

## User Manual 20" LCD 1600 x 1200



### RP-120 1U LCD Drawer

**Options :**

- AV / DVI-D / Audio
- DC power



Designed and manufactured by Austin Hughes

## Legal Information

First English printing, July 2023

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.
  - 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.**

- 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 > RP-120

### < 1.1 > Package Content

RP-120



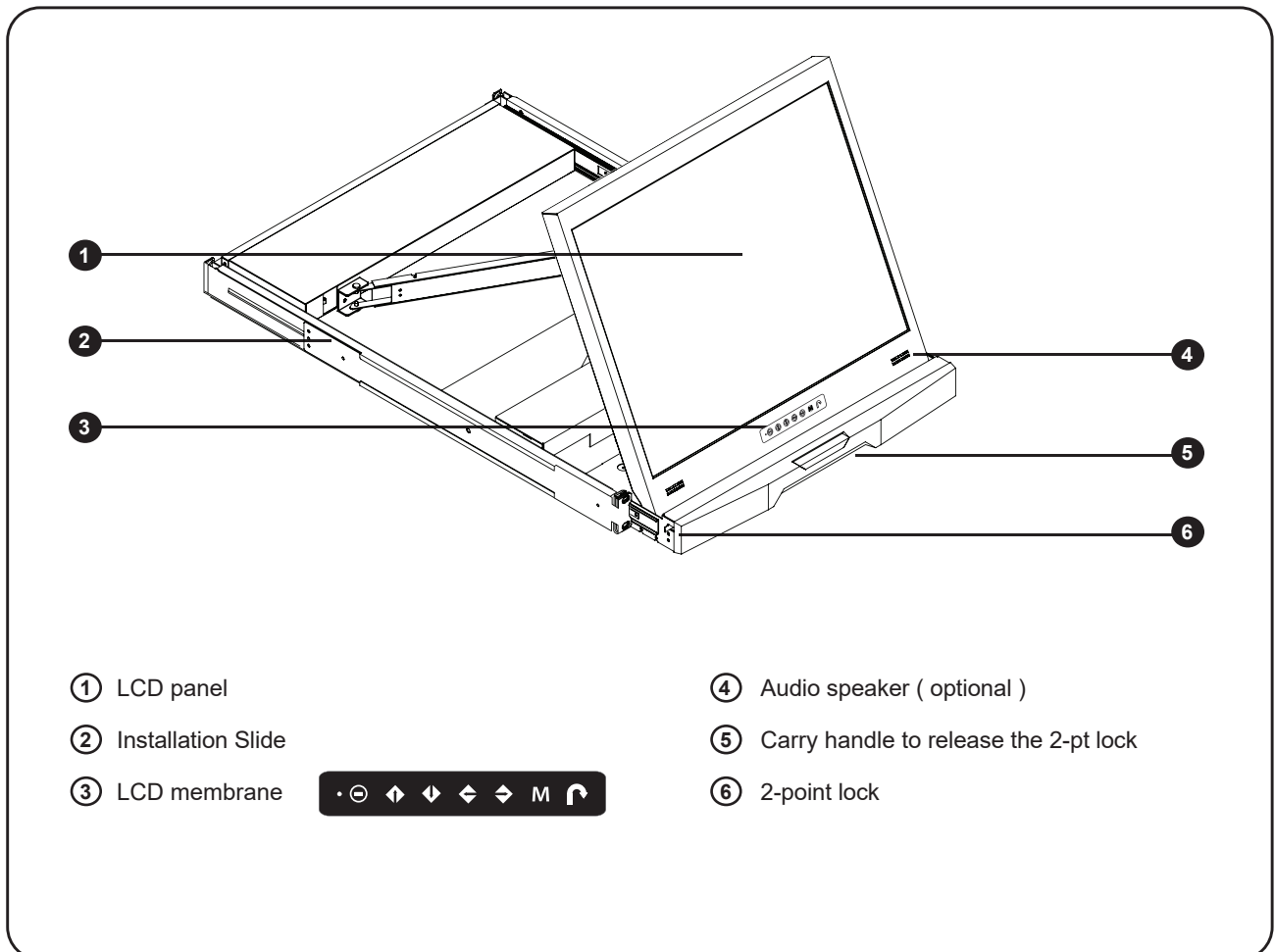
#### RP-120 unit X 1

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



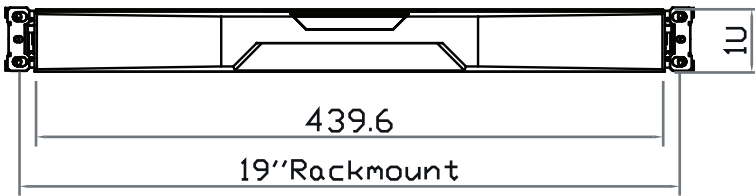
The above package content is only for the pure model (VGA and HDMI only). It varies with options such as HDMI, AV, audio & DC power.

