KDF81712

17" Monitor Keyboard Drawer
1920x1080 Full HD Industrial LCD
12 port DVI KVM Switch

User Manual

ΛCNODES

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 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

Contents

< Part. 4 > KVM Integration

DVI-D KVM	Local	Remote	IP	12-port
	1	0	0	KVD1201

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.

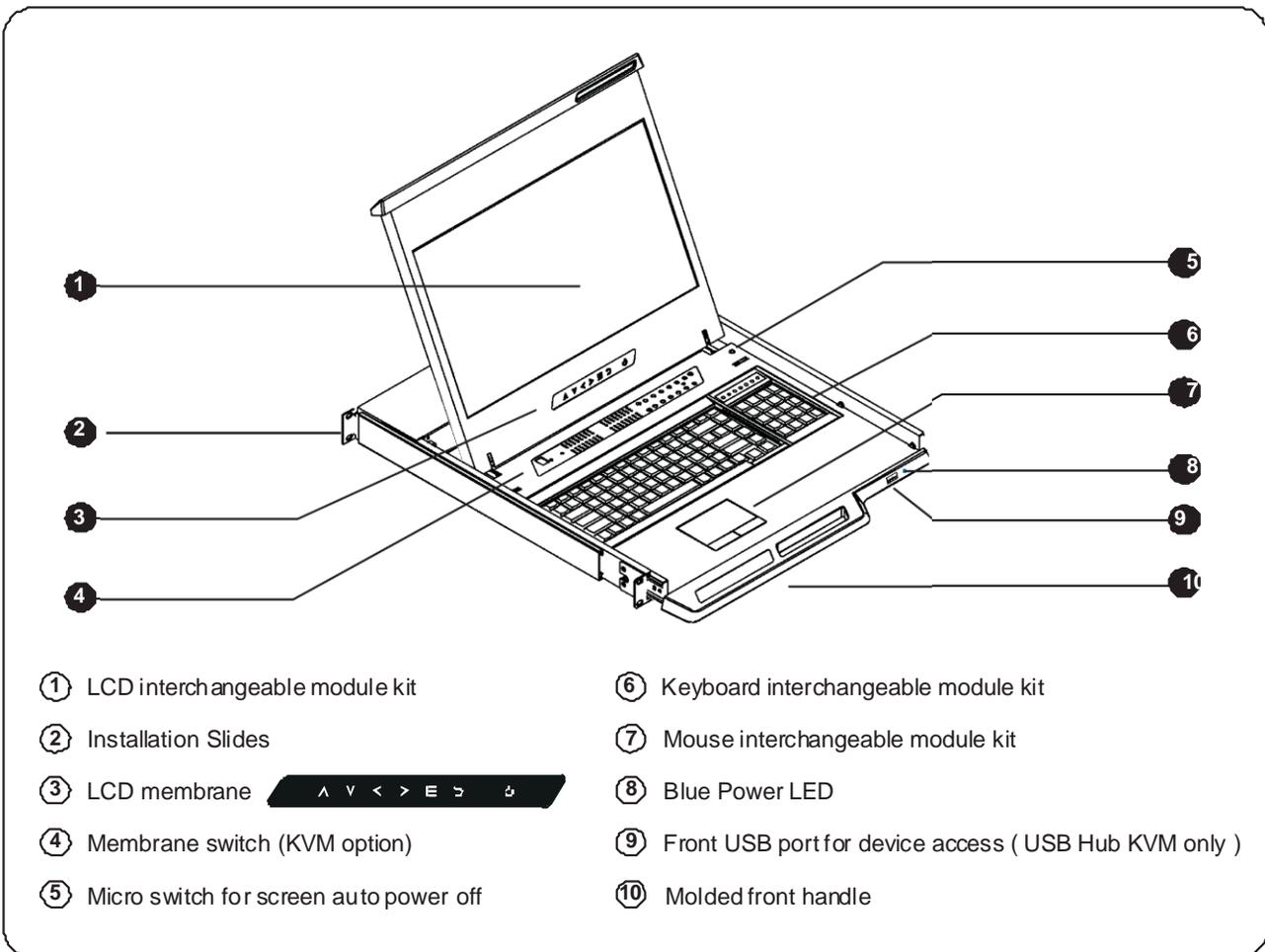④ Wait until your monitor is completely dry before plugging it in and powering it up.

