

**user's manual  
instrukcja obsługi**



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**NVM-009M  
NVM-012M / NVM-012MA  
NVM-014M  
NVM-015M / NVM-015MA  
NVM-017MA  
NVM-020MA**

**noVus<sup>®</sup>**



# user's manual



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Technical modification are subject to change without prior notice. Misprints reserved.

## 1. Important Safeguards and warnings:

### SAFETY PRECAUTIONS:

1. Operate this unit only from the type of power source indicated on the label.
2. Do not block or cover ventilation openings on the back or bottom of the monitor cabinet.
3. Do not place this monitor near a radiator or heating vent.
4. Do not push objects of any kind through cabinet openings. This may result in fire or electrical shock.
5. Before adding attachments always ask a service technician to perform routine safety tests to determine that equipment is in safe operating condition. Ground potential tests should be part of the routine safety check made by the service technician.
6. Do not place monitor on an unstable cart, stand, or shelf where it may fall and injure personnel or damage equipment.
7. Route power cords so that they cannot be walked upon or tripped over. Do not allow anything to rest on the power cord.
8. Do not install monitor in wet areas, or where it may be exposed to rain or water. Do not spill liquid of any kind on the unit.
9. Unplug the power cord from the unit before cleaning the display. Use only a damp cloth. Do not use alcohol, spirits, or ammonia to clean the display.

**DO NOT ATTEMPT TO CLEAN THE INTERIOR OF THIS UNIT -- THIS ACTION MUST BE PERFORMED BY THE SERVICE TECHNICIAN AS REQUIRED DURING NORMAL MAINTENANCE.**

10. Refer all servicing to qualified service personnel.  
REMOVAL OF BACK COVER BY UNAUTHORIZED PERSONNEL MAY EXPOSE THE USER TO DANGEROUS VOLTAGES OR OTHER HAZARDS.
11. Unplug the unit immediately and notify the service technician.
  - If liquid has been spilled into the display or the display has been exposed to rain or water.
  - If the unit has been dropped or the cabinet damaged.
  - If fuses continue to blow.
  - If the power cord is damaged or frayed.
  - If a distinct change from normal operation is apparent.

When replacement parts are required, be sure that the service technician uses components specified by the manufacturer which have the same characteristics as the original parts.

**UNAUTHORIZED SUBSTITUTIONS MAY RESULT IN FIRE, ELECTRICAL SHOCK OR OTHER HAZARDS.**


Upon completion of any service or repairs, ask the technician to perform safety checks to determine that the equipment is in safe operating condition.

**WARNING**

**SERIOUS SHOCK HAZARDS EXIST WITHIN THE COVERS OF THIS MONITOR. DO NOT OPEN THE COVERS UNDER ANY CIRCUMSTANCES, THERE ARE NO USER SERVICEABLE COMPONENTS INSIDE.**

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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.

**WEEE Directive 2002/96/EC**

Information on Disposal for Users of Waste Electrical and Electronic Equipment

 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**



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.

## 2. Specifications:

1. CTR Size: 9", 12", 14"
2. Resolution: up to 1000 TVL
3. Audio - models with an „A” by the end of the name
4. White metal case
5. Power supply: 230 VAC

Model	NVM-009M	NVM-012M NVM-012MA	NVM-014M
CRT Size	9"	12"	14"
Video Input /Output	1 x BNC loop-through, 75 Ohm/Hi-Z		
Audio Input /Output	N/A	1 x RCA loop-through (models with an „A”)	N/A
Resolution	900 TVL	1000 TVL	
Operation System	CCIR/EIA (Auto Scan)		
Front Panel Control	Power switch, Contrast, Brightness, H-hold, V-hold, Volume (option)		
Linearity	H: 10%; V: 10%		
Operating Temperature	0°C ~50°C		
Humidity	10%~85% (non-condensing)		
Case	Metal (white)		
Power Supply	230 VAC, 50/60 Hz		
Power Consumption	21W	22W	27W
Dimensions (mm)	220 (W) x 237.5 (H) x 261 (D)	310 (W) x 303.5 (H) x 302 (D)	356 (W) x 333 (H) x 381 (D)
Weight	4.6 kg	7.6 kg	10.5 kg

