

MB2-2 Network Video Server



Quick Installation Guide

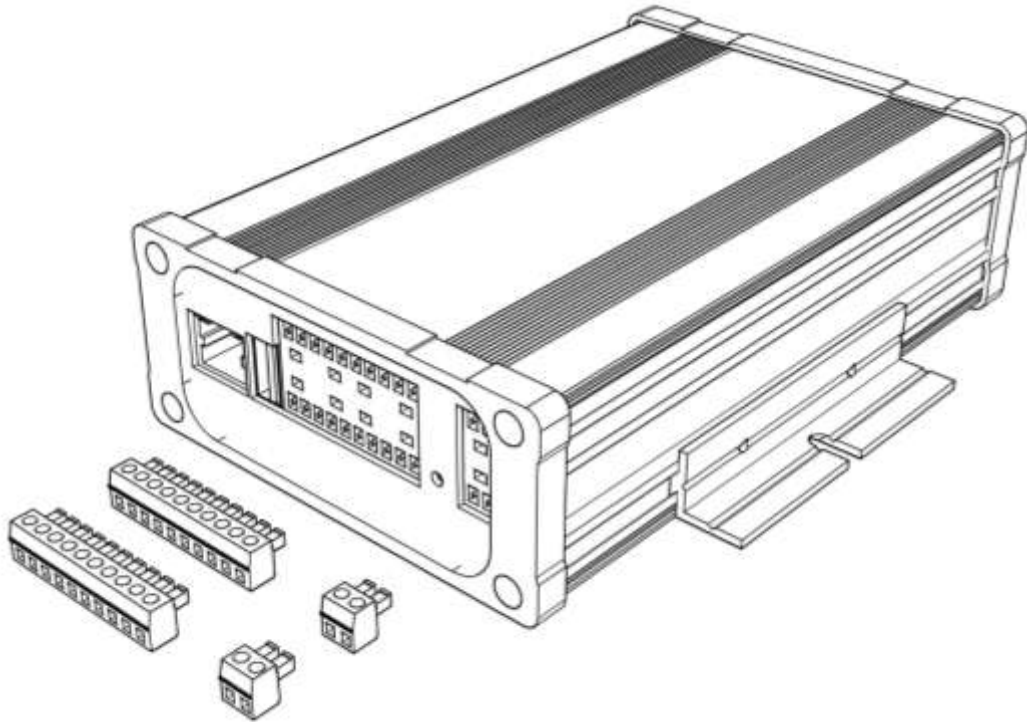


Before connecting this device, please, carefully study the Safety Instructions in User Manual.

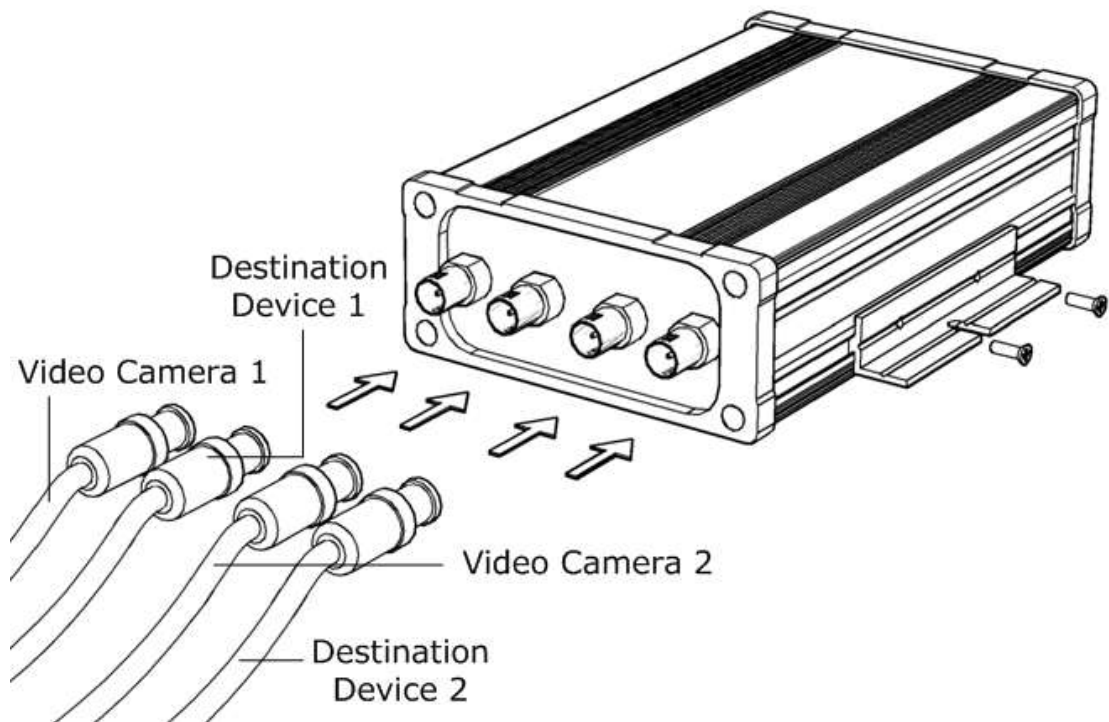
This document contains only the most important directions on installing and connecting MB-2, and in no case substitutes the complete User Manual.

