Setup" ➞ "System" ➞ "Information" ➞ "Network State" to enter into the interface.

Displays the network connection status.



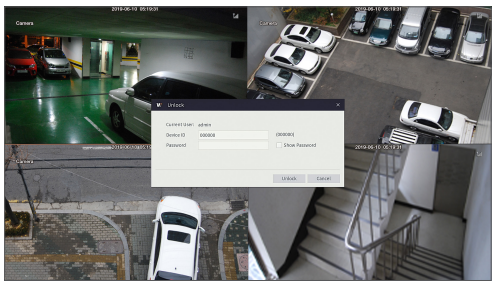
SHUTDOWN

Click [☰] icon ➞ "Shutdown" to enter into the interface.



MENU LOCK

In consideration of system safety, user may click the icon [🔓] on the toolbar when he leaves away from NVR and the system interface will be locked. User has to input Device ID, User Name and Password on the login interface to unlock. In case that the password is forgotten, contact the technical personnel.

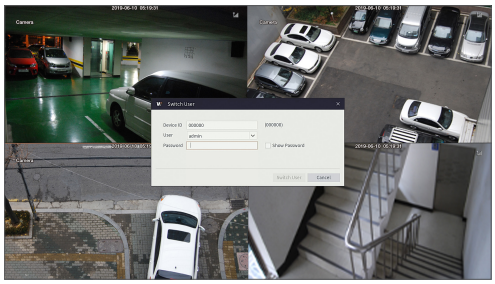


- Administrator has all authorization of menu operation and users have limitations for authorization and have to get authorization from administrator.

SWITCH USER

User may click the icon [👤] on the toolbar when change to user for NVR.

User has to input Device ID, User name, and Password on the Switch User interface to switch user.



- The administrator must set up the user in Multi-User option. For the detail, please refer to the page 28.

SPLIT MODE

There are many display modes in video channel, including single channel display, SEQ display and split mode.

RECORD SEARCH

Click [🔍] icon on the toolbar to enter into the Record Search interface to search and playback. Refer to former section for specific operating method.

START SEQUENCE

After set channel sequence time, click Start Sequence icon [⟳] on the toolbar to start sequence.

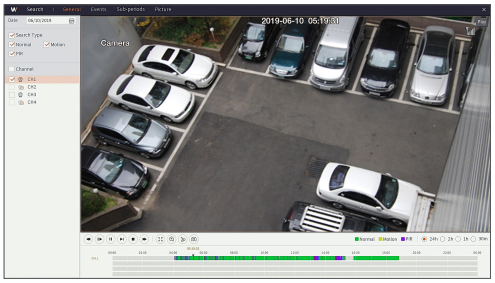
SEARCH

Record Search

General

Go to "Search" ➞ "General" to enter into the interface.

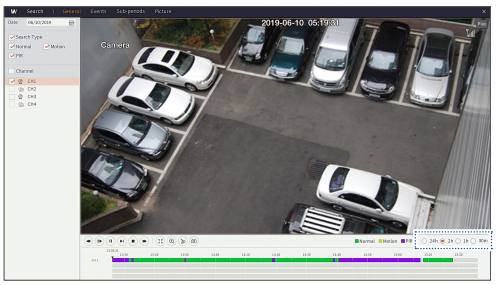
- **Search Type**: Select the type the playback record. There are three options: All, Normal and Motion.
- **Channel**: Select the channel you want to search.
- **Playback Channel**: Click a date and select corresponding channel in Playback Channel.
  The selected channels must not be more than 4.
- **Playback interface**: You can use the Playback Control bar to operate the Fast Forward (X2, X4 and X8), Rewind (X2, X4 and X8), Slow play (1/2, 1/4 and 1/8 speed), Play, Pause/Frame. When playback ends, NVR will remain in the playback interface.

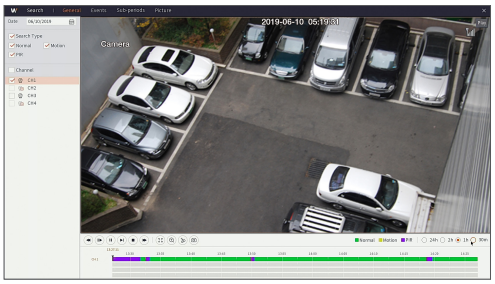


Time Axis setup, file clip and zoom in/out

The NVR supports the processing control bar function when playing back record files.

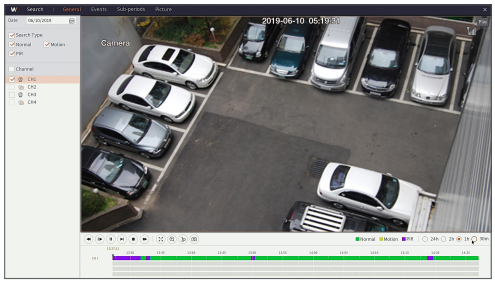
- **Time Axis zoom**: Default value is 24hours. Allow user to select 2 hours, 1 hour, 30 minutes or user-defined.





- **Detailed Operation**

  Fixed time axis: If you select [2h] option, that means the processing control bar covers two hour of video content. The time range refers to 1 hour before and after the middle point.
- **Clip and backup**: When it is playback, the [ ] icon will appear in the Play Control bar. Click the icon to start video clip function, click the icon again to end the function and pop up the dialog. Now, you may save the clipped video file.
- **Zoom out**: When it is under single channel playback, the [ ] icon will appear in the Play Control bar. Click the icon to zoom in certain area of the playback screen and right click mouse to return the Playback page.



Events

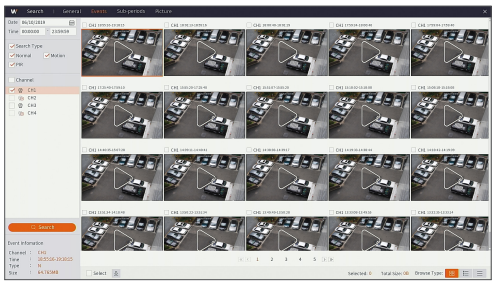
Go to "Search" ➞ "Events" to enter into the interface.

In this page, user may search details by date, time, channel and record type. The relevant operations are as follows:

« Previous page : Click the button to go to previous page when viewing events (except the first page). When viewing the first page, click this button to display the event list in the first page.

» Next page : Click the button to go to next page when viewing events (except the last page). When viewing the last page, click this button to display the event list in the last page.

1 2 Jump : If you click on a number, you will move to that number's page.

