
USER MANUAL

Broadcasting SDI monitor

LCD Display Monitors

Two-Year Limited Warranty

Orion Images Corporation ("OIC") warrants to the first purchaser that its LCD Display monitors are free from defects in materials and workmanship under normal use. The warranty is two years beginning on the date of invoice, as further described in the following text.

During the first 30 days of the warranty period, OIC will exchange the product without charge to the purchaser. After 30 days, OIC will offer the repair of devices only up to the conclusion of the two-year warranty period. OIC may, at OIC's sole option, use rebuilt, recondition, new parts or components when repairing any device.

To request warranty service, you must call OIC's Customer Service at (714) 766-6300, ext. 121 within the warranty period. If warranty service is required, OIC will issue a Return Material Authorization Number. You must ship the products back to OIC in their original or equivalent packaging, prepay shipping charges and insure the shipment or accept the risk of loss of damage during shipment. OIC will ship the repaired or replacement products to you freight prepaid if you use an address in the continental U.S. or Canada, where applicable. All other locations will require shipping costs to be covered by the purchaser.

This warranty does not cover:

1. Damage due to shipping and external causes, including accident, abuse, misuse, problems with electrical power, servicing not authorized by OIC, usage not in accordance with product instructions, failure to perform required prevent maintenance, problems caused by use of parts and components not supplied by OIC, act of God, tampering or normal wear and tear;
2. Products on which the serial number has been altered, defaced, or removed;
3. Products purchased ***outside the United States and Canada;***
4. Products whose back covers have been opened, replaced, modified, or show signs of tampering both physically or electrically.

OIC MAKES NO EXPRESS WARRANTIES BEYOND THOSE STATED IN THIS WARRANTY STATEMENT. OIC DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SOME STATES (OR JURISDICTIONS) DO NOT ALLOW LIMITATIONS ON IMPLIED WARRANTIES, SO THIS LIMITATION MAY NOT APPLY TO YOU.

OIC'S RESPONSIBILITY FOR MALFUNCTIONS AND DEFECTS IN HARDWARE IS LIMITED TO REPAIR AND REPLACEMENT AS SET FORTH IN THIS WARRANTY STATEMENT. THESE WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE (OR JURISDICTION TO JURISDICTION).

OIC DOES NOT ACCEPT LIABILITY BEYOND THE REMEDIES SET FORTH IN THIS WARRANTY STATEMENT OR LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION ANY LIABILITY FOR PRODUCTS NOT BEING AVAILABLE FOR USE.

SOME STATES (OR JURISDICTION) DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE PROCESSING EXCLUSION OR LIMITATION MAY NOT APPLY TO YOU.

These provisions apply to OIC's limited two-year warranty only. For provisions of any service contract covering your systems, refer to the separate service contract that you will receive.

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1. 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.



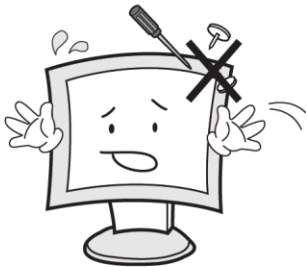
Caution - If the user does not follow this instruction, it may cause the slight
damage to the user or cause some damages to the monitor.

- Keep this user's guide book for later use.



Warning

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



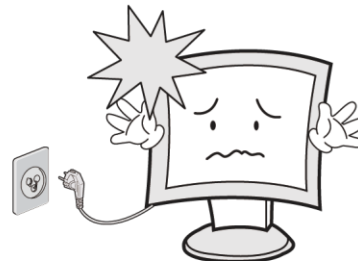
Keep away the monitor from the direct sunlight and a heating appliance.



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.



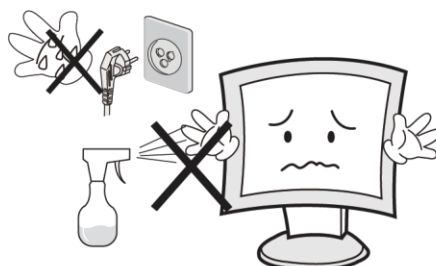


Warning

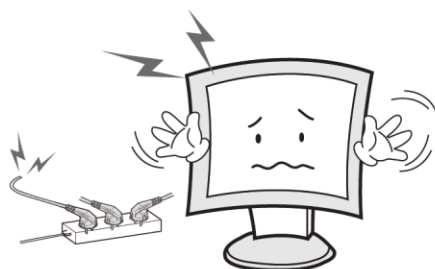
Do not install this monitor on the outside and near water. It may cause damage to the product, electric shock and fire.



