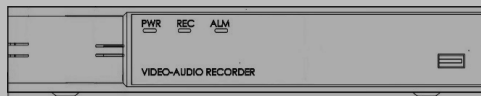


Operating Instructions

8 Channel NVR



Information on hazardous constituents as specified in rule 16(1) in electrical and electronic equipment.

Declaration of Conformity with the requirements of the E-waste (Management) Amendment Rules 2022 with the rule 16(1) limits with respect to lead, mercury, cadmium, hexavalent chromium, polybrominated, biphenyls, polybrominated biphenyls, polybrominated diphenyl ethers.

The content of hazardous substance with the exemption of the applications listed in SCHEDULE II of the E-Waste (management) Amendment Rules 2023.

1. Lead(Pb)- not over 0.1% by weight;
2. Cadmium(Cd)- not over 0.01% by weight;
3. Mercury(Hg)- not over 0.1% by weight;
4. Hexavalent chromium(Cr6+)- not over 0.1% by weight;
5. Polybrominated biphenyls(PBBs) - not over 0.1% by weight;
6. Polybrominated diphenyl ethers(PBDEs)- not over 0.1% by weight;



For the purpose of recycling to facilitate effective utilization of Resources, please return this product to a nearby authorised collection center, registered dismantler or recycler, or Panasonic service center when disposing of this product.

Please see the Panasonic website for further information on collection centers, etc. or call the customer care toll free number.

Website: <https://www.panasonic.com/in/corporate/e-waste-management.html>

Important Safeguards and Warnings

Electrical Safety



Installation and operation should confirm to your local electrical safety codes. We assume no liability or responsibility for any fires or electrical shock caused by improper handling or installation.

Transportation Security

Heavy stress, vibration or water splash should be avoided during transportation, storage, and installation.

Installation

Keep upright. Handle with care.

Do not apply power to the NVR before completing installation.

Do not place objects on top of the NVR.

Qualified Engineers

All examination and repair work should be done by qualified service engineers. We are not liable for any problems caused by unauthorized modifications or attempted repair.

Environment

The NVR should be installed in a cool, dry place away from direct sunlight and inflammation or explosive substances, etc.

This product should be transported, stored and operated in a specified environment.

Accessories

Be sure to use all accessories available in the package.

Before installation, please open the package and check all the components are included.

Contact your local retailer if something is broken or missing in your package.

Lithium Battery

Improper battery use may result in fire, explosion, or personal injury.

 When replacing the battery, please make sure to use the same model.

Disclaimer

- The default password is kept blank for the first login. We strongly recommend you set a difficult password immediately after the first log in to ensure account security.
- Password Characters: Password must contain at least 8 to 16 characters comprising all three elements: alphabet, special character and digit.
- The illustrations in this manual are for reference only and may vary depending on the version or model. The screenshots in this manual may have been customized to meet specific requirements and user preferences. As a result, some of the examples and functions featured may differ from those displayed on your screen / monitor.
- We have put in our best efforts to verify the correctness and integrity of the contents in this manual, but no statement, information / recommendation in this manual shall constitute formal guarantee of any kind, expressed or implied. We shall not be held responsible for any technical or typographical errors in this manual.
- Video and audio surveillance can be regulated by laws that vary from country to country. Check the law in your local region before using this product for surveillance purposes. We shall not be held responsible for any consequences resulting from illegal operations of the device.
- Use of this product and the manual and the subsequent result shall be entirely the user's own responsibility. In no event shall Panasonic be liable for any special, consequential, incidental or indirect damages including, among others, damages for loss of business profits, business interruption, loss of data or documentation, product malfunction and information leakage caused by cyber-attack, hacking or virus in connection with the use of his product.

- The contents of this manual are subject to change without prior notice. Regular updates can be added to the new version of this manual.
- Due to uncertainties such as physical environment, discrepancy may exist between the actual values and reference values provided in this manual. The ultimate right to interpretation resides in our company.

Contents

Preface	1
Part I Product Introduction	1
Product Overview	1
Product Function.....	1
Accessories	2
Installation Guide.....	3
Host Operation	3
Part II Local Network Access	5
1 Before User Login	5
User Login	5
2 How to use Mouse with the NVR.....	5
3 Initial Configuration	7
Preparation.....	7
NVR Login (Display).....	7
4 Live View.....	11
Live View Status	11
Shortcut Menu	12
5 Record Settings	13
HDD Manage.....	13
Record	14
6 Network.....	15
DDNS	16
UPnP.....	17
Email.....	17

Cloud	18
Wi-Fi	19
3G/4G	20
Net Service.....	21
7 Camera	23
Camera Manage.....	23
Channel Status	24
Channel Type	25
8 Alarm	25
Motion Detect.....	25
Video Blind	26
Video Loss.....	27
Abnormality.....	28
Intelligent Analysis.....	29
SMD	30
9 Video	31
Encode	31
GUI Display	32
Output Adjust	33
10 System.....	34
General	34
Tour	35
RS232.....	36
Account.....	36
Auto Maintenance	37
Import/Export.....	38
Restore	39
Upgrade	40
11 Playback	41

12	Backup.....	42
13	AI Play	43
14	Logout	44
15	Information	45
	Alarm	45
	HDD	46
	BPS.....	47
	LOG	48
	Version	49
	Online User	50
	Do's & Don'ts	51
16	Troubleshooting Points	52
	TECHNICAL SPECIFICATIONS.....	54

Preface

This manual describes how to use NVR on Local Network or using the Web Browser interface.

In this manual, the terms IP camera and IPC refer to the same thing: network camera, which requires a connection to the network. And the IP device mentioned in this manual refers to an IP camera or network camera.

Part I Product Introduction

Product Overview

This equipment is an advanced network video surveillance product specifically engineered for the security industry. It leverages an embedded LINUX operating system, ensuring enhanced stability and reliability of the system. Additionally, it incorporates the state-of-the-art H.265/H.265+ video compression algorithm, enabling exceptional video quality, efficient utilization of bandwidth, and seamless playback of individual frames.

Product Function

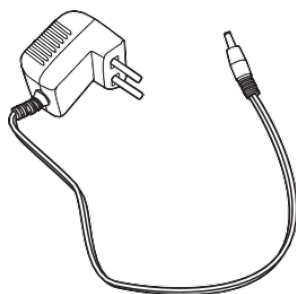
Based on different software and hardware versions, the product's features are different.

- Real time surveillance.
- Normal & scheduled recording.
- Event based recording.
- Recording playback and backup.
- Onvif support.
- Alarm management and control.
- Remote surveillance using mobile and desktop applications.

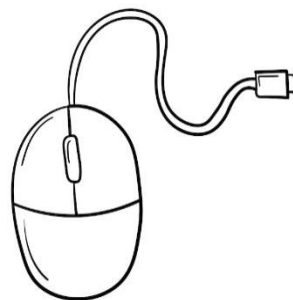
Accessories



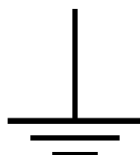
HDD Screw(x4)



Power Adapter



Mouse



Earthing Wire

Panasonic

Panasonic Life Solutions India Pvt. Ltd. **CERTIFICATE OF WARRANTY** Customer Copy
Subject to

Dear Customer,
Thank you for buying this Panasonic product. This card entitles you to enjoy 1 Year warranty on the product.

