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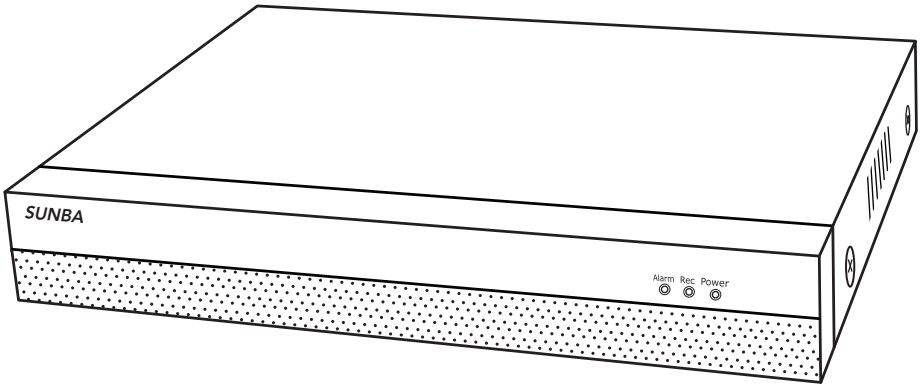
Ideal for House or Project Site.

SUNBA H.265/H.264 Network Video Recorder User Manual

(NVR-F8010SE / NVR-F8009SE / NVR-F2008PL)



2022/06
Version 4.0

Visit **http://nvr.sunba.net** to access the step by step YouTube video tutorials for setting up Sunba NVR.

All pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.

FCC Warning (U.S.A)

The device has been tested in compliance with limits set by Part 15 of Federal Communication Commission (Class B). The operation of the device is thus limited by the following two conditions:
1) It is not permitted to cause harmful interference to any authorized radio communications.
2) It must accept any interference it receives.

MENU

1. Overview and Specification

The series NVR is an 10 channel high performance embedded network video recorder. The system is dedicated to store digital videos captured by front-end devices such as IP Camera (IPC). This series NVR can perform live video preview, recording, playback, remote access, and backup. simultaneously.

Feature	Model NVR-F8010SE
Main Processor	Hi3536DV100 (may be subject to change, please check product detail page for up-to-date processor information)
Operating System	Embedded Linux
System Resources	Simultaneous muti-channel real-time view, recording, playback, network operation & USB backup
Operator Interface	16-bit true color graphic menu operation interface, support mouse operation
Preview	1/4/8/16
Video Input(IP)	10*5MP/10*1080P
Video Standard	PAL(25F/S); NTSC(30F/S)
Display Quality	2K(2560*1440)/1920*1080/1440*900/1280*1024/1280*720/1024*768
Playback Quality	5MP/1080P
Motion Detection	Sunba cameras: supported; 3rd party camera: depending on ONVIF compatibility, not guaranteed
Audio Compressio	G.711A
Recording Mode	Manual (Continuous)>Schedule>Video Dection
Local Playback	1CH*5MP/2CH*1080P
Search Mode	Search by Time/Date/Event/Channel/Face
Record Storage	HDD/Network
Backup Mode	Network Backup, USB Hard Disk, USB Burner, SATA Burner
Video Output	HDMI/VGA
Audio I/O	0/1 (3.5mm stereo jack)
Alarm I/O	0/0
Network Interface	1*10M/100M Adaptive Enternet port
USB Interface	2*USB 2.0 Port
Hard Disk	1*SATA(Up to 8TB for Each Disk)
PTZ Control	Control PTZ Device by Network
ONVIF	Support
Power Supply	DC 12V/2A
Power Consumption	<10W (Without HDD)
Work Environment	Temperature: 0℃~55℃, Humidity: 10%~90%RH, Atm:86kpa~106kp

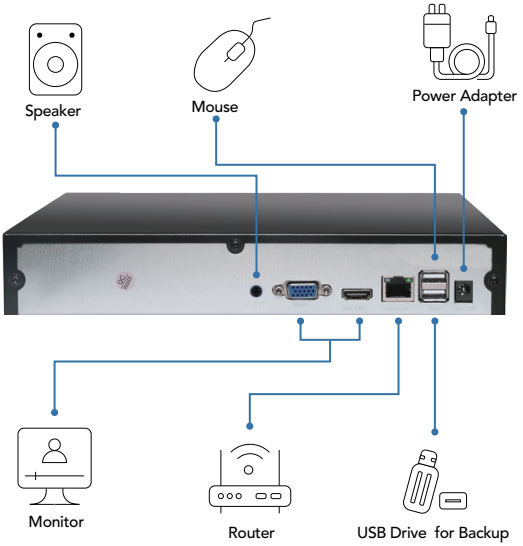
2. Front Panel and Rear Panel

2.1 Front Panel

ICON	LED	DESCRIPTION
Power	Red	System on
Record	Green	HDD installed and recording normally
Net	Green	Net connected

2.2 Rear Panel

Disclaimer: the following diagram and pictures are adopted from NVR-F8009SE and may vary slightly from the actual model you received.

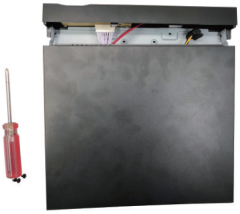


ICON	DESCRIPTION
VGA	VGA video output port can connect to a monitor or TV to view analog video.
HDMI	High definition multimedia signal output port transmit uncompressed high definition video and multiple-channel data to the HDMI port of the display device.
DC 12v	Connects to 12V DC power adapter.
USB Ports	USB 2.0 Ports that can connect to a mouse for control and to USB drives for backup.
LAN Port	10M/100M self-adaptive Ethernet port. Connects to router or other network adapters.
Audio	Connects to a speaker (not included).

3. HDD Installation

Step 1.Remove the 4 screws on both sides of the NVR

Step 2.Slide out the NVR upper case



Step 3.Put in the HDD

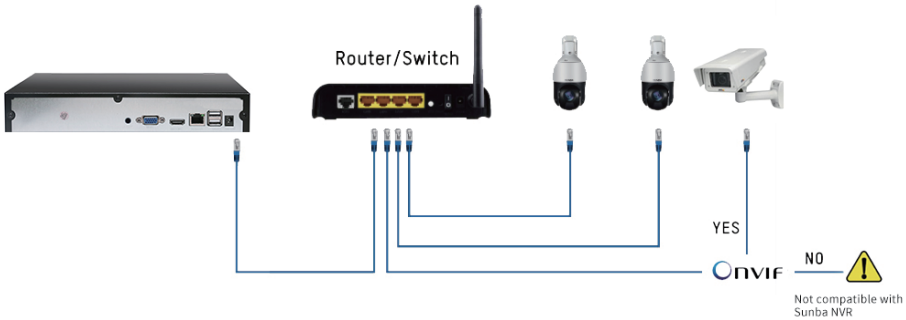
Step 4.Install and secure the HDD on the NVR from the bottom with given screws

Step 5.Plug-in the data and power cable for the HDD into the slot of the PCB board

Step 6.Put back the NVR upper case

Step 7.Install the screws back on the sides of the NVR

4. Connecting to IP Camera



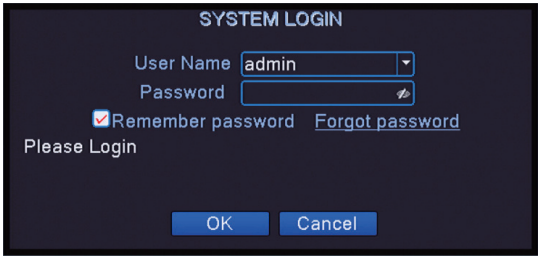
Note: 3rd party IP Camera MUST BE ONVIF compliant to be added to Sunba NVR.

5. Operations and Setting

⚠ Note the UI and snapshots below were taken from NVR-F8009SE. The actual interface may vary slightly among different firmware versions. For any questions, feel free to contact support@sunba.net.

Access the NVR Main Menu by either pressing the "MENU" button on the NVR front panel or by making a right click on the screen and select the first item from the right click (context) menu.

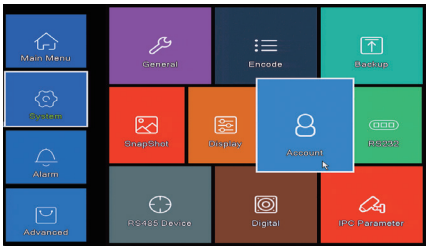
The default account for the NVR is:
Username: ***admin***
Password: ***(leave it blank)***

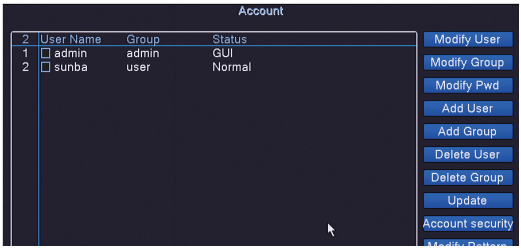


Note: For security purposes, please modify your password after your first login.

5.1 Account Management

You can add additional accounts and modify your administrator account password in Main Menu-System-Account.

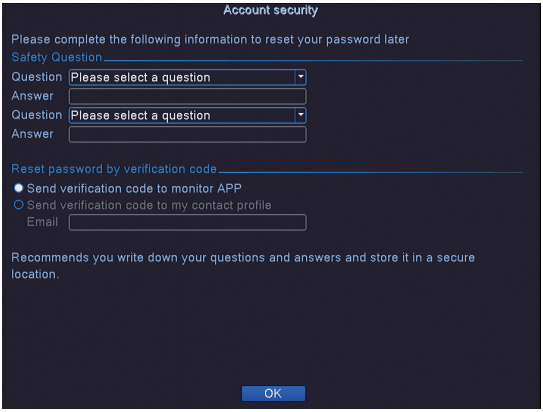




By default, there are two existing accounts associated with the NVR.
Username:***admin*** Password:***(blank)*** [Administrator]
Username:default Password:default [User]
The user "default" is a reserved user for system interior use only and cannot be deleted. It only has the rights to access live view and check playbacks, but has no access to any other advanced features. This default user is suitable so that you can view some channels without logging in or you can assign the account to Security Guards/Police without granting access to other features.

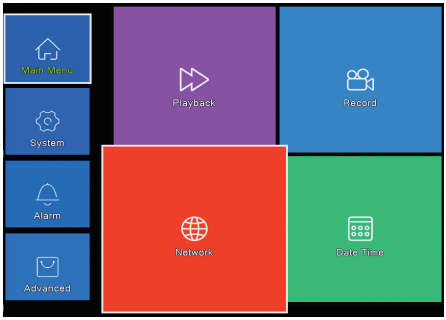
Modify Password: Select a user from the account list, and click "Modify Pwd".
Add/Delete/Modify Group: A user can belong to a certain group. For example, the admin-/blank password set belongs to the administrator group. You can set specific purviews of certain user groups. By default users under the "admin group" gets access to all features of the NVR while users under the "user group" gets access to limited features of the NVR. You can click "Modify Group" to assign/set specific rights of a group.
Add/Delete/Modify User: You can add a user by clicking "Add User", delete a user from NVR by "Delete User." Specifically, you can also set the rights and privileges of the user by selecting a user from the account list and click "Modify User."

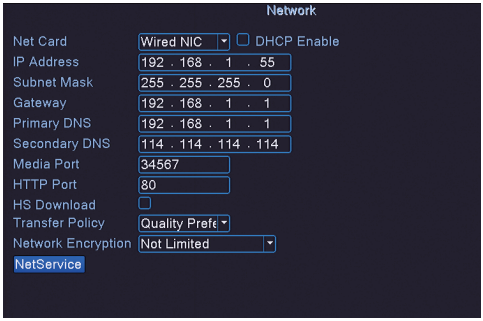
Update: Refresh the account list.
Safety Question: Set the safety question to reset account password and retrieve access in case that the original password has been forgotten.



