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User Manual 20 Multi-Display Drawer





4K 17" Display

3840 x 2160 native resolution / Display port 1.2 video input 1920 x 1080 & 1920 x 1200 resolution support

LCD2U17-3K-011 Triple display drawer

LCD2U17-2K-011L Dual display drawer (Left Hinged) LCD2U17-2K-011R Dual display drawer (Right Hinged)



HD 17" Display

1920 x 1080 native resolution / DVI-D + VGA video input

LCD2U17-3H-011 Triple display drawer

LCD2U17-2H-011L Dual display drawer (Left Hinged) LCD2U17-2H-011R Dual display drawer (Right Hinged)

19" 4:3 Display

1280 x 1024 native resolution / DVI-D + VGA video input

LCD2U19-3T-011 Triple display drawer

LCD2U19-2T-011L Dual display drawer (Left Hinged) LCD2U19-2T-011R Dual display drawer (Right Hinged)

Legal Information

First English printing, January 2018

Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice. We are not liable for any injury or loss that results from the use of this equipment.

Safety Instructions

Please read all of these instructions carefully before you use the device. Save this manual for future reference.

- Unplug equipment before cleaning. Don't use liquid or spray detergent; use a moist cloth.
- Keep equipment away from excessive humidity and heat. Preferably, keep it in an air-conditioned environment with temperatures not exceeding 40° Celsius (104° Fahrenheit).
- When installing, place the equipment on a sturdy, level surface to prevent it from accidentally falling and causing damage to other equipment or injury to persons nearby.
- When the equipment is in an open position, do not cover, block or in any way obstruct the gap between it and the power supply. Proper air convection is necessary to keep it from overheating.
- Arrange the equipment's power cord in such a way that others won't trip or fall over it.
- If you are using a power cord that didn't ship with the equipment, ensure that it is rated for the voltage and current labeled on the equipment's electrical ratings label. The voltage rating on the cord should be higher than the one listed on the equipment's ratings label.
- Observe all precautions and warnings attached to the equipment.
- If you don't intend on using the equipment for a long time, disconnect it from the power outlet to prevent being damaged by transient over-voltage.
- Keep all liquids away from the equipment to minimize the risk of accidental spillage. Liquid spilled on to the power supply or on other hardware may cause damage, fire or electrical shock.
- Only qualified service personnel should open the chassis. Opening it yourself could damage the equipment and invalidate its warranty.
- If any part of the equipment becomes damaged or stops functioning, have it checked by qualified service personnel.

What the warranty does not cover

- Any product, on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:

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	Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or
	failure to follow instructions supplied with the product.
	Repair or attempted repair by anyone not authorized by us.
	Any damage of the product due to shipment.
	Removal or installation of the product.
	Causes external to the product, such as electric power fluctuation or failure.

- ☐ Use of supplies or parts not meeting our specifications.
- □ Normal wear and tear.
- ☐ Any other causes which does not relate to a product defect.
- Removal, installation, and set-up service charges.

Regulatory Notices Federal Communications Commission (FCC)

This equipment has been tested and found to comply with the limits for a Class B 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.

Any changes or modifications made to this equipment may void the user's authority to operate this equipment. 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:

- Re-position 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.

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Before Installation

- It is very important to mount the equipment in a suitable cabinet or on a stable surface.
- Make sure the place has a good ventilation, is out of direct sunlight, away from sources of excessive dust, dirt, heat, water, moisture and vibration.

Unpacking

The equipment comes with the standard parts shown in package content. Check and make sure they are included and in good condition. If anything is missing, or damaged, contact the supplier immediately.

How To Clean Your LCD Monitor



Caution :

- To avoid the risk of electric shock, make sure your hands are dry before unplugging your monitor from or plugging your monitor into an electrical outlet.
- When you clean your monitor, do not press down on the LCD screen. Pressing down on the screen can scratch or damage your display. Pressure damage is not covered under warranty.
- Use only cleansers made specifically for cleaning monitors and monitor screens. Cleansers not made to clean monitors and monitor screens can scratch the LCD display or strip off the finish.
- Do not spray any kind of liquid directly onto the screen or case of your monitor. Spraying liquids directly onto the screen or case can cause damage which is not covered under warranty.
- Do not use paper towels or abrasive pads to clean your monitor. Using an abrasive pad or any wood based paper product such as paper towels can scratch your LCD screen.

