

Mini NVR & Graphite NVR

Operation start guide

DOMAR.com

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CHAPTER 1. Boot wizard

1. First start of the recorder

When you turn on your recorder for the first time you will see 'Boot Wizard' on screen. One like you see in the picture below.



Choose **Next Step**. NVR will ask you to login. Default username and password are: '**admin**' and '**12345**'. After login to your system you can modify settings such as:

a) Device setting:

- **Language** - preferred language used in interface,
- **Record mode: Overwrite** - NVR will overwrite oldest recordings with new ones when free space on it's hard drive.

- Record days:

No limits - NVR will record for as long as possible until there's no more free space on the hard drive, then it will delete oldest recordings to make room for new ones;

15, 10, 7, 5, 1 - number of days recorded files will be stored on a hard drive.

Note: choosing number of days that is higher than what your NVR's hard drive can store is the same as choosing 'No limit' option.

- **Video standard - PAL / NTSC** - NVR's default video standard is NTSC.

The concern about which one to use between NTSC and PAL is less important now. Most devices can play video in both formats. PAL or NTSC cameras/receivers will work anywhere as long as they are paired with cameras/receivers that use the same format.

- **Standby time (min)** - determines time, after which NVR will automatically log you out,

- **Device name** - name used for NVR by routers and network scanners on device list (if they use this option).

b) Date - date and time settings:

You have two options to choose:

- **Set date/time manually** - put in date and time yourself for your NVR,

- **Receive date/time from NTP** - synchronising NVR's time using Network Time Protocol.

Please take into consideration that NVR must have access to the Internet for this option to work. Available additional settings:

NTP Server - NTP server domain name, like *time.windows.com* or *time.nist.gov*,

Time Zone - your local time zone,

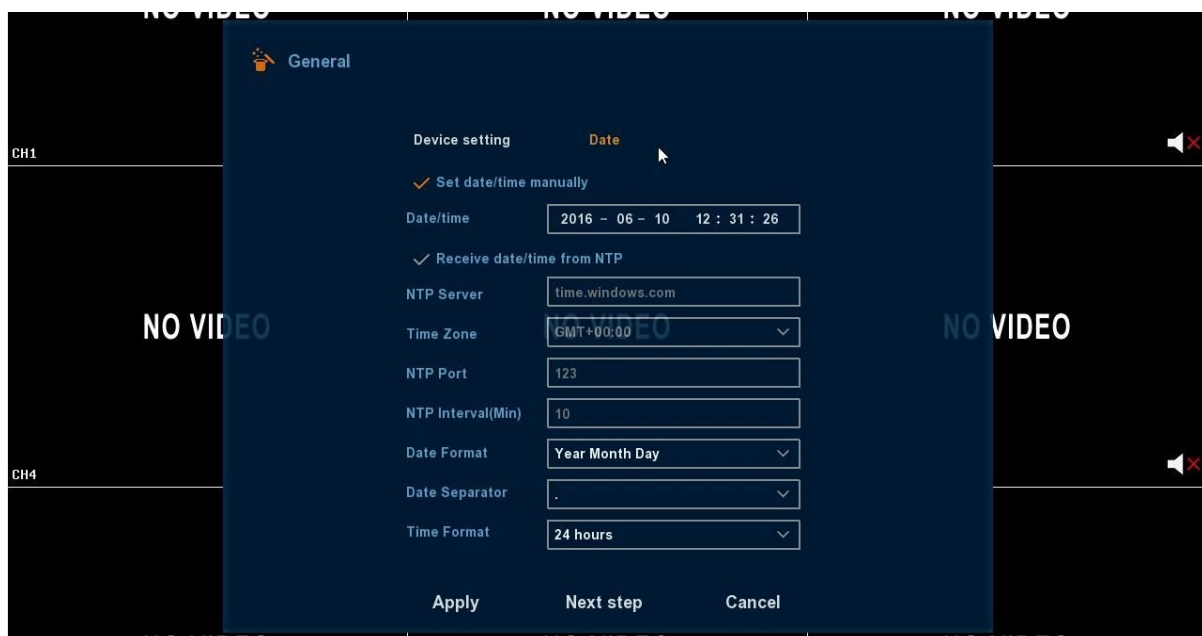
NTP Port - the port number on which NVR should connect to NTP server, most common one is *123*,

NTP Interval (Min) - choose how often NVR will ask NTP server for time update,

Date Format - choose how date will be displayed: *Year Month Day*, *Month Day Year* or *Day Month Year*,

Data Separator - choose which symbol will be used to separate day, month and year in dates: *01-01-2000*, *01/01/2000* or *01.01.2000*

Time format - *24h* or *12h*.



NOTE: Correct time settings on NVR are very important - recording schedule and playback rely on it.

Next step involves NVR's network settings.

If recorder is connected to your router (or switch connected to your router), you can use **Enable DHCP** option. It allows NVR to acquire network settings automatically from the router. It is recommended to disable this option if you're planning stand-alone system or don't want router to influence NVR. Disabling DHCP let you assign a static IP address for your NVR. Please enter details as follow:

- **IP Address** – unique IP address matching your network,
- **Network Mask** – subnet mask,
- **Gateway** – default gateway in your network, usually the IP address of your router,
- **Primary DNS** – IP address of your DNS server, usually the IP address of your router,
- **Secondary DNS** – IP address of DNS server that will be used if first DNS is not responding, for example: Google DNS - 8.8.8.8,
- **Broadcast IP** – your network broadcast IP address,
- **TCP Port** – port used to access playback, default: 5000,
- **HTTP Port** – port used to access NVR web page, default: 80,
- **RTSP Port** – port used to stream video, default: 554,

This window also displays the MAC address of your device - **Device MAC**.

10.06.2016 14:16:50

NO VIDEO NO VIDEO NO VIDEO

CH1

NO VIDEO NO VIDEO NO VIDEO

CH4

NO VIDEO NO VIDEO NO VIDEO

CH7 CH8 CH9

Network

IP Address 192 • 168 • 0 • 102 Refresh

✓ Enable DHCP

Network Mask 255 • 255 • 255 • 0

Gateway 192 • 168 • 0 • 1

Primary DNS 192 • 168 • 0 • 1

Secondary DNS 0 • 0 • 0 • 0

Broadcast IP 192 • 168 • 1 • 255

Device MAC 00:00:1B:06:38:A9

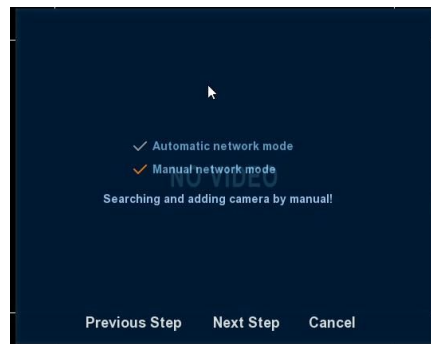
TCP Port 5000 HTTP Port 80

RTSP Port 554

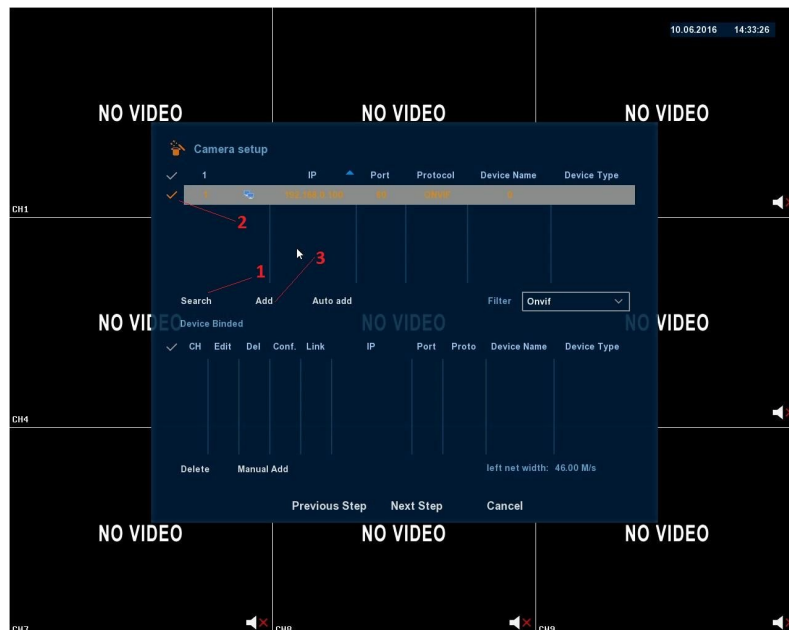
Default Previous Step Next Step Cancel

Note: Don't know what's your router IP address or how to choose IP address? Please take a look at this quick guide to network settings: [FirstSetupQG](#)

In next window you can choose how adding cameras will be handled: automatic (**Automatic network mode**) or manual (**Manual network mode**). It is recommended to use second option.



