# Network Video Recorder Quick Start Guide

Model No. K-NL404K/G

K-NL408K/G

K-NL416K/G

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## Welcome

Thank you for purchasing our network video recorder!

This quick start guide is designed to be a reference tool for your system.

Keep it well for future reference.

Contact your local retailer ASAP if something is missing or damaged in the bag.

## **Safety Instruction**

Icon	Note
<b>A</b> DANGER	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.
<b>MARNING</b>	Indicates a potentially hazardous situation, which if not avoided, could result in device damage, data loss, performance degradation, or unexpected results.
Anti-static	Indicates it is the static sensitive device.
Eletric shock	Indicates presence of dangerous high voltage. There is a risk of electric shock to persons.
High power laser radiation risk	Indicates presence of high power laser radiation.
© <sup>™</sup> Tips	It is intended to help you to fix a problem or save your time.
Note	Provides additional information to emphasize or supplement important points of the main text.

## **Important Safeguards and Warnings**

#### 1. Electrical safety

- All installation and operation here should conform to your local electrical safety codes.
- An apparatus with CLASS I construction shall be connected to a MAINS socket outlet with a protective earthing connection.
- Use a power supply which meets the requirements for SELV (Safety Extra Low Voltage) and complies with Limited Power Source according to IEC 60950-1. Refer to the device label for detailed information.
- The product must be grounded to reduce the risk of electric shock.
- We assume no liability or responsibility for all the fires or electric shock caused by improper handling or installation.

#### 2. Transportation security

 Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.

#### 3 . Installation

- Keep upwards. Handle with care.
- Do not apply power to the NVR before completing installation.
- Do not place objects on the NVR.
- Do not install on the wall.

#### 4. Qualified engineers needed

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

#### 5 . Environment

- The NVR should be installed in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.
- This series product shall be transported, storage and used in the specified environments.
- Environment which needs to comply with the following conditions:
- ♦ The function of the ITE being investigated to IEC 60950-1 is considered not likely to require connection to an Ethernet network with outside plant routing, including campus environment.
- ♦ The installation instructions clearly state that the ITE is to be connected only to PoE networks without routing to the outside plant.

#### 6. Accessories

- Be sure to use all the accessories recommended by manufacturer.
- Before installation, please open the package and check all the components are included.
- Contact your local retailer ASAP if something is broken in your package.

#### 7. Lithium battery

- Improper battery use may result in fire, explosion, or personal injury!
- When replace the battery, please make sure you are using the same model!

## CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

## 1 Hardware Installation and Connection

## 1.1 Preparation Work



#### DANGER

# All the installation and operations here should conform to your local electric safety rules.

SN	Name		Contents
1	Whole	Appearance	There is any visible damage or not.
	package	Package	There is any accidental clash during
			transportation or not.
2	Front panel and rear panel	The model on the front panel	Check the model with the purchase order.
		The label on the rear panel.	It is neat and clean or not.  Note
			Do not tear off, or discard the label. Usually we need you to represent the serial number when we provide the service after sales.
3	Case	Appearance	There is any visible damage or not.
		Check the data cable, power cable, fan cable,	Check the connection is secure or not.  Note
		main board and etc.	Contact your local retailer or our service engineer if the connection is loosen.

## 1.2 HDD Installation



#### DANGER

Shut down the device and then unplug the power cable before you open the case to replace the HDD!

All figures listed below for reference only!

For the first time to install, please check the HDD has been installed or not.

Refer to the user manual for HDD space information and recommended HDD brand. Please use HDD of 7200rpm or higher. **Usually we do not recommend the PC HDD.** 



①Use the screwdriver to loose the screws of the rear panel and then remove the front cover.



②Put the HDD to the HDD bracket in the chassis and then line up the four screws to the four holes in the HDD. Use the screwdriver to fix the screws firmly to secure HDD on the HDD bracket



③Connect to the HDD data cable to the main board and the HDD port respectively. Loosen the power cable of the chassis and connect another end of the power cable to the HDD port.



