OMNICOMM

Omnicomm OKO Light Online Video Recorder

User Manual

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Omnicomm OKO Light Online Video Recorder

General Information

Omnicomm OKO Light Online video recorder – vehicle equipment designed to record video to the removable media devices and transmit data to Omnicomm Online cloud service. Main functions:

- video recording from the connected IP cameras
- data storage in non-volatile memory
- data transmission to Omnicomm Online

After the ignition is switched off, recording and video transmission continues for 30 minutes. Contact the maintenance service to change the recording shutdown interval.

Video recording starts 50-70 seconds after the ignition is turned on, depending on the number of cameras connected.

Attention

While carrying out installation, observe the safety rules and regulatory requirements for this type of work.

Technical Specifications

	Omnicomm OKO Light
Communication	
Data transmission channel FDD LTE TDD LTE TDSCDMA WCDMA CDMA2000 1x/EVDO GSM	 B1/B3 B38/B39/B40/B41 B34/B39 B1 BC0 900 / 1800 MHz
Number of SIM cards	1
Video	
Number of connected IP video cameras	From 1 to 4
Video compression format	*.h264
Video encryption	Yes
Video volume from one camera	6 Mb/min
Record quality	1024 kbit/s
Video resolution	720p (1280×720)
Frames per second	15
Power source	

Technical Specifications

	Omnicomm OKO Light
Communication	
Power supply voltage, V	10…36
Data collection	
Non-volatile memory capacity, events	150 000
Support of SD cards	2 x 512 Gb
Inputs and outputs	
A/V OUT	Yes
Interfaces	
Ethernet	Yes
Design	
Dimensions, mm	146,4 x 137 x 40 mm
Working temperature range, °C	– 40…+85
Antenna design	External

Maximum recording time depending on the number of cameras and SD card capacity

	128 Gb	256 Gb	512 Gb
1 camera	360 hours	720 hours	1440 hours
2 cameras	180 hours	360 hours	720 hours
3 cameras	120 hours	240 hours	480 hours
4 cameras	90 hours	180 hours	360 hours

Installation

SIM Card and SD Card Inserting

1. To unlock the SIM and SD card slots, insert the locking key into the lock slot, then turn the key clockwise and back counterclockwise.

Before SIM card inserting disable PIN request at activation. In order to do it insert the card in any cell phone and disable PIN request, according to the cell phone operating instruction.

How to insert the SIM card:

1. Using a sharp-pointed object press the button at the SIM1 connector side. The SIM card holder will eject

2. Remove the SIM card holder from the connector slots and insert the SIM card into it with contact pieces up

3. Insert the SIM card holder in the connector slots:

Insert the SD cards in the respective SD1 and SD2 slots

When installing the SD cards, the Omnicomm OKO power must be switched off.

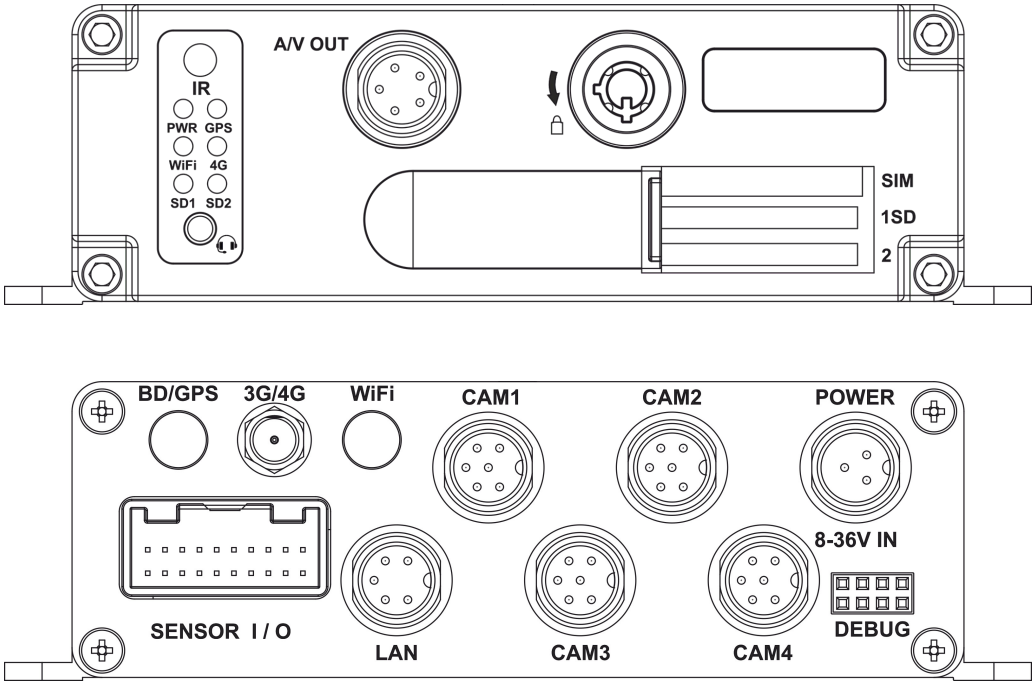
Omnicomm OKO Light video recorder supports SD cards up to 512 Gb.