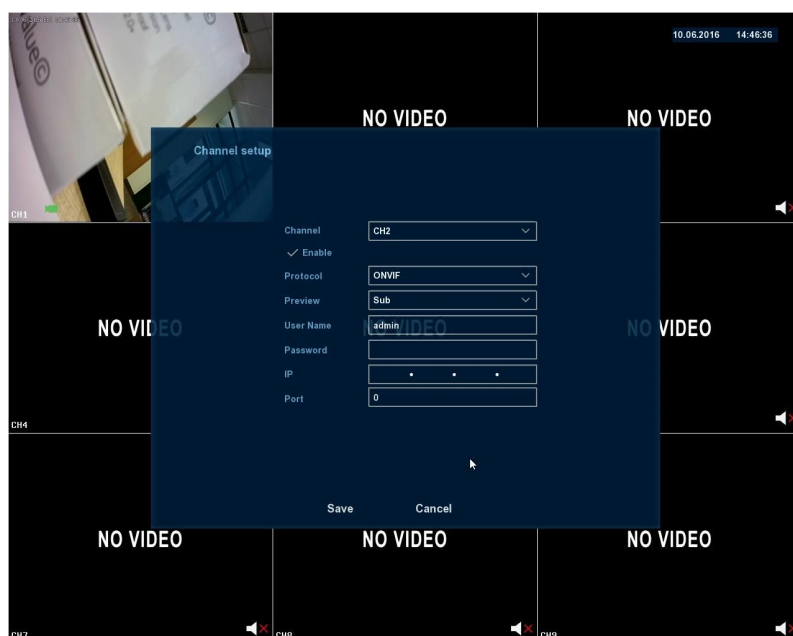
In next step you will be taken to **Camera setup** window:



Click on **Search (1)** to find cameras in your network. Found cameras will be displayed in top table. To view and record selected cameras, click check mark - ✓ **(2)** in front of their rows (orange color = selected, grey color = not selected) and click **Add (3)**.

Auto add option is not recommended.

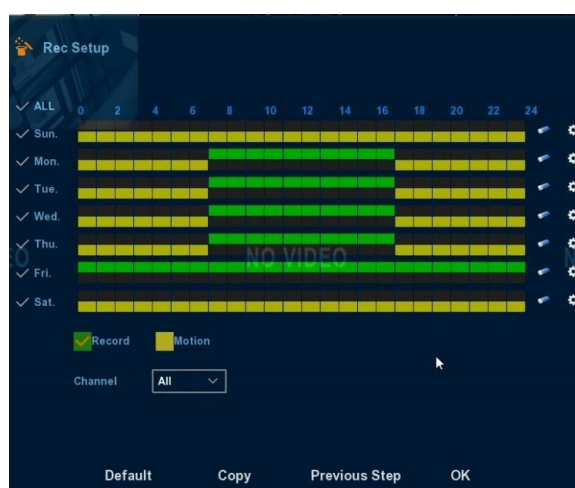
If you're camera wasn't found by the NVR you can use **Manual add** option instead. You'll be asked about few camera's details like: it's IP address, port number (ONVIF), username and password for a camera. You can also change protocol used to connect to camera: **ONVIF**, **Private** or **RTSP**. By choosing RTSP protocol, you'll be asked to provide URL for camera video stream instead of IP and port number.



Going forward you will see recording schedule. By default channel 1 (camera no. 1) schedule is displayed, but you can change schedule for all channels at the same time by selection **All** from **Channel** drop down menu.

Horizontal bars represents timelines for 7 days of a week (from 0:00 to 24:00). Check marks in front of them are used to select and change schedule for few days at the same time.

You can choose continuous recording mode – **Record**, recording only when motion alarm is activated – **Motion** or combination of both. By ticking corresponding box (green for *Record* or yellow for *Motion*) you can now directly ‘draw’ on the timelines. By clicking cell on the timeline you can activate (color) or deactivate (transparent) recording for that hour and day/s. Top bar on a timeline is used to activate continuous recording, bottom one - motion recording. **Note:** You can use both modes at the same time. NVR will then record continuously, but will save motion alarm recording as separate files marked as Motion.



Times of recording in any of mode you can select directly on timeline for each day of the week individually. Alternatively you can select the gear icon on the right side and enter more precise start and end time of the recording. To complete the wizard, click **OK**.

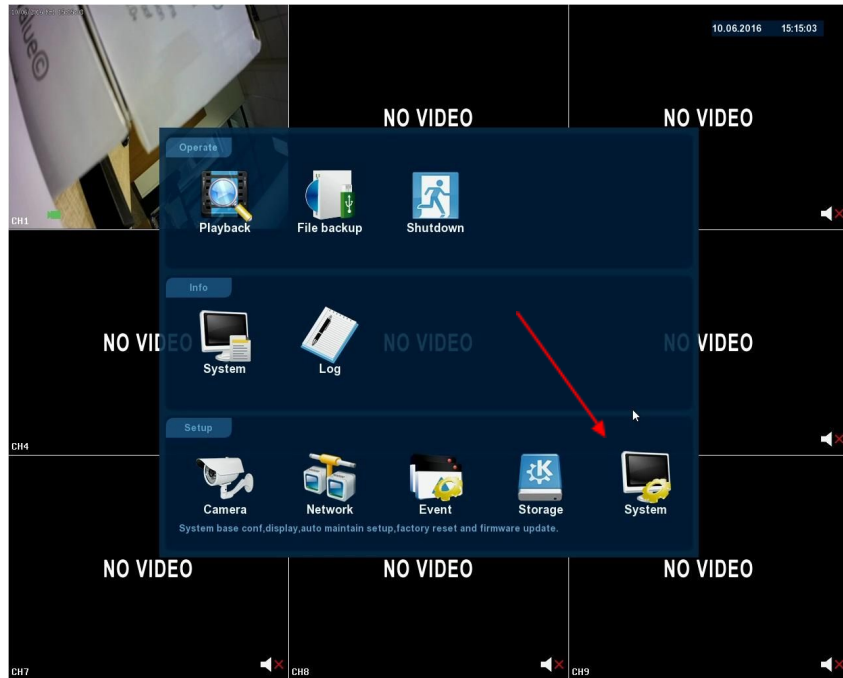


2. Disable setup wizard

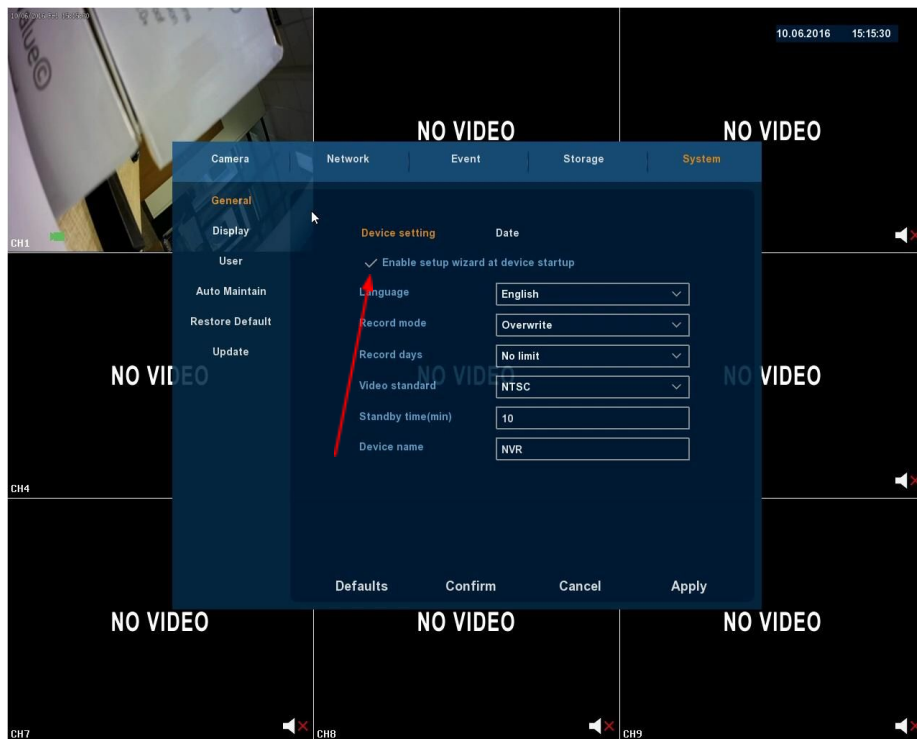
NVR by default is set to run the Setup Wizard each time it is turned on. This can be disabled by un-ticking **Setup wizard starts automatically at boot.:**