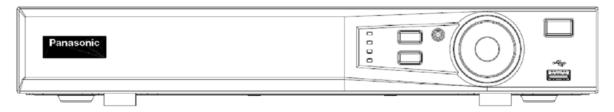
④After connect the cable, put the front cover back to the device and then fix screws of the rear panel.

## 2 Front Panel/Rear Panel

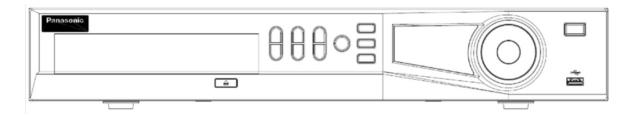
# Note

- Follow figures listed here for reference only. Please refer to the actual product for detailed information.
- Refer to the user's manual for detailed information.

The front panel is shown as in Figure 2-1.



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Figure 2-1

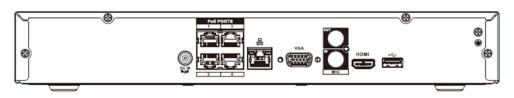
Please refer to the following sheet for front panel button information.

Name Icon		Function	
Power button U		Power button, press this button for three seconds to boot up or shut down NVR.	
Shift Shift		In textbox, click this button to switch between numeral, English(Small/Capitalized),donation and etc.	
		Activate current control, modify setup, and then move up and down.	
Up/1 Down/4	▲ ▼	Increase/decrease numeral.	
DOWIN-I		Assistant function such as PTZ menu.	
		In text mode, input number 1/4 (English character G/H/I)	
		Shift current activated control, move left and right.	
Left/2 Right/3	<b>4 &gt;</b>	When playback, click these buttons to control playback bar. In text mode, input number 2(English character A/B/C) /3(English character D/E/F)	

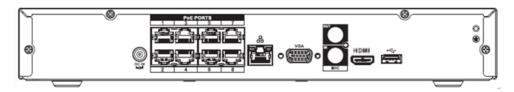
Γ	ı	<u></u>	
ESC	ESC	Go to previous menu, or cancel current operation.	
		When playback, click it to restore real-time monitor mode.	
	ENTER	Confirm current operation	
Enter		Go to default button	
		Go to menu	
Record	REC	Manually stop/start recording, working with direction keys or numeral keys to select the recording channel.	
Slow play/8	ŀ	Multiple slow play speeds or normal playback. In text mode, input number 8 (English character T/U/V).	
		One-window monitor mode, click this button to display assistant function: PTZ control and image color.	
	Fn	Backspace function: in numeral control or text control, press it for 1.5 seconds to delete the previous character before the cursor.	
Assistant		In motion detection setup, working with Fn and direction keys to realize setup.	
		In text mode, click it to switch between numeral, English character(small/capitalized) and etc.	
		Realize other special functions.	
Fast play/7	<b>*</b>	Various fast speeds and normal playback. In text mode, input number 7 (English character P/Q/R/S).	
Play previous/0	4	In playback mode, playback the previous video In text mode, input number 0.	
Reverse/Pause/ 6	•	In normal playback or pause mode, click this button to reverse playback In reverse playback, click this button to pause playback. In text mode, input number 6 (English character M/N/O).	
Play Next/9	<b>&gt;</b>	In playback mode, playback the next video In menu setup, go to down ward of the dropdown list. In text mode, input number 9 (English character W/X/Y/Z).	
Play/Pause /5	<b>▶</b>	In normal playback click this button to pause playback In pause mode, click this button to resume playback. In text mode, input number 5(English character J/K/L).	
USB port	<b>~</b> ≑	To connect USB storage device, USB mouse.	
Network abnormal indication light	Net	Network error occurs or there is no network connection, the light becomes red to alert you.	

HDD abnormal indication light	HDD	HDD error occurs or HDD capacity is below specified threshold value, the light becomes red to alert you.
Record light	1-16	System is recording or not. It becomes on when system is recording.
Remote control indicator light	ACT	Remote control indicator light.
Status indicator light	STATUS	The light is on if device operates properly.
IR Receiver IR		It is to receive the signal from the remote control.