5.2 Network

The network setting page can be accessed from Main Menu-Network.





The network menu shows the current IP, submask, gateway, DNS, TCP port and http port of the device.

DHCP is a network protocol that enables a server to automatically assign an IP address to a network machine. We suggest assigning a Sunba NVR with a static IP address (by default) and disable this function to avoid potential IP conflict especially if you have multiple network machines connected to a same server (eg., a router or a switch). Also do not enable DHCP if you set port forwarding on your server for external connection to the NVR on the LAN.

Please make sure the NVR Gateway/IP Address **matches the Gateway** of the server (router). For example, if the router IP is 192.168.0.1, you need to modify the Gateway of NVR to 192.168.0.1 and IP Address to 192.168.0.X where X can be any integer between 2 to 255. However, no two devices on the same network shall share the same IP Address. Make sure your NVR doesn't conflict with other devices on the LAN Network. Failure to properly configure the NVR network will affect remote access of the device.

Media Port: Same as TCP Port. Default is **34567**. If modified, please power cycle the device.

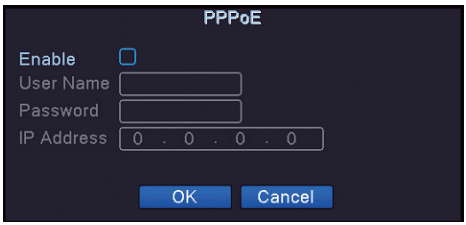
Http Port: Default is **80**. If modified, please power cycle the device. If this value is modified, in the web browser, users must login to the NVR using http://IP:http port.

DNS: Domain Name Server that translates domain name into IP address. It is recommended to set the DNS by the same value as offered by your ISP.

Transfer Policy: there are three strategies: Self-adaptive, Quality preferred or Fluency preferred. The video stream will adjust according to the setup. Quality preferred transfer policy delivers best quality but the video may be lagged. Self-adaptive is the tradeoff between quality preferred and fluency preferred. Fluency preferred and self-adaptive are valid only when the sub stream is turned on.

Click NetService to open the submenus of network configuration.

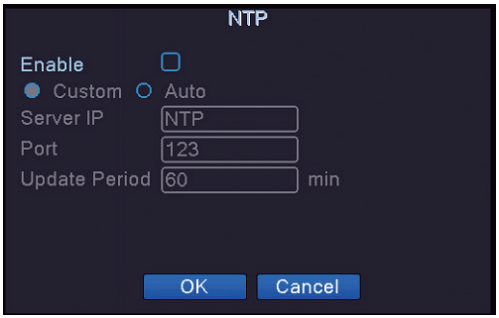
5.2.1 PPPoE



PPPOE connection stands for a dial-up internet connection. User needs to input a valid username and password offered by the ISP to connect the device to the internet. This only takes effect when the NVR is directly connected to the modem.

5.2.2 NTP

NTP means Network Time Protocol. NTP function will automatically sync the NVR system time with a remote server to ensure all channels on the NVR have the same time stamp. It is useful for customers to calibrate the time and also for regions that have constant daylight saving.

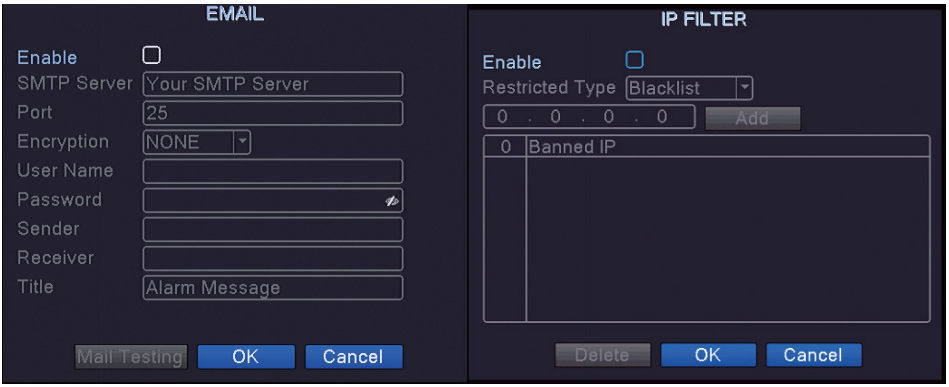


5.2.3 Email Alert

Users can enable this function for email alert with any motion detection. For details on how to use this function (example of gmail will be provided), please refer to the FAQ page: https://sunbatech.com/faq/enable-motion-detection-email-pho-

5.2.4 IP Filter

In this submenu, all IP address on the blacklist are blocked from accessing to the camera. If you enable the whitelist function, only IP address on the whitelist are able to access to the camera.



5.2.3 Email Alert

5.2.4 IP Filter

5.2.5 DDNS

DDNS means Dynamic DNS. If your external IP address is dynamically assigned , you will need to frequently update settings used to connect to your camera over the Internet whenever a new public IP address is assigned by your ISP. This is time consuming. A DDNS service communicates with your router and translates the dynamic IP address into a static URL. You will need to register with a DDNS service provider such as NO-IP or DynDNS before using this function.

However, this function is rarely used over NVR as many routers (ASUS, TP-LINK, NETGEAR etc) now support DDNS configuration within the router, which is more convenient and support most popular DDNS service providers.

5.2.6 FTP

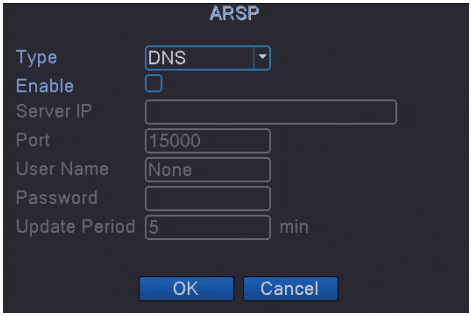
FTP function allows the NVR to upload a video or snapshot to a remote FTP server when an event (such as motion detection, video masking, video loss) occurs.
Note: Video will NOT upload to your FTP server if a memory card (hard drive) is not inserted into the memory card slot because the camera has limited RAM that is unable to serve as a media to store videos before uploading to the FTP server. However, snapshot upload does not require a hard disk to be installed.

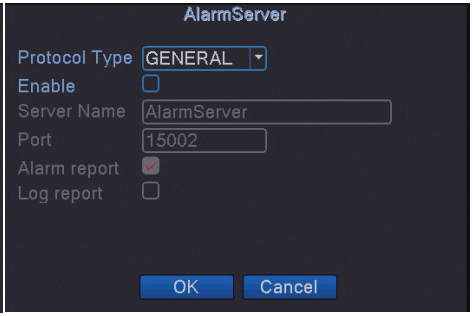
5.2.7 ARSP

Setup a server to add devices and manage it remotely in the server. This is a conventional way of connecting your NVR remotely and is not widely used today.
In case that the NVR's external IP changes due to ISP, the ARSP option enables remote browser login to the NVR. This would allow you to remotely look up the NVR's current IP, and manually update it in the app settings. This can be useful if you choose not to use dynamic DNS.

5.2.8 Alarm Server

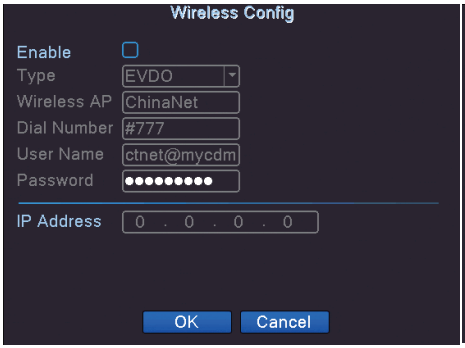
The alarm server interface is shown as below. The NVR can upload alarm signal to the syslog server when local alarm occurs. Before you use alarm server, please set up and specify server IP, port and etc. When an alarm triggers, the NVR can send out data as defined by the protocol, so that the syslog server can get the data.

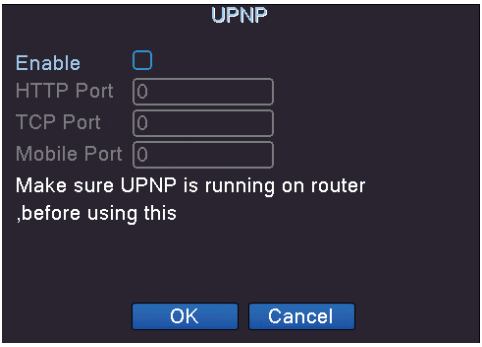




5.2.9 Wireless Config

This function is only applicable when the unit is connected to WiFi adapters.
Fill out the information of your adapters to connect the NVR to the internet.



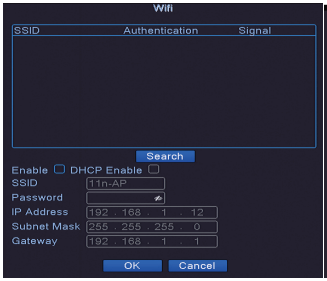


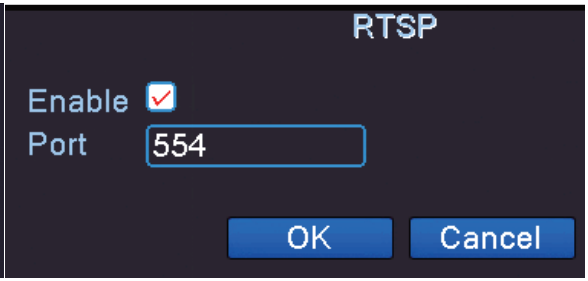
5.2.10 UPNP

UPNP means Universal Plug and Play. It makes it easy for another network device to seamlessly discover and connect to your camera if you enable this function. However it creates a risk of being hacked, because any UPnP device will arbitrarily accept communications from any source. If your router's UPnP function is enabled, your camera can be easily attacked and hacked. Sunba does not recommend enabling this feature for average customers for home & business surveillance purpose.

5.2.11 WiFi

This function is for device with built-in WiFi signal and is not applicable for Sunba NVR.



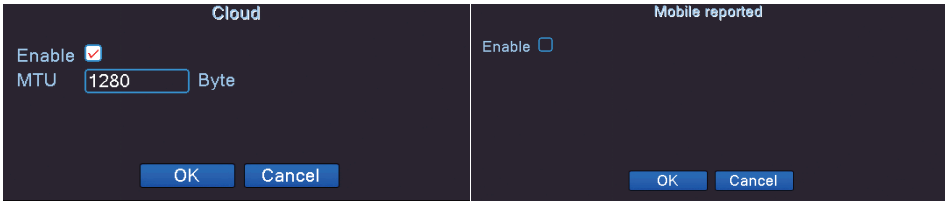


5.2.12 RTSP

RTSP is the abbreviation for real-time streaming protocol. By default, this function is activated to enable the real-time streaming of your camera view from a third-party RTSP service provider.
Please use URL:
rtsp://IP:554/user=admin&password=&channel=1&stream=0.sdp?real_ stream
where 0=mainstream and 1=substream and the default channel is 1.
For example,if the NVR has the LAN IP address 192.168.1.9 and has no password, and you want to stream channel 5, then the URL is
rtsp://192.168.1.9:554/user=admin&password=&channel=5&stream=0.sdp?real_stream

5.2.13 Cloud

In order to use P2P cloud connection to a Sunba camera, this function is activated by default. You can disable the function if you choose to use other methods to remotely access the camera or to deactivate all network transmission to the public network.