The second option to do it is when you use the right mouse button and select from the pop-up menu option **Main Menu**, go to **System** and choose **Setup**:



In new window unselect **Enable setup wizard at device startup.**



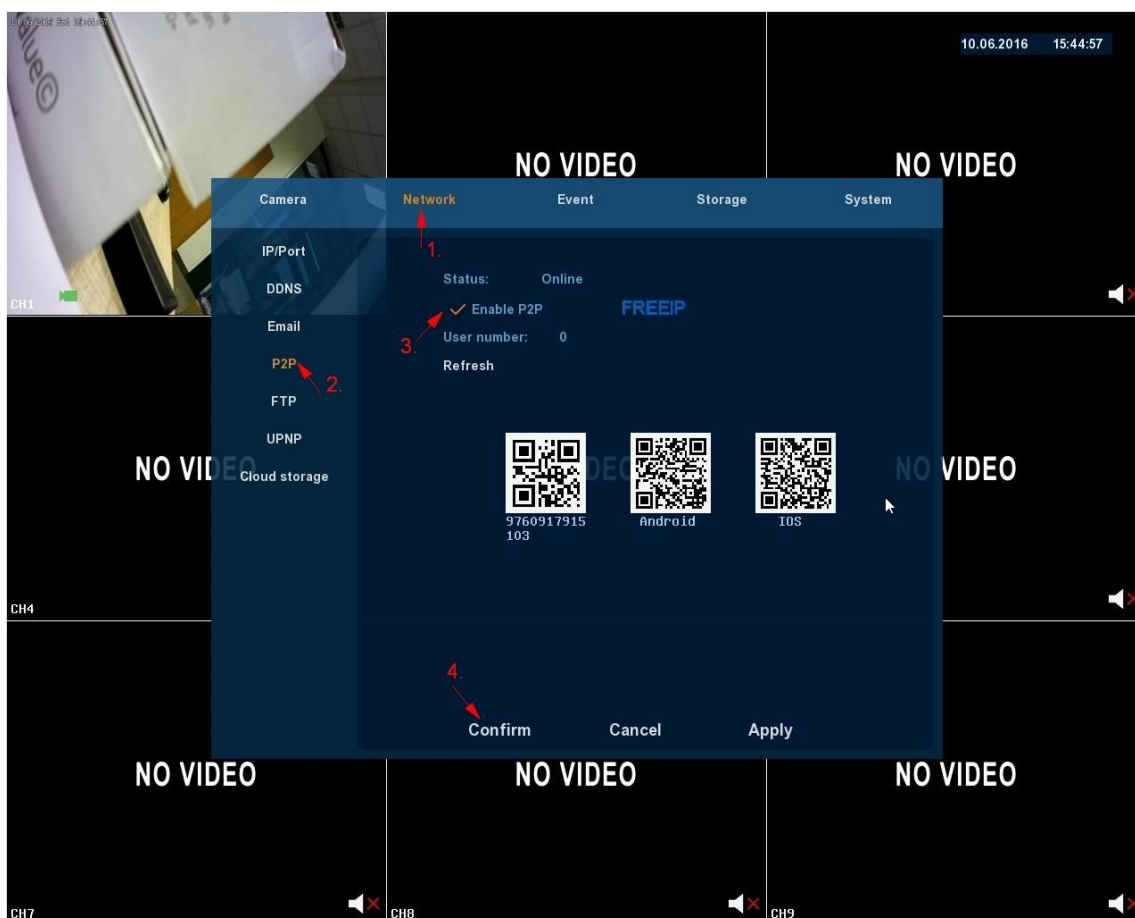
CHAPTER 2. Remote View - P2P

NVR is support P2P function, so it is possible to remotely watch video stream from your recorder. This feature is very convenient because it does not require any sort of port forwarding on your router, you only need to provide recorder Internet access.

1. Network Settings

To start the remote access via P2P, please log on to the recorder as an administrator, then click right mouse button to select **Main Menu** and **System** located in the bottom right corner of the window (in **Setup** section).

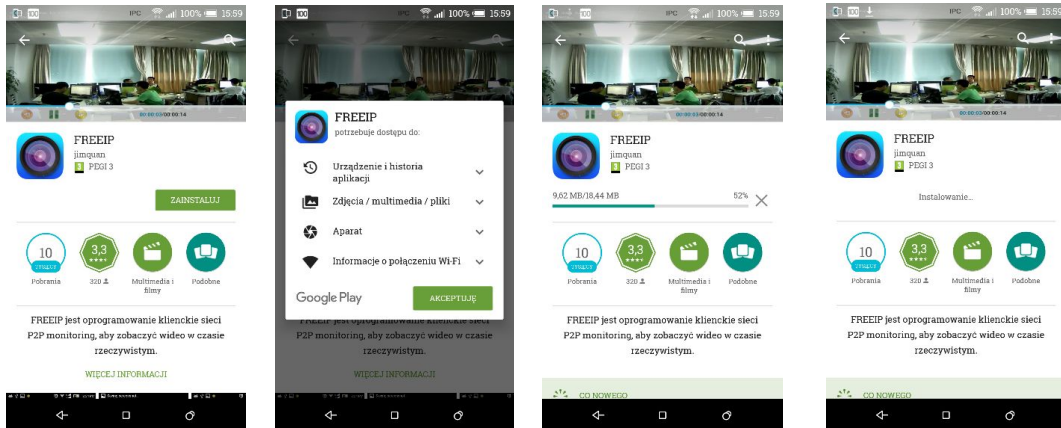
In the next window, select **Network** in the top bar, and then **P2P** in the menu on the left. You must check if **Enable P2P** is ticked. To make sure your settings are save please click **Confirm**.



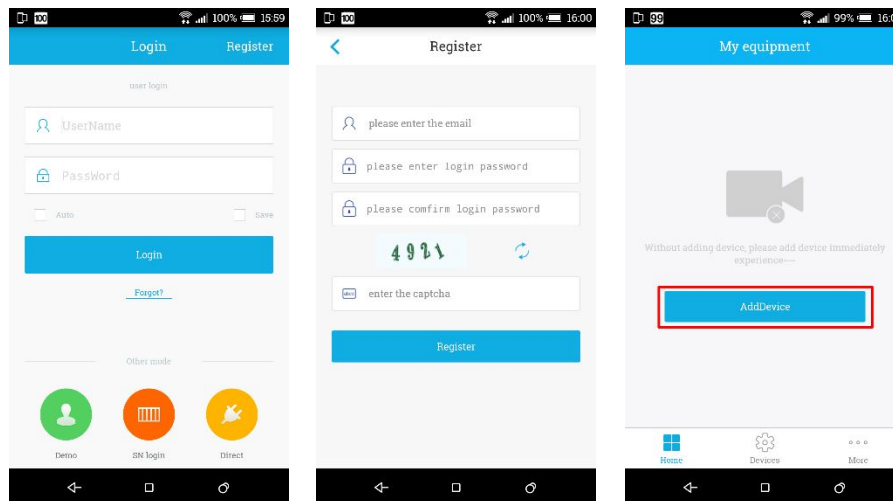
2. FreeIP (works with software version 4 and above)

To use P2P, you must install application **FREEIP** for mobile devices. It is only available for Android and IOS. To quickly get the this application, you can scan the appropriate QR code located in P2P window - *Android* or *IOS*.