Product :

Model No. : SI No. :

Customer Name :

Address :

City No. :

Date of Purchase :

Invoice No. :

Dealer Name and Address :

Help Line (Panasonic Customer Care 1800100075, Email: help@india.panasonic.in)
Regd. Office: Panasonic Life Solutions India Private Limited, 12th floor, Ambience Tower, Ambience Mall,
Noida, Gurgaon-122002, Noida, India

Warranty Card

Panasonic

Quick Installation Guide

Model Name : **SL-NH5000 SDR** Model No. : **SL-NH5000 SDR**

Serial No. :

Power Adapter :

Mouse :

Earthing Wire :

Help Line (Panasonic Customer Care 1800100075, Email: help@india.panasonic.in)
Regd. Office: Panasonic Life Solutions India Private Limited, 12th floor, Ambience Tower, Ambience Mall,
Noida, Gurgaon-122002, Noida, India

Quick Installation Guide

Installation Guide

Check

When user receives product, please check all items according to list.

Hard Disk Installation

Installation Preparation

Need to prepare a cross screwdriver. This series of NVR can be installed in the case and the largest capacity of hard disk could be up-to 10TB.

Installation Steps

Disconnect the power from the NVR before installing a hard disk drive (HDD).

Factory recommended HDD should be used for this installation.

Step 1: Remove the cover from the NVR by unfastening the screws on the back and side.

Step 2: Install 4 screws on HDD.

Step 3: Install HDD in the HDD rack using the provided screws.

Step 4: Turn over the machine and fasten the screws on the button to fix the HDD.

Step 5: Connect the power cable and SATA cable.

Host Operation

Shutdown & Login Operation

Shutdown

【Enter Menu】→ 【logout】→ 【Shutdown】→ 【OK】 .

(Note: It is advisable to use this method for shutdown to avoid any damage to the device.)

Note: Turn off the power before changing the hard disk.

Power Off Recovery

If power supply of device is cut off or forced off when network video recorder is in

working mode, the video recorder will automatically save recording before powering off and automatically restore to the working state before powering on to continue working.

Note: It is recommended to use UPS backup to ensure a stable power source for the equipment.

Login System

After the device boots up, the user must login and the system provides the corresponding functions according to the permissions of the logged in user.

By default, there are two predefined users: admin and guest. There is no password allocated by default. The factory predefined user i.e., admin has superuser privileges. The factory predefined user i.e., Guest has permissions for preview and video playback.

Password Protection: If the wrong password is entered 5 times consecutively, the system will alarm to lock the account. User needs to wait for half an hour or reboot the system to get login screen. For security reasons, **please change the username and password in the “User Management” during the first login.**

Part II Local Network Access

For configuration an NVR can be accessed using two different methods: local Network access and web-based access. For local access, the user connects a monitor and a mouse to the NVR and uses the mouse to operate.

The NVR has an embedded web server and allows web-based access for operation using PC. To do this, the user needs a PC that has a network connection to the NVR and is installed with a web browser. User just needs to navigate to the NVR's IP address and log in to the Web interface like user log in to the system locally.

This section describes local connectivity.

1 Before User Login

The parameters and values displayed may vary with device model, and the figures in this manual are for illustration purposes only.

User Login

Use the default username admin. There is no password to be used for the first login. After logging in, the user needs to define the password.

CAUTION!

The password should be configured to a strong one containing at least 8-16 characters including letters, digits, and special characters after your first login to ensure security.

2 How to use Mouse with the NVR

1. Right-click anywhere in the window and then choose **Menu**. The login dialog box is displayed.
2. Select the username from the drop-down list, enter your password (If already configured) and then click **OK**.

Table 1–1 Mouse Operations

Name	Action	Description
Left Button	Click	• Select or confirm an item. • Select to edit digits, symbols, upper-case or lower-case letters in a field.
	Double-click	Enter or exit full screen mode in live view
	Drag	Draw or move a rectangle on the screen, for example, a motion detection area/digital zoom.
Right Button	Click	• Show the shortcut menu. • Exit zoom. • Exit the current window when Cancel or Exit is displayed.
Wheel	Scroll up or down	Scroll up or down a list or a window.

3 Initial Configuration

Preparation

- Make sure that at least one Display / monitor is correctly connected to the VGA or HDMI interface on the rear panel of the NVR.
- Verify that the hard disk(s) are correctly installed. For detailed steps to install a hard disk, please refer to the hard disk installation section.

NVR Login (Display)

After switching on the NVR, a login page will be displayed.

Quick Set-up

Welcome

Congratulations on your purchase of this product.

This setup wizard will help as the initial configurations of this equipment and will put your device online in the internet.

Language	ENGLISH
Guide	
Will no longer be prompted	☐

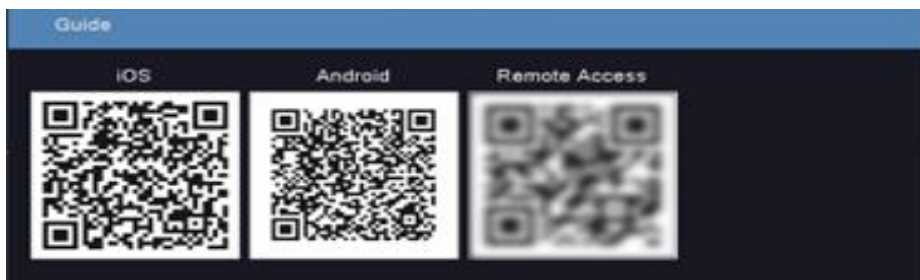
Next Page

Cancel

1. User will get Quick Set-up wizard. This setup wizard will help in initial basic configuration.

Language	ENGLISH
Guide	
Will no longer be prompted	☐

2. Click next, QR codes will be available to download mobile applications for iOS & Android. QR code for remote access configuration on the app will also be available.



Remote Access QR is shown as blurred due to privacy reasons.

3. Click Next, Option for system configuration will be available, you can configure date, time, language, machine name etc. (Ref. pic below)

System Config	
Time Zone	[UTC+08:00]Beijing,Urumqi,Taipei,Singapore
NTP	Setting
System Time	2023 - 06 - 05 03 : 31 : 24
DST	Setting
Date Format	YYYY MM DD
Date Separator	-
Time Format	24-HOUR
Language	ENGLISH
HDD Full	Overwrite
Machine No.	0
Video Standard	PAL
Auto Logout/min	0
Machine Name	LocalHost
Quick Set-up	☒

4. Click Next, Network configuration option will be displayed.

Network Config	
Net Card	Wire Netcard
DHCP Enable	☐
IP Address	192 . 168 . 1 . 18
Subnet Mask	255 . 255 . 255 . 0
Gateway	192 . 168 . 1 . 1
Primary DNS	8 . 8 . 8 . 8
Secondary DNS	8 . 8 . 4 . 4
Network Testing	
TCP Port	34567
HTTP Port	80
Mobile Port	5800
MTU	1400
HS Download	☐
Transfer Policy	Quality Preferred

5. Click Next, Option to configure default password for IP cameras will be displayed.
Configure the default passwords for auto registration of IP cameras to the NVR.

DefaultPassword	
IPC PnP ☐	
NPTS	User Name admin Password •••••
NETIP	User Name admin Password
ONVIF	User Name admin Password ••••• Port 80
	User Name admin Password ••••• Port 8091
	User Name admin Password Port 6060

6. Click Next, Option to discover IP cameras automatically will appear. Select the devices from the discovered IP cam list and add them to complete configuration.

