



# **User Manual**



Designed/Manufactured by Austin Hughes and Distributed by Eclipse Rackmount, Inc.

#### Legal Information

First English printing, October 2002

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, fre or electrical shock.
- Only qualif ed 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, fre, 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 fuctuation 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**

< Part. 1 >	ER2S-17 / ER2S-19	
1.1 1.2 1.3 1.4	Package Contents Structure Diagram & Dimensions Installation Connection	P.1 P.1 - 2 P.3 - 4 P.5
	Specifications / OSD	
2.1 2.2	Product Specifications  Keyboard / Mouse Specifications	P.6 - 7
2.3	On-Screen Display Operation (OSD)	P.8 - 10 P.11 - 12
< Part. 3 >	Options	
3.1	HDMI, DVI-D, S-Video + BNC & Audio	P.13
3.2	17" / 19" Touch-Screen : Resistive, Capacitive	P.14
3.3	48V, 24V or 12VDC power	P.15

# **Contents**

# < Part. 4 > Integrated KVM

## **Part Numbers Ending In:**

Matrix	Local	Remote	IP	8-port	16-port	32-port
Cat6 KVM	1	1	1	-	16-Cat6-M3X-IP	32-Cat6-M3X-IP
	1	1	2	-	16-Cat6-M4X-2IP	32-Cat6-M4X-2IP
	1	1	0	-	16-Cat6-M2X	32-Cat6-M2X
	1	2	0	-	16-Cat6-M3X	32-Cat6-M3X
	1	3	0	-	16-Cat6-M4X	32-Cat6-M4X

## **Part Numbers Ending In:**

Combo		Local	Remote	IP .	8-port	16-port	32-port
Cat6 KVM	السسا	1	0	1	8-Cat6-IP	16-Cat6-IP	32-Cat6-IP
		1	1	0	8-Cat6-2X	16-Cat6-2X	32-Cat6-2X
		1	0	0	8-Cat6	16-Cat6	32-Cat6

#### **Part Numbers Ending In:**

Matrix ( )	Local	Remote	IP .	8-port	16-port	32-port
DB-15 KVM	1	1	1	8-M3X-IP	16-M3X-IP	-
	1	1	2	8-M4X-2IP	16-M4X-2IP	-
	1	1	0	8-M2X	16-M2X	-
	1	2	0	8-M3X	16-M3X	-
	1	3	0	8-M4X	16-M4X	-

## **Part Numbers Ending In:**

Combo	Local	Remote	IP .	8-port	16-port	32-port
DB-15 KVM	1	0	1	8-IP	16-IP	-
	1	1	0	8-2X	16-2X	-
	1	0	0	8-USB	16-USB	-

## **Part Numbers Ending In:**

DVI-D	○ <b>         </b>	Local	Remote	IP	12-port	-	-
KVM		1	0	0	12-DVI	-	-

## Part Numbers Ending In:

PS/2 DB-15 KVM		Local	Remote	IP	8-port	-	-
	١	1	0	0	8-PS2	-	-

#### **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 f nish.
- 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 microf ber 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 microf ber cloth.
- Caution: Do not spray or apply any liquids directly onto the monitor. Always apply the solution to your microf ber cloth f rst, 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 Contents



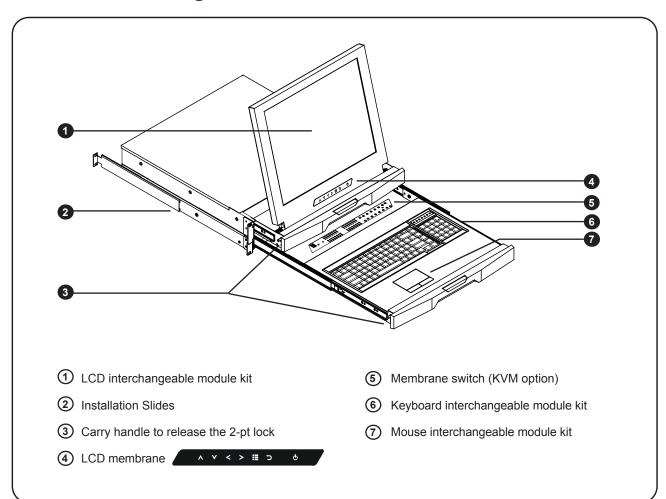
## ER2S-17 or ER2S-19 unit X 1

- CAE-6 6ft Combo KVM cable X 1
- Power cord X 1
- M6 screw, cage nut & cup washer X8

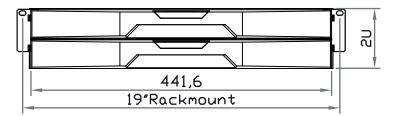


The above package content is only for the single console models. It varies with options such as KVM, HDMI, DVI-D, AV, audio & DC power.