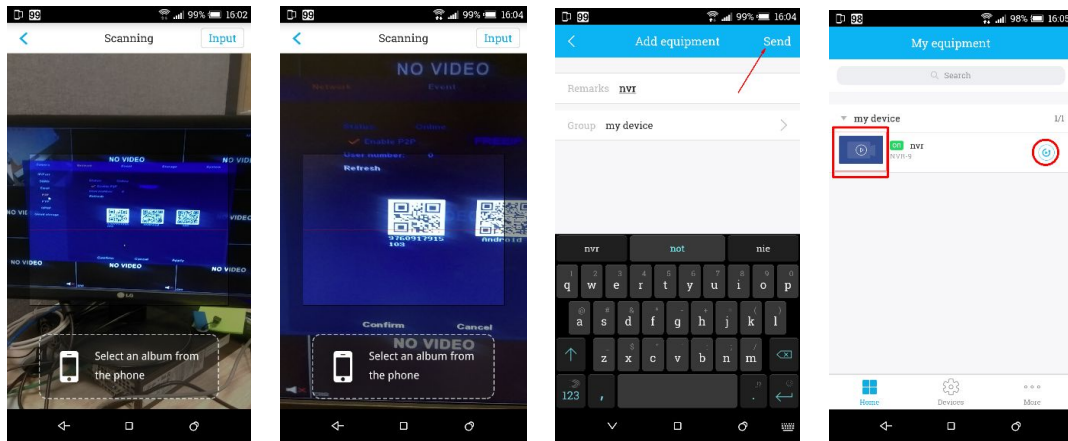
If you choose to install it from the store, you proceed similarly as with all other applications:



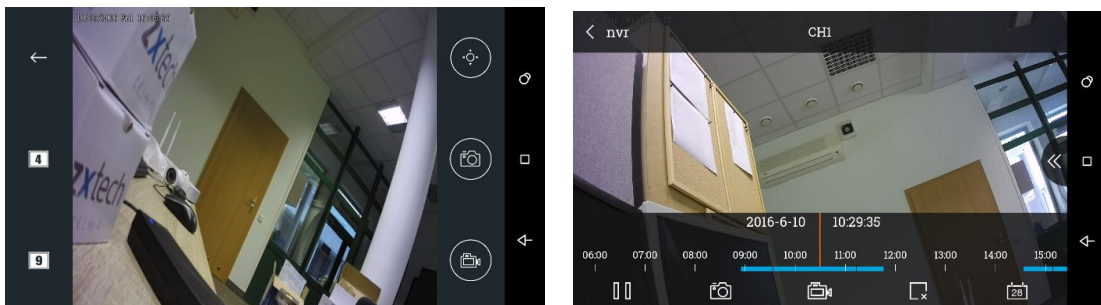
After installation run the application, then register your account using **Register** option. Please provide email address, password, and rewrite captcha code. After successful registration you can login by using given data on the registration.



At the moment in your account you don't have any added devices, to do this, click **AddDevice**. Application will ask you to scan the code located in the NVR menu. Scan first QR code in the **P2P** tab on **Network** menu, the one with serial no. under it. When the application properly scan the code, it will ask us to enter a name for the device. Enter it in the box **Remarks** and save by clicking in the **Send** box in the top right corner.



When properly done all the previous steps, you will see new device added to the list. From this moment, when the mobile device and the recorder have access to the Internet, we can observe the attached cameras to the recorder (by clicking the camera icon to the left of the name of the NVR) and also view recordings (rounded icon on the right side).



CHAPTER 3. Recording and Playback

1. Mounting and Formatting Hard Drive

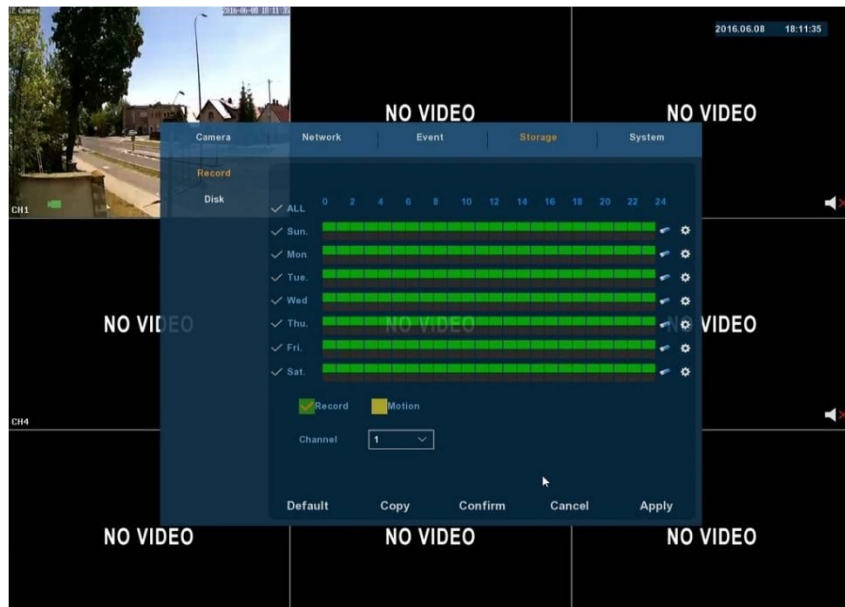


To mount the disk to the NVR, remove the cover and connect the SATA and Power to it. The recorder cooperates with **dyskami 2.5 oraz 3.5 cala**. To secure it you have to screw it to the housing.

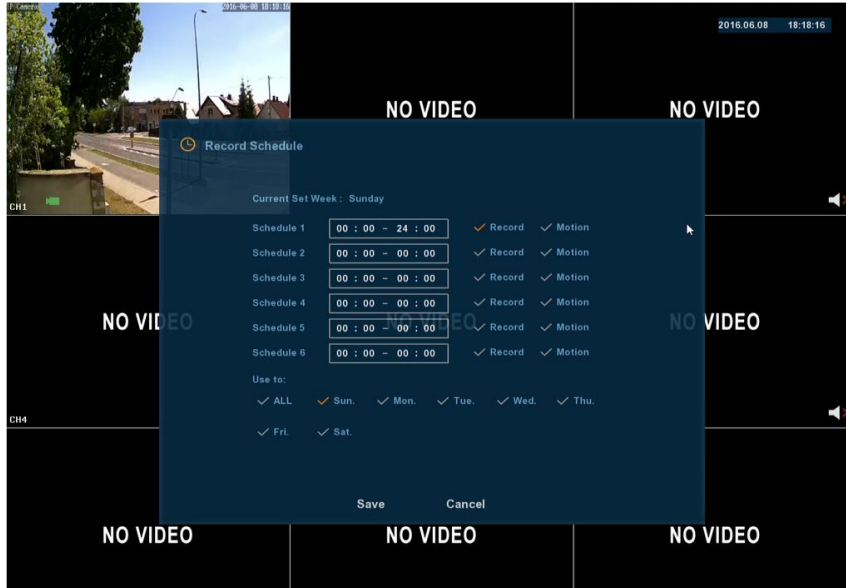
To format the hard drive, click **right mouse button** after logging into the recorder. Choose **Main Menu**, go to **Storage tab** and select **Disk** from the list. Then click **Format** and **Confirm**. All data will be deleted and will be prepared to work with the recorder. The NVR will restart after formatting.