Cleaning Your Monitor

To clean your LCD safely, please follow these steps:

- ① Disconnect the power cord.
- ② Gently wipe the surface using a clean, dry microfiber cloth. Use as little pressure as possible.

Cleaning Tough Marks and Smudges

To remove tough marks and smudges, please follow these steps:

- ① Disconnect the power cord.
- 2 Spray a small amount of non-abrasive cleanser on a microfiber cloth.
- Caution: Do not spray or apply any liquids directly onto the monitor. Always apply the solution to your microfiber cloth first, not directly on the parts you are cleaning.
- Gently wipe the surface. Use as little pressure as possible.
- Wait until your monitor is completely dry before plugging it in and powering it up.

< Part 1 >

< 1.1 > Package Content



LCD2U17-3K-011 unit X 1

- 6ft DP cable X 2 or 3 (base on no. of displays)
- Power adapter & Power cord X 1
- M6 screw, cage nut & cup washer X8

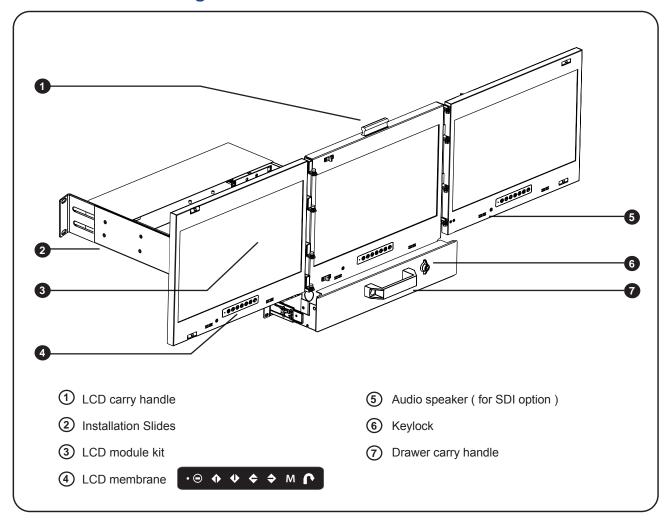
LCD2U17-3H-011 or 3T-011 unit X 1

- 6ft DVI cable X 2 or 3 (base on no. of displays)
- Power adapter & Power cord X 1
- M6 screw, cage nut & cup washer X8



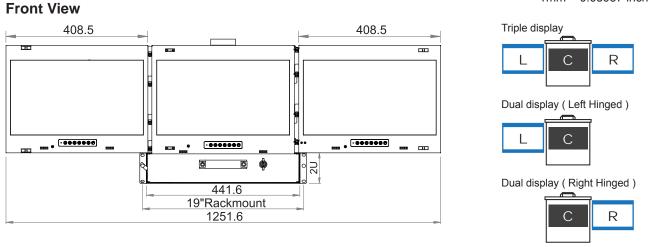
The above package content is only for the basic model. It varies with options such as SDI & DC power.

