## user's manual

NVR-7308P8-H2 NVR-7316P8-H2 NVR-7524P8-H4 NVR-7716P16-H2







## IMPORTANT SAFEGUARDS AND WARNINGS

#### EMC (2004/108/EC) and LVD (2006/95/EC ) Directives

# C CE Marking

• Sour products are manufactured to comply with requirements of following directives and national regulations implementing the directives:

- Electromagnetic compatibility EMC 2004/108/EC.
- Low voltage LVD 2006/95/EC with further amendment. The Directive applies to electrical equipment designed for use with a voltage rating of between 50VAC and 1000VAC as well as 75VDC and 1500VDC.

## WEEE Directive WEEE 2012/19/EU Electrical and Electronic Equipment

## Information on Disposal for Users of Waste

This appliance is marked according to the European Directive on Waste Electrical and Electronic Equipment (2002/96/EC) and further amendments. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product.

The symbol on the product, or the documents accompanying the product, indicates that this appliance may not be treated as household waste. It shall be handed over to the applicable collection point for the waste electrical and electronic equipment for recycling purpose. For more information about recycling of this product, please contact your local authorities, your household waste disposal service or the shop where you purchased the product.

#### RoHS Directive RoHS 2011/65/EU

**Rolls** Concerning for human health protection and friendly environment, we assure that our products falling under RoHS Directive regulations, regarding the restriction of the use of hazardous substances in electrical and electronic equipment, were designed and manufactured in compliance with mentioned regulation. Simultaneously, we claim that our products were tested and do not contain hazardous substances exceeding limits which could have negative impact on human health or natural environment.

# EAC

#### Information

The device, as a part of professional CCTV system used for surveillance and control, is not designed for self installation in households by individuals without technical knowledge.

The manufacturer is not responsible for defects and damages resulted from improper or inconsistent with user's manual installation of the device in the system.

#### ATTENTION!

PRIOR TO UNDERTAKING ANY ACTION THAT IS NOT PROVISIONED FOR THE GIVEN PRODUCT IN ITS USER'S MANUAL AND OTHER DOCUMENTS DELIVERED WITH THE PRODUCT, OR THAT ARISES FROM THE NORMAL APPLICATION OF THE PRODUCT, ITS MANUFACTURER MUST BE CONTACTED OR THE RESPONSIBILITY OF THE MANUFACTURER FOR THE RESULTS OF SUCH AN ACTION SHELL BE EXCLUDED.

## IMPORTANT SAFEGUARDS AND WARNINGS

- 1. Prior to undertaking any action please consult the following manual and read all the safety and operating instructions before starting the device.
- 2. Please keep this manual for the lifespan of the device in case referring to the contents of this manual is necessary;
- 3. All the safety precautions referred to in this manual should be strictly followed, as they have a direct influence on user's safety and durability and reliability of the device;
- 4. All actions conducted by the servicemen and users must be accomplished in accordance with the user's manual;
- 5. The device should be disconnected from power sources during maintenance procedures;
- 6. Usage of additional devices and components neither provided nor recommended by the producer is forbidden;
- 7. You are not allowed to use the device in high humidity environment (i.e. close to swimming pools, bath tubs, damp basements);
- 8. Mounting the device in places where proper ventilation cannot be provided (e. g. closed lockers etc.) is not recommended since it may lead to heat build-up and damaging the device itself as a consequence;
- 9. Mounting the device on unstable surface or using not recommended mounts is forbidden. Improperly mounted device may cause a fatal accident or may be seriously damaged itself. The device must be mounted by qualified personnel with proper authorization, in accordance with this user's manual.
- 10. Device should be supplied only from a power sources whose parameters are in accordance with those specified by the producer in the devices technical datasheet. Therefore, it is forbidden to supply the devices from a power sources with unknown parameters, unstable or not meeting producer's requirements;
- 11. You cannot allow any metal objects get inside the recorder. It might cause serious damage. If a metal object gets inside the device contact the authorised Novus service immediately.
- 12. The manufacturer does not bear responsibility for damage or loss of data stored on HDDs or other media occurred during the usage of the product.

Due to the product being constantly enhanced and optimized, certain parameters and functions described in the manual in question may change without further notice.

We strongly suggest visiting the www.novuscctv.com website in order to access the newest manual.

Technical changes reserved without prior notice and printing errors possible.

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#### **1. NVR MENU**

#### 1.1. Language change

After starting device, the video output default to multi-window output mode. By default NVR is using English language interface.

To change language please follow the procedure like below:

• Move mouse cursor to the bottom of the screen and click ricon to display main menu. Next select A and B.



• New window will appears, from selection C choose required language and confirm by button D.

· · · · · · · · · · · · · · · · · · ·
*
· · · · · · · · · · · · · · · · · · ·
wy
Zapisz

• In pop up window you have to confirm again by E button.

Nazwa urządzenia		
Adres urządzenia	1	
Rozdzielczość	1280-720	•
Język		
Urządzenie wyś		
Blokada automa Język zo Woldolo oudio przełado	ostał zmieniony, interfejs zostanie wywany!	
		- E
	<mark></mark> Wyświetlaj kreator początkow	m -
	Domyślnie	Zapisz

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After that GUI Interface will be reloaded and menu language will be applied.

#### **1.2. System operations**

To start NVR plug power cable and switch on power button. The power led turns on. After booting, the video output default to multi-window output mode.

By default local authorization of NVR is disabled so you can manipulate NVR without any username or password. After configuring NVR it is strongly recommended to set up user password.

Default login is root/pass. For safety reasons, it is recommended to change default user name and password.



In order to shutdown or reboot NVR you should move cursor to the bottom icon 1 or click the right key of mouse and select *Start* icon 1. Next click the *System Maintenance* and *System Shutdown*. You could also use button at front or rear panel turn bring shutdown menu.

In pop-up window choose Logout, Shutdown or Restart and wait until it will be finish.

To prevent unauthorized access, it is recommended to log out when you leave the screen, or set up *Autolock* feature.

Note:

When user is not login or has limited rights all inactive icon and menus are greyed out.

#### CAUTION:

If you turn off the system in an abnormal manner such as removing the power cord while the system is working, the disk will acquire or increase the numbers of bad sectors, causing data loss and shortened life cycle of the disk.

While NVR is log out there would be displayed live view or defined sequence.

To be able to operate NVR need to log in first. Bring up login window by clicking anywhere on screen. Then would be displayed window as below:



Choose user name which you would like to use and type password by virtual keyboard. While you click in password field keyboard would be displayed automatically.



To change keyboard layout to digit or special characters click "abc" button, opposite password field. It will change querty keyboard (abc) > characters (.;) > digits (123) and so on.

#### **1.3. Live monitoring**

Novus network video recorders features a multilingual OSD menu allowing for adjusting the settings of the device. Available languages are: English, Polish, and others

As soon as the NVR completes its initialization process, it will enter the real-time monitoring image. Displaying all cameras simultaneously is the default mode. On the bottom of screen STATUS BAR is displayed.



Single click at video channel will display CHANNEL MENU. At the right top right corner of video channel, shows its channel number. In the bottom right corner of each channel image, shows capture recording status icon (motion, alarm, manual).