2. Recording Setup



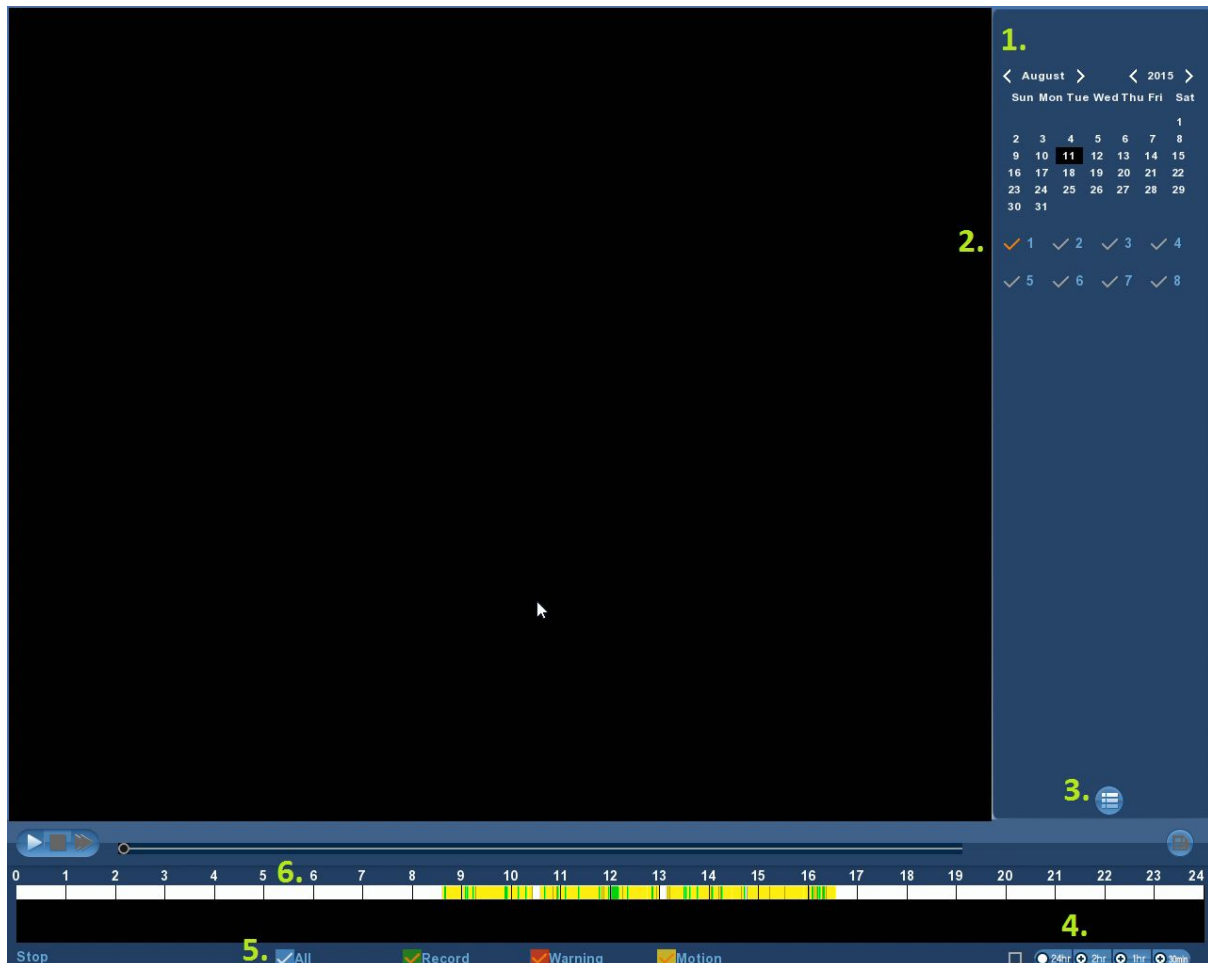
To activate recording on the NVR, click **right mouse button** after logging into the recorder. Choose **Main Menu**, go to **Storage** tab and select **Record**. On **Channel** determine which channels you want to be recorded. Green color is denoted by continuous recording, and yellow for motion detection. In this way, you create your monitoring schedule.



When you click the gear icon next to the day of the week you want to change, you can set up continuous recording and motion detection at specified hours. Just enter the hourly range and activate the record / motion. Saved chart we can activate for all or specific days of the week thanks to the option **Use to**. If recording is activated, on the live preview green camera icon will appear.

3. Playback

To restore the image from the NVR, first login to the recorder, then **right mouse button**. Choose **Main Menu** and go to **Playback**.



1. **Calendar** – you can filter your search to specific day and month
2. **Camera Filter** – It is used to select records based on the channel
3. **File List** – it will show you what files you have on your hard drive
4. **Increase/Decrease Time Scale** – it allows to increase the accuracy on the time scale.
5. **Recording Filter** – by selecting the appropriate options, we can reduce the recordings only to interesting materials. We can activate all the recordings, continuous record, only warnings, or only motion detection.
6. **Timeline** – it is used to present recordings on 24 hour scale.

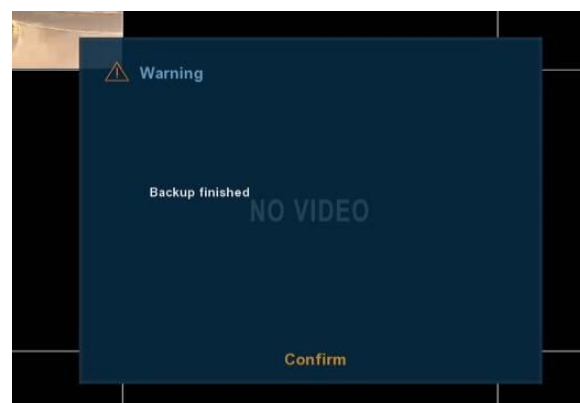
4. Backup recorder files to USB memory stick

After connecting the USB memory to the NVR you need to click **right mouse button**. Choose **Main Menu** and go to **File Backup**.



To download files, select the type of file - **File Type**. Then select the start and end time, **Start Time** and **End Time**. At the end you must specify a channel on **(Channel)** and file format **(File format)**. After you select these options, click Add.

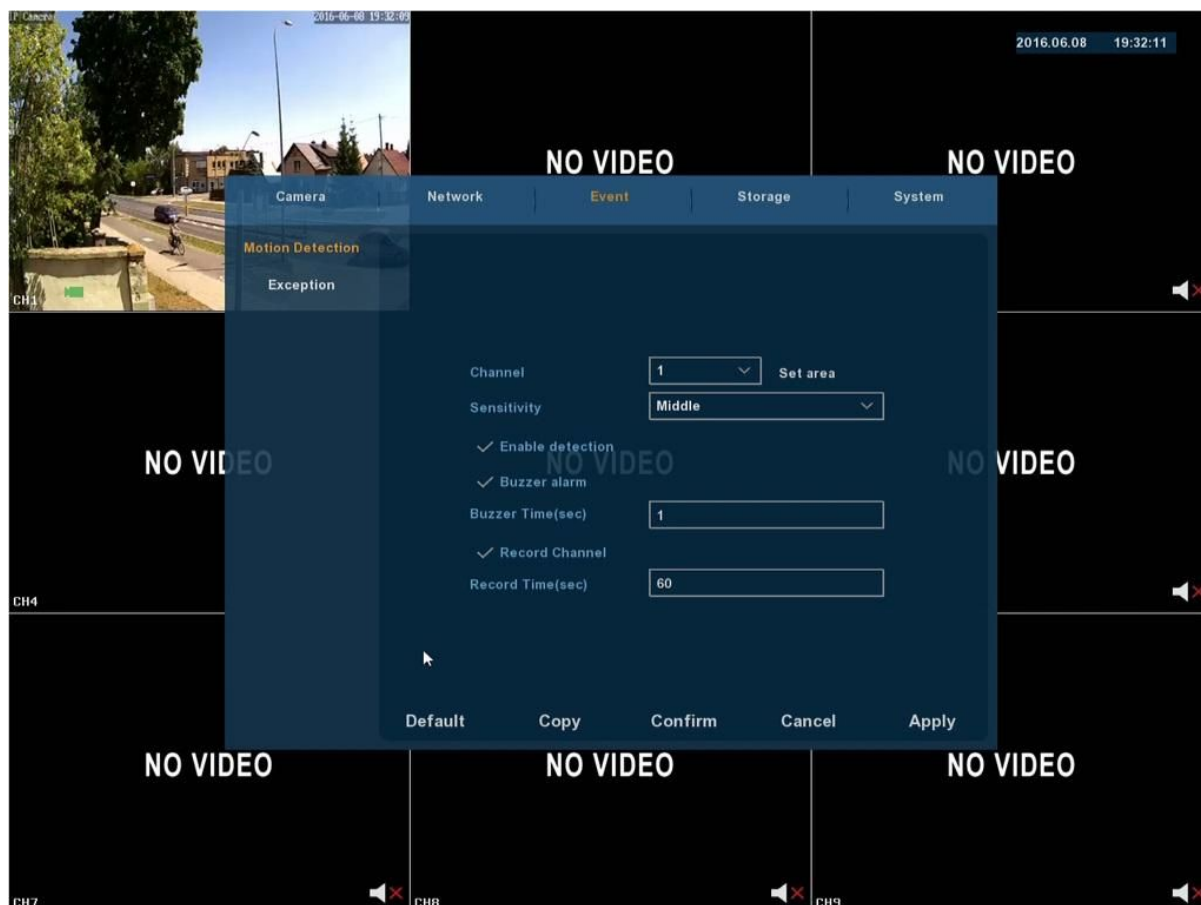
Recorder will search and make a list of files, to copy them to a connected USB device, mark the files of interest (first tick from the left) and press the start button. USB memory stick should be using **FAT32** file format. After data backup is finished recorder will show you message.



