

# PoE 16 Channel H.265 8MP NVR with 2 HDD Bays

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WNVRN216P5



Quick Start Guide

Please read these instructions carefully before operating the unit  
and keep for further reference.

genie

Please read this instruction carefully before operating the product and keep it for further reference. All examples and pictures used here are for reference only. The contents of this manual are subject to change without notice. This device should be operated only from the type of power source indicated on the marking label. The voltage of the power must be verified before use.

**CAUTION:**

- Please check the device and the accessories after getting the device. If there are any damages, shortages or defects, please contact your dealer immediately.

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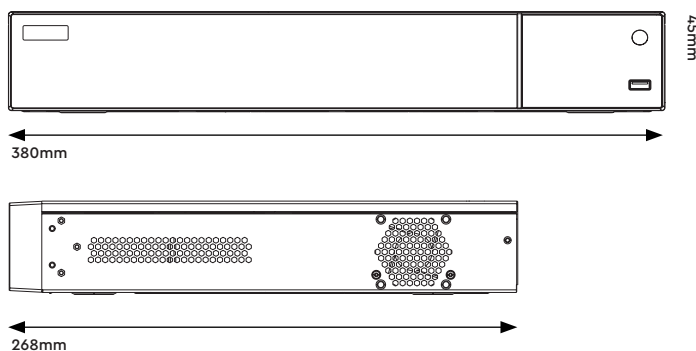
## 1.0 Introduction

The Genie WNVRN216P5 is a 16 channel PoE H.265 8MP NVR with 2 HDD bays. The NVR supports 16 channel 8MP, 6MP, 5MP, 4MP, 3MP, 1080p, 1280 × 1024, 960p, 720p, 960H, D1 and CIF IP video input as well as 16 channel simultaneous playback.

### 1.1 Product Features

- Supports 16CH 8MP / 6MP / 5MP / 4MP / 3MP / 1080p / 1280×1024 / 960p / 720p / 960H / D1 / CIF IP video input H.265S/H.265+/H.265/H.264 coding
- Intuitive and user-friendly Graphic User Interface ( GUI ), Windows style operation by mouse
- Playback : 16CH simultaneous playback
- Search : time slice, time, event, tag and smart search
- Supports multiple VCA (Video Content Analytics) events, such as object abandoned/missing, region intrusion, tripwire, video exception, etc. Supports POS information overlay on live view and playback
- Express and flexible backup via USB, network and so on
- Pentaplex : preview, record, playback, backup and remote access
- DHCP, DDNS, PPPoE network protocol
- Remote control via Web Client or CMS : preview, playback, backup, PTZ and configuration
- 16 PoE network ports; PoE power supply supported
- Powerful mobile surveillance by smart phones with iOS and Android OS Dual stream technology for local storage with high definition, remote network transmission and remote surveillance with mobile device
- Multi-user online simultaneously
- Authorisation management, log view and device status view
- 4K ultra high definition output, true high resolution display
- Supports NAT function and QR Code scanning by mobile phones
- NDAA compliant