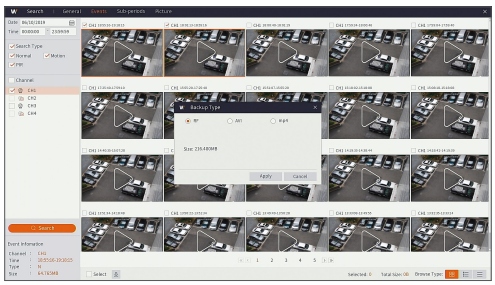


Two types of backup: Quick Backup and Backup

If you want to back up a record in the detailed file list, you may check the checkbox at the left of the record (means it has been selected) and click [ ] to enter into "Backup type" (Make sure USB flash drive or other portable storage device are connected).

If you want to back up with USB, select USB and click OK to start processing and you will see the backup progress.

After backup finishes, message Backup Finishes will appear at down-right corner.



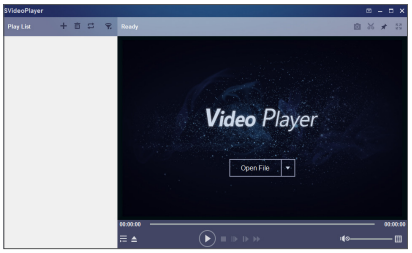
■ Before backup, connect devices for backup (USB flash drive or other mobile storage devices with USB interface)

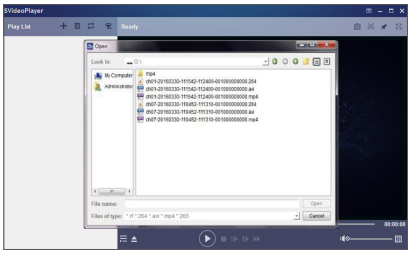
Play Backup Files

■ To play the backup file, please download and install SVideo Player from www.wisenetlife.com. Use of any other player may cause compatibility problem.

1. Copy backup files to the computer.

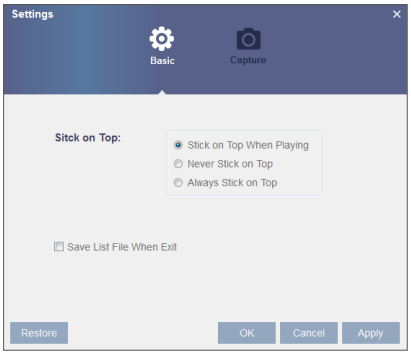
2. Open SVideo player and click [+] or [Open File].
For example, if you want to choose *.264, *.avi, *.mp4, add backup file and select a file to play.



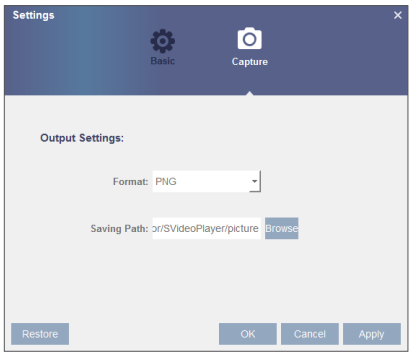


- Play: Click to play file
- Pause: Click to pause.
- Stop: Click to stop playback.
- Frame Forward: step forward by frame
- Slow Play: Click to play at 1/2, 1/4, 1/8, 1/16 speed.
- Fast forward: Click to play at 16x, 8x, 4x, 2x speed.
- Open file/Open Directory
- Expand/pack up the list.
- Screenshot: Save path: C:\Users\Administrator\SVideoPlayer\picture
- Cut: Save path: C:\Users\Administrator\SVideoPlayer\video
- Full screen display
- Never on top
- Always on top
- On top during playing
- Window Division
- 1/4/9/16 channels optional.
- Add folder or file.
- Playback mode, Single, Order, Repeat one, Repeat ALL are optional
- Delete all files in the list.
- Search File
- Language/Settings

Basic Settings: Set on-top mode

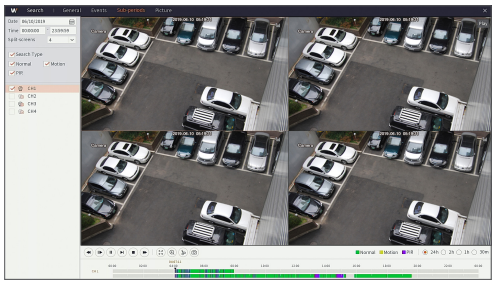


Capture Settings: Set the path to save image



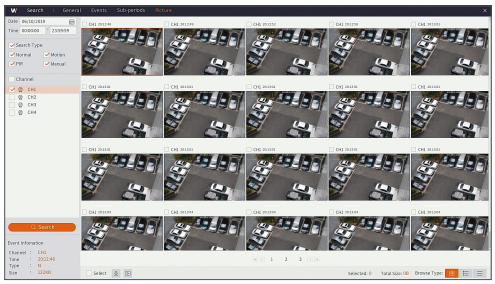
Sub-periods

Go to "Search" ➞ "Sub-periods" to enter into the interface.



Picture

Go to "Search" ➞ "Picture"



Support search picture for 5000pcs each time. If the picture number greater than this value, please adjust the date (time) of the current search and search again.

In this page, user may search details by date, time, channel and record type. The relevant operations are as follows:

« Previous page: Click the button to go to previous page when viewing events (except the first page). When viewing the first page, click this button to display the event list in the first page.

» Next page: Click the button to go to next page when viewing events (except the last page). When viewing the last page, click this button to display the event list in the last page.

1 2 Jump: If you click on a number, you will move to that number's page.

Two types of backup: Quick Backup and Backup

SYSTEM ENVIRONMENT REQUIREMENTS

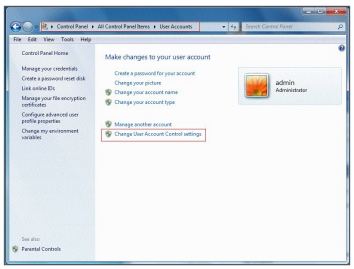
The minimum requirements for hardware and OS required to run Web Application are given below.

