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User Manual 17" / 19" LED-backlit LCD



LCD1U17-013 / LCD1U19-012

1U LED-backlit LCD Drawer

Options : - AV / DVI-D / Audio - Touchscreen - SDI - DC power



Legal Information

First English printing, January 2024

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:
 - Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
 - $\hfill\square$ Repair or attempted repair by anyone not authorized by us.
 - □ Any damage of the product due to shipment.
 - □ Removal or installation of the product.
 - $\hfill\square$ Causes external to the product, such as electric power fluctuation or failure.
 - $\hfill\square$ Use of supplies or parts not meeting our specifications.
 - \Box Normal wear and tear.
 - $\hfill\square$ 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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	Speaker, DVI-D, BNC Touchscreen : Projected Capacitive (10-point touch) Resistive / Capacitive (1-point touch)

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

A 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.

- ③ Gently wipe the surface. Use as little pressure as possible.
- ④ Wait until your monitor is completely dry before plugging it in and powering it up.

< Part 1 > LCD1U17-013 / LCD1U19-012 < 1.1 > Package Content

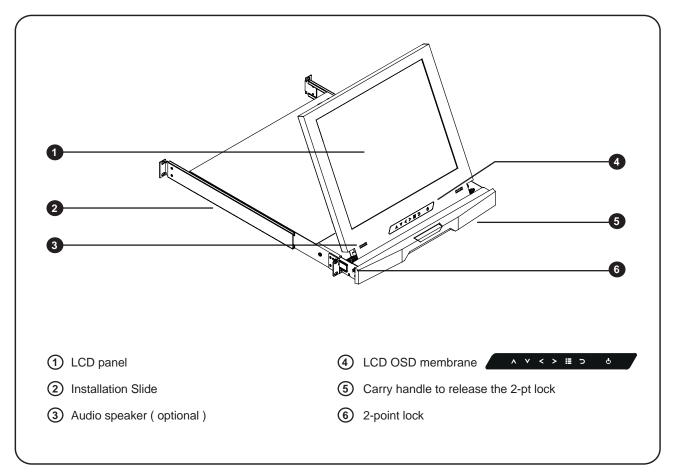
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LCD1U17-013 or LCD1U19-012 unit X 1

- 6ft VGA cable X 1
- Power cord X1
- M6 screw, cage nut & cup washer X8

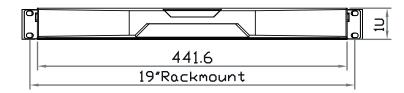
The above package content is only for the pure model (VGA and HDMI only). It varies with options such as DVI-D, AV, audio, touchscreen & DC power.

< 1.2 > Structure Diagram



< 1.3 > Dimension

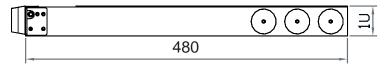
Front View



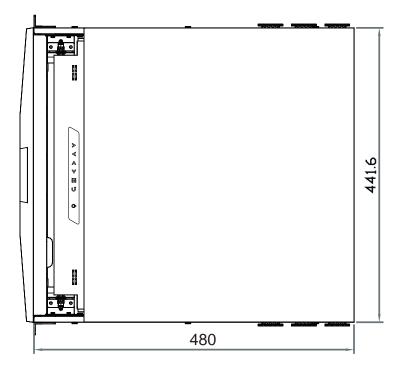
Rear View



Side View



Top View

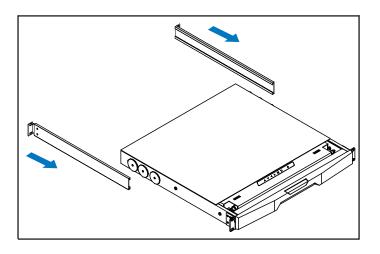


Model	Product Dimension (W x D x H)	Net Weight
LCD1U17-013	441.6 x 480 x 44 mm 17.4 x 18.9 x 1.73 inch	10.5 kg 23.1 lb
LCD1U19-012	441.6 x 480 x 44 mm 17.4 x 18.9 x 1.73 inch	12.5 kg 27.5 lb

UNIT : mm 1mm = 0.03937 inch

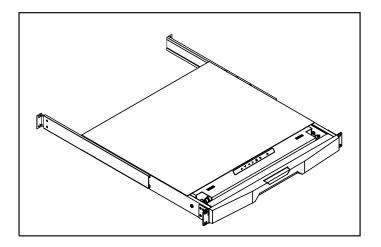
The weight is only for the pure models. It varies with accessories & options such as DVI-D, AV, audio, touchscreen & DC power.