Remote Device

Online Equipment

SN	IP Address	Port	Protocol	MAC	Add	Edit
----	------------	------	----------	-----	-----	------

Search

Add

Quick Add

Modify Ip

Protocol

All

Added Devices

SN	Channel	IP Address	Protocol	Edit	Delete	Connection State
----	---------	------------	----------	------	--------	------------------

<

||

>

Delete

Manual Add

IPC PnP

☐

AutoSearch

☐

Pre Page

Next Page

Note: In case IPC PnP & Auto Search options are enabled then cameras will be added automatically by the NVR.

7. Click Next and press Okay to complete the configuration & go to Live view.

4 Live View

Live View Status

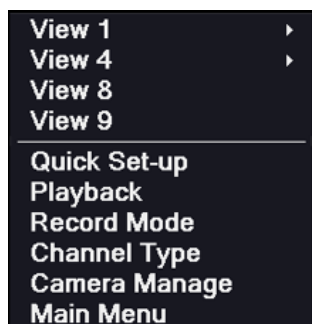
The following icons are used to indicate alarms, recording status and audio status in a live view window.

Table 3–1 Live View Window Icons

Icon	Description
	Click to record video manually.
	Click to play recorded video.
	Available for PTZ cameras. Click to control the PTZ settings.
	Click to control camera color, brightness, contrast, saturation etc.
	Click to hide the displayed icons.
	Click to unmute & mute.
	Motion detection icon.
	Video blind icon.
	Human detection icon.
	Recording icon.

Shortcut Menu

When you right-click in a window, a shortcut menu appears as shown below.



Menu	Description
View 1	Click to view single selected camera.
View 4	Click to view camera no 1-4 or 4-8.
View 8	Click to view camera no 1-8.
View 9	Click to view camera no 1-8 & CH wise bandwidth details. (When NVR in 8CH mode)
Quick Set-up	Quick configuration for camera, network, etc.
Playback	Click to view camera recordings.
Record Mode	Click to configure camera recording options.
Channel Type	Click to configure 8CH(4K) and 16CH(5M) NVR options.
Camera Manage	Click to view available cameras on network & select for live view.
Main Menu	Click to access detailed NVR settings.

5 Record Settings

HDD Manage

Display information related to hard disk. Provides option to format & recover hard disk.

Record

HDD Manage

Record

Disk No.	DiskSpace	Status	Property	Remaining
After installation of a new Hard Drive formatting will be required !!				

Format Disk

Recover

Apply

Record

Provides option to select manual or schedule recording for each camera/channel. Recording criteria can be selected as standard or motion based.

Record

HDD Manage

Record

Channel

1

Length/min

60

Main Stream

☒ Schedule

☐ Manual

☐ Stop

Extra Stream

☒ Schedule

☐ Manual

☐ Stop

Day

Mon

Period

Standard

Motion

00 : 00 - 24 : 00

☒

☒

00 : 00 - 24 : 00

☐

☐

00 : 00 - 24 : 00

☐

☐

00 : 00 - 24 : 00

☐

☐

Default

Copy

OK

Cancel

Apply

6 Network

Provides options to configure network parameters like IP Address & necessary IP ports. We can configure NVR in DHCP or Static IP mode depending on network requirements.

Network

Network

DDNS

UPNP

EMAIL

Cloud

Wi-Fi

3G/4G

Net Service

Net Card	Wire Netcard
DHCP Enable	☐
IP Address	192 . 168 . 1 . 18
Subnet Mask	255 . 255 . 255 . 0
Gateway	192 . 168 . 1 . 1
Primary DNS	8 . 8 . 8 . 8
Secondary DNS	8 . 8 . 4 . 4

Network Testing

TCP Port	34567
HTTP Port	80
Mobile Port	5800
MTU	1400
HS Download	☐
Transfer Policy	Quality Preferred

OK Cancel Apply

Note: Network ports not to be changed unless until required for specific application.

DDNS

You can register with an DDNS server to obtain a domain name for your NVR and then access your NVR by visiting the domain name instead of an IP address (<http://DDNS server address/NVR's domain name>) using a web browser.

Network	
Network	
DDNS	
UPNP	
EMAIL	
Cloud	
Wi-Fi	
3G/4G	
Net Service	

DDNS Type	Oray
Enable	☐
Domain Name	your.gicp.net
User Name	
Password	

OK Cancel Apply

UPnP

To use UPnP in your NVR, UPnP must be enabled in the connected router. With UPnP enabled for Network Address Translation (NAT), the ports on the NVR can be mapped automatically to the router, and computers can access NVR from WAN.

Network

Network

DDNS

UPNP

Enable	☐
HTTP Port	0
TCP Port	0
Mobile Port	0

Make sure UPNP is running on router,before using this

Email

Once email is configured and NVR checked for connection to SMTP server for the valid email account user has configured (Gmail, Yahoo etc.), user will be able to receive emails for all the triggered alarms enabled in the alarm section. i.e., NVR sends an email notification to specify email address depending on the alarm configuration.

Network

Network

DDNS

UPNP

EMAIL

Cloud

Enable	☐
SMTP Server	smtp.gmail.com
Port	465
Need SSL	☒
User Name	
Password	
Sender	
Receiver	
Title	Alarm Message

Cloud

Provide option to enable/disable cloud connectivity for remote access using mobile applications or desktop.

Network

Network

DDNS

UPNP

EMAIL

Cloud

Wi-Fi

Enable

☐

Server IP

Not Available

Port

5800

Device ID

iOS



Android



Remote Access



Wi-Fi

To connect NVR on Wi-Fi router/network, user can connect external Wi-Fi dongle to the NVR and enable/configure settings related to Wi-Fi network.

Network

DDNS

UPNP

EMAIL

Cloud

Wi-Fi

3G/4G

Net Service

SSID	Authentication	Signal

Search

Enable	☐
DHCP Enable	☐
SSID	11n-AP
Password	
IP Address	192 . 168 . 38 . 12
Subnet Mask	255 . 255 . 255 . 0
Gateway	192 . 168 . 38 . 1

3G/4G

To connect NVR on 3G/4G network, user can connect external 3G/4G dongle to the NVR and enable/configure settings related to 3G/4G network.

Network

Network

DDNS

UPNP

EMAIL

Cloud

Wi-Fi

3G/4G

Net Service

Enable	☐
Location	NONE
MobileISP	
Type	EVDO
Wireless AP	ChinaNet
Dial Number	#777
User Name	ctnet@mycdma.cn
Password	••••••••
IP Address	0 . 0 . 0 . 0

OK

Cancel

Apply

Net Service

Provides option to use following services.

1. PPPoE

PPPoE can be used on an NVR (Network Video Recorder) to establish an Internet connection and enable remote access to the NVR's features and functionalities depending upon connectivity from ISP.

Network							
Network	PPPoE RTSP FTP CloudStorage IP FILTER						
DDNS	<table><tr><td>Enable</td><td>☐</td></tr></table>	Enable	☐				
Enable	☐						
UPNP	<table><tr><td>User Name</td><td></td></tr><tr><td>Password</td><td></td></tr><tr><td>IP Address</td><td>0 . 0 . 0 . 0</td></tr></table>	User Name		Password		IP Address	0 . 0 . 0 . 0
User Name							
Password							
IP Address	0 . 0 . 0 . 0						
EMAIL							

2. RTSP

RTSP is Real Time Streaming Protocol which can be used to access NVR video stream over any 3rd party device/media player.