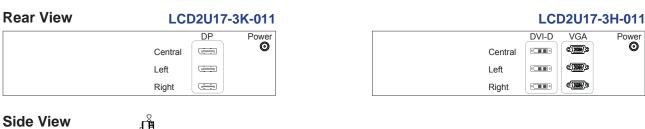
< 1.2 > Structure Diagram

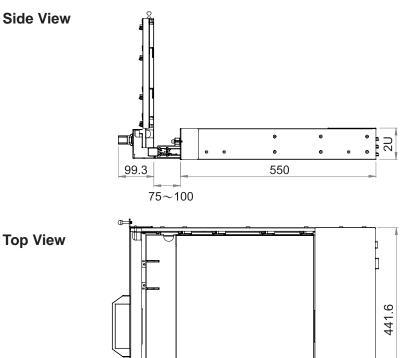


< 1.2 > LCD2U17-3K-011 / LCD2U17-3H-011 Dimension

1mm = 0.03937 inch





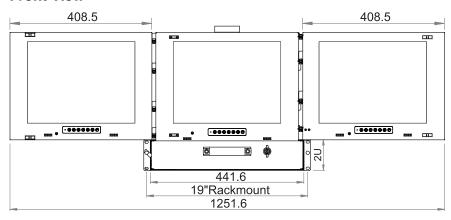


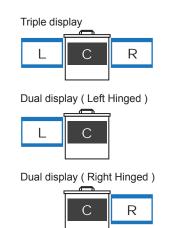
Model		Display	Product Dimension (W x D x H)	Net Weight
LCD2U17	-3	Triple	441.6 x 550 x 88 mm 17.4 x 21.7 x 3.5"	24.1 kg 53 lb
	-2L -2R	Dual Left Hinged Dual Right Hinged	441.6 x 550 x 88 mm 17.4 x 21.7 x 3.5"	19.4 kg 42.7 lb

< 1.2 > LCD2U19-3T-011 Dimension

1mm = 0.03937 inch

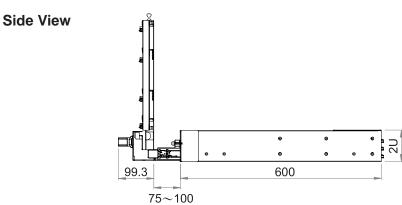
Front View

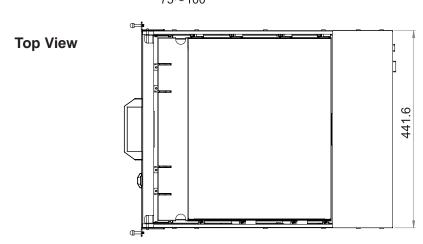




Rear View





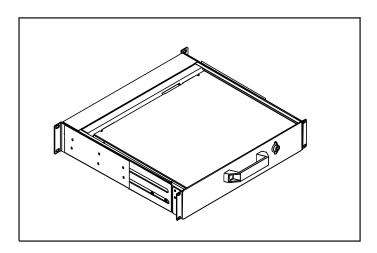


Model		Display	Product Dimension (W x D x H)	Net Weight
I CD3U40	-3	Triple	441.6 x 600 x 88 mm 17.4 x 23.6 x 3.5"	25.1 kg 55.2 lb
LCD2U19	-2L -2R	Dual Left Hinged Dual Right Hinged	441.6 x 600 x 88 mm 17.4 x 23.6 x 3.5"	20.4 kg 44.9 lb



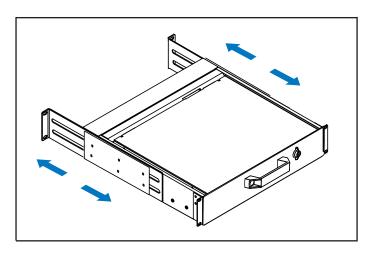
The weight is only for the basic models. It varies with accessories & options .

< 1.3 > Installation - How to install Installation Slides



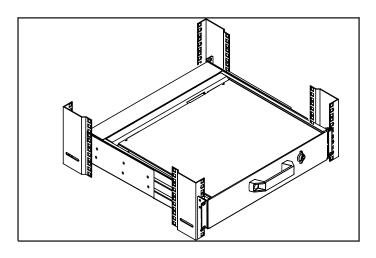
Step 1

■ The left and right rear mounting brackets are attached to the Multi-display drawer.



Step 2

- Measure the depth of the front and rear mounting rails.
- Align each rear mounting bracket to a suitable length.
- Mounting distance: 550 790 mm



Step

Complete the installation

■ Fix the Multi-display drawer into the rack.



M6 screw, cage nut & cup washer x 8 are provided.

< 1.3 > Installation - How to Use the Multi-Display

Drawer



Step 1

■ Unlock the key cylinder to 3 o'clock direction.



Step 2

■ Hold the handle and slide out the drawer.



Step 3

■ Flip up the LCD to a suitable angle.



Step 4

■ Open the Left / Right display.

< 1.3 > Installation - How to Use the

Multi-Display

Drawer



Step 5

■ Operate the multi-display drawer.



Step 6

- Close the Left / Right display.
- Flip down the LCD completely.



Step 7

- Must completely extend the drawer before returning it to the park position.
- Then pull and hold both side release buttons when pushing the drawer back to the rack.



The above steps are necessary.