A list of recommended SD cards:

- Kingston SDR/128GB SDXC A1, V30, UHS-I Class 3 , Class 10
- Kingston SDR/256GB SDXC A1, V30, UHS-I Class 3 , Class 10
- Transcend TS128GSDXC10U1 SDXC/SDHC Class 10 UHS-I 600x (Ultimate)

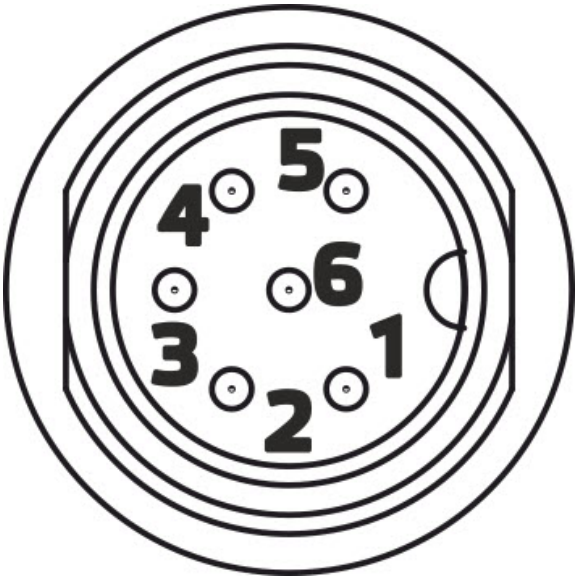
Connector Pin Assignment

Omnicomm OKO Light Online video recorder



Installation

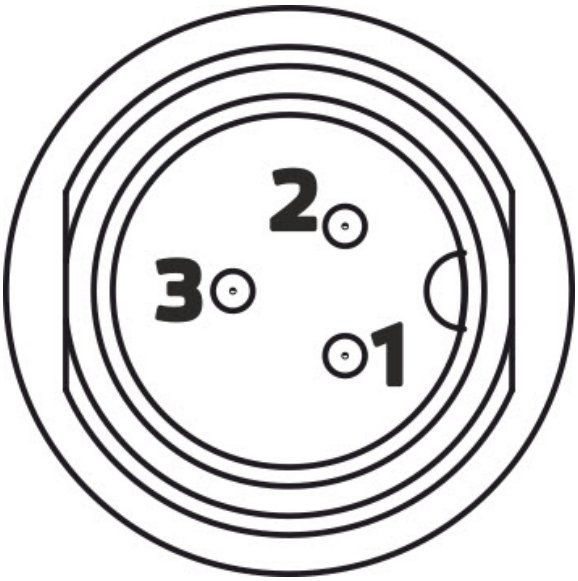
Connectors “CAM1”, “CAM2”, “CAM3”, “CAM4”:



No. of pin	Name of signal
1	DC+
2	DC-
3	Rx+
4	Rx-
5	TX+
6	TX-

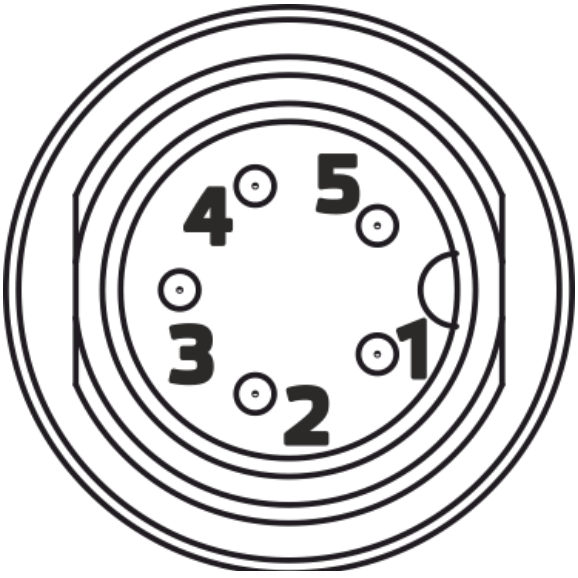
Connector “POWER”:

Installation



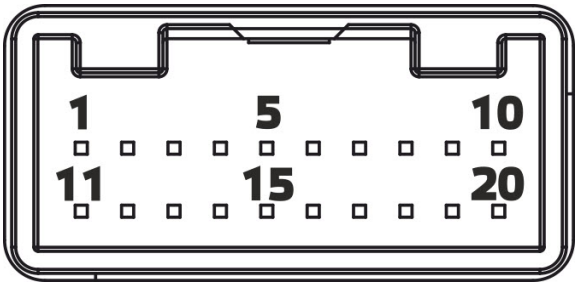
No. of pin	Name of signal
1	PWR
2	GND
3	ACC

Connector “LAN”:



No. of pin	Name of signal
1	NC
2	RX+
3	RX-
4	TX+
5	TX-

Connector “SENSOR I/O”:

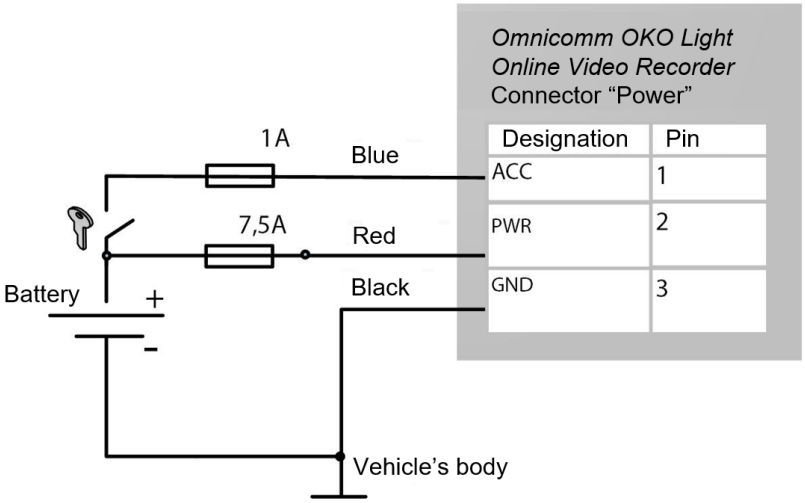


No. of pin	Name of signal
1-5, 8-20	Not used
6	TX RS-232
7	RX RS-232

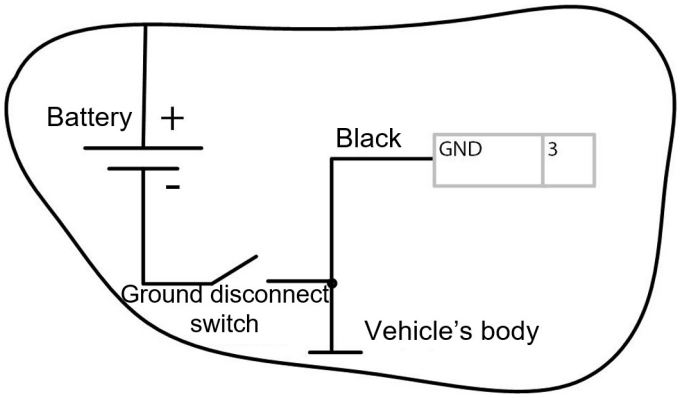
Power Supply and Ignition Key

Connection to the power supply circuit and to the ignition key depends on the presence of a ground disconnect switch on the vehicle and the possibility of connecting directly to the ignition key.