STATUS BAR description:

ltem	lcon	Description
Start	<b>~</b>	Click to run fast configuration of main NVR parameters
Login /Logout	4	Click to login/logout the system
Alarm	þ	Display the alarm information and recording events.
Network		On mouse cursor display IP/MAC of device, on click open network diagnose/repair window

eng

Right mouse click on screen will bring QUICK MENU for quick operation. QUICK MENU description:

Item	lcon	Description
Volume	<b>▼</b>	Click to enable/disable audio
Information	ø	On mouse cursor display current device temperature
Fast Playback	Δ	Click to start playback of latest 5minutes recording
Split Screen	<∷>	Click to change split screen mode, click right/left to change channels
HDD status	<b>⊡</b> 53%	XX% informs about usage/free space of all storage, on mouse cursor display capacity and days amount which could be stored on free space. On click open HDD manage window.
QR codes		Click to open QR codes window, one to get mobile software, and second is serial number of NVR to easy connect NVR
Lock menu bar	1	Click to enable/disable auto hide of status bar

Item	lcon	Description
Data Inquiry	ď	Move to the playback screen, which allow to search and watch recordings.
PTZ Control	-	Move to the PTZ screen. You can control the PTZ operations of a PTZ - c ompliant camera on the PTZ screen.
Digital Zoom	<b>⊕</b>	Allow to zoom in picture of selected channel
Video Adjust	† <b>!</b> †	Menu allow to adjust image parameters for selected channel
Output Mode	INCO	Menu allow to adjust monitor color parameter
Preview Effect	<b>:</b>	Allow to set up priority fluency or reduce delay
Shutdown	G	Shut down NVR
Main Menu		Enter to the NVR Main Menu

Left mouse click on video	o channel v	vill display Channel menu.			
Item	lcon	Description			
Digital zoom	đ	Allow to zoom in picture of selected channel			
Video adjust		Menu allow to adjust image parameters for selected channe			
Manual record		Enable/Disable manual recording of selected channel.			
Quick playback	٥	Go to fast playback (5minutes before) of selected channel			
Channel information		Displays channel information window			

#### CALLENDAR

#### GRAPH WITH RECORDING



#### 1.4. Searching and playing recorded video

To start the playback choose Data Inquiry menu and Time Inquiry. Then following window appears:

Choose the date from the calendar and press *Inquiry* button to find records for selected date.

You can identify the type of the recording data by the color in the bar.

- Green (Manual) : data originating from manual recording.
- Blue (Schedule) : continuous recording data.
- Yellow (Motion) : motion event recording data.
- Red (Alarm) : alarm event recording data.

To play the searched data simply double click a desired point on or press Play button.



On calendar you can easy change playback range. Use GRAPH ZOOM buttons to expand displaying graph on screen. Graph is displaying sum of each channel available recordings. Use playback buttons to operate recordings. Description of PLAYBACK BUTTONS:

- Slow backward: Slow down the backward speed. (there are: 1/2)
- Fast backward: Accelerate backward. (there are: 2, 4, 8, 16 times)
- Pause/Play: Pause the current playback image.
- Fast forward: Accelerate playback. (there are: 2, 4, 8, 16 times)
- Slow forward: Slow down the playback speed. (there are: 1/2, 1/4, 1/8, 1/16 times)
- Cutting: allow to set backup up start point and end point during playback, and backup records.
- Frame Forward: Jump forward frame by frame
- Split screen switch: change split screen view
- Player minimization: decrease size of player navigation window

Time	Inquiry	Data Mgr				
<ul> <li>Oct</li> </ul>	• •2	2015 2015-10-06				
S 1	2345	6 🗾 All 🚺		7 8 9	10 11 12	
4 5	<b>9 80 1 8</b>	9 10 17				
11 12	13 14 15 16 20 21 22 2	6 17 🔛				
25 26 2	27 28 29 30	0 31 Mode	All			Inquiny
СН	Mode	Time		Size	HDD NO.	Status
CH01	All	2015-10-06	00:00:00-11:26:24	19.66GB	HDD01	υÞ
□ CH01	All	2015-10-06	11:26:39-11:56:36	1.30GB	HDD01	U
CH02	All	2015-10-06	00:00:00-11:26:24	19.99GB	HDD01	U
CH02	All	2015-10-06	11:26:42-11:56:23	882.38MB	HDD01	U
CH03	All	2015-10-06	00:00:01-11:26:23	19.94GB	HDD01	U
CH03	All	2015-10-06	11:26:43-11:56:24	886.40MB	HDD01	U
CH04	All	2015-10-06	00:00:00-10:57:10	18.82GB	HDD01	U
CH04	All	2015-10-06	10:57:25-11:26:26	850.50MB	HDD01	U
CH04	All	2015-10-06	11:26:43-11:49:16	656.74MB	HDD01	U
CH05	All	2015-10-06	11:34:01-11:36:50	25.89MB	HDD01	U
and the second	1/2	Co To 0	Look(L)	1 Lin	lock(II)	Delete

To manage recording Data Inquiry menu and Data Mgr. Then following window appears:

*Data manager* allow to search records according to event type. To find records choose channel, date from calendar and recording mode (motion, alarm, etc.) and press *Inquiry* button. After searching list will be displayed, including recording mode, size and time information.

Double click selected item on list will start playback of current record.

You could lock selected item by using *Lock* button, then record wouldn't be removed during disk overwrite. Lock status is displayed in *Status* column. *Unlock* button remove lock status from file.

By using *Delete* button you could permanently remove selected record from disk.

#### 1.5. PTZ Control

PTZ button opens new window which allows to control the operations of a selected PTZ camera.

To start the PTZ click RMB on selected camera and choose icon. Then following window will shown:



Use it to adjust the pan, tilt, focus, zoom and iris of the camera. You can also move mouse to the right, left, top, or bottom side, then camera will start movement automatically.

Menu also allow to run and set Preset etc. Switch button open advanced PTZ option.

Note: Not every camera model and network protocol allow to control camera remotely.

#### 1.6. Digital Zoom

Allow to zoom in picture of selected channel. Use navigation border in bottom right corner to set required region. To zoom in/out use mouse scroll, or slider on the left side.



#### 1.7. Video Adjust

Menu allows to camera image settings: user can set the brightness, contrast, saturation remotely in associated camera.



Note:

Not every camera model and network protocol allow to change all camera settings remotely.

#### 1.8. Output Mode

Menu allows to change mode of output image (to monitor) depending of user requirement.



Choose picture style the best for ambient conditions and save it by Confirm button.

#### NVR MENU

#### 1.9. Preview Effect

Menu allows adjust display to get better fluency or decrease delays.



#### 1.10. Shutdown

Menu allows to shutdown NVR in safe way. After click *Shutdown* there would be displayed question to confirm. When it's done it would be confirmed by popup message, then you could cut the power.

#### 1.11. Main menu

Open the MAIN MENU which allow to configure various system parameters. Details of it are described in next chapter.

							Canal Instal Lana		-	
All					5 6 7 8			14 15 1	6	
Inquire	e Time		2015-1	0-06 00	- 00:00	2015-10-	06 23:59:	59		
Dev T	уре		HDD	-		File Status	s All	•		
						Mode	All	-	Inquiry	
Backu	p Device				Format	Free space	ce: 0.00KB		1.15	Ξ.
File S	ave Typ	e	DAT	•	Quick Backup				•	
SN	СН	Mode		Time	Contraction in the local division of the		Size	Device	Status	
01	CH01	All		2015-10-0	6 00:00:00-11	:26:24	19.66GB	HDD01	U	
02	CH01	All		2015-10-0	6 11:26:39-11	:57:09	1.32GB	HDD01	U	
03	CH02	All		2015-10-0	6 00:00:00-11	:26:24	19.99GB	HDD01	U	
04	CH02	All		2015-10-0	6 11:26:42-11	:57:00	901.03MB	HDD01	U	
05	CH03	All		2015-10-0	6 00:00:01-11	:26:23	19.94GB	HDD01	U	
06	CH03	All		2015-10-0	6 11:26:43-11	:56:54	901.51MB	HDD01	U	
07	CH04	All		2015-10-0	6 00:00:00-10	:57:10	18.82GB	HDD01	U	
08	CH04	All		2015-10-0	6 10:57:25-11	:26:26	850.50MB	HDD01	U	
0 09	CH04	All		2015-10-0	6 11:26:43-11	:49:16	656.74MB	HDD01	U	
<b>□</b> 10	CH05	All		2015-10-0	6 11:34:01-11	:36:50	25.89MB	HDD01	U	
F	lay	)				1/2	0	Go T	o (	>
Backup	Cap. 1					Schedu	e Backup	Manual B	ackup	

#### 2. NVR CONFIGURATION

Main Menu allow to configure various NVRs parameters. It is divided on 9 section. To start Main Menu use icon **^**. Table below show short description each of it:

ltem	lcon	Description
Data Inquiry	O	Menu allows to search and playback window recordings. Also allows to manage records on disks.
Backup	Ð	Backup window, allows set up direct backup and scheduled backup.
Record	m	Menu allows to set up recording parameters and schedule.
Alarm		Menu allows to configure alarm events (motion, sensor, system) and reactions.
IPC Management	<b>()</b>	Allows to manage IP cameras: add, remove, change basic values of it.
Setting Management	\$	Enter to the NVR setup, set language and parameters of: Monitor, Time, Ports, PTZ, Network.
Record	3	Menu for configuration NVR storage .
Sys. Info	III	Displays detailed information about device, channel & alarm status, power consumptions, logs, etc.
System maintenance	ze	Menu allows to manage Quick settings, User Account, Set up and Back up configuration, upgrade and shut down system.