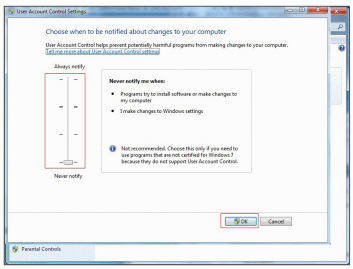
	Minimum	Recommended
CPU	Intel i3	Intel i7 or higher
RAM	4GB or more	8GB or more
Hard Drive	500GB or more	1000GB or more
Display RAM	2GB or more	4GB or more
Display Resolution	1280*1024	1920*1080
OS	- Windows® 7, Windows® 8.1, Windows® 10 - Mac OS X® 10.13.5 or lower (Safari® 11.1.1 or lower)	
DirectX	DirectX 11	
Direct3D	Acceleration Function	
Ethernet Adapter	10/100M Ethernet Adapter	

WirelessPlugin Download and Installation

If your computer system is Windows 7, you may need to setup the user authority for remote control, or you may be unable to backup or record.

WIN7



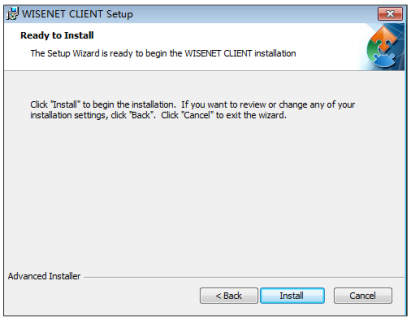


■ If the plugins is not downloaded successfully, please check if your browser's safety level or firewall setting is set too high. Please open IE browser ➞ [Menu Bar] Tools ➞ Internet options ➞ Security ➞ Internet ➞ Custom level ➞ Enable the options.

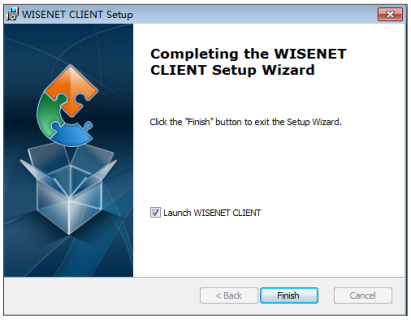
Download and installation of WISENET CLIENT for IE

1. Download WISENET CLIENT at Wisenetlife.com.
2. Locate the downloaded WISENET CLIENT program and double click on it.
3. When the program opens, click the **[Next >]** button.

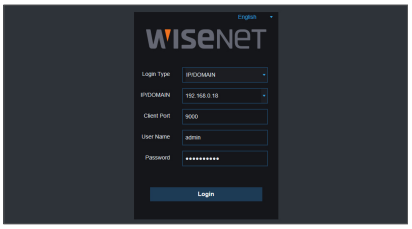
4. Click on "**Install**" in the dialog box "**WISENET CLIENT Setup**".



5. Upon completion, click the [**Finish**] button.



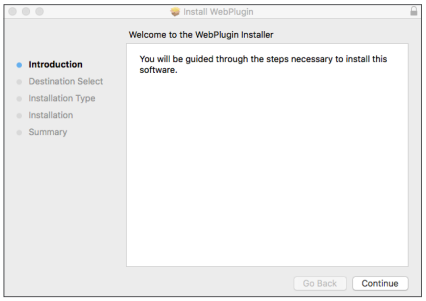
6. Run the WISENET CLIENT to bring up the Login screen.

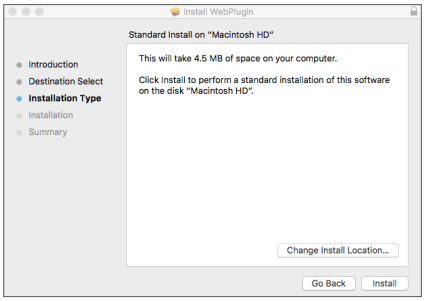


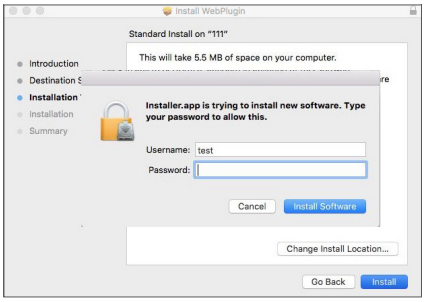
Download and installation of WISENET CLIENT for Mac SAFARI

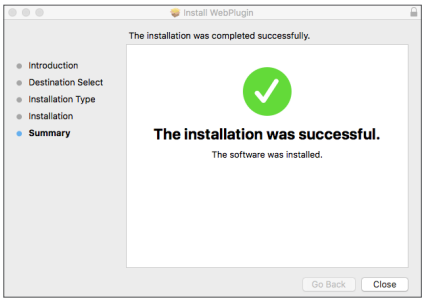
1. Download WISENET CLIENT at Wisenetlife.com.
2. Locate the downloaded "**WISENET CLIENT XXX.dmg**" and double click on it.
3. Install the plugin by double clicking on "**WebPlugin.pkg**".

4. Click on "**Continue**" > "**Install**". Enter user name and password for login to Apple computer. Click on "**Install**" > "**Shut down**" to finish installation.

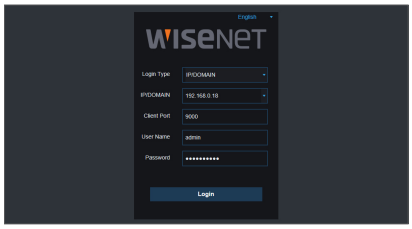








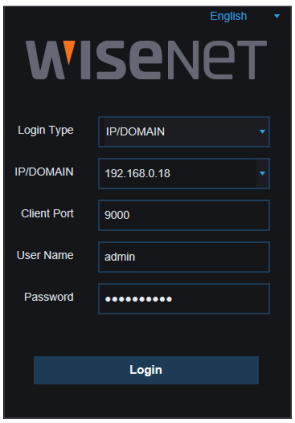
5. Run the WISENET CLIENT to bring up the Login screen.



WISENET CLIENT LOGIN

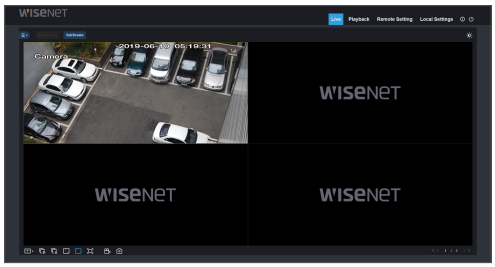
After plugins installation, please input user name, password and input Client port number. There is an option for opening all channel preview, select it to open all live pictures. Press Login to log in client and remotely visit NVR. The default password is blank and administrator is authorized to modify the password. Set password as per introductions of user management in system setting.