# < 1.2 > Structure Diagram

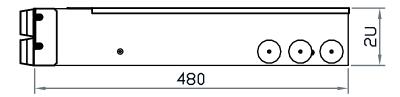


#### **Front View**

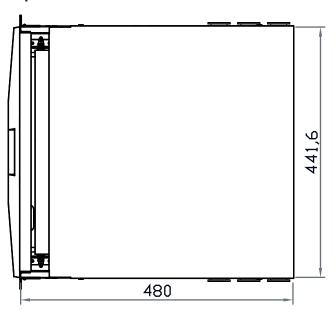


UNIT : mm 1mm = 0.03937 inch

## **Side View**



# **Top View**

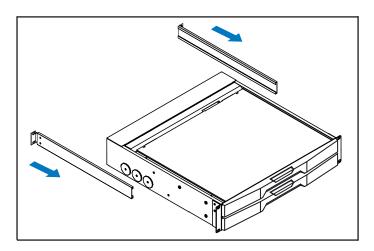


Model	Product Dimension	Packing Dimension	Net	Gross
	(W x D x H)	(W x D x H)	Weight	Weight
ER2S-17	441.6 x 480 x 88 mm	584 x 616 x 216 mm	20.4 kg	24.8 kg
	17.4 x 18.9 x 3.5"	23 x 24.3 x 8.5"	44.9 lb	54.6 lb
ER2S-19	441.6 x 480 x 88 mm	584 x 616 x 216 mm	20.5 kg	24.8 kg
	17.4 x 18.9 x 3.5"	23 x 24.3 x 8.5"	45.1 lb	54.6 lb



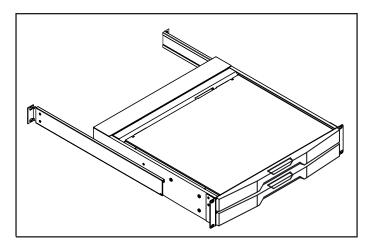
The weight is only for the single console models. It varies with accessories & options such as KVM, HDMI, DVI-D, AV, audio & DC power.

# < 1.3 > Installation - How to install Installation Slides



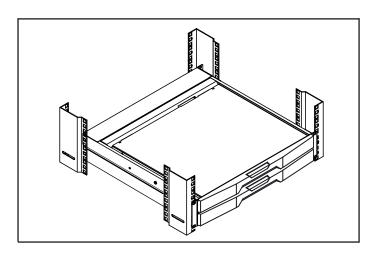
# Step 1

■ Insert the left and right rear mounting brackets into the LCD console drawer.



# Step 2

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



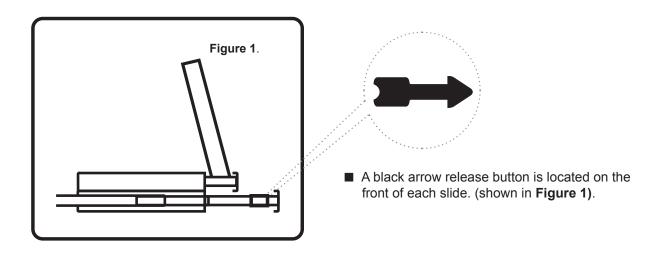
# Step

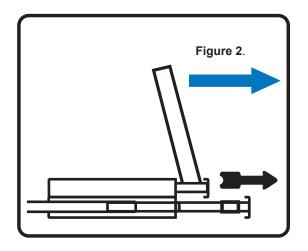
## Complete the installation

■ Fix the LCD console drawer into the rack.

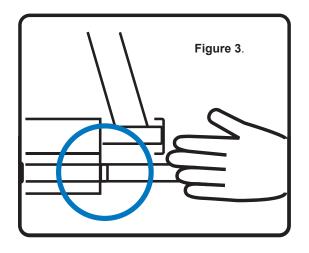


M6 screw, cage nut & cup washer x 8 are provided.