CHAPTER 4. Motion Detection

1. Motion detection setup

To set up motion detection after starting your recorder you need to click **right mouse button**. Choose **Main Menu** and go to **Event** tab.



1. **Channel** – select channel (camera no.),
2. **Set Area** – using blue selection, select areas that you want to be scanned for traffic. The default value is the entire viewing area,
3. **Sensitivity** – we can choose the motion detection sensitivity from low (lowest) to high (highest),
4. **Enable detection** – run motion detection this option need to be selected,
5. **Buzzer alarm** – this option will activate an additional acoustic signal from the NVR when motion is detected,
6. **Buzzer Time(sec)** – determines the length of the duration of the beep when motion is detected,
7. **Record Channel** – this option is used to activate recording schedule when motion is detected,
8. **Record Time(sec)** – determines the length of recording time associated with motion detection.

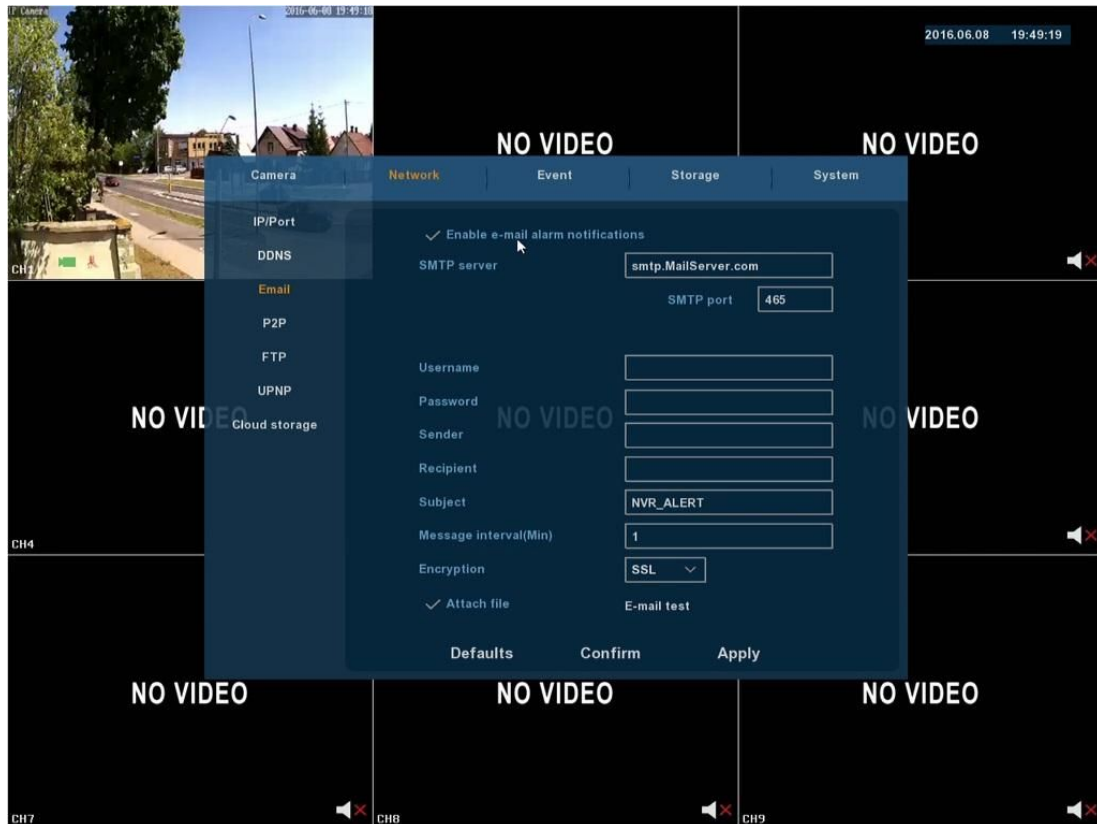
2. Recording motion detection



To configure video recording when motion is detected, in the **Event** tab you should marked **Enable Detection** and **Record Channel**. Then, go to **Main Menu** and **Storage** and select day of the week and time to scan for motion detection (The area mark in yellow). After selecting recording on one camera, we can **Copy** settings for each or all of the other channels. **Apply** and **Confirm** your changes.

3. Email Notification

After setting up motion detection you want your recorder to send you additional messages to your e-mail, go to the **Network** option from **Main Menu**.



Enable email alarm notifications – option that activates an alarm,

SMTP Server – SMTP server name for your email account,

SMTP port – port on which the SMTP server is functioning,

Username – your email Username that you want to use for SMTP notifications,

Password – password for your email account,

Sender – sender name,

Recipient – email address of the recipient,

Subject – subject for your email alert,

Message Interval – time between messages alarm,

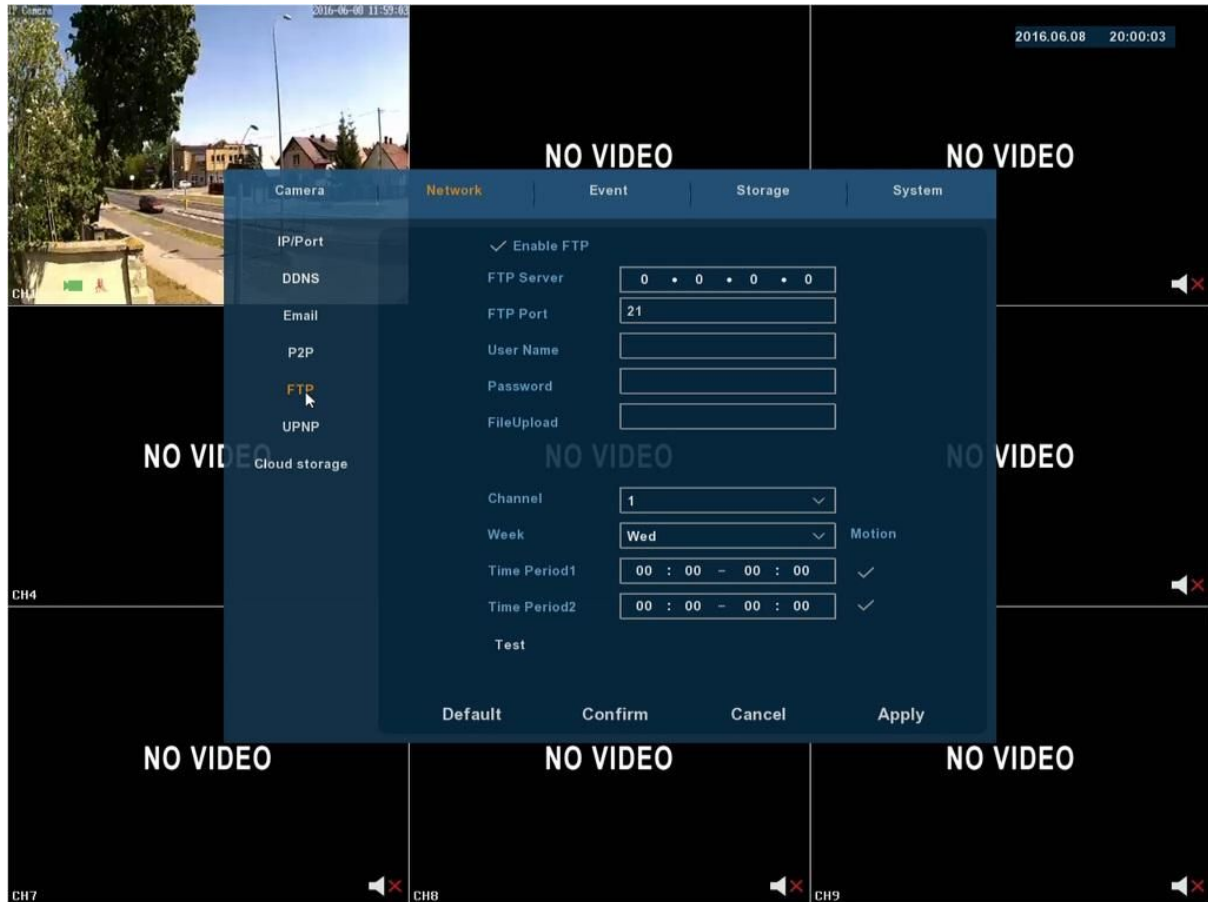
Encryption – level of encryption used by your mailbox,

Attach File – adds additional picture of the moment in which the event took place,

E-mail test – button to test email notification.