**2.1. Data Inquiry** - menu allows to search and playback window recordings. Also allows to manage records on disks. Description of it is in chapter 1.4.

2.2. Backup - To backup recording go to Main Menu and Backup. Then following window appears:

• *Manual Backup* allow to search records according to event type and date. To find records choose channel, device type, time range, file status and mode (motion, alarm, etc.) and press *Inquiry* button. After searching list will be displayed, including recording mode, size and time information.

Double click selected item on list will start playback of current record.

To backup records need to select them from the list, choose *Backup Device* (you need to plug it into NVR before), and select required File Type.

Quick backup button will start coping all files from the list to backup device.

Manual Backup button start coping only these files, which was previously selected from the list.

There is also possible to playback in NVR, records stored on USB flash disk or other external device. To do that need to select *Device Type*: USB and search records. After searching list will be displayed, double click record to playback.

• *Schedule Backup*. To open it choose *Schedule Backup* button from *Backup* window. Then following window appears:

🥪 Open Schedule Backup Function		
Schedule Backup Channel		
💌 All 🚺 🚺 🛃 🖪	5 6 7 8 9 10	11 12 13 14 15 16
Schedule Backup Record Mode	All	-
Schedule Backup Time	All	▼ 0 AM ▼
Schedule Backup Device	USB06	-
File Save Type	DAT	<b>~</b>
		•
No available backup device or the o insert or select backup device agair	levice you secleced does n and save!	ot exist. Please Save

*Schedule Backup* allow to copy video record from last 24 hour from selected channels according to selected *Record Mode*. To set up backup you need to choose *All* day and hour when backup will start. Need to choose device to copy data and file type.

While copy time is present, it will start cooping from last 24 hour to selected storage, please remember to use storage with enough free space for coping data.

2.3. Record - menu contains video parameters, manual video and schedule parameters.

**2.3.1. Record Para.** - setting of streams parameters for every channel. Configuration is set up remotely in camera, associated to the selected channel.

	Record Para.
Channel No.	CH01 -
Stream	Mainstream 👻
Resolution	2048+ 1536 👻
Image Quality	Highest 👻
Frame Rate	12 👻
Bitrate Type	VBR 🗸
Bitrate	7M 👻
🛹 Audio	
Pre-record(5–30s)	10
Delay_REC(0–180s)	30
	Refresh Save

After selecting *Channel No.* and *Stream* following parameters are available:

- *Resolution:* there is list of resolution available for current camera
- *Image Quality:* select different image quality as needed (for VBR mode).
- *Frame Rate:* select different value from the drop-down list.
- *Bitrate type:* select between CBR(constant) and VBR(variable).
- *Bitrate:* compression value for camera's current stream
- *Audio:* enable audio in camera.
- *Pre record:* time of recording before event.
- *Delay record:* time of recording after event.

After changing parameters click *Save* button and wait until confirmation message occurs.

#### Note:

Not every camera model and network protocol allow to change all camera settings remotely.

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 Manual

 Image: All Imag

2.3.2. Manual - menu allows to quick change of manual recording of selected channels.

**2.3.3. Schedule** - setting continuous record plan for each channel.

Schedule	×	
Channel No. CH01 -		
All ✓ Mon. ✓ Tues. ✓ Wed. ✓ Thur. ✓ Fri. ✓ Sat. ✓ Sun. 00:00, 03:00, 06:00, 09:00, 12:00, 18:00, 21:00, 24:00	6	
Copy Reset Default Save		
余 👤 🚊 🖓 🐠 💋 🧲 🎛 እ 🛆 0% 12:52:11 闘 🖈	8	

After selecting *Channel No*. set up schedule of selected channel. You could set up for each day independent time range or use *All* to set up the same for all days.

After changing parameters click Save button.

By using *Copy* button you can copy current settings to other required channel. Please remember to click *Save* current channel, before copy to other channels.

Reset Default button restore all setting of current channel to factory default.

2.4. Alarm - menu allow to define various events, and specify the conditions to notify the user.

**2.4.1. Motion** - menu allows to configure schedule of motion recording and rules of the built-in camera motion detection function. Configuration of motion rules is set up remotely in camera, associated to the selected channel.

		Motion	×
Channel No.	CH01 🗸	Continuous Alarm	
Sensitivity	Highest 👻	Motion Area	
All			
Mon.			
🛹 Tues. 🛛 📗			
🥪 Wed. 🛛 📗			
🛃 Thur. 🛛 📗			
🛃 Fri. 🛛 🛄			
🛃 Sat. 🛛 📗			
🛃 Sun. 📗			
00:00			
		Ref	resh
Linkage Sett	ing Copy	Reset Default Si	ave

After selecting *Channel* following parameters are available:

- *Continuous alarm*: Tick the checkbox will enable continuous alarm, it will active whole time during motion.
- *Sensitivity*: set the sensitivity of detection
- *Motion Area*: select the motion detection area, press the left mouse button and drag to the area which you want to set motion detection, click LMB to return..
- *Schedule*: set the time intervals when alarm is active.
- *Linkage Setting*: select the system reaction for current alarm.

				L	inkag	je Se	etting									×	
τı	rigger Record			13	2 14	3 15	4 16	5	6	7	8	9	10	11	12		
A	larm Output																»
	Email Linkage	set Point								,	•						
						I											
A 1	🛎 🗔 🔹	🔎 🕩 <	( 88 >	A 09	6	12	:56:	17			2						8

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Available reaction are: System alarm out (always active). Trigger recording, Alarm output activation, Email, PTZ function.

By using *Copy* button you can copy current settings to other required channel. Please remember to click *Save* current channel, before copy to other channels.

Reset Default button restore all setting of current channel to factory default.

Note:

Not every camera model and network protocol allow to change all camera settings remotely.

**2.4.2. Sensor** - configuration of the alarm sensor and specify the operation of the sensor if an event occurs.



After selecting Alarm Input following parameters are available:

- Sensor Type: You can specify the type of the alarm sensor, Normal On or Normal Off
- Sensor No.: number of alarm input.
- Sensor Name: you can specify the name of the alarm sensor
- *Schedule*: set the time intervals when alarm is active.
- Linkage Setting: select the system reaction for current alarm.



Available reaction are: System alarm out (always active). Trigger recording, Alarm output activation, Email, PTZ function.

By using *Copy* button you can copy current settings to other required channel. Please remember to click *Save* current channel, before copy to other channels.

Reset Default button restore all setting of current channel to factory default.

2.4.3. Alarm output - configuration behaviour of the alarming message for operator.

		Alarm Output		
Alarm Duration(2	–300s)	30		
🛹 Audio	Buzzer	Full Screen		
🗾 All 🔛				
Mon.				
Tues.				
Wed.				
Thur.				
📕 Fri. 🛛 🛄				
Sat.				
Sun.				
00:00	03:00 06:00 09	:00 12:00 15:00	18:00 21:00	24 :00
		Res	et Default	Save
			00	

- *Audio* enable sound message (audio out)
- *Buzzer* enable internal NVR buzzer
- *Full Screen* enable camera full screen view
- Alarm duration time of alarming
- *Schedule*: set the time intervals when alarm is active

Other Alarms	<
Alarm Type HDD Error V Enable Alarm	
	6
Alarm Linkage	
Email Linkage	
Reset Default Save	
☆ 上 並 □ → Ø ▷ く 田 > △ 0% 12:57:29 闘 ★	8

2.4.4. Exception - configuration of the alarm system events and specify the alarm reaction.

Select *Alarm Type*, Tick *Enable Alarm* to activate it and configure the reaction way for it which you need. Available types and possible problems are:

- *HDD Error*: When there is HDD read and write fault or smart alarm.
- *Video Lost*: When there is no video signal.
- *Network disconnect*: When there is network broken alarm.
- *Over Temperature*: When internal temperature inside NVR is to big.
- *HDD Full*: When there is no free space in the HDD.
- *PoE conflict*: When there are the same IP address on few devices connected to PoE ports.