After successfully log in, it will enter the real-time monitoring interface and connect video automatically.



LIVE INTERFACE

Log in and enter into the live interface.



Menu Bar

Menu Bar: Live, Playback, Remote Setting, Local Setting and Logout.

Live Display Video Control

Log in the Web Application Manager, system will be defaulted to enter into <Live> interface. You can click [Play] button to Open/ close live images, on-spot record, capture, and many live display modes.

Buttons on a single live interface

Channel List : Open the channel list for quick camera function.
Click [ ] button to display the Channel List.
Click [ ] button to hide the Channel List.

Live Video Stream Options:

- **Mainstream**: View all live videos using high-quality mainstream video settings.
- **Substream**: View all live videos using middle-quality substream video settings.

: Open or close the images on Live window.

: Stream: Mainstream or Substream optional.

: Click to select how many channels appear on screen at a time.

: Open the video on Live window.

: Close all the Live channels

: Shows the playing video at the original proportions.

: Stretch the playing video to fit the full area for each channel on screen.

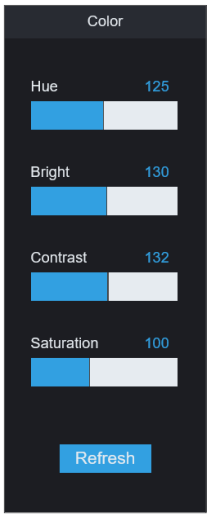
: Click to maximize the current window to full screen. Right click to popup menu option and select Exit Full Screen.

: Record switch: the remote record switch of client. Record will be automatically saved to a specified position on PC after the function is enabled.

: Capture the selected live image and save it to a specified position on PC. The image is saved as *.bmp format.

: Digital ZOOM.

Video Control



Hue: Adjust the chromaticity of video

Bright: Adjust the brightness of video

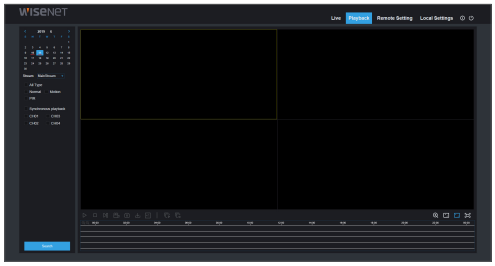
Contrast: Adjust the contrast of video

Saturation: Adjust the saturation of video

Playback

Click [Playback] to enter into Playback interface to remotely view the records in NVR HDD.

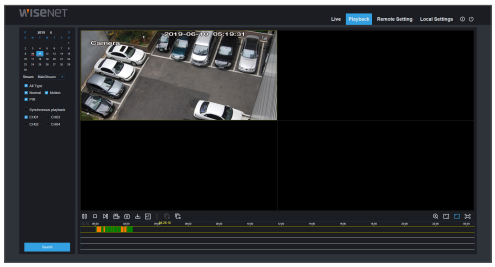
It supports 1 to 4 channel record playback.



Record Search

Record playback procedure

Firstly, select the date you want to check and tick 1 to 4 channels. Any record files in current channel at current date will be displayed in the status bar of the interface.



Secondly, select record type (Normal record, Motion, PIR and All) and channels, and then click [Search], and time axis panel will display specific time quantum. On the time axis, red part stands for Motion, yellow stands for normal record and original part stands for no record during this period.

Before playback, choose to enable playback 4 channels synchronously.

If you tick-select [Synchronous playback], that means the selected channel will playback synchronously; otherwise, you could separately control the channels playback.

Thirdly, start playback

Click [▷] to start record playback. When mouse curse is moving on the time axis, the time point of current position will be displayed on the time axis screen. Click to locate the record.

Playback Control

Playback control bar

Detailed brief description is shown as below:

Key	Description	Key	Description
▶	Play	×1/8 ×1/4 ×1/2 ×1 ×2 ×4 ×8	Slow playing x1/2,1/4, 1/8, Fast Forward x1/2/4/8
⏸	Pause		Open all the playback channels
■	Stop		Stop playing all the playback
⏭	Frame by frame		Digital ZOOM
	Record Clip		Original proportions
	Image Snapshot		Stretch
	Download		Full Screen

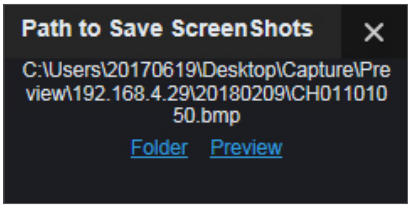
Record file clip

After opening playback, click [ ] icon to clip the selected file; and click again to stop the clip function. Then playback clip is successfully done. Record clip file can be saved as H.264, AVI or MP4. H.264 is set as default.

Snapshot function

Move the mouse curse to the channel you want to capture, and click [ ] icon to capture the live images remotely. After capturing the images successfully, a path prompt box will be popped up.

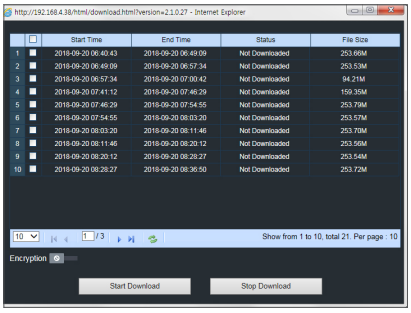
The captured file will be saved as .bmp format.



Record file download

Click download icon [ ] on the control bar to display all the matched record file according to the search conditions of channels.

Tick-select the record file you want to download and click [Start download]. System will download the record file in sequence and save to local PC. The downloading file will be displayed in percentage form. After downloading finishes, "Complete" will be displayed on the status bar.



Remote Setting

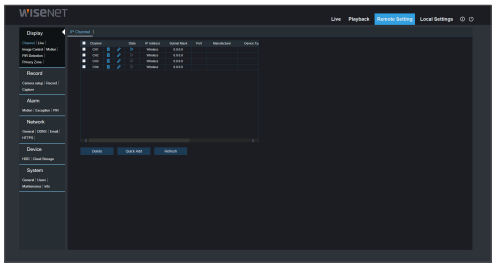
Click Remote Setting to enter into the interface shown, including Display, Record, Alarm, Network, Device and System.

Display

When you click the <Display> option, sub-options of Display Settings and Schedule are displayed.