Connect Omnicomm OKO Light video terminals as per diagrams without a ground disconnect switch:



after the ground disconnect switch:



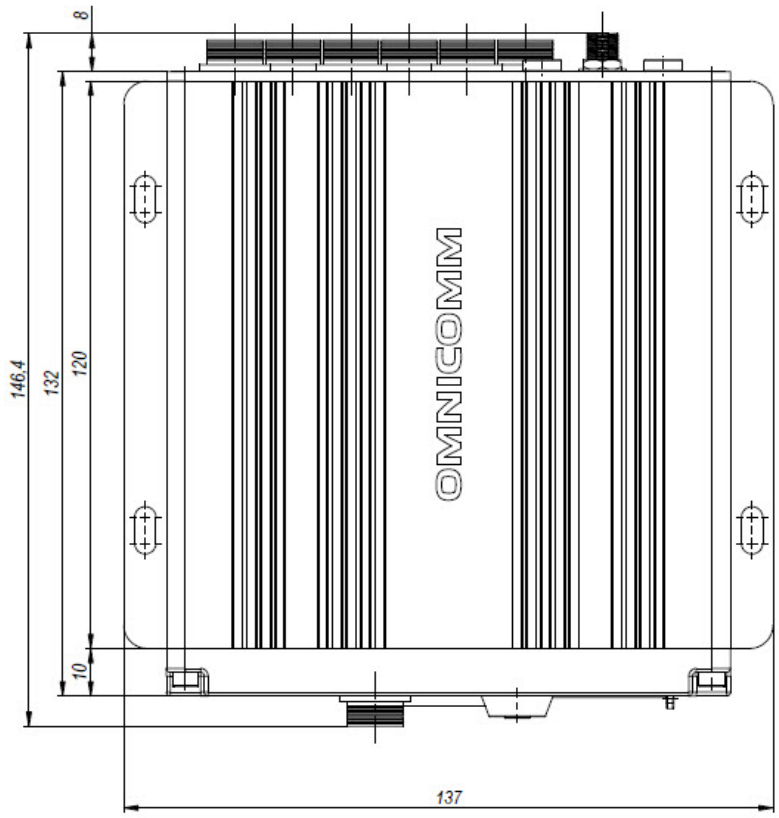
Do not connect the terminal before the ground disconnect switch.

Terminal

The video recorder shall be installed inside the vehicle cabin or in specially equipped electrics boxes on the vehicle protected from atmospheric precipitation.

The video recorder should be installed on a flat surface.

Drill 4 mounting holes Ø5.5 mm.



Install the video recorder and fix it with self-tapping screws.

Antennas

Choose the installation site of 3G/4G antennas based on the antenna cable length.

Antennas should be installed inside the vehicle cabin on a flat surface.

> Distance from antennas to any metal surface (except for the installation surface) should be not less than 50 mm.

We recommend installing antennas on the windshield or on the horizontal surface of the instrument panel in a place providing good sky visibility.

1. Degrease the installation surface
2. Remove protective film from the double adhesive tape on the surface of the antenna
3. Attach the antenna with the adhesive side to the installation site
4. Fix the antenna while the glue is hardening