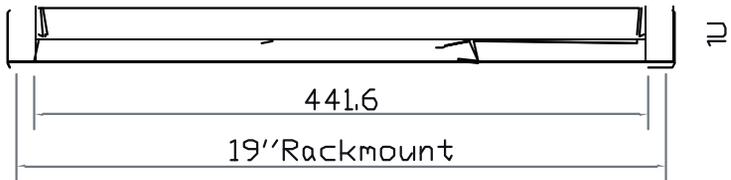# < Part 1 >
< 1.1 > Package Content

KDF81712 unit X 1

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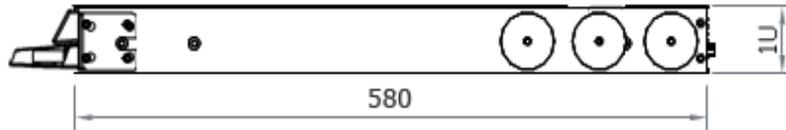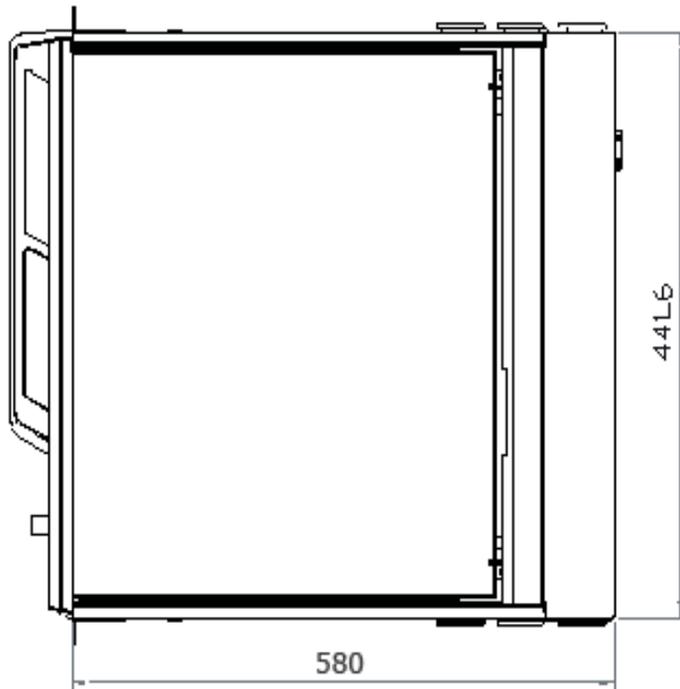- M6 screw, cage nut & cup washer X 8

< 1.2 > Structure Diagram

① LCD interchangeable module kit	⑥ Keyboard interchangeable module kit
② Installation Slides	⑦ Mouse interchangeable module kit
③ LCD membrane	⑧ Blue Power LED
④ Membrane switch (KVM option)	⑨ Front USB port for device access (USB Hub KVM only)
⑤ Micro switch for screen auto power off	⑩ Molded front handle

< 1.2 > Dimension

Front View

441.6

19"Rackmount

1U

Side View

UNIT : mm
1mm = 0.03937 inch

580

1U

Top View

441.6

580

| Model	Product Dimension (W x D x H)	Packing Dimension (W x D x H)	Net Weight	Gross Weight
KDF81712	441.6 x 580 x 44 mm 17.4 x 22.8 x 1.73"	590 x 823 x 140 mm 23.2 x 32.4 x 5.5"	15 kg 33 lb	19 kg 42 lb

< 1.3 > Installation - How to install Installation Slides
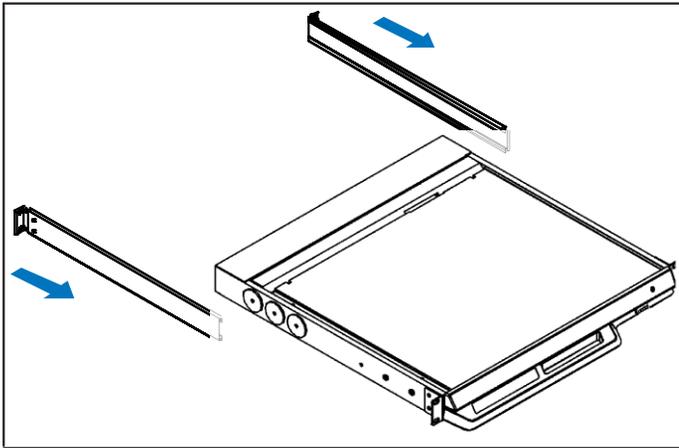
Step **1**

- Insert the left and right rear mounting brackets into the LCD console drawer.
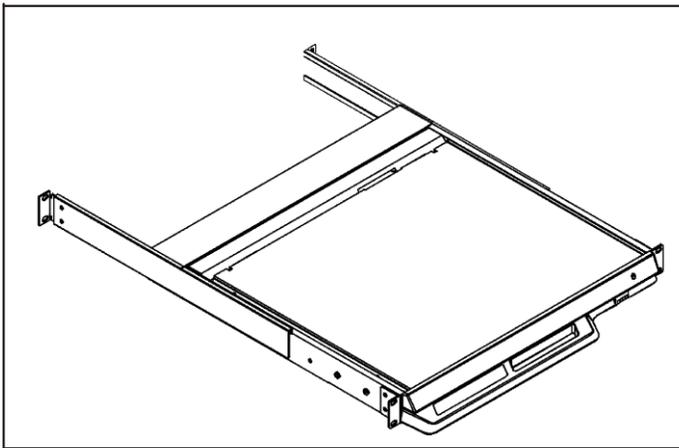
Step **2**

