

USER MANUAL

1U LCD Keyboard Drawer

20" Screen Size



Models
NVP120 Series
-With KVM Options



Models
SNK120 Series
-With KVM Options
-Designed for SUN Solaris

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1.1 Important Safeguards

Chapter 1

Please read all of these instructions carefully before you use the device. Save this manual for future reference.

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, fi re, 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.



1.2 Regulatory Notice

Chapter 1

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

- 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 drawer 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.

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.

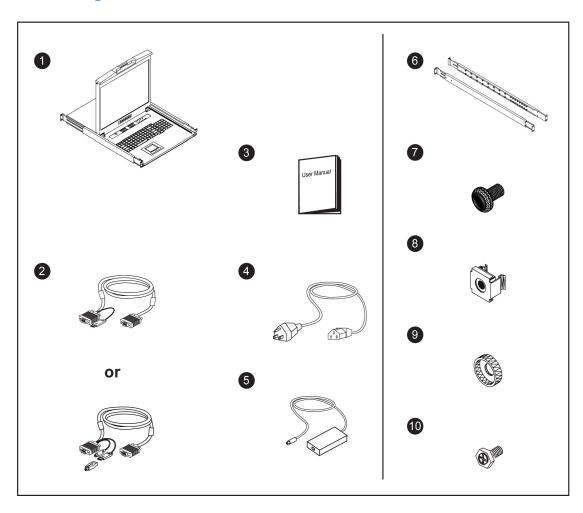
Any changes or modifications made to this equipment may void the user's authority to operate this equipment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. 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.



1.3 Package Contents

Chapter 1



- 1 LCD keyboard drawer x 1 pc
- 2. NB-6 USB 2-in-1 KVM cable x 1 pc (for SNK Series) or NE-6 Combo 4-in-1 KVM cable x 1 pc (for L series)
- 3. User manual x 1 pc
- 4. Power cord x 1 pc
- 5. Auto switch power adapter (for external power version) x 1 pc
- 6. Mounting bracket x 2 pcs
- 7. M6*15mm screw x 8 pcs
- 8. M6 cage nut x 8 pcs
- 9. Cup washer x 8 pcs
- **10.**M3.2*6mm screw x 4 pcs



1.4 Before Installation

Chapter 1

- It is very important to locate the LCD Keyboard Drawer in a suitable environment.
- The surface for placing and fixing the LCD Keyboard Drawer should be stable and level or mounted into a suitable cabinet.
- Make sure the place has good ventilation, is out of direct sunlight, away from sources of excessive dust, dirt, heat, water, moisture and vibration.
- Position LCD Keyboard Drawer with respect to related facilities.

1.5 Unpacking

The LCD keyboard drawer comes with the standard parts shown on the package contents. Check and make sure they are included and in good condition. If anything is missing, or damage, contact the supplier immediately.

1.6 Optional Accessories

1. Combo 4-in-1 KVM cable

1.1 NE-6 6 feet

1.2 NE-10 10 feet

1.3 NE-15 15 feet

2. USB 2-in-1 KVM cable

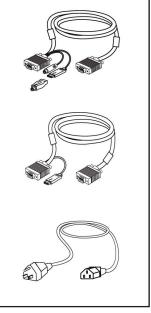
2.1 NB-6 6 feet

2.2 NB-10 10 feet

2.3 **NB-**15 15 feet

3. Power Cord

- 3.1 IEC power cord
- 3.2 NEMA 5-15 power cord (US)
- 3.3 BS 1363 power cord (UK)
- 3.4 CEE 7/4 power cord (German)
- 3.5 AS 3112 power cord (Australia)



Remarks:

■ NB-6 is for SNK Series only.



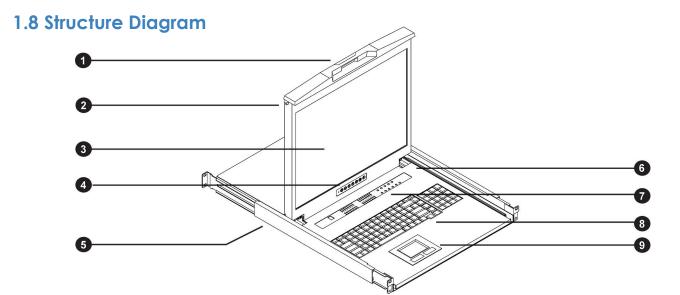
1.7 Peripheral Products

Chapter 1

Item	Model No.	Description
Matrix Caté KVM	MC0116 / MC0216 / MC0316 MC1116 / MC1216 / MC2116 MC0132 / MC0232 / MC0332 MC1132 / MC1232 / MC2132	Matrix Caté 16 port KVM Matrix IP Caté 16 port KVM Matrix Caté 32 port KVM Matrix IP Caté 32 port KVM
Matrix DB-15 KVM	M018/ M028 / M038 M118 / M128 / M218 M0116 / M0216 / M0316 M1116 / M1216/ M2116	Matrix DB-15 8 port KVM Matrix IP DB-15 8 port KVM Matrix DB-15 16 port KVM Matrix IP DB-15 16 port KVM
Combo Caté KVM	NVC800 / NVCCE800 / NVCIP800 NVC1600 / NVCCE1600 / NVCIP1600 NVC3200/ NVCCE3200 / NVCIP3200	Combo Caté 8 port KVM Combo Caté 16 port KVM Combo Caté 32 port KVM
Combo DB-15 KVM	NVS801 / NVCE800 / NVIP-802 NVS1601 / NVCE1600 / NVIP-1602	Combo DB-15 8 port KVM Combo DB-15 16 port KVM
PS/2 DB-15 KVM	NV401A / NV801A / NV1601A	4 / 8 / 16 port PS/2 DB-15 KVM

Remarks:

■ "SNK" Series is for Matrix & Combo KVM only.