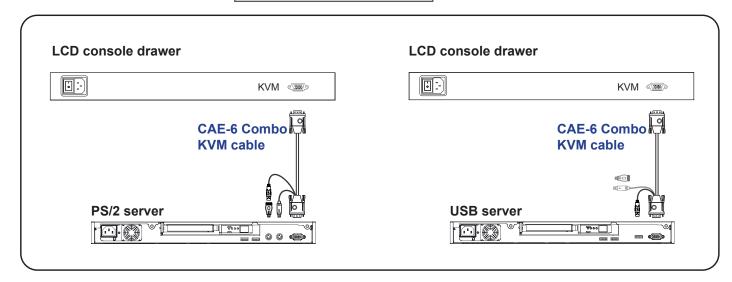
■ Pull and hold the black arrow button on either side of the LCD console drawer to unlock. (shown in **Figure 2**).



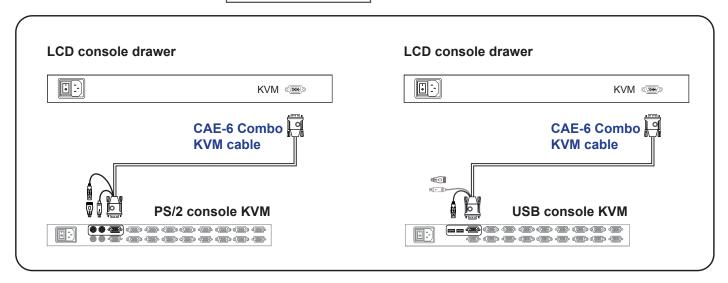
■ Push the LCD console drawer into the rack. (shown in **Figure 3**).

Caution: Keep your fingers away from the slide

# < 1.4 > Connection to PS/2 or USB Server



# < 1.4 > Connection to External KVM





Caution: The LCD console 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 console drawer. Before attempting to connect anything to the LCD console drawer , we suggest turning off the power to all devices. Apply power to connected devices again only after the LCD console drawer is receiving power. ERI is not responsible for damage caused in this way

# < 2.1 > Product Specifications

## ER2S-17 / 19

LCD		ER2S-17	ER2S-19	
Panel	Manufacturer	SAMSUNG		
	Panel Size ( diagonal )	17-inch TFT color LCD	19-inch TFT color 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 )	80/80/80/80	80/80/80/80	
	Response Time ( ms )	5	5	
	Dot pitch ( mm )	0.264	0.294	
	Display Area ( mm )	337.92H x 270.33V	376.32H x 301.05V	
	Surface treatment	Haze 25%, I	Hard-coating	
	Surface hardness	3H	3H	
	Backlight Type	CCFL	CCFL	
	MTBF ( hrs )	50,000	50,000	

Video	Digital	HDMI	HDMI 1.1, CEA-861-D
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 Connectivity	Audio Input	Connector Impedance / Power level	3.5mm stereo jack 30kΩ / 750mV
	Audio Output	Connector	3.5mm stereo jack
		Resistance / Power level	30kΩ / 2.8V
	Speaker Output	Power	2 x 2W

<sup>\*</sup>When the audio output is connected, speaker output is OFF

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

Regulatory	Safety Approval	FCC & CE

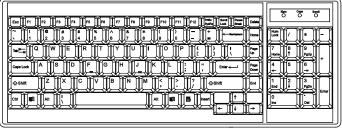
# < 2.1 > Product Specifications

Environmental Conditions	Operating	Temperature	0 to 50°C degree
		Humidity	20~90%, non-condensing
	Storage	Temperature	-5 to 60°C degree
		Humidity	5~90%, non-condensing
		Shock	10G acceleration (11ms duration)
		Vibration	5~500Hz 1G RMS random

Physical Specification		ER2S-17	ER2S-19
	Product (WxDxH)	441.6 x 480 x 88 mm	441.6 x 480 x 88 mm
		17.4 x 18.9 x 3.5 inch	17.4 x 18.9 x 3.5 inch
	Packing (WxDxH)	584 x 616 x 216 mm	584 x 616 x 216 mm
		23 x 24.3 x 8.5 inch	23 x 24.3 x 8.5 inch
	Net Weight	20.4 kgs / 44.9 lbs	20.5 kgs / 45.1 lbs
	Gross Weight	24.8 kgs / 54.6 lbs	24.8 kgs / 54.8 lbs