- Measure the depth of the front and rear mounting rails.
- Align each rear mounting bracket to a suitable length.
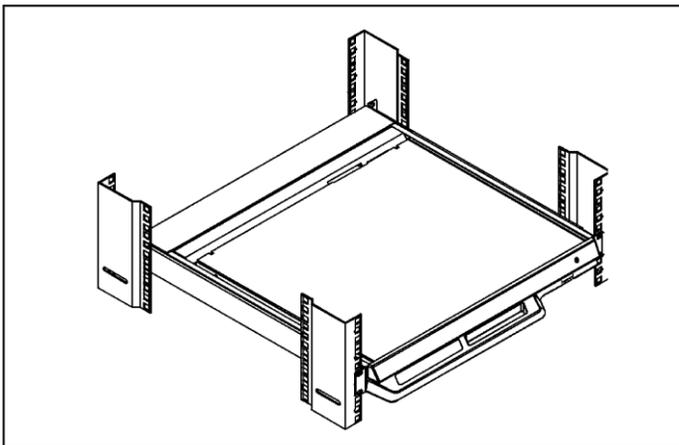
Step **3**

Complete the installation

- Fix the LCD console drawer into the rack.
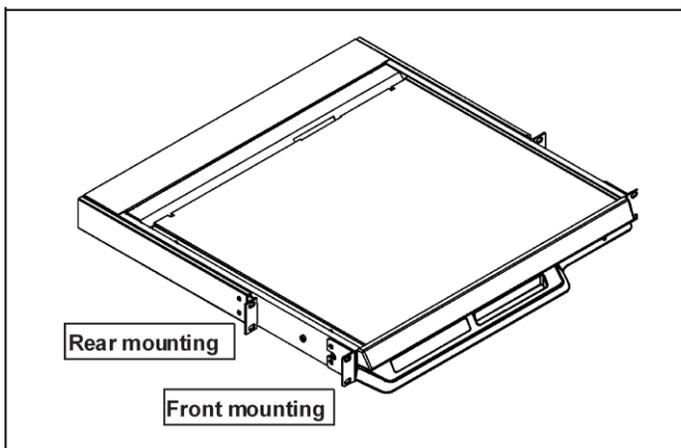
⚠️ **M6 screw, cage nut & cup washer x 8 are provided.**

Step 1

Release front mounting ears before applying 2 post rack brackets.

Insert rear mounting brackets into the LCD console drawer.

Option
Model : MB-751-12

Step 2

Align each rear mounting bracket to a suitable length.

Rear mounting

Front mounting
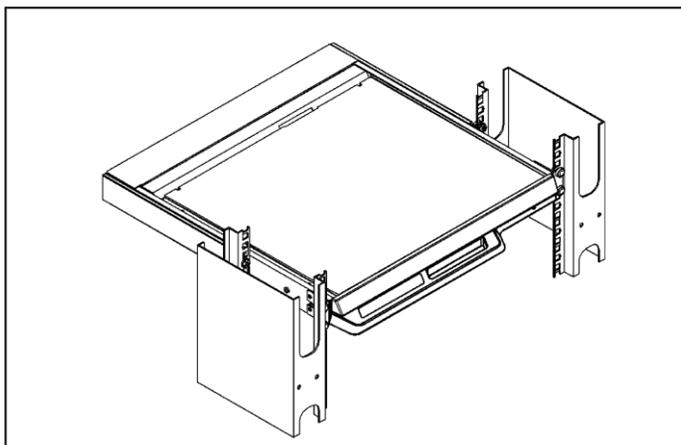
Step 3

Complete the installation

Fix the LCD console drawer into the 2 post rack.

⚠️ **M6 screw, cage nut & cup washer x 8 are not provided.**

< 1.3 > Installation- How to use the drawer

Hold the handle and slide out the drawer.

Flip up the LCD to a suitable angle.

Operate the LCD console drawer.

< Part 2 >

< 2.1 > Product Specifications

LCD Panel		
Panel Size (diagonal)		17.3-inch Widescreen TFT color LCD
Display pixel (dots x lines)		1920 x 1080
Brightness (typ.)		300
Contrast Ratio (typ.)		600:1
Color		1.07 Billion, 10-bit
Viewing Angle (L/R/U/D)		89/89/89/89
Response Time (ms)		35
Dot pitch (mm)		0.199
Display Area (mm)		381.9H x 214.8V
Surface treatment		Anti-glare, Hard-coating
Surface hardness		3H
Backlight Type		LED
MTBF (hrs)		20,000

Video Connectivity	Digital	DVI	DVI-D, TMDS single link

Audio Connectivity	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 Output	Power	2 x 2W

