

user's manual  
instrukcja obsługi



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**NVC-SC200D**  
**NVC-HC200D**  
**NVC-HC210D**  
**NVC-SDN200D**  
**NVC-HDN200D**  
**NVC-HDN210D**

**noVus<sup>®</sup>**



# user's manual



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## INFORMATION

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### EMC (89/336/EEC) and LVD (73/23/EEC ) Directives

#### CE Marking

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

- Electromagnetic compatibility EMC 89/336/EEC with further amendments.
- Low voltage LVD 73/23/EEC 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.

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#### WEEE Directive 2002/96/EC

##### Information for users who want to get rid of electrical and electronic appliances



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 2002/95/EC



Out of concern 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, have been designed and manufactured in compliance with the above mentioned regulation. Simultaneously, we claim that our products have been tested and do not contain hazardous substances whose exceeding limits could have negative impact on human health or natural environment.

#### 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.

## SAFETY CONDITIONS

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### ATTENTION!

FAMILIARISATION WITH THE PRESENT INSTRUCTIONS MANUAL  IS A NECESSARY CONDITION FOR THE PROPER UTILIZATION OF THE DEVICE. PLEASE FAMILIARIZE YOURSELF WITH THIS MANUAL BEFORE ATTEMPTING TO INSTALL AND OPERATE THE CAMERA.

### ATTENTION !

IT IS FORBIDDEN TO UNDERTAKE ANY REPAIRS ON ONE'S OWN ACCORD. ALL REPAIRS ARE TO BE CONDUCTED BY THE QUALIFIED PERSONNEL OF AN AUTHORISED SERVICE CENTER ONLY.

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## SAFETY CONDITIONS

1. Before installing and operating the camera please familiarize yourself thoroughly with the present instructions manual and the safety requirements included herein;
2. Please retain this instructions manual for further reference;
3. Please observe the safety requirements included in this manual rigorously, as these directly influence operator's safety and reliability of the device;
4. All works undertaken by the installers must remain in accord with the descriptions contained in this manual;
5. During maintenance works, the device must be disconnected from the power supply;
6. It is forbidden to utilize any additional devices or parts not designed and not recommended by the producer;
7. It is forbidden to utilize the camera in high humidity conditions (near swimming pools, bath tubs, in humid cellars etc.);
8. It is forbidden to install this device in places where proper ventilation cannot be maintained (closed cabinets etc.). Inadequate ventilation can cause accumulation of heat and damage the device;
9. It is forbidden to mount the camera on unstable surfaces or using brackets not recommended by the manufacturer. An improperly installed camera can cause an accident harmful to people or can become seriously damaged. The camera can be installed by qualified and authorized personnel, conforming to guidelines outlined in this manual;
10. The device can be powered only from sources with parameters meeting the manufacturer's requirements called upon in the technical specification of the camera. For this reason it is forbidden to power the camera from sources with unknown or unstable parameters, or with parameters not conforming to the requirements outlined by the producer;

## SAFETY CONDITIONS

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11. Signal transmission and power cabling should be laid so as to exclude the possibility of accidental damage. Particular attention should be paid to connection points of the cables with the camera and the power source.
12. To avoid damage, the whole signal transmission track should be equipped with appropriately designed (in accordance with the binding norms) interference, surge and lightning protectors. Application of ground loop isolators is also advised.
13. The power supply system should be designed with the camera manufacturer's requirements in mind, to avoid overload;
14. The camera must be protected against humidity and direct contact with water or other liquids. Protection against foreign items getting inside the device is also required;
15. The user must not conduct any repairs or modernize the product. All repairs can be conducted only by qualified specialists of an authorized service center ;
16. In the following situations the camera must immediately be disconnected from the power source and signal cabling, and an authorized service center must be contacted:
  - Power cable or power connector has become damaged;
  - Liquid has entered the device or the device has been subjected to a strong mechanical stroke;
  - Product has been subjected to direct contact with the rain;
  - Product operates differently than described in the instructions manual and the set-up procedures allowed by the producer to be conducted by the user bring no positive result;
  - The camera has been knocked down or the housing has been damaged;
  - Untypical operation of the camera can be observed.

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## FOREWORD INFORMATION

### 1. FOREWORD INFORMATION

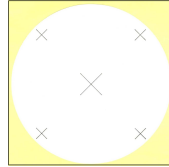
#### 1.1 Package contents



Camera



Screws 2 pcs.



