



NOVUS H1-F-II Channel IP Recorder User Guide

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NOVUS H1-F-II Channel IP Recorder



Product Information

Specifications

- **Model:** NVR-6408-H1/F-II
- **Version:** 1.0

Cautions and Warnings

The product meets the requirements contained in the following directives:

1. Commission Delegated Directive (EU) 2015/863 of 31 March 2015 amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances.
 2. Directive (EU) 2017/2102 of the European Parliament and of the Council of 15 November 2017 amending Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.
- **Exclusion of liability:** The manufacturer is not liable for any damage or loss of data contained on disks or other devices or carriers during the operation of the product.
 - **Obligation to consult the manufacturer:** Before performing any action not provided for in the instruction manual or other documents, it is necessary to contact the manufacturer to avoid exclusion of liability for any consequences resulting from such actions.

Pictures in this publication showing camera views can be simulations. Actual camera images may vary depending on the type, model, settings, observation area, or environmental conditions.

Safety Requirements

- Before using the device, it is important to read the instruction manual to ensure proper and safe operation. Failure to comply with the instructions may result in damage to the device and/or safety violations.
- Device repairs and maintenance should only be performed by qualified service personnel. Users should not attempt to repair the device themselves.
- The device is designed for professional CCTV systems and is not intended for self-assembly in households by individuals without specialist knowledge.

Product Usage Instructions

Installation and Operation

1. Read the manual carefully before installation and operation.
2. Keep the manual for the lifespan of the device in case reference is necessary.
3. Comply with the safety requirements described in the manual to ensure user safety and device durability and reliability.
4. All activities performed by installers and users must be carried out as described in the manual.
5. Disconnect the device from power sources during maintenance procedures.
6. Do not use any additional devices, components, or accessories not provided for or recommended by the manufacturer.
7. Ensure proper ventilation when installing the device. Avoid placing it in closed cabinets or areas where heat build-up may cause damage.
8. Install the device on stable surfaces only. Qualified personnel with appropriate permissions should carry out the installation according to the recommendations in the manual.

FAQ

- **Q: Can I repair the device myself?**

A: No, repairs and maintenance should only be performed by qualified service personnel.

- **Q: Can I use additional devices or accessories not provided by the manufacturer?**

A: It is not allowed to use any additional devices, components or accessories not provided for and not recommended by the manufacturer.

- **Q: Where should I install the device?**

A: The device should be installed in a location that provides proper ventilation. Avoid placing it in closed cabinets or areas where heat build-up may occur.

CAUTIONS AND WARNINGS

THE PRODUCT MEETS THE REQUIREMENTS CONTAINED IN THE FOLLOWING DIRECTIVES:



- DIRECTIVE 2014/30/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 February 2014 on the harmonization of the laws of the Member States relating to electromagnetic compatibility (OJ L 96, 29.3.2014, p. 79–106, with changes).
- DIRECTIVE 2014/35/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 February 2014 on the harmonization of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits.



- DIRECTIVE 2012/19/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 on waste electrical and electronic equipment (WEEE) (OJ L 197, 24.7.2012, p. 38–71, with changes).



- DIRECTIVE 2011/65/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (OJ L 174, 1.7.2011, p. 88–110, with changes).
- COMMISSION DELEGATED DIRECTIVE (EU) 2015/863 of 31 March 2015 amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances.
- DIRECTIVE (EU) 2017/2102 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 15 November 2017 amending Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Exclusion of liability in the event of damage to data contained on disks or other devices or media:

The manufacturer is not liable in the event of damage or loss of data contained on disks or other devices or carriers during the operation of the Product.

Obligation to consult the Manufacturer before performing any action not provided for in the instruction manual or other documents:

Before performing an action that is not provided for a given Product in the user manual, other documents attached

to the Product or does not result from the normal purpose of the Product, it is necessary, under pain of exclusion of the Manufacturer's liability for the consequences of such action, to contact the Manufacturer.

Pictures in this publication showing camera views can be simulations. Actual camera images may vary depending on the type, model, settings, observation area, or environmental conditions.

- Before using the device, read the instruction manual in order to ensure proper and safe operation of the device. Failure to comply with the instructions may lead to damage to the device and/or safety violations.
 - The user may not repair the device himself. Repairs and maintenance of the device may only be performed by qualified service personnel.
 - The device, which is an element of a professional CCTV system used for supervision and control, is not intended for self-assembly in households by persons without specialist knowledge.
1. Please read this manual carefully before installation and operation;
 2. Please keep this manual for the lifespan of the device in case referring to the contents of this manual is necessary;
 3. It is necessary to comply with the safety requirements described in the manual, as they have a direct impact on the safety of users and the durability and reliability of the device;
 4. All activities performed by installers and users must be carried out as described in the manual;
 5. The device should be disconnected from power sources during maintenance procedures;
 6. It is not allowed to use any additional devices, components or accessories not provided for and not recommended by the manufacturer;
 7. Do not install this device in places where proper ventilation cannot be provided (e.g. closed cabinets, etc.), as this may cause heat build-up and may result in damage;
 8. Do not place the device on unstable surfaces. Installation must be carried out by qualified personnel with appropriate permissions in accordance with the recommendations provided in this manual;
 9. The device may be powered only from sources with parameters compliant with those indicated by the manufacturer in the technical data;

As the product is constantly improved and optimised, some of its parameters and functions may have changed from those described in this manual. If in doubt, please refer to the user manual at www.novuscctv.com. The user manual located at www.novuscctv.com is always the most up-to-date version.

FOREWORD INFORMATION

Main characteristics

- Network Video Recorder for 8 IP cameras.
- 2 x Gigabit Ethernet port.
- Recording resolution up to 5520 x 2400 .
- H.264, H.265, H.265+, H.265 Smart compression.
- Recording stream up to 160 Mb/s in total from all cameras.
- ONVIF protocol support.
- Dual stream recording
- Support 1 x SATA 3,5" HDDs. *

- Operating system based on Linux.
- Main monitor 1 x HDMI (4K UltraHD), 1 x VGA (FullHD).
- Spot monitor 1 x VGA (FullHD) – single camera, any division of the screen, sequence of any screen divisions.
- Exception, Scene Change, Video Blurred, Video Color Cast, Tripwire, Zone entrance, Abandoned Object, Object Disappearance, Face Recognition, Perimeter Intrusion Detection by pedestrian or vehicle, Line Cross Detection by pedestrian or vehicle, Analysis of Recognized Number Plate Numbers (LPR) **
- **Backup:** onto HDD or USB Flash Memory through USB port and through the IP network.
- **Software:** N Control 6000 (application for remote administration, live monitoring and recorded data search).
- N-VID6 application for live and playback functions from mobile devices.
- User friendly multi-lingual OSD.
- IR remote controller and PC mouse included

List of compatible HDD models and maximum capacities is available on the product website www.novuscctv.pl in the DOWNLOADABLE FILES tab in the “HDD Compatible disks” file. Functions depend on connected camera model.