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

Power	Power Supply	Range	Auto-sensing 100 to 240VAC, 50 / 60Hz
	Power Consumption	Screen display ON	34W or less
		Power saving mode	4W or less
		Power button OFF	1W or less

Regulatory	Safety Approval	FCC & CE

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	Product (W x D x H)	441.6 x 580 x 44 mm
		17.4 x 22.8 x 1.73 inch
	Packing (W x D x H)	590 x 823 x 140 mm
		23.2 x 32.4 x 5.5 inch
	Net Weight	15 kgs / 33 lbs
	Gross Weight	19 kgs / 42 lbs

Applicable Format	DVI-D / VGA Input	PC Signal	1920 x 1080 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	1080p : 60Hz
			720p : 50 / 60Hz
			480p : 60Hz
			576p : 50Hz
		Audio Signal	2ch Linear PCM (32 / 44.1 / 48 KHz)

< 2.2 > Keyboard / Mouse Specifications

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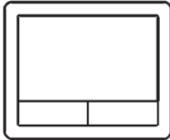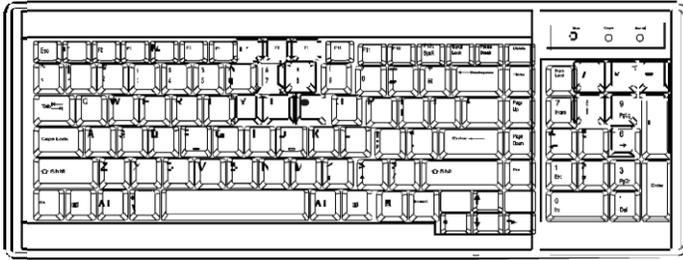
Gb G keyboard integrated with trackball
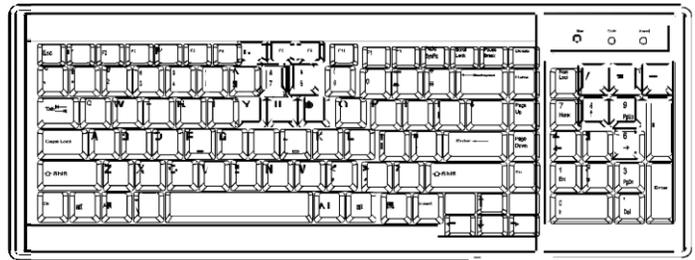
Key force	55 ± 5g
Travelling distance	3 ± 0.3mm
Switch life	> 10 million life cycle time
Software support	MS Windows 7 / 2008 / 2003 / 2000 / XP / ME / 98 / DOC Linux / Mac

Supporting layouts

America
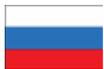

United States

EMEA

United Kingdom

Germany

France

Spain

Norway

Italy

Russia

Switzerland

Netherlands

Portugal

Asia

China

Japan
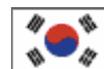
Korea

Arabia

Turkey

< 2.2 > MAC Keyboard / Mouse Options

Me MAC keyboard integrated with touchpad
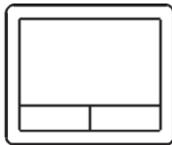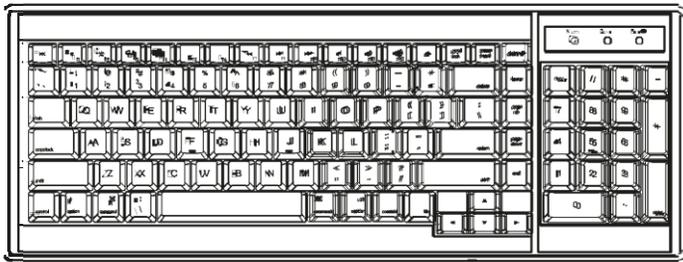
Mb MAC keyboard integrated with trackball
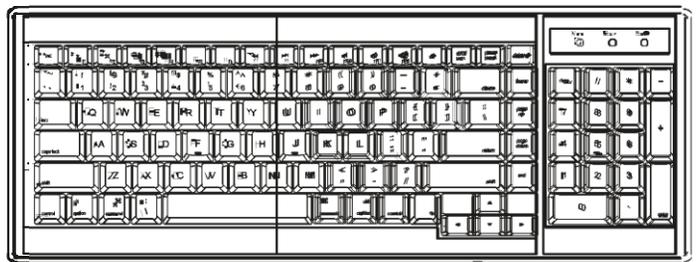
Supporting layouts

America

United States

How to Use "MAC" Keyboard

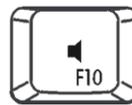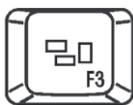### Keyboard Features

F1
Decrease display brightness

F9
Fast-forward

F2
Increase display brightness

F10
Mute sound

F3
Mission control
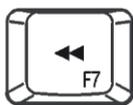* Only works with OS X Lion default Keyboard Shortcuts.