4. Uploading snapshots to an FTP server

To set up FTP server go to the **FTP** in **Network** tab.



Enable FTP – this option activates image upload to an FTP server,

FTP Server – IP address of your server,

User name – login that you use for your FTP server,

Password – password for your username,

FileUpload – path to the folder on your server where NVR will save alarm files,

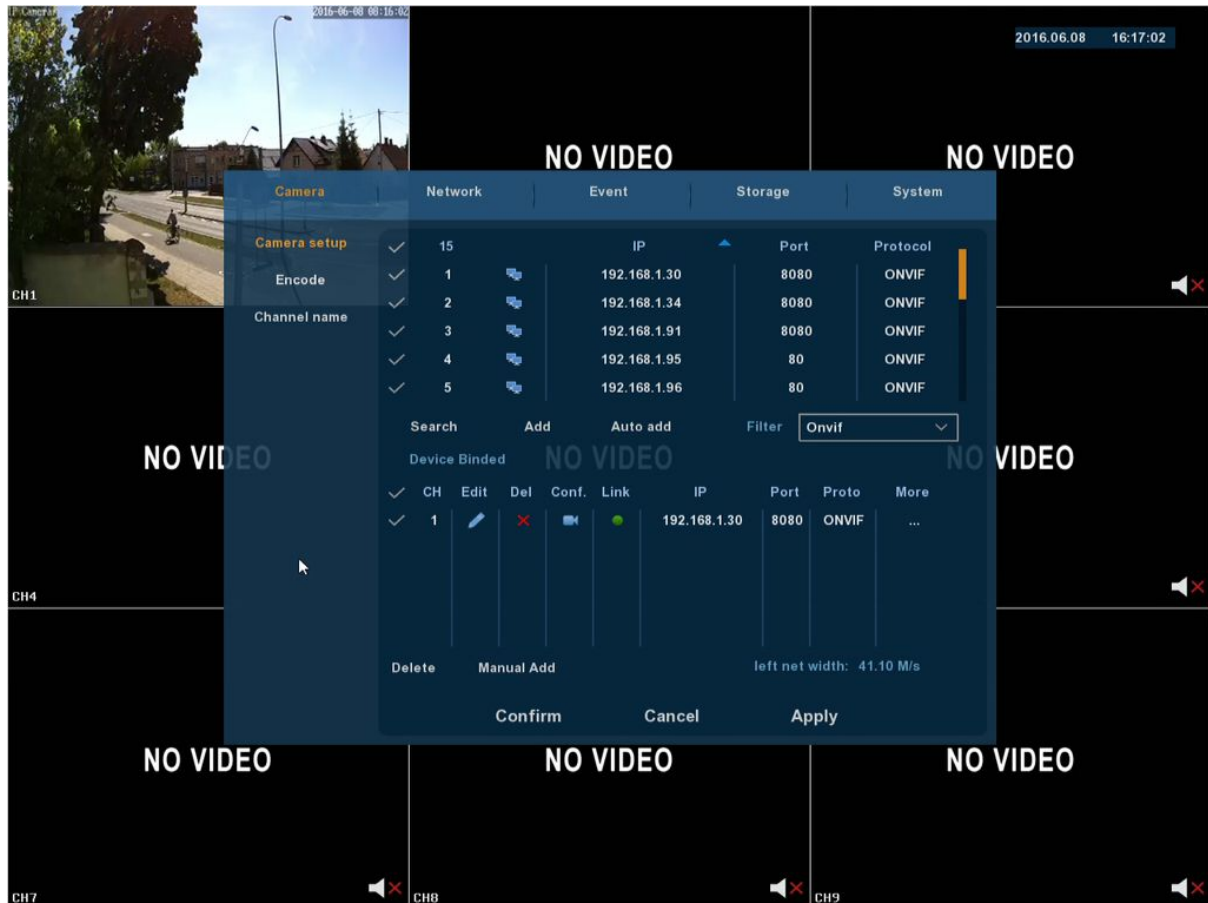
Channel – channel that apply to FTP rule,

Week – day of the week in which FTP will operate,

Time Period – time range in which FTP rule will operate. Tick next to it will enable this option.

CHAPTER 5. Adding New Cameras

To add a new camera, log in to the recorder and click **right mouse button**. Choose **Main Menu** and go to **Camera** tab.



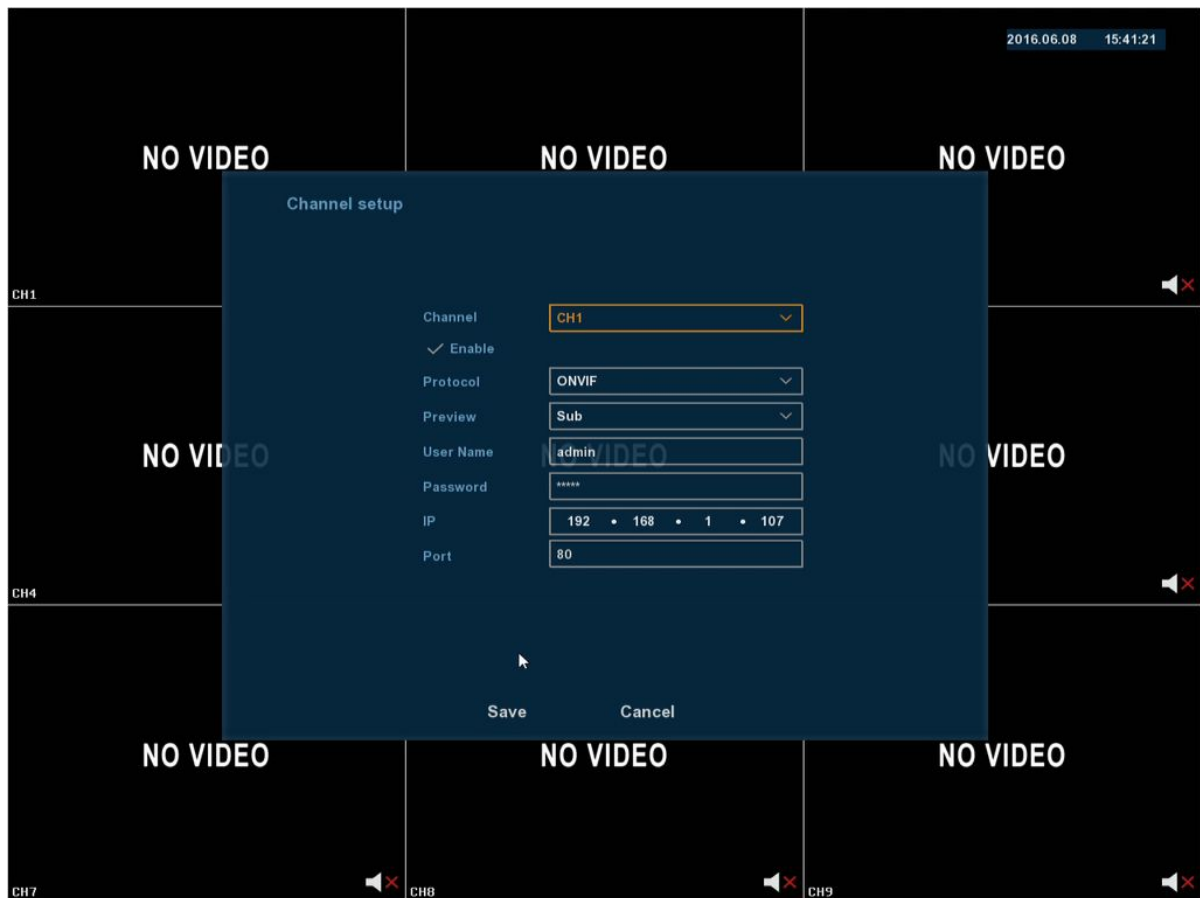
Search – you can search for cameras that are connected to the same network as the NVR

Add – after searching for the camera and mark camera you want to add, we can simply add it by clicking on **Add** button.

Auto Add – selecting this option, the recorder will automatically set the appropriate settings for the camera, we do not recommend using this option, much more reliable is to give the appropriate IP addresses for each camera separately and add them by clicking **Add**

Delete – added camera can be removed by marking it on the table added cameras and clicking on the icon **Delete**

Manual Add – With this option, we can add a camera manually.