Network			
Network	PPPoE RTSP FTP CloudStorage IP FILTER		
DDNS	<table><tr><td>Enable</td><td>☐</td></tr></table>	Enable	☐
Enable	☐		
UPNP	<table><tr><td>Port</td><td>554</td></tr></table>	Port	554
Port	554		
EMAIL	Through the the RTSP access device format, such as:rtsp://<ip>:<port>/avstream/channel=<x>/stream=<0-mainstream;1-substream>.sdp		

3. FTP

FTP is File Transfer Protocol which can be used to push event image/video file to the FTP server from the NVR.

Network																	
Network	PPPoE RTSP FTP CloudStorage IP FILTER																
DDNS	<table><tr><td>Enable</td><td>☐</td></tr><tr><td>Server IP</td><td>FTP</td></tr><tr><td>Port</td><td>21</td></tr><tr><td>User Name</td><td></td></tr><tr><td>Password</td><td></td></tr><tr><td>Anonymous</td><td>☐</td></tr><tr><td>Max File Length/MB</td><td>128</td></tr><tr><td>DirName</td><td></td></tr></table>	Enable	☐	Server IP	FTP	Port	21	User Name		Password		Anonymous	☐	Max File Length/MB	128	DirName	
Enable	☐																
Server IP	FTP																
Port	21																
User Name																	
Password																	
Anonymous	☐																
Max File Length/MB	128																
DirName																	
UPNP																	
EMAIL																	
Cloud																	
Wi-Fi																	

4. Cloud Storage

Cloud Storage provides an option to push any event image / video on Dropbox/Google drive account.

Network													
Network	PPPoE RTSP FTP CloudStorage IP FILTER												
DDNS	<table><tr><td>Dropbox</td><td>☐</td></tr><tr><td>GoogleDrive</td><td>☐</td></tr><tr><td>AppKey</td><td></td></tr><tr><td>AppSecret</td><td></td></tr><tr><td>Token</td><td></td></tr><tr><td>Record Channel</td><td>☐ 2 3 4 5 6 7 8</td></tr></table>	Dropbox	☐	GoogleDrive	☐	AppKey		AppSecret		Token		Record Channel	☐ 2 3 4 5 6 7 8
Dropbox	☐												
GoogleDrive	☐												
AppKey													
AppSecret													
Token													
Record Channel	☐ 2 3 4 5 6 7 8												
UPNP													
EMAIL													
Cloud													
Wi-Fi													

Note: Cloud storage services can be enabled for any one channel at a time.

5. IP Filter

Provide option to secure connectivity and provide access to authorized users using blacklist and whitelist IP address table.

Network	PPPoE	RTSP	FTP	CloudStorage	IP FILTER				
DDNS	Enable ☐								
UPNP	Restricted Type: Blacklist								
EMAIL	0 . 0 . 0 . 0 Add								
Cloud	<table border="1"><thead><tr><th>SN</th><th>Banned IP</th></tr></thead><tbody><tr><td> </td><td> </td></tr></tbody></table>					SN	Banned IP		
SN	Banned IP								

7 Camera

Camera Manage

This provides an option to add and manage IP camera in the NVR, make sure IP cameras are connected to the NVR using network switch.

Adding an IP Camera:

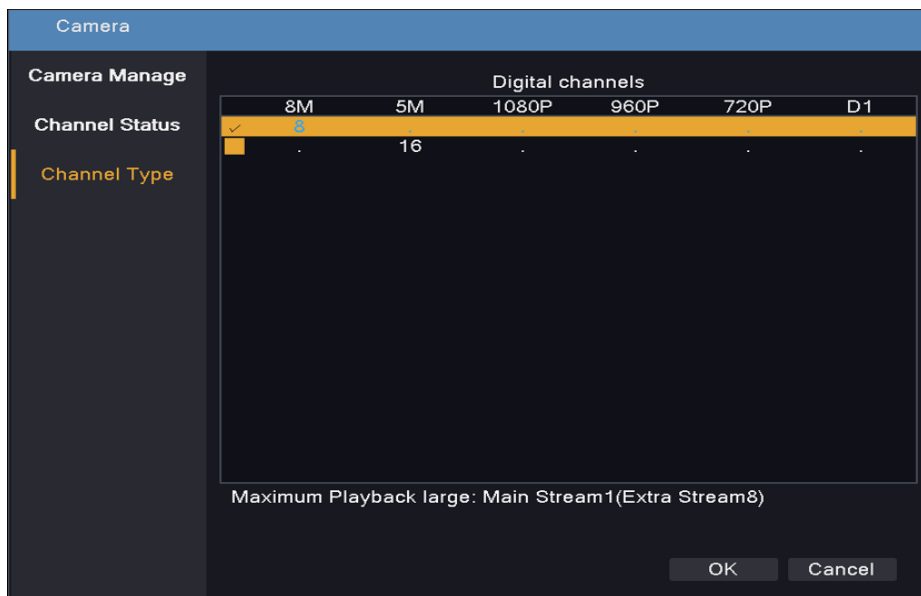
Step 1. Click on the Search button.

Step 2. If the user is using a new camera with default IP address, then select all displayed cameras and click on quick Add button. NVR will automatically assign different IP addresses to each camera and will add camera automatically for live display.

Step 3. If user is having 3rd party cameras, then please select Onvif protocol and click on search button, select the displayed camera, and click on add button.

Channel Type

Provide options to configure 8CH(4K) and 16CH(5M) NVR options.



8 Alarm

Provide option to trigger notification/recording based on motion, human, video loss, video blind, abnormality & intelligent analytics.

Motion Detect

Once enabled a motion detection alarm occurs when an object inside the detection area moves. An alarm icon appears on the display. Various notifications like show message, email, buzzer, ftp upload, tour and recording can be configured for each CH/Camera.

Alarm																	
Motion Detect	<table border="1"> <tr> <td>Channel</td> <td>1</td> </tr> <tr> <td>Enable</td> <td>☒</td> </tr> <tr> <td>Sensitivity</td> <td>Middle</td> </tr> </table>	Channel	1	Enable	☒	Sensitivity	Middle										
Channel	1																
Enable	☒																
Sensitivity	Middle																
Video Blind																	
Video Loss	<table border="1"> <tr> <td>Region</td> <td>Set</td> </tr> <tr> <td>Period</td> <td>Set</td> </tr> <tr> <td>Interval/Sec.</td> <td>1</td> </tr> <tr> <td>Record delay/Sec.</td> <td>10</td> </tr> <tr> <td>Record Channel</td> <td>1 2 3 4 5 6 7 8</td> </tr> <tr> <td>Tour</td> <td>1 2 3 4 5 6 7 8</td> </tr> <tr> <td>PTZ Activation</td> <td>Set</td> </tr> <tr> <td>Other Setting</td> <td> ☐ Show Message ☐ Send Email ☐ Buzzer ☐ FTP upload </td> </tr> </table>	Region	Set	Period	Set	Interval/Sec.	1	Record delay/Sec.	10	Record Channel	1 2 3 4 5 6 7 8	Tour	1 2 3 4 5 6 7 8	PTZ Activation	Set	Other Setting	☐ Show Message ☐ Send Email ☐ Buzzer ☐ FTP upload
Region	Set																
Period	Set																
Interval/Sec.	1																
Record delay/Sec.	10																
Record Channel	1 2 3 4 5 6 7 8																
Tour	1 2 3 4 5 6 7 8																
PTZ Activation	Set																
Other Setting	☐ Show Message ☐ Send Email ☐ Buzzer ☐ FTP upload																
Abnormality																	
Intelligent Analysis																	
SMD																	

Video Blind

Once enabled a video blind alarm occurs when the camera view is blocked more than 60% by an object. An alarm icon appears on the display. Various notifications like show message, email, buzzer, ftp upload, tour and recording can be configured for each CH/Camera.