F11
Decrease volume

F4
Dashboard
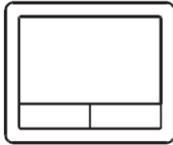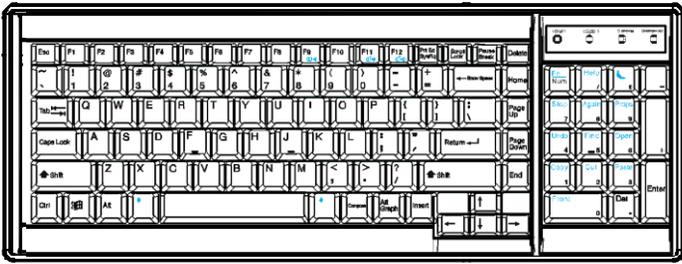
F12
Increase volume

F7
Rewind

Eject disc
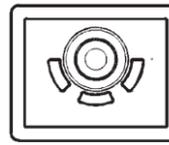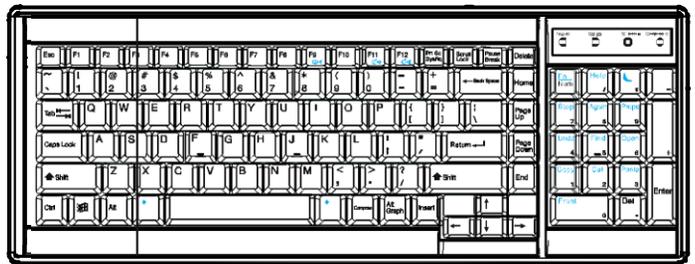
F8
Play / Pause

Command

< 2.2 > SUN Keyboard / Mouse Options

Se   S keyboard integrated with touchpad

Sb   S keyboard integrated with trackball

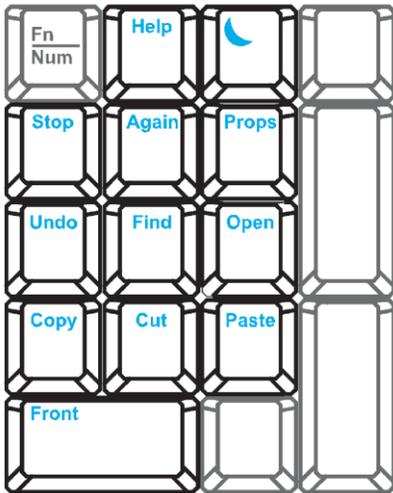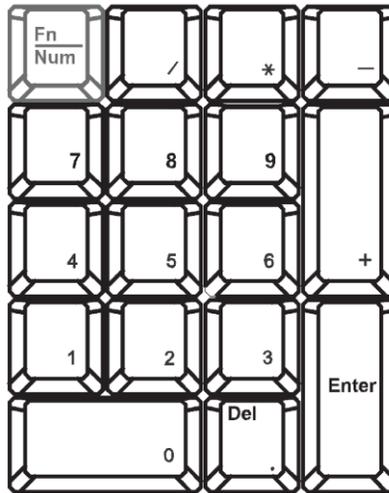## S keyboard integrated with touchpad / trackball

- 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

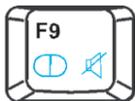Key pad behaves as a SUN Solar system administration command mode
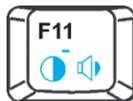
Num LED in Green mode

Key pad behaves as a normal key pad mode

Audio / Display Keys   * Please ask your supplier for full details

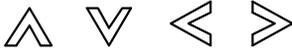**F9**
Audio : Mute
Display : Degauss

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 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** ⏻)

① **Picture**

Picture mode :	Standard / Vivid / Soft / User mode to choose
Brightness :	Adjust background black level of the screen image
Contrast :	Adjust the difference between the image background (black level) and the foreground (white level)
Hue:	Adjust the screen hue value
Saturation :	Adjust the saturation of the image color
Picture size :	Adjust the image size
Color temp :	Standard / Cool / Warm / User to choose
Noise reduce :	Reduce the noise of the image
Sharpness :	Adjust the image from weak to sharp

Picture ▷ Picture mode
Brightness
Contrast
Hue
Saturation
Picture size
Color temp
Noise reduce
Sharpness
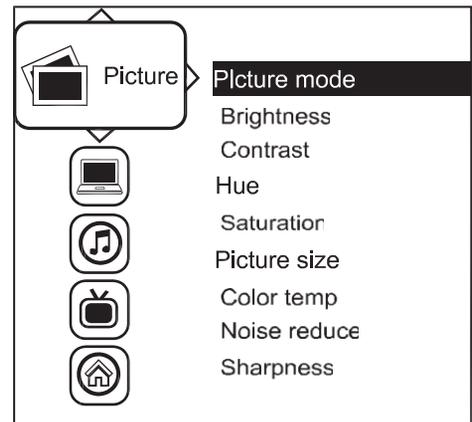
< 2.3 > On-screen Display Operation (OSD)