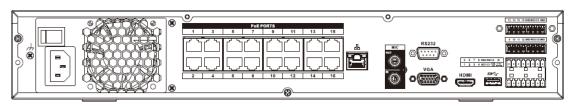
The rear panel is shown as in Figure 2-2.



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Figure 2-2

Please refer to the following sheet for detailed information.

Icon	Port Name	Function
<del>-</del>	Network port	10M/100M/1000Mbps self-adaptive Ethernet port. Connect to the network cable.
НОМІ	High Definition Media Interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device. HDMI version is 1.4.  It displays Screen-1.

Icon	Port Name	Function
ss <del>&lt;</del>	USB3.0 port	USB3.0 port. Connect to mouse, USB storage device, USB burner and etc.
RS-232	RS-232 debug COM.	It is for general COM debug to configure IP address or transfer transparent COM data.
VGA	VGA video output port	VGA video output port. Output analog video signal. It can connect to the monitor to view analog video. It displays Screen-2.
MIC IN	Audio input port	Bidirectional talk input port. It is to receive the analog audio signal output from the devices such as microphone, pickup.
MIC OUT	Audio output port	<ul> <li>Audio output port. It is to output the analog audio signal to the devices such as the sound box.</li> <li>Bidirectional talk output.</li> <li>Audio output on 1-window video monitor.</li> <li>Audio output on 1-window video playback.</li> </ul>
1~16	Alarm input port 1∼16	<ul> <li>There are two types; NO (normal open)/NC (normal close).</li> <li>When your alarm input device is using external power, please make sure the device and the NVR have the same ground.</li> </ul>
GND	GND	Alarm input ground port.
NO1,NO2, NO3	Alarm output port 1∼3	<ul> <li>3 groups of alarm output ports. (Group 1: port NO1 ~ C1,Group 2:port NO2 ~ C2, Group 3:port NO3~C3). Output alarm signal to the alarm device. Please make sure there is power to the external alarm device.</li> <li>NO: Normal open alarm output port.</li> <li>C: Alarm output public end.</li> </ul>
А	RS-485	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.
В	communication port	RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.
CTRL 12V		Controller 12V power output. It is to control the on-off alarm relay output. It can be used to control the device alarm output. At the same time, it can also be used as the power input source of some devices such as the alarm detector.
+12V		+12V power output port. It can provide the power to some peripheral devices such as the camera or the alarm device. Please note the supplying power shall be below 1A.
Power switch		Power on/off button.
PoE PORTS		Bult-in Switch. Support PoE. It provides power to the network camera.  PoE 8 ports (IEEE802.3af/at) Max 25.5W for single port, 130W in total.

## 3 Connection

# Note

- The following figure for reference only. Please refer to the actual product for detailed information.
- Refer to the user's manual for detailed information.

Device cable connection is shown as in Figure 3-1.

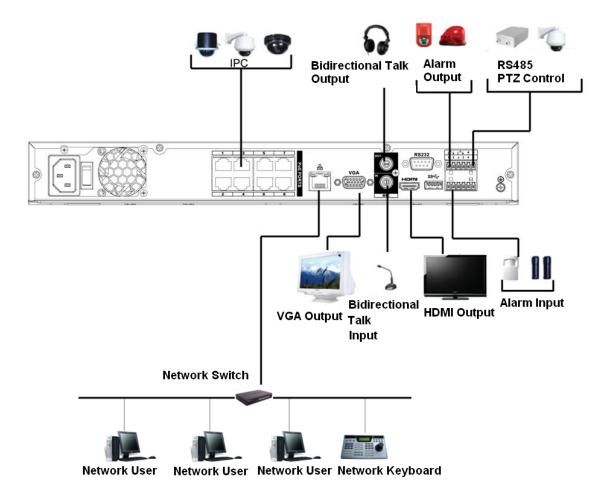


Figure 3-1



Mote

Slight difference may be found on the user interface. All figures listed below for reference only.