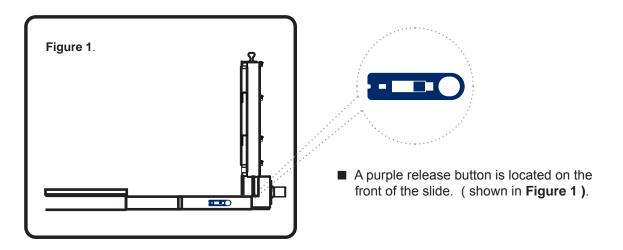
Failure to complete these will cause damage.

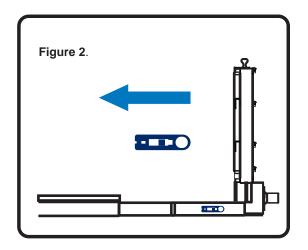


Step 8

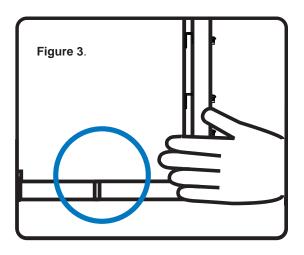
■ Return the multi-display drawer to park position.

< 1.3 > Installation - How to Use the Slides



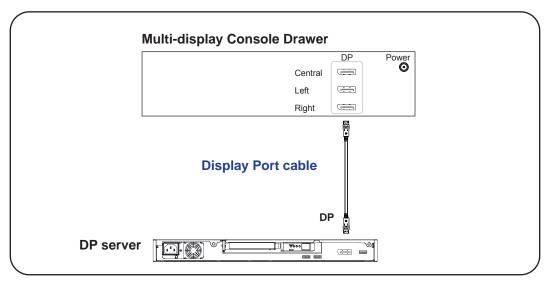


■ Pull and hold both side release buttons when pushing the Multi display drawer back to the rack. (shown in **Figure 2**).



Caution: Keep your fingers away from the slide stop. (shown in Figure 3).

< 1.4 > 4K 17" model connection to Display Port Server



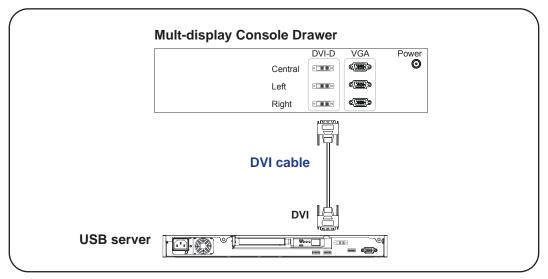
* DP cable x 2 for dual display



Caution: The LCD drawer is hot-pluggable, but components of connected devices, such as the servers and KVM switch, may not be hot-pluggable. Plugging and unplugging cables while servers and KVM are powered on may cause irreversible damage to the servers, KVM and LCD drawer. Before attempting to connect anything to the LCD drawer, we suggest turning off the power to all devices. Apply power to connected devices again only after the LCD drawer is receiving power. The company is not responsible for damage caused in this way.

< 1.4 > 17" HD / 19" model connection to

USB Server



* DVI cable x 2 for dual display



Caution: The LCD drawer is hot-pluggable, but components of connected devices, such as the servers and KVM switch, may not be hot-pluggable. Plugging and unplugging cables while servers and KVM are powered on may cause irreversible damage to the servers, KVM and LCD drawer. Before attempting to connect anything to the LCD drawer, we suggest turning off the power to all devices. Apply power to connected devices again only after the LCD drawer is receiving power. The company is not responsible for damage caused in this way.

< 2.1 > Product Specifications - LCD2U17-2K / 3K

LCD		
Panel	Native Resolution	3840 x 2160
	Panel Size (diagonal)	17.3-inch TFT color LCD
	Brightness (cd/m²)	300
	Contrast Ratio (typ.)	1000:1
	Colors	16.7 M, 8-bit
	Viewing Angle (L/R/U/D)	89/89/89
	Response Time (ms)	Max. 30
	Dot pitch (mm)	0.0995
	Display Area (mm)	382.12H x 214.94V
	Surface treatment	Anti-glare
	Surface hardness	3H
	Backlight Type	LED
	MTBF (hrs)	20,000

Video	Package	DP 1.2 / HDCP 1.3
	Option	HDMI 2.0 / HDCP 2.2

Power	Power Supply	Range	Auto-sensing 100 to 240VAC, 50 / 60Hz
	Power Consumption	Screen ON	Max. 29W
		Power saving mode	Max. 9W
		Power button OFF	Max. 2W