Drilling pattern



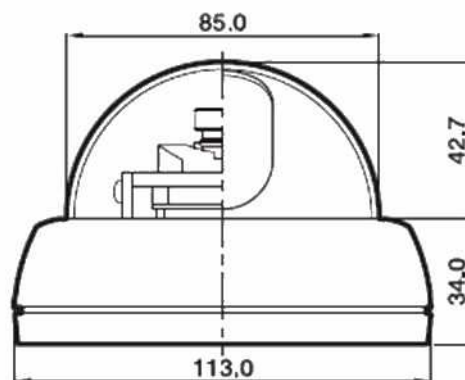
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#### 1.2 Main characteristics

- electronic day/night function (NVC-SDN200D, NVC-HDN200D, NVC-HDN210D models only)
- IR operation capability (NVC-SDN200D, NVC-HDN200D, NVC-HDN210D models only)
- horizontal resolution do 540 TVL
- minimum illumination 0.3 lx / F=2.0
- standard lens, f=3.8 mm
- available enclosure colours: white (NVC-xxxxxxD/W), black (NVC-xxxxxxD/B)
- power supply 12 VDC +/- 10%

#### 1.3 Overall dimensions



## FOREWORD INFORMATION

### 1.3 Technical specification

Model	NVC-SC200D	NVC-HC200D	NVC-HC210D
Pick-up Element	1/3" SONY Super HAD CCD imager		1/3" SONY Super HAD HQ1 DSP CDD imager
Horizontal Resolution	380 TVL	480 TVL	540 TVL
Minimum Illumination	0.3 lx / F=2.0	0.8 lx / F=2.0	0.5 lx / F=2.0
S/N Ratio	>48 dB (AGC Off)		
Electronic Shutter	Auto (AES): 1/50 s ~1/100 000 s		
Auto Gain Control (AGC)	On		
White Balance	Auto		
Back Light Compensation (BLC)	Auto		
Synchronization	Internal		
Lens Type	Standard, f=3.8 mm		
Angle of View (H)	66°		
Video Output	1.0 V <sub>p-p</sub> / 75 Ω (BNC)		
Power Supply	12 VDC +/- 10%		
Power Consumption	2 W		
Operating Temperature	0°C ~50°C		
Dimensions (mm)	113 (Ø) x 76,7 (H)		
Weight	220 g		

## FOREWORD INFORMATION

Model	NVC-SDN200D	NVC-HDN200D	NVC-HDN210D
<b>Pick-up Element</b>	1/3" SONY Super HAD CCD imager		1/3" SONY Super HAD HQ1 DSP CDD imager
<b>Horizontal Resolution</b>	380 TVL	480 TVL	540 TVL
<b>Minimum Illumination</b>	0.3 lx / F=2.0	0.8 lx / F=2.0	0.5 lx / F=2.0
<b>S/N Ratio</b>	>48 dB (AGC Off)		
<b>Electronic Shutter</b>	Auto (AES): 1/50 s ~1/100 000 s		
<b>Auto Gain Control (AGC)</b>	On		
<b>White Balance</b>	Auto		
<b>Back Light Compensation (BLC)</b>	Auto		
<b>Synchronization</b>	Internal		
<b>Day/Night Switching</b>	Auto		
<b>Lens Type</b>	Standard, f=3.8 mm		
<b>Angle of View (H)</b>	66°		
<b>Video Output</b>	1.0 V <sub>p-p</sub> / 75 Ω (BNC)		
<b>Power Supply</b>	12 VDC +/- 10%		
<b>Power Consumption</b>	2 W		
<b>Operating Temperature</b>	0°C ~50°C		
<b>Dimensions (mm)</b>	113 (Ø) x 76,7 (H)		
<b>Weight</b>	220 g		