1. Unpack the Components Supplied

- Network Video Server MB-2
- 2 mounting lugs (screwed to the box)
- 4 mating plugs

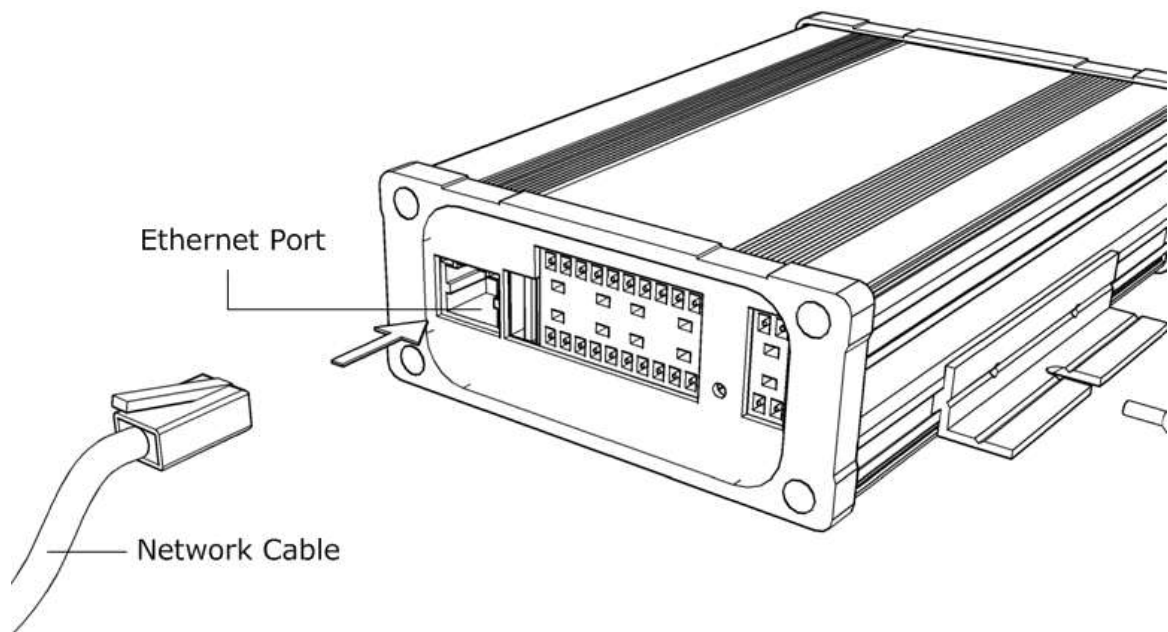


2. Connect Video Cameras and Destination Devices



1. Connect video cameras 1 and 2 to inputs CHANNEL 1 - IN and CHANNEL 2 -IN.
2. Connect destination devices (monitor, video recorder) to outputs CHANNEL 1 - OUT and CHANNEL 2 - OUT (optionally).

3. Connect Network Cable (optionally)



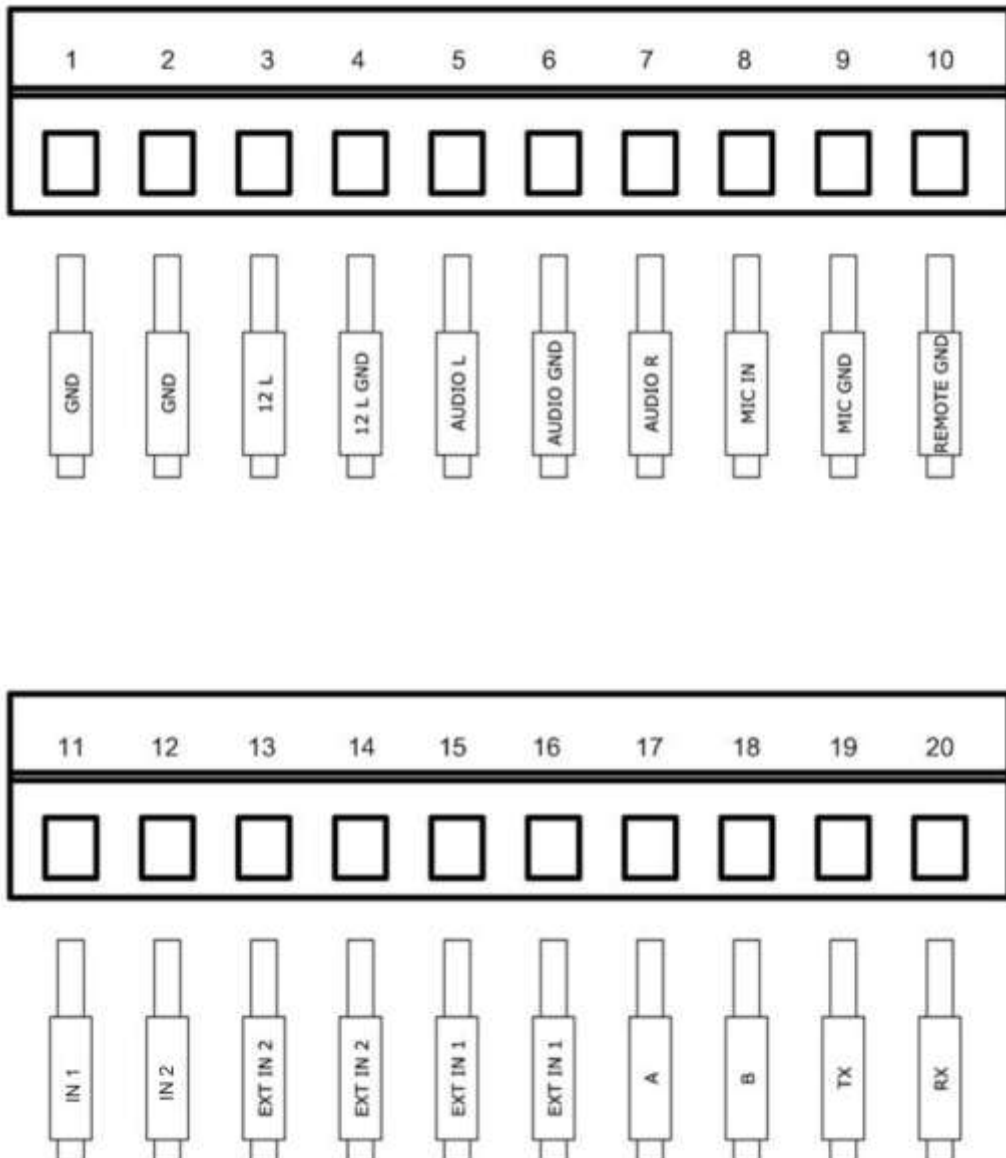
1. Plug a network cable into Ethernet port. Both patch and cross cables are possible to use, the port mode being defined automatically.
2. Using the network cable, connect the device to a switching unit, or directly to a computer.