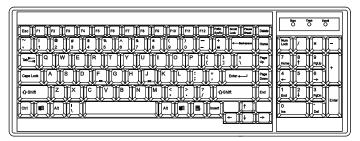
Applicable	VGA Input	PC Signal	1280 x 1024 x 60 / 75Hz
Format			1280 x 960 x 60Hz
			1280 x 760 x 60 / 75Hz
			1152 x 864 x 75Hz
			1024 x 768 x 60 / 70 / 75Hz
			848 x 480 x 60Hz
			800 x 600 x 60 / 72 / 75Hz
			720 x 400 x 70Hz
			640 x 480 x 60 / 72 / 75Hz
			640 x 400 x 70Hz
			640 x 350 x 70Hz













Key force	55 ± 5g
Travelling distance	3 ± 0.3mm
Switch life	> 10 million life cycle time
Software support	MS Windows 7 / 2008 / 2003 / 2000 / XP / ME / 98 / DOC Linux / Mac

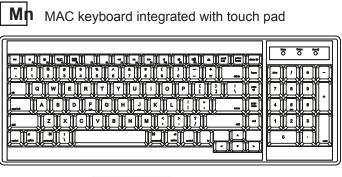
# **Supporting layouts**

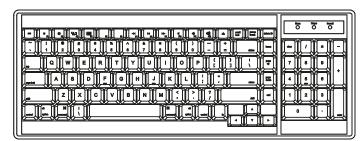
**America** 



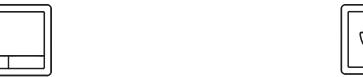
America	United States				
	United Kingdom	Germany	France	Spain	Norway
EMEA	Italy	Russia	Switzerland	Netherlands	Portugal
Asia	* China	Japan	Korea	Arabia	<b>C</b> ⋆ Turkey

## < 2.2 > MAC Keyboard / Mouse Options





MAC keyboard integrated with track ball



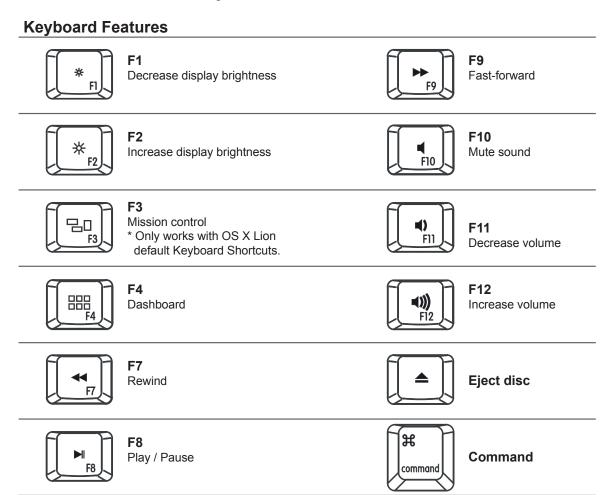
Mb

# Supported layouts

**America** 

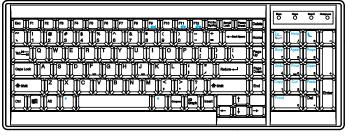


# How to Use "MAC" Keyboard

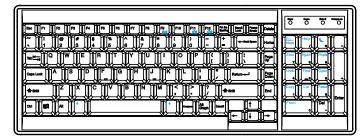


Sn

S keyboard integrated with touch pad



Sb S keyboard integrated with track ball

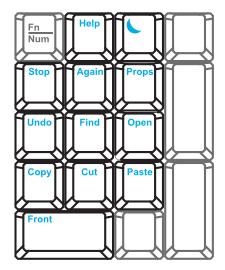




## S keyboard integrated with touch pad / track ball

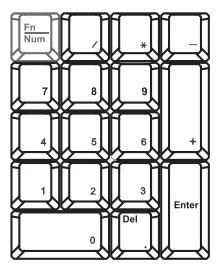
- Incorporates SUN keys, including Stop, Cut, Paste, Compose, Copy and Help
- 104 key notepad keyboard with full numerical pad and SUN function
- USB interface
- US layout only