### 1.2 Product Dimensions



### 1.3 Specification

	Model	WNVR416P5AI
System	OS	Embedded Linux
	Mobile OS	iOS, Android
Video	Input	16 CH IPC input
	Network Input Resolution	8MP / 6MP / 5MP / 4MP / 3MP / 1080p / 1280×1024 / 960p / 720p / 960H / D1 / CIF
	Output	HDMI x 1: 3840×2160 / 1920×1080 / 1280×1024 / 1024×768 VGA: 1920×1080 / 1280×1024 / 1024×768
	Compression	H.265S / H.265+ / H.265 / H.264
Audio	Input	16 CH IPC audio input
	Output	RCA × 1
	Two-Way Audio	RCA × 1
	Compression	G.711(U/A)
Playback	Simultaneous Playback	Max. 16 CH
	Search	Time slice / Time / Event / Tag search / Smart search
	Smart Search	Highlighted colour to display the camera record in a certain period of time, different colours refers to different record events
	Function	Play, Pause, FF, FB, Digital zoom, etc.
	Decoding Capability	1CH 8MP / 4CH 1080p (Live View/Playback)
Alarm	Mode	Manual, Sensor, Motion, Exception, Smart events
	Input	Supports IPC alarm input
	Output	Supports IPC alarm output
	Triggering	Record, Snap, Preset, E-mail, etc.
Network	Interface	RJ45 1000Mbps x 1
	Protocol	TCP / IP, PPPoE, DHCP, DNS, DDNS, UPnP, NTP, SMTP, HTTP, HTTPS, 802.1x, RTSP, SNMP, ONVIF, etc.
	PoE Port	RJ45 × 8 (IEEE802.3af, output power: ≤80W)
	Incoming/Outgoing Bandwidth	96Mbps/96Mbps
	Client Connection	Max.10 users access
Record	Resolution	8MP/6MP/5MP/4MP/3MP/1080p/1280×1024/960p/720P/960H/D1/CIF
	Frame Rate	N:30fps, P:25fps
Backup & Storage	Local Backup	USB stick, USB mobile HDD
	Network Backup	Yes
	Storage	SATA3.0 × 2, max 10T per HDD
Remote Monitoring	Immix	Compatible with Immix via RTSP only (2-way audio not supported)
	Sentinel	Yes, Firmware 1.1.0 or later
Port	USB	USB 2.0 × 2
	Remote Controller	Optional
	PoE Ports	RJ 45 100 Mbps × 16
Others	PoE	Standards: IEEE802.3AF/AT, Output Power: ≤ 150W
	Video Structure Analysis	Human/Vehicle Classification : Yes
	Plate Recognition	Yes
	Power Supply	DC 48V/3.75A
	Consumption	≤ 10W (without HDD)
	Dimensions	380 × 268 × 45 mm
	Working Environment	-10°C~50°C, 10%~90% humidity
	Certificate	CE, FCC
Environmental Protection	Complies with Directive EU RoHS, REACH and WEEE	

## 2.0 HDD Installation

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This series of the product supports 2 SATA hard drives. Please make sure that the device is powered off before the installation. The pictures of the installation are for reference only.



1. Loosen the screws to open the cover.



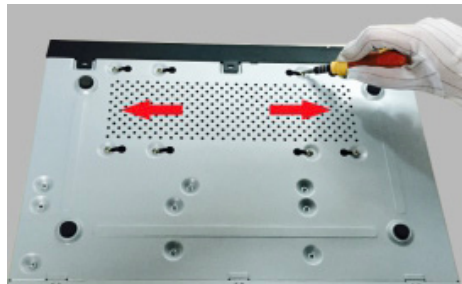
2. Place the HDD onto the bottom of the machine.



3. Put the HDDs onto the bottom of the device.



4. Connect the power and data cables.



5. Turn over the machine and secure the HDD with the screws.

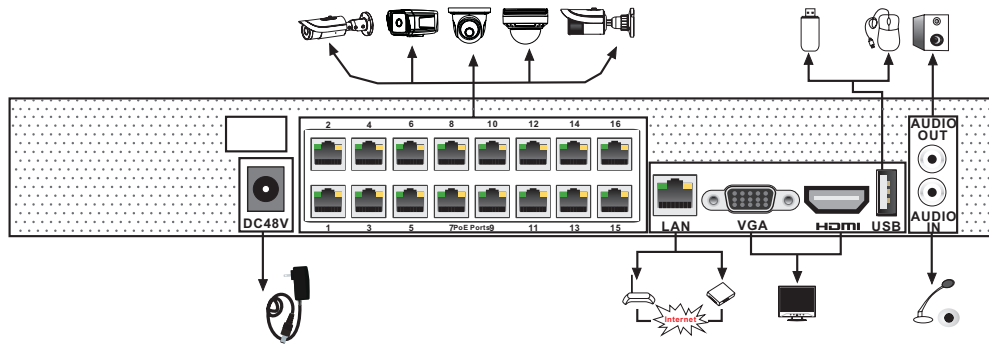


6. Install back the cover and secure it with the screws.

*Note: Please check the inside structure of the device and make sure that the cables are connected well before installing the cover back. Please format the HDD before using.*

### 3.0 Rear Panel Instruction

The interfaces of the rear panel are for reference only.



## 4.0 Start Up and Shut Down

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### **Startup**

1. Connect the monitor and the power.
2. The device will boot and the power indicator will display blue.
3. A wizard window will pop up.

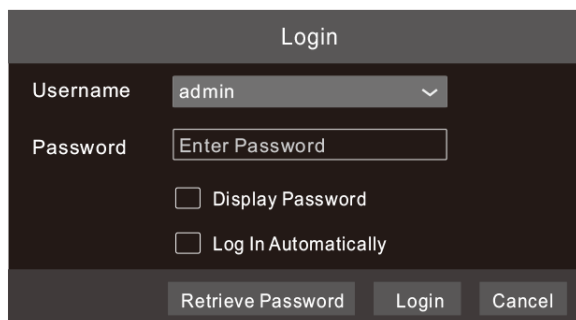
### **Shutdown**

Click "Start" and then select "Shutdown" icon. This will bring up a shutdown window. The device will shut down by clicking "OK" button. Then disconnect the power.