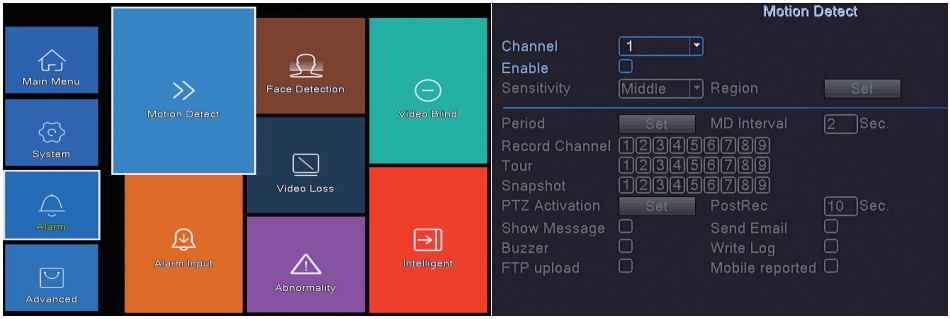


5.2.14 Mobile Reported

Please enable this function if you wish to receive events text push notification on your smartphone.

5.3 Alarm

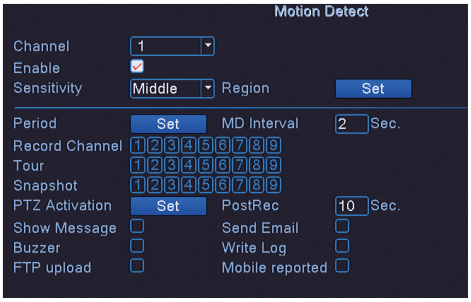
The alarm page can be accessed from Main Menu-Alarm with different types of alarm.

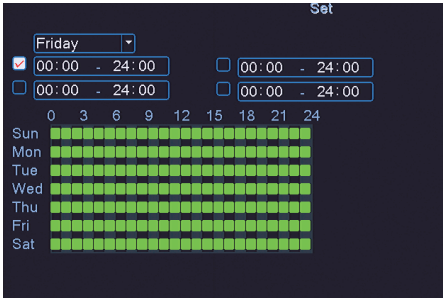


5.3.1 Motion Detect

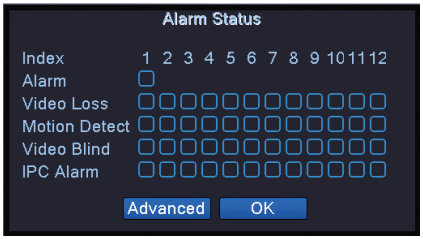
The motion detect page enables you to configure alarm format when a movement is detected by the camera. Please first check the box next to the “Enable” option.

[Region] Select the detection area on the camera view.
[Sensitivity] Select the detection sensitivity level accordingly.
[Period] Select the schedule (daily or weekly) of detection period. You can choose up to four time periods per day for motion detection functions.
[MD Interval] Set time interval between 0 and 600 seconds. Only one alarm will be sent in the time interval even if multiple motion detections are triggered.
[PostRec] The total amount of motion detection period, which also determines the length of motion video clip. The range is 10-300 seconds.





[Record Channel] Select the channels that will be recorded when a motion is detected.
[Tour] Select the channels that will be included in a display tour when a motion is detected.
Note: TF card must be installed into the camera's internal TF card slot to enable this function.Also, please enable motion detection of the same time period at "Record Config" under "Storage Config".
[Snapshot] A snapshot will be taken when a motion is detected and send the snapshot via email if the email push function is enabled in NetService.
[PTZ Activation] Activate the PTZ function (Preset position, Cruise, or Pattern) once the motion is detected. Note: you need to set preset, cruise, and pattern in advance.
[Show Message] Switch on or off message alarm on the NVR when a motion detection occurs.

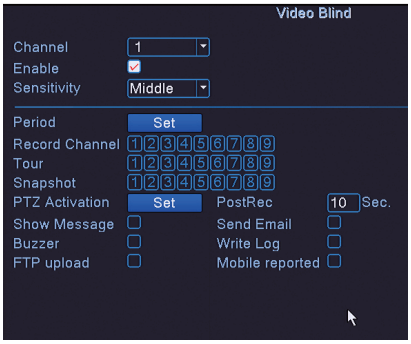


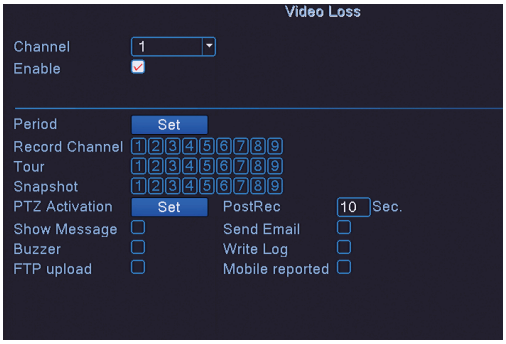
[Send Email] Switch on or off this function to send email alert when a motion detection occurs.
Note: Users need to set up "Email" server under "Network".
[White Log] Switch on or off this function to keep the log for the event in the NVR.

alarm when a motion detection occurs (only NVR with buzzer will be supported). NVR-F2008PL doesn't support buzzer alarm.
[FTP] Switch on or off this function to send snapshot and/or video to a FTP server when a motion detection occurs.
Note: Users need to set up "FTP" server under "Network".
[Mobile Reported] Switch on or off this function to send snapshot and/or video to a FTP server when a motion detection occurs.
Note: Users need to enable "Mobile Reported" under "Network".

5.3.2 Video Blind

Video Masking/Video Blind is another alarm event that happens when camera lens/image has been purposely covered to disrupt the surveillance. Whenever this event occurs, the NVR can activate various reporting functions.
Please refer to Chapter 5.3.1 for detail settings.





5.3.3 Video Loss

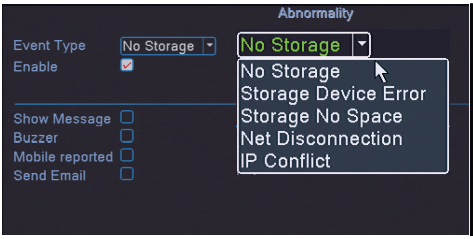
When NVR loses the channel video signal, video loss event occurs. Whenever this event occurs, the NVR will activate various reporting functions according to the settings below.
Please refer to Chapter 5.3.1 for detail settings.

5.3.4 Alarm Input

This function is not supported on NVR-F8009SE and NVR-F8010SE.

5.3.5 Alarm Abnormality

When NVR detects software or hardware abnormalities, the alarm will be triggered. Five alarm event types can be selected in the drop-down box (below).



Please refer to Chapter 5.3.1 for detail settings.

5.3.6 Intelligent

The intelligent detection feature (VCA feature) allows the NVR to effectively detect motion events based on virtual perimeters and lines on the screen. This feature is only supported by non-tracking Sunba IP cameras.

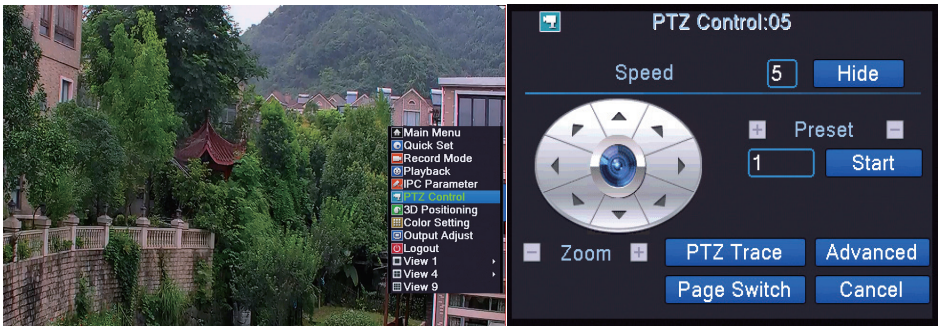
To enable intelligent detection, go to Main Menu-Intelligent and check "Enable".

[Show Traces] When alarm is triggered, there will be a red box showing moving object.
[Show Rules] Show virtual lines/polygons on the monitor.
[Algorithm] Options for choosing algorithm rule of detection (Perimeter/Item Care).
[Alarm Rules] Click to enter the rule setting page for each algorithm.

[Alarm Linkage] Click to setup alarm linkage methods for intelligent alarm. Please refer to Chapter 5.3.1 for detailed alarm linkage settings.

5.4 PTZ Control

Open the right-click menu, and select PTZ Control to turn on the PTZ Control Panel. Below is the fundamental PTZ Control panel. Eight directions are supported.



[Hide] Click "Hide" to hide the control panel. An icon will appear on the lower right corner. Click the icon to retrieve the control panel.
[Speed] The PTZ step size of the camera. The greater the speed, the faster the camera moves. By default the speed will be 5. Valid Range: 1~8.
[Preset] Enter the preset value. Valid Range: 1~255.
[+] Add a preset. **[-]** Delete a preset.
[Start] Call a preset.
[Zoom] Click + to zoom in and – to zoom out.
[PTZ Trace] This function will hide the PTZ control panel and the PTZ control will be controlled by dragging the mouse. This function is also called High Speed PTZ.
[Cancel] Exit the control panel.

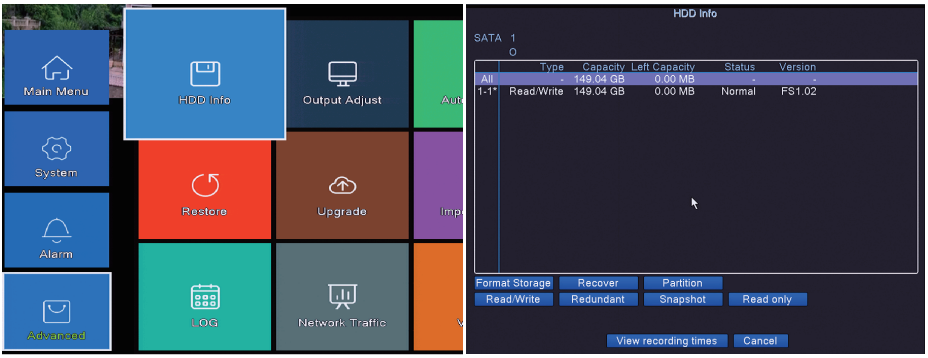
Click "Advanced" to access patrol, boundary scan and other PTZ related functions.

Click the numerric value box under Tour to name the tour order. Click + next to Start to add/delete preset into the tour, and set its interval. Click – to delete the tour.

[Left] Click to set the left boundary of auto scan.
[Right] Click to set the right boundary of auto scan.
[Auto Pan] Click to start 360 degrees auto pan.
[Flip] Flip the camera 180 degrees vertically (for cameras support auto-flip only).
[Auto Scan] Click to start auto scan.
[Reset] Reset the patrol/tour setting.

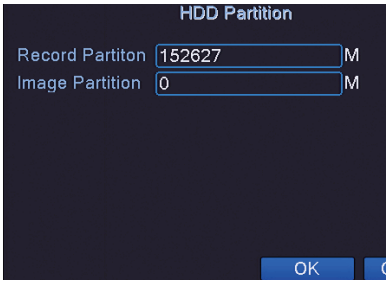
5.5 HDD Management

Please follow instructions from Chapter 3 to install the HDD first. The HDD Management page can be accessed from Main Menu-Advanced-HDD Info.
All recognized storage drives will be displayed on the page.



[Format Storage] Erase all information from the hard drive.
[Recover] Recover the lost files from the hard drive (redundant drive only).
[Partition] Split the drive spaces to store recordings and snapshots in separate drives. A reboot will take place when drive partition completes.