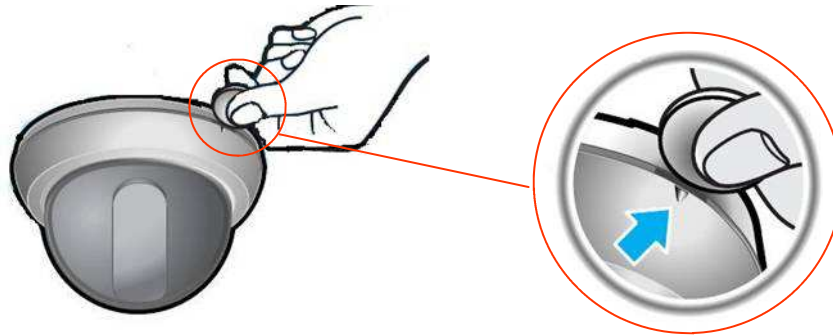
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## INSTALLATION

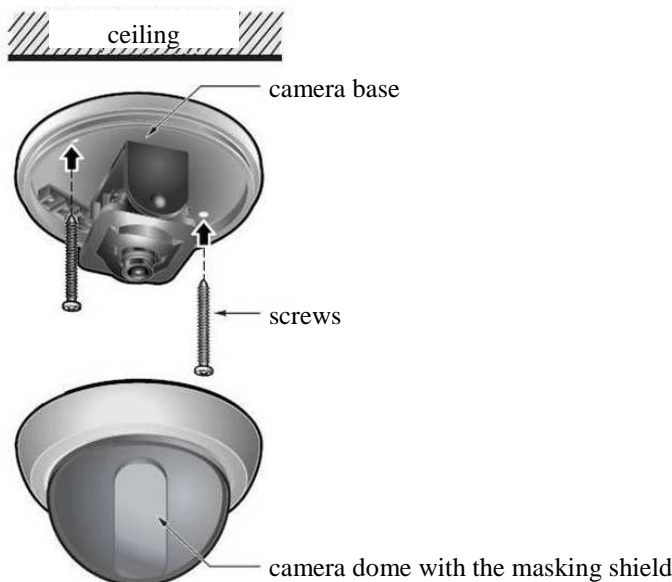
### 2. INSTALATION

#### 2.1 Camera mounting

- mark drilling points by means of a punch and the attached drilling pattern
- drill through the holes for screws and cable feed by means of an appropriate driller, in case of concrete ceiling or wall mounting please use appropriate plastic plug and screws (not included in the package)
- open the dome with the help of a small coin or screwdriver (put it in the hole and twist gently)



- put the cable through the cable feed
- fix the camera base to the ceiling with screws

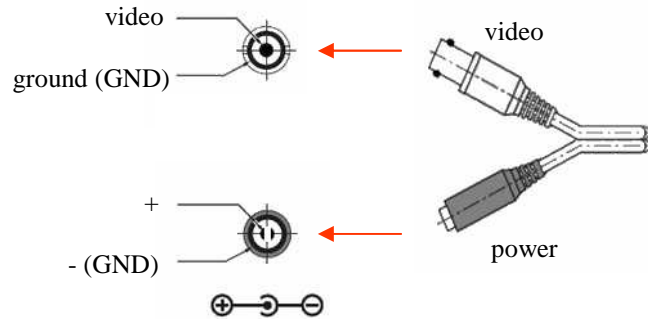


- adjust the camera if necessary (see the description of micro switches in chapter 2.3)
- adjust the camera module position
- close the camera dome (pay attention to the position of the masking shield, avoid covering the lens)

## INSTALLATION

### 2.2 Connections

The camera is equipped with a video and power cable finished with 2 plugs, one for video output (yellow one), the other for power supply (red one). Images below show plug polarization.



The following connecting order should be kept:

- connect video cable to the BNC plug
- connect power supply to the power plug

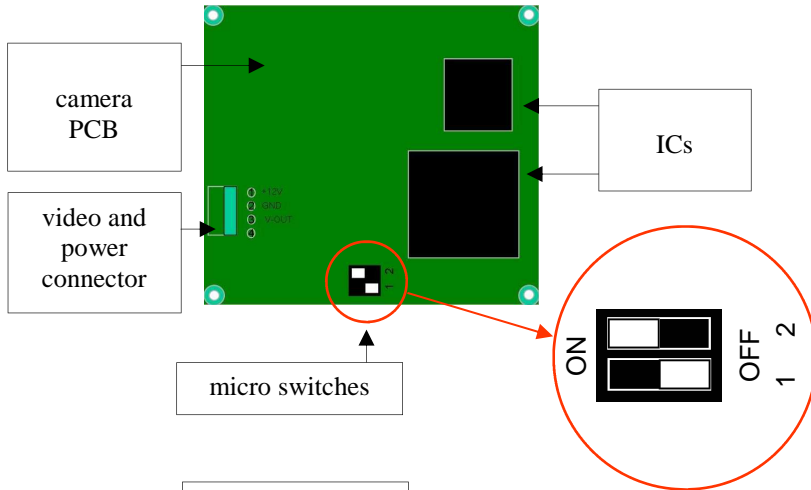
**ATTENTION:** before connecting the power supply make sure that all required parameters (output voltage, output current and polarization) are correct. Using improper power supply may cause malfunction or camera damage. In such a case, warranty is void.