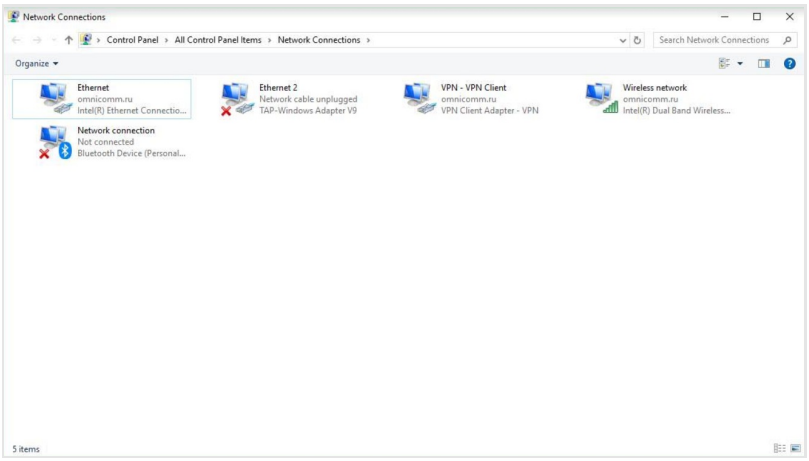
Setting up Video Cameras

Network connection setting on the PC

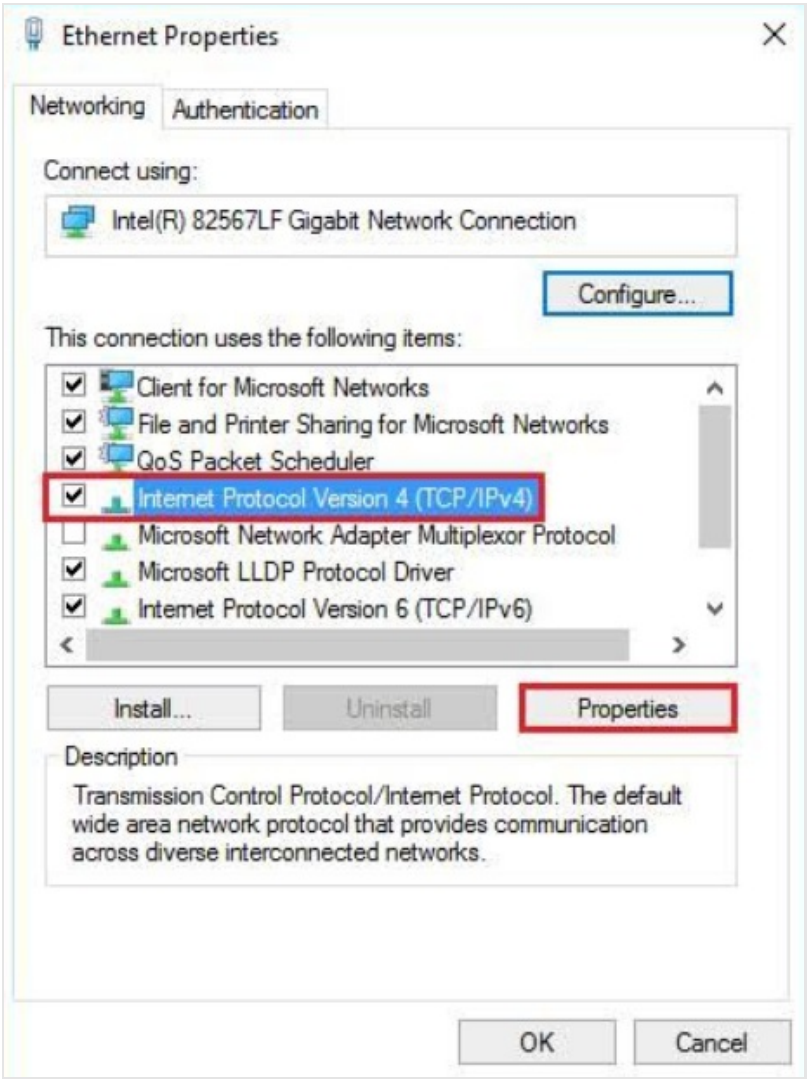
1. Switch on the Omnicomm OKO video terminal power

2. Connect the video terminal to a PC via Ethernet interface using a LAN adapter and a patch cord delivered with the video terminal

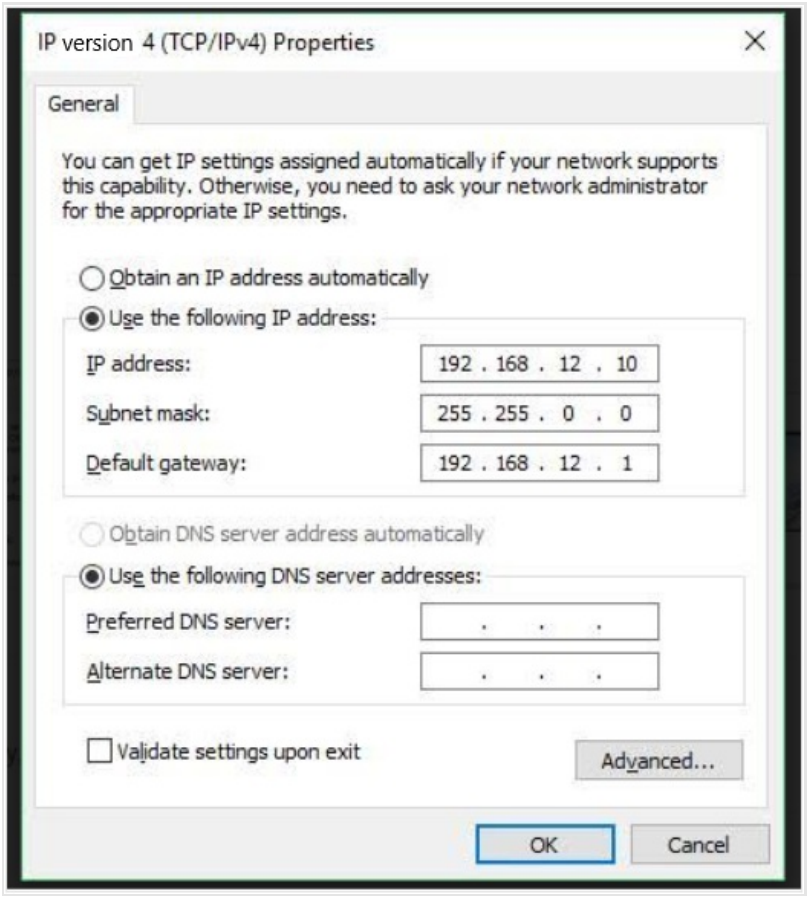
3. Open the adapter network settings window by running “Control Panel / Network and Internet / Network Connections”:



4. Open the connection properties window by right-clicking the mouse and selecting "Properties":



5. Select Internet Protocol Version 4 (TCP/IPv4), press "Properties", and set the following configuration:



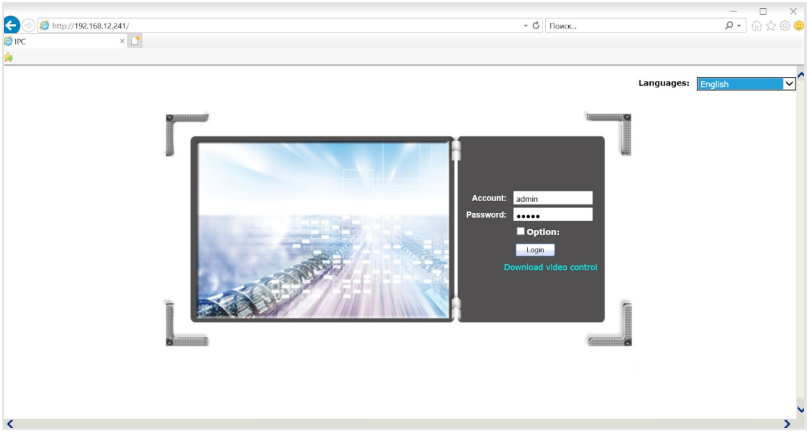
6. Press “OK”

Browser setting

1. Connect the video camera to any video terminal connector (“CAM1” – “CAM4”)

2. Open Internet Explorer and enter the camera configuration address. By default: 192.168.12.241

3. A window will open to confirm ie.exe installation:



4. Press “OK” and follow the installer's tips

5. Refresh the page or restart the browser

6. You will be prompted to enable the Active X add-on:

7. Press “Allow”

The browser will be configured only once, ie.exe reinstallation is not required.

Omnicomm OKO video camera setting

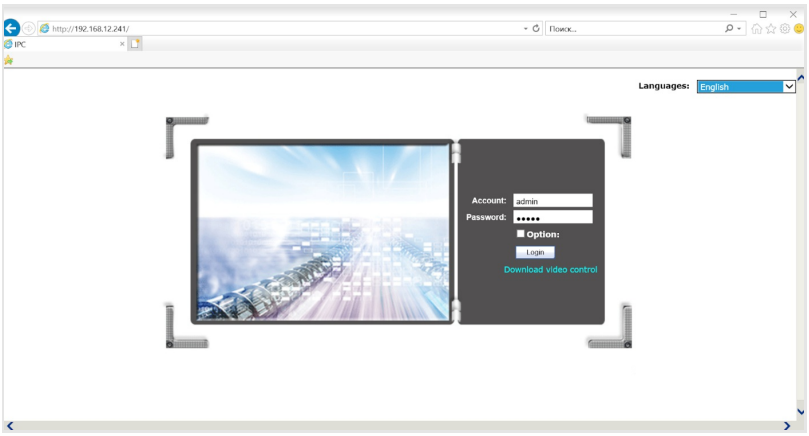
Each video camera is connected and configured individually one by one. Only one camera may be connected at a time.

1. Switch on the Omnicomm OKO video terminal power

2. Connect the video terminal to a PC via Ethernet interface using a LAN adapter and a patch cord delivered with the video terminal

