

User Manual

LED Monitor, 4K UHD, 60fps, HDMI, DVI, SDI, VGA, Audio

VM-4KxxM



SAFETY INSTRUCTION

* Follow this safety instruction to use the monitor properly and prevent the damage.

* This safety instruction has "Warning" & "Caution" as below



Warning - If the user does not follow this instruction,

it may cause the serious damage to the user.



Caution - If the user does not follow this instruction, it may cause the slight

damage to the user or cause some damages to the monitor.

1.1 WARNING



Never remove the back cover and touch the inside of the monitor. If you need a service, please contact the service center.



Keep away the monitor from the direct sunlight and a heating appliance.



Never put objects of any kind into this product as they may result in a risk of fire or electric shock.



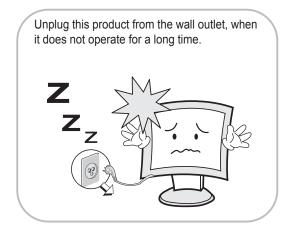
Connect the power cord to the wall outlet tightly. If the power cord or plug are defective and the wall outlet is not tight, please do not use them.



Do not install this monitor on the outside and near water. It may cause damage to the product, electric shock and fire.



When lightning and thundering, unplug the monitor from the wall outlet and never touch it.



When smoking and noising from the monitor, unplug the product from the wall outlet and contact a service center.

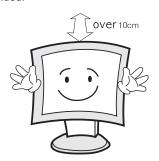
WARNING: How to fix

- Do not open this product as it contains high voltage inside.
- It may create an electric shock.
- If the user disassembles and remove the back cover, it does not make sure to make up for the damage and do a service and exchange the monitor.

1.2 CAUTION



Install this monitor some distance from the wall and do not install unless proper ventilation is provided.



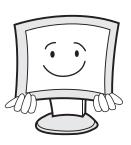
Place this product on a stable place. If not, it may fall, causing serious damages to the monitor and people.



The openings must not be blocked by curtain, rug or other similar surface.



When carrying this monitor, be careful not to damage the panel and drop it. It may cause some trouble.

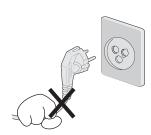


Before carrying the monitor, turn it off and unplug the signal cables and the power cord from the wall outlet.

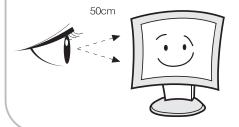


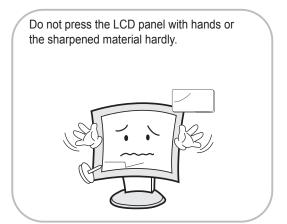
Take the power plug out from the wall outlet.

Do not pull the cable. It may snap the innerwires and cause overheating and fire.

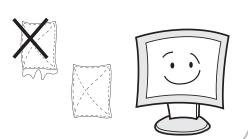


Install this monitor about 50cm far from the eyes and an angle of 0~15 degrees below eyes. Too close installation may cause having weak sight.





For cleaning, unplug the monitor from the wall outlet. Do not use the liquid cloth. Use the soft cloth.



Do not use the chemical liquid for cleaning. It may cause fading and breakage.

Instructions for Disposal of Electrical and Electronic Equipment in Private Households



Disposal of used Electrical and Electronic Equipment (Applicable in the European Union and other European countries with garbage separate disposal and collection methods)

This symbol on the product, or in the related documents in the package, indicates that this product shall not be treated as normal household waste. Instead, it should be taken to a proper applicable collection point or depot for the recycling of electrical and electronic equipment.

By ensuring this product is disposed of correctly, you will help prevent possible negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources.

For more detailed information about recycling of this product, please contact your local city authority, your household waste disposal service or the place where you purchased the product.

FCC RF INTERFERENCE STATEMENT

NOTE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio, TV technician for help.
- Only shielded interface cable should be used.

Finally, any changes or modifications to the equipment by the user not expressly approved by the grantee or manufacturer could void the users authority to operate such equipment.

DOC COMPLIANCE NOTICE

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the radio interference regulation of Canadian Department of communications.