Recorders' technical data

NVR-6408-H1/F-II	
Video	
IP Cameras	up to 8 channels at 5520 x 2400 resolution (video + audio)
Compression	H.264, H.265, H.265+, H.265 Smart
Monitor Output	main (split screen, full screen, sequence): 1 x VGA, 1 x HDMI (4K UltraHD) (up to 2 monitors simultaneously), spot: 1 x VGA (FullHD)
Dualstreaming Support	yes
Fisheye Support	yes, 6000 IP series cameras using Internet Explorer, N-VID6, N Control 6000
Audio	
Audio Input/ Output	1 x line-in (RCA) / 1 x HDMI, 1 x line-out (RCA)
Recording	
Recording Speed	240 fps (8 x 30 fps for 5520 x 2400 and lower)
Stream Size	160 Mb/s in total from all cameras
Recording Mode	continuous, triggered by: manual, alarm input, motion detection, face recognition, intelligent image analysis functions
Prealarm/ Postalarm	up to 5 s/up to 600 s
Display	
Display Speed	240 fps (8 x 30 fps) ***
Playback	
Playback Speed	240 fps (8 x 30 fps) ***

Recorded Data Search	by date/time, events, image analysis events, POS, motion in a defined area, related to face recognition, tags, licence plate number
Backup	
Backup Methods	USB port (HDD or Flash memory), network
Backup File Format	MP4, AVI, RPAS (player included)
Storage	
Internal Storage	available mount: 1 x HDD 3.5" 10 TB SATA
Total Internal Capacity	10 TB
Alarm	
Internal Alarm Input/ Output	8/4 relay type
Camera Alarm Input/ Output	supports IP camera's alarm input/output
Motion Detection	supports camera's motion detection
System Reaction to Alarm Events	buzzer, alarm output activation, recording activation, PTZ, e-mail with attachment, Full Screen, PUSH message, voice prompt, snapshot
Intelligent image analysis	
Supported Functions	Exception, Scene Change, Video Blurred, Video Color Cast, Tripwire, Zone entrance, Abandoned Object, Object Disappearance, Face Recognition, Perimeter Intrusion Detection by pedestrian or vehicle, Line Cross Detection by pedestrian or vehicle, Analysis of Recognized Number Plate Numbers (LPR)
Database Capacity	10000 faces 50000 license plates
Other parameters	face recognition for 6 NOVUS 6000 series IP cameras with "F" in the model name or 2 ONVIF cameras

With dual stream mode

NVR-6408-H1/F-II	
Network	
Network Interface	2 x Ethernet – RJ-45 interface, 10/100/1000 Mbit/s
Network Protocols Support	HTTP, TCP/IP, IPv4/v6, HTTPS, FTP, DHCP, DNS, DDNS, NTP, RTSP, UPnP, SNMP, IEEE 802.1X, PPPoE, SMTP, P2P, POS, HTML5
ONVIF Protocol Support	Profile S (ONVIF 2.2 or higher)
PC/MAC Software	NMS, Internet Explorer, Firefox, Chrome, Opera, N Control 6000, Edge/ Safari, N Control 6000
Mobile applications	N-VID6 (iPhone, Android)
Number of Simultaneous Connections	up to 64 clients, up to 12 main streams or 32 substreams or 8 playback streams in total
Bandwidth	160 Mb/s in total to all client workstations
PTZ	
PTZ Functions	pan/tilt/zoom, preset commands
Auxiliary Interfaces	
USB Ports	2 x USB 2.0, 1 x USB 3.0
Operating system	
Operating System	Linux
OSD	languages: Polish, English, others
Control	PC mouse and IR remote controller (in-set included), network
System Diagnostic	automatic control of: HDDs, network, camera connection loss
Security	password protection, IP filtering, MAC filtering, ARP guard
Installation parameters	
Dimensions (mm)	300 (W) x 44 (H) x 248 (D)
Weight	1.2 kg (without HDD)
Power Supply	100 ~ 240 VAC
Power Consumption	20 W (with 1 HDD)
Operating Temperature	-10°C ~ 50°C

- The availability of individual functions (including image analysis) depends on the model of the cameras used, as well as the software version of the recorder and cameras. In order to create face recognition system, please deploy NOVUS 6000 series IP cameras with “F” in the model name.
- Presented display and playback speeds are achieved using dual-streaming. Detailed data on hard drives can be found at www.novuscctv.com in the compatibility table available in the DOWNLOADABLE FILES tab.

Package contents

- Unpack the device carefully. After unpacking, please ensure that package contains the following items:
 - Network Video Recorder
 - USB Mouse
 - Remote control
 - Power supply 12VDC
 - Quick start guide
- If any of the elements has been damaged during transport, pack all the elements back into the original packaging and contact your supplier.

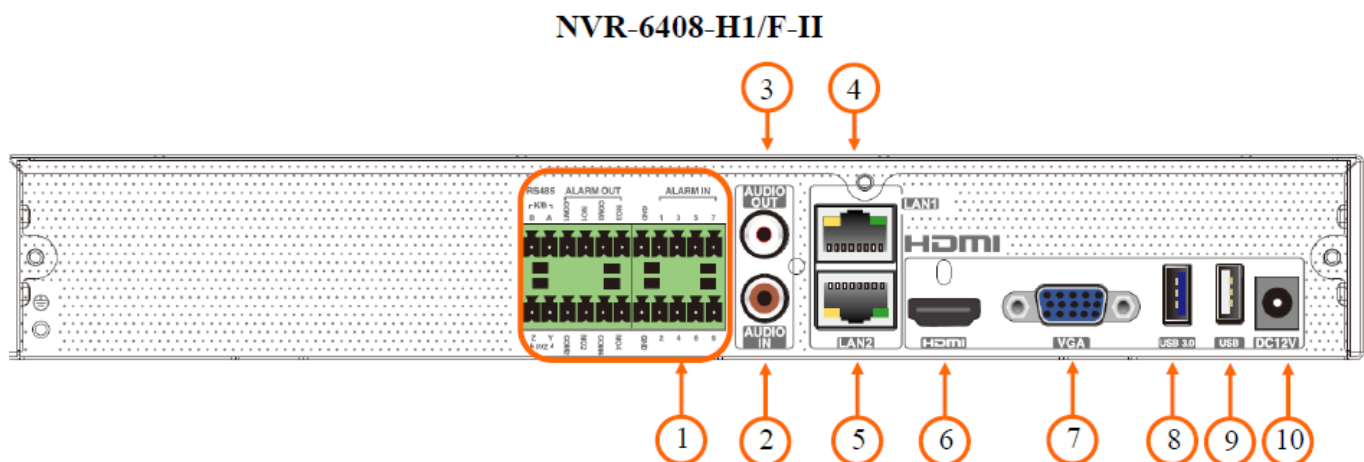
NOTE!

ONVIF protocol support was verified with IP cameras based on ONVIF ver. 2.2 and compatible with the "PROFILE S".

Implementation of the ONVIF protocol by different manufacturers may vary by some functions, which can make them work improperly or not in accordance with expectation. AAT SYSTEMY BEZPIECZEŃSTWA SP. Z O.O. is not responsible for incompatibility problems resulting from cameras of other brands than NOVUS, which are using ONVIF protocol. If you are using ONVIF protocol cameras other than NOVUS brand it is recommended to test each time whether required functions work correctly.

STARTING THE DEVICE

Electrical connection and other back panel elements.



1. **CONNECTORS** : Block of alarm input/output connectors.
2. **AUDIO IN**: Audio mono input to connect microphone.
3. **AUDIO OUT** : Audio output.
4. **LAN1**: RJ-45 connector port to connect to the local network and Internet.
5. **LAN2**: RJ-45 connector port to connect to the local network and Internet.
6. **HDMI**: HDMI connector, use the HDMI cable to connect monitor.
7. **VGA**: D-SUB connector, to connect VGA monitor.
8. **USB 3.0** : USB 3.0 port for external Flash memory and other USB devices.
9. **USB 2.0**: USB 2.0 port for external Flash memory and other USB devices.
10. **POWER SOCKET**: To plug in the 12V power cord.

HDD mounting

Novus NVR-6408-H1/F-II support 1 internal SATA HDD.

NOTE!

- In order to find information regarding the compatible models of HDDs and their maximum capacities, please contact Novus distributor or check the information presented at www.novuscctv.com. AAT SYSTEMY BEZPIECZEŃSTWA SP. Z O.O. company is not responsible for any problems from using not recommended hard drives.
- The list of compatible HDDs contains all the HDDs that can be used with a given DVR including HDDs designed for office use – so called desktop disks. However, due to the fact that reliability of the recording process and data safety are paramount factors of any CCTV system, we strongly advise to use HDDs designed for continuous (24/7) operation.
- You need to format disks if they were used in a different device. All data saved on HDD prior to format will be lost.