4. Connect External Devices to the Mating Plugs (optionally)

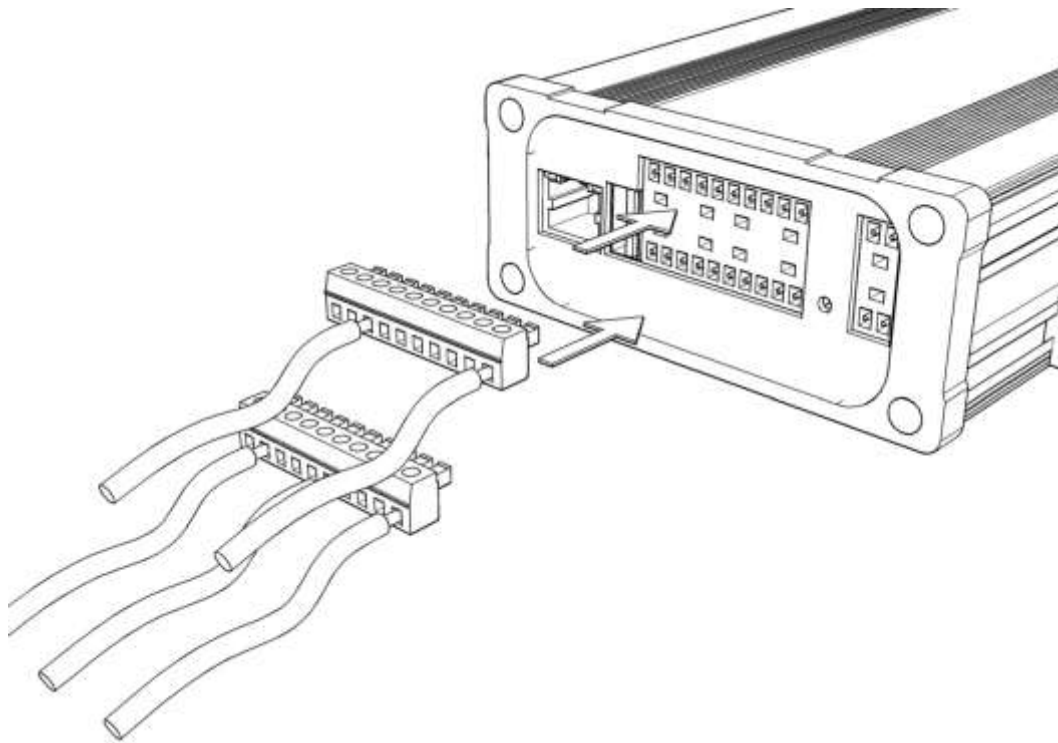
The mating plugs can be used to connect the following optional devices:

- Digital video receiving devices
- Audio devices
- Relays
- Power supply for external devices
- Other devices connected via RS232 and RS485 interface

Connect the external devices to the mating plugs according to the scheme and fasten with the screws.