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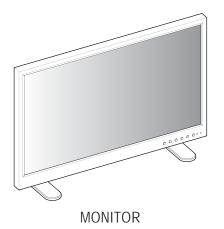
3 INSTALLATION

3.1 UNPACKING

Remove the package cover and place the product on a flat and secure surface or in the installation location. This equipment should be unpacked and handled with care. If an item appears to have been damaged in shipment, notify the shipper immediately. Check whether all the following device and accessories are included with the main system. If any items are missing, notify your Sales or Customer Service Representative.

3.2 PART LIST

STANDARD PARTS







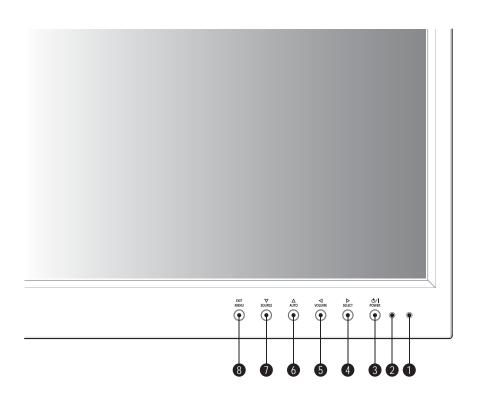






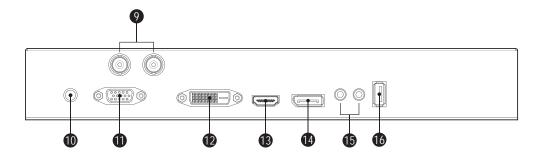
3.3 MAIN BUTTON & CONNECTION

FRONT VIEW



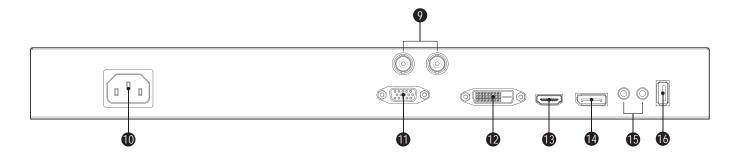
- 1 IR RECEIVER Aim the remote control towards this spot
- 2 POWER LED Power indicator light
- SELECT Move right / Adjust volume / Select item
- **5 ⋖ VOLUME** *Move left / Adjust volume*
- 6 △ AUTO Move up / Auto adjustment of VGA source
- **7** SOURCE Move down / Select input source
- 8 EXIT, MENU Activate or exit of OSD menu

BOTTOM VIEW (28")



- 9 SDI IN/OUT SDI signal input / loop output
- **10** DC 12V IN DC 12V input (AC/DC ADAPTER)
- 11 VGA IN VGA (PC RGB) signal input
- 12 DVI IN DVI signal input
- 13 HDMI IN HDMI signal input
- 14 DP IN DP signal input
- **15** AUDIO IN/OUT Stereo audio signal input / output
- 16 UPDATE Software upgrade

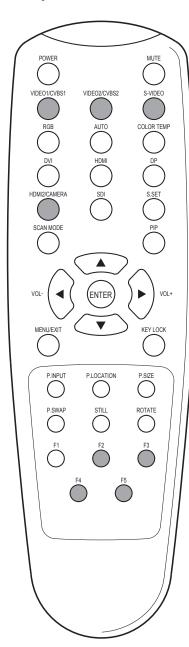
BOTTOM VIEW (40"/55")



- 9 SDI IN/OUT SDI signal input / loop output
- **10** AC POWER IN AC 100~240V input
- 11 VGA IN VGA (PC RGB) signal input
- 12 DVI IN DVI signal input
- 13 HDMI IN HDMI signal input
- 14 DP IN DP signal input
- 15 AUDIO IN/OUT Stereo audio signal input / output
- 16 UPDATE Software upgrade