### < 1.2 > Structure Diagram



## < 1.2 > Dimension

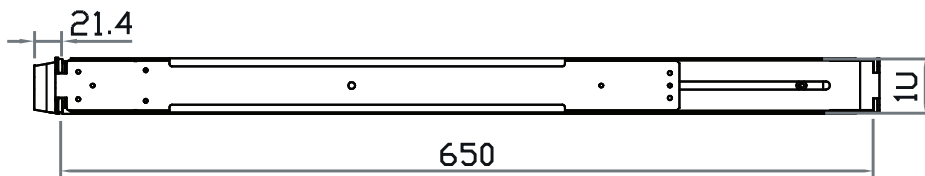
### Front View



### Rear View

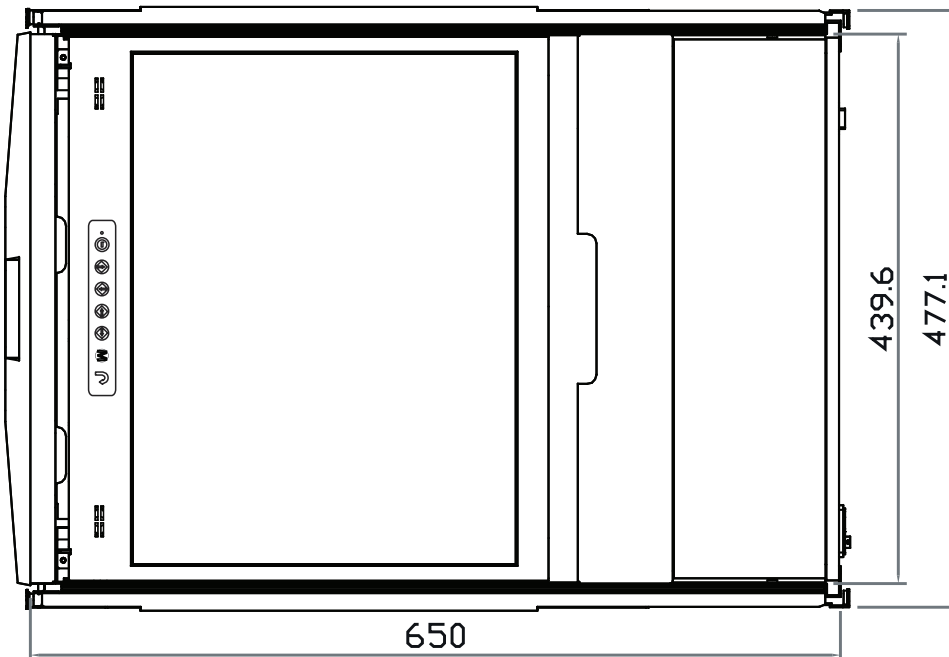


### Side View



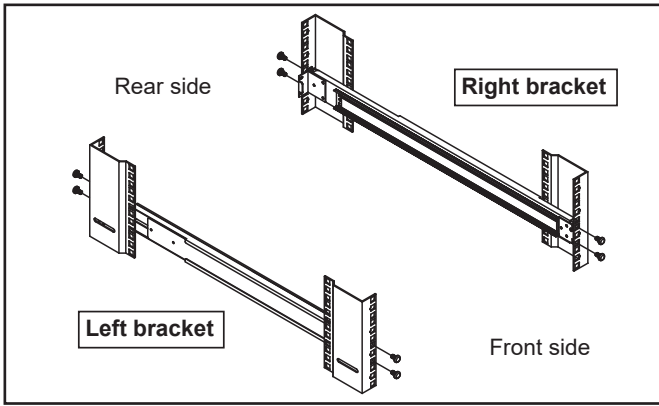
UNIT : mm  
1mm = 0.03937 inch

### Top View



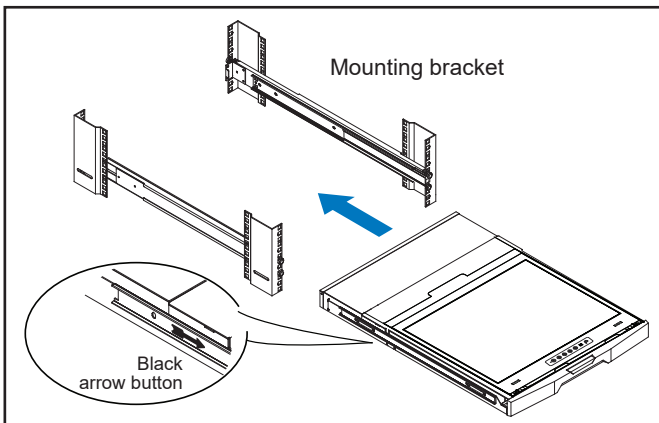
Model	Product Dimension (W x D x H)	Packing Dimension (W x D x H)	Net Weight	Gross Weight
RP-120	439.6 x 650 x 44 mm 17.3 x 25.6 x 1.73 inch	595 x 815 x 140 mm 23.4 x 32.1 x 5.5 inch	13.5 kg 29.7 lb	17.5 kg 38.5 lb

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

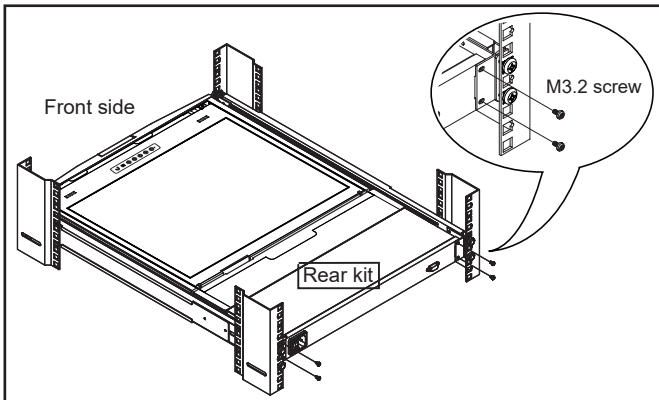


- Step 1**
- Attach the **left and right mounting bracket** to rack 19" mounting rails.
  - Adjust the mounting bracket to fit your rack.
  - M6 screw x 8 pcs included.

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

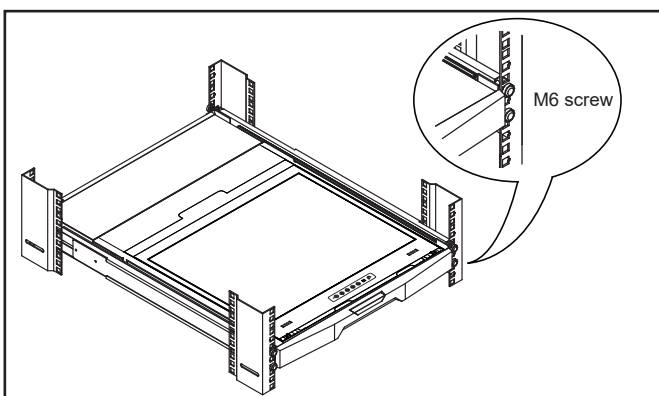


- Step 2**
- Pick up the LCD tray.
  - Insert the LCD tray into the mounting bracket.
  - Pull and hold the left & right black arrow buttons on the rails.
  - Return the LCD tray to park position.



- 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.



- Step 4**
- Complete the installation**
- Tighten all 8 pcs of M6 screw to complete the installation.


**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

<b>LCD Panel</b>	Manufacturer	
	Panel Size ( diagonal )	20-inch TFT color LCD
	Display pixel ( dots x lines )	1600 x 1200
	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

<b>Video Connectivity</b>	Digital	HDMI	HDMI 1.4, HDCP 1.4
		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	

<b>Audio Connectivity</b>	Audio Input	Connector	3.5mm stereo jack
		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

<b>Power</b>	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

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



<b>Environmental Conditions</b>	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







<b>Physical Specification</b>	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 kgs / 29.7 lbs
	Gross Weight	17.5 kgs / 38.5 lbs









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

<b>Applicable Format</b>	DVI-D / VGA Input	PC Signal	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
Audio Signal			2ch Linear PCM ( 32 / 44.1 / 48 KHz )