Available reaction are (depending of alarm type): System alarm out (always active), Alarm output activation, Email.

Reset Default button restore all setting of current channel to factory default.

2.4.5. Manual Alarm - menu allows to enable specified alarm output.

To activate alarm select in on the list and press Triggered button.

To deactivate alarm select in on the list and press Clear button.



**2.5. IP Camera Management:** menu allows to manage IP cameras connected to the system. After opening menu following window appear:

Selection A is search part. While opening menu it will automatically discover IP Cameras and list them. Press *Discover* button to search again. List of cameras include information like below:

S.N.	IP Address	Resolution	Status	Preview	Connecting
01	192.168.3.11	1280+720	2	0	+
02	192.168.3.20	0*0	2.		÷
03	192.168.3.21	2592+1944	2	•	÷
04	192.168.3.22	0*0	<b>.</b>		+

- *S.N.* number of camera
- IP Address
- Resolution
- *Status* green *scale camera* is ready to connect, red **scale camera** need to provide password to connect
- *Preview* display camera screenshot
- *Connecting* press + to connect camera to the system

Selection B is IP Channel part. List of cameras added to system include following informations:

IP CH	IP Address	Status	Diagnosis	Information	Edit	
CH09	192.168.3.19	8	ę.			Ī
CH10	192.168.3.18	8	ę.			1

- *IP CH* number of channel, if it connected to NVR PoE port, there is information about it.
- IP Address
- Status green mean camera is connected, red mean camera is not connected
- *Diagnosis* if camera is not connected press it and click *Start test*. After finishing result will be displayed with reason of connections problems.

Note

In case of using Diagnose please provide correct username/password. If camera password is obtain automatically diagnose could not work properly.

- *Information* display detailed information about current camera.
- *Edit* menu allows to change IP address of camera (directly in camera), update user name and password.
- *Delete* remove camera from system
- *Smart Access* button allows to quickly add all cameras which status are green. After clicking it, system assign cameras to the all empty channels of NVR.
- *Manual Add* button allows to add a specified camera manually. After clicking it, new window appear, need to choose empty channel, provide camera IP address, username and password.

		Device Parameters	××
C	IP CH	IP01 👻	
C.	Dev Type	PC	
c	IP Address	192.168. 1 . 0	
C	Protocol	ONME .	
C	Port		
	Authentication	root	14
LI C	Password		
c c			
¢ -			
		Add	
۵			
A 1 1	•• •• •• <b>\</b>	13.20.32	16

• *Bitrate Mgr*: menu allows to modify mainstream and substream values. Stream size could be chosen by user for each stream. After changing value, confirm it by Save button. It is also possible to set streams size automatically by using *Smart Config* button. After pressing button streams would be set according to current image resolution and frame rate. At the bottom of screen there are displayed information about available bandwidth for recording camera and amount of days, which could be stored on HDD free space.

itrate Substream Bitrate	
✓ 1M	
✓ 512K	
✓ 512K	
M	

• *Delete all*: remove all cameras from system

There are two possibility to connect IP cameras:

Camera is connected to build-in PoE switch. In such situation camera will be automatically discovered and added to NVR at channel corresponding to PoE port of NVR (A selection). Also no need to provide camera password if it's camera default password. If you modify password you have to fill it in by clicking *Edit* channel. I it will also fit to other cameras it would be automatically used for them. Please note that only first 8 channels are working this way.



Note:

NVR has included automating camera IP assign. If IP conflict will be detected IP addresses of conflicted cameras would be changed automatically.

Camera is connected to external switch by LAN port. In such situation all cameras will be discovered and displayed as list (B). To add camera just click +, if its status is green then it would be added to the system at first empty channel (after PoE channels - C), if status would be recent then pop up window occurs to provide user name and password. In the same way add other cameras.



Note:

NVR saves password automatically. If you provide unique password while adding one camera it would be automatically used for connecting with other cameras.

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**2.6. Setting Management -** menu allow to define various system settings and network parameters.

**2.6.1. General** - menu allows to configure the settings of language, resolution and other device parameters.



Following function are available:

- *Host name* set device name
- *Host ID* set up device unique number for remote controller
- *Resolution* select the resolution most corresponding to the used monitor.
- *Language* allow to select preferred language.
- *Display Device* change display device (working HDMI and VGA in the same time)
- *Auto Lock* time interval for auto log out.
- Audio Device select type of audio input
- *Display Power On Wizard* click to enable fast configuration of main NVR parameters at NVR start

Reset Default button restore all setting of current channel to factory default.

Date	2015-10-07
Date Format	YYYY / MM / DD 👻
Time	12:59:36
Time Standard	24-hour 👻
DST	Save
MTP setting	
Auto Update	Preset Server
Server	hk. pool. ntp. org 🗾 👻
Port	123
Time Zone	GMT+08:00 -
Update Period	1 Day 👻
Manual Update	Reset Default Save

**2.6.2. Time -** user can specify the time and date setting, DST (Daylight Saving Time) settings and NTP settings.

Time setting window include time and date setting, date format and time standard. Button *DST* open new window to set up Daylight Saving Time.

		DS	т		×	
Enable						
Week:						
Start T	īme	March	*	Fourth Week	~	
		Sun.	~	01:00:00		
End T	ïme	October	~]	Last Week		
		Sun.	· · ·	01:00:00		6
Date						
Start T	īme	2010-03-28		01:00:00		
End T	īme	2010-10-31		01:00:00		
					0	
					Save	
♠ 💄 🖄 🗔 🔹 💋	▶ < 88 >	▲ 0%	12:59:52			8

To ensure proper operation, set Start Time as last Sunday of March, 1:00 AM UTC. Set the End Time as last Sunday of October, 1:00 UTC. The clocks are moved back at specified time.

NTP setting window allow to enable and configure network time synchronization. Tick the *Auto Update* checkbox to enable detection functionality. Select server from the list, ore use own, define port, time zone and update period.

After changing parameters click Save button. Use Manual Update to update time while operation it.

Reset Default button restore all setting of current channel to factory default.

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#### 2.6.3. Output

**Channel setting -** configuration of camera image and display parameters. These function are set up remotely in camera.

		Channel Setting	×
	Channel No.	СН01	
	Video Mask	Disable	
	Time Display		6
	Channel Name Display		
	Time Pos.	Video Adjust. CH	Name Pos.
		Refresh	Save
* 1	`≊ □, •) Ø ◘ <⊞>	▶ 🕰 0% 13:00:18 🔡 📌	8

After selecting Channel no. following parameters are available: Camera Name, Video Mask, Time Display, Channel name display, Time position, Video Adjust, CH name position

Note: Not every camera model and network protocol allow to change all camera settings remotely.

Seqence - configuration of camera sequence.

	Sequence	×
	Sequence	
	Sequence period(3-60)	
		6
	1/16 Go To Reset Default Save	
* ·	😐 🗔 🔹 🥠 🗩 🗲 🖽 🗲 🕰 0% 13:00:30 闘 🖈	8

To enable *Sequence* tick checkbox, next define time period, and choose split screen format. Basic on selected split screen select cameras from dropdown list, do the same way for all pages. When finish confirm it by *Save* button. To run sequence need to log out, then sequence start automatically.

**Output Mode** - menu allows to change mode of output image (to monitor) depending of user requirement. Detailed description in 1.8. chapter.

	сом	×
UART Type	RS485	~
Serial Device	PTZ	-
Baudrate	9600	-
Data Bit	8	-
Stop Bit		<b>~</b>
Parity Bit	None	
Bitrate Control	None	-
ATM Protocol	Default	-
Interface Type	RS485 Half-Duplex	~
	Reset Default Sar	ve

**2.6.4.** COM - menu allows to configure the settings of the port for remote controller and peripheral devices.

Select the serial port parameters according to requirement of connected devices. After changing parameters click *Save* button.