< 1.3 > Installation - How to install Installation Slides



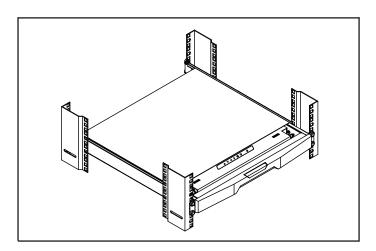


Insert the left and right rear mounting brackets into the display drawer.



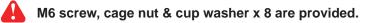


- Measure the depth of the front and rear mounting rails.
- Align each rear mounting bracket to a suitable length.





Fix the display drawer into the rack.





After use the drawer

Basically, user can push in the drawer back to park position by releasing the left & right slide lock arrow (as long as the drawer starts moving, he/she can release their finger right away, holding the arrow is not necessary).

< Part 2 > Specifications / OSD

< 2.1 > Product Specifications

LED-backlit LCD Panel		LCD1U17-013	LCD1U19-012
	Manufacturer	VNO	NNO
	Panel Size (diagonal)	17-inch TFT color LED-backlit LCD	19-inch TFT color LED-backlit LCD
	Display pixel (dots x lines)	1280 x 1024	1280 x 1024
	Brightness (typ.)	250	250
	Contrast Ratio (typ.)	1000:1	1000:1
	Color	16.7 M	16.7 M
	Viewing Angle (L/R/U/D)	85/85/80/80	85/85/80/80
	Response Time (ms)	5	5
	Dot pitch (mm)	0.264	0.294
	Display Area (mm)	337.92H x 270.33V	376.32H x 301.06V
	Surface treatment	Haze 25%, I	Hard-coating
	Surface hardness	3H	3Н
	Backlight Type	LED	LED
	MTBF (hrs)	30,000	30,000

Video	Digital	HDMI	HDMI 1.4, HDCP 1.4
Connectivity		DVI	DVI-D, TMDS single link
	Analog	VGA	Analog 0.7Vp-p
		Composite (BNC)	NTSC & PAL
		S-Video (4-pin)	NTSC & PAL
	Plug & Play	DVI / VGA	VESA EDID structure 1.3
	Synchronization	VGA	Separate, Composite & SOG

Audio	Audio Input	Connector	3.5mm stereo jack
Connectivity		Impedance / Power level	30kΩ / 750mV
	Audio Output	Connector	3.5mm stereo jack
		Resistance / Power level	30kΩ / 2.8V
	Speaker	Dual Stereo Speaker	2W x 2

* When the audio output is connected, speaker output is OFF

Power	Power Supply	Range	Auto-sensing 100 to 240VAC, 50 / 60Hz
	Power Consumption	Screen ON	Max. 22W
		Power saving mode	Max. 2W
		Power button OFF	Max. 1W

Compliance EMC		FCC & CE
	Safety	CE / LVD & UKCA
	Environmental	RoHS3 & REACH / WEEE

Environmental	Operating	Temperature	0 to 55°C degree
Conditions		Humidity	10~90%, 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	10~300Hz 0.5G RMS random

Physical Specification		LCD1U17-013	LCD1U19-012	
Specification	Product (W x D x H)	441.6 x 480 x 44 mm	441.6 x 480 x 44 mm	
		17.4 x 18.9 x 1.73 inch	17.4 x 18.9 x 1.73 inch	
	Net Weight	10.5 kg / 23.1 lb	12.5 kg / 27.5 lb	

* All dimensions stated are subject to change if options are selected / integrated to base model part codes

Annlinghle		DC Circal	
Applicable	DVI-D / VGA Input	PC Signal	1280 x 1024 x 60 / 75Hz
Format			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
	HDMI Input	PC Signal	Same as VGA
		Video Signal	720p : 50 / 60Hz
			480p : 60Hz
			576p : 50Hz
		Audio Signal	2ch Linear PCM (32 / 44.1 / 48 KHz)

< 2.2 > On-screen Display Operation (OSD)

Membrane Switch	Function			
Ċ	Turn the monitor on or off			
	Display the OSD menu Act as an Enter key to select screen setting options			
$\land ~ \lor ~ \lessdot ~ \mathrel{>}$	Scroll through menu options and adjust the displayed control			
Ć	Exit the OSD screen Go back to the previous on-screen sub-menu or main menu			
-	WHITE light. buch button will flash continuously when there is no signal input. matically turn off after 10 minutes of idle status (except the Power (

< 2.2 > On-screen Display Operation (OSD)

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

2 Position

H-Position	: To adjust the horizontal position of the video
V-Position	: To adjust the vertical position of the video
Clock	: To auto adjust H. Size of the screen
Phase	: To fine tune the screen.
Picture size	: FULL SCREEEN / 4:3 / 5:4 / 16:10