## 5.0 Login

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Username: admin

Password: Enter Password

Display Password

Log In Automatically

Retrieve Password Login Cancel

The default username is admin and the default password is 123456. You must configure the wizard if you start the NVR for the first time and you may change the password when you configure the wizard for the first time. You can skip the settings wizard next time. Click "Start" and select "Login". This will take you to see a login box. Enter the default username and password you set. Then you will see the live image.


### 6.1 Network Configuration & Adding IP Camera

After you finish adding IP cameras, you can see the live images through the monitor of the NVR. The following will mainly introduce how to add the IP cameras via LAN/WAN.

#### LAN

1. Set the network of the NVR. Go to Start → Settings → Network → TCP/IP. Enter IP address, subnet mask, gateway, etc. If using DHCP, please enable DHCP in both the NVR and the router.
2. Go to Start → Settings → Network → Port. Enter HTTP port (the default value is 80), server port (the default port is 6036).
3. The internal ethernet port is the port which connects all the PoE ports with the NVR system. The PoE ports are available if the internal ethernet port is online. If it is offline, all the PoE ports will be unavailable. The IP address and subnet mask of the internal ethernet port can be changed to make the port in the same network segment with the IP cameras which directly connect to the PoE ports of the NVR.


The screenshot shows the 'IP Address Settings' dialog box for 'Ethernet Port 1 (Online)'. It has two tabs: 'Ethernet Port 1 (Online)' and 'Internal Ethernet Port (Online)'. The 'Ethernet Port 1 (Online)' tab is active. There are two columns of settings. The left column has: 'Obtain an IPv4 address automatically' (unchecked), 'Address' (192.168.1.2), 'Subnet Mask' (255.255.255.255), 'Gateway' (192.168.1.1), and 'MTU' (1500). The right column has: 'Obtain an IPv6 address automatically' (unchecked), 'Address' (empty), 'Mask Length' (0), and 'Gateway' (empty). At the bottom, there is 'Obtain DNS automatically' (unchecked), 'Preferred DNS' (empty), and 'Alternate DNS' (empty). An 'Apply' button is at the bottom right.

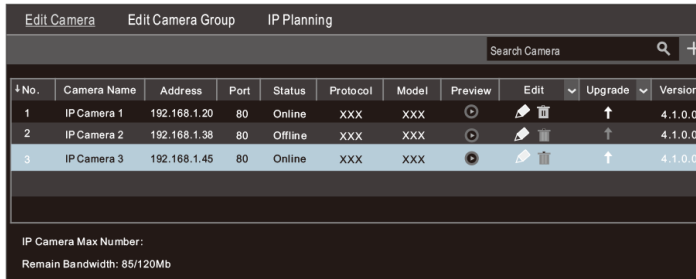
4. Go to Start → Settings → Camera → Add Camera. The NVR will automatically refresh the cameras searched. The IPC which supports the Onvif protocol may be added manually. If the IPC searched is not in the same local network as the NVR, you should select the device and click  to modify the IP address.

The screenshot shows the 'Add Camera' dialog box. It has three tabs: 'Quickly Add', 'Manually Add', and 'Add Recorder'. The 'Quickly Add' tab is active. Below the tabs is a table with columns: No., Address, Port, Edit, Subnet Mask, Protocol, Model, and Version. There are three rows of data. The third row is selected. Below the table, it says 'Selected: 1/3'. At the bottom, there are buttons for 'Default Password', 'Add', and 'Cancel'.

No.	Address	Port	Edit	Subnet Mask	Protocol	Model	Version
1	192.168.1.20	80		255.255.255.0	XXX	XXX	3.4.2
2	192.168.1.38	80		255.255.255.0	XXX	XXX	3.4.2
3	192.168.2.45	80		255.255.255.0	XXX	XXX	4.0.0.1.beta1

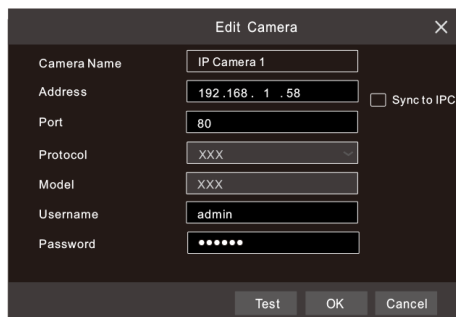
The screenshot shows the 'Edit IP' dialog box. It has fields for: 'Mac Address' (CE:98:23:75:35:22), 'Address' (192.168.1.45) with a 'Sync to IPC' checkbox, 'Subnet Mask' (255.255.255.0), 'Gateway' (192.168.1.1), 'Username' (admin), and 'Password' (masked with dots). There are 'OK' and 'Cancel' buttons at the bottom.