[Read/Write] Set the hard drive into Read/Write mode (default mode).
[Redundant] Applicable only for NVR with dual-drive slots. Set the hard drive into Redundant mode as a backup drive. This drive usually serves as the duplicate (backup) drive of the Read/Write main drive.
[Read Only] Set the hard drive into Read-only mode. No new recordings can be stored into the hard drive but the existing recordings can be read.



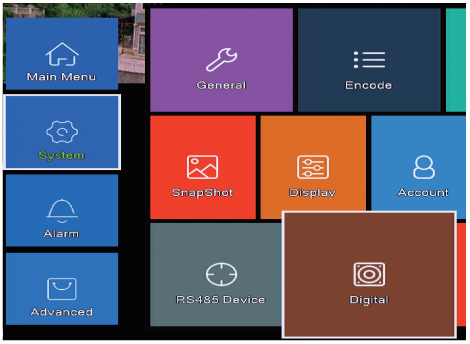
5.6 Channel Management

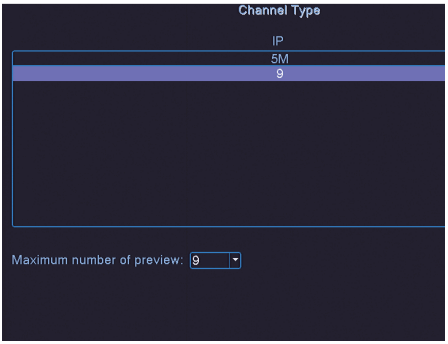
See Chapter 6.3.2.

5.7 Channel Type

The channel type page can be accessed from Main Menu-System-Digital.

The channel type diagram below shows the possible channel configuration for NVR application.



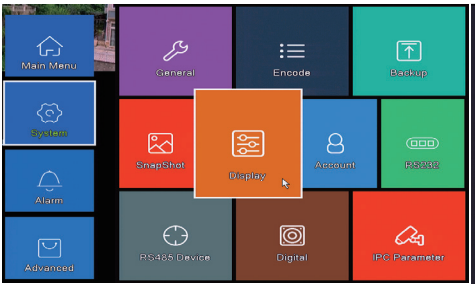


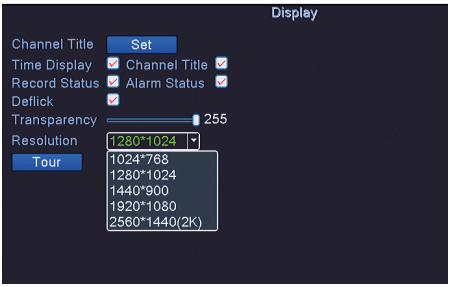
5.8 Channel Status

The channel status page can be accessed from Main Menu-System-Digital.
Channel status enables quick troubleshooting on each channel as it shows the real time status of each channel including "Not Config", "Connected", "Wrong Username/-Password", or "Offline" etc.
If any channel drops or cannot be connected, it is recommended to start by examining the channel status of the corresponding channel.

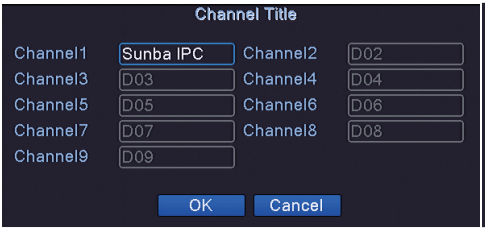
5.9 Display

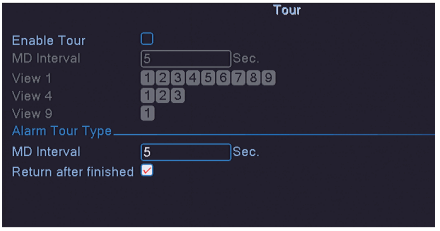
The display setting page can be accessed from Main Menu-System-Display.
You can select to enable/disable displays for Time, Channel Title, Record Status and Alarm Status for end-devices. The monitor display ranges from 1024*768, 1280*720, 1280*1024, 1440*900, 1920*1080, 2560*1440 (2K).





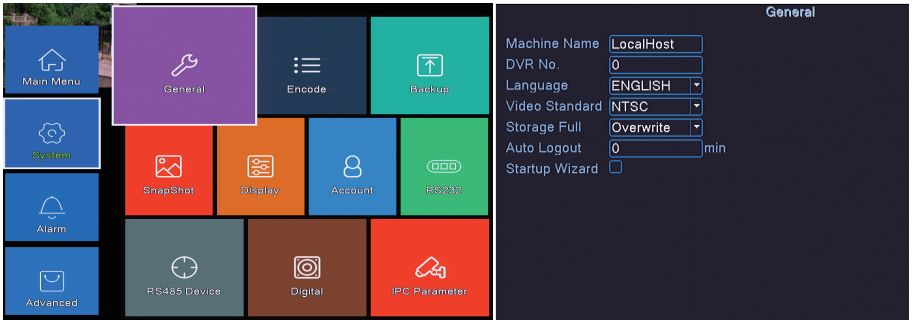
Click "Set" next to Channel Title to edit titles for all channels:
Click "Tour" to set up display tours on the monitor with a designated motion detection interval. Choose whether to return back to static view after the end of the tour.





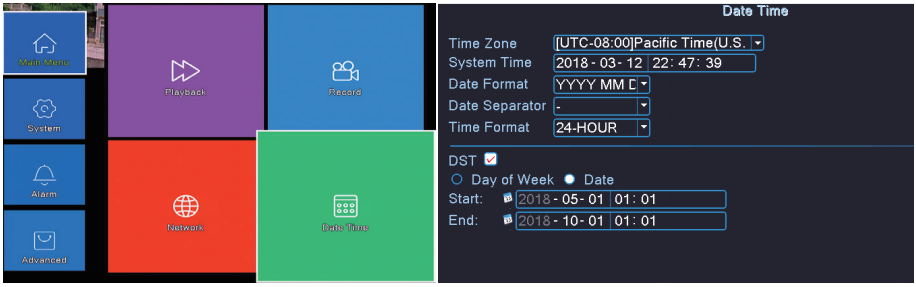
5.10 Basic Setting

The general setting page can be accessed from Main Menu-System-General.
In the General menu, users can set Machine name, assign NVR number (if you have multiple recorders), languages, video standard, actions when storage is full and the time limit for auto-login. The video standard is critical to the maximum frame per second allowed (usually 30 fps@NTSC and 25 fps@PAL) and must be consistent between end-device and NVR.



5.11 Date and Time

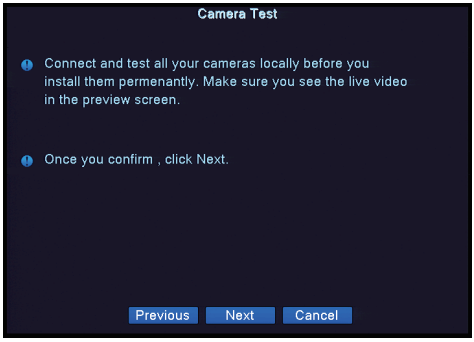
The general setting page can be accessed from Main Menu-Date Time.
Users can specify the time zone, time, date and the preferred display formats. Check DST to enter the effective range of Daylight Saving Time.
Please check 5.2.2 NTP if you want to constantly calibrate the system time with local server.

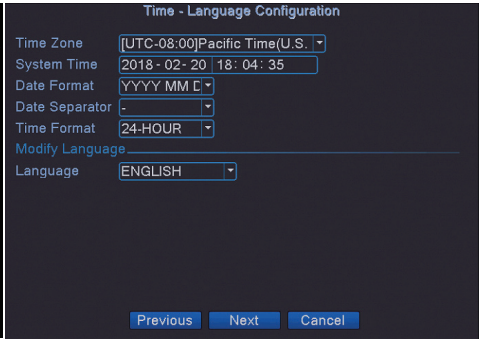


6. Add Device to NVR

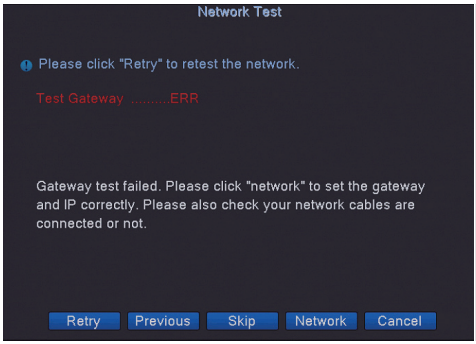
6.1 Configuration Wizard

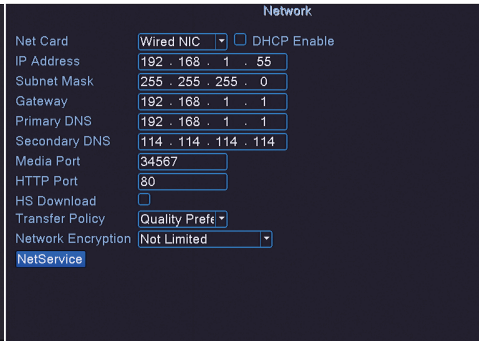
The configuration wizard allows the NVR to go through the necessary windows (network, time, smartphone QR code etc) recommended for setting up the NVR properly. Click “Next” if you would like the configuration wizard to lead you through the setup process. Click “cancel” if you wish to setup the NVR manually.



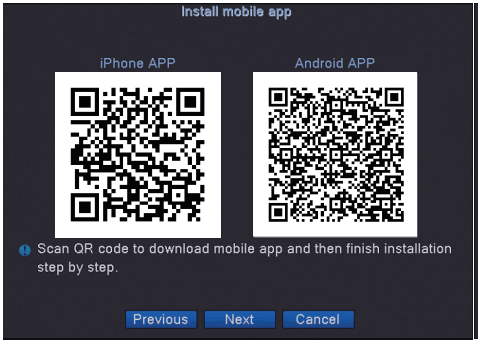


Set up the time and language of the NVR. Click Next to save the changes and go to the next interface.
The Wizard tool will test whether the NVR is connected to your local network.





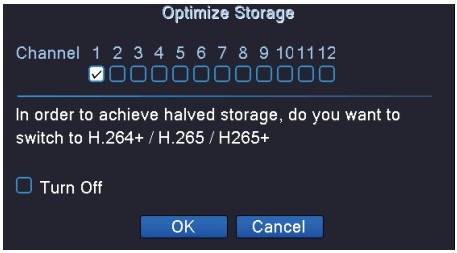
You can choose to "Retry" the network status examination test, "Skip" the test part to proceed the Wizard Configuration or click "Network" to manually configure NVR network parameters.
Please refer to Chapter 5.2 for details regarding network configuration.
The next interface of the Configuration Wizard will enable you to scan the QR code to install the corresponding smartphone apps. Note, if any of the network test (gateway, network, DNS) above fails, you may not be able to access the NVR through the mobile app. Read Chapter 11. Remote Access for more details regarding smartphone setup.



Click Next to scan the QR code to retrieve the NVR Serial Number (aka. Cloud ID/P2P Code) that can be used in the Smartphone app to remotely access the NVR. Read **Chapter 11. Remote Access** for more details regarding smartphone setup.
Click Next to enter the IP Channel Quick Set tool that will automatically detect all online IP Cameras with quick configuration options.

6.2 Sunba Camera

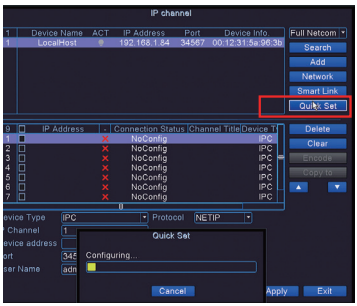
Sunba IP cameras (except for the Illuminati series) can be setup automatically. A prompt will pop out with suggestions to switch to H.264+, H.265 or H.265+ to optimize storage space. Click "OK" to accept changes or click "Turn Off" and OK to disable the prompt.
Users need to enable H.265 option in Main Main-Encode for the corresponding channel as well.