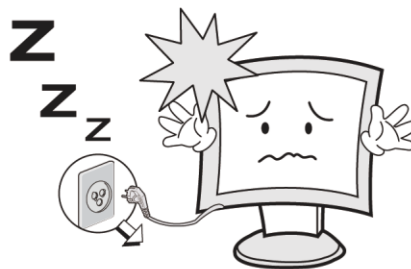
For cleaning do not use liquid cleaners. Never touch the power plug with wet hands.



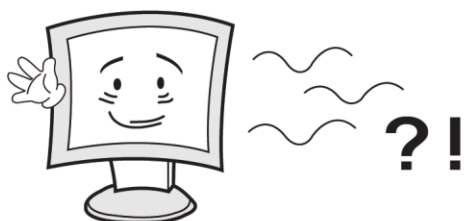
When lightning and thundering, unplug the monitor from the wall outlet and never touch it.



Unplug this product from the wall outlet, when it does not operate for a long time.



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.



Cautions

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.

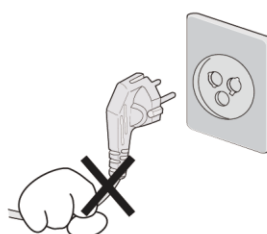


Before carrying the monitor, turn it off and unplug the signal cables and the power cord from the wall outlet.



Take the power plug out from the wall outlet.

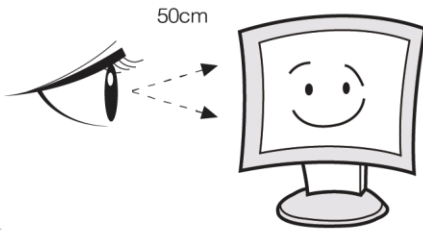
Do not pull the cable. It may snap the inner-wires and cause overheating and fire.





Cautions

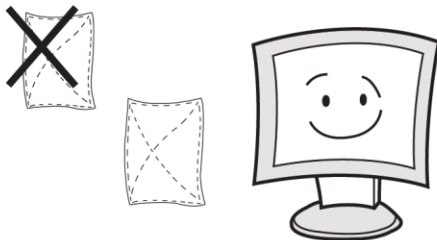
Install this monitor about 50cm far from the eyes and an angle of 0~15 degrees below eyes. Too close installation may cause having weak sight.



Do not press the LCD panel with hands or the sharpened material hardly.



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.



WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR WATER.

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.

2. 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.

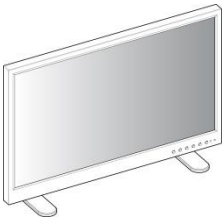
Finally, any changes or modifications to the equipment by the user not expressly approved by the grantee or manufacturer could void the users authority to operate such equipment.

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.

3. INSTALLATION

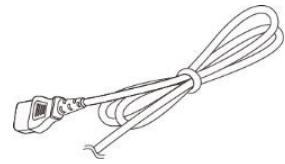
PARTS



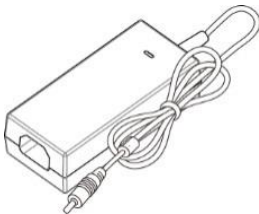
LCD Monitor



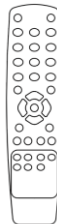
User Manual



Power Cable



Adapter(19~27")