5. Checkmark the device you want to add and then click "Add" button. The NVR will automatically refresh the cameras and return to "Edit Camera" interface. "Online" status means connecting the device successfully and you will see the live image. You may select the added device and click  button to modify channel, IP address, etc.



No.	Camera Name	Address	Port	Status	Protocol	Model	Preview	Edit	Upgrade	Version
1	IP Camera 1	192.168.1.20	80	Online	XXX	XXX				4.1.0.0
2	IP Camera 2	192.168.1.38	80	Offline	XXX	XXX				4.1.0.0
3	IP Camera 3	192.168.1.45	80	Online	XXX	XXX				4.1.0.0

IP Camera Max Number:  
Remain Bandwidth: 85/120Mb




Dialog box titled "Edit Camera" with fields for:

- Camera Name: IP Camera 1
- Address: 192.168.1.58  Sync to IPC
- Port: 80
- Protocol: XXX
- Model: XXX
- Username: admin
- Password: ••••••


Buttons: Test, OK, Cancel

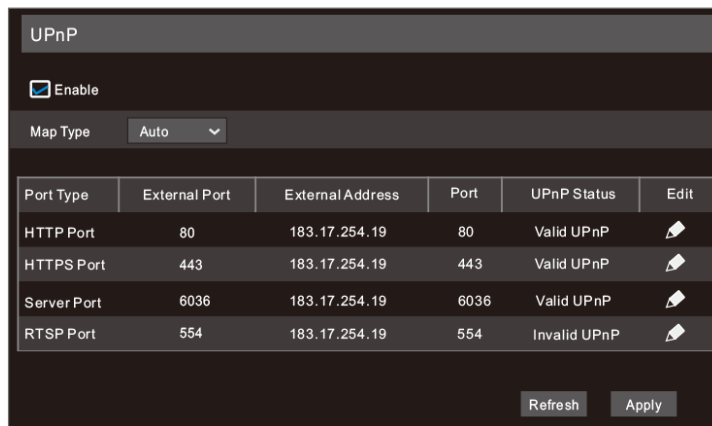
### WAN

1. Set the network of the NVR. Go to Start → Settings → Network → PPPoE. Enable PPPoE and then input the user name and password received from your ISP.
2. Go to Start → Settings → Camera. Click "Add Camera" or  behind the column of the search camera and select "Manually Add" to add the IP cameras. Enter IP address, server port, username and password of the IP camera. The IP camera must be connected over WAN. And here the IP address of the IP camera must be a WAN IP address.

## 7.0 UPnP

You can use the UPnP function to enable the fast connection of the device to WAN via a router without port mapping.





1. Go to Start → Settings → Network → UPnP, and enable UPnP and then click "Apply" button to save.
2. Enable the UPnP function in the router.
3. Click "Refresh" button to refresh the UPnP status. If the UPnP status were still "Invalid UPnP" after refreshing it for several times, the port would be wrong. Please change the mapping type to "Manual" and then click  to modify the port until the UPnP status turns to "valid UPnP".



UPnP

Enable

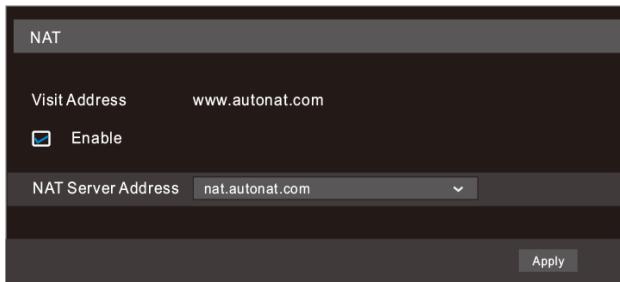
Map Type: Auto

Port Type	External Port	External Address	Port	UPnP Status	Edit
HTTP Port	80	183.17.254.19	80	Valid UPnP	
HTTPS Port	443	183.17.254.19	443	Valid UPnP	
Server Port	6036	183.17.254.19	6036	Valid UPnP	
RTSP Port	554	183.17.254.19	554	Invalid UPnP	