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1. CTR Size: 15", 17", 20"
2. Resolution: 1000 TVL
3. Audio - models with an „A” by the end of the name
4. White metal case
5. Power supply: 230 VAC

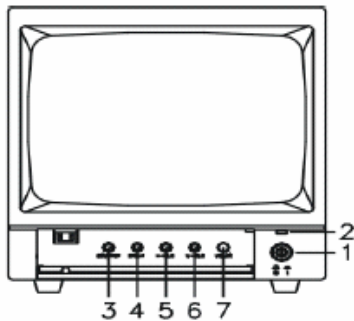
Model	NVM-015M NVM-015MA	NVM-017MA	NVM-020MA
CRT Size	15"	17"	20"
Video Input /Output	1 x BNC loop-through , 75 Ohm/Hi-Z	2 x BNC loop-through , 75 Ohm/Hi-Z	
Audio Input /Output	1 x RCA loop-through (with model na „A”)	2 x RCA loop-through	
Horizontal Resolution	1000 TVL		
Operation System	CCIR/EIA (Auto Scan)		
Front Panel Control	Power switch, Video select switch, Audio select switch, Contrast, Brightness, H-hold, V-hold, Volume select		
Underscan Select Switch	N/A		Yes
Linearity	H: 10%; V: 10%		
Temperature	0°C ~50°C		
Humidity	10%~85% (non-condensing)		
Case	Metal (white)		
Power Supply	230 VAC, 50/60 Hz		
Power Consumption	68 W	72 W	45 W
Dimensions (mm)	356 (W) x 333 (H) x 381 (D)	405 (W) x 370.5H) x 406 (D)	480 (W) x 440 (H) x 462 (D)
Weight	11.2 kg	14.4 kg	19 kg

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### 3. NVM-009M Back and Rear Viewer:

#### FRONT VIEW:

1. Power On/Off Switch
2. Power-On Indicator
3. Contrast Adjustment
4. Brightness Adjustment
5. H-HOLD Adjustment
6. V-HOLD Adjustment

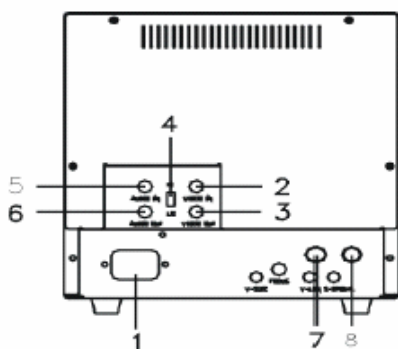


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#### REAR VIEW:

1. Power Inlet
2. Video Input : BNC Connector
3. Video Output : BNC Connector
4. Video Load Impedance Switch
5. Audio Input : RCA Jack (Option)
6. Audio Output : RCA Jack (Option)
7. DC 230V / 2.0A Input (Option)
8. DC 230V / 250mA Output (Option)

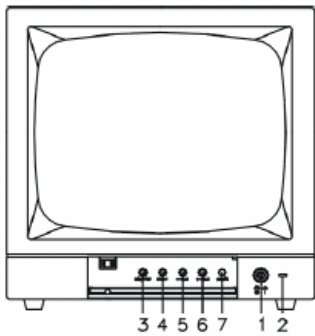


NVM-009M

#### 4. NVM-012M / NVM-12MA Back and Rear Viewer:

##### FRONT VIEW:

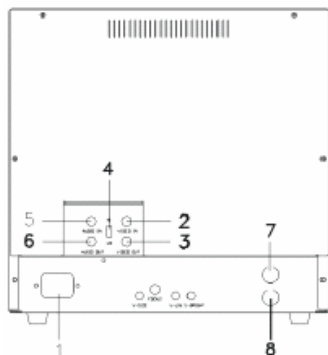
1. Power On/Off Switch
2. Power-On Indicator
3. Contrast Adjustment
4. Brightness Adjustment
5. H-HOLD Adjustment
6. V-HOLD Adjustment
7. Volume Adjustment (Option)