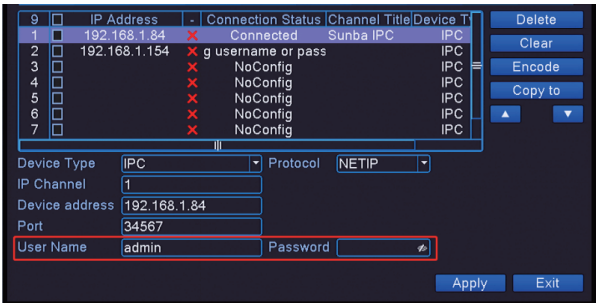


If Sunba camera does not show up automatically on the monitor after 2~3 minutes, please open the right-click menu and choose "Quick Set". The NVR will automaticallyconnect to all searchable end-devices. Select the device and click "add" if the device is not being added automatically.

[Search] Detect all IP cameras on the network.
[Add] Add the selected IP camera, that appears in the search box to an unoccupied channel below.
[Network] Modify the IP address of the camera.
[Quick Set] Automatically assign all searched device into the unoccupied channel below.
[Delete] Delete the camera from the selected channel.
[Clear] Clear all channel configuration.

If the connection status shows error messages such as "Wrong Username/Password", please select the device and update the correct channel info including protocol **(NETIP for Sunba cameras)**, port, username and password. Click "Apply" to save changes. End-device username and password cannot be changed in NVR and shall be edited by accessing the end-device interface directly through desktop and smartphone app.
For Sunba Illuminati, please add the device using "ONVIF" protocol, and port 80.

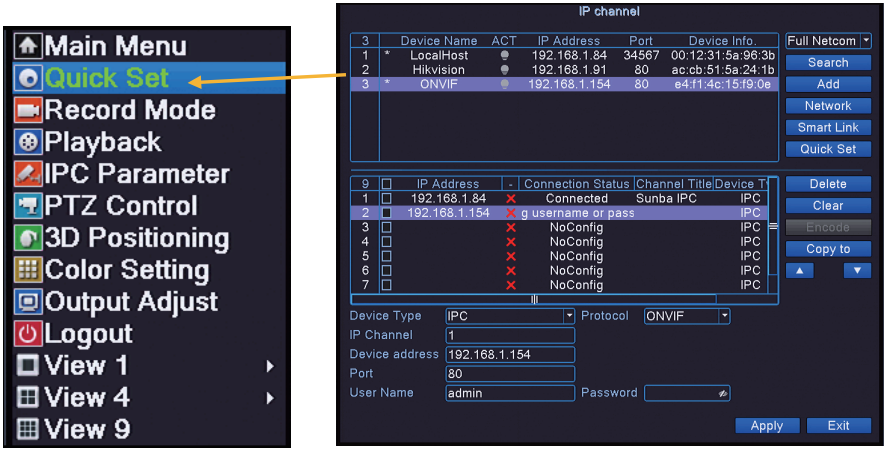




6.3 Third Party ONVIF Camera/Manual Add/Remote Device Add

6.3.1 Quick Set

Please open the right-click menu and choose “Quick Set”.



The NVR will connect to all searchable end-devices. Select the device and click “add” if the device is not being added automatically.

[Search] Detect all IP cameras on the network.

[Add] Add the selected IP camera, that appears in the search box to an unoccupied channel below.

[Network] Modify the IP address of the camera.

[Quick Set] Automatically assign all searched device into the unoccupied channel below.

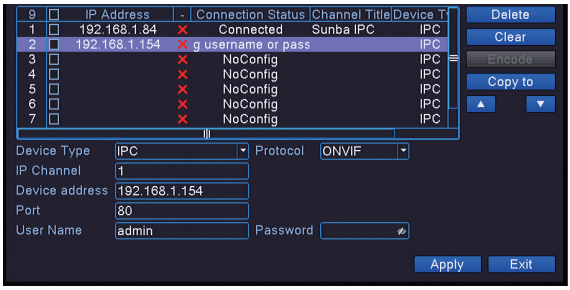
[Delete] Delete the camera from the selected channel.

[Clear] Clear all channel configuration.

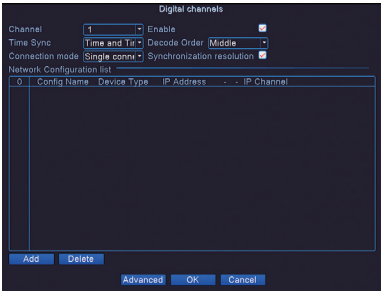
If the connection status shows error messages such as “Wrong Username/Password”, please select the device and update the correct channel info including Protocol (ONVIF for 3rd party cameras), port, username and password. Click “Apply” to save changes.

End-device username and password cannot be changed in NVR and shall be edited by accessing the end-device interface directly through desktop
and smartphone app.

The correct ONVIF ports for 3rd party cameras can be retrieved from the manufacturer.



6.3.2 Channel Management



Apart from quick set, users can also manually configure channels at Main Menu-System-Digital-Digital Channels. This function also enables you to add remote IP cameras to the NVR.

In the channel management page, please select "Enable" to start configuring the channel.

[Channel] This allows you to browse and select all available channels to configure.

[Time Sync] You can determine whether and specifically how you want to synchronize the time of the camera with the NVR.

[Decode Order] You can select how you want the NVR to decode your device. Video Quality: Real time>Middle>Fluency Preferred. Better video quality may require improved network bandwidth.

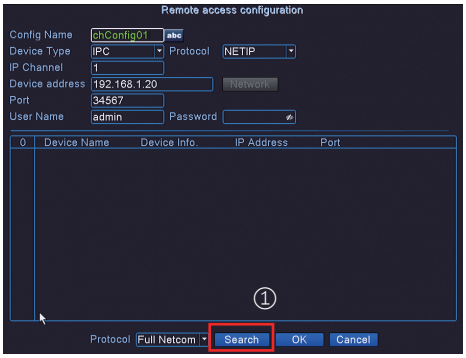
[Connection mode] "Single connection" means you only want one camera to appear per channel. If you select "multi-link", you can add multiple cameras to the channel and every camera will have a specific "polling time" (dwelling time) before the channel displays the next camera.

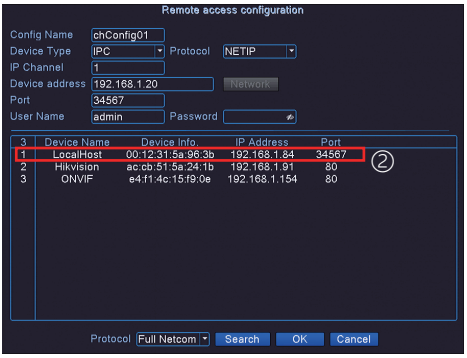
[Synchronization resolution] If you select synchronization resolution, the camera in the channel will display the same resolution as it is in its native interface.

[Add] Click to add a device to the channel.

[Delete] Select and click to delete a device from the channel.

To add a camera, click add and the following page will appear.

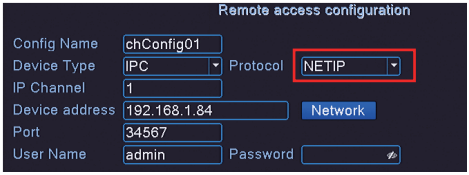




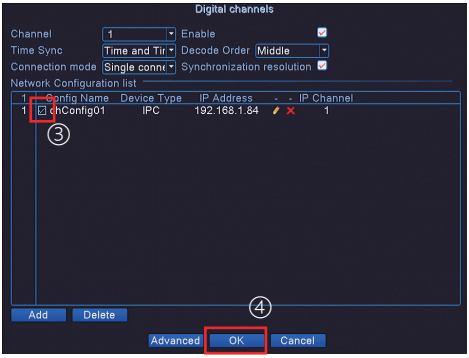
Click "search" to search cameras on the network.

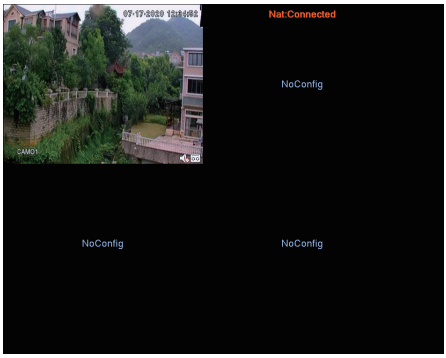
To add a remote camera, please enter its WAN IP, corresponding port, protocol and account info. Click to select a device from the searched results, then please modify its corresponding protocol, port and username/password to login purpose. If your camera cannot be searched on NVR but it is on the same network, please manually input its IP, protocol, username/password.

For Sunba IP cameras, please double check the username/password, the protocol (NETIP) and port (TCP port) will automatically be detected.
For 3rd party non-Sunba IP cameras, please check the protocol (ONVIF usually) and the corresponding ONVIF port as well. Note: Many manufacturers such as Hikvision use http port as ONVIF port.



After all information has been filled out properly in the above section, please click "OK" and you will prompt to the previous page with a device listed under this channel.



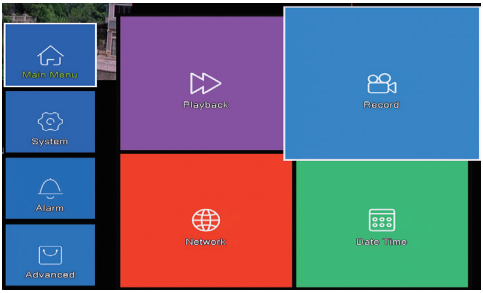


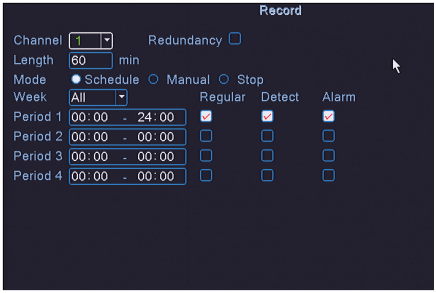
Click "OK" and the live video will appear for this channel if all information is correct.

7. Record

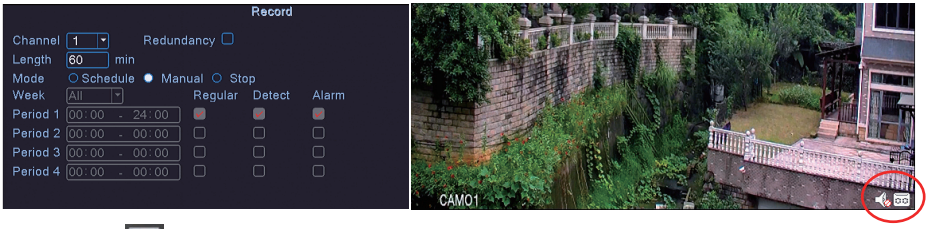
This chapter will cover how to setup recording plans including manual (regular) recording, scheduled recording as well as motion detected recording. Record mode can be switched easily through the right-click menu by selecting the "Record Mode".

Users can assign the specific record mode in the surveillance channel.
Detailed recording parameters can be configured in Main Menu-Record:
Select a channel from the drop-down list Channel 1 to start configuring the recording plan. The NVR shall install a hard drive to initiate this function. Please refer to Chapter 3 for installing a hard drive.