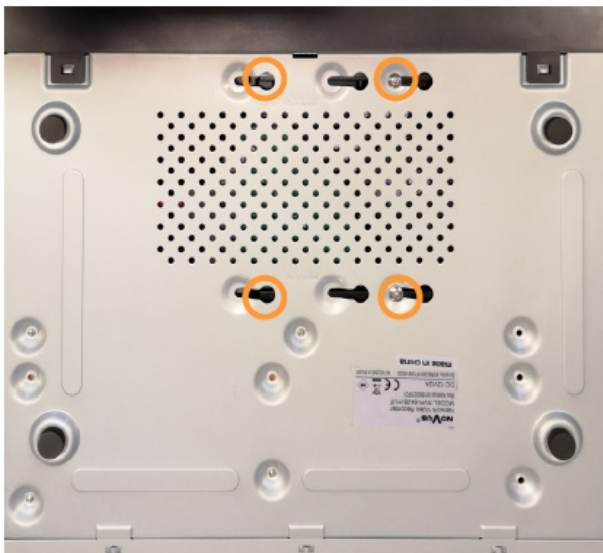
HDD Installation

In order to mount HDD, unscrew the five screws in the places shown in the picture below (3 screws at the back, 2 at the sides) and remove the recorder housing by sliding it back and then lifting it up.



NOTE!

- Before removing top cover unplug the power cord from the NVR. When NVR is turned on before disconnecting the power cord, shut down the recorder using the NVR menu.
- If you use the disk previously used in another device, it is necessary to format it before using.
- Formatting the drive erase all the data from disk. All drives in the recorder should be exactly the same type.
- By default, SATA cables are packed together with NVR accessories, while HDD power cable is connected to the NVR PSU and ready for connecting the HDD.
- After removing the casing, mount the disk using mounting screws (4 pcs.), and then connect the power and signal cables.



- After connecting the hard drive mount the cover and start it to check the correctness of connections and format the hard drive.

NOTE!

If the device was brought from a location with lower temperature, please wait until it reaches the temperature of location it is currently in. Turning the device on immediately after bringing it from a location with lower ambient temperature is forbidden, as the condensing water vapour may cause short-circuits and damage the device as a result.

Connecting the power supply.

- Please connect provided power cord in the rear power port of the NVR like depicted below.
- Initialization lasts approximately 60 seconds. During this time executing any device functions and pressing any buttons is prohibited. To shut down the device please use the menu.

NOTE!

- Do not place the power cord under the carpet or rug. The power cord is usually earth-grounded. However, even if it's not earth-grounded, never modify it on your own for earth-grounding.
- Make sure that power adapter is placed near of NVR and secured from accidental disconnection.
- If the device was brought from a location with lower temperature, please wait until it reaches the temperature of location it is currently in. Turning the device on immediately after bringing it from a location with lower ambient temperature is forbidden, as the condensing water vapour may cause short-circuits and damage the device as a result.
- Before starting the device familiarize yourself with the description and the role of particular inputs, outputs and adjusting elements that the device is equipped with.

Connecting monitor

This product supports following interfaces for main monitor: HDMI, VGA.

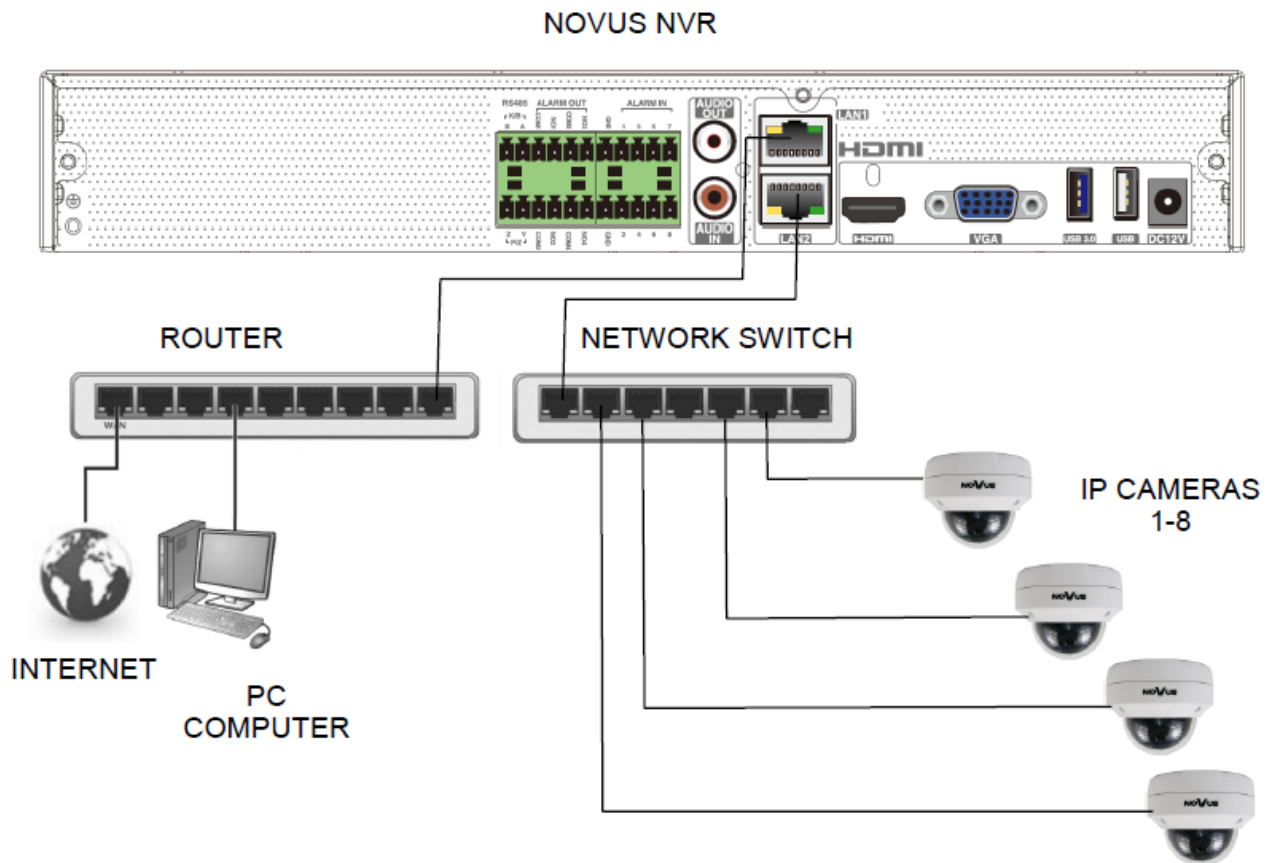
For HDMI following resolutions are supported: 1024×768, 1280×1024, 1920×1080 and 3840×2160.

Connecting camera and Network

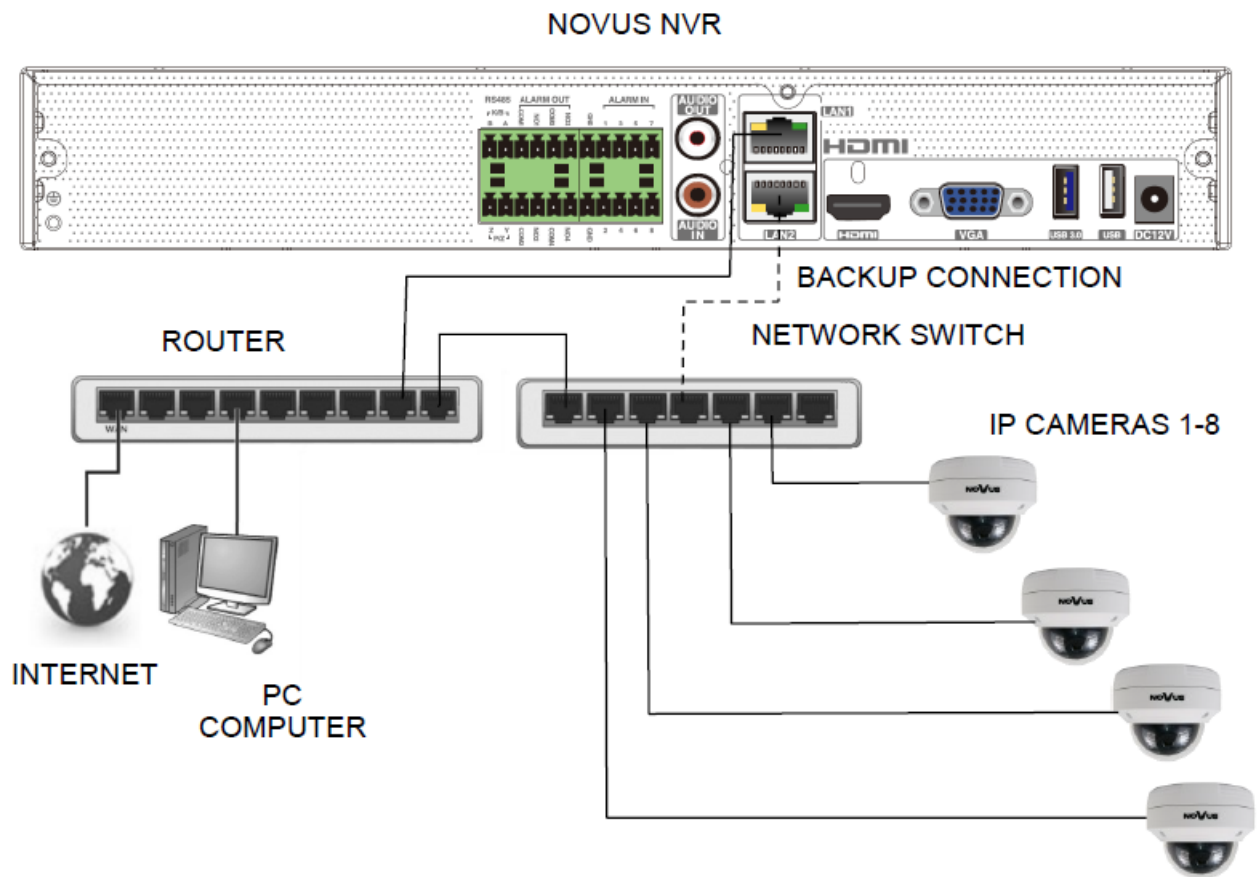
- The NVR-6408-H1/F-II has two Ethernet ports for connecting the NVR in two modes. The first mode in the