When adding cameras manually, enter the following data:

Channel – is the channel on which camera will operate,

Enable – select this option to activate the camera,

Protocol – protocol for operating camera. We have option to choose from ONVIF, RTSP, and Private. If you using cameras from ZxTech, select ONVIF,

Preview – choose stream on which will be used to preview an image of the camera. For the best picture quality select *Main*,

User Name - user name that you use to log in to the camera. The default login for ZxTech cameras is **admin**,

Password – password for the camera. The default password for the ZxTech camera is **admin**

IP – IP address of the camera. We can find it using the application IPC Search on you Windows based PC/Laptop. We can find it on the CD supplied with each recorder and ZxTech camera,

Port – Here we introduce the port on which camera will operate. The default network port for ZxTech cameras is **port 80**, while the default network port for wireless ZxTech cameras is port **8080**.

CHAPTER 6. Troubleshooting

1. Log

Log provides information about NVR status, errors, configuration changes, users activity and access to recorded files.

To access it login to the NVR, open **Main menu** and choose **Log** from **Info** section.



Next window allow you to choose time range and type of information that will be displayed:



Type - choose what type of information should be displayed: *All logs, System Management, User Management, Parameter configuration, File Operations, Status prompt, Alarm Event.*

Start Time / End Time - choose dates and times to narrow search results. Maximum time you can display logs from is 7 days.

Query - press this button to start search process.

PgUp / PgDn - switch to next / previous page.

Clear - delete information in the log.

2. Restarting NVR and auto reboot

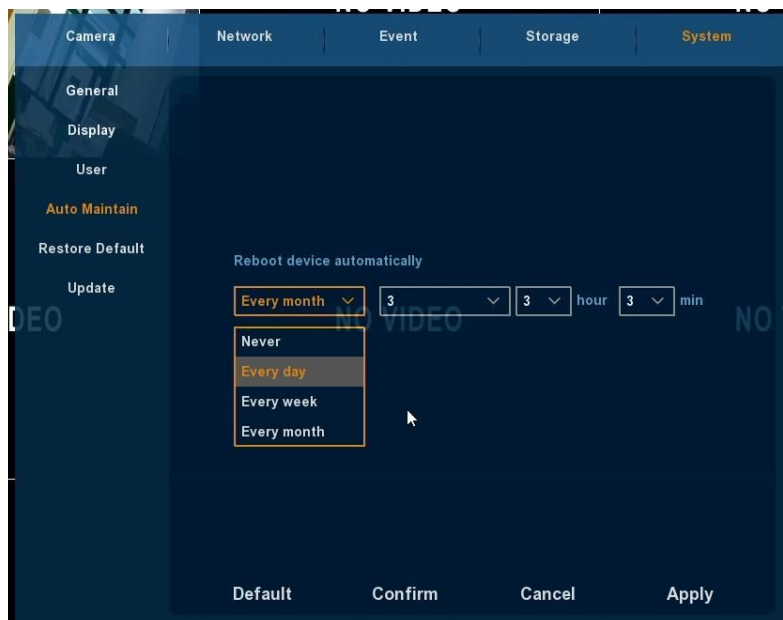
To reboot your NVR open **Main menu**, choose **Shutdown** from **Operate** section and click on **Reboot**.



It's advised to set recorder for auto maintain and reboot cycle. To do it go to **Main menu**, choose **System** from **Setup** section (3rd row) and select **Auto Maintain** from menu on the left.

Here you can choose how often recorder will do the maintenance and reboot itself:

- **Never** – if you choose this option, please reboot recorder yourself once in awhile,
- **Every day** – once a day at chosen time (hour/minute),
- **Every week** – once a week at chosen day (Sun. - Sat.) and time (hour/minute),
- **Every month** – once a month at choosen day (1-31) and time (hour/minute).



3. Formatting hard drive

After connecting a new hard drive to the NVR it need to be formatting first. To do this, log in as an administrator from the popup menu, you need to **right click mouse button**. Choose **Main Menu** and go to **Storage** tab then choose **Disk**.

From the list of available drives, select one that you want to format, and click Format.

!NOTE!

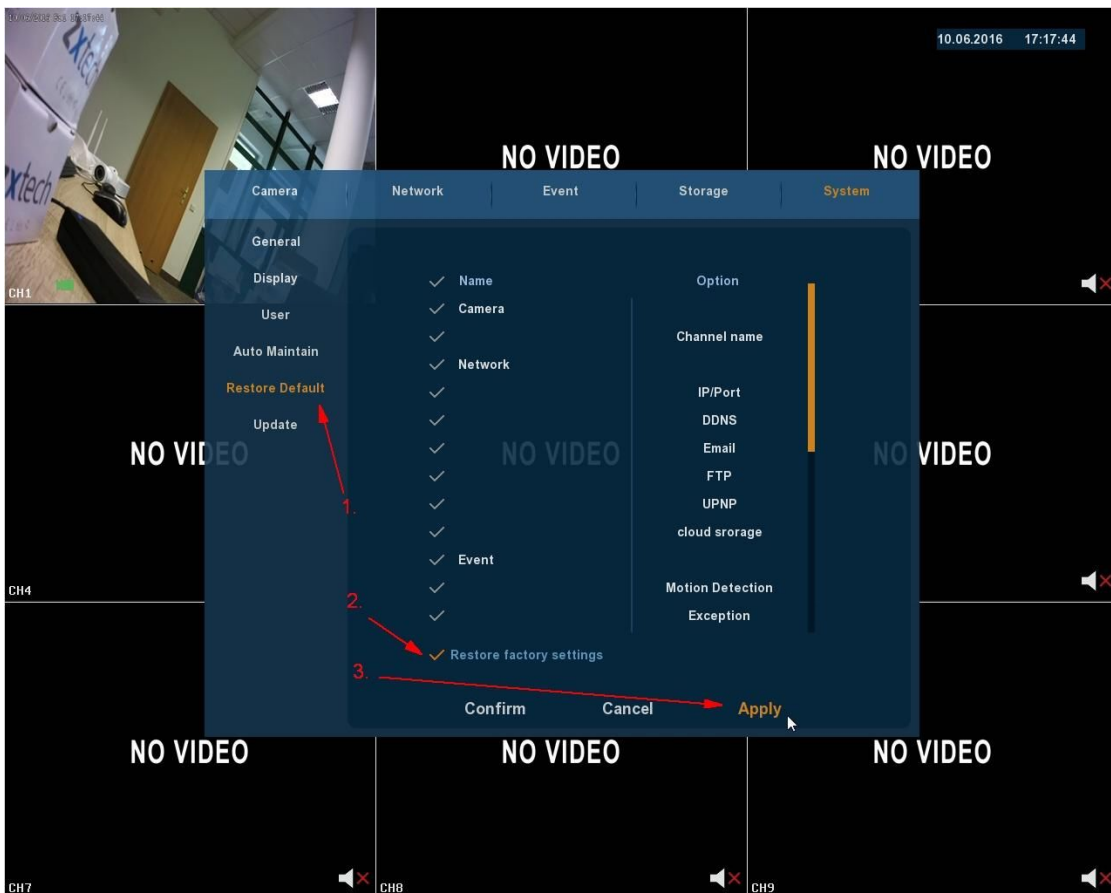
All data on the disk will be lost!

After formatting NVR will restart automatically.

4. Restoring factory settings

To reset all the NVR settings to the factory, follow these steps:

- login to NVR as an administrator (default login is **admin**, password is **12345**),
- **right click mouse button**, choose **Main Menu** and go to **System** tab
- then choose **Restore Default (1)**,
- click on **Restore factory settings (2)**,
- **Apply (3)** your settings,



5. Firmware version and update

Information about recorder's current firmware version can be found in **Main menu** under **Info** section after clicking **System**:



Now choose **Version info** from left hand side menu.



In our case, our firmware version is: **v6.1.13.5**. You can also update your firmware.

!NOTE!

To update your NVR we recommend to use a memory stick. When doing this from web browser you might lost connection and that might cause damage to the device.

The file with the new software should be placed on the memory stick directly in the root folder, it is recommended to also delete or move other files in the flash memory do your PC. After login to NVR, **right click mouse button**. Choose **Main Menu** and go to **System** tab. Then go to **Update** on the left hand side **(1)**. The system will automatically detect the available updates for your NVR. If this does not happen, you can click on **Refresh** button at the bottom.

Next select update file by selecting it **(2)** and click **Upgrade** **(3)**.

Update will takes a few minutes, then the recorder will automatically restart.