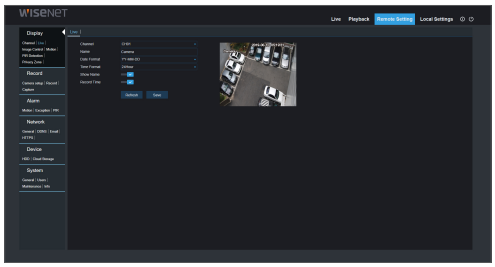
Channel

You can set the IP Channel of the camera.



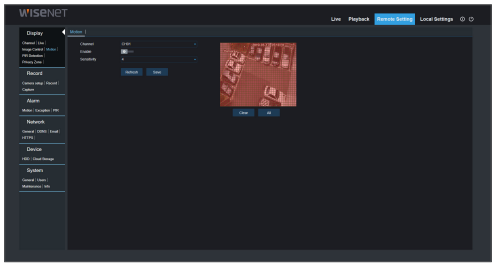
Live

Displays the currently playing live screen.



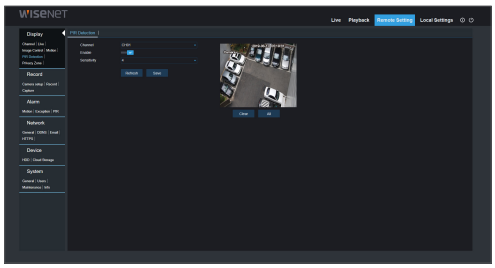
Motion

You can set the Motion area.



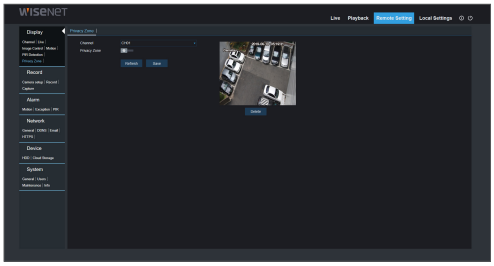
PIR Detection

You can set the PIR Sensor.



Privacy Zone

You can set the Privacy Zone.

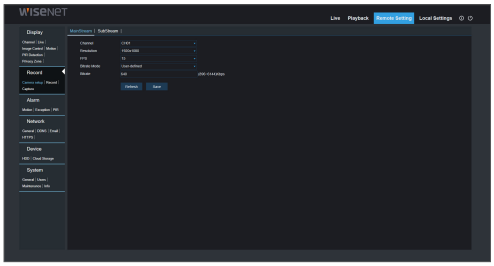


Record

Click <Record> option to unfold its sub-options: Record parameter and Schedule.

Camera setup

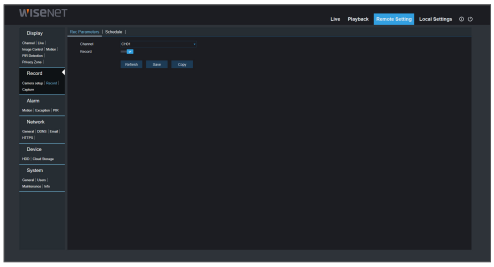
This menu allows you to configure the recording video or network transmission picture quality.



Record

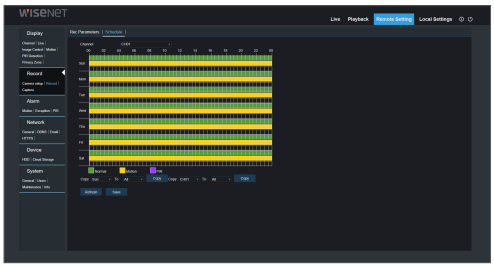
Record Parameters

The parameters should be consistent with NVR local setting.



Record Schedule

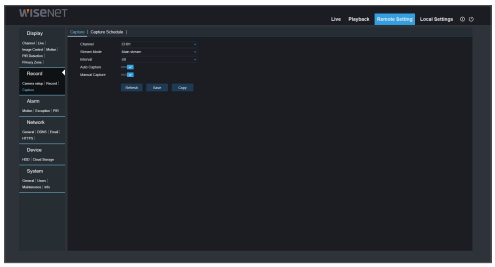
The parameters should be consistent with NVR local setting.
Green stands for Normal record; Yellow stands for Motion detection.



Capture

Capture

- **Channel**: Select channel.
- **Stream Type** : Select MainStream or SubStream.
- **Interval** : 4s / 8s / 25s / 1Min / 10Min / 30Min / 1Hour
- **Auto Capture**: Enable/Disable auto capture.
- **Manual Capture**: Enable/Disable manual capture.



Capture Schedule

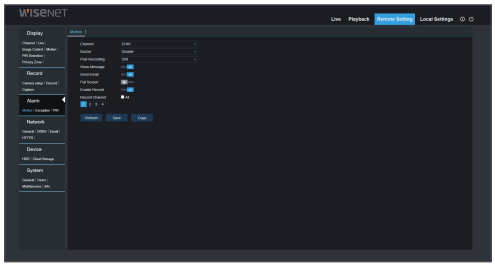
- **Channel**: Select channel.
- **Normal**: Conventional capture setting.
- **Motion**: Motion detect capture setting.
- **PIR**: PIR detection capture setting.

Alarm

Alarm setting includes Motion Detection Parameters.

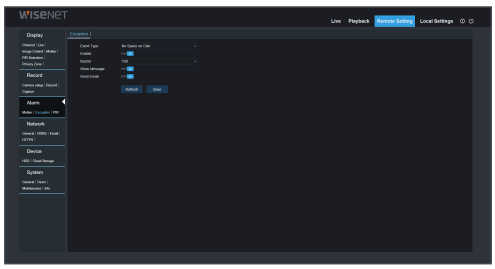
Motion

Configure Sensitivity, Alarm out, Alarm Record and Alarm Capture, etc. Detailed setting should be consistent with NVR local setting.



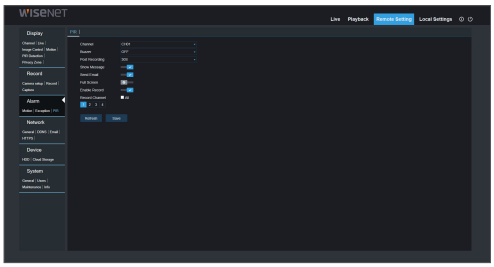
Exception

User may configure Event Type, Buzzer, Send Email, Show Message and other parameters. Detailed setting should be consistent with NVR local setting.



PIR

Configure Buzzer, Post recording , Send Email, Show Message and other parameters. Detailed setting should be consistent with NVR local setting.