# How to Use "S" Keyboard



Num LED in Off mode

Keypad behaves as a SUN Solaris system administration command mode



Num LED in Green mode

Keypad behaves as a normal keypad

## Audio / Display Keys

\* Please ask your supplier for full details



F9

Audio : Mute Display : Degauss



F11

Audio : Decrease volume Display : Decrease contrast



F12

Audio : Increase volume Display : Increase contrast

# < 2.3 > On-Screen Display Operation ( OSD )



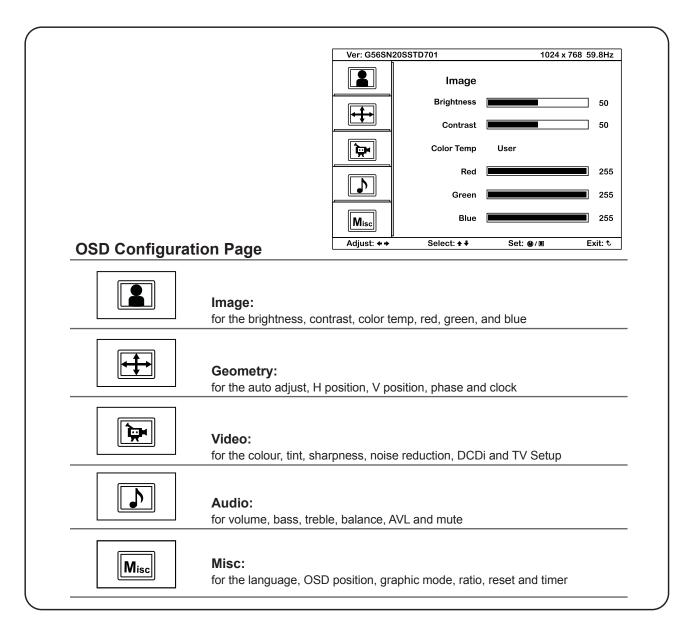
Membrane Switch	Function
	Turn the monitor on or off
	Display the OSD menu Act as an Enter key to select screen setting options
	Scroll through menu options and adjust the displayed control
	Exit the OSD screen Go back to the previous on-screen sub-menu or main menu

Remark : All LED touch buttons in WHITE light.

The LED of **Power** touch button will f ash 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** ).



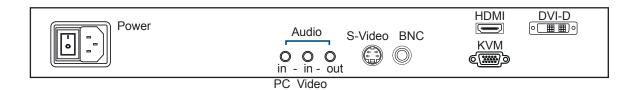
## < Part 3 >

# < 3.1 > Options:

- **HDMI** ( HDMI 1.1, CEA-861-D )
- DVI-D ( DVI-D TMDS single link )
- **BNC** (S-Video + Composite, BNC)
- Audio (3.5mm audio jacks for audio in & out, and 2W + 2W speakers)



For dual slide 1U / 2U LCD console drawer, the user can only select one of the above four options.





## 17" / 19" USB Touch-Screen Specification:

Madal	17'	19"	17"	19"	
Model	TRB e-Resistive		TCB e-Capacitive		
Technology	5-Wire F	Resistive	Capacitive		
Touch Point	Sin	gle	Single		
Method	Stylus o	r Finger	Fin	Finger	
Activation Force	≤ 50g / St	ylus=R0.8	≤ 50g		
Durability	35 million touches		300 million touches		
Response Time	15 ms		20 ms		
Optical Transmittance	80% ± 3%		93% ±2%		
Surface Hardness	3	Н	9H		
Haze	8% ± 3%		7%		
Glass	1.4 ±0.2 mm	3.2 ±0.2 mm	2.8 mm ±10% 2.8 mm ±10%		
Connector	USB Type A		USB Type A		
Compatibility	Windows 7 / XP / Vista, Linux		Windows 7 / XP / Vista, Linux		

- USB touch-screen 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 touch-screen unit is not made of toughened glass, please handle it carefully

# **USB Touch-Screen**



#### 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/downloads/KBDDL/software.html
- Step 2. Double click the Setup.exe
- Step 3. Follow the installation instruction to f nish the setup
- Step 4. After installation, run the TouchKit program & the "4 point calibration"



Please do the initial calibration after the first setup



# < 3.3 > Options : DC Power



Model	12V	24V	48V
Input rating			
Input voltage:	12-Volt	24-Volt	48-Volt
Input range:	9 ~ 18V	18 ~ 36V	36 ~ 75V
Input current			
- No load	50 mA	50 mA	50 mA
- Full load	4950 mA	2450 mA	1220 mA
Output rating			
Output voltage:	12-Volt	12-Volt	12-Volt
Output current:	4.16A	4.16A	4.16A
Efficiency	84%	85%	85%

# **DC** power



#### \*\*\*

Option excludes 1 x power cord and 1 x AC power adapter

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.

All brand names, logo and registered trademarks are properties of their respective owners.

Copyright 2013 Austin Hughes Electronics Ltd. & Eclipse Rackmount, Inc. All rights reserved.