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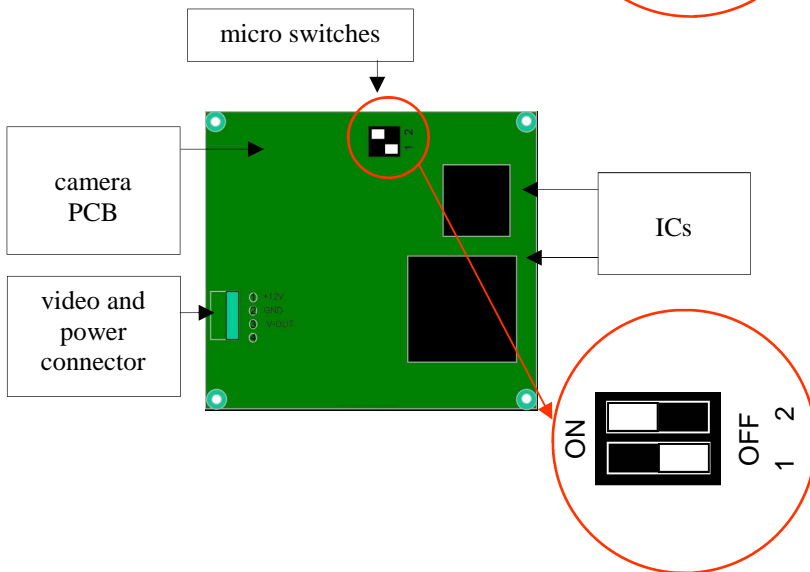
## INSTALLATION

### 2.3 Camera configuration

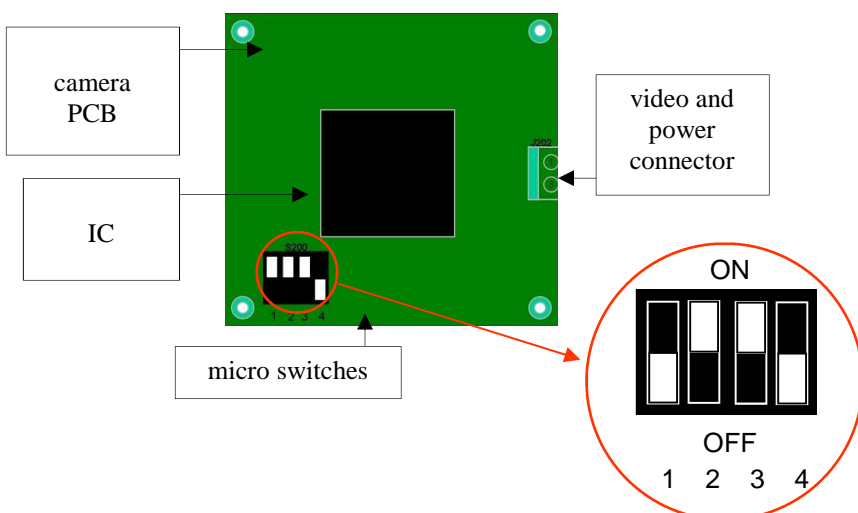
There are micro switches located on the back side of the camera module. In order to configure the camera, proper setting of those switches should be done. Functions and positions of the micro switches are different depending on the camera model.



Switch	Switch position	
	ON	OFF
1	AGC on	AGC off
2	BLC on	BLC off



Switch	Switch position	
	ON	OFF
1	AGC on	AGC off
2	BLC on	BLC off



Switch	Switch position	
	ON	OFF
1	BLC on	BLC off
2	Electronic shutter on	Electronic shutter off
3	AGC off	AGC on
4	Flickerless on	Flickerless off

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