## 4.1 Boot up



#### **DANGER**

Before the boot up, please make sure:

- For device security, please connect the NVR to the power adapter first and then connect the device to the power socket.
- The rated input voltage matches the device power on-off button. Please make sure the power wire connection is OK. Then click the power on-off button.
- Always use the stable current, if necessary UPS is a best alternative measure.

Please follow the steps listed below to boot up the device.

- Step 1 Connect the device to the monitor and then connect a mouse.
- Step 2 Connect power cable.
- Step 3 Click the power button at the front or rear panel and then boot up the device. After device booted up, the system is in multiple-channel display mode by default.

#### 4.2 Device Initialization

If it is your first time to use the device, please set a login password of admin (system default user).

Note

For your device safety, please keep your login password of **admin** well after the initialization steps, and change the password regularly.

Please follow the steps listed below.

Step 1 Boot up NVR.

Device displays device initialization interface. See Figure 4-1.

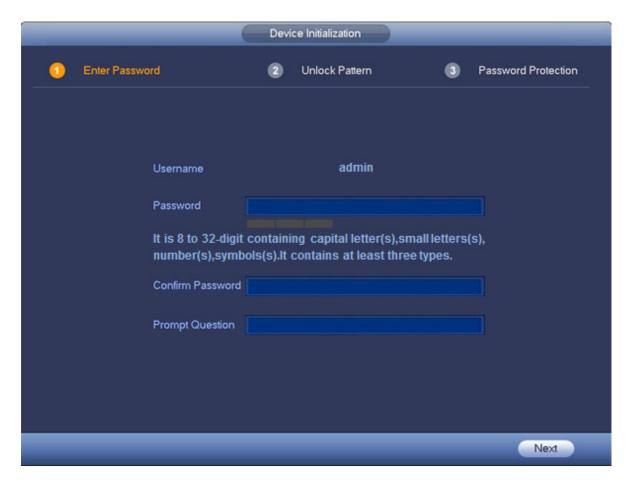


Figure 4-1

#### Step 2 Set login password of admin.

- User name: The default user name is admin.
- Password/confirm password: The password ranges from 8 to 32 digitals. It can contain letters, numbers and special characters (excluding "i", "i", ";", ";"). The password shall contain at least three categories. Usually we recommend the strong password.
- Prompt question: If you set the prompt question here. On the login interface, click , device
  can display the corresponding prompt question for you to remind the password.



#### **WARNING**

STRONG PASSWORD RECOMMENDED-For your device own safety, please create a strong password of your own choosing. We also recommend you change your password periodically especially in the high security system.

Step 3 Click Next, device goes to the following interface. See Figure 4-2.

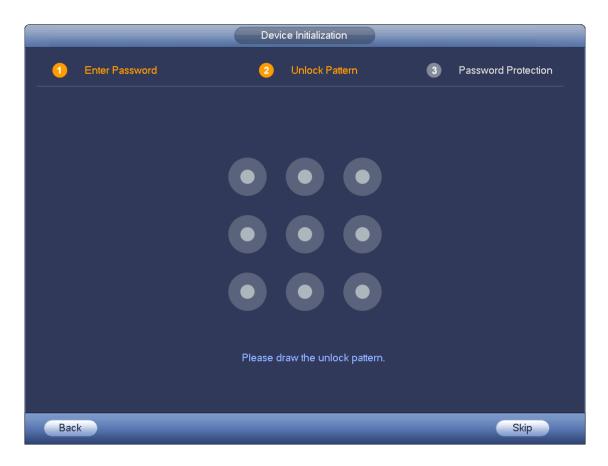


Figure 4-2

### Step 4 Set unlock pattern.

After set unlock pattern, device goes to password protection interrface. See Figure 4-3.

#### W Note

- Device adopts unlock pattern to login by default if you have set pattern here. If there is no unlock pattern, please input the password to login.
- Click Skip if there is no need to set unlock pattern.