3.4 REMOTE CONTROLLER

* Grey buttons are not used on these monitors



POWER Power on or off

MUTE Turn on or off the speaker

VIDEO 1 Not functional

S-VIDEO Not functional

DVI Select DVI signal

DP Select DP signal

SDI Select SDI signal

VIDEO 2 Not functional

RGB Select VGA signal

HDMI Select HDMI signal

HDMI 2 Not functional

AUTO Auto adjustment of VGA source

SCAN MODE Select scan mode of screen

MENU/EXIT Activate or exit of OSD menu

S.SET Select between Main/PIP audio

VOL-/VOL+ Adjust volume

KEYLOCK Lock or release the OSD control

COLOR TEMP Select color temperature of screen

PIP Activate PIP mode

P.INPUT Select an input source for PIP

P.SIZE Select a screen size for PIP

STILL Freeze the current screen

P.LOCATION Select a location for PIP

P.SWAP Swap between Main / Sub screen

ROTATE Pivot rotate of screen (CCW)

F1 Toggle "Super Clear" directly

F3 Not functional

F5 Not functional

F2 Not functional

F4 Not functional

Super Clear This function is effective for the moving image. (only UHD resolution)



Before setting the functions, please make sure the device is connected correctly.

4.1 INPUTS

∠ (UHD		Version : *****
Inputs	• VGA	
Screen	DisplayPort	
Format	DVI-D	
Color	HDMI	
Quality	SDI	
Analog		
Audio		
Dual-Window		
System		
Main Win.: ***** Sub Win.: *****		Resolution: ***** Resolution: *****

Select the input source for main screen

VGA	Select VGA Mode
DisplayPort	Select DP Mode
DVI-D	Select DVI Mode
HDMI	Select HDMI Mode
SDI	Select SDI mode

4.2 SCREEN

∠ (UHD		Version : *****
Inputs	Aspect Ratio	Full Screen
Screen	Rotation	Landscape
Format	Brightness	80
Color	Contrast	60
Quality	Backlight	83
Analog		
Audio		
Dual-Window		
System		
Main Win. : ***** Sub Win. : *****		Resolution: ***** Resolution: *****

ITEM	FUNCTION	DEFAULT VALUE	AVAILABLE MODE
Aspect Ratio	Setting screen aspect ratio (Full / Auto / 4:3 / 5:4 / 1:1)	Full Screen	All modes
Rotation	Setting screen direction (Landscape / Portrait) Do not support interlace signal in portrait mode	Landscape	
Brightness	Adjust the Black Level of the picture (0 ~ 100)	62	
Contrast	Adjust the contrast between the objects and background (0 ~ 100)	28"(60) 40"(65) 55"(60)	
Back Light	Adjust the back light of the picture (0~100)	28"(80) 40"(83) 55"(83)	

4.3 FORMAT

4 (UHD		Version : ****
Inputs	Input Color Format	Auto
Screen	Color Domain	YUV Domain
Format		
Color		
Quality		
Analog		
Audio		
Dual-Window		
System		
Main Win. : ***** Sub Win. : *****		Resolution: ***** Resolution: *****

ITEM	FUNCTION	DEFAULT VALUE	AVAILABLE MODE
Input Color Format	Select the suitable color format for input signals (RGB / YUV / Auto)	Auto	All modes
	- In case of 'Auto', color format will be automatically set - 'Auto' is not activated on VGA(PC RGB) mode		
Color Domain	Select the suitable color domain for input signals (RGB Domain / YUV Domain)	YUV Domain	

4.4 COLOR

∠ (UHD		Version : *****
Inputs	Bypass	Off
Screen	Gamma	Gamma 2.2
Format	Color Temperature	6500
Color	Mono Tone	Color
Quality	Gain	
Analog	Independent Color	
Audio	Independent Sat.	
Dual-Window		
System		
Main Win.: ***** Sub Win.: *****		Resolution: ***** Resolution: *****