Remote Controller



Battery

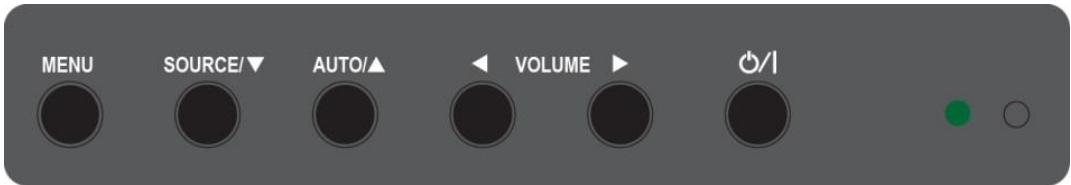


Trigger Cable

**Depending on the product model type, there may be variations in appearance.*

HOW TO INSTALL

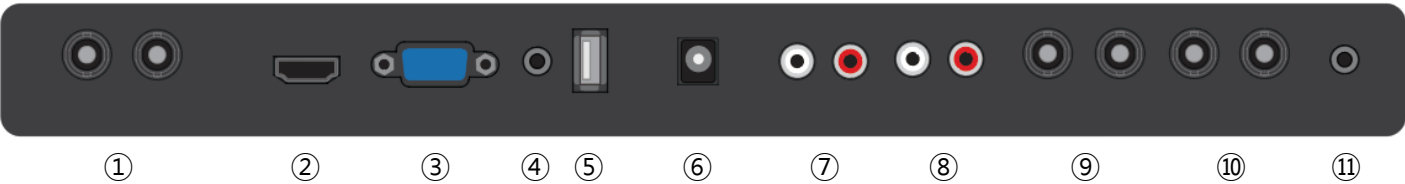
1) KEY BUTTON



SHORT KEY FUNCTION

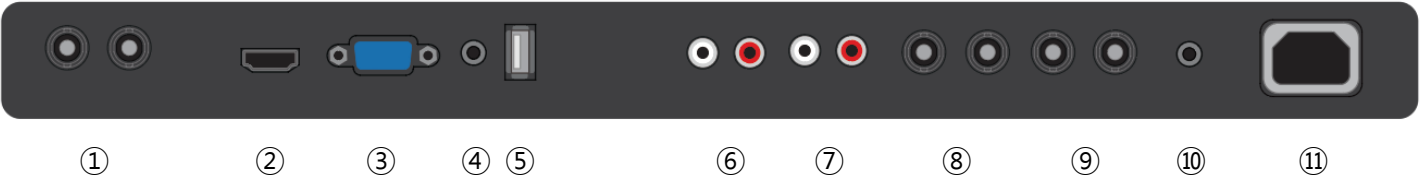
OSD Key	Function
MENU	Activate the menu function / Exit from the menu
SOURCE / ▼	Input source menu / Source selection(move down from OSD menu)
AUTO / ▲	Auto-fit screen with PC-RGB input / move up from OSD menu
◀(VOL)	Decrease the level of volume and move the previous menu
(VOL)▶	Increase the level of volume and select the OSD menu
⏻/I	Power On / Off
LED	Red : Power Off state Green : Power On and available input signal state Orange : When DPMS "ON" state, no input signal
▲ + ◀	Press "▲ , ◀" Key 10 seconds simultaneously to lock / unlock OSD Key

2) CONNECTION
- 19, 21, 23, 27"



①	SDI IN/OUT	SDI signal input/looping out
②	HDMI	HDMI signal input
③	VGA	VGA(PC RGB) signal input
④	AUDIO(PC)	Stereo audio input for VGA
⑤	For FW Update	
⑥	DC 12V	DC adapter input
⑦	AUDIO(VIDEO-1)	Stereo audio input for VIDEO-1
⑧	AUDIO(VIDEO-2)	Stereo audio input for VIDEO-2
⑨	VIDEO-1 IN/OUT	VIDEO-1 signal input/output
⑩	VIDEO-2 IN/OUT	VIDEO-2 signal input/output
⑪	TRIGGER	TRIGGER signal input

2) CONNECTION
- 32, 43, 55"



①	SDI IN/OUT	SDI signal input/looping out
②	HDMI	HDMI signal input
③	VGA	VGA(PC RGB) signal input
④	AUDIO(PC)	Stereo audio input for VGA
⑤	For FW Update	
⑥	AUDIO(VIDEO-1)	Stereo audio input for VIDEO-1
⑦	AUDIO(VIDEO-2)	Stereo audio input for VIDEO-2
⑧	VIDEO-1 IN/OUT	VIDEO-1 signal input/output
⑨	VIDEO-2 IN/OUT	VIDEO-2 signal input/output
⑩	TRIGGER	TRIGGER signal input
⑪	AC POWER	AC100~240V input