3. Connect the video camera to any video terminal connector (“CAM1” – “CAM4”)

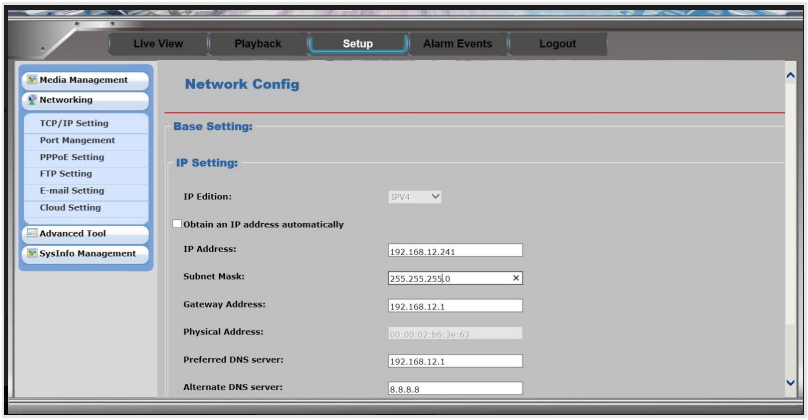
4. In your browser, enter the video camera configuration interface address – 192.168.12.241



In the “Account” and “Password”, enter “admin”.

Press the “Log in” button.

Setting up Video Cameras



5. In the “Settings” / “TCP / IP setting” section:

Set the IP address in the corresponding field, depending on the connector the camera is plugged in:

“CAM1”: 192.168.12.241

“CAM2”: 192.168.12.242

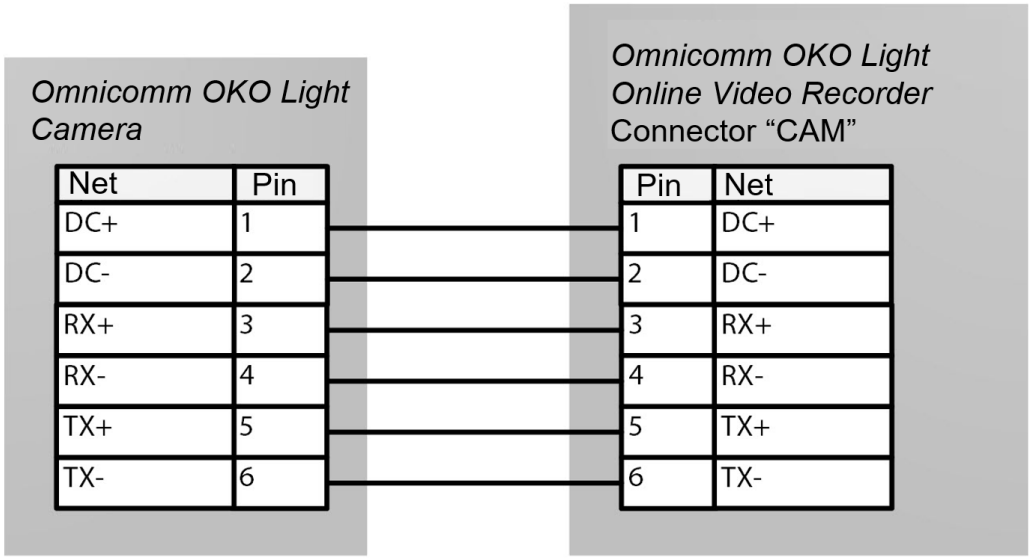
“CAM3”: 192.168.12.243

“CAM4”: 192.168.12.244

When several cameras are connected to the video terminal, their IP addresses must be different.

Omnicomm OKO video camera connection and installation

Perform connection according to the diagram:

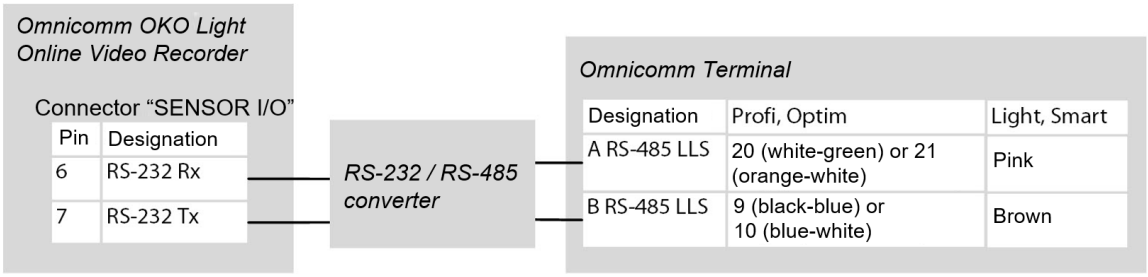


If necessary, use an extension cord (3, 5, 7, or 10 meters), which can be purchased

separately. You may use multiple extensions together to achieve the required cable length.