Reset Default button restore all setting of current channel to factory default.

**2.6.5. PTZ Setting** - menu allows to configure the settings of the PTZ parameters of connected devices.

	PT	Z Setting		×	
Channel Name	Protocol	Address Code	UART Type		
CH01	UNKNOWN	- 1	RS485	-	
CH02	UNKNOWN	- 2	RS485		
CH03	UNKNOWN	- 3	RS485	- I	6
CH04	UNKNOWN	- 4	RS485		
CH05	UNKNOWN	- 5	RS485	-	
CH06	UNKNOWN	- 6	RS485	~	
CH07	UNKNOWN	- 7	RS485	<b>~</b> ]	
CH08	UNKNOWN	- 8	RS485	- I	
Сору	-	Reset Defau	ılt Sa	ve	
		0.44 3243 3263 3			

Select the camera protocol, address and available interface. After changing parameters click *Save* button. *Reset Default* button restore all setting of current channel to factory default.

Note:

For NOVUS PTZ camera connected by ONVIF protocol no need to configure anything on this menu. All cameras using ONVIF directly for PTZ communication.

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**2.6.6.** Network - menu allows to configure network parameters of the device including email, DDNS and email setting.

**2.6.6.1.** Network setting - configuration of basic network parameters of the device. Following parameters are available:



- *DHCP*: When the DHCP box is checked, the sub-fields: IP address, gateway, subnet mask, primary DNS server, secondary DNS server will be filled in automatically.
- *IP*: enter the IP address.
- *Subnet Mask*: Enter the corresponding IP subnet mask.
- Default Gateway: Enter the corresponding gateway address.
- *Primary/Backup DNS*: Enter the domain name servers IP address.
- *NIC Mode*: select maximum speed of LAN port.
- *Backup IP*: set up parameters of backup IP (used n case when DHCP server fail).
- *Port Set*: set up ports number used for sending video data and operate by web browser.
- *Multicast Setting*: set up IP address and port number used for sending video data via multicast.
- *Network Diagnosis:* open sub menu to diagnose network connection issues and try to repair it if possible.

When open new window press *Network Diagnosis* to verify Internet connection. If it fail from some reason the result will be displayed. If problem is with NVR configuration press *Repair Network*, then system try to set up correct network values. If it not solve problem you can try to solve it yourself.

After changing parameters click Save button.

Reset Default button restore all setting of current window to factory default.

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		DDNS	×	
	Server	dyndns.com	-	
	Domain			
	Username			
	Password			
	Auto Login	Login	DDNS Test	6
	Not login			
	Domain			
			Save	
		Ĭ		
*	1 × · · · · · · · · · · · · · · · · · ·	H > (13:02:30	89 🔹	8

To Enable DDNS select server, provide domain name, username and password. Next click *Login* or tick *Auto Login* checkbox to start DDNS service. Use *DDNS Test* button to verify configuration.

Note:

Although the DVR supports dynamic IP addresses, it is advised that DDNS support should be performed at the local router that DVR is connected to. Prior configuration attempt please register the address in one of the DDNS servers supported by the device - www.dyndns.com server is advised. Prior to configuring the DDNS please contact the network administrator in order to obtain proper network parameters that are entered in this menu.

**2.6.6.3. PPPoE -** configuration of PPPOE setting.

	РРРОЕ	
Username Password		
Auto-redial	3G Dial-up	
		6
Not Connected	I! Connecting	
	Save	
☆ 1 🖄 🗔 🔹 💋 🕻	▶ < 田 > 四 0% 13:02:41 器 ★	8

To enable the PPPOE service: Input the PPPOE user name, password and click *Connecting* button or tick *Auto Redial* checkbox to start PPPoE connection.

#### 2.6.6.4. Email setting - configuration of Email account.

	Email Setting
Server Username Password	smtp.126.com
Sender Email Receiver Email	6
Port Period(1–10minutes)	3
SSL Safty Login Please use semicolon to space Email Test	e multi target email address! Reset Default Save
☆ 上 ☆ □ → ୭ ▷ < 田 > △	0% 13:02:49 B믫 🖈 8

To set up email sending configure parameters of email account. Provide parameters: Server SMTP, Username and Password, Sender Email, Receiver email, port of SMTP communications, and time period. Tic SSL to enable SSL authorization.

To verify configuration press *Email Test* button. If ok confirm it by *Save* button. *Note:* 

Some email servers can block the email sending if the email delivery cycle is too short, and classify it as spam. Contact your email service provider to adjust the minimum delivery cycle so that the server does not classify the email as spam

2.6.6.5. Advanced - configuration of other network services

**UPNP** - Universal Plug and Play, realize auto port mapping, it required to use on router automating port mapping. Tic *Enable UPNP* to start service. If it ready it will automatically open listed ports on your router, to be able to connect with NVR from the Internet.

			UFI		
<b>⊘</b> w	lącz UPnP				
Statn	połączania :	Wyszukiwar	nie		
Port I	LAN :			Port WAN:	
Nr	Nazwa serwisu	Protokół	NVR Port	Port routera	Stan
01	WEB	TCP	80	80	Bez zmian
02	VIDEO	TCP	8101	8101	Bez zmian
03	VIDEO	UDP	8101	8101	Bez zmian
04	RTMP	TCP	1935	1935	Bez zmian

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**2.6.6.6.** Cloud Service - menu allows to enable cloud access to NVR. For proper operation of cloud service UPnP function should be enable, and router should support UPnP.



Tic *Enable Ivview* to enable cloud access to NVR. After changing parameters click *Save* button. There are also two QR codes to scan in mobile device.

First is link for mobile software, scan it to go to the application downloading page.

Second QR code is serial number of NVR to easy connect NVR. After you download and install application, open it and scan second QR code to get access to NVR.

**2.6.6.7. Bridge** Enables access to cameras connected to the PoE interface from the network access interface. This allows you to change the configuration of the camera from the web browser using a PC connected to the same network with network recorder. To enable sharing click on the ENABLE field. The sharing process will start in the list and the IP addresses of available cameras will appear. Once the camcorder setup process is finished, disable the functions by clicking again in the ENABLE field.

NOTE: Use only for service purposes. When the bridge is running, the DVR will not connect to the cameras and will not record them. Function available in the recorder NVR-7716P16-H2.

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2.7. HDD Mgr. - menu allows to manage of the NVR storage.

2.7.1. Basic info - information about installed HDD on NVR, and it's status.

		н	DD Mar.			
Basic Info.	HDD Group	Storage Setting	SMART			
Group1						1.81TB/1.81
HDD01	Normal		1.36TB/1.36TB	R-W	-07-	Format
HDD02	Normal		465.25GB/465.25GB	R-W	\$	Format
	Normal	-	221,01MB/3,71GB			Format
						All format
• 000 m			13.03.49			

There are information abut installed HDD and USB flash memory, it's status, size and used space. There are possibility to change HDD behaviour from Read-Write to Read Only, by clicking *R*-*W* setting. Use *Format* button to format selected HDD or use *All Format* button to format all installed HDDs.

2.7.2. HDD Group - configuration of HDD group

	HDD Mgr.		×
Basic Info. HDD Group Sto	rage Setting SMART		
group 1: HDD NO:1 2 Rec CH1 2 3 4 5 6 7	8 9 10 11 12 13 14 15 16	Edit	
Available Record Time group 2: HDD NO: Rec CH	: 0Hour	Edit	
Available Record Time group 3: HDD NO: Rec CH	: 0Hour	Edit	
Available Record Time group 4 ; HDD NO ; Rec CH	: 0Hour	Edit	
Available Record Time	: 0Hour		
	Reset Default	Save	
* * * . • • • • •	H→ △ 0% 13:04:00		8

Creating HDD groups is possible when at lease two HDD are installed. Main benefit oh HDD grouping is that some important channel could be stored for longer time than other. There are 4 groups possible, each group should include at lease one HDD, not common with other group. To modify group setting press *Edit* button, next in window choose HDD and channels, which will be assigned to selected group. The same way edit other groups. After changing parameters click *Save* button.

Reset Default button restore all setting of current window to factory default.