Alarm													
Motion Detect	<table border="1"> <tr> <td>Channel</td> <td>1</td> </tr> <tr> <td>Enable</td> <td>☒</td> </tr> <tr> <td>Sensitivity</td> <td>Middle</td> </tr> </table>	Channel	1	Enable	☒	Sensitivity	Middle						
Channel	1												
Enable	☒												
Sensitivity	Middle												
Video Blind	<table border="1"> <tr> <td>Period</td> <td>Set</td> </tr> <tr> <td>Record delay/Sec.</td> <td>10</td> </tr> <tr> <td>Record Channel</td> <td>1 2 3 4 5 6 7 8</td> </tr> <tr> <td>Tour</td> <td>1 2 3 4 5 6 7 8</td> </tr> <tr> <td>PTZ Activation</td> <td>Set</td> </tr> <tr> <td>Other Setting</td> <td> ☐ Show Message ☐ Send Email ☐ Buzzer ☐ FTP upload </td> </tr> </table>	Period	Set	Record delay/Sec.	10	Record Channel	1 2 3 4 5 6 7 8	Tour	1 2 3 4 5 6 7 8	PTZ Activation	Set	Other Setting	☐ Show Message ☐ Send Email ☐ Buzzer ☐ FTP upload
Period	Set												
Record delay/Sec.	10												
Record Channel	1 2 3 4 5 6 7 8												
Tour	1 2 3 4 5 6 7 8												
PTZ Activation	Set												
Other Setting	☐ Show Message ☐ Send Email ☐ Buzzer ☐ FTP upload												
Video Loss													
Abnormality													
Intelligent Analysis													
SMD													

Default
Copy
OK
Cancel
Apply

Video Loss

Once enabled a video loss alarm occurs when the camera is disconnected from the network due to power failure or network error. An alarm icon appears on the display. Various notifications like show message, email, buzzer, ftp upload, tour and recording can be configured for each CH/Camera.

Alarm

Motion Detect

Video Blind

Video Loss

Abnormality

Intelligent Analysis

SMD

Channel	1
Enable	☒

Period	Set
--------	-----

Record delay/Sec.	10
Record Channel	1 2 3 4 5 6 7 8
Tour	1 2 3 4 5 6 7 8
PTZ Activation	Set
Other Setting	☐ Show Message ☐ Send Email ☐ Buzzer ☐ FTP upload

Default

Copy

OK

Cancel

Apply

Abnormality

Once enabled an abnormality alarm occurs in the event of No Disk, Disk Error, Disk Full, Network Loss, IP Conflict detection. An alarm icon appears on the display. Various notifications like show message & buzzer can be configured.

Alarm

Motion Detect

Video Blind

Video Loss

Abnormality

Intelligent Analysis

SMD

Event Type	No Disk
Enable	No Disk Disk Error Disk Full Network Loss IP Conflict
Show Message	☐
Buzzer	☐

OK

Cancel

Apply

Intelligent Analysis.

Once enabled an alarm occurs when the camera detects Area Intrusion, Line Crossing event in the defined region. An alarm icon appears on the display. Various notifications like show message, email, buzzer, ftp upload, tour and recording can be configured for each CH/Camera.

Alarm

Motion Detect

Video Blind

Video Loss

Abnormality

Intelligent Analysis

SMD

Channel	1
Enable	☐
Algorithm rules	Perimeter alert
Region	Set
Period	Set
Interval/Sec.	1
Record delay/Sec.	10
Record Channel	1 2 3 4 5 6 7 8
Tour	1 2 3 4 5 6 7 8
PTZ Activation	Set
Other Setting	☐ Show Message ☐ Send Email ☐ Buzzer ☐ FTP upload
Smart Frame	☐

OK

Cancel

Apply

SMD

Once enabled an alarm occurs when the camera detects any human movement in the defined region. An alarm icon appears on the display. Various notifications like show message, email, buzzer, ftp upload, tour and recording can be configured for each CH/Camera.

Alarm

Motion Detect

Video Blind

Video Loss

Abnormality

Intelligent Analysis

SMD

Channel	1
Enable	☒
Sensitivity	Middle

Period	Set
Interval/Sec.	1
Record delay/Sec.	10
Record Channel	1 2 3 4 5 6 7 8
Tour	1 2 3 4 5 6 7 8
PTZ Activation	Set
Other Setting	☐ Show Message ☐ Send Email ☐ Buzzer ☐ FTP upload

Smart Frame	☒
-------------	-------------------------------------

Default

OK

Cancel

Apply

9 Video

This option is related to the quality of video, compression type, resolution, GUI Display & Output Adjust etc.

Encode

Encode settings are video image quality settings that are set for each camera. This includes compression, resolution, FPS, bitrate, I-Frame interval etc. Setting these correctly based on the network can save network bandwidth, HDD space, fix network lags etc.

Video

Encode

GUI Display

Output Adjust

Channel	1	
Stream	Main Stream	Extra Stream
Compression	H.265	H.265
Resolution	5M(2880x1620)	D1(704x576)
Frame Rate(FPS)	20	15
Bit Rate Type	VBR	VBR
Quality	high	high
Bit Rate(Kb/S)	3267	635
I Frame Interval(1-20/S)	4	4
Audio	☐	☐

Default

Copy

OK

Cancel

Apply

GUI Display

Graphical User Interface are information displayed with video images, for example Channel title/Camera name, Alarm status, Date & Time etc. It also gives you an option to configure privacy masking for each camera/channel.

Video

Encode

GUI Display

Output Adjust

Channel Title	Set
Channel	1
Region Cover	☒
Set 1 2 3 4	
Time Display	☒
Channel Title	☐
Record Status	☒
Alarm Status	☒
Bitrate Info	☒
Transparency	250
Resolution	1920*1080

OK

Cancel

Apply

Output Adjust

Provide options to adjust video display on the screen by configuring display settings, brightness, contrast, saturation, hue & screen display size.

Video

Encode

GUI Display

Output Adjust

Top Deflate		0
Bottom Deflate		0
Left Deflate		0
Right Deflate		0
Display Settings	VGA/HDMI	
Brightness		50
Contrast		50
Saturation		50
Hue		50

Default

OK

Cancel

10 System

Provide options and basic settings related to the NVR/Camera.

General

An Option to configure date, time, language, machine name etc. (Ref. pic below)

System

General

Tour

RS232

Account

AutoMaintain

Import/Export

Restore

Upgrade

Time Zone	[UTC+08:00]Beijing,Urumqi,Taipei,Singa
NTP	Setting
System Time	2023 - 06 - 05 09 : 06 : 08
DST	Setting
Date Format	YYYY MM DD
Date Separator	-
Time Format	24-HOUR
Language	ENGLISH
HDD Full	Overwrite
Machine No.	0
Video Standard	PAL
Auto Logout/min	0
Machine Name	LocalHost
Quick Set-up	☒

OK

Cancel

Apply

Tour

The tour operation user to configure the view type, link cameras and the tour interval. Then the tour can be linked with alarm notifications also.