## < 2.2 > On-screen Display Operation ( OSD )

- Power light
- Green = On
- Orange = Power saving






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Membrane Switch	Function
	Power on / off LCD
	Display the OSD menu
   	Scrolls through menu options and adjusts the displayed control (To auto adjustment by pressing the button  for 5 seconds)
	Exit the OSD screen Toggle analog, digital & video connection (DVI-D and video options only)

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**

Brightness  50

Contrast  50

Color Temp    User


Red  255

Green  255

Blue  255


**OSD Configuration Page**

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**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

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

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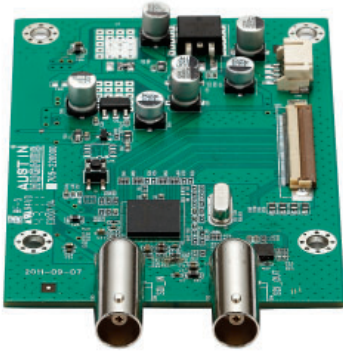
**Misc:**  
for the language, OSD position, graphic mode, ratio, reset and timer

---

Adjust: ←→
Select: ↑↓
Set: ●/■
Exit: ↵

## < Part 3 > Options

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

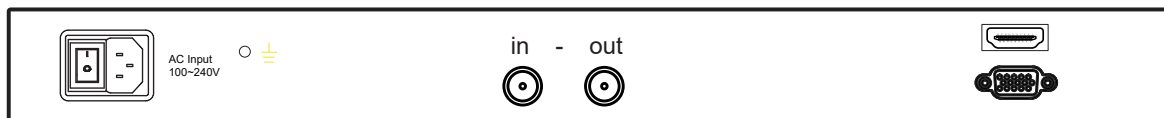


Austin Hughes' SDI input is an ideal solution for the broadcast-grade video and high resolution CCTV market.

Designed for use with CyberView displays, a SDI input module can support up to 1080p @60Hz resolution without using additional space or power and it comes standard with a 2-year warranty.

\* SDI option comes with speakers.

#### SDI



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

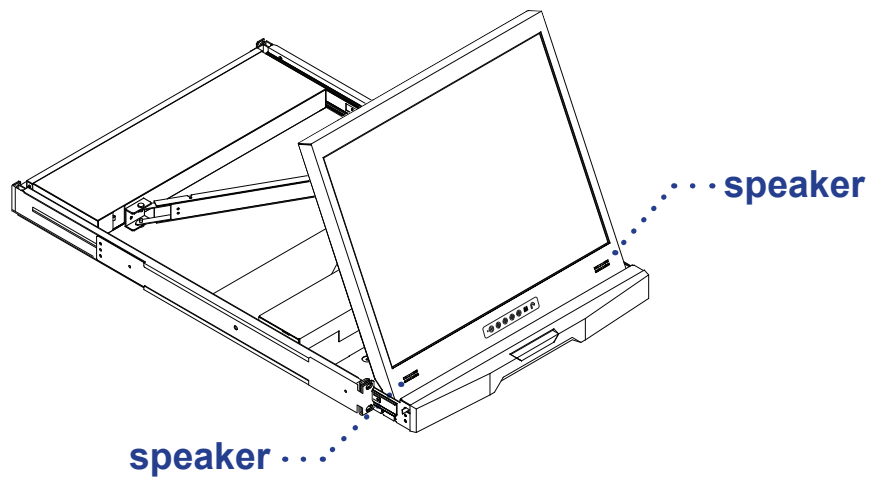
Standard Compliance	Video	SMPTE 425M / 274M / 296M / 125M ITU-R BT.656
	Audio	SMPTE 299M / 272M-C

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 / Asynchronous Video

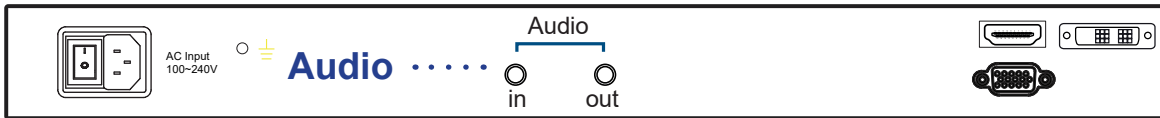
Max. Transmission Distance 75 ohm coaxial cable	3G-SDI	150m at 2.97Gb/s
	HD-SDI	250m at 1.485Gb/s
	SD-SDI	480m at 270Mb/s