[Redudancy] Record to the redundancy drive.
[Record Length] Set the length of each recording file between 1 to 120 mins and the default is 60 mins.
[PreRecord] It is used to set the video to start recording earlier than a motion happens. This function is only equipped in Sunba 24 channel network video recorder.
[Mode] Set the record type, timing, manual and stop.
[Timing] To record according to scheduled time period.
[Manual] To record any time for any status until manually stopped.
[Stop] Stop recording.
[Regular] Regular recording in a scheduled time period.
[Detect] Record when NVR detects "motion detect", "camera masking", or "video loss". Users need to enable "record" for these events (refer to these sections for details).
[Alarm] Record when an alarm occurs. Not supported on Sunba 8CH network video recorder wtihout external alarm in/out interface.



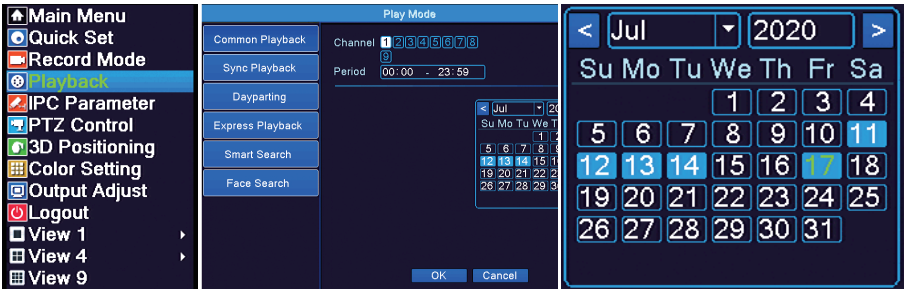
A tape icon will appear if recording mode is turned on for the channel.

8. Playback

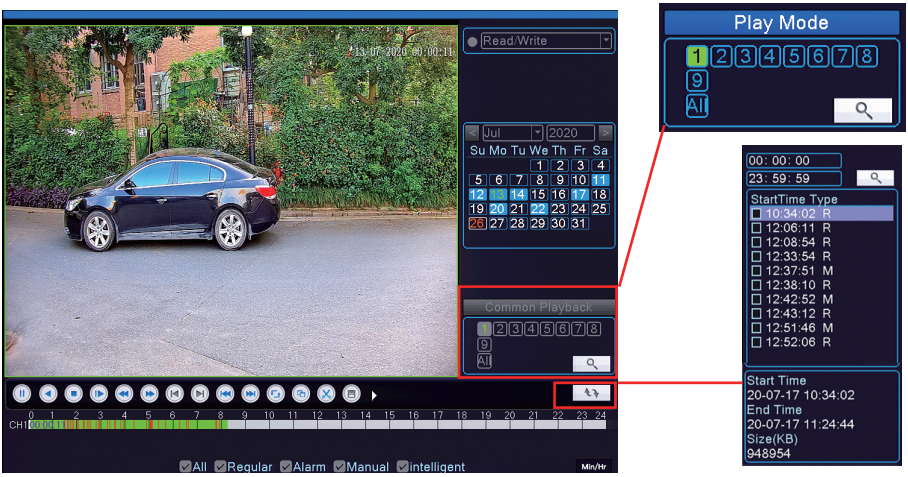
Playbacks can be accessed through the right-click menu by selecting the "Playback". Below is the playback page.

Select the disk type 

where playbacks are stored into.



Select a date to check playbacks on the calendar.
Select the channels to playback.
Click to de-select a channel and select the other channel to playback.



Start the video playback.

Step the video playback.

Pause the video playback.

Slowly playback the video.

Play reversely.

Slow forward.

Fast forward.

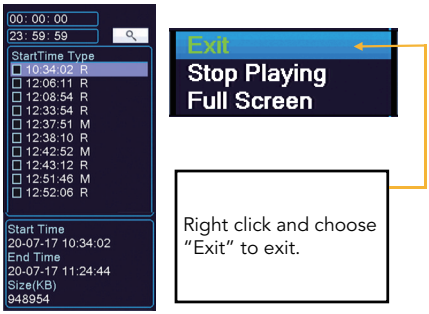
Play the previous file.

Play the next file.

Repeat playback.

View in full screen.

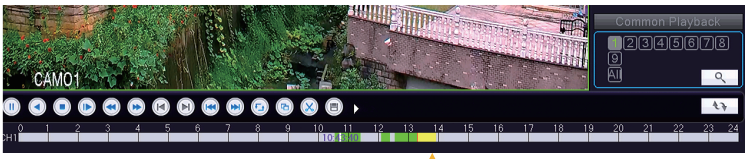
Backup.



Click  to change time display and search format. All available video clips will appear by time and you can select the specific time clip to palyback.

8.1 Manual

Manual recording will appear in yellow bar as below.
To enable manual recording, select manual in the Recording Config. See details in Chapter 7.

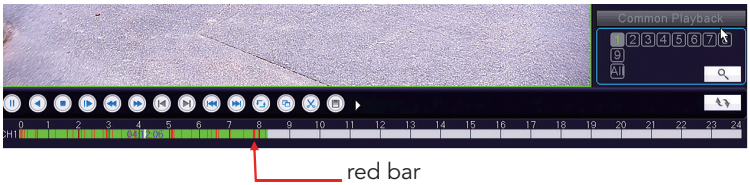


8.2 Schedule

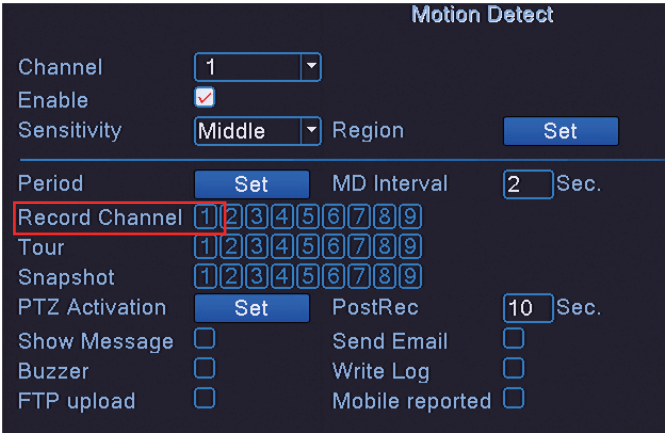
Scheduled regular recording will appear in green bar as below.
To enable scheduled regular recording, select scheduled in Recording Config, and select your desired time range for recording. See details in Chapter 7.

8.3 Motion Detection

Motion detected recording will appear in red bar in the timeline as below .
To enable motion detection recording, select scheduled in Recording Config, and check "detected". See details in Chapter 7.

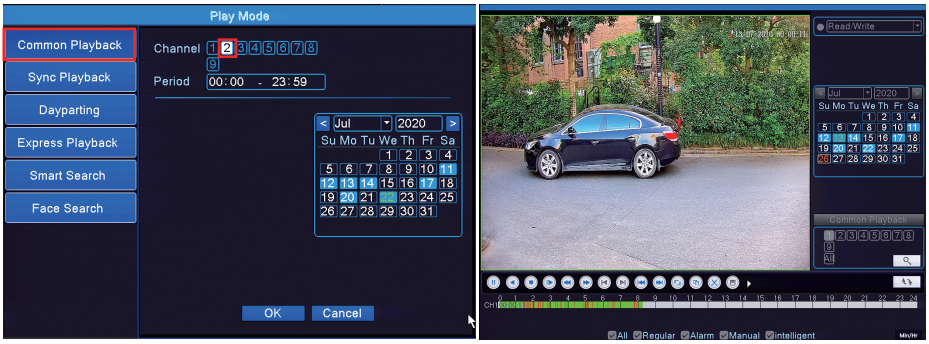


Please also enable the recording parameter in Main Menu-Alarm-Motion Detect.



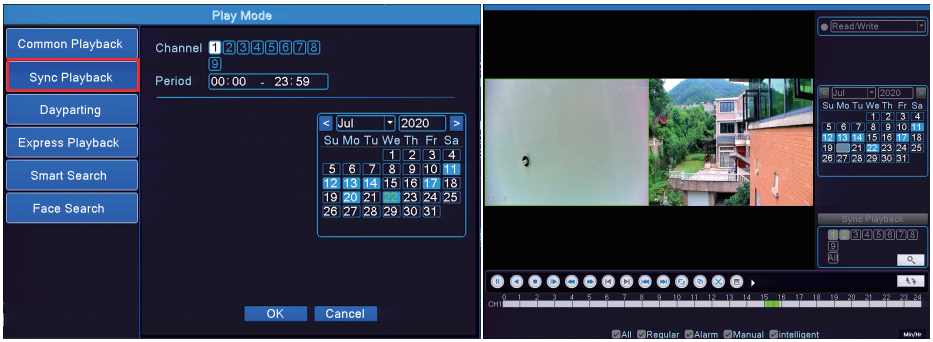
8.4 Common Playback

Regular playback as described in Chapter 8.1 & 8.2 & 8.3.



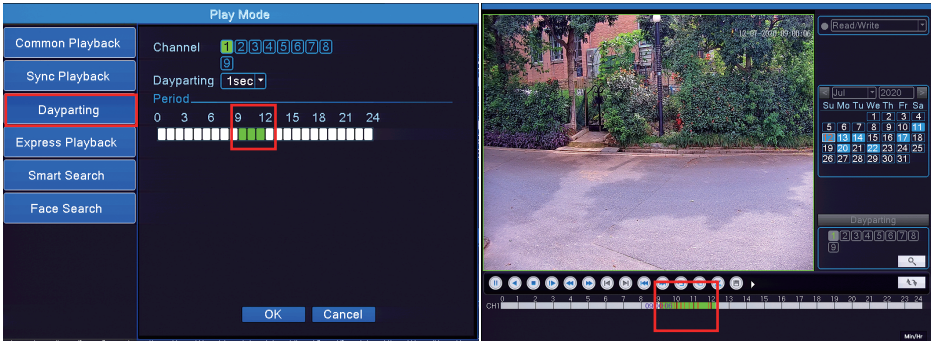
8.5 Sync Playback

Playback two channels simultanously .



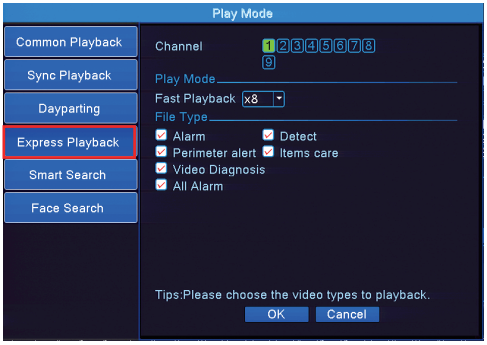
8.6 Dayparting

Playback recordings in the selected time frame.



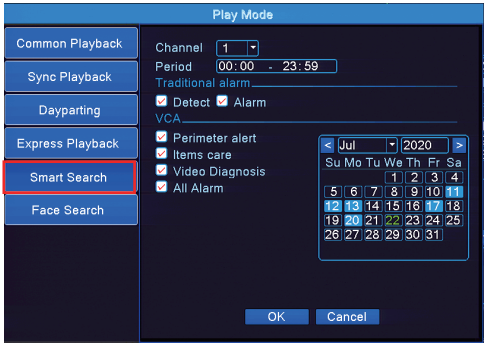
8.7 Express Playback

Playback selected video types in fast-forward mode.