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

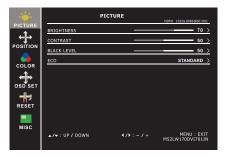
Language	: Select the language in which the OSD menu i displayed - English	
OSD H-Position	: Align the screen image left or right	
OSD V-Position	: Align the screen image up or down	
OSD time out	: Adjust the screen timeout	
OSD transparency	: Adjust the screen transparency	
OSD rotation	: Rotate the screen - 90° / 180° / 270°	

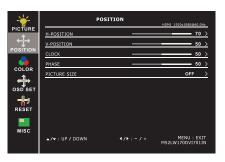
5 Reset

Reset : Return the adjustment back to factory setting

6 MISC

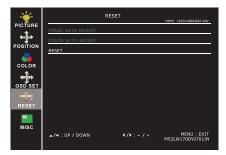
Signal source : Select the signal source - DP / HDMI1 / HDMI2				
Mute	: Turn off the surrounding sound			
Audio in	: Auto / Line in / DP			
Volume	: Adjust the volume of sound			
Sleep mode	: Set the off time - 10 min / 20 min / 30 min / 50 min / 60 min / 120 min / 240 min			

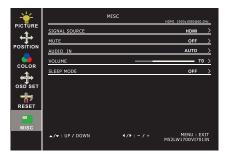




	COLOR	HDMI 1920x1080@60.0Hz
PICTURE	COLOR TEMPERATURE	WARM >
-+}-	SHARPNESS	48 >
POSITION	HUE	50 >
COLOR	SATURATION	50 >
	DYNAMIC LUMINOUS CONTROL	OFF >
OSD SET		
RESET		
MISC		
	▲/▼: UP / DOWN	MENU : EXIT M52LW170DVI701IN

- ` #-	OSD S	ET	HDMI 1920×1080@60.0Hz
PICTURE	LANGUAGE		
+	OSD H-POSITION		 50 >
POSITION	OSD V-POSITION		50 >
- -	OSD TIME OUT		100 >
COLOR	OSD TRANSPARENCY	_	0 >
****	OSD ROTATION		OFF >
OSD SET			
RESET			
MISC			
	▲/♥: UP / DOWN	∢/ ▶ : = / +	MENU : EXIT M52LW170DV1701IN





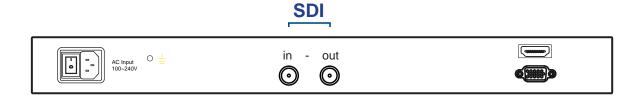
< Part 3 > Options < 3.1 > Options : 3G / HD / SD-SDI input



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

Designed for use with SiriusView displays, a SDI input module can support up to 1080p @60Hz resolution without using additional space or power.

* SDI option comes with speakers.



INPUT	3G-SDI IN	BNC x 1 / 0.8Vp-p (75 ohm)
	3G-SDI OUT	BNC x 1 / Active through, equalized & relocked

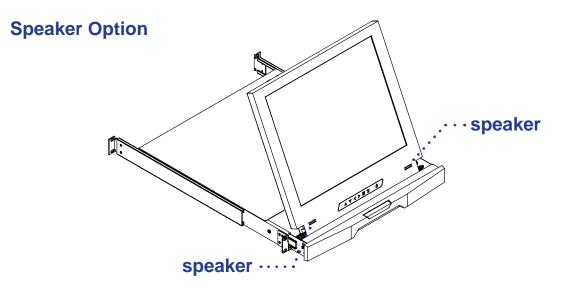
Standard Compliance	Video	SMPTE 425M / 274M / 296M / 125M ITU-R BT.656	
	Audio	SMPTE 299M / 272M-C	

Compatible Video Format	3G-SDI HD-SDI	1080p 1080p 1080i 720p 1080p 1080i 720p	<pre>@60 / 50Hz, 4:2:2 @ 30 / 25 / 24Hz, 4:4:4 @ 60 / 50Hz, 4:4:4 @ 60 / 50Hz, 4:4:4 @ 30 / 25 / 24Hz, 4:2:2 @ 60 / 50Hz, 4:2:2 @ 60 / 50Hz, 4:2:2</pre>
	SD-SDI	480i	@60Hz, 4:2:2
	ITU-R BT.656	576i	@50Hz, 4:2:2

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 / Asyn- chronized Video
	HD-SDI