ITEM	FUNCTION	DEFAULT VALUE	AVAILABLE MODE
Bypass	Select the application of Color process (On / Off)	Off	All modes
Gamma	Adjust the gradation of luminance for more natural image (Gamma 1.8 ~ 2.6)	Gamma 2.2	
Mono Tone	According to the need, select the Monochrome image (Color / Monochrome / Blue Only)	Color	
Color Temperature	Set the color temperature (5600 / 6500 / 9300 / User)	6500	
Gain	Adjust the gain of Red, Green & Blue Color respectively for customized color setting (Red / Green / Blue: 0 ~ 100)	100 / 100 /100	
Independent Color	Adjust the hue of each color respectively (Red / Green / Blue / Cyon / Magenta / Yellow)	50	
Independent Saturation	Adjust the Saturation of each color respectively (Red / Green / Blue / Cyon / Magenta / Yellow)	62	

4.5 QUALITY

∠ (UHD		Version : *****
Inputs	Bypass	Off
Screen	Sharpness	50
Format	Noise Reduction	Off
Color	Super Clear	Low
Quality		
Analog		
Audio		
Dual-Window		
System		
Main Win.: ***** Sub Win.: *****		Resolution: ***** Resolution: *****

ITEM	FUNCTION	DEFAULT VALUE	AVAILABLE MODE
Bypass	Select the application of picture quality process (On / Off)	Off	Format > Color Domain > YUV Domain
Sharpness	Make the outline of objects more clear or blurry (0 ~ 100)	50	
Noise Reduction	Select the noise reduction for smooth picture (Off / High / Middle / Low)	Off	
Super Clear	Use this function to obtain the optimized picture quality on the moving image (Off / High / Middle / Low)	Low	

4.6 ANALOG (only for VGA mode)

∠ (UHD		Version : *****
Inputs	Horizontal Position	50
Screen	Vertical Position	50
Format	Pixel Clock	50
Color	Phase	0
Quality	Auto Adjust	
Analog		
Audio		
Dual-Window		
System		
Main Win.: ***** Sub Win.: *****		Resolution: ****** Resolution: ******

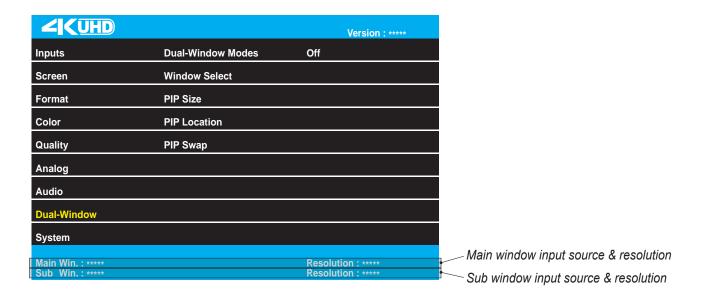
ITEM	FUNCTION	DEFAULT VALUE	AVAILABLE MODE
Horizontal Position	Adjust horizontal position of screen (0 ~ 100)	50	VGA
Vertical Position	Adjust vertical position of screen (0 ~ 100)	50	
Pixel Clock	Adjust pixel clock of screen (0 ~ 100)	50	
Phase Adjust phase of screen (0 ~ 100) 0			
Auto Adjust	Adjust above parameters of screen automatically		

4.7 AUDIO

∠ (UHD		Version : *****
Inputs	Mute	Off
Screen	Volume	30
Format		
Color		
Quality		
Analog		
Audio		
Dual-Window		
System		
Main Win.: ***** Sub Win.: *****		Resolution : ***** Resolution : *****

ITEM	FUNCTION	DEFAULT VALUE	AVAILABLE MODE
Mute	Set the sound mute (On / Off)	Off	All modes
Volume	Adjust volume level (0 ~ 100)	30	

4.8 DUAL-WINDOW



ITEM	FUNCTION	DEFAULT VALUE	AVAILABLE MODE
Dual-Window Modes	Modes Enable or disable the PIP/PBP function Off A (Off / PIP Mode / PBP Mode)		All modes
Window Select	Select the window when Dual-Window mode for some controls (Main Window / Sub Window)	Main Window	Dual-Window modes > PIP or PBP mode
PIP Size	Select the size of the sub-screen (Small / Medium / Large / Huge)	Medium	Dual-Window modes > PIP mode
PIP Location	Select the position of the sub-screen from the available options (LeftTop / RightTop / LeftBottom / RightBottom / Center)	RightTop	
PIP Swap	Swap the input source between Main window and Sub window		Dual-Window modes > PIP or PBP mode