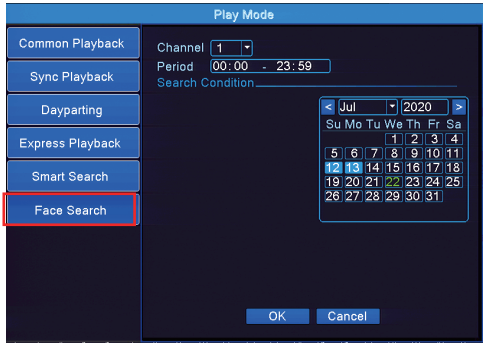
8.8 Smart Search

Smart search allows users to select intelligent VCA video types and preview in split windows.



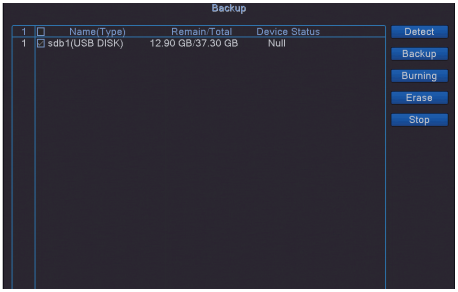
8.9 Face Search

Users can browse over the human faces captured in the specified date and time frame, and playback the video clips for the capture events.



9. Backup

Backup can be accessed through the right-click menu by selecting the Main Menu-System-Backup.



To start backing up, please connect the supported backup storage equipment to the USB slot of the NVR. Then select the device from the list, and click "Backup" to backup the existing recording.

[Detect] Search available backup equipment.

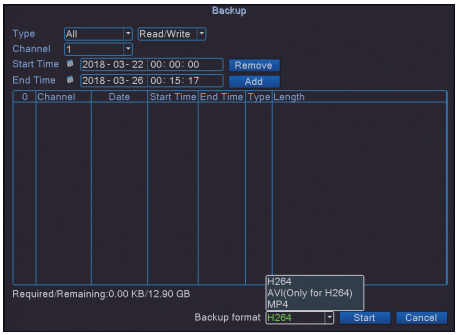
[Burning] Occupy all available spaces in the equipment as backup.

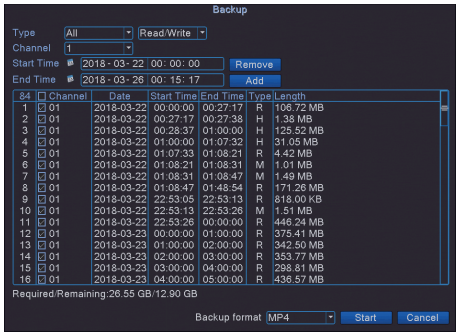
[Erase] Format the backup equipment.

[Stop] Stop backup.

In the following menu, select the backup format to choose the output video format for the backup files. Users can select from H.264, AVI and MP4.

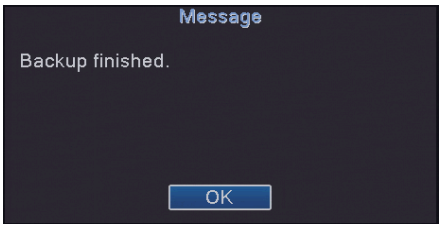
Click "add" to see all available files in the selected channel, date range, and file type.





In the file type, R stands for regular scheduled videos, H stands for manual recorded videos and M stands for motion detection videos. Select the files in the dropdown list, and click "start" to initiate backup.

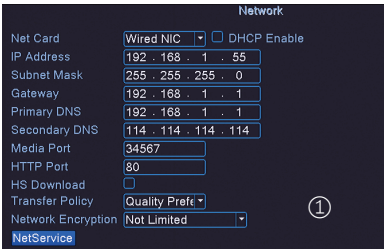
The following message will pop out as soon as the backup finishes.

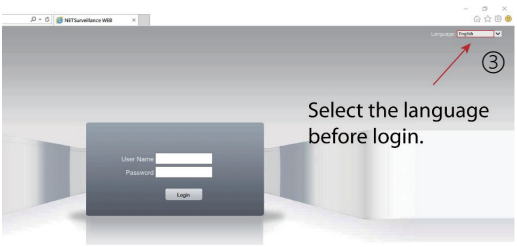


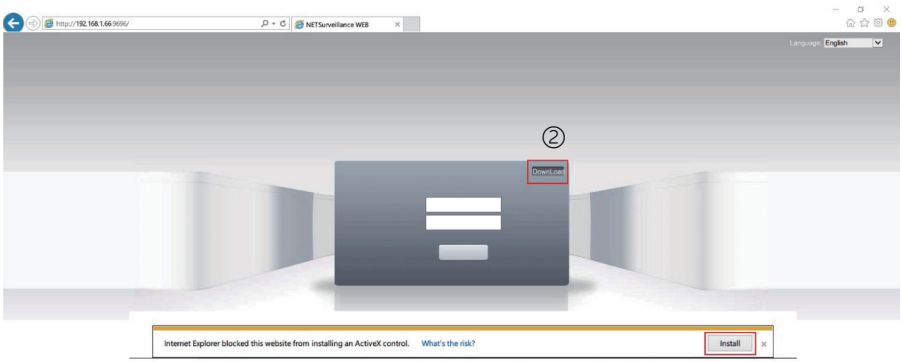
10. IE/Desktop Client Operation

10.1 Internet Explorer

1) Enter the IP address of your NVR, you can check the IP address in Main Menu-Network. If you have changed the http port of the NVR, you need to log in as IP: http port







2) Install the web plugin following the request popped by the browser. Please make sure the browser is CLOSED during the installation. If you are unable to download the plugin, please go to download.sunba.net to download the plugin.
3)You can change the language from the upper right corner. Changes only take effect after you successfully install the plugin, otherwise the text will show "??????" or disappear.
4) If you are still unable to install the plugin, please contact support@sunba.net. Edge explorer is currently not supported.

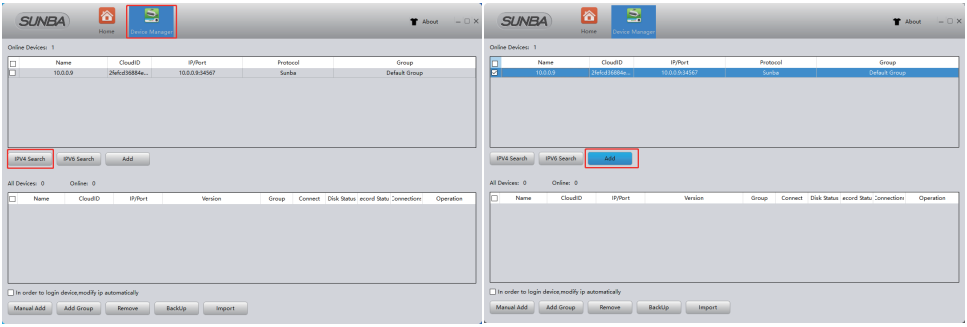
10.2 VMS Desktop

Download the VMS software from: https://sunbatech.com/download.

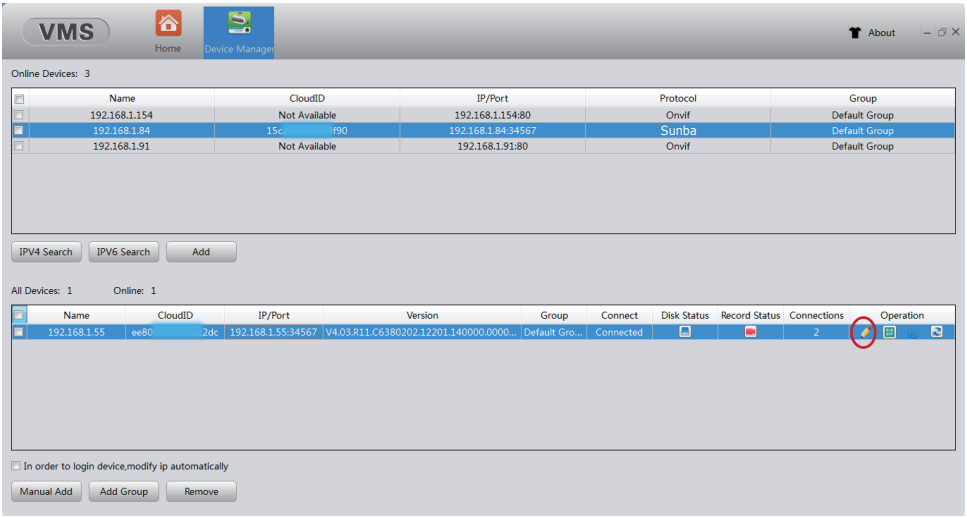
1.After the NVR has been properly connected to the router, please open VMS. For VMS for Mac, a window will pop out for VMS Mac to login. The default account for VMS for Mac is admin/admin.
Note your computer must connect to the same LAN network as the NVR.

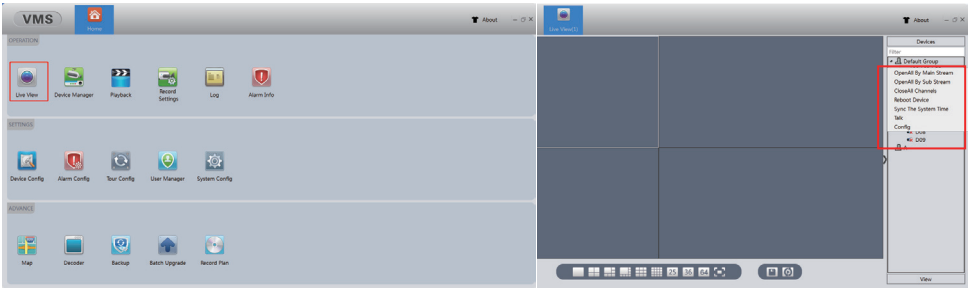
2. Then in Device Manager section, Sunba NVR should show up on the top zone automatically with its IP address. Click IPV4 Search if you don't see the NVR.

Try the following if no device shows up:
A. Temporarily disable the firewall.
B. Connect the NVR directly to your parental router.
C. Contact support@sunba.net



3. If you haven't configured the IP of the NVR before, select the device you want to add and check "in order to login device, modify IP automatically". Then click "add". The NVR will be automatically connected and changed to a correct IP matching local network. You can modify this IP later.
If you have configured the IP of the NVR before through Main Menu-Network, click "Add" to add the camera to VMS directly.





4. Once the status of the NVR shows “connected”. Go to the Home panel and select “Monitor” to watch the live view.
Then right-click the device and select “open all by main stream”.

Note:
main stream = video in high definition
extra stream = video in standard definition but with better transmission
Please select the stream based on the network quality.

11. Remote Access

11.1 Smartphone

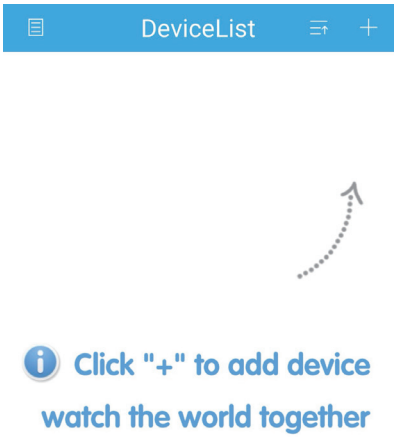
Scan the barcode below to download the app iSunba.

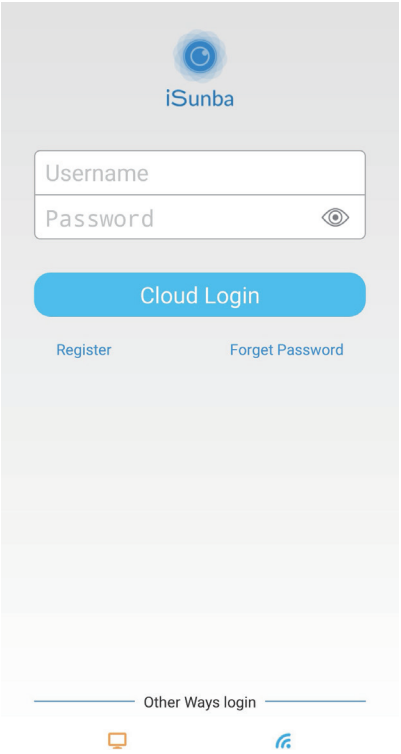
iOS

Android

Step 1.
Tap to open the iSunba app.