recorder menu called MULTIPLE ADDRESS SETTING allows to connect NVR to networks with different IP addresses. This mode allows to separate cameras network and NVR access network. The second mode, called NETWORK FAULT TOLERANCE allows one of network sockets of the recorder to be used as an active fault tolerant connection in case of the main connection fails.

- The permissible cable distance from the switch to each camera is 100m. Cameras, Internet and other devices should be connected as shown below.
- We recommend that you configure the camera before connecting to a recorder, as described in the user manual of the camera. Please note that cameras have addressed the unique
- IP address supported by the recorder. .
- Connecting cameras and network recorder NVR-6408-H1/F-II in MULTIPLE ADDRESS SETTING



Connecting NVR-6408-H1/F-II and cameras in NETWORK FAULT TOLERANCE mode.



Before configuring the connection of the cameras in the recorder, we recommend using a PC to configure the cameras according to the instructions of the camera.

NOTE!

In order to ensure stability and protection against overload and unauthorized access, we recommend separating the camera network from the access network to the NVR.

Connecting external devices

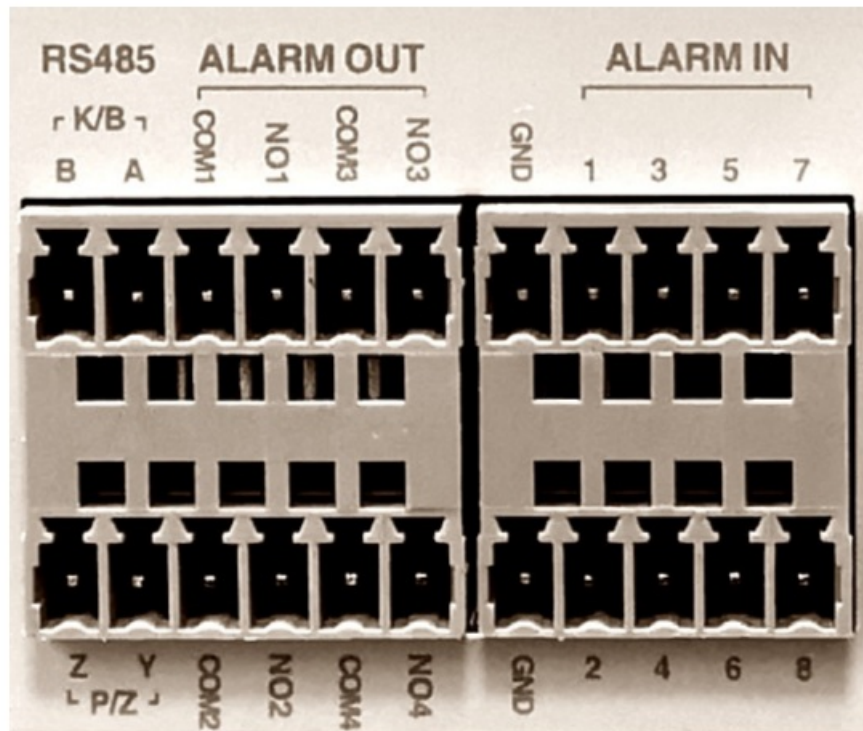
- **Connecting audio ports**

The audio output allows to connect a loudspeaker with an amplifier. The signal at the audio output is about 200mV with an impedance of 1kΩ.

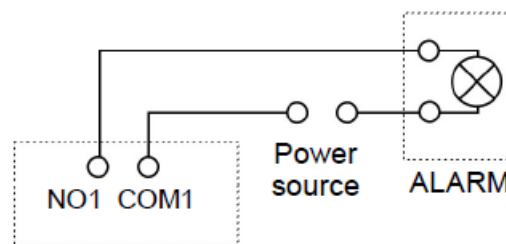
- **Connecting USB devices**

NVR has 1 x USB 2.0 port on front panel, 1 x USB 3.0 and 1 x USB 2.0 on back. They could be used to connect external Flash memory, mouse and other USB compatible devices. To connect storage memory it is recommended to use USB 3.0 port.

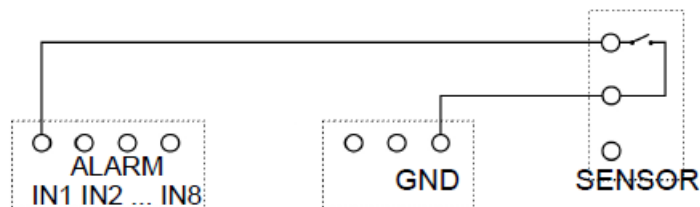
- **Connecting alarms ports**



- NVR-6408-H1/F-II has local alarm input and output. The connection diagram of the alarm output no. 1 is presented below. Other outputs should be connected according to the same scheme.



- Below is a diagram of connecting the sensor to the alarm input.



Security recommendations for network architecture and configuration

NOTE!

Below are shown security recommendations for network architecture and configuration of CCTV systems that are connected to the Internet to reduce the risk of unauthorized interference with the system by a third party.

1. Absolutely change the default passwords and user names (if the device gives this possibility) of all applied network devices (recorders, cameras, routers, network switches, etc.) to the severely complexity password. Use lowercase and uppercase letters, numbers, and special characters if there is such possibility.
2. Depending on the available functionality in the order to restrict access to the used network devices at the administrator account level, it is recommended to configure the users accounts accordingly.
3. Do not use DMZ function (Demilitarized zone) in your router. Using that function you open the access to recorder system from the Internet on all ports, which gives possibility for an unauthorized interference with the system.

Instead of DMZ use port forwarding redirect only the ports which are necessary for the performance of the connection (detailed information about ports of communication in different models of recorders, cameras, etc. can be found in the operating instructions).

4. Use routers with firewall function and make sure it is enabled and properly configured.
5. It is recommended to change the default network communication port numbers of used devices if there is such possibility.
6. If used network devices has a UPnP feature and it is not used, turn it off.
7. If used network devices has a P2P feature and it is not used, turn it off.
8. If used network devices support HTTPS protocol for connection, it is recommended to use it.
9. If used network devices support IP filtering for authorized connections function, it is recommended to use it.
10. If used recorder has two network interfaces it is recommended to use both of them to physically separate network for cameras and network for Internet connection. The only device in the system, accessible from Internet is recorder – there is no physically access directly to any camera.

NVR OPERATING

Front panel description



1. LED

Diodes for monitoring NVR activity.