5. Connect the Mating Plugs to the Plug-in Unit

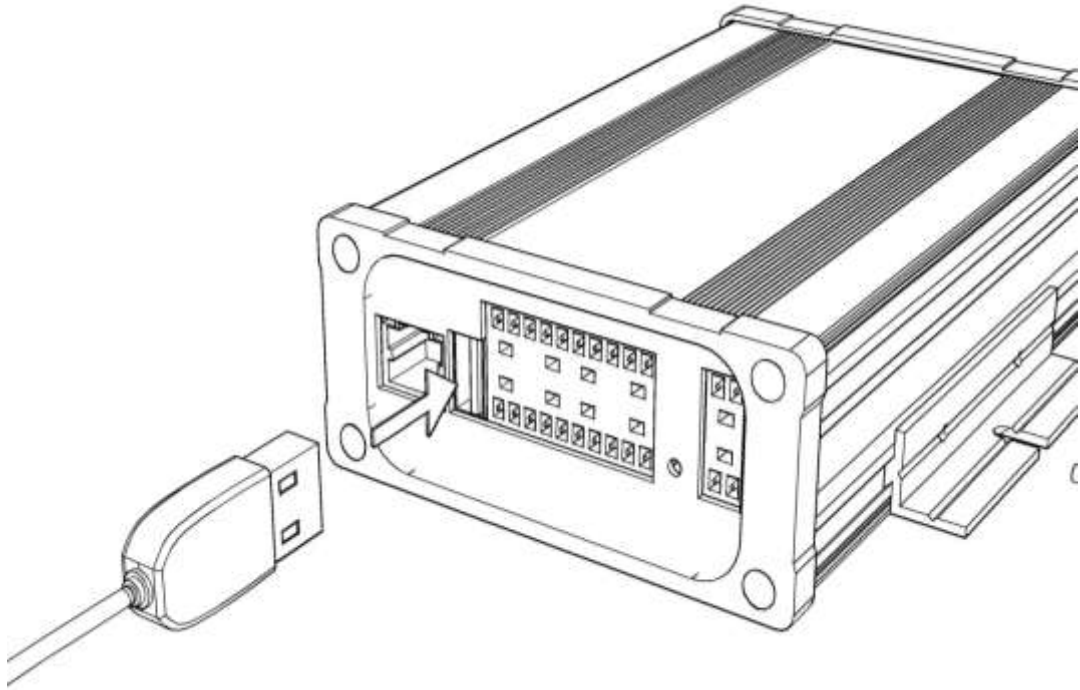


Insert the mating plugs to the plug-in unit according to the scheme in Chapter 4.

6. Connect USB Devices



Before connecting any auxiliary devices, make sure the power supply capacity is sufficient for the video server and devices connected to it (see Chapter 7).



If necessary, plug a USB storage device into the USB-port in the back panel.

7. Connect Power

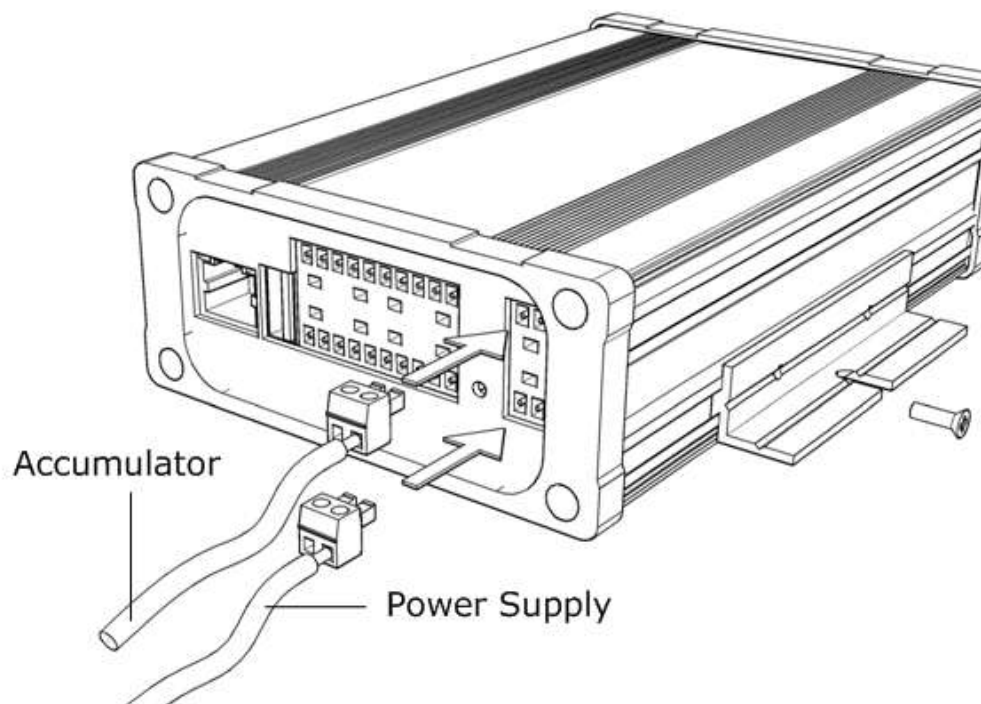
For the correct operation of the device, it is highly recommended to use an external power supply with the following characteristics:



- +12B± 10%. 1.7A (without connecting an accumulator)
- +12B± 10%. 2.0A (with an accumulator connected)

The power supply capacity should at least at 30% exceed the total consumed power of all the devices connected.

1. Connect the power supply cable to the mating plug according to the scheme and polarity at the back panel of the device. Fasten the wires with the screws.
2. Insert the mating plug to the plug-in unit according to the scheme.



3. Switch on power supply.

When switched on, the power indicator lights up green, and the channel indicators light orange.

4. Wait for the channel indicators to turn green when the device loads (about 60 seconds). If the indicators are flashing, check the connection of the analog cameras.

5. Check the quality of the picture in the monitor connected to the analog output (optionally).

In order to maintain uninterrupted operation in case of power cut off, or when the electric mains are difficult to access, the device allows connecting an accumulator (see the picture above).



**Use an accumulator with the following characteristics:
12B 7 A/h, 5.1W (0.37mA)**

1. Before connecting the accumulator, check its polarity carefully
2. Connect the accumulator cable to the mating plug according to the scheme and fasten with screws.
3. Insert the mating plug into the plug-unit.