3) REMOTE CONTROLLER





MODE SELECT MENU	
VIDEO1	Select VIDEO1 mode
VIDEO2	Select VIDEO2 mode
HDMI	Select HDMI mode
VGA (RGB)	Select VGA mode
S.SET	Select Input source

OSD CONTROL MENU	
POWER	Turn ON / OFF the monitor
MUTE	Turn ON / OFF the sound
AUTO	Auto adjust position of the screen (in VGA mode)
COLOR TEMPERATURE	Select color temperature of the screen
SCAN MODE	Select the scan mode of the screen
VOL- / VOL+	Increase / Decrease the volume level
MENU / EXIT	Activate and exit the OSD menu
KEY LOCK	Locking the button (Prevent operation)

4. OSD MENU SETTING

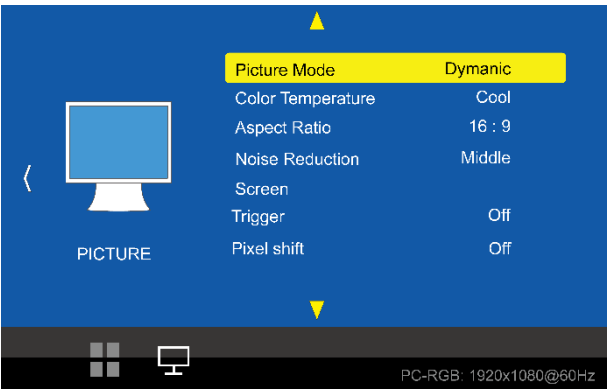
MENU STRUCTURE

When user presses the menu key, the first "PICTURE" menu is displayed. Select by "◀" key then two types of menu functions are shown as below.

-  PICTURE : Menu related to PICTURE Function
-  OPTION : Other OSD Menu Status Control and Firmware Update

If press "▲, ▼" key, then select sub title in functions.

PICTURE MENU

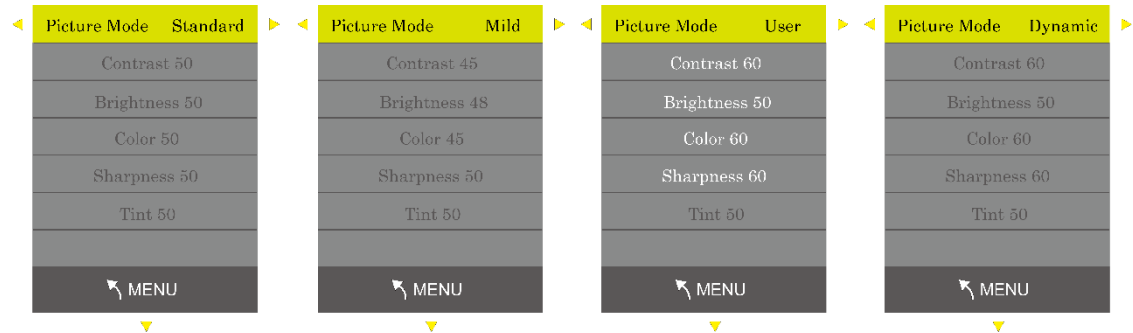


The PICTURE Menu can be selected from the following 7 modes by pressing the ▲ or ▼ key.

Picture Mode	Adjust setting of the picture
Color Temperature	Change color according to the color temperature
Aspect Ratio	Change the aspect ratio
Noise Reduction	Adjust noise attenuation of input signal
Screen	Adjust the PC-RGB input signal to fit the screen
Trigger	Select Trigger input
Pixel shift	Select auto pixel shift

1) Picture Mode

Picture Mode can select 4 modes as Mild, Dynamic, Standard and User as shown in the figure below. Press the "◀, ▶" key to change the mode.



Three of the four modes except for User mode are shipped with fixed values at the time of shipment from the factory.