System

General

Tour

RS232

Account

AutoMaintain

Import/Export

Restore

Upgrade

Enable Tour	☐
Interval/Sec.	5
View 1	1 2 3 4 5 6 7 8
View 4	1 2
View 8	1 2 3 4 5 6 7 8
View 9	1

Alarm Tour Type

Interval/Sec.	5
Return after finished	☒

OK

Cancel

Apply

RS232

Note: Reserved for future application.

Account

This option is used to create additional login accounts for additional users and define accessible functions and features.

This option is also used to change the default password for the admin account.

System

General

Tour

RS232

Account

AutoMaintain

Import/Export

Restore

Upgrade

SN	User Name	Group	Status
1	 admin	admin	Web
2	 guest	user	Normal
3	 default	user	Default User
4	 rohit	admin	Normal

Add User

Add Group

Delete User

Delete Group

Set security

Modify User

Modify Group

Modify Pwd

Update

Cancel

Auto Maintenance

Option to reboot the system automatically at desired interval & time.
We can also select to auto delete old files (Logs).

System

General

Tour

RS232

Account

AutoMaintain

Import/Export

Restore

Upgrade

Auto-Reboot System	Every Tuesday
at	01:00
Auto-Delete Old Files	Never

OK

Cancel

Apply

Import/Export

Provides option to export logs files, configuration, abnormal operation (device malfunction) to the connected USB drive with NVR.

This utility also provides an option to import configuration files (backup).

System

General

Tour

RS232

Account

AutoMaintain

Import/Export

Restore

Upgrade

Device Name

File Name

Log_06050927.zip

Export

File Name

Cfg_1.03.06400640.02j26179.T000.2_060

Export

File Name

Import

Abnormal

File Name

Excpt_1.03.06400640.02j26179.T000.2_06

Export

Cancel

Restore

This function provides an option to restore or factory default settings. NVR will restart automatically to complete this operation depending upon the restore option selected.

System

General

Tour

RS232

Account

AutoMaintain

Import/Export

Restore

Upgrade

Select all	☐
General	☐
Record	☐
Alarm Set	☐
Network	☐
Net Service	☐
Output Settings	☐
Account	☐
RS232	☐

OK

Cancel

Apply

Note: Operation logs & recordings will not be deleted.

Upgrade

This option provides utility to upgrade the device locally using a USB storage device or OTA.

System

General

Tour

RS232

Account

AutoMaintain

Import/Export

Restore

Upgrade

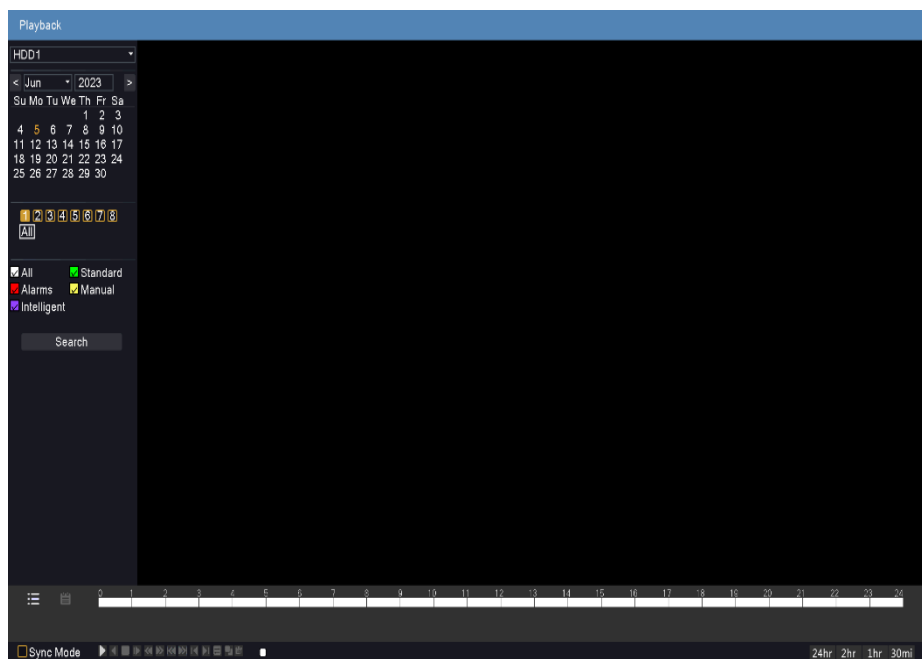
Upgrade Position	Remote
Upgrade file	

Detect Upgrade

11 Playback

This option provides utility to playback recorded videos using video query and advance search option, we can also playback by selecting standard, alarm, manual, intelligent or all recording options.

Note: Green color for standard recording, Red for alarm recordings, Yellow for manual recording, purple for intelligent recording.



12 Backup

This option provides utility to backup recorded files by selecting start time and time, backup format (H.26X & AVI) in the USB storage device.

Backup

Channel	1					
File Type	All					
Type	Read/Write					
Start Time	2023	-	06	-	05	00 : 00 : 00
End Time	2023	-	06	-	05	09 : 55 : 09
Backup Format	H26X					