#### **2.7.3. Storage Settings** - advanced configuration of recordings.

				HDD Mar.			
Basic	Info. H	HDD Group	Storage Setting	SMART			
	Overwrite		Auto			-	
	Triggering	Time	0 AN	Л		•	
	Channel N	10.	1			-	
	Record Sa	aving Days	0			-	
					Сору	-	
				Default	Save		
		•) •		ا % 13:04:11	89 🔸		

To change overwrite mode, from drop down list select *Manual*, then you have to replace HDD each time when it would be full.

If needed to set up time record limit, you need to set up *Trigger time*, choose channel, tick *Enable* and set up numbers of days. When trigger time occurs defined days of limitation will be used for selected channel. After changing parameters click *Save* button.

Default button restore all setting of current window to factory default.

#### 2.7.4. Smart - display SMART details of each HDD

Basic Into, HDD Gro	up Storage Setting	SMAF	<b>к</b> т			
Disk	HDD01 -					
Model :	WDC WD15EARS-002	Z5B1	Serial N	umber :	WD-WMAVL	1089541
Firmware Version:	80.00A80		Tempera	ature :	35 °C	
Health Status	Favorable					
Attribute	Threshold Value	Current	Worst	RAW V	alue	Status
01) Raw_Read_Error_Rate	33	c8	c8	0		ok
03) Spin_Up_Time	15	b6	b3	5883		ok
04) Start_Stop_Count	0	64	64	205		ok
05) Reallocated_Sector_Ct	8c	c8	c8	0		ok
07) Seek_Error_Rate	0	c8	c8	0		ok
(09) Power_On_Hours	0	41	41	26034		ok
0A) Spin_Retry_Count	0	64	64	0		ok
0B) Calibration_Retry_Cou	nt 0	64	64	0		ok
0C) Power Cycle Count	0	64	64	191		ok

2.8. System Info. - information about the NVR status, and devices connected to it.

**2.8.1. Device information** - Device information displays the system software version and other relevant information.

	Device information	×
Device Model	NVR-7316P8-H2	
Channel Info.	16	
Software Version	V2.1.21 build20150922	
GUI Version	V3.0.16 build20150922	
IE Version	V2.2.15 Build Sep 21 2015	
Hardware Version	V1.1.0 build20131125	
SCM Version		
IP	192.168.1.100	
MAC	00:1b:9d:11:19:49	
Language	English	
Resolution	1024+768	
Current User	root (normal)	
👱 😐 🗔 🔹 💋 🕞 < 🖽 >	🕰 0% 13:04:46 믦딇 📌	

**2.8.2.** Channel Status - The statistic table displays the total real-time bitrate received by NVR from cameras. At the bottom of window total receiving bitrate value is also displayed.

The information table displays the IP address, protocol, receiving rate and record resolution of each channel of the current IPC, click on the icon <, > can flip view another page channel status.

		0		
		Channe	l Status	
40M				
32M				
24M				
16M				
984				
004				
0101-				
Ch No.	IP	Protocol	Resolution	Receiving Bitrate
CH01	192.168.1.88	ONVIF	2048+ 1536	7.37Mbps
CH02	192.168.1.159	ONVIF	2560+ 1440	4.20Mbps
CH03	192.168.1.62	ONVIF	2560+ 1440	4.41Mbps
CH04	192.168.1.200	ONVIF	2048+ 1536	4.49Mbps
		< > 1/2	Total :	20.509 Mbps

40W				
32W-				
24W				
16W-				
8W				
owi-				
Port	Power(W)	Powered-on State	Power-on Time	
01	6.78	Power On	00h : 15m : 05s	
02	7.52	Power On	00h:15m:05s	
03	3.92	Power On	00h : 15m : 03s	
04	3.49	Power On	00h:15m:04s	
05	0.00	Power Off	00h :00m :00s	
06	0.00	Power Off	00h :00m :00s	Þ
07	0.00	Power Off	00h:00m:00s	
08	0.00	Power Off	00h:00m:00s	
Concerns of the local division of the local	and a set of a second strength			

**2.8.3. PoE Status** - Menu shows the power supply situation, power consumptions, and power on time of every POE channel.

**2.8.4.** Alarm Status - Menu shows the all connected devices alarm information: sensor alarm, motion alarm, video lost alarm, PoE conflict; and system alarm information: HDD alarm, Network disconnected, Temperature alarm.

Use Alarm Clear button to disable the alarm sounds.

				Ala	rm S	itatus							×
сн													
Sensor Alarm		-											
Motion Alarm		-					-	88			-		
Video Lost													
POE Conflict							-						
HDD Alarm													
Network Disconnect	-												
Temperature Alarm	-												
									Ali	arm	Clear		

**2.8.5. Online Status** - menu displays the relevant information of the network server, that currently login the device, display the login username, server IP and log time.



**2.8.6. Log Inquiry** - menu allow to search the logs according to different types and different date and time, as shown in the picture below.

			Log Inquiry				2
Main Ty	/pe A	-	Sub Type	All			~
Date	2	015-10-07				Inquiry	
сн	Time	Operate		c	Operation	туре	
CH11	07:42:12	Alarm-Start Mo	tion Detection	L	ocal		
CH01	07:42:12	Alarm-Alarm O	utput	L	ocal		
CH11	07:43:02	Alarm-Motion	Detection End	L	ocal		
CH11	08:14:18	Alarm-Start Mo	tion Detection	L	ocal		
CH01	08:14:18	Alarm-Alarm O	utput	L	ocal		
CH11	08:14:54	Alarm-Motion	Detection End	L	ocal		
CH11	08:54:56	Alarm-Start Mo	tion Detection	L	.ocal		
CH01	08:54:56	Alarm-Alarm O	utput	L	ocal		
CH11	08:56:03	Alarm-Motion	Detection End	L	ocal		
CH11	09:18:43	Alarm-Start Mo	tion Detection	L	.ocal		
Operato	or:		1/15	0	Go To	<	>
IP:							
Backup	Device :	USB06	- Log	Backup			
Free sp	bace:	3.49GB	Backup (	Cap.	32.00ME	3	

To display log list define *Main Type* and *Sub Type*, or choose *All* for any of them. Next select a day and press *Inquiry button*. Result will be displayed at list, use < , > arrows or *Go To* to change viewed page.

To copy search result select *Backup Device* an press *Log Backup* button.

**2.9. System Maintenance -** menu allows to configure, system settings, user management, and other system features.

**2.9.1. Quick setting** - feature allow to quick configure NVR, set up main functionality and assign cameras to channels. Detailed description of it you will find in chapter 3.4. of User's manual (Short).

**2.9.2.** Account - You can add a user accounts and set up various permissions of them.



To add a user account you must firstly disable *Free-login* feature. Next click *Add*, will be displayed window like below.

		User ,	Authority		×	
	Username	Password	-	Confirm		
	■ +Backup ■ +Record Para. ■ +PTZ Setting		L.			6
	<ul> <li>CH Setting</li> <li>Schedule</li> <li>+Motion</li> <li>+Alarm Setting</li> <li>IPC management</li> </ul>		2			
	Group normal	•		Rer	note Permission	
송 보	🛎 🗔 🔹 🤣 🗗 < 🗄	> 🛆 0%	13:07:10			8

Please provide following values:

- User Name : enter user name.
- *Password / Confirm Password*: enter the password.
- Select a *Group* that user belongs to, by default is *Normal* but you could create your own group.
- Select *Privileges* on a list, if name is begin from + then need to select it for required video channels.
- *Remote Permission*: in new window please choose required access values for remote operation.



• *Binding IP/ Binding MAC*: provide IP address and MAC value for limiting access from network. If done click RMB to return and click *Save* button.

To modify a user information:

- Select user on a list and click *Edit* button.
- In new window please modify required values.
- When done, click *Save* button.

To delete a user information:

- Select user on a list and click *Delete* button.
- In new window please confirm deleting user by *Yes*.

The same way you could manage users group list, and permission of each group.



2.9.3. Reset to default - menu responsible for restoring default NVR settings

- *Reset Default*: will clear setting of features, selected in given window.
- *Reset Factory Settings*: Default: will recover all NVR settings to the factory default.