User mode can be set with "◀, ▶" keys by selecting each item below with "▲, ▼" key only in the User mode.

Contrast	Adjust difference in the color and brightness
Brightness	Adjust the dark and light
Color	Adjust for desired color intensity
Sharpness	Adjust for best clarity of outline detail
Tint	Adjust for natural flesh tones

2) Color Temperature

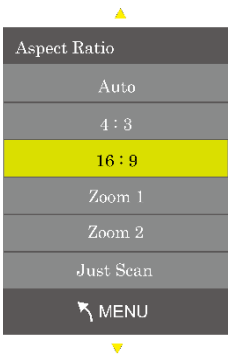
Color Temperature can select 4 modes as Cool, Medium, Warm and User as shown in the figure below.



Three modes except User mode are factory shipped with factory default values, and each color item (RED, GREEN, BLUE) is selected with the "▲, ▼" keys in the User mode only. User settings are available.

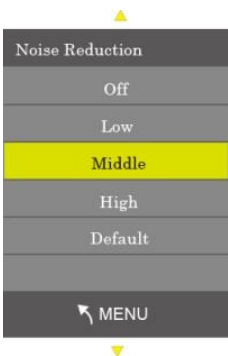
3) Aspect Ratio

Aspect Ratio allows user to select the each aspect ratio as shown in the figure below.
(However, activated list is according to the input port and the input resolution.)



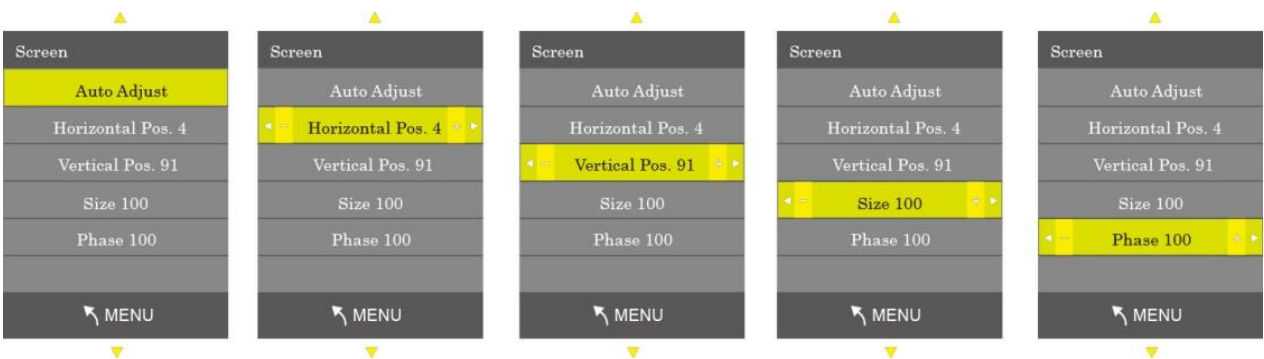
4) Noise Reduction

Noise Reduction can select 5 modes as Off, Low, Middle, High, Default as shown in the figure below.



5) Screen

Screen enables to set the active area of the display when using PC-RGB input port.



Auto Adjust is an item to be set automatically, and the input signal should be operated in the signal state where the Outline has a lot of white color.

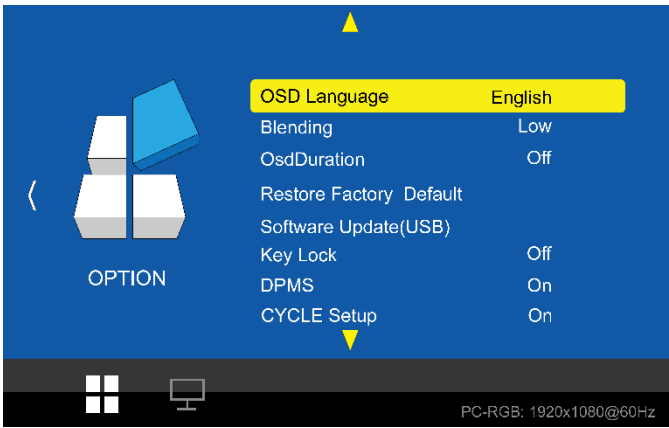
6) Trigger

Select Trigger input (Off, VIDEO 1, VIDEO 2)

7) Pixel shift

Select auto pixel shift (On, Off)

OPTION MENU

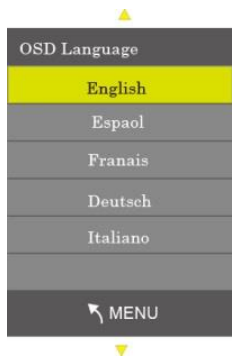


The Option Menu can be selected from the following 8 modes by pressing the ▲ or ▼ key.

