CyberView™ ^{TM} dedicated KVM switch and rackmount screen technology

User Manual 20" LCD 1152 x 900 Native Resolution

SP-120
1U SUN LCD Drawer

Options :
- DC power

FC CE UK CA RoHS REACH

Designed and manufactured by Austin Hughes

Legal Information

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 40º Celsius (104º 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.
  - ☐ 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.

Contents

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.**

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 >
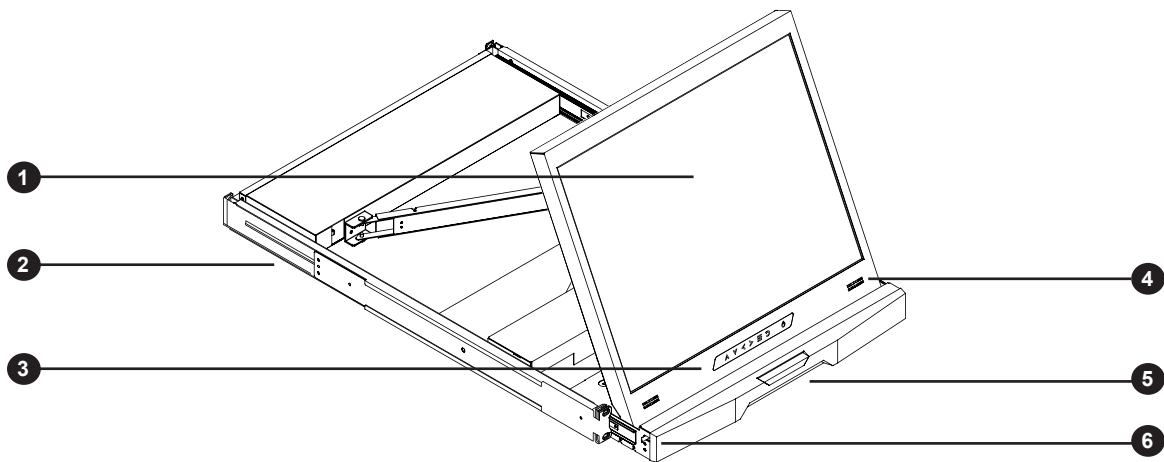## < 1.1 > Package Content

SP-120 unit X 1

- 6ft VGA cable X 1
- Power cord X 1
- M6 screw, cage nut & cup washer X 8

⚠️ **The above package content is only for the pure model (VGA and HDMI only). It varies with options such as DC power.**

< 1.2 > Structure Diagram

①	LCD panel	④	Audio speaker (optional)
②	Installation Slide	⑤	Carry handle to release the 2-pt lock
③	LCD OSD membrane	⑥	2-point lock

< 1.2 > Dimension

Front View

439.6

19''Rackmount

Rear View

Power

HDMI

VGA
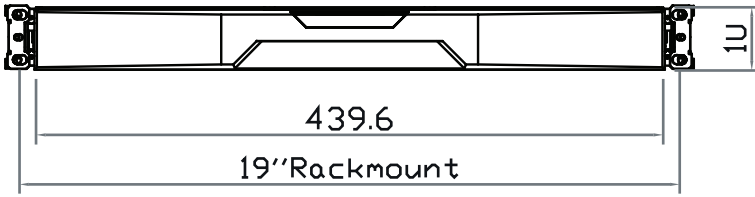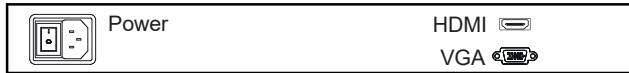
Side View
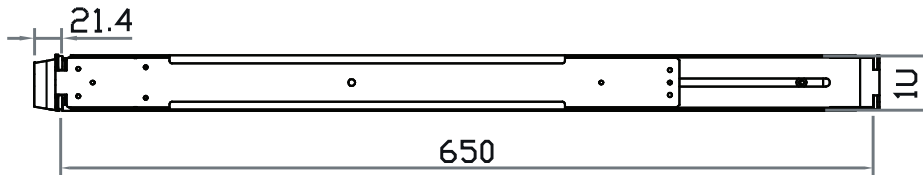
UNIT : mm
1mm = 0.03937 inch