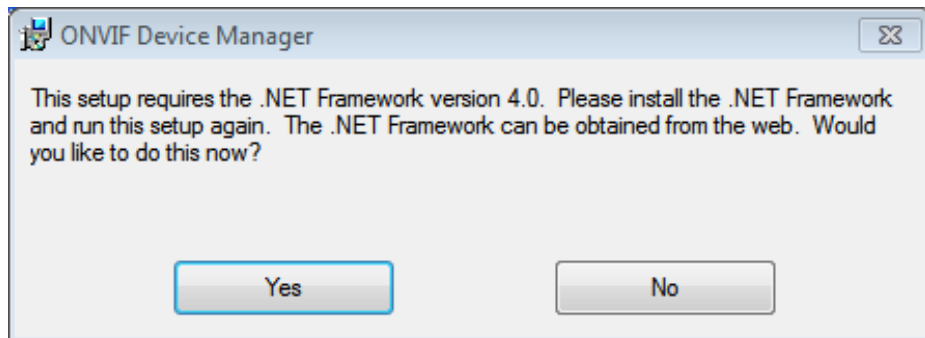
8. Install ONVIF Device Manager

System requirements:

- Operating System: Windows XP SP3 or higher (Windows 7 is recommended)
 - Microsoft .NET Framework 4 packet
 - Random access memory 1 Gb (2 Gb recommended)
 - Free disk space 40 Mb
1. Download file **onvifdm.msi** from Synesis website (<http://synesis.ru/ru/surveillance/downloads>) or SourceForge website (<http://sourceforge.net/projects/onvifdm/>).
 2. Run **onvifdm.msi**.



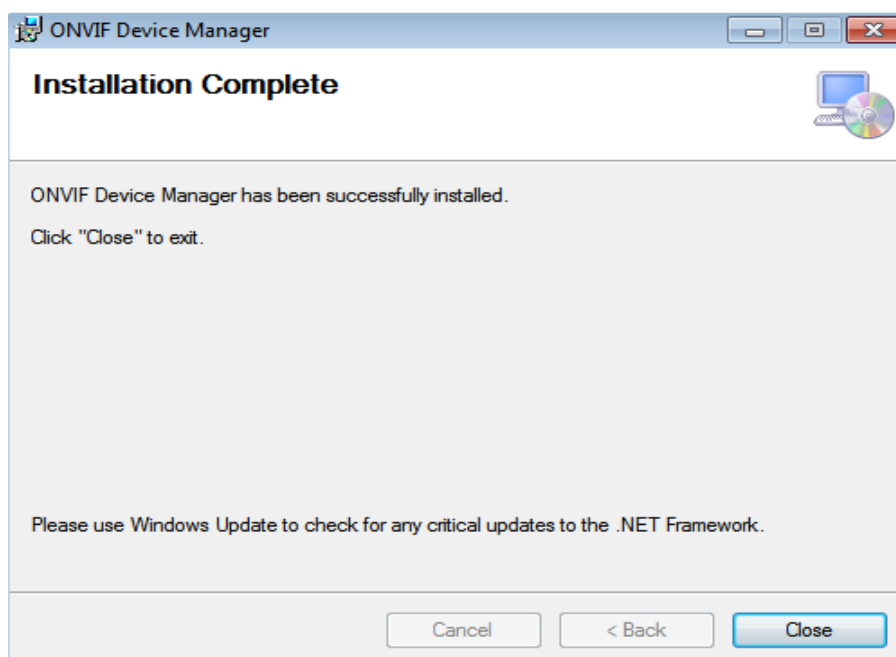
Installation Wizard will check if Microsoft .NET Framework 4 has been installed to your PC. If it is absent, a dialogue window will open with the following text:



3. Click **Yes**.

You will be redirected to <http://www.microsoft.com/>.

4. Download file **dotNetFx40_Full_setup.exe** and install .NET Framework according to Installation Wizard instructions.
5. After installing Microsoft .NET Framework 4 run file **onvifdm.msi** again.
6. Windows User Account Control may ask for the permission to continue the installation. Click **Yes**.
7. Complete the installation process of ONVIF Device Management.



9. Run ONVIF Device Manager

1. Run ONVIF Device Manager from the desktop or from "Start" menu.
2. After the first launch of the application, System Firewall may ask for the permission to open the access to the network. Click **Allow Access**.