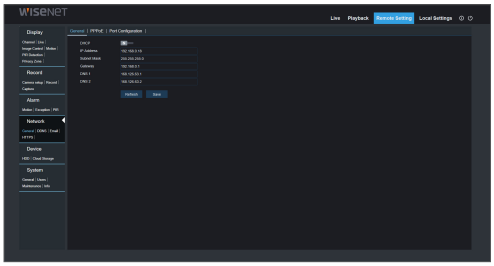


Network

Unfold <Network> to show its sub-options: Network, DDNS, and Email configuration.

General

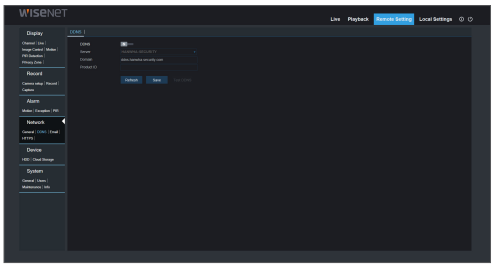
NVR supports Static/DHCP/PPPoE modes. System default network type is <DHCP>. User can set parameters as required. If you change Network type to PPPoE, NVR will automatically restart to make the setting effective.



DDNS

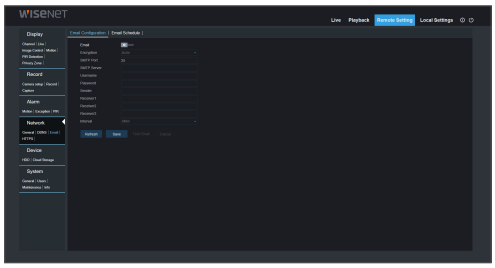
DDNS: After user applies for DDNS service, you could enable <DDNS> function under any one network type mode (Static, DHCP and PPPoE). And you may remotely visit the NVR through domain name (http://domain name: HTTP port No.). When visiting NVR by using DDNS, user should make sure port and current IP can be normally connected in public network. Details settings, including server address, host, user, and password, should be consistent with NVR local setting.

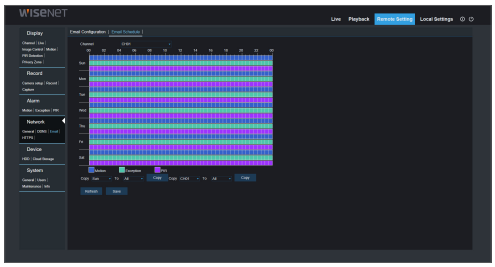
Click on "Test DDNS". If connection succeeds, it will be indicated that "DDNS Test is Successful!



Email

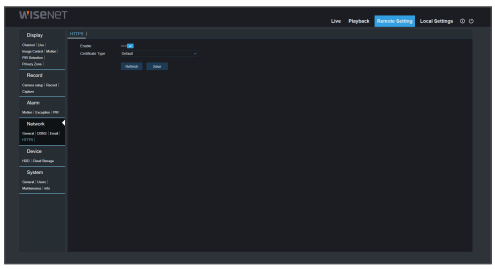
Email: Set NVR alarm Email configuration parameters, including Email address, Encryption, Email Enable, and Interval etc. Detailed parameters should be consistent with NVR local setting.





HTTPS

- Enable : Enable/Disable
- Certificate Type : Default/Custom

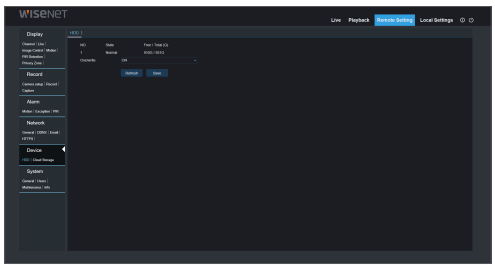


Device

Click <Device> to unfold its sub-options: HDD

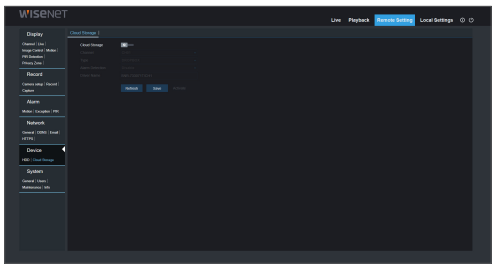
HDD

User may check HDD status of NVR and overwritten time. Detail setting should be consistent with NVR local setting.



Cloud Storage

User may set the relevant parameters of Cloud Storage. Detail setting should be consistent with NVR local setting.

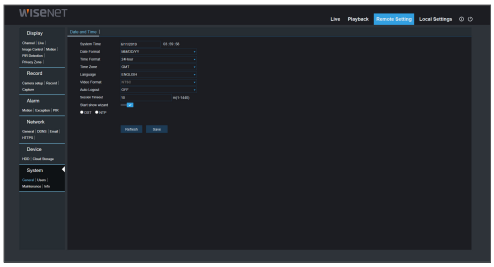


System

Click <System> option to unfold its sub-options: General, Users and Info.

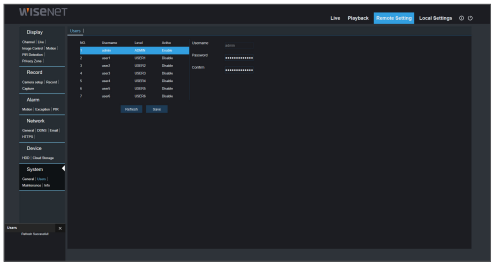
General

User may check NVR language and video system and date format, menu display time, DST and NTP parameters. Detailed setting should be consistent with NVR local setting.



Users

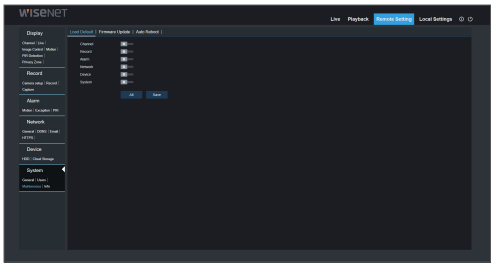
User may configure user name and password and detailed setting should be consistent with NVR local setting.



Maintenance

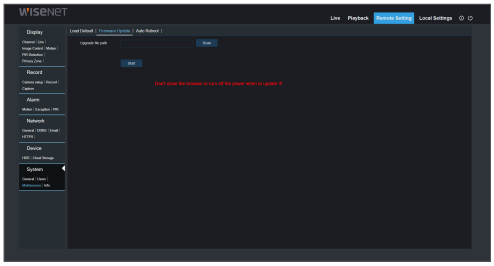
Load Default

User may remotely restore default parameters of NVR, with same setting method as that of NVR.