Remove

Search

SN	Channel	File Name	Length
----	---------	-----------	--------

Remaining0.00 KB/0.00 KB

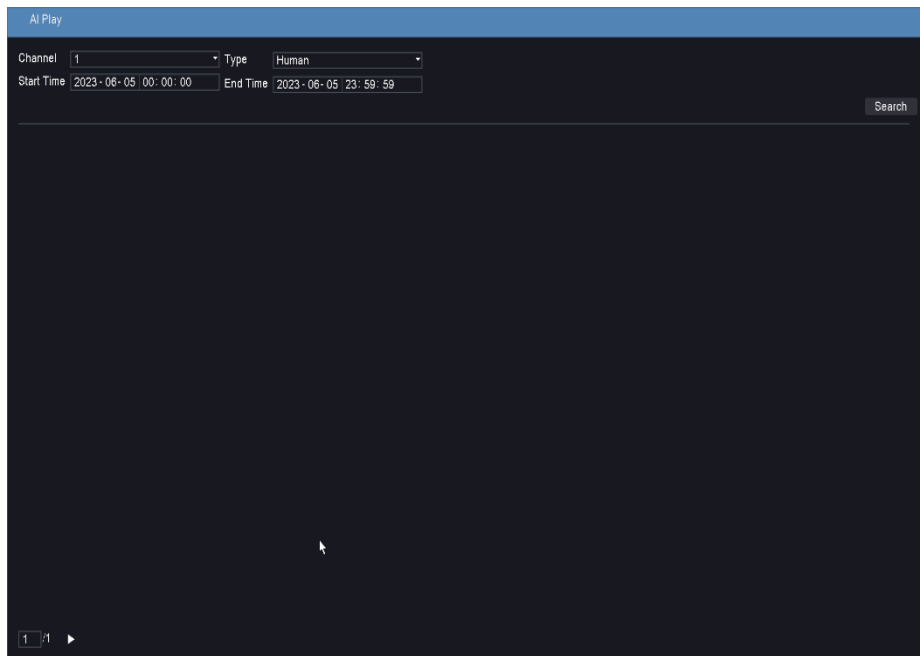
Detect

Backup

Burning

13 AI Play

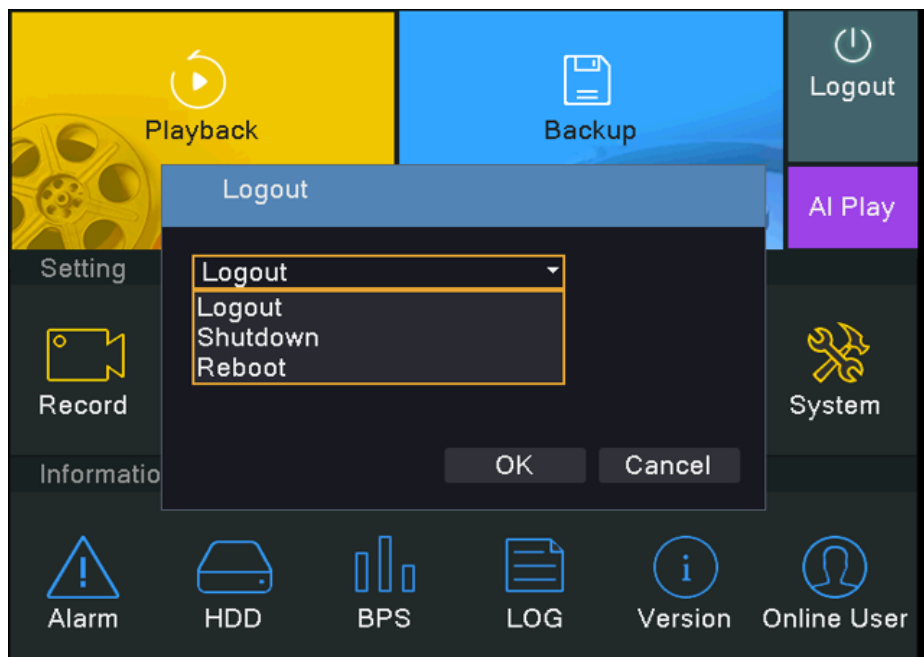
Option to search recorded video based on human detection using start time and end time.



14 Logout

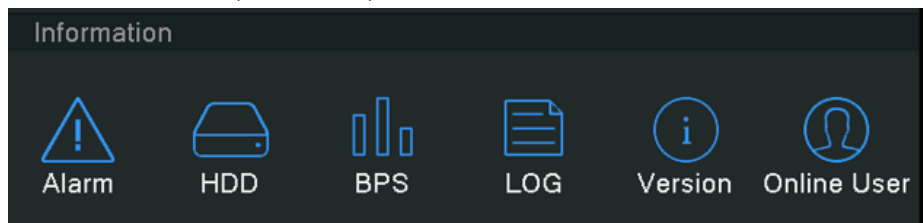
Once logout option is selected, three options can be viewed:

1. Reboot – To reboot the device.
2. Shutdown – To shut down the device.
3. Logout – To log out from the current user account.



15 Information

This provides details related to NVR like alarm, HDD, BPS, Logs, Version & Online user (Web access) details etc.



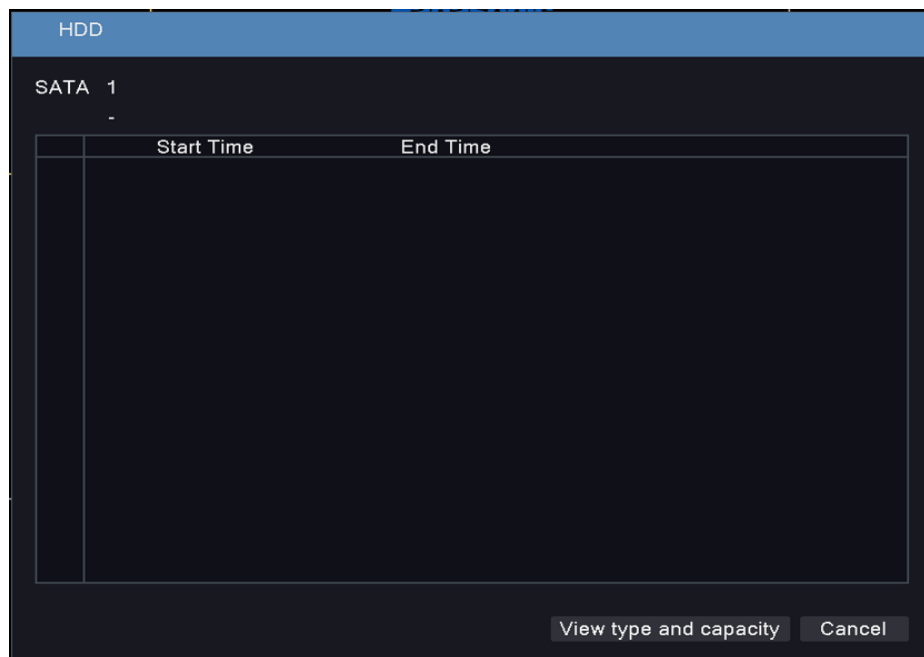
Alarm

This option displays real time alarm notification based on parameters like motion detection, video blind, video loss, intelligent analysis, human detection.



HDD

This option displays information related to video recordings on the hard disk. It also displays hard disk status & capacity/utilization.



BPS

This option displays the network bandwidth consumption for each channel/camera.

BPS

Channel	Kb/s	MB/h	Channel	Kb/s	MB/h
1	1750	727	5	0	0
2	0	0	6	0	0
3	0	0	7	0	0
4	0	0	8	0	0

Cancel

LOG

This option displays the logs related to system, configuration, storage, alarm event, account & playback.

LOG

Type

Start Time

End Time

Search

All

All

System

Config

Storage

Alarm event

Week Day

Account

Playback

SN

Log Time

2023-06-05 03:07:45

2023-06-05 03:08:24

2023-06-05 03:08:55

2023-06-05 03:08:55

2023-06-05 03:08:56

2023-06-05 03:08:56

2023-06-05 03:07:45

2023-06-05 03:07:45

2023-06-05 03:07:45

2023-06-05 03:07:45

2023-06-05 03:07:45

2023-06-05 03:07:45

2023-06-05 03:07:45

Account Restore

save system state

Log In

Recover Time

Set Time

Alarm Start

Alarm Start

Alarm Start

Alarm Start

Alarm Start

<

1/1

>

▼

Pre Page

Next Page

Remove

Cancel

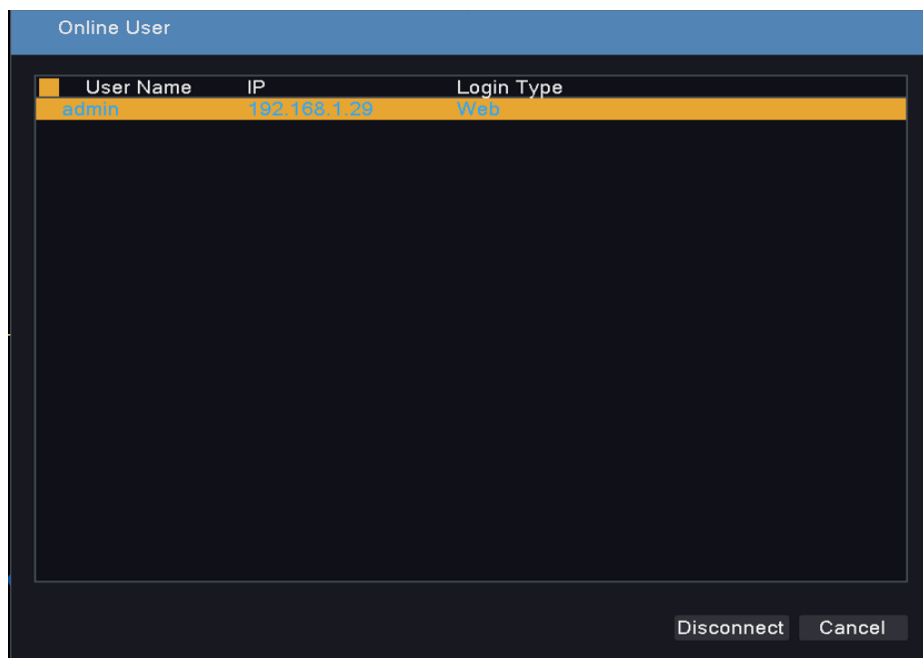
Version

This option displays details like serial number, software build date, P2P status, model number & MAC address.