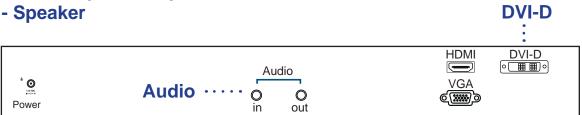
Max. Transmission Distance 75 ohm coaxial cable	3G-SDI	150m at 2.97Gb/s	
	HD-SDI	250m at 1.485Gb/s	
	SD-SDI	480m at 270Mb/s	

< 3.2 > Options : Speaker, DVI-D, BNC



DVI-D Option

- DVI-D (DVI-D, TMDS single link)
- Audio input & output
- Speaker



BNC Option

- BNC (S-Video + Composite, BNC)

- Speaker	S-Video	+ BNC
* O Power	S-Video	HDMI BNC VGA

< 3.3 > Options : Touchscreen & driver



Projected Capacitive 10-pt Touch screen Specification

	LCD1U17-013		
Model	TPC Multi-touch		
Technology	Projected Capacitive		
Touch Point	10		
Input Type	Finger or Capacitive Stylus		
Resolution	4096 x 4096		
Touch Point Accuracy	± 2 mm		
Response Speed	< 5 ms		
Activation Force	< 5 g		
Surface Hardness	6H		
Light Transmission	> 85%		
Haze	3%↓		
Durability	50 million touches		
Top Layer	1.8 mm Glass		
Bottom Layer	0.7 mm Sensor Glass		
Thickness	2.7 ± 0.1 mm		
Connector	USB		
Compatibility	Linux / Android / Windows / Mac		

Resistive 1-pt / Capacitive 1-pt Touch screen Specification

Model	LCD1U17-013	LCD1U19-012	LCD1U17-013	
	TRB Resistive		TCB Capacitive	
Technology	5-Wire F	Capacitive		
Touch Point	Sin	Single		
Method	Stylus o	Finger		
Activation Force	\leq 50g / Stylus=R0.8 \leq 50g		≤ 50g	
Durability	35 millior	300 million touches		
Response Time	15	20 ms		
Optical Transmittance	80% ± 3%		93% ±2%	
Surface Hardness	3Н		9H	
Haze	8% ± 3%		7%	
Glass	1.4 ±0.2 mm	3.2 ±0.2 mm	2.8 mm ±10%	
Connector	USB 1	USB Type A		
Compatibility	Windows 7 / XP / Vista, Linux			

■ USB touchscreen package includes 1 x 6ft USB cable, quick reference guideline and CD disc

■ For detailed information, please refer to the attached CD disc

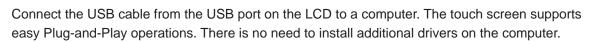
■ As the touchscreen unit is not made of toughened glass, please handle it carefully

< 3.3 > Options : Touchscreen & driver

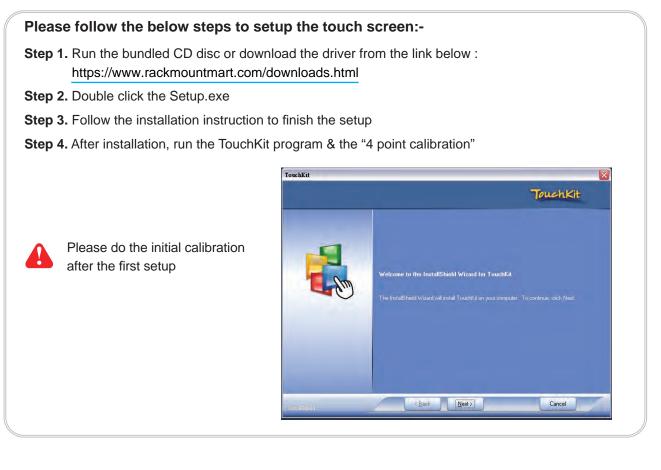
USB Touchscreen

* ©	
	VGA
Power	e()

TPC Driver



TRB & TCB Driver



< 3.4 > Options : DC Power



Model	12V	24V	48V	125V	250V
Input rating					
Input voltage:	12-Volt	24-Volt	48-Volt	110-Volt	300-Volt
Input range:	9 ~ 18V	18 ~ 36V	36 ~ 75V	66 ~ 160V	180 ~ 425V
Input current					
- No load	50 mA	50 mA	50 mA	35 mA	10 mA
- Full load	4950 mA	2450 mA	1220 mA	749 mA	600 mA
Output rating					
Output voltage:	12-Volt	12-Volt	12-Volt	12-Volt	12-Volt
Output current:	4.16A	4.16A	4.16A	6.25A	12.5A
Efficiency	84%	85%	85%	91%	86%

DC power

÷	HDMI
စမြိုမျိုစ	VGA ¢

- ******* 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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