4.9 SYSTEM

∠ (UHD		Version : ****
Inputs	Language	English
Screen	Menu Transparency	20
Format	Menu Rotation	Landscape
Color	Download	ISP
Quality	Power Save Mode	Off
Analog	Key Lock	
Audio	System Default	
Dual-Window		
System		
Main Win.: ***** Sub Win.: *****		Resolution: ***** Resolution: *****

ITEM	FUNCTION	DEFAULT VALUE	AVAILABLE MODE
Language	Set the OSD language	English	All modes
Menu Transparency	Set the transparency for the menu windows (0 ~ 100)	20	
Menu Rotation	Select the direction for the menu windows (Landscape / Portrait)	Landscape	
Download	Select the method of firmware upgrade, and execute the firmware upgrade (USB/ISP)	ISP	
Power Save Mode	Select the activation of Power save mode (On / Off)	Off	
Key Lock	Lock the key action - Prevent operation (On / Off) * Release the lock - Press KEY LOCK button on the remote control - Press ▲ and ◀ button for 5 seconds on the key button		
System Default	Return all the settings for the product to the default factory settings		

		28"	40"	55"
Display	Screen Size	28 inch	40 inch	55 inch
	Resolution	3840x2160 pixels	3840x2160 pixels	3840x2160 pixels
	Pixel Pitch	0.160x0.160 mm	0.225x0.225 mm	0.315x0.315 mm
	Brightness	300 cd/m ²	350 cd/m ²	450 cd/m ²
	Contrast Ratio	1000:1	5000:1	4000:1
	Aspect Ratio	16:9	16:9	16:9
	Viewing Angle (H/V)	170/160 degrees	176/176 degrees	178/178 degrees
	Display Color	1.07 billion	1.07 billion	1.07 billion
	Response Time	5 ms	8.5 ms	6.5 ms
	Panel Life Time (hours)	30,000 hours	30,000 hours	35,000 hours
Interface	DP In	1	1	1
	HDMI In	1	1	1
	DVI In	1	1	1
	VGA In	1	1	1
	SDI In/Out	1/1	1/1	1/1
	Audio In/Out	1/1	1/1	1/1
Special Features	Built in Speaker	1Wx2	10Wx2	10Wx2
	VESA Mount	100x100 mm	200x200 mm	400x300 mm
	Power Source	DC 12V AC/DC Adapter	AC 100~240V	AC 100~240V
	Outline Dimension	658x439x160 mm / 25.91x17.28x6.3 inch	900x568.5x240 mm / 35.43x22.38x9.45 inch	1248.5x772x240 mm / 49.15x30.39x9.45 inch
Circumstance	Operating Temperature	0~40 °C	0~40 °C	0~40 °C
	Storage Temperature	-20~60 °C	-20~60 °C	-20~60 °C

 $[\]ensuremath{^{\star}}\xspace \text{Design}$ and specifications are subject to change without notice

6 TROUBLESHOOTING

When the following troubles are occurred, follow the trouble shooting before contacting a service center.

Trouble	Tip
The screen doesn't show up	- Make sure if the power supply is connected property Turn on the power Select the input signal right for the connected port.
The screen is too light or to dark	Control the Brightness or Contrast value.
The screen size is not fit	Control the Aspect Ratio value.
The screen color shows strange	Control the Color Temperatre value.
Volume can not be adjusted	Control the Audio Volume value or Check a Mute Function.
The front button does not work	Press ▲ and ◀ button for 5 seconds.

7 LIMITED WARRANTY

All products carry a limited warranty from ship date against defects in materials and workmanship. We are not liable for improper installation that results in damage to mounts, adapters, display equipment or personal injury.



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Videor E. Hartig GmbH Carl-Zeiss-Straße 8 63322 Rödermark/Germany Tel. +49 (0) 6074 / 888-0 Fax +49 (0) 6074 / 888-100 www.videor.com www.eneo-security.com

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