Online User

This displays details related to online users logged in to the NVR on the local network.



Do's & Don'ts

No.	Do's	Don'ts
1	All electrical & electronic products are required to be handed over only to the Authorized recycler.	The product should not be opened by the user himself/herself but only be authorised service personnel.
2	The product should be handed over only to authorised recycler for disposal.	The product is not meant for resale to any unauthorised agencies/ scrap dealers/ kabariwalas.
3	Keep the product in an isolated area after it become non-functional/ unrepairable so as to prevent its accidental breakage.	The product is not meant for mixing into household waste stream.
4	Refer to operating instructions for handling of end-of-life products.	Do not keep any replaced spare part(s) from the product in an exposed area.
5	Always dispose of products that have reached end of life at Panasonic Life Solutions India Authorized Service Centre.	Do not donate old electronic items to anybody. Do not dispose of your product in garbage bins along with municipal waste that ultimately reaches landfill.
6	Wherever possible or instructed, separate the packaging material according to responsible waste disposal options and sorting for recycling.	Do not give e-waste to informal and unorganized sectors like Local Scrap Dealers/ Rag Pickers.

16 Troubleshooting Points

When troubleshooting network video recorders (NVRs), there are several points you can consider identifying and resolve issues. Here are some troubleshooting steps you can follow:

1. Check power and connections:

- Ensure that the NVR is receiving power and turned on.
- Verify that the power adapter or power supply is working correctly.
- Make sure all cables connecting the NVR, cameras and network are securely connected.

2. Network connectivity:

- Check the network cables and connections between the NVR and the network switch/router.
- Confirm that the NVR is assigned a valid IP address and is on the same network subnet.
- Test the network connectivity by pinging the NVR's IP address from another device on the network.
- Check firewall or security settings that might be blocking network communication.

3. Camera connections:

- Verify that the cameras are connected to the NVR and powered on.
- Ensure that the cameras are compatible with the NVR and configured correctly.
- Check camera settings, such as IP address, subnet mask, gateway, and port numbers.

4. NVR settings:

- Access the NVR's web interface or management software and review the settings.
- Check the recording schedule to ensure it is configured correctly.
- Verify that the storage devices (hard drives) are properly installed and recognized.

- Confirm that the NVR firmware is up to date. Consider updating if a newer version is available.

5. Network configuration:

- Check the network settings on the NVR, including IP address, subnet mask, gateway, and DNS.
- Ensure that the NVR's network settings match the network settings of other devices on the network.
- Troubleshoot any network issues, such as DHCP conflicts or IP address conflicts.

6. Software and firmware updates:

- Check for firmware updates for both the NVR and cameras. Apply updates if available.
- Update the NVR's management software or mobile app to the latest version.

7. System logs and error messages:

- Check the NVR's system logs or error messages for any indications of problems or specific error codes.
- Look for any error messages related to camera connectivity, network issues or storage problems.

8. Resetting or restoring:

- If all else fails, consider resetting the NVR to factory defaults and reconfiguring it from scratch.
- Restore the NVR to a previously known working configuration if a backup is available.

If you've gone through these troubleshooting steps and are still experiencing issues, it may be helpful to consult Panasonic technical support.

TECHNICAL SPECIFICATIONS

Network Video Input	8-CH (Expandable upto 16-CH*)
---------------------	-------------------------------

Operating System	Embedded Linux
------------------	----------------

Network Access Bandwidth	80Mbps
--------------------------	--------

Video Compression	H.265+/H.265/H.264
-------------------	--------------------

Video Output	1 CH VGA output (1920×1080, 1280×1024@50/60Hz) 1 CH HDMI output (3840×2160, 1920×1080, 1280×1024, 1440×990, 1024×768 @50/60Hz)
--------------	---

Video Preview Mode	8-CH & 16-CH*
--------------------	---------------

Video Bit Rate	16Kbps-8Mbps
----------------	--------------

Video Resolution	8MP/5MP/3MP/1080P/720P/D1/VGA/CIF/QCIF
------------------	--

Preview Capability	8×8MP, 16x5MP@25/30fps (Mainstream), 8xD1, 16xD1@25/30fps (Sub Stream)
--------------------	--

Motion Detection	Support 396(22*18) surveyed area can be set in every screen and multi-level sensitivity adjustable
------------------	--

Human Detection	Support Human detection on all channels (IPC Support Required)
-----------------	--

Area Intrusion Detection	Support Intrusion detection on all channels (IPC Support Required)
--------------------------	--

Line Crossing Detection	Support Line Crossing detection on all channels (IPC Support Required)
-------------------------	--

Privacy Mask	Support 4 zones (IPC Support Required)
--------------	--

AUDIO

Audio compression	G.711a
-------------------	--------

Audio output	1Ch, 3.5mm Jack
--------------	-----------------

VIDEO RECORDING AND PLAYBACK

Playback Ability	Support 16/8CH
------------------	----------------

Playback Mode	Instant playback, Local video, local image, External file playback
---------------	--

STORAGE AND BACKUP

Storage Interface	1 SATA
-------------------	--------

HDD Capacity	Single max.10TB
--------------	-----------------

Backup Method	USB Device, network backup
---------------	----------------------------

NETWORK

Network Protocol	TCP/IP, IPv4, HTTP, PPPoE, DHCP, DNS, 3G/4G, Wi-Fi, Google drive/Dropbox Storage(1CH), DDNS, RTP, RTSP, RTCP, NTP, UPnP, SMTP, FTP, P2P
------------------	---

Interface Protocol	ONVIF, RTSP
--------------------	-------------

Mobile Surveillance	Panasonic PHS for iOS, Android
Web Browser Support*	IE, Chrome, MS Edge, Firefox, Safari
EXT INTERFACE	
Network Interface	1 X RJ45 10M/100M adaptive Ethernet port
USB Interface	3 USB2.0*
GENERAL	
Power Supply	DC12V 2Amp
Power Consumption	≤10W (Without HDD)
Operation Temperature/ Humidity	-10°C ~ 60°C/10 % -90 %
Dimension(mm)/ Weight(g)	229x250x45mm/ 770g

Notes:

1. Design and specification are subjected to change without notice.
2. Weight and dimensions shown herein are approximate.
3. The Graphics in this manual are only for reference.
4. Your NVR may be slightly different from that shown in this manual.

Panasonic Life Solutions India Pvt. Ltd.
<http://www.panasonic.com>