OSD Language	Selectable OSD Menu Language
Blending	Adjust blending for OSD Menu and Main window
OSD Duration	Setting Duration time of OSD Menu
Restore Factory Default	
Software Update(USB)	
Key Lock	Locking the button(prevent operation)
DPMS	When input signal is the no signal, DPMS "on" change the power saving mode.
Cycle setup	Select auto input source

1) OSD Language

As shown in the figure below, OSD Language can be selected by "▲, ▼" key.



2) Blending

OSD Menu Blending can select 4 modes as Off, Low, Middle, High by pressing the "► SELECT" key.

3) OsdDuration

OSD menu Duration can select 4 modes as 5, 10, 15Sec and Off by pressing the "► SELECT" key.

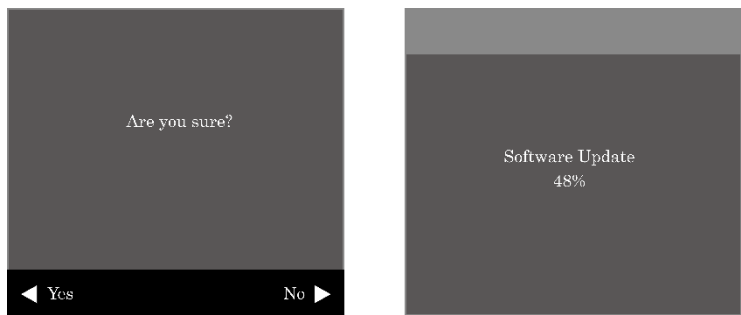
4) Restore Factory Default

Restore factory default can be selected by pressing the "► SELECT" key. Select Yes or No by the "◀, ▶" key.



5) Software Update(USB)

Software update default can be selected by pressing the "Menu" key. Select Yes or No by the "◀, ▶" key.



6) Key Lock

Key lock default can be selected by pressing the "▶ SELECT" key.



7) DPMS

The function can be activated(ON) or deactivated(OFF) with the button ▶.

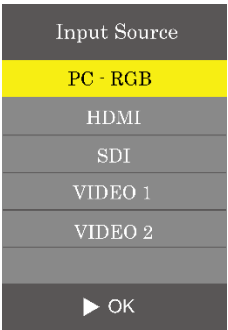
8) Cycle setup

Select auto pixel shift with the button ▶.

INPUT SOURCE

Input Source can be selected from the following four input modes by using the ▲ and ▼ keys when the window as shown below is displayed by pressing the "SOURCE / ▼" key in the Main window.

(Input Source can be selected by ▲ and ▼ key when window shown as below. To be in this menu, pressing the "ENTER" / ▶" key in the Main window.)



AUDIO VOLUME

Audio Volume can be increased or decreased by pressing "VOL- / ◀", "VOL + / ▶" Key.