Compliance	EMC	FCC & CE certified	
Safety		CE / LVD certified	
Environment		RoHS2 & REACH compliant	

Environmental	Operating	Temperature	0 to 55°C degree
Conditions		Humidity	20~90%, non-condensing
		Altitude	16,000 ft
	Storage / Non-operating	Temperature	-20 to 60°C degree
		Humidity	5~90%, non-condensing
		Altitude	40,000 ft
		Shock	10G acceleration (11ms duration)
		Vibration	5~500Hz 1G RMS random

< 2.1 > Product Specifications - LCD2U17-2K / 3K

Physical Specification	Product (WxD	x H)	mm inch	441.6 x 55 0 x 88 17.4 x 21.7 x 3.5
	Weight	Net	Triple display Dual display	24.1 kg / 53 lb 19.4 kg / 42.7 lb

Applicable	Display Port Input	PC Signal	3840 x 2160 x 60Hz
Format			1920 x 1080 x 60Hz
			1600 x 1200 x 60Hz
			1360 x 768 x 60Hz
			1280 x 1024 x 60 / 75Hz
			1280 x 768 x 60Hz
			1024 x 768 x 60 / 70 / 75Hz
			800 x 600 x 60 / 72 / 75Hz
			720 x 400 x 70Hz
			640 x 480 x 60 / 72 / 75Hz
		Audio Signal	2ch Linear PCM
	HDMI Input	HDMI 2.0	3840 x 2160 x 60Hz
		HDMI 2.0 / 1.4	3840 x 2160 x 30Hz
			1920 x 1080 x 50 / 60Hz (1080p)
			1920 x 1080 x 25 / 30Hz (1080i)
			1280 x 720 x 50 / 60Hz (720p)
			720 x 480 x 50 / 60Hz (576p / 480p)
		Audio Signal	2ch Linear PCM

^{*}In some circumstances, if the user connects the LCD to PC via HDMI port or video and audio signals, the LCD may display incorrectly on a full screen. If so, please adjust the display card setting on display size to fix the issue.

< Part 2 >

< 2.1 > Product Specifications - LCD2U17-2H / 3H & LCD2U19-2T / 3T

LCD		17"	19"
Panel	Native Resolution	1920 x 1080	1280 x 1024
	Panel Size (diagonal)	17.3"	19"
	Brightness (cd/m²)	400	250
	Contrast Ratio (typ.)	600:1	1000:1
	Colors	16.7 M, 8-bit	16.7 M
	Viewing Angle (L/R/U/D)	80/80/60/80	85/85/80/80
	Response Time (ms)	40	5
	Dot pitch (mm)	0.1989	0.294
	Display Area (mm)	381.888H x 214.812V	337.92H x 270.33V
	Surface treatment	Anti-glare, Hard-coating	Haze 25%, Hard-coating
	Surface hardness	3H	3H
	Backlight Type	LED	LED
	MTBF (hrs)	50,000	30,000

Video Package		DVI-D + VGA	DVI-D + VGA
	Option	HDMI 1.3 / HDCP 1.3	HDMI 1.2 / HDCP 1.1

Power	Power Supply	Range	Auto-sensing 100 to 240VAC, 50 / 60Hz		
	Power	Screen ON	Max. 25W	Max. 25W	
Consumption	Power saving mode	Max. 4W	Max. 4W		
		Power button OFF	Max. 1W	Max. 1W	

Compliance	EMC	FCC & CE certified
	Safety	CE / LVD certified
	Environment	RoHS2 & REACH compliant

Environmental	Storage / Non-operating	Temperature	0 to 55°C degree
Conditions		Humidity	20~90%, non-condensing
		Altitude	16,000 ft
		Temperature	-20 to 60°C degree
		Humidity	5~90%, non-condensing
		Altitude	40,000 ft
		Shock	10G acceleration (11ms duration)
		Vibration	5~500Hz 1G RMS random