#### 2.9.4. Upgrade - menu responsible for upgrading NVR firmware

To update firmware please connect the USB storage device that contains the "upgrade.bin" file placed in a root directory. After few second popup window occur with question to *Upgrade NVR*.



If no follow procedure below:

• Open upgrade menu

Upgrade	×
FTP Upgrade Management	
Username	
Password	
Port 0	6
Server Address 0.0.0.0	
File Path	
Save	
FTP Upgrade USB Upgrade	
🛜 💄 🚊 羽 🐠 🖸 く 昍 እ 🛆 0% 13:08:01 闘 🖈	8

- Choose USB upgrade button and confirm proceed of upgrading system.
- Click UPGRADE
- The progress bar displays the progress of the firmware upgrade process.
- When the upgrade is complete press *OK* reboot the system.
- •

#### Caution:

Please contact your local distributor prior to software upgrade.

Power outage, turning the device off or removing the Flash memory during update may result in damage to the NVR and a necessity of service repair.

The producer isn't responsible for any data loss resulting from firmware update.

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2.9.5. Auto reboot - menu allow to set auto reboot feature, with selected frequency.

Tick System Auto Restart checkbox to enable feature.

Set up restart Day and Hour, when restart occur. After changing parameters click Save button.

Reset Default button restore all setting of current window to factory default.

2.9.6. System Shutdown - menu allow to shut down NVR, logout current user or reboot NVR.



#### 3. NETWORK OPERATIONS UTILIZING WEB BROSWER

Network Video Recorder features the possibility of controlling video data using network connections and web browser (Internet Explorer is recommended).

#### 3.1. Recommended PC specification for web browser connections

Requirements below apply to connection with an NVR, assuming smooth image display 4 channel in 1920x1080 resolution and 25 fps speed.

Operating System	Windows 7, Windows 8, Windows 10
Web browsers:	Internet Explorer 10.0 or later, Google Chrome 41.0 or later, Mozilla Firefox 32.0 or later, other supported Flashplayer 19 or later
CPU	Intel Pentium Core 2 Duo 3,16 GHz or higher
Memory	1024 MB or more
Display	min. 16-bit 1280 x 1024 High Color
Hard Disk Drive	50MB (space required for installing the web viewer software)

#### **3.2. Establishing a connection**

To establish connection open the web browser and enter IP address of the NVR (by default, IP address is 192.168.1.100).



Next choose your Language, provide Username and Password and confirm by I button.

Note

*NVR* 7000 uses Flash player Plugin to display video channels. If you don't have to installed compatible version, you need to go to get.adobe.com/flashplayer/ download and install it.

Microsoft Edge is not recommended because of unstable work.

#### 3.3. Configuration of remote access

If you are going to use Internet to remote connect with the NVR you need to have a Public IP Address (Static or Dynamic). Check your *Network Provider* if you don't know it.

More over you have to configure NVRs NETWORK SETTING and Router in right way.

For NVR you have to configure:

- *IP* and *Subnet Mask* use value corresponding to your router IP address, check your *Network Provider* if you don't know them.
- *Default Gateway* Yours Internet gateway (router) address, check your Network *Provider* if you don't know it.
- *Primary and Backup DNS* Check your *Network Provider* to get DNS addresses or use Public DNS like for eg. 208.67.222.222.

To connect to the device by using Internet you have to create mapping of following ports:

- *HTTP port*: default number 80
- *Command port*: default number 8101

Depending of used Router Mapping Ports could be also named as Virtual Server or Port Forwarding.

If you have an Dynamic IP Address you have to configure DDNS setting. Go to the DDNS setting chapter configure NVR like it is described.

After proper configuration of the device you will be able to connect with it remotely. To check it try to use web browser typing in address: http://your\_static\_ip:http\_port or use your DDNS address: http://your\_ddns\_domain:http\_port. If everything correct then login window should be appear.

#### Note:

In case of using P2P connection there is only needed to support UPnP by router and NVR. Also any port forwarding in router are unnecessary, UPnP will do it automatically. You only need to configure the recorder to get connection with Internet, and then connection will be established automatically, while using P2P connection.

#### 3.4. Live monitoring interface

After successful logging into a user interface using web browser, the following window opens:



Description of interface features:

To enable/disable all channel preview click *All channel* on channel list or **m** icon on video window.

To enable/disable one channel preview click once on required camera icon.

Selection *Real Time / Fluency* will change streaming to get less delays or better fluency.

Selection Record bitrate / Network bitrate will change stream to main or substream. It's working only in 1channel mode.

PTZ panel allow to manipulate a PTZ camera, adjust zoom, focus, iris, using Prestes, etc.



Menu description:

ltem	Description
Live	Live view cameras interface
Playback	Move to the playback screen, which allow to search and watch recordings
Log	Allow to search the logs according to different types and different date and time.
Configuration	Enter to the NVR setup
Logout	Logout and exit interface
Language	Choose language of interface

#### 3.5. Searching and playing recorded video

To start the playback you have to chose *Playback* from main menu. Then following window appears:



1. From the CHANNEL SELECT tick the channel which you want to search the recording, it will auto search the recording for current day.

2. Change the date from the calendar and press *Search* button to find records for selected date.

You can identify the type of the recording data by the color in the bar.

- Green (Manual) : data originating from manual recording
- Blue (Schedule) : continuous recording data.
- Yellow (Motion) : motion event recording data.
- Red (Alarm) : alarm event recording data.

3. To play the searched data simply double click a desired point on "Timeline" or press PLAY button.

Description of playback buttons:

- *Pause/Play*: pause the current playback image.
- *Stop*: Stop the playing video.
- *Slow*: Slow down the playback speed. (there are: 1/2, 1/4, 1/8, 1/16 times)
- *Fast Forward*: Accelerate playback. (there are: 2, 4, 8, 16 times)
- *Frame*: jump one frame forward/backward.
- *Fast Backward*: Backward playback in fast mode (there are: 2, 4, 8, 16 times)
- *Download File*: Menu allow to backup record files according to selected channel.

	No.	File Name	Start Time	End Time	File Size	Progress
]	1	00800000000010000	2015-10-22 00:00:00	2015-10-22 00:00:01	1 MB	
1	2	0080000000020000	2015-10-22 00:00:01	2015-10-22 00:03:19	123 MB	
1	3	0080000000030000	2015-10-22 00:03:19	2015-10-22 00:06:34	124 MB	
1	4	0080000000040000	2015-10-22 00:06:34	2015-10-22 00:09:46	123 MB	
1	5	0080000000050000	2015-10-22 00:09:46	2015-10-22 00:13:00	123 MB	
1	6	0080000000060000	2015-10-22 00:13:00	2015-10-22 00:16:10	123 MB	
2	7	0080000000070000	2015-10-22 00:16:10	2015-10-22 00:19:15	123 MB	
	8	0080000000080000	2015-10-22 00:19:15	2015-10-22 00:22:20	123 MB	
	9	0080000000090000	2015-10-22 00:22:20	2015-10-22 00:25:22	123 MB	
	10	00800000000100000	2015-10-22 00:25:22	2015-10-22 00:28:30	123 MB	
	11	00800000000110000	2015-10-22 00:28:30	2015-10-22 00:31:36	123 MB	
	12	00800000000120000	2015-10-22 00:31:36	2015-10-22 00:34:39	123 MB	
	13	00800000000130000	2015-10-22 00:34:39	2015-10-22 00:37:36	123 MB	
	14	00800000000140000	2015-10-22 00:37:36	2015-10-22 00:40:28	123 MB	
	15	00800000000150000	2015-10-22 00:40:28	2015-10-22 00:43:17	123 MB	
	16	00800000000160000	2015-10-22 00:43:17	2015-10-22 00:46:11	124 MB	
	17	00800000000170000	2015-10-22 00:46:11	2015-10-22 00:49:07	123 MB	
	18	00800000000180000	2015-10-22 00:49:07	2015-10-22 00:52:02	123 MB	
	19	00800000000190000	2015-10-22 00:52:02	2015-10-22 00:54:55	123 MB	
l,	20	00800000000200000	2015-10-22 00:54:55	2015-10-22 00:57:53	123 MB	
0	ustom ti	imo Star	t Time F	nd Time Prov	TRASS	download plaus
01	2015	10.22		50 + 50		Download playe

To download records simply select a required files and press Download button.