② **PC**

|	
Auto adjust :	Automatically adjust sizes, centers and fine tunes the video signal to eliminate waviness and distortion.
Clock :	Adjust the clock value
Phase :	Adjust the phase value
H. Position :	Align the screen image left or right
V. Position :	Align the screen image up or down
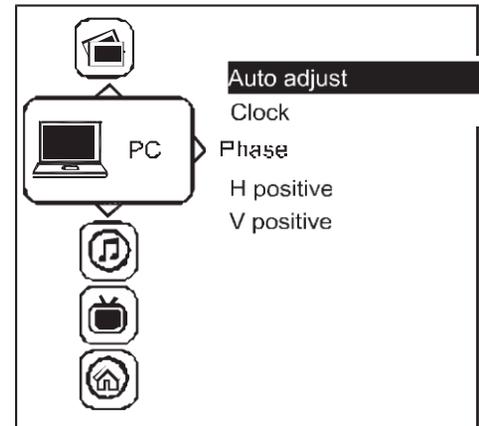
③ **Audio**

Audio mode :	Movie / Voice / Normal / Music mode to choose
Volume :	Adjust the volume of sound
Bass :	Set the value of bass sound
Treble :	Set the value of treble sound
Balance :	Set the balance value of treble and bass sound
Analog TV audio :	Set the value of analog TV audio sound
Mute :	Turn off the surrounding sound
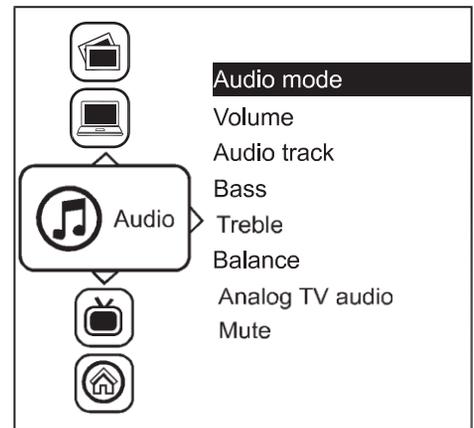
④ **MISC**

|	
Language :	Select the language in which the OSD menu is displayed - English
Sleep timer :	Set the off time
PIP mode :	Adjust picture in picture setting
PIP position :	Enter into PIP position
PIP source :	Enter into the Sub source and sound source
System reset :	Return the adjustment back to factory setting
Information :	Select for Help
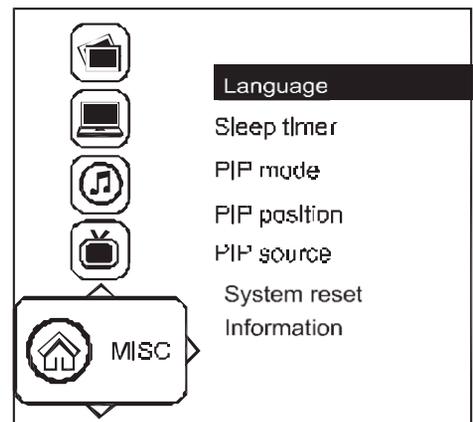
< 2.4 > How to Use Picture In Picture (PIP) / Picture By Picture (PBP)

< 2.4.1 > Picture in Picture (PIP)
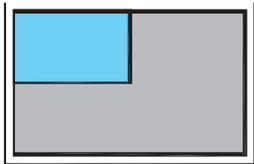
Mode

Display the Sub screen in the Main screen.

OSD Menu **>** MISC **>** PIP Mode **>** Large / Small / OFF

Main screen → ← Sub screen
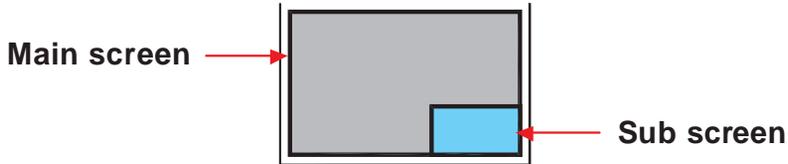
Position

Adjust the position of the Sub screen (top left, bottom left, top right, bottom right)

OSD Menu **>** MISC **>** PIP Position **>** top left / top right / bottom left / bottom right

top left
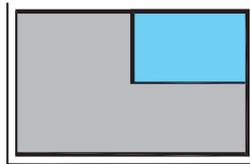
top right
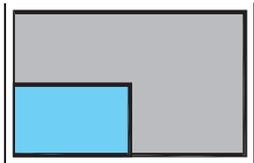
bottom left
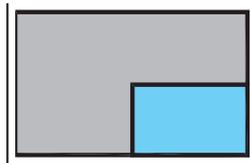
bottom right

Size

Adjust the size of the Sub screen (Large / Small)

OSD Menu **>** MISC **>** PIP Mode **>** Large / Small

Size of Sub screen

LCD Monitor	Large Sub screen	Small Sub screen
1920 x 1200	552 x 414	480 x 360
1920 x 1080	552 x 414	480 x 360
1440 x 900	414 x 310	360 x 270
1366 x 768	392 x 294	340 x 254
1280 x 1024	368 x 276	320 x 240

< 2.4.2 > Picture By Picture (PBP)

Mode

Display the Sub screen next to the Main screen.