Step 2.
Register an account if you want to enable the text push alarm function. You will need to enable the Mobile Reported function in the NVR as well (read Chapter 5.2 Network). After registration, input your username and password, and tap “Cloud Login”. If you failed to register an account on the app, you can register it online via xmeye.net.
Tap “Local Login” if you wish to store your device information locally.

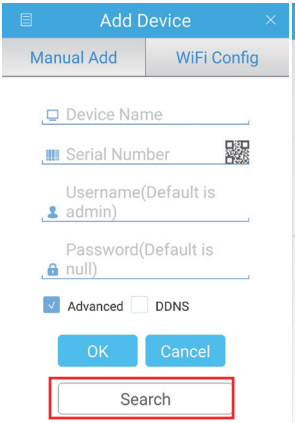




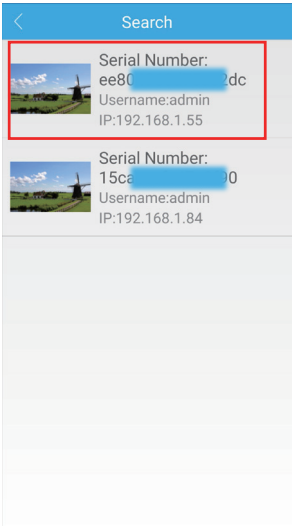
Step 3.
You will proceed to the device list. Tap “+” on the upper right corner to add device.

Step 4.
Please make sure the NVR and smartphone are connected to the same local network. If your smartphone is connected to 4G/LTE, you are unable to search equipment online. Tap "Search" on the bottom to search device online.

Step 5.
All online devices will be displayed from the list. Select the P2P code (aka. Cloud ID) of NVR from the list. The P2P code of NVR can be found on the label of the box or from the System-Version menu.
Tap Add and proceed to the next screen.

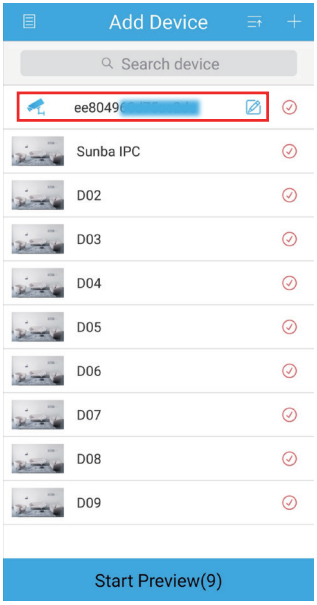


Step 4

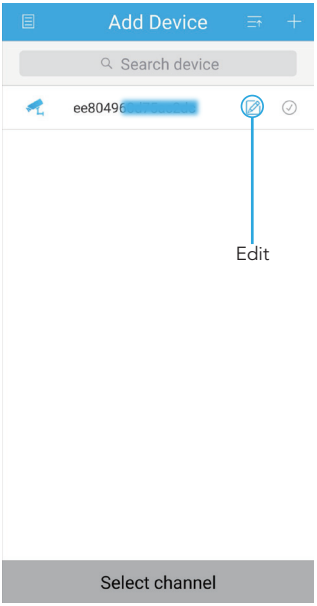


Step 5

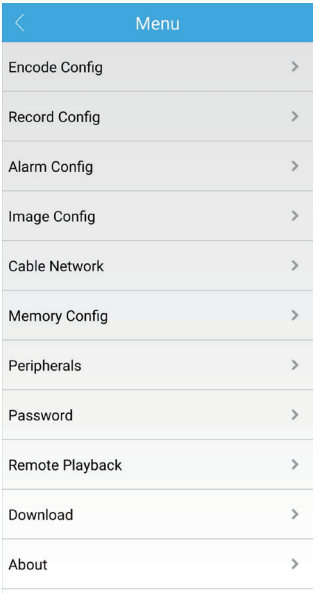
Step 6.
The selected device will be added here. Click the edit button to rename the NVR.
Tap the device name to expand channels.
Step 7.
All channels of the existing device will be expanded.
Tap to select all end-devices you want to view and tap"Start Preview".



Step 6



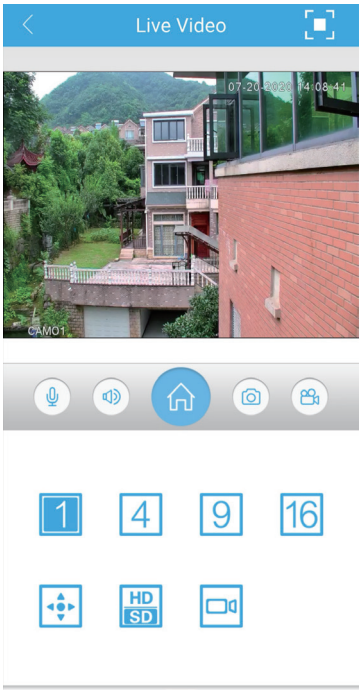
Step 7



Step 9

Step 8.
All selected channels will start preview.
Preview in 1 window.
Preview in 4 split windows.
Preview in 9 split windows.
Preview in 16 split windows.
Open PTZ control panel.
Switch between SD/HD mode
(1 window mode only).
Check remote playback.
Speak.
(only for devices with two-way communication)
Enable audio.
Tap to open the main menu.
Take a snapshot and save to the smartphone.
Record videos to the smartphone. "

Step 9. In the main menu, you can configure advanced features of the NVR such as modifying password and enable alarms etc.

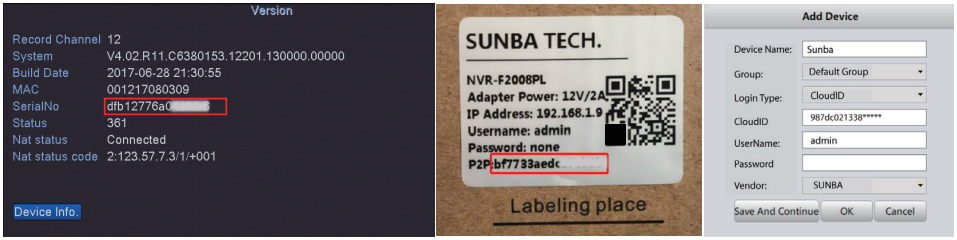


Step 8

11.2 Desktop

11.2.1 P2P Function

P2P cloud technology enables customers to remotely access, control and configure their NVR through internet even if you are thousands miles away.
Warning: P2P function may not work if you modify the default media port (34567) of the NVR or the DNS of your NVR is not on the same subnet as your router. Your NAT status by DeviceConfig->Version needs to be "connected" before you are able to access your NVR through P2P.
Find Your P2P Code from the package or from Main Menu-Advanced-Version
Note P2P Code = Cloud ID = Serial Number



In VMS, click "Manual Add" in Device Manager and add the NVR with its corresponding Cloud ID, username and password.
Internet Explorer:
Please go to xmeye.net and use "Device Login". Enter the Cloud ID of the NVR and associated username and password.

11.2.2 Port Forwarding

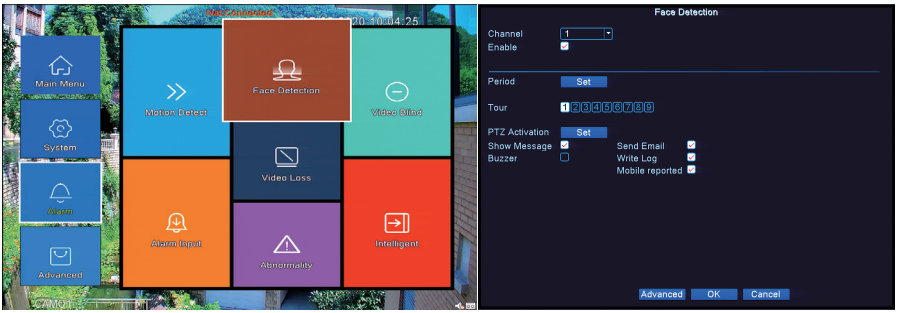
Please forward BOTH http port (80 by default) and TCP (media) port (34567 by default) and refer to the manual of your router for detailed steps of port forward in order to remotely access using a WAN IP.

11.2.3 VPN

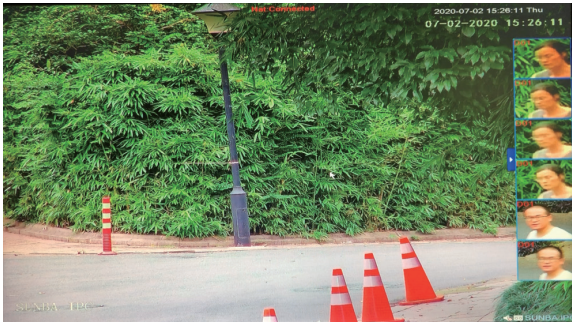
This is recommended for customers who have static IP address and advanced router functions.
First, your router MUST support VPN. Then please refer to the corresponding manual of your router to establish a VPN for the local network where the camera is connected to.
For example, the VPN was setup for the router at your home where the NVR is installed.
Please remember the username and password of the VPN. Then, at any remote location, you can always setup a new network using VPN to remotely access your NVR at home.
If you have any questions or concerns, please contact support@sunba.net

12. Face Detection

The face detection function will recognize human faces and capture snapshots in the NVR database. This feature only works in the daylight with the V2 series of Sunba IP cameras. For details, please refer to the data sheet of your corresponding model.



To enable face detection, go to Main Menu-Face Detection and check "Enable". Please refer to Chapter 5.3.1 for detailed alarm linkage settings.
Once the Face Detection feature is enabled, the supported IP camera will start capturing face and the NVR will display real-time captured faces on the monitor.
Go to Chapter 8. Playback to search and browse captured faces.



Warranty Statement

1.This product comes with a 1-year limited warranty. You must pay the labor fee for repair inside the warehouse. However, any parts replacements are always covered and we will be sending you videos & paper instructions on how to fix the unit. Please contact us first within the warranty period to make sure the condition of warranty is met.

2.Our warranty does not extend to any products that are physically damaged or are not under normal operating conditions as a result of misuse or improper installation on the user's end.

Sunba's Return Policy

Return Window
Please return your product within 30 days of your receipt. That's the official deadline the return request must be received. Exception applies for items in resellable conditions.

RMA
We will provide a Returned Merchandise Authorization (RMA) Number for each item that satisfies the return request. Please put your RMA sheet inside the box for reference to expedite the refund process. All products must be returned within 14 days from the RMA issuing date.

Complete Package Rule
Please return the product with its original packaging, including manuals, brackets and toolkit that come with the unit for a full refund. According to Amazon's restocking fee policy, returns with incomplete/materially different package may enable sellers to charge a restocking fee up to 15% subject to the completeness of the package. Therefore, please make sure you keep the package in good condition in the period of valid return window to avoid any additional charge.

Refund
If you didn't receive an automatic refund within 10 days of the receipt of your return, it is either the RMA was not attached to the package or the RMA was lost by the warehouse. In this case, please kindly provide us with your tracking number so that we can match the return package and the refund will be manually processed within 24 hours. Please watch your email notifications.

For any questions, don't hesitate to reach support@sunba.net
SUNBA®Technology