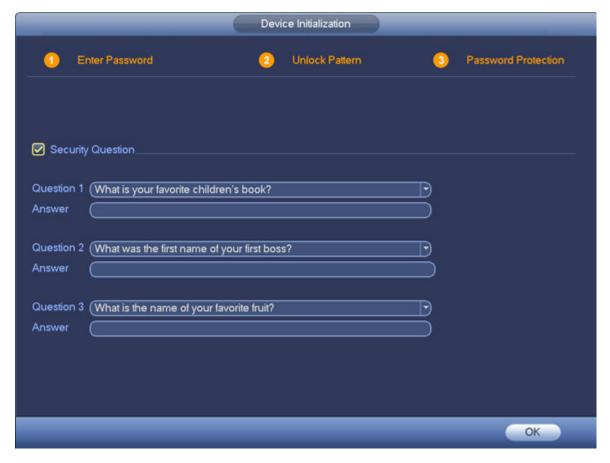


Figure 4-3

Step 5 Set security questions.

## Note

- After setting the security questions here, you can answer the security questions to reset admin password. Refer to user's manual for detailed information.
- Cancel the security questions box and then click Next button to skip this step.
- Security question: Set security questions and corresponding answers. Properly answer the
  questions to reset admin password. In case you have not input security question here or you
  need to update the security question information, please go to the main menu->Setting>System->Account->Security question to set. Refer to user's manual for detailed information.

## Note

If you want to reset password by answering security questions, please go to the local menu interface.

Step 6 Click OK to complete the device initialization setup.

Device goes to startup wizard interface. Refer to user's manual for Startup wizard detailed information.

### 4.3 Reset Password

If you forgot **admin** password, you can reset the password by answering the security questions (local menu only).

Please follow the steps listed below.

Step 1 Go to the device login interface. See Figure 4-4 or Figure 4-5. .

- If you have set unlock pattern, device displays unlock pattern login interface. See Figure 4-4. Click "Forgot unlock pattern", device goes to Figure 4-5.
- If you have not set unlock pattern, device displays password interface. See Figure 4-5.

# Note

Click Switch user button or click the user name and then select a user from the dropdown list, you can login via other account.

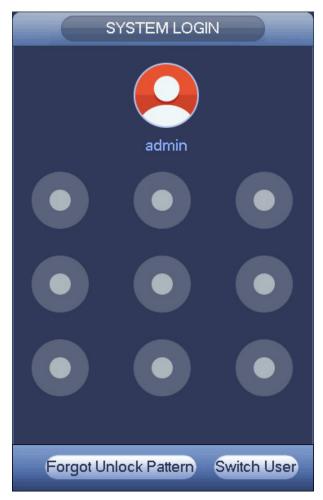


Figure 4-4



Figure 4-5



Reset login password by security questions.

### Security questions

Device displays security question interface. See Figure 4-6. Please input the correct answers here.



Figure 4-6

#### Step 3 Click Next button.

Device displays reset password interface. See Figure 4-7.



Figure 4-7

Step 4 Input new password and then confirm.



STRONG PASSWORD RECOMMENDED-For your device own safety, please create a strong password of your own choosing. The password shall be at least 8-digit containing at least three types of the following categories: letters, numbers and symbols. We also recommend you change your password periodically especially in the high security system.

Step 5 Click OK button to complete the setup.

## 4.4 Startup Wizard

After you successfully initialize the device, it goes to startup wizard. Here you can quickly configure your device. It includes general setup, basic network setup, camera registration, EZREMOTE, and schedule interface.

## 4.5 Registration

Here you can add network camera, change network camera IP address and etc.

Step 1 There are two ways to go to Registration interface. See Figure 4-8.

- From main menu->Setting->REMOTE->Registration, you can go to the registration interface.
- On the preview interface, right click mouse and then select Registration.



Figure 4-8

#### Step 2 Add network camera.

 Device search: Click the button; you can search all network cameras in the same network segment. See Figure 4-9. Double click a camera or check the camera box and then click Add button, you can add a device to the list.