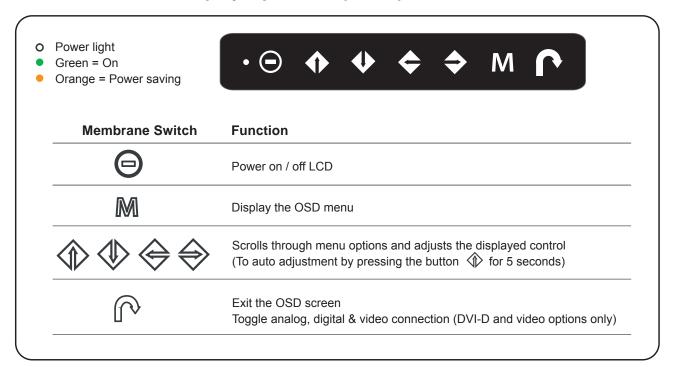
< 2.1 > Product Specifications - LCD2U17-2H / 3H & LCD2U19-2T / 3T

Physical Specification	Product (WxDxH)	17"	mm inch	441.6 x 550 x 88 17.4 x 21.7 x 3.5
	(x 2 x)		mon	17.4 X 21.7 X 0.0
		19"	mm	441.6 x 600 x 88
			inch	17.4 x 23.6 x 7.8
		17"	Triple display	24.1 kg / 53 lb
	Weight		Dual display	19.4 kg / 42.7 lb
		19"	Triple display	25.1 kg / 55.2 lb
			Dual display	20.4 kg / 44.9 lb
		•	:	

Applicable Format	DVI-D / VGA Input	PC Signal	1920 x 1080 x 60Hz (LCD2U-2H / 3H only) 1360 x 768 x 60Hz (LCD2U-2H / 3H only) 1280 x 1024 x 60 / 75Hz 1280 x 960 x 60Hz 1280 x 768 x 60 / 75Hz 1152 x 864 x 75Hz 1024 x 768 x 60 / 70 / 75Hz 848 x 480 x 60Hz 800 x 600 x 60 / 72 / 75Hz 720 x 400 x 70Hz
			640 x 480 x 60 / 72 / 75Hz 640 x 400 x 70Hz
			640 x 350 x 70Hz
		Audio Signal	2ch Linear PCM
	HDMI Input	PC Signal	Same as VGA
		HDMI 1.3	1920 x 1080 x 50 / 60Hz (1080p) (LCD2U17-2H / 3H only)
			1920 x 1080 x 25 / 30Hz (1080i) (LCD2U17-2H / 3H only)
			1280 x 720 x 50 / 60Hz (720p)
			720 x 480 x 50 / 60Hz (576p / 480p)
		Audio Signal	2ch Linear PCM

^{*}In some circumstances, if the user connects the LCD to PC via HDMI port or video and audio signals, the LCD may display incorrectly on a full screen. If so, please adjust the display card setting on display size to fix the issue.

< 2.2 > On-screen Display Operation (OSD)



< 2.2 > On-screen Display Operation (OSD) - LCD2U17-2K / 3K series

1 Picture

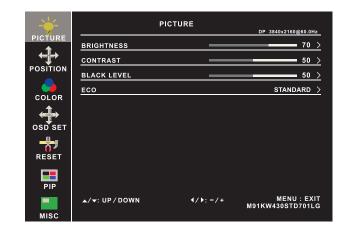
Brightness: Adjust the screen brightness

Contrast : Adjust the difference between the image background

(black level) and the foreground (white level)

Black level: Adjust background black level of the screen

Eco : Screen in power saving mode

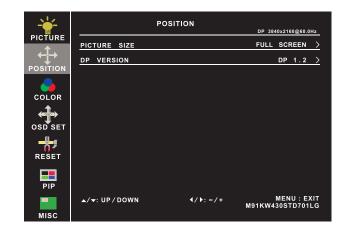


Position

Picture size: Adjust the image size

- Full Screen / 4:3 / 5:4 / Pixel to Pixel

DP version: Select the DP version



(3) Color

Color temperature: User / Warm / Cool / 5400k mode and

Red / Green / Blue color balance

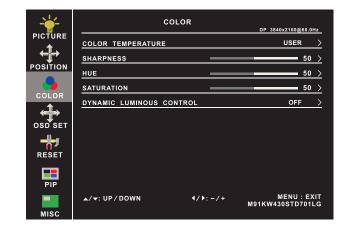
Sharpness : Adjust the image from weak to sharp