### Speaker Option



### DVI-D Option

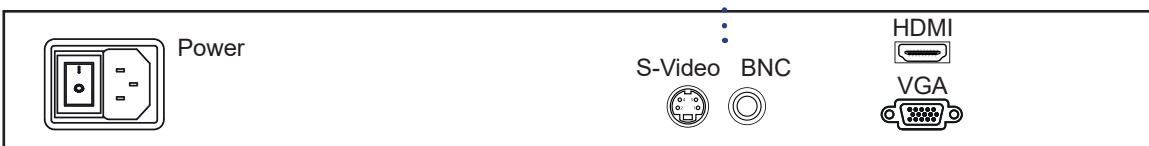
- DVI-D ( DVI-D, TMDS single link )
- Audio input & output
- Speaker



### BNC Option

- BNC ( S-Video + Composite, BNC )
- Speaker

### S-Video + BNC



## < 3.3 > Options : Touchscreen & driver

### Resistive 1-pt Touch screen Specification

<b>Model</b>	<b>RP-120</b>
	<b>TRB e-Resistive</b>
<b>Technology</b>	5-Wire Resistive
<b>Touch Point</b>	Single
<b>Method</b>	Stylus or Finger
<b>Activation Force</b>	≤ 50g
<b>Durability</b>	10 million touches
<b>Response Time</b>	15 ms
<b>Optical Transmittance</b>	80% ± 3%
<b>Surface Hardness</b>	3H
<b>Haze</b>	8% ± 3%
<b>Glass</b>	3.2 ±0.2 mm
<b>Connector</b>	USB Type A
<b>Compatibility</b>	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

### USB Touchscreen



### TRB Driver

**Please follow the below steps to setup the touch screen:-**

**Step 1.** Run the bundled CD disc or download the driver from the link below :

<http://www.austin-hughes.com/resources/driver/ultraview>

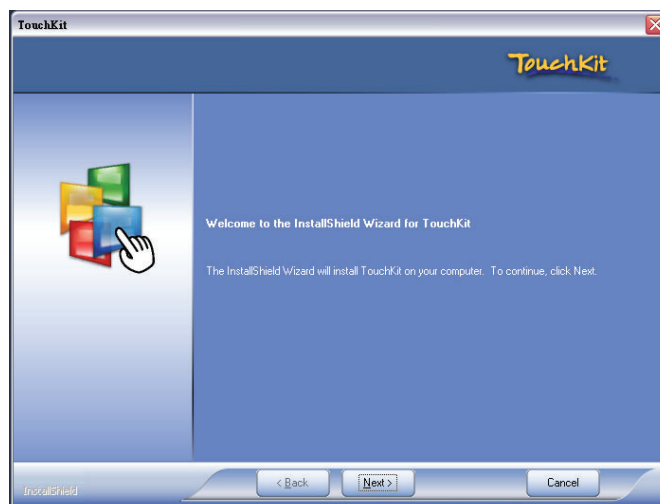
**Step 2.** Double click the Setup.exe

**Step 3.** Follow the installation instruction to finish the setup

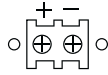
**Step 4.** After installation, run the TouchKit program & the “4 point calibration”



Please do the initial calibration after the first setup



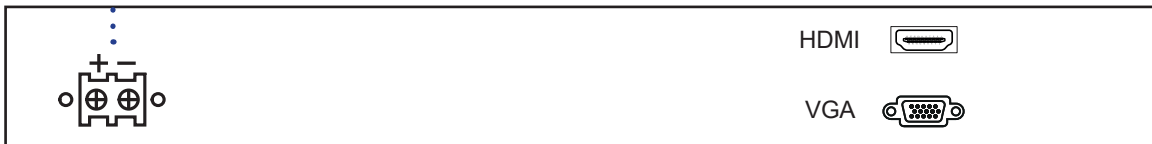
## < 3.4 > Options : DC Power




RP-120

Model	12V	24V	48V	125V	250V
<b>Input rating</b>					
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
<b>Output rating</b>					
Output voltage:	12-Volt	12-Volt	12-Volt	12-Volt	12-Volt
Output current:	4.16A	4.16A	4.16A	6.25A	12.5A
<b>Efficiency</b>	84%	85%	85%	91%	86%

### DC power



\*\*\* 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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UM-CV-751-RP-120-Q323V1

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