5. FEATURE

		19 Inches	21 Inches	23 Inches
Display	Screen Size	18.5 inches	21.5 inches	23.0 inches
	Resolution	1366*768	1920*1080	1920*1080
	Pixel Pitch	0.300*0.300 mm	0.248*0.248 mm	0.265*0.265 mm
	Brightness	250 cd/m²	250 cd/m²	250 cd/m²
	Contrast Ratio	1000:1	1000:1	1000:1
	Aspect Ratio	16:9	16:9	16:9
	Viewing Angle (H/V)	170/160 degrees	178/178 degrees	178/178 degrees
	Display Color	16.7 million	16.7 million	16.7 million
	Response Time	5 ms	14 ms	14 ms
	Video System	NTSC/PAL	NTSC/PAL	NTSC/PAL
	Panel Life Time (hours)	30,000 hours	30,000 hours	30,000 hours
Interface	Video In/Out (BNC Type)	2/2	2/2	2/2
	VGA In (15Pin D-Sub)	1	1	1
	HDMI In	1	1	1
	SDI In/Out	1/1	1/1	1/1
	Audio In(RCA Type)	2	2	2
	PC Stereo In	1	1	1
Special Features	Built in Speakers	Y (1W*2)	Y (1W*2)	Y (1W*2)
	Remote Control	Y	Y	Y
	Filter Type	3D Comb filter	3D Comb filter	3D Comb filter
	Deinterlacing	Y	Y	Y
	Trigger Source Switching	Y	Y	Y
	Noise reduction	Y	Y	Y
	Auto source sequencing	Y	Y	Y
	Multilingual Language	Eng, Spa, Fre, Ger, Ita	Eng, Spa, Fre, Ger, Ita	Eng, Spa, Fre, Ger, Ita
Dimension	Outline Dimension (with Stand)	448 x 297.8 x 91mm (17.64" x 11.72" x 3.58")	518 x 333 x 82mm (20.39" x 13.11" x 3.23")	552 x 353 x 73mm (21.73" x 13.9" x 2.87")
Cabinet	Cabinet Material	Electro-Galvanized Steel	Electro-Galvanized Steel	Electro-Galvanized Steel
Power	Electrical Ratings	DC 12V	DC 12V	DC 12V
Circumstance	Operating Temperature	0~40 Celsius	0~40 Celsius	0~40 Celsius
	Storage Temperature	-20~60 Celsius	-20~60 Celsius	-20~60 Celsius
Mounts	VESA Mount Size	100x100 mm	100x100 mm	100x100 mm
Options	Ceiling Mount	CMK-01	CMK-01	CMK-01
	Wall Mount	WB-5, 10, 30, 31	WB-5, 10, 30, 31	WB-5, 10, 30, 31
	Rack Mount	RMK-08	RMK-08	RMK-08

		27 Inches	32 Inches	43 Inches
Display	Screen Size	27.0 inches	31.55 inches	42.51 inches
	Resolution	1920*1080	1920*1080	1920*1080
	Pixel Pitch	0.311*0.311 mm	0.364*0.364 mm	0.4902*0.4902 mm
	Brightness	250 cd/m ²	400 cd/m ²	400 cd/m ²
	Contrast Ratio	1000:1	1300:1	1100:1
	Aspect Ratio	16:9	16:9	16:9
	Viewing Angle (H/V)	178/178 degrees	178/178 degrees	178/178 degrees
	Display Color	16.7 million	16.7 million	16.7 million
	Response Time	8 ms	25 ms	12 ms
	Video System	NTSC/PAL	NTSC/PAL	NTSC/PAL
	Panel Life Time (hours)	30,000 hours	50,000 hours	50,000 hours
Interface	Video In/Out (BNC Type)	2/2	2/2	2/2
	VGA In (15Pin D-Sub)	1	1	1
	HDMI In	1	1	1
	SDI In/Out	1/1	1/1	1/1
	Audio In(RCA Type)	2	2	2
	PC Stereo In	1	1	1
Special Features	Built in Speakers	Y (1W*2)	Y (7.5W*2)	Y (7.5W*2)
	Remote Control	Y	Y	Y
	Filter Type	3D Comb filter	3D Comb filter	3D Comb filter
	Deinterlacing	Y	Y	Y
	Trigger Source Switching	Y	Y	Y
	Noise reduction	Y	Y	Y
	Auto source sequencing	Y	Y	Y
	Multilingual Language	Eng, Spa, Fre, Ger, Ita	Eng, Spa, Fre, Ger, Ita	Eng, Spa, Fre, Ger, Ita
Dimension	Outline Dimension (with Stand)	640 x 429 x 160mm (25.2" x 16.89" x 6.3")	732 x 486.25 x 160mm (28.82" x 19.14" x 6.3")	969.4 x 625.4 x 240mm (38.17" x 24.62" x 9.45")
Cabinet	Cabinet Material	Electro-Galvanized Steel	Electro-Galvanized Steel	Electro-Galvanized Steel
Power	Electrical Ratings	DC 12V	AC 100~240V	AC 100~240V
Circumstance	Operating Temperature	0~40 Celsius	0~40 Celsius	0~40 Celsius
	Storage Temperature	-20~60 Celsius	-20~60 Celsius	-20~60 Celsius
Mounts	VESA Mount Size	100x100 mm 200x100 mm	200x200 mm	400x300 mm
Options	Ceiling Mount	CMK-01	CMK-01 with FMA-01	CMH-01
	Wall Mount	WB-31, 2642	WB-2642	WB-2642
	Rack Mount	-	-	-