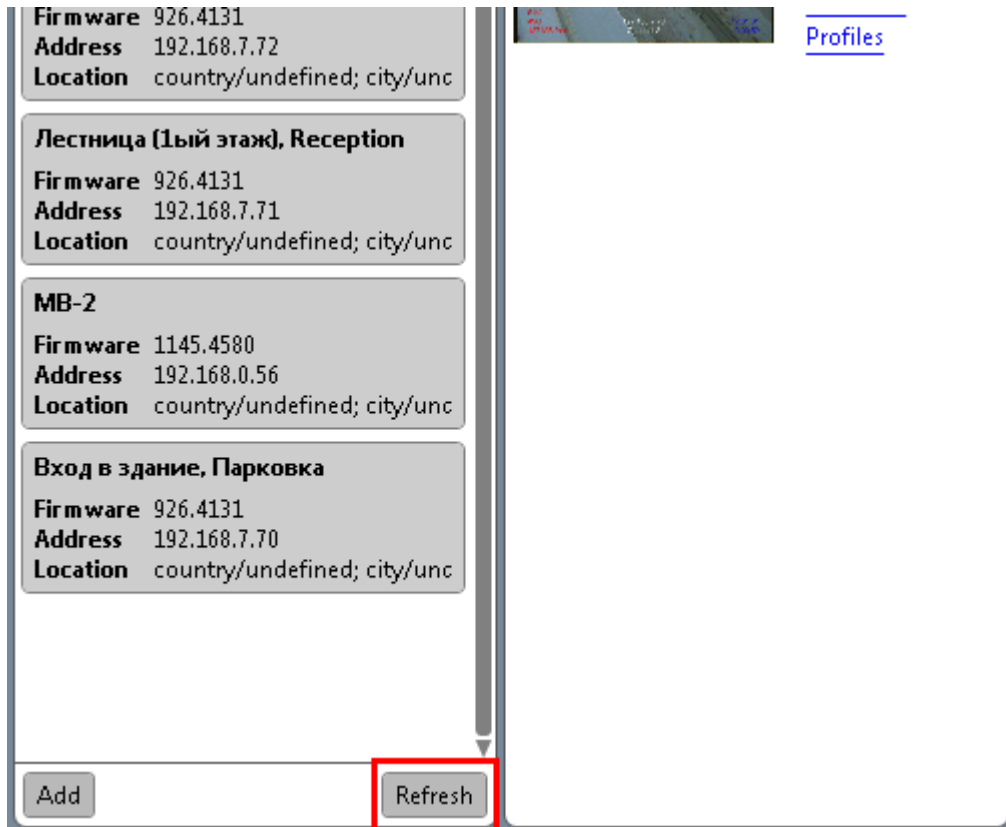


When launching ONVIF Device Manager, MB-2 video server is automatically detected in the device list on the left.



To make sure you have selected the right device, check Live Video icons from both video cameras.

3. If the device has not been detected automatically, check the connection and click **Refresh**.



10. Perform Video Server Identification

1. Left-click on the device in the list.
2. Click **Identification** link in the menu list.
3. Make sure the value in **Device ID** field corresponds to its serial number.



The screenshot displays the configuration interface for a 'Railway' device. The left sidebar shows a menu with 'Identification' selected. The main area is divided into two sections: 'Railway' (left) and 'Identification' (right). The 'Railway' section includes a device image, a menu of settings (Identification, Time settings, Maintenance, Network settings, User management, Certificates, System log, Relays, Web page, Events), and a video source indicator 'VIDEO_SOURCE_0: CH-A-H264' with a live video feed. The 'Identification' section contains a form with the following fields:

Name	Railway
Location	country/undefined; city/undefined
Manufacturer	Synesis
Model	MB-2
Hardware	1.0.6
Firmware	1137.4546
Device ID	000000000000000DF
IP address	192.168.0.59, 169.254.34.103
MAC address	E4-AB-46-FF-EC-77
ONVIF version	1.01
URI:	http://192.168.0.59/onvif/device_service

Buttons for 'Apply' and 'Cancel' are located at the bottom right of the form.

4. Fill in **Name** and **Location** fields.
5. Click **Apply**. Your settings are saved.

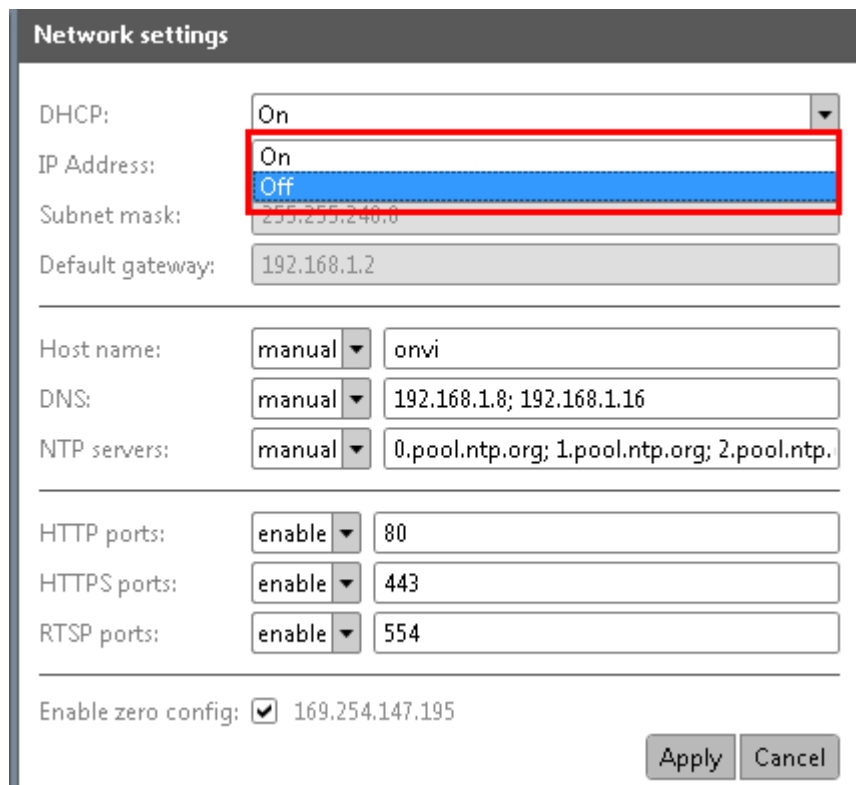


Identification Tab contains URI value which is necessary for connecting the device to a video management system. For detailed information consult User Manual.