OSD Menu **>** MISC **>** PIP Mode **>** PBP

Main screen ⟶ Sub screen
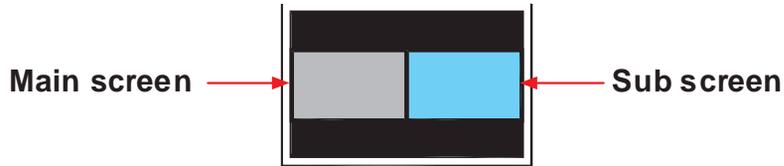
Size

LCD Monitor	Main / Sub screen
1920 x 1200	955 x 716
1920 x 1080	955 x 716
1440 x 900	715 x 536
1366 x 768	678 x 508
1280 x 1024	635 x 476

< Part 3>
<3.1 > Options :

- Audio   (3.5mm audio jacks for audio in & out, and 2W + 2W speakers)

< 3.2 > 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%

***   For DC power option :
    (1) Option excludes 1 x power cord and 1 x AC power adapter.

<Part 4> KVM Integration

< 4.1 > KVM port connection
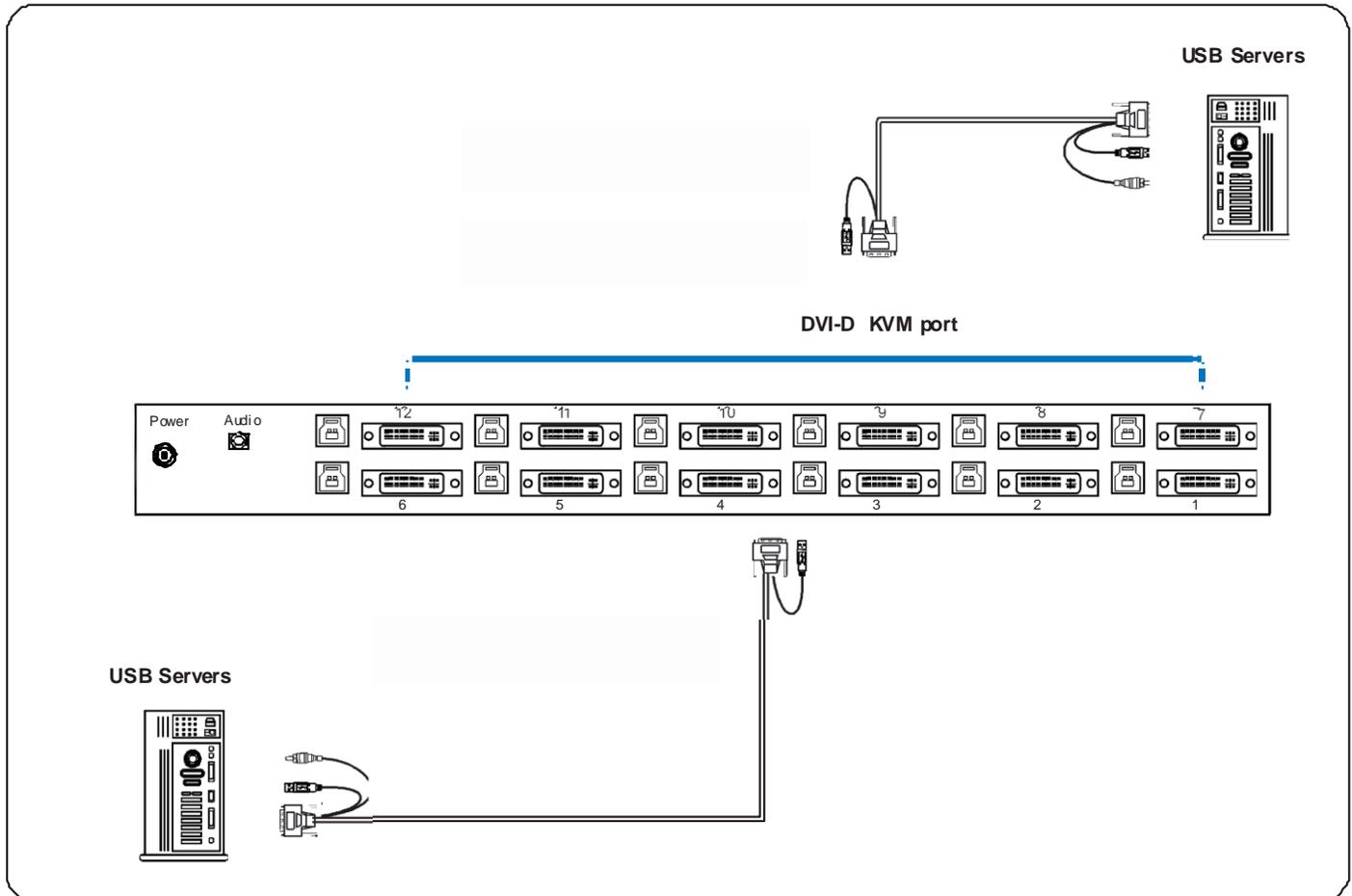
DVI KVM Cable