1. REC – monitors recording activity
2. NET – monitors networking activity
3. PWR – activities when power is on

2. USB USB 2.0 port for external Flash memory and mouse connection.

Controlling via USB mouse

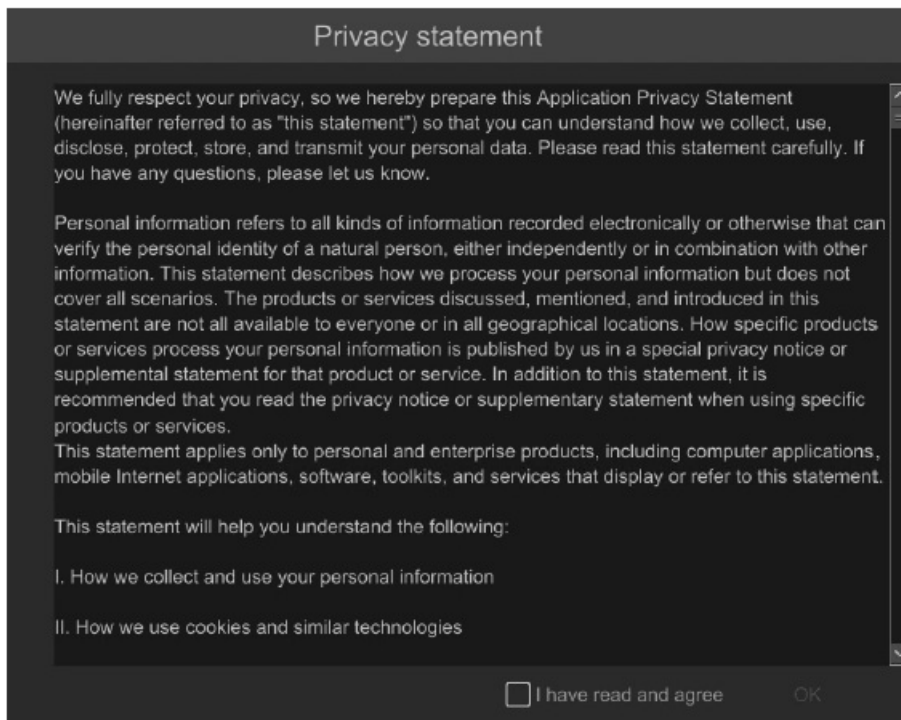
It is possible to control NVR via an USB mouse connected to the USB port. Double-click on any camera in split screen display mode switches the display to full-screen mode. Subsequent double-click returns to previous display mode. During configuration, the selection of individual items is made using the left mouse button. In selected positions, the value of a selected field can be changed using the mouse wheel.

First Launch Wizzard

- In order to start the device, connect the power cable to the power supply, turn on the switch located on the back of the housing and wait for the recorder menu to start.
- After the NVR first launch, a window is displayed that allows to select the language and location. To select the English language, select ENGLISH in the left-hand window and select the recorder location in the right-hand window.



- In the next step, read and accept the Privacy Statement. Check the checkbox at the bottom of the window and press OK.



- The next wizard window allows to set time parameters such as TIME_ZONE, SYSTEM TIME, DATE FORMAT, TIME FORMAT, DST, SYNCHRONOUS, NTP SERVER and VIDEO FORMAT. After making your selection, click the NEXT button.

The screenshot shows a 'Wizard' configuration window with the following settings:

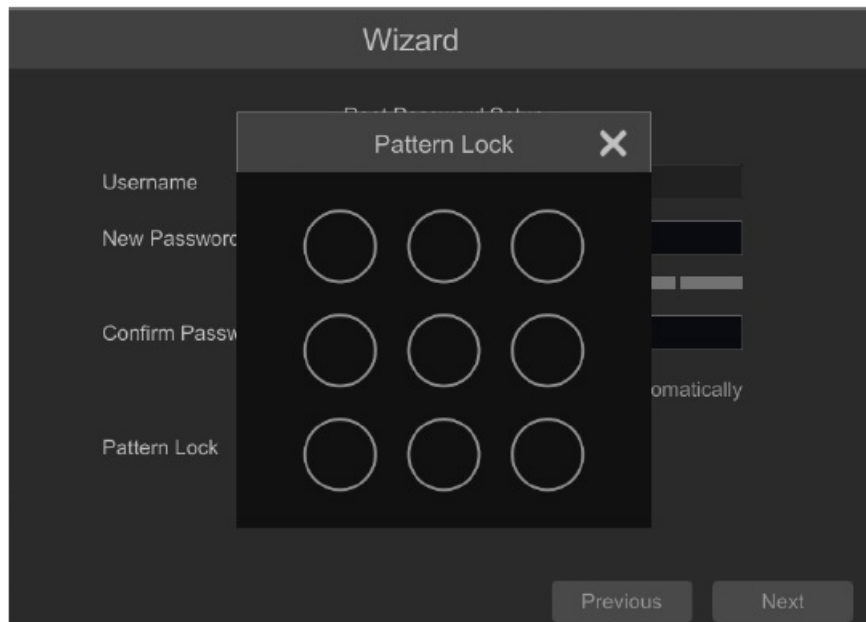
Setting	Value
Time Zone	GMT Dublin, Lisbon, London, Monrovia, R€
System Time	12/05/2023 15:27:57
Date Format	Day/Month/Year
Time Format	24-Hour
DST	OFF
Synchronous	Manual
NTP Server	time.windows.com
Video Format	PAL

At the bottom right, there are 'Previous' and 'Next' buttons.

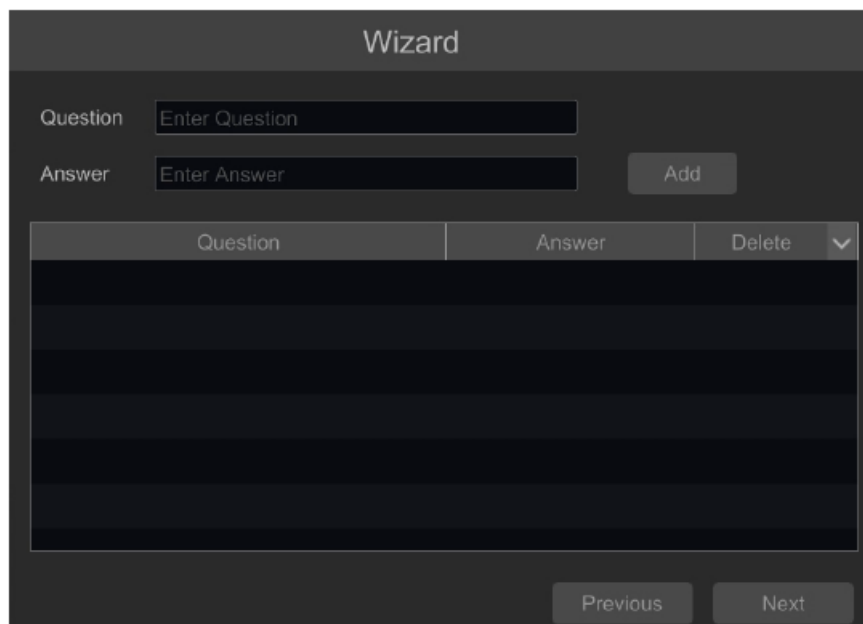
- Change the password in the password change wizard. The password must be at least 8 characters long. It should contain a number, and upper and lower case letters. Enter them on the screen keyboard available after clicking in the NEW PASSWORD and CONFIRM PASSWORD fields.

The screenshot shows the 'Wizard' window with the 'Root Password Setup' section. The fields are filled with 'root' for Username, 'pass' for New Password, and 'pass' for Confirm Password. A password strength indicator shows a red bar followed by three grey bars. Below the password fields, there are checkboxes for 'Display Password' (checked) and 'Log In Automatically' (unchecked). At the bottom, there is a 'Pattern Lock' section with an 'Enable' checkbox and an 'Edit' button. 'Previous' and 'Next' buttons are at the bottom right.