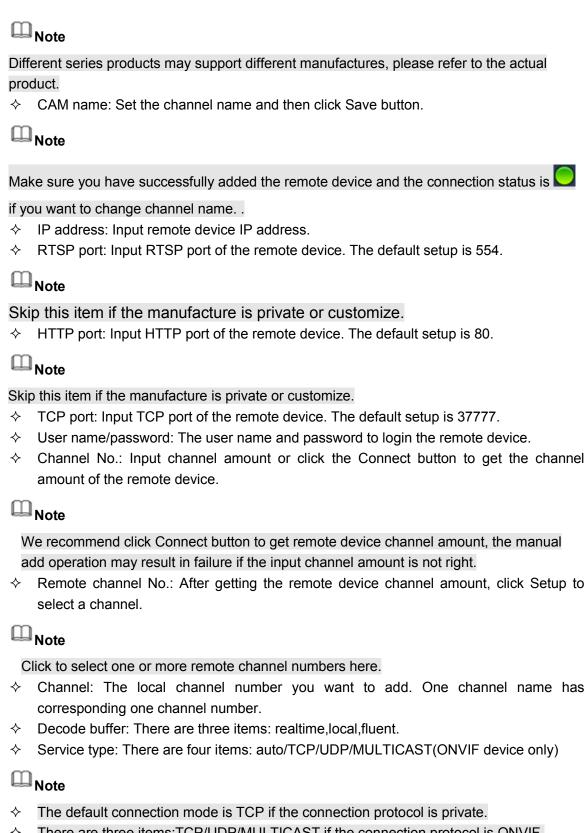
## Note

- The device in the added device list is not shown in the search result column.
- In IP Address , select IP address or the MAC address from the dropdown list and then input the corresponding information, click Search button to view the results.
- Status in the search list can display the remote device has been initialized or not. That is to say, the remote device has set the password of **admin**. Improve means the remote device has initialized. Cherck Uninitialized box to search the unitialized devices. Refer to the user's manual for detailed information.



Figure 4-9

- Manual Add: Click Manual Add button, you can set the corresponding network camera information and then select the channel you want to add. See Figure 4-10.
  - Manufacturer: Please select from the dropdown list.



- There are three items:TCP/UDP/MULTICAST if the connection protocol is ONVIF.
- There are two items: TCP/UDP if the connection protocol is from the third-party.

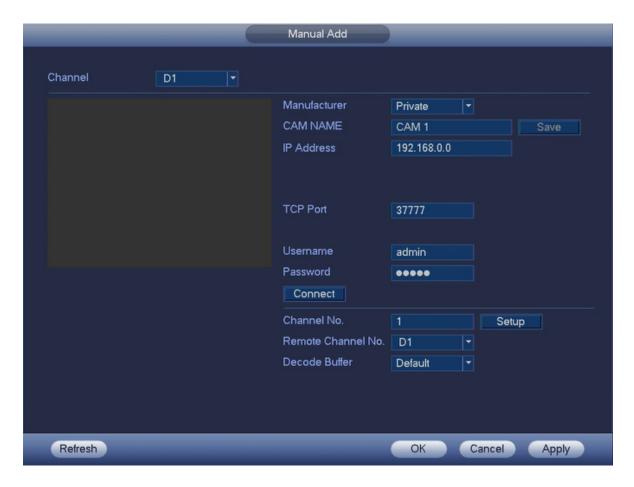
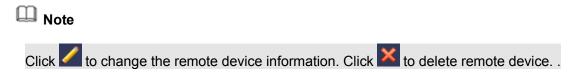


Figure 4-10

Step 3 Click OK to add the camera to the device.



#### 4.6 Schedule

All channels are record continuously by default. You can set customized record period and record type. Step 1 From main menu->Setting->Storage->Schedule->Rec.

Enter schedule interface. See Figure 4-11.