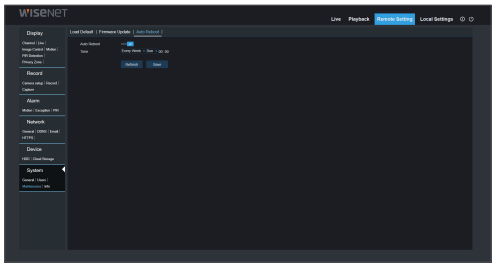
Firmware Update

User may remotely update NVR system.



Auto Reboot

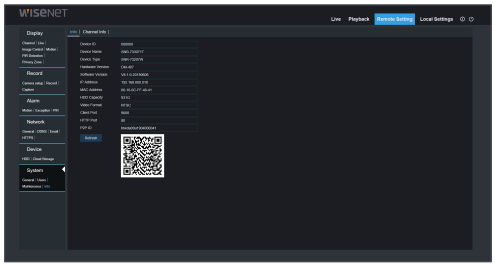
Allow you remotely set auto maintain time for NVR. Detailed setting should be consistent with NVR local setting.



Info

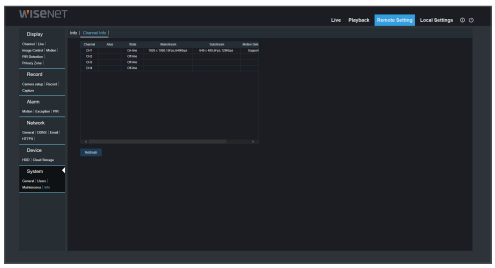
Info

User may search device name, device number, device type, MAC address, software version, IE version and hardware version of NVR.



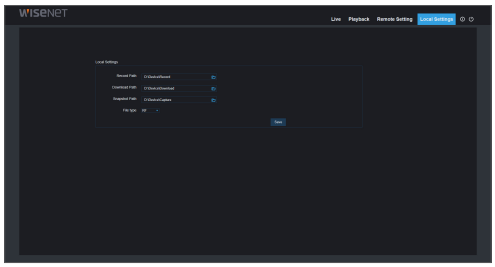
Channel Info

Displays all channels camera relevant information.



Local Setting

User may set Record Path (save Live record and Playback clip file), Download Path for remote file, Snapshot Path for captured pictures, Interval for switching record files (Packaging time), and File type (RF, AVI and MP4).



Logout

Click [⏻] to log out and return to the login interface.

Appendix

TROUBLESHOOTING

Symptom	Countermeasures
What can I do if the system does not detect the HDD?	• Check if the power supply system is properly connected and data cord and power cables are securely connected, and if something wrong with the HDD interface. Or you may check if your HDD is supported by referring to the specifications or descriptions.
I have changed the password but forget the new password, how can I access the system?	• If you forget system password, please consult with our technical personnel. We strongly suggest user to set password easily to be remembered and relatively safe.
We see abnormal video signal or even no video signal by connecting the NVR and camera together. Power supply for both devices is OK. What is wrong?	• Check network cable on NVR side to see if the cable is firmly connected and if it is worn out and needs to be replaced, or to check if NTSC or PAL is selected consistently.
How to prevent NVR from being influenced by heat?	• The NVR needs to dissipate heat while it is running. Please place the NVR in a place with good air circulation and away from heat sources to ensure stability and life of the NVR.
The remote controller of NVR doesn't work while the monitor screen is OK and panel keys are functional. Why?	• Operate again by aiming the remote controller at the IR receiver on front panel. If it still doesn't work, please check if the batteries in the remote controller are dying. If not, check if the remote controller is broken.
I want to take out HDD from my PC and install it in NVR. Can it work?	• All HDDs supported by the system can be used. But remember, once NVR runs, the data on your HDD will be lost.
Can I playback while recording?	• Yes. The system supports the function of playing while recording.
Can I clear some records on HDD of NVR?	• In consideration of the file security, you may not clear part of records. If you want to remove all the records, you can format HDD.
Why can't I log in NVR client?	• Please check if the network connection settings are correct and check if your account and password are correctly input.
Why can't I find any records during playback?	• Please check if the data line connection for HDD is OK and system time is properly adjusted. Try a few times and restart. If it still doesn't work, check if the HDD is broken.
Why doesn't dynamic detection work?	• Please check if the motion detection sensitivity level set is too low and motion detection area setting is correct.
Why does buzzer keep alarming?	• Please check the alarm setting, check if motion detection function is enabled and object motion is detected all the time. Besides, refer to corresponding HDD alarm setting.

Usage Maintenance

1. To shut down NVR, please firstly shut down the system and then turn off the power. Do not turn off the power directly or HDD data will be lost or damaged.
2. Please keep NVR away from heat sources or places.
3. Clean the internal dust regularly. Make sure the good ventilation of NVR so as to ensure the good heat dissipation.
4. Please do not hot plugging video cable, otherwise the ports will be damaged.
5. Please check the HDD cable and data cable regularly to see if they are ageing.
6. Please prevent video signals of NVR from being intervened by other electronic devices, and prevent the HDD from being damaged by static electricity and induced voltage.
   If the network cable is frequently plugged, it is suggested to replace connecting line regularly, or the input signal may be unstable.
7. This is A class product. it maybe bring wireless interference in life. Under this situation, it need user to make measures.