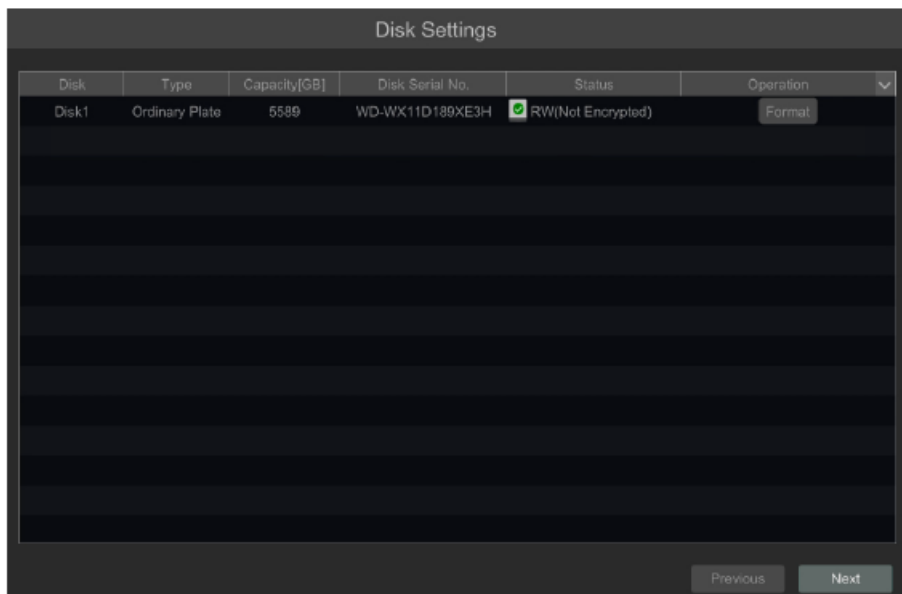
- To display the entered password, check the DISPLAY PASSWORD box. Selecting LOG IN AUTOMATICALLY checkbox will automatically log the user into the system after starting the recorder.
- By selecting the ENABLE field in the PATTERN LOCK row, it is possible to activate the setting of enabling access for the user by means of a graphic pattern instead of entering the password. To start the graphic symbol settings, click the EDIT button. Then, holding down the left mouse button, move the cursor between the displayed circles twice to mark the pattern that will be used to unlock the device.



- After clicking on the NEXT button, a window is displayed that allows you to set a set of questions and answers that can unlock access to the recorder.



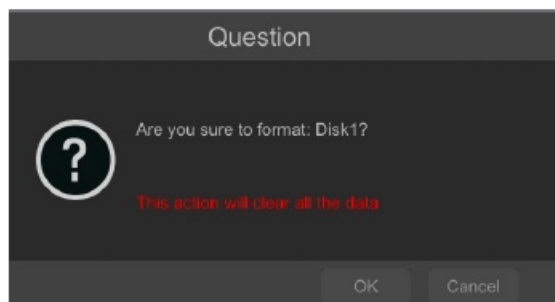
- To add a question, click on the QUESTION field to enter the question using the keyboard. Then click on the ANSWER field to enter the answer to the question. Clicking on the ADD button adds a set of questions and answers. Clicking the NEXT button takes you to the window in which information about the disk connected to the recorder is displayed.



- If the STATUS field displays information about the inaccessibility of the disk, format the disk by clicking on the FORMAT button. A window appears asking to confirm that you want to format the disk.

NOTE!

- Formatting causes the loss of information stored on the hard drive.
- Pressing the OK button confirms the intention to format the disk.



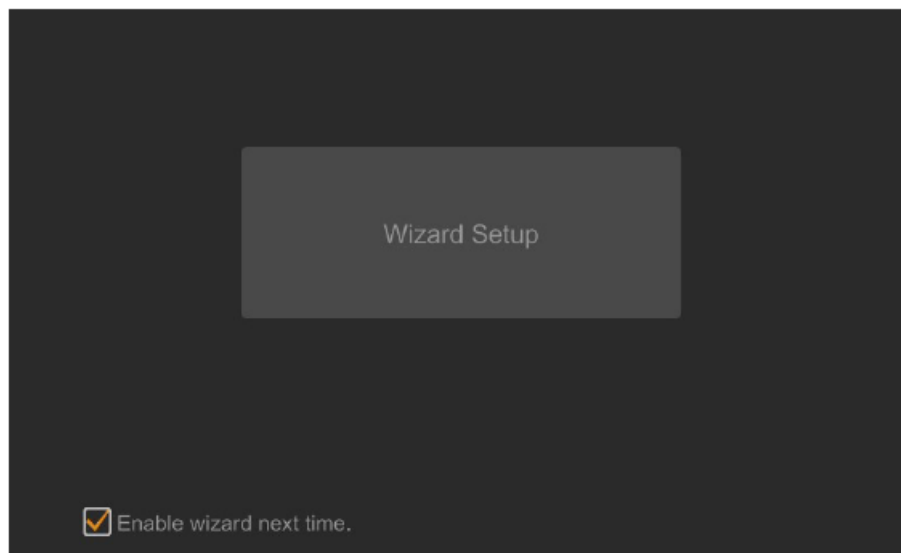
- The status of the disk should be “READ AND WRITE” after successful formatting.

Startup configuration

After the first start of the NVR, the setup wizard window is displayed (if the function has not been disabled before). In order to properly configure the recorder, follow these steps with the procedure:

NOTE!

- For suggested values for IP camera setting please refer to the “Cameras Capability Table” available on the www.novuscctv.com website. If you set wrong values some problems may appear: the NVR cannot search the IP camera, the stream cannot be connected, the image is not fluent, the image quality is bad and so on.
- Before starting work with the network recorder, you must perform the initial configuration of the device. At the bottom of the window, checkbox Enable wizard next time is checked. If you uncheck this box, the wizard will not start at the next restart.



- Click Wizard Setup to start.

NETWORK SETTINGS:

- The first tab of the setup wizard is Network Settings. The recorder has two network cards and they can work in two modes – Multiple Address Setting or Network fault tolerance. The first one requires that network cards have different IP addresses from different address groups. Each LAN port must be connected to separate network. The second mode allows to assign only one IP address, it is assigned to both ports – in case of damage to one connection, the other port takes over the connection. Both ports should then be connected to the same network.
- The recorder is enabled to obtain an IP address automatically by default. It gets IP address and DNS settings from the DHCP server. If the address retrieval fails, the recorder is assigned a default address of 192.168.1.100 with a subnet mask of 255.255.255.0. If we want to edit these settings, disable the Obtain an IP address automatically checkbox and assign the appropriate IP address, subnet mask, gateway, DNS addresses. You can do the same for the second port.
- At the bottom of the window, you can define HTTP, HTTPS ports and the server data port.

 A screenshot of the "Wizard" setup screen, specifically the "Network Settings" tab. The screen shows configuration options for two Ethernet ports.

 At the top, there are navigation tabs: "Network Settings >", "Add Camera >", "Disk Mode >", "Record Settings >", "QRCode >", and "Cloud Upgrade".

 Below the tabs, the "Work Pattern" is set to "Multiple Address Setting" with a note "(Modifying work pattern need to reboot)".

 The screen is divided into two columns for "Ethernet Port 1 (Offline)" and "Ethernet Port 2 (Offline)".

 For Ethernet Port 1:

- "Obtain an IP address automatically" is checked.
- Address: 192 . 168 . 1 . 100
- Subnet Mask: 255 . 255 . 255 . 0
- Gateway: 192 . 168 . 1 . 1
- "Obtain DNS automatically" is checked.
- Preferred DNS: 8 . 8 . 8 . 8
- Alternate DNS:
- Default Route: Ethernet Port 1

 For Ethernet Port 2:

- "Obtain an IP address automatically" is unchecked.
- Address: 192 . 168 . 3 . 200
- Subnet Mask: 255 . 255 . 255 . 0
- Gateway: 192 . 168 . 3 . 1
- "Obtain DNS automatically" is unchecked.
- Preferred DNS: 8 . 8 . 8 . 8
- Alternate DNS:


 At the bottom, there are fields for "Port" (with a dropdown), "HTTP Port" (80), "HTTPS Port" (443), and "Server Port" (6636).

 At the very bottom are "Previous", "Next", and "Cancel" buttons.