21.4

650

1U

Top View

439.6

477.1

650
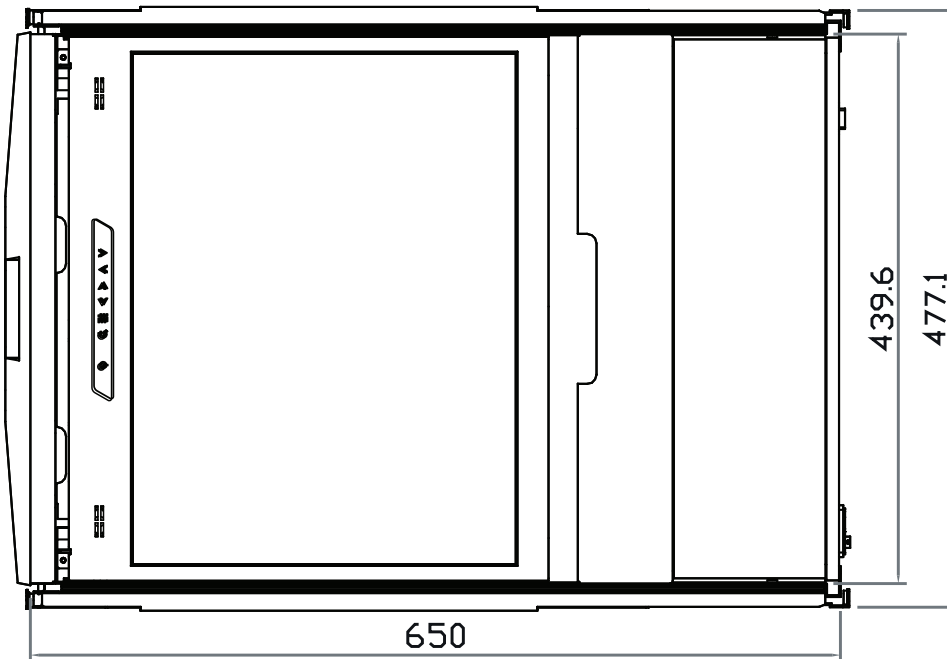
| Model	Product Dimension (W x D x H)	Packing Dimension (W x D x H)	Net Weight	Gross Weight
SP-120	439.6 x 650 x 44 mm 17.3 x 25.6 x 1.73 inch	595 x 815 x 140 mm 23.4 x 32.1 x 5.5 inch	13.5 kg 29.7 lb	17.5 kg 38.5 lb

⚠️ **The weight is only for the pure models. It varies with accessories & options such as DC power.**
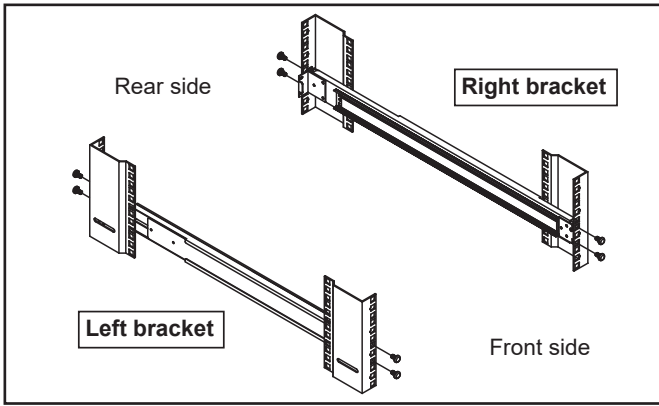
Step 1

■ Attach the | left and right mounting bracket | to rack 19" mounting rails.

■ Adjust the mounting bracket to fit your rack.

■ M6 screw x 8 pcs included.

⚠ **Leave all M6 screws slightly loose, until you complete the installation in step 3**

Rear side

Right bracket

Left bracket

Front side
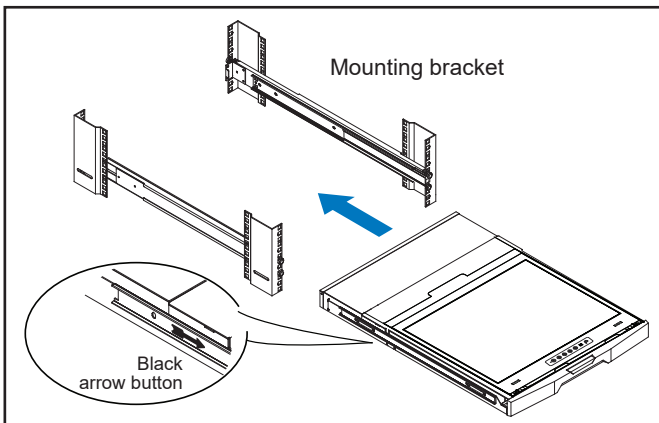
Step 2

■ Pick up the LCD tray.

■ Insert the LCD tray into the mounting bracket.

■ Pull and hold the left & right black arrow buttons on the rails.

■ Return the LCD tray to park position.

Mounting bracket

Black arrow button
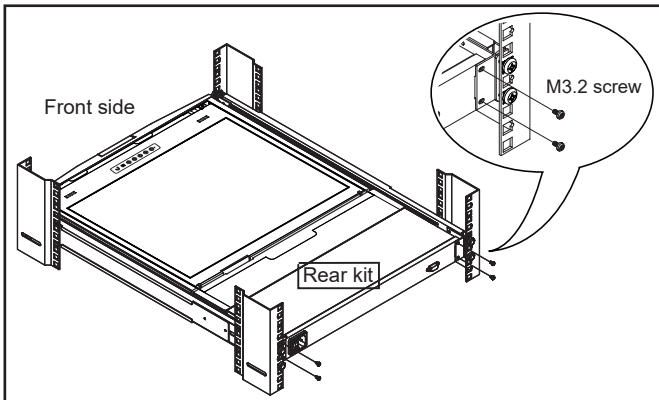
Step 3

■ Fix the | rear kit | to the mounting bracket with M3.2 screw x 4 pcs included.