Hue : Adjust the screen hue value

Saturation : Adjust the saturation of the image color

Dynamic

luminous control : Control the dynamic brightness



4 OSD Set

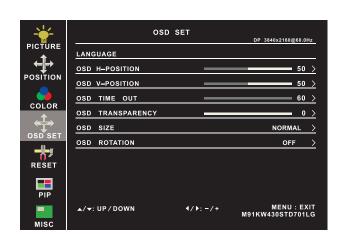
Language : Select the language in which the OSD menu is

displayed - English

OSD H-Position : Align the screen image left or right
OSD V-Position : Align the screen image up or down

OSD time out : Adjust the screen timeout
OSD transparency : Adjust the screen transparency

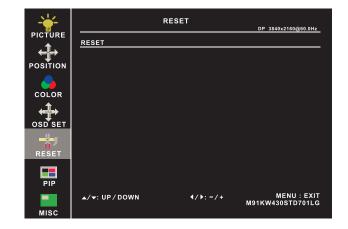
OSD size : Adjust the screen size - Normal / Small
OSD rotation : Rotate the screen - 90° / 180° / 270°



< 2.2 > On-screen Display Operation (OSD) - LCD2U17-2K / 3K series

Seset

Reset : Return the adjustment back to factory setting



6 PIP

PIP mode : Enter into PIP / PBP setting - PIP MODE /

PBP 2WIN (Main screen + 1 sub screen) / PBP 3WIN (Main screen + 2 sub screen) / PBP 4WIN (Main screen + 3 sub screen) Select the signal input of each sub screen

PIP size : Adjust the size of the Sub screen

- Small / Medium / Large / Huge

PIP position : Adjust the position of the Sub screen

- Top Left / Top Right / Bottom Left / Bottom Right

Swap : Swap the input signal of PIP / PBP sub screen



(7) MISC

Signal source : Select the signal source - DP / HDMI1 / HDMI2

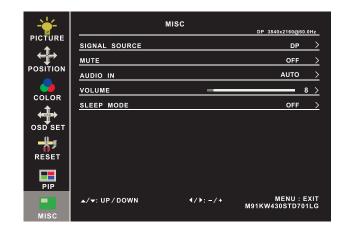
Mute : Turn off the surrounding sound

Audio in : Auto / Line in / DP

Volume : Adjust the volume of sound

Sleep mode : Set the off time - 10 min / 20 min / 30 min /

50 min / 60 min / 120 min / 240 min

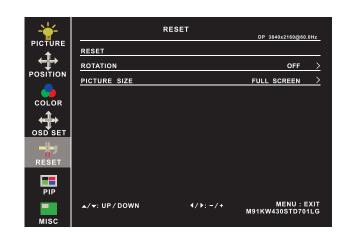


Options on Reset page

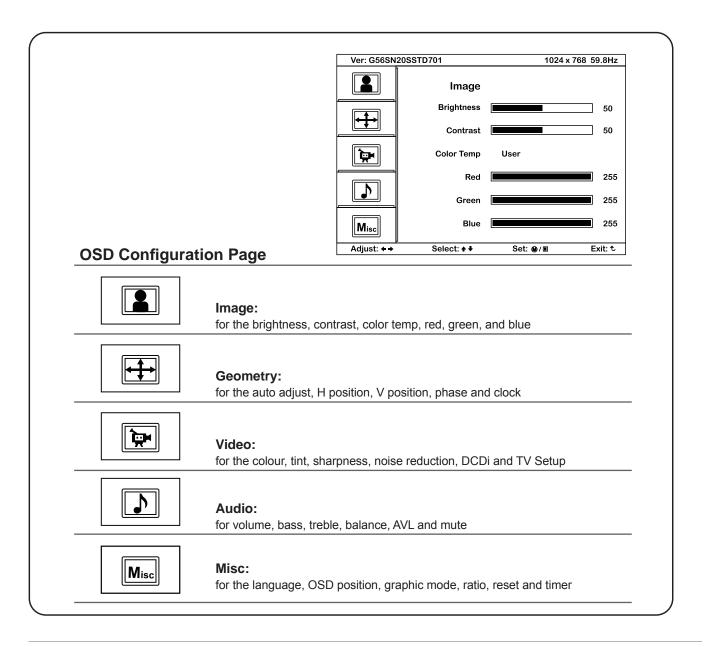
Rotation : Rotate the image in Full screen or 1:1