11. Adjust the Network Settings

Nowadays, most of the networks contain a DHCP server which automatically assigns IP-addresses to the devices connected. If there is no DHCP server in your network, the IP-address will be determined automatically over ZeroConf protocol.

1. In the device menu select **Network Settings**. The default settings are the following:



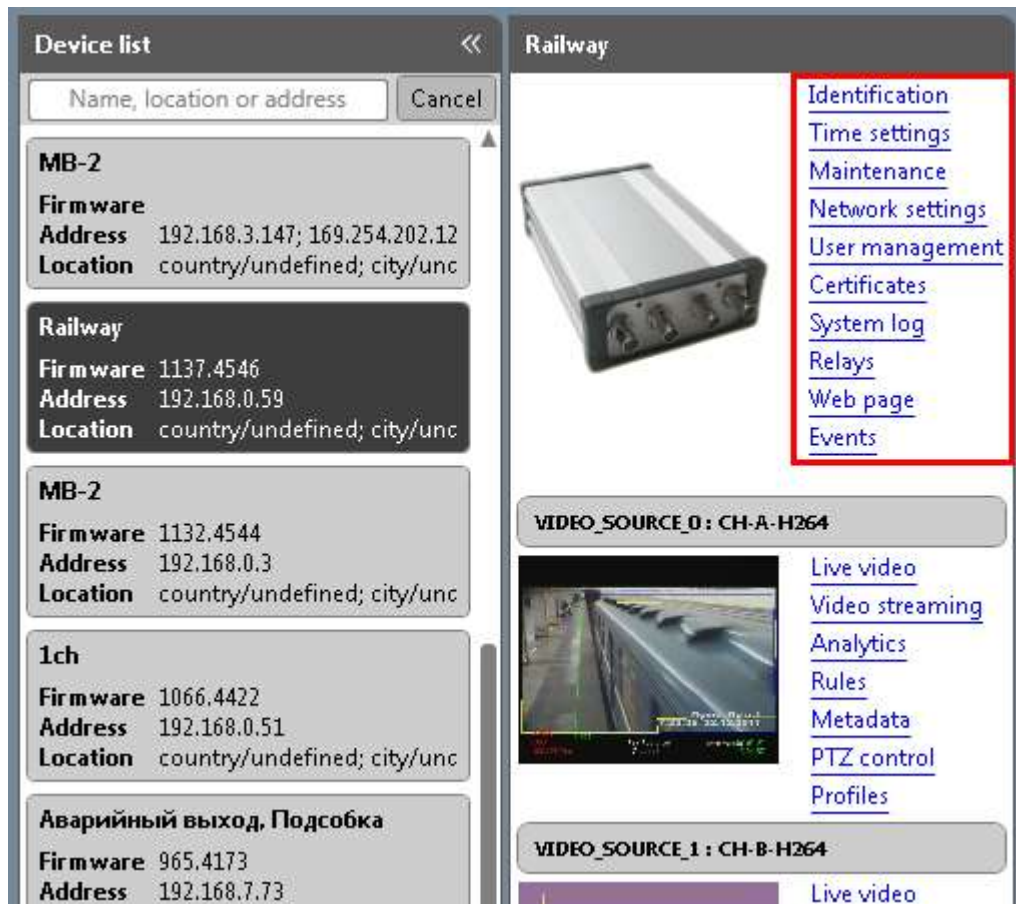
The screenshot shows the 'Network settings' window with the following configuration:

- DHCP: On (dropdown menu is open, showing 'On' and 'Off' options, with 'Off' highlighted)
- IP Address: (empty field)
- Subnet mask: 255.255.240.0 (highlighted in red)
- Default gateway: 192.168.1.2
- Host name: manual | onvi
- DNS: manual | 192.168.1.8; 192.168.1.16
- NTP servers: manual | 0.pool.ntp.org; 1.pool.ntp.org; 2.pool.ntp.
- HTTP ports: enable | 80
- HTTPS ports: enable | 443
- RTSP ports: enable | 554
- Enable zero config: 169.254.147.195

Buttons: Apply, Cancel

2. If you want to set a static IP-address (or your network does not contain a DHCP server), select **Off** in DHCP dropdown. After that the respective fields will be available for editing.
3. Adjust the network settings and click **Apply**.
4. Wait until the device is reloaded.

12. Adjust other video server parameters



For detailed instructions consult the complete User Manual.

13. Check Live Video Playing

1. Click **Live Video** for one of the connected cameras.

Video stream from the relevant analog camera opens in the next window.

Below, there is an RTSP-link which can be used to play the video in other applications.

The screenshot displays a web interface for a security camera system. The main window shows a live video stream of a snowy parking lot with a silver car. The interface includes a sidebar with navigation links, a main video window, and a status bar at the bottom.