Connection to Omnicomm Terminals

When connecting the video recorder to Omnicomm terminals, use the RS-232/RS-485 interface converter:

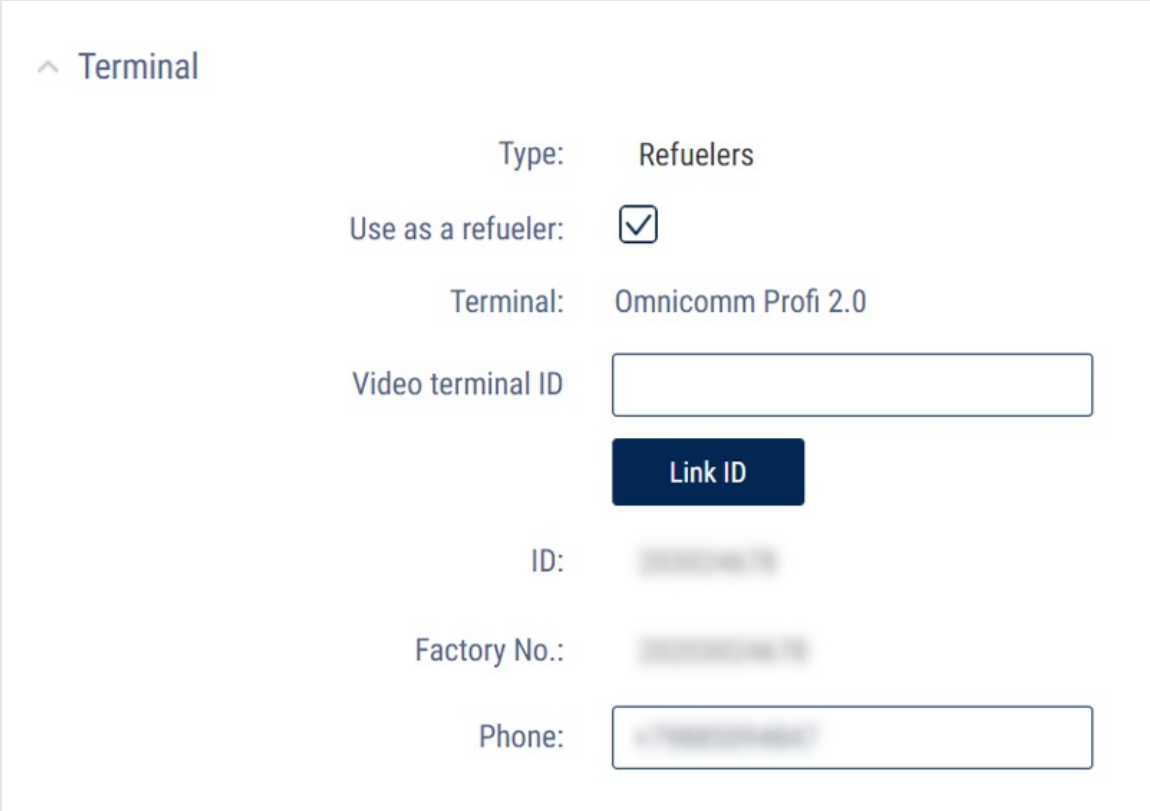


Adding Video Recorder to Omnicomm Online

In order to work with Omnicomm Online, Omnicomm OKO Light video recorder have to be connected to the terminal, collected telematics data, installed on a vehicle.

To compare video files received from the video recorder with telematics data from the terminal, you will need to link them in Omnicomm Online:

- Log in to Omnicomm Online
- Go to the section "Administration" / "Vehicles"
- Select the vehicle and click the "Vehicle profile" button
- In the "Terminal" section, enter the ID number of the Omnicomm OKO Light video recorder installed on the vehicle into the "Video terminal ID" field



- Click the “Link ID” button

For more information see Omnicomm Online. Administration Guide

Sealing

Sealing of a lock is provided for Omnicomm OKO Light terminals.

Apply a seal sticker onto the lock so that it is impossible to insert the locking key without breaking the sticker.

LED Indication

Indicator	Indication mode	Value
PWR (red)	Off	Power off
	Permanently lighted	Power on
4G (green)	Off	Module power supply off
	Permanently lighted	Within the GSM network coverage, exchange with video server is performed
SD1, SD2 (green)	Off	Video recording is not performed
	Permanently lighted	SD card failure. Video recording is not performed
	Flashing	Video recording is performed

Firmware Change Log

Date	Firmware Version	Changes
-	-	-

OMNICOMM

info@omnicomm-world.com
www.omnicomm-world.com