6 feet DVI KVM cable

15 feet DVI KVM cable

(Server end : DVI-D + USB + Audio)

(KVM port : DVI-D + USB3.0)

⚠️ IP console, remote console, daisy-chain and OSD menu are NOT available for this model.

< 4.2 > Specifications

KVD1201

- **KVM Port**

Number of ports:	12
Connector:	DVI-D connector
	USB 3.0 connector (combined for keyboard, mouse & audio)
Connectivity:	Combo 4-in-1, KVM cable, 6 or 15 feet

- **Audio Out**   1 x 3.5mm stereo audio

- **Management**

PC Selection:	Front button & keyboard hotkey

- **Compatibility**

Multi-platform :	Mix PCs, SUN and Mac G3 / G4 Mac / iMac
Support:	Windows 7 / Vista / 2003 / XP, Linux, Unix

- **Power**

Input:	100 or 240V AC at 50 or 60 Hz via IEC type cord
Option DC:	12V / 24V / 48V DC input
Consumption:	Max. 48 Watt, Standby 5 Watt

- **Regulatory Approval:**   FCC, CE

- **Environmental**

|	
Operating:	0 to 50°C
Storage:	-5 to 60°C
Relative humidity:	90%, non-condensing
Shock:	50G peak acceleration (11 ms, half-sine wave)
Vibration:	58~100Hz / 0.98G (11ms / cycle)

4.3 KVM Button

Power ON
- Turn off all servers and KVM switches
- Make sure all cables / connectors are properly connected
- Recommend Power ON sequence is monitor, KVM switch finally computer

Front Panel - Port LED Indications

DVI-D KVM 12 ports

PC port LEDs

Channel button

Button B is non-functional
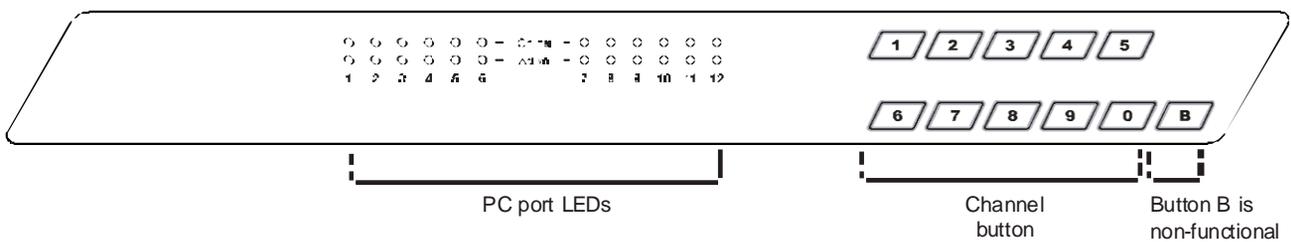
PC port LEDs	*Online* : **Blue** LED on indicating a PC is connecting to the port
	Active : **Green** LED on indicating a selected channel
Channel button	Press to select channel from 01 to 12

4.4 KVM Hotkey

Hotkey   **Function**

Scroll Lock + **Scroll Lock** + ⬆   Switch to previous port

Scroll Lock + **Scroll Lock** + ⬇   Switch to next port

Scroll Lock + **Scroll Lock** + Port no.   Switch to specific port

Scroll Lock + **Scroll Lock** + **S**   Auto scan for powered on PC

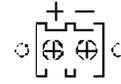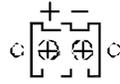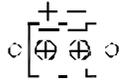**Scroll Lock** + **Scroll Lock** + **B**   Enable / Disable beeper sound

Remarks:
- Example of "**Scroll Lock** + **Scroll Lock** + Port no."
  - Port No. : 01 to 12
  - e.g. Port 4 : **Scroll Lock** + **Scroll Lock** + **0** + **4**
  - e.g. Port 12 : **Scroll Lock** + **Scroll Lock** + **1** + **2**
- You must press the hotkey within 2 seconds
- A beep sound will be heard for successful entering

Hotkey Label

DVI KVM Hotkey   SL = Scroll Lock

Auto Scan   : SL + SL + S   Change Port : SL + SL + Up / Down Arrow

Buzzer ON / OFF : SL + SL + B   Select Port   : SL + SL + Port No.

4.5 DC Power 12V, 24V, 48V Input

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%

Remarks:
Package does not include power cord