If you need some time range, select custom time, filling *Start Time* and *End Time* and press *Download* button.

To open records choose *Download Player*, save it on PC and install. Then you could use this software to playback records.

**3.6.** Log - You can search the logs according to different types and different date and time, as shown in the above picture.

A		Out Contra	
	o pager main.asp	D+C Search Log ×	
NOVUS	Live View Playback Log	Configuration O root Logout	Language English
No. Time	Major Type Minor Type	Channel No. Local/Remote User	Remote Host IP Search Log
			Maine Toront
			All Type
			Minor Type
			Ali Types 🗸 🗸
			Start Time
			2015-10-20
			End Time
			2015-10-20
			Search
	Tatal Allowed Constants		
	Total Offerns Farst Page	UD Next Page	

- *Major Type*: there are All Type, Alarm, Exception and Operation for selection.
- *Minor Type*: depending of selection major type, you could select all, or one specified minor type.
- *Start Time, End Time*: you can select time range of a log you want to search.
- *Search*: press to display list of logs.

100							
<b>←</b>	http://192.168.1.100/do	ic/page/main.atp		,D ≠ C 🔮 Search Log	×		n * ¤
N	oVus	🤗 Live View 🛙	Playback 🧮 Log	🤹 Configuration 😃 ro	ot Logout		Language English
NO.	Time	Major Type	Minor Type	Channel No.	Local/Remote User	Remote Host IP	Search Los
1	2015-10-20 13:08:30	Operation	Logout	L		0.0.0.0	
2	2015-10-20 13:08:41	Exception	Illegal Login			0.0.0.0	
3	2015-10-20 13:09:36	Operation	Login		foot	0.0.0.0	
4	2015-10-20 13:09:50	Operation	Add IPC channel	CH10	root	0.0.0.0	Major Tura
5	2015-10-20 13:09:58	Operation	Add IPC channel	CH11	toot	0.0.0.0	major rype
6	2015-10-20 13:10:29	Exception	Video lost	CH11	root	0.0.0.0	
7	2015-10-20 13:10:29	Alarm	Alarm outAlarm Output		foot	0.0.0.0	All Types 🗸 🗸
8	2015-10-20 13:10:31	Operation	Logout			0.0.0.0	the second se
.9	2015-10-20 13:10:50	Operation	Login		root	0.0.0.0	Minor Turne
10	2015-10-20 13:10:58	Operation	Set param-Sequence config		root	0.0.0.0	minor (1)pe
11	2015-10-20 13 11:04	Operation	Logout			0.0.0.0	
12	2015-10-20 13:55:39	Exception	Video lost	CH11		0.0.0.0	Al Types 🗸 🗸
13	2015-10-20 13:55:39	Alarm	Alarm outAlarm Output			0.0.0.0	and the second se
14	2015-10-20 14:09:53	Exception	Video lost	CH11		0.0.0.0	Start Time
15	2015-10-20 14:09:53	Alarm	Alarm outAlarm Output			0.0.0.0	
16	2015-10-20 14:36:09	Exception	Video lost	CH11		0.0.0.0	for a second
17	2015-10-20 14:36:09	Alarm	Alarm outAlarm Output			0.0.0.0	2015-10-20
18	2015-10-20 14:41:48	Operation	Login		5001	0.0.0.0	
19	2015-10-20 14:42:05	Operation	Set param-Regular setting		foot	0.0.0.0	End Time
20	2015-10-20 14:44:24	Exception	Video lost	CH11	root	0.0.0.0	
21	2015-10-20 14:44:24	Alarm	Alarm outAlarm Output		root	0.0.0.0	0046 40 00
22	2015-10-20 14:47:14	Operation	Record stop	CH09	root	0.0.0.0	2015-10-20
23	2015-10-20 14:47:16	Operation	Record start	CH09	5001	0.0.0.0	and the second se
24	2015-10-20 14:47:31	Operation	Set param-Regular setting		1001	0.0.0.0	
25	2015-10-20 14:50:54	Operation	Set param-Regular setting		toot	0.0.0.0	Search
26	2015-10-20 15:05:43	Operation	Set param-Regular setting		root	0.0.0.0	stearch
27	2015-10-20 15:14:18	Operation	Record stop	CH09	1001	0.0.0.0	1 million (1997)
28	2015-10-20 15:14:23	Operation	Get status-Alarm status		root	0.0.0.0	
29	2015-10-20 15:14:43	Operation	Record stop	CH10	root	0.0.0.0	
30	2015-10-20 15:14:50	Operation	Playback	All	1001	0.0.0.0	
31	2015-10-20 15:15:00	Operation	Record start	CH10	root	0.0.0.0	
32	2015-10-20 15:15:09	Operation	Record stop	CH10	root	0.0.0.0	
33	2015-10-20 15:15:19	Operation	Record stop	All	root	0.0.0.0	
34	2015-10-20 15:15:24	Operation	Record start	CH10	root	0.0.0.0	
35	2015-10-20 15:26:13	Exception	Video lost	CH11	1001	0.0.0.0	
36	2015-10-20 15:26:13	Alarm	Alarm outAlarm Output		root	0.0.0.0	~
37	2015-10-20 15:36:55	Operation	Power on		53935	0.0.0.0	
		Total 37 Items	First Page Prev Page 1	/1 Next Page Last	Page		

After searching list of logs would be displayed. Each log include information about time, type of log, and if possible channel information, user name and ip address of it.

At the bottom of screen there are navigation buttons, which allow to move between pages.

#### **3.7.** Configuration

Setup menu contains minor settings of NVR. Whole interface is similar to interface displayed on NVRs monitor.

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(-) (-) (++++)/(192.168.1.100)	//doc/page/main.asp		D - C 🙆 Config	guration ×	n * 0
NoVus	😻 Live View 【	🔋 Playback 🚥	Log 🥰 Configuratio	on 😃 root Logout	Language <mark>English </mark> ~
Configuration	Basic Information				
■ ⊨ Remote Configuration	Device Name				
<ul> <li>Device Parameters</li> </ul>	Model	NVR-7016P6-H2		1	
- Device Information	Firmware Version	V2 1 21 http:///0014/0005		1	
Camera Settings		LED TO AN OWNER THE TAXABLE		] 1	
<ul> <li>Network Settings</li> </ul>	weo version	ATT 10 Dring Seb 11 This		ļ	
H Alarm Settings	Number of Channels	9		Į	
Exception	Number of HDDs	1			
- > User Management	Number of Alarm Input	2		]	
HDD Management	Number of Alarm Output	1		)	
I → Basic Settings			-		
<ul> <li>Camera Management</li> </ul>		<u> </u>			
- IP Camera	Save Re	fresh			
the second se	the second s				10

IP camera settings is placed in Camera Management menu.

(+) (+) (+) (192.168.1.10)	0/doc/page/main.asp		ターC Sconfiguration ×			n × 0	
No <b>V</b> us	😻 Live View 🔢	🛛 Playback 💼	Log of Configuration	😃 root Logout		Language English	
Configuration	IP Camera			•			
	And	odly Delete	Quick Add				
Device Parameters							
Carlos Derice Fateriologie	Channer No	P-Camera Address	Management Part	State of	Protocol		
- Camera Settings	CH08	192 168 6 14	80	Online	ONME		
	CH09	192,168,3,11	80	Online	ONVIE		
* Network Settings	CH10	192,168,3,12	80	Online	ONVIE		
	CH11	192,168,3,13	80	Online	ONVIE		
iii - ⊨ Alarm Settings	CH12	192,168,3,14	80	Online	ONVIE		
	CH13	192.168.3.15	80	Online	ONVIE		
<ul> <li>Exception</li> </ul>	CH14	192.168.3.16	80	Online	ONVIE		
	CH15	192.168.3.18	8D	Online	ONVIE		
User Management	CH16	192,168.3.19	80	Online	ONVIE		
> Maintenance > Camera Management - > - IP Camera	Refresh						

For detail of each settings please refer "System Setup" description in chapter 2 - NVR CONFIGURATION.



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