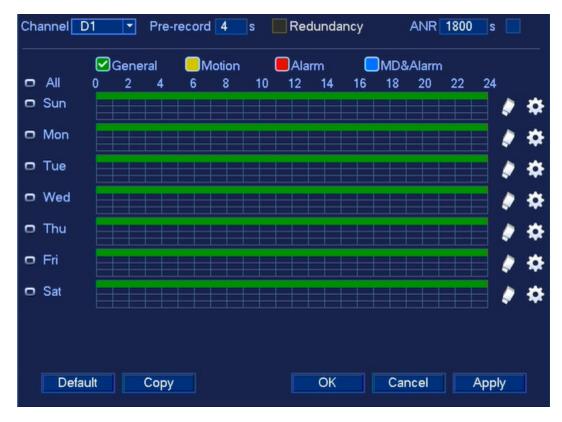


Figure 4-11

#### Step 2 Set parameters.

- Channel: Please select the channel number first. You can select "all" if you want to set for the whole channels.
- Sync connection icon. Select icon of several dates, all checked items can be edited or together. Now the icon is shown as.
- Record Type: Please check the box to select corresponding record type. There are four types: Regular/MD (motion detect)/Alarm/MD&Alarm.
- Week day: There are eight options: ranges from Saturday to Sunday and all.
- Holiday: It is to set holiday setup. Please note you need to go to the General interface (Main Menu->Setting->System->General) to add holiday first. Otherwise you cannot see this item.
- Pre-record: System can pre-record the video before the event occurs into the file. The value ranges from 1 to 30 seconds depending on the bit stream.
- Redundancy: System supports redundancy backup function. It allows you backup recorded file in two disks. You can highlight Redundancy button to activate this function. Please note, before enable this function, please set at least one HDD as redundant. (Main menu->Setting->Storage->HDD Manager). Please note this function is null if there is only one HDD.
- ANR: It is to save video to the SD card of the network camera in case the network connection fails. The value ranges from 0s∼43200s. After the network connection resumed, the system can get the video from the SD card and there is no risk of record loss.
- Period setup: Click button after one date or a holiday, you can see an interface shown

as in Figure 4-12. There are four record types: regular, motion detection (MD), Alarm, MD & alarm.



Figure 4-12

Please following the steps listed below to draw the period manually.

a) Select a channel you want to set. See Figure 4-13.



Figure 4-13

b) Set record type. See Figure 4-14.



Figure 4-14

c) Please draw manually to set record period. There are six periods in one day. See Figure 4-15.



If you have added a holiday, you can set the record period for the holiday.



Figure 4-15

Step 3 Click Apply button to save schedule record settings.

## Note

Please enable auto record function so that the record plan can become activated. Refer to user's manual Record control for detailed information.

## 4.7 Instant Playback

Move you mouse to the top center of the video of current channel, you can see system pops up the preview control interface. See Figure 4-16.

Click , device plays the record file previous 5 to 60 minutes of the current channel.

Please go to the Main Menu->SETTING->SYSTEM->GENERAL to set real-time playback time.

System may pop up a dialogue box if there is no such record in current channel.

SN	Icon	Name
1	<b>©</b>	Instant playback
2	<b>e</b> ,	Digital zoom
3		Instant backup
4		Manual snapshot
5	G	Camera Registration
6	M	Switch bit streams



Figure 4-16

# 5 Web Operation

If it is your first time to login the device, please initialize your device first. Refer to the user's manual for detailed information.

Device supports remote access, management via the PC.

Note

 Slight difference may be found on user interface. Please refer to the actual product for detailed information.

#### 5.1 Network Connection

Step 1 PC and NVR connection is OK.

Step 2 Set PC IP address, NVR IP address, subnet mask and gateway.