NVM-012M / NVM-12MA

##### REAR VIEW:

1. Power Inlet
2. Video Input : BNC Connector
3. Video Output : BNC Connector
4. Video Load Impedance Switch
5. Audio Input : RCA Jack (Option)
6. Audio Output : RCA Jack (Option)
7. DC 230V / 2.0A Input (Option)
8. DC 230V / 250mA Output (Option)



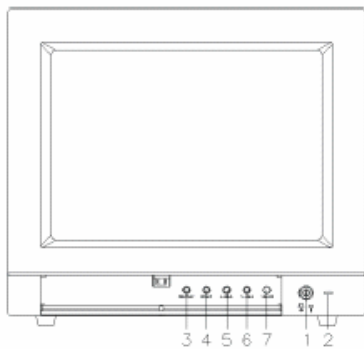
NVM-012M / NVM - 012MA

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## 5. NVM-014M Back and Rear Viewer:

### FRONT VIEW:

1. Power On/Off Switch
2. Power-On Indicator
3. Contrast Adjustment
4. Brightness Adjustment
5. H-HOLD Adjustment
6. V-HOLD Adjustment
7. Volume Adjustment (Option)

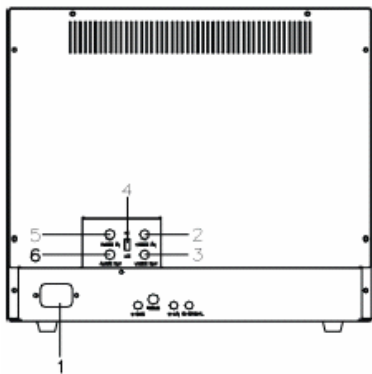


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### REAR VIEW:

1. Power Inlet
2. Video Input : BNC Connector
3. Video Output : BNC Connector
4. Video Load Impedance Switch
5. Audio Input : RCA Jack (Option)
6. Audio Output : RCA Jack (Option)

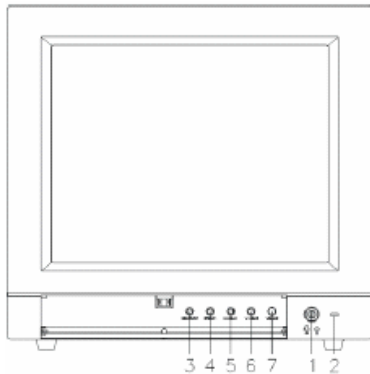


NVM-014M

## 6. NVM-015M / NVM-015MA Back and Rear Viewer:

### FRONT VIEW:

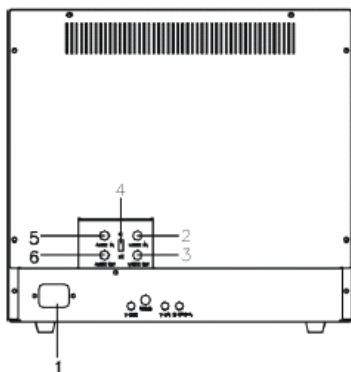
1. Power On/Off Switch
2. Power-On Indicator
3. Contrast Adjustment
4. Brightness Adjustment
5. H-HOLD Adjustment
6. V-HOLD Adjustment
7. Volume Adjustment (Option)



NVM-015M / NVM-015MA

### REAR VIEW:

1. Power Inlet
2. Video Input : BNC Connector
3. Video Output : BNC Connector
4. Video Load Impedance Switch
5. Audio Input : RCA Jack (Option)
6. Audio Output : RCA Jack (Option)



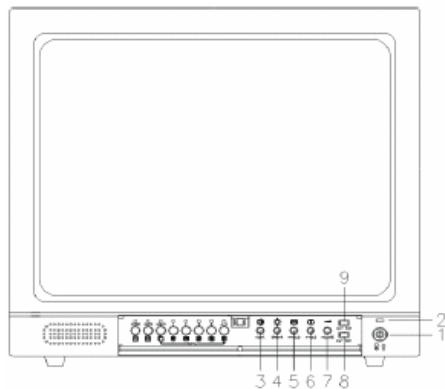
NVM-015M / NVM-015MA

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## 6. NVM-017MA Back and Rear Viewer:

### FRONT VIEW:

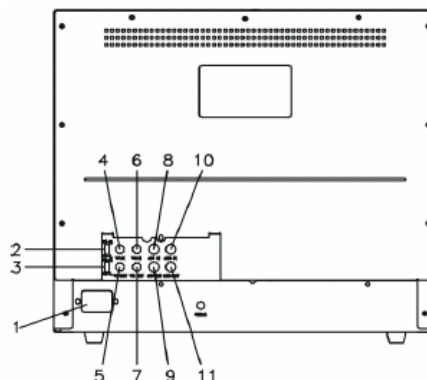
1. Power On/Off Switch
2. Power-On Indicator
3. Contrast Adjustment
4. Brightness Adjustment
5. H-HOLD Adjustment
6. V-HOLD Adjustment
7. Volume Adjustment
8. CVBS 1 / CVBS 2 Select Switch
9. Audio 1 / Audio 2 Select Switch



NVM-017MA

### REAR VIEW:

1. Power Inlet
2. Video 1 Load Impedence Switch
3. Video 2 Load Impedence Switch
4. Video 1 Input: BNC Connector
5. Video 1 Output: BNC Connector
6. Video 2 Input: BNC Connector
7. Video 2 Output: BNC Connector
8. Audio 1 Input : RCA Jack
9. Audio 1 Output : RCA Jack
10. Audio 2 Input : RCA Jack
11. Audio 2 Output : RCA Jack

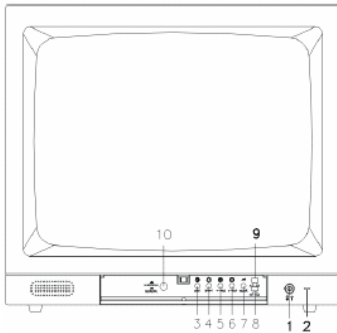


NVM-017MA

## 6. NVM-020MA Back and Rear Viewer:

### FRONT VIEW:

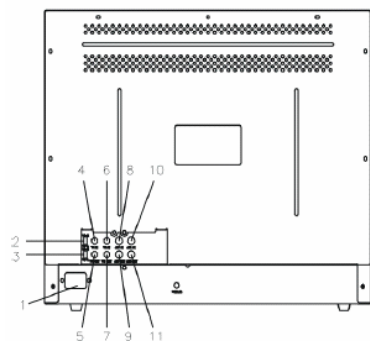
1. Power On/Off Switch
2. Power-On Indicator
3. Contrast Adjustment
4. Brightness Adjustment
5. H-HOLD Adjustment
6. V-HOLD Adjustment
7. Volume Adjustment
8. CVBS 1 / CVBS 2 Select Switch
9. Audio 1 / Audio 2 Select Switch
10. Under scan Select Switch



NVM-020MA

### REAR VIEW:

1. Power Inlet
2. Video 1 Load Impedence Switch
3. Video 2 Load Impedence Switch
4. Video 1 Input: BNC Connector
5. Video 1 Output: BNC Connector
6. Video 2 Input: BNC Connector
7. Video 2 Output: BNC Connector
8. Audio 1 Input : RCA Jack
9. Audio 1 Output : RCA Jack
10. Audio 2 Input : RCA Jack
11. Audio 2 Output : RCA Jack



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## 9. Operating Instructions:

1. Place the monitor on a flat and firm surface .
2. This monitor can be operated between 100VAC to 230VAC.
3. Plug the power cord into AC outlet on the wall.
4. Link the audio/video terminal from your devices into the audio/video in RCA/BNC connectors of the monitor.
5. Turn your device system power switch ON, then turn the monitor Power switch on. The power indicator will be ON at this moment.
6. Allow about 30 seconds for the display tube to warm up, then the image should appear on the screen.
7. The monitor will detect the frequency of the input signal automatically, and the image may be adjusted through the function VR on front control panel.
8. Adjust the user controls to optimize picture quality.

### WARNING:

1. "DC IN" can connect to external DC power supply at voltage range 22-24 volts. Monitor can function properly with this "DC IN".
2. "DC OUT" can provide DC 23 volts at maximum current 250 mA to a device such as a camera, and monitor can still function properly.

**NOVUS<sup>®</sup>**

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