- Parameter changes must be confirmed with the NEXT button

ADD CAMERA:

- Next window allows to configure the IP camera and add them to the recorder. Upper window displays cameras found by the NVR in local network. Before adding cameras to the system, make sure that they have a unique IP address. Cameras with IP addresses that have already been added to the NVR will not be displayed in the search part.

- To change the addressable cameras, click  on the icon in the column EDIT (This works only with NOVUS IP 6000 camera series).

Wizard

Network Settings > Add Camera > Record Settings > QRCode > Cloud Upgrade

No.	↑	Address	Edit	Port	Protocol	Model	Version	Add
1		192.168.43.53		9008	NoVus	NVIP-2VE-6...	4.2.1.0	+
2		192.168.80.24		9008	NoVus	NVIP-4VE-6...	5.1.1.0	+
3		192.168.155.180		80	ONVIF	Y2VB-6		+
4		192.168.44.152		9008	NoVus	NVIP-2VE-6...	4.2.1.0	+
5		192.168.43.133		9008	NoVus	NVIP-4SD-6...	5.0.1.0	+
6		192.168.155.55		80	ONVIF	IP		+

Remain Bandwidth: 181 / 192 Mb

Refresh Add All Delete All

No.	IP Camera Name	↓	Address	Protocol	Status	Edit	Delete
1	NOVUS IP CAMERA		192.168.44.151	IP Camera	Online		
2	4SD6543		192.168.81.251	NoVus	Offline		

Adding an inactive channel will be activated with the default password

Previous Next Cancel

- Enter the address in the IP ADDRESS field and set the masks in the SUBNET MASK, then press the OK button to save the settings.

Edit IP

MAC Address : : : : :

Address 192 . 168 . 155 . 180


Subnet Mask 0 . 0 . 0 . 0

Gateway 0 . 0 . 0 . 0

Username root

Password

OK Cancel

- Press the  button to add the camera to the system
- In the lower window there is a list of available channels. It is possible to change the name of the channel after clicking in the EDIT field.

NOTE!

The process of adding NOVUS IP 6000 series cameras with software 5.1.x and higher in which the activation process has not been carried out cannot be correctly carried out in the start-up wizard (v1.4.6 NVR firmware). You can check the camera firmware version in the VERSION column.

- Added camera is displayed on the bottom of the menu list. To edit the connection settings of the camera, press



the button in EDIT column.

A screenshot of the 'Edit Camera' dialog box. It contains fields for Camera Name (Gfds), IPv4 (192 . 168 . 43 . 129), Port (9008), Protocol (IP Camera), Model (TD-9521E3), Username (root), and Password (masked with dots). There is a 'Sync to IPC' checkbox and buttons for 'Test', 'OK', and 'Cancel' at the bottom.

- If you are having problems connecting to the camera, you must enter the correct user name in the USER NAME and password in the PASSWORD field and then press the OK button to save the settings.
- NOTE!** It should be borne in mind that if the camera password is changed from the level of e.g. a web browser, the newly defined password must also be entered in the recorder. Otherwise, after a longer time from changing the password or after restarting the camera or recorder, the communication between the camera and the recorder will be lost. This is especially important for cameras with firmware version 5.1.0.0 and newer. These cameras do not have a defined default password (it means that the cameras are not activated by default), a new strong password should be defined when connecting to the camera for the first time. Without defining a new strong password, the camera configuration from the web browser will not be possible.
- If the NVR connected to the camera in STATUS filed will be displayed "Connected".



- To remove a camera from the list, press the in DELETE column.

RECORD SETTINGS:

This tab allows to set the recording mode. You can set the mode to Auto or Customization. In the Customization mode the user needs to manually set recording schedules for each channel. The Auto mode sets one of the following modes to all cameras:


- MOTION RECORD – starts recording after receiving motion detection information from the camera.
- SENSOR RECORD – starts recording after alarm generated on alarm input.
- MOTION RECORD + SENSOR RECORD – starts recording after motion detection alarm and after alarm from alarm input.
- ALWAYS(24×7) RECORD + MOTION RECORD – continuous recording and recording after receiving motion detection information from the camera.
- ALWAYS(24×7) RECORD + SENSOR RECORD – continuous recording and recording alarm generated on alarm input

- ALWAYS(24x7) RECORD + MOTION RECORD + SENSOR RECORD – continuous recording and recording alarm generated on alarm input and after receiving motion detection information from the camera.
- ALWAYS(24x7) RECORD + MOTION RECORD + SENSOR RECORD + AI RECORD -continuous recording and recording alarm generated on alarm input, motion detection information and after receiving Intelligence Analysis from the camera.

Click on the **ADVANCED** button to create your own combination of recording modes.

The screenshot shows a 'Wizard' window with a breadcrumb trail: Network Settings > Add Camera > Disk Mode > Record Settings > QRCode > Cloud Upgrade. The 'Record Settings' tab is active. It features a 'Mode' dropdown menu set to 'Auto'. Below this, there are seven radio button options for different recording modes. The last option, 'Always(24x7) Record+Motion Record+Sensor Record+AI Record', is selected. An 'Advanced' button is located below the radio buttons. At the bottom right, there are three buttons: 'Previous', 'Next', and 'Cancel'.

QR CODE:

This panel allows you to scan the QR code in the N-VID6 application or enter the device code on autonat.com to connect to a device connected to the Internet behind a NAT-equipped router. To add devices to the list of devices associated with the account in the mobile application, use the security code displayed after clicking  on the button.

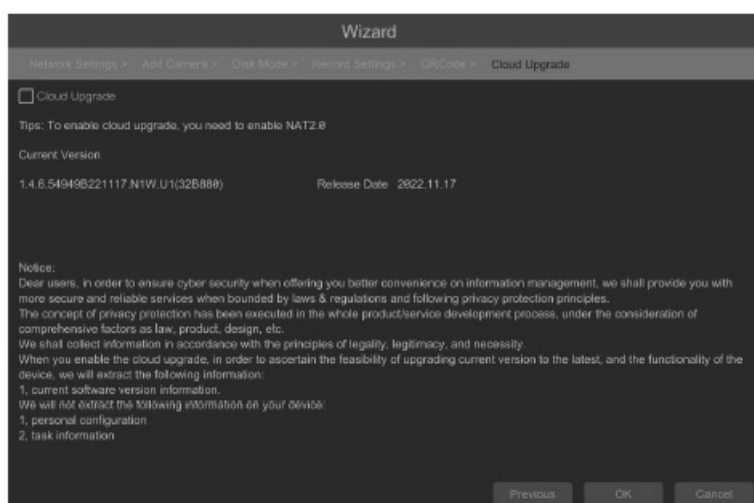
- In the ACCESS TYPE field, you can select the type of P2P service to be used by the device. It is recommended to set the NAT 2.0 setting. This service offers greater security by encrypting connections between the NVR and the P2P server.



- **NOTE!** The AAT SYSTEMY BEZPIECZEŃSTWA Sp. z o.o. company constantly cares for the proper functioning of the P2P service, however, due to the use of third party infrastructure, it cannot be held responsible for interruptions and inconveniences in the operation of the service.

CLOUD UPGRADE:

This panel allows to enable updating the device from the cloud. This option is available only if NAT 2.0 is selected for P2P connections. The current version of the software installed in the NVR is displayed in the CURRENT VERSION field. To start the update, select the CLOUD UPDATE checkbox and press the OK button to save the settings and close the wizard.



NVR MENU




Live view




- NOVUS network video recorders have a multilingual OSD menu that allows to adjust the device settings. Available languages are: English, Polish, and others
- After the initialization process is completed, live images from the cameras are displayed on the monitor screen.
- The device status bar is displayed at the bottom of the screen.












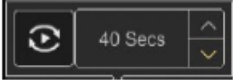
- To start access to the NVR click on the  button to launch the start menu.
- Then log in to the system (the default password for the root user is a pass).