Appendix

SPECIFICATIONS

SNR-73207W

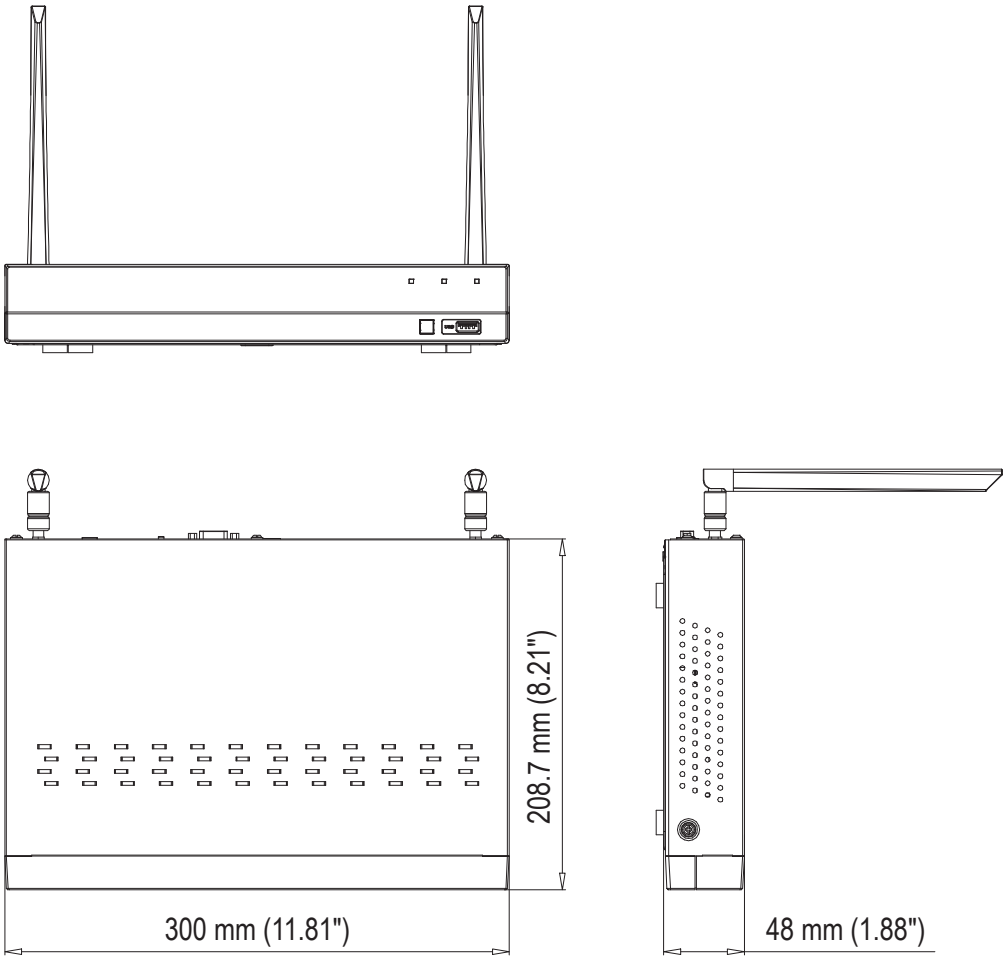
Item		Details
Description		
Video	Resolution	1920x1080p (2MP)
	Inputs	4CH (Wireless video transmission)
Live	Resolution	1920x1080p (2MP)
	Frame rate	Max 80 fps@2MP Auto fps Max 20 fps@2MP/CH, Bitrate : Auto
	Multi Screen display	1 / 4 / SEQ
Performance		
Operating System		Linux
Installation wizard		Support
Recording	Compression	H.264/265
	Recording bandwidth	Up to 6Mbps
	Frame rate	Dual track recording - Main stream : H.265/264 selectable Max 20 fps@2MP/CH, Bitrate Auto - Sub stream : H.264 fixed Max 10 fps@1280x720 2 channel Max 10 fps@640x480 Others channel
	Event type	- MD(Sensitivity Level 1~8) - Video loss - HDD (Full, Failure)
	Cloud recording channel	2CH
	Cloud recording profile	Auto fps auto bitrate
	Motion Zone	Select Square (40 x 30)
	Overwrite modes	Off/On
	HDD full event	Beep, Email, Push notification to Mobile APP
	Pre-event	MAX 8sec for 2MP
	Post-event	Up to 5min (30 sec, 1/2/5min)
Search & Playback	Search mode	Date,Time/Event
	Playback function	- Stop, Pause, Play - Fast forward / backward (2x, 4x, 8x) - Slow forward (1/2x, 1/4x, 1/8x) - Step forward / backward
	Playback frame rate	- Single channel view : Max 20 fps@2MP per channel (Auto FPS) - Multi channel view : 4CH Max 80 fps@2MP/CH (Auto FPS)

Item		Details
Network	Max. remote users	7 (Admin 1, User 6)
	Live stream	- Main stream : H.265/264 selectable Max 20 fps@2MP/CH, Bitrate : Auto - Sub stream : H.264 fixed Max 10 fps@1280x720 2channel Max 10 fps@640x480 Others channel
	Protocol support	TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, DHCP, SMTP, DNS, DDNS
Monitoring	CMS	Support
	Mobile viewer	Support
	Web viewer	Support
Etc	Cloud recording	Support
	Cloud features	Support
	Push notification	Support
	P2P easy connection	Support
	Dropbox	Support
	FW upgrade	- Network upgrade via Techwin webserver - USB upgrade via download
	Voice command	Support
Storage	Internal HDD	SATA HDD x 1 (Max 6 TB)
	USB (Back-up)	2 Ports for USB memory (not included)
	File Format (Back-up)	RF, AVI, MP4
Interface		
Monitors	VGA	VGA x 1 (1024x768, 1280x1024, 1280x720, 1440x900, 1920x1080)
	HDMI	HDMI x 1 (1024x768, 1280x1024, 1280x720, 1440x900, 1920x1080) ※ EDID (monitor resolution auto detection)
	Simulatneous Output	Support (HDMI and VGA)
Connections	Ethernet	1 RJ45 10/100 Base-T
	USB	Front: USB 2.0 x 1/ Rear: USB 2.0 x 1 (for mouse and backup/upgrade)
	Application Support	Mouse, Remote control
General		
OSD Lauguage		English, French, Spanish, Portuguse, German
Mechanical design	Color / Material	Black / Metal
	Dimension (WxHxD)	300 x 48 x 209 mm (11,81" x 1,89" x 8,23")
	Weight (With hard disks)	1,43 kg (3,15 lb)
Electrical	Input Voltage/Current	DC 12 V / 2 A
	Power consumption	16 W (2T HDD)
Environmental	Operating Temperature/ Humidity	0°C~+40°C (32°F ~ 104°F) / 20% ~ 85%RH

Appendix

DIMENSION

Unit: mm (inch)



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- Curl License: curl v7.58.0
- OpenSSL Combined License: Openssl v1.1.0j

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signature of Ty Coon, 1 April 1990 Ty Coon, President of Vice.

Hanwha Techwin cares for the environment at all product manufacturing stages, and is taking measures to provide customers with more environmentally friendly products.
The Eco mark represents Hanwha Techwin's devotion to creating environmentally friendly products, and indicates that the product satisfies the EU RoHS Directive.

Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

Correct disposal of batteries in this product

(Applicable in the European Union and other European countries with separate battery return systems.)

This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.

To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.

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