		55 Inches
Display	Screen Size	54.64 inches
	Resolution	1920*1080
	Pixel Pitch	0.630*0.630 mm
	Brightness	450 cd/m ²
	Contrast Ratio	1100:1
	Aspect Ratio	16:9
	Viewing Angle (H/V)	178/178 degrees
	Display Color	16.7 million
	Response Time	12 ms
	Video System	NTSC/PAL
	Panel Life Time (hours)	50,000 hours
Interface	Video In/Out (BNC Type)	2/2
	VGA In (15Pin D-Sub)	1
	HDMI In	1
	SDI In/Out	1/1
	Audio In(RCA Type)	2
	PC Stereo In	1
Special Features	Built in Speakers	Y (7.5W*2)
	Remote Control	Y
	Filter Type	3D Comb filter
	Deinterlacing	Y
	Trigger Source Switching	Y
	Noise reduction	Y
	Auto source sequencing	Y
	Multilingual Language	Eng, Spa, Fre, Ger, Ita
Dimension	Outline Dimension (with Stand)	1253 x 777 x 240mm (49.33" x 30.59" x 9.45")
Cabinet	Cabinet Material	Electro-Galvanized Steel
Power	Electrical Ratings	AC 100~240V
Circumstance	Operating Temperature	0~40 Celsius
	Storage Temperature	-20~60 Celsius
Mounts	VESA Mount Size	400x200 mm 400x300 mm
Options	Ceiling Mount	CMH-01
	Wall Mount	WB-2642
	Rack Mount	-

6. VGA / HDMI / SDI Mode Table

	MODE	RESOLUTION	VERTICAL FREQUENCY (Hz)
VGA MODE	VGA	640 x 480	60 / 72 / 75
	SVGA	800 x 600	56 / 60 / 72 / 75
	XGA	1024 x 768	60 / 70 / 75
	SXGA	1280 x 1024	60 / 75
	UHD	1920 x 1080	60
HDMI MODE	VGA	640 x 480	60 / 72 / 75
	SVGA	800 x 600	56 / 60 / 72 / 75
	XGA	1024 x 768	60 / 70 / 75
	SXGA	1280 x 1024	60 / 75
	HDTV 720p	1280 x 720	50 / 60
	HDTV 1080i	1920 x 1080	50 / 60
	HDTV 1080p	1920 x 1080	50 / 60
SDI MODE	SD	480i	59.94
		576i	50
	HD	720p	50 / 59.94 / 60
		1080p	23.98 / 24 / 25 / 29.97 / 30 / 50 / 59.94 / 60
		1080psf	25 / 29.97 / 30
		1080i	50 / 59.94 / 60

Note : Not all resolutions generated by your video source are available on the monitor.

7. TROUBLESHOOTING

* When the following troubles are occurred, follow the trouble shooting.
Before contacting service center.

Troubleshooting	Troubleshooting Tip
The screen doesn't show up	1. Make sure if the power supply is connected property 2. Turn on the power. 3. Select the input signal right for the connected port.
The screen is too light or to dark	Control the BRIGHTNESS
The screen size is not fit for the PC signal	Press the AUTO key among keys in the front. (It is used only in the PC signal)
The screen color shows strange in the PC signal	In the FUNCTION menu of OSD menu, perform the AUTOADJUST.
The key pad does not work	Press ▲ and ◀ button on the key pad for 10 seconds.