⚠ **This step is necessary. Failure to complete this will cause damage.**

Front side

M3.2 screw

Rear kit
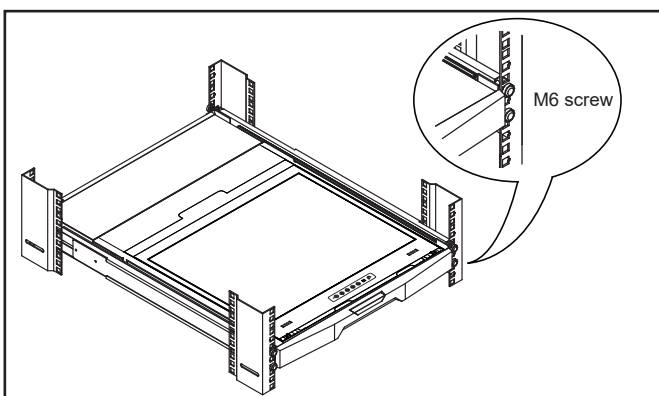
Step 4

Complete the installation

■ Tighten all 8 pcs of M6 screw to complete the installation.

M6 screw

Keep Your Fingers Away From The Slide Stop

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 >

< 2.1 > Product Specifications

LCD Panel		
Manufacturer		LG
Panel Size (diagonal)		20-inch TFT color LCD
Display pixel (dots x lines)		1152 x 900 (Direct)
		1600 x 1200 (Native)
Brightness (typ.)		300
Contrast Ratio (typ.)		800:1
Color		16.7 M
Viewing Angle (L/R/U/D)		89/89/89/89
Response Time (ms)		16
Dot pitch (mm)		0.255
Display Area (mm)		408.00H x 306.00V
Surface treatment		Anti-glare, Hard-coating
Surface hardness		3H
Backlight Type		CCFL
MTBF (hrs)		45,000

Video Connectivity			
Digital	HDMI	HDMI 1.4, HDCP 1.4
Analog	VGA	Analog 0.7Vp-p
Plug & Play	DVI / VGA	VESA EDID structure 1.3
Synchronization	VGA	Separate, Composite & SOG

Power			
Power Supply	Range	Auto-sensing 100 to 240VAC, 50 / 60Hz
Power Consumption	Screen ON	Max. 45W
	Power saving mode	Max. 2W
	Power button OFF	Max. 1W

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

Environmental Conditions			
Operating	Temperature	0 to 55°C degree
	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	Product (W x D x H)	439.6 x 650 x 44 mm
		17.3 x 25.6 x 1.73 inch
	Packing (W x D x H)	595 x 815 x 140 mm
		23.4 x 32.1 x 5.5 inch
	Net Weight	13.5 kg / 29.7 lb
	Gross Weight	17.5 kg / 38.5 lb

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

Applicable Format	DVI-D / VGA Input	PC Signal	1152 x 900 x 66Hz
			1600 x 1200 x 60Hz
			1400 x 1050 x 60Hz
			1440 x 900 x 60Hz
			1360 x 768 x 60Hz
			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
	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
⏻	Turn the monitor on or off
☷	Display the OSD menu Act as an Enter key to select screen setting options
∧ ∨ ≪ ≫	Scroll through menu options and adjust the displayed control
�	Exit the OSD screen Go back to the previous on-screen sub-menu or main menu

Remark : All LED touch buttons in **WHITE** light.
The LED of **Power** ⏻ touch button will flash continuously when there is no signal input.

① All the LED touch buttons will automatically turn off after 10 minutes of idle status (except the **Power** ⏻).

② Light up all membrane buttons, please press any button for 1 - 2 seconds (except the **Power** ⏻).

③ Select another video input (only available for models with multiple video input) :

(a) Press the button ↺ to call up the on-screen video mode on top right corner.

(b) Use up/down arrow ∧ ∨ to the select the video input

(c) Press the button ☷ to confirm the selection

```
Ver: G56SN20SSTD701                          1024 x 768  59.8Hz

        [Image icon]              Image

        [Geometry icon]    Brightness  [████████░░░]    50

        [Video icon]       Contrast    [████████░░░]    50

        [Audio icon]       Color Temp     User

        [Misc icon]        Red          [██████████]   255

                           Green        [██████████]   255

                           Blue         [██████████]   255

    Adjust: ← →      Select: ↑ ↓       Set: ◉/▣       Exit: ↻
```

OSD Configuration Page

Image:
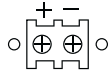for the brightness, contrast, color temp, red, green, and blue

Geometry:
for the auto adjust, H position, V position, phase and clock

Video:
for the colour, tint, sharpness, noise reduction, DCDi and TV Setup

Audio:
for volume, bass, treble, balance, AVL and mute

Misc:
for the language, OSD position, graphic mode, ratio, reset and timer

< 3.3 > 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

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.