Refresh Apply

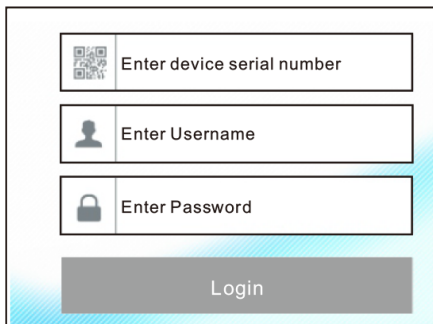
**NAT Settings**

1. The NVR shall be powered on and connected to the network.
2. Go to Start → Settings → Network → TCP/IP. You can obtain the IP address, subnet mask and gateway automatically. You can also manually enter them according to the actual network situation. Please make sure the network segment is the same as that of the network which is used.
3. Set the preferred or alternative DNS Server. Click "Apply" to save the parameters.
4. Go to Start → Settings → Network → NAT tab. Enable NAT and select the NAT Server Address (The default NAT Server Address is nat.autonat.com). Click "Apply" to save the parameters.




**NAT Access**

After finishing the NAT settings, you can enter [www.autonat.com](http://www.autonat.com) in the address bar of your browser and then press enter to go to the following interface. If you are the first time to access the NAT, you shall download and install the plug-in according to the tips. After installing the plug-in successfully, it will pop up the login box.



Device Serial Number:

Click  on the menu bar at the bottom of the live interface to check the serial number or go to Start → Settings → Network → Network Status to check the serial number of the NVR).



Username:

The username of the NVR. The default username is admin.

Password:

The password of the NVR. The password is set by yourself when you configure the wizard for the first time.

### 9.1 Manual Recording

Before recording, please install and format a HDD. In the live interface you can see the menu toolbar. Click  button to start recording. Click it again to stop recording. You can also click  to check the status of the recording.





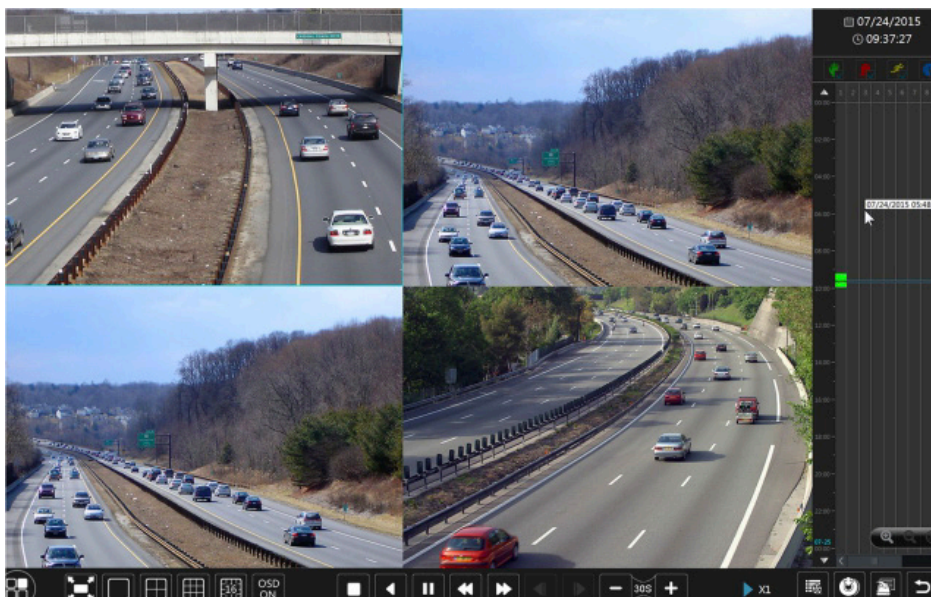
### 9.2 Playback

#### Instant Playback

Click "Instant Playback" in the right-click menu of the camera's preview window to select or drag the playback progress bar to change the playback time to play back the record.

#### General Playback

Click  on the tool bar at the bottom of the live preview interface or click Start → Playback to go to the playback interface as shown below. You can also add the playback cameras manually. Click  in the playback window to pop up the "Add Camera" window. Check the cameras in the window and then click "Add" to add playback camera. The record files of the added playback camera will be played in the playback interface.



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