- 90° / 180° / 270°

Picture size: Adjust the image size in Full screen or 1:1



< 2.2 > On-screen Display Operation (OSD) - LCD2U17-2H / 3H & 19-2T / 3T



< 3.1 > Options : 3G / HD / SD-SDI input



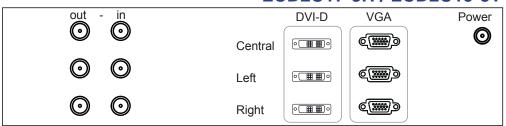
Our SDI input is an ideal solution for the broadcast-grade video and high resolution CCTV market.

Designed for use with NOVA series displays, a SDI input module can support up to 1080p @60Hz resolution without using additional space or power and it comes standard with a 1-year warranty.

LCD2U17-3K



LCD2U17-3H / LCD2U19-3T



INPUT	3G-SDI IN	BNC x 1 / 0.8Vp-p (75 ohm)		
	3G-SDI OUT	BNC x 1 / Active through, equalized & relocked		
Standard Compliance	Video	SMPTE 425M / 274M / 296M / 125M ITU-R BT.656		
	Audio	SMPTE 299M / 272M-C		
Compatible Video Format	3G-SDI	1080p @60 / 50Hz, 4:2:2 1080p @30 / 25 / 24Hz, 4:4:4 1080i @60 / 50Hz, 4:4:4 720p @60 / 50Hz, 4:4:4		
	HD-SDI	1080p @30 / 25 / 24Hz, 4:2:2 1080i @60 / 50Hz, 4:2:2 720p @60 / 50Hz, 4:2:2		
	SD-SDI	480i @60Hz, 4:2:2		
	ITU-R BT.656	576i @50Hz, 4:2:2		
Compatible Audio Format	3G-SDI	48kHz, 16 / 20 / 24 bit, 2 CH, Synchronized Video		
	HD-SDI	48kHz, 16 / 20 / 24 bit, 2 CH, Synchronized Video		
	SD-SDI	48kHz, 16 / 20 / 24 bit, 2 CH, Synchronized / Asynchronized Video		
Max. Transmission Distance	3G-SDI	150m at 2.97Gb/s		
75 ohm coaxial cable	HD-SDI	250m at 1.485Gb/s		
	SD-SDI	480m at 270Mb/s		

< 3.2 > Options : HDMI video input

LCD2U17-3K: HDMI 2.0 (HDCP 2.2)

LCD2U17-3H: HDMI 1.3 (HDCP 1.3)

LCD2U19-3T: HDMI 1.2 (HDCP 1.1)

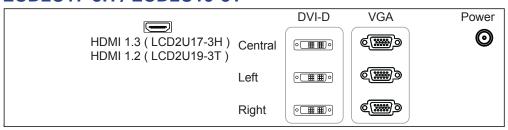


(1) In some circumstances, if the user connects the LCD to PC via HDMI port for video and audio signals, the LCD may display incorrectly on a full screen. If so, please adjust the display card setting on display size to fix the issue.

LCD2U17-3K



LCD2U17-3H / LCD2U19-3T



< 3.3 > Options : DC Power

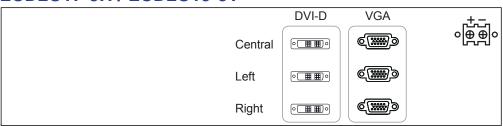


Model	12V	24V	48V	125V
Input rating				
Input voltage:	12-Volt	24-Volt	48-Volt	110-Volt
Input range:	9 ~ 18V	18 ~ 36V	36 ~ 75V	66 ~ 160V
Input current				
- No load	50 mA	50 mA	50 mA	35 mA
- Full load	4950 mA	2450 mA	1220 mA	460 mA
Output rating				
Output voltage:	12-Volt	12-Volt	12-Volt	12-Volt
Output current:	4.16A	4.16A	4.16A	4.16A
Efficiency	84%	88%	90%	89%

DC power



LCD2U17-3H / LCD2U19-3T



*** For DC power option :

- (1) If the unit with LCD, earthing may be required
- (2) DC option excludes AC power adapter and power cord.

The company reserves the right to modify product specifications without prior notice and assumes no responsibility for any error which may appear in this publication.

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