Navigation Links:

- Identification
- Time settings
- Maintenance
- Network settings
- User management
- Certificates
- System log
- Relays
- Web page
- Events

VIDEO_SOURCE_0 : avcov001

- Live video
- Video streaming
- Analytics
- Rules
- Metadata
- Profiles

VIDEO_SOURCE_1 : avcov001

- Live video
- Video streaming
- Analytics
- Rules
- Metadata
- Profiles

Status Bar:

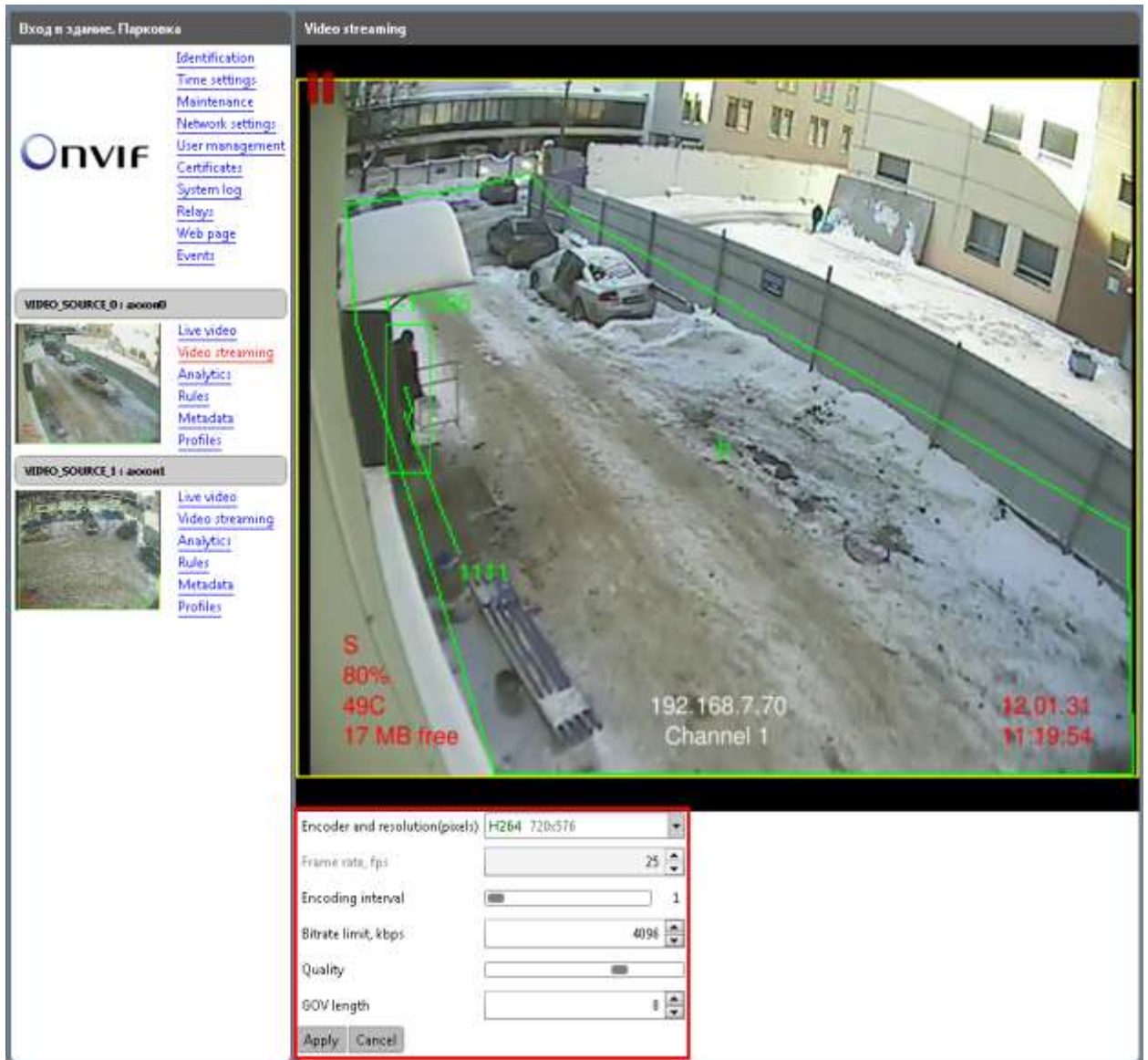
- S 69%
- 49C
- 17 MB free
- 192.168.7.70
- Channel 1
- 22:07:24
- 10:26:05

RTSP Link: `rtsp://192.168.7.70/media0`

14. Adjust each Channel Settings

As an example let us consider **Video Streaming**.

1. Click **Video Streaming** for the camera selected.



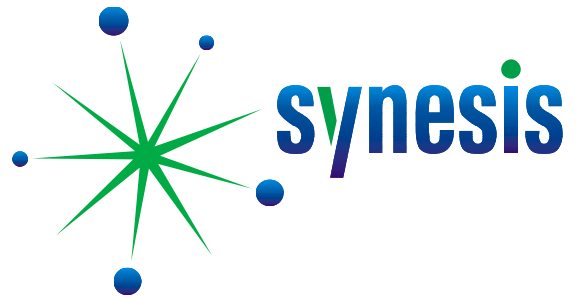
The video opens in the next window.

2. Set the necessary parameters in the lower part of the window.
3. Click **Apply**.

The same way adjust other channel parameters.



For detailed instructions consult User Manual.



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ONVIF Device Manager user forum
<http://sourceforge.net/projects/onvifdm/forums>

Customer service center:
<http://mbx.synesis.ru/>

The information in the document can be changed without notification.