Start menu description:

Item	Icon	Description
Intelligent Analytics	 Intelligent Analytics	Starts the image analysis menu
Search and Backup	 Search and Backup	Starts search and backup
Playback	 Playback	Launches the playback menu with the displayed channels

Item	Icon	Description
Settings	 Settings	Click to run configuration of NVR parameters
Logout	 Logout	Starts playback menu
Shutdown	 Shutdown	Starts backup menu


Menu bar icons:

Item	Icon	Description
Start		Click to open start menu
Full screen		Switches video view to full screen
Single view		Start displaying camera in single view
Quad view		Start displaying 4 cameras in video view
9 cam. View		Start displaying 9 cameras in video view
16 cam. View		Switch between 16-screen splits
Other divisions		Opening video subdivisions
Other divisions		Open 1 main + 5,7 or 12 additional views, and 25,32,36 division view
Dwell		Starts displaying images in sequence
Dwell settings		Start/Stop time setting switch

Item	Icon	Description
OSD ON/OSD OFF		Turns on/off OSD information
Playback		Starts playback for displayed cameras
Manual Record		Turn on / off manually recording channels.
Manual Alarm		Allow to trigger the alarm manually.
Recording Status		Displays information about the recording
Alarm Status		Displays the status of alarm devices
Open Broadcast		Send audio broadcast to cameras
Disk Status		Information about disk status
Network status		View information about network usage
Device Information		Displays information about the state of operation of the basic components of recorder
Cloud Upgrade		Starts cloud upgrade menu

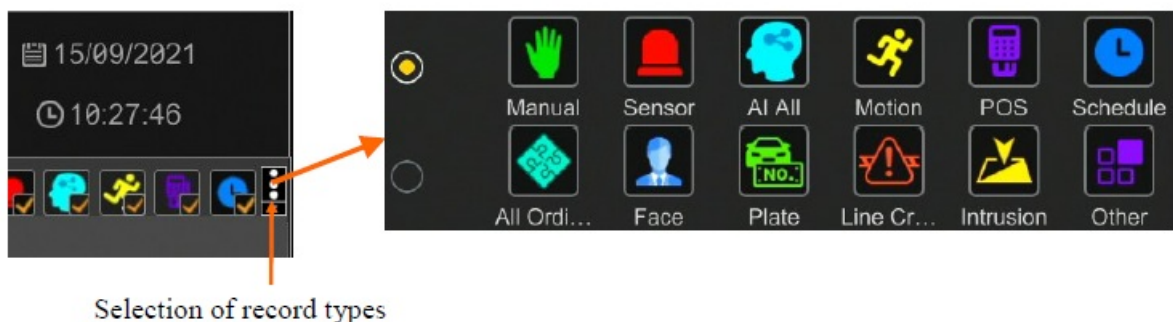
The event menu displays the detection events of people, faces, vehicles, face recognition, license plate, etc. Detailed information about configuration, service and installation of device is available in full version of user's manual located on the www.novuscctv.com

Search and playback of recorded video

- To start playback of recorded material, select the button  to play in the live view, you will see the window below:







- Select the desired date on the calendar and press the OK button. The recordings available for the selected day displayed in the graph. The colors of the recording bars indicate the type of recordings.
- To select the type of recordings, click on the selection button on the right side of the icons, selected record types.

























- When you click, a window appears that allows to select the types of recordings arranged in two groups.

Item	Icon	Description
Manualy		Displays the recordings made in manual recording mode
Sensor		Displays alarm recordings from alarm inputs
All AI		Displays recordings triggered by all types of intelligent image analysis alarms
Motion		Displays recordings triggered by motion detection
POS		Displays recordings triggered by POS events
Schedule		Displays schedule triggered recordings
All Ordinary		Displays recordings triggered by all events not related to intelligent image analysis.
Face		Displays recordings triggered by face recognition
Plate		Displays recordings triggered by board recognition
Line Crossing		Displays events triggered by line crossing
Intrusion		Displays the events caused by the partition violation
Other		Displays recordings triggered by other recognized intelligent image analysis.

The following options are available in the display options:

Item	Icon	Description
Full Screen		Displays video images on the entire menu screen
OSD		Enable / Disable NVR OSD display
Display Mode		Sets the number of divisions available in the playback menu
Camera		Selects the channels to be displayed

The following options are available in the recovery options:

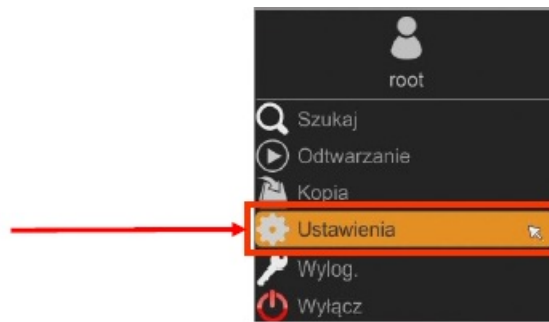
Item	Icon	Description
Stop		Stop video playback
Rewind	 	Rewind / Pause video "rewind"
Play	 	Play/Pause video record
Decrease / Increase the pace	 	Allows to change the playback speed
Normal speed		Switches playback to normal speed
Previous/Next frame	 	Display the next / previous frame
Previous / Next 30 seconds	 Poprzedni...  Następne...	Display of recordings +/- 30 seconds
Playback information	   	Information about the current speed mode
Smart Playback		Launches the smart playback panel
Event/Tag		Lists of recordings / tags
Water Mark		Enables / Disables the display of the watermark
POS		Enables / Disables the display of POS information
Backup		Opens the recordings backup window
Exit		Exit from the recordings playback menu

NOTE! Please note that if you change the camera password from the level of e.g. a web browser, you must also enter the newly defined password in the recorder. Otherwise, after a long time after changing the password or after restarting the camera or recorder, communication between the camera and the recorder will be lost. This is especially important for cameras with firmware version 5.1.0.0 and later. These cameras do not have a defined default password (this means that the cameras are not activated by default), a new strong password must be defined when connecting to the camera for the first time. Without defining a new strong password, it will not be possible to configure the camera from a web browser.

Changing the menu language

- If after NVR booting up the currently selected menu language is different than expected, to change it, please follow the steps below:

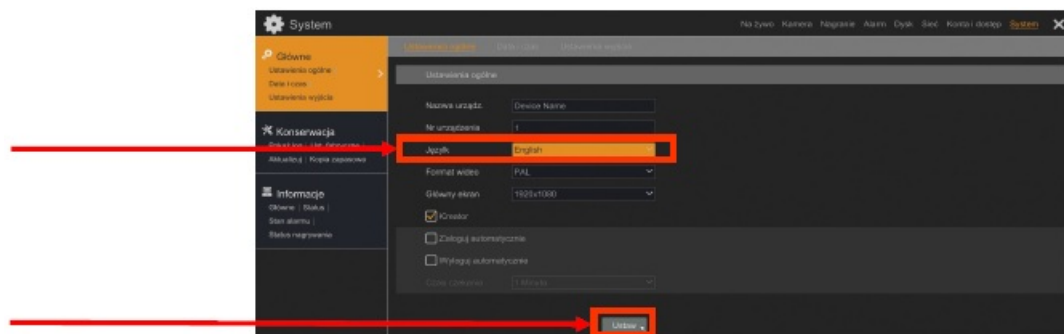
- Click-on bottom left  on start menu button .
- Then select menu options to open (third from the bottom)



- Select the tab SYSTEM in the NVR menu,



- In the displayed menu, select the English language in the third box from the top and click the button on the bottom menu.





- After saving settings, the language is switched to English.



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- www.novuscctv.com

Documents / Resources

<p>Quick start guide</p>  <p>NVR-6408-H1/F-II</p> 	<p>NOVUS H1-F-II Channel IP Recorder [pdf] User Guide</p> <p>H1-F-II Channel IP Recorder, H1-F-II, Channel IP Recorder, IP Recorder, Recorder</p>
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References

-  autonat.com
- **N** [NOVUS Professional solution for your security systems | Video surveillance \(CCTV\), Access control](#)
- **N** [NOVUS Profesjonalne rozwiązanie dla systemów zabezpieczeń | Telewizja przemysłowa CCTV, Kontrola dostępu](#)
-  [NOVUS Profesjonalne rozwiązanie dla systemów zabezpieczeń | Telewizja przemysłowa CCTV, Kontrola dostępu](#)
- [User Manual](#)