- Set the IP address of the same section for the PC and NVR. Input corresponding gateway and subnet mask if there are routers.)
- The device default IP address is 192.168.1.108.
- Step 3 Check the PC and device connection is OK or not. Refer to the following two ways to check the network connection is OK or not. When the PC and device network connection is OK, login the WEB via the PC.
  - On PC, use order ping \*\*\*.\*\*\*.\*\*\*(NVR IP address) to check connection is OK or not. Login Usually the TTL value is 255.
  - Login the device local menu, from INFO->NETWORK->TEST input PC IP address. Check the connection is OK or not.

Step 4 Login the WEB. Refer to chapter 5.2 Login for detailed information.

## 5.2 Login

Step 1 Open the browser and input NVR address in the address column. Click Enter button.

If it is your first time to use the device, please set a login password of **admin** (system default user). See Figure 5-1.

For detailed information, please refer to section 4.2. HDMI GUI is different from Web operation.

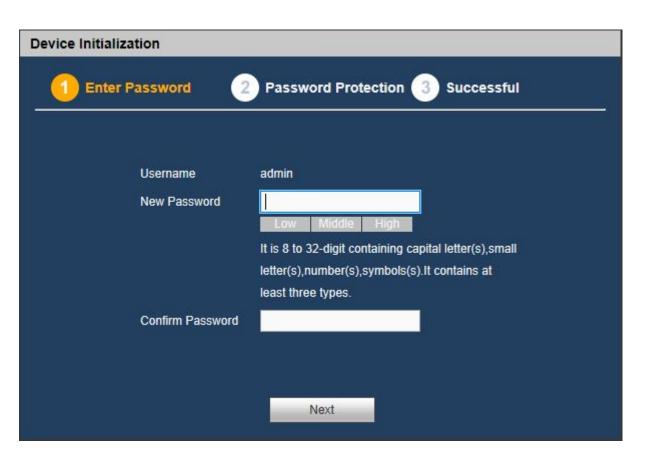






Figure 5-1

Step 2 Input user name and password. See Figure 5-2.



Figure 5-2

# ☐ Note

- Device default user name is admin. The password is that you set during initialization process.
   For your device safety, please change the admin password regularly and keep it well.
- In case you forgot password, click Forgot password to reset. Refer to the user's manual for detailed information.

#### Step 3 Click Login.

Enter preview interface. See Figure 5-3. Refer to the user's manual for detailed information.

# Note

- Click Install the plug-in to install if it is your first time to login the WEB.
- Before upgrade the new WEB version, there are two ways to delete the controls.
- Go to "C:\Program Files\webrec\WEB30\WebPlugin" and then run WEB uninstall tool such as "uninst.exe". System auto delete old controls.
- Go to "C:\Program Files\webrec" and then delete Single folder.

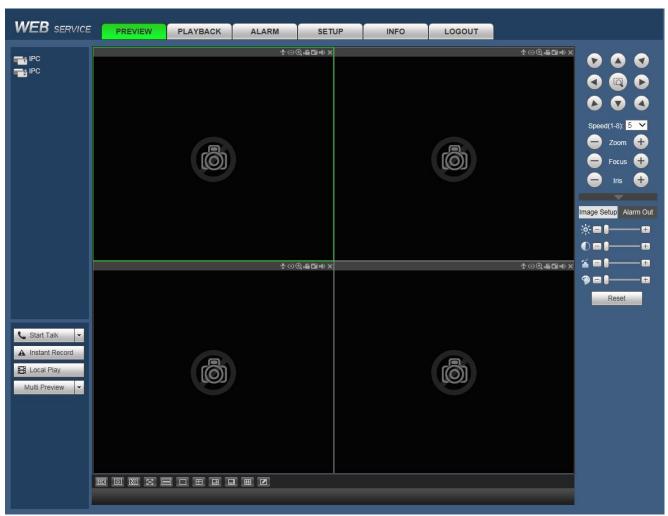


Figure 5-3

## 6 Note

For detailed operation information, please refer to the User's Manual.

# ☐ Note

- Slight difference may be found in user interface.
- All the designs and software here are subject to change without prior written notice.
- All trademarks and registered trademarks are the properties of their respective owners.
- See support web page below for further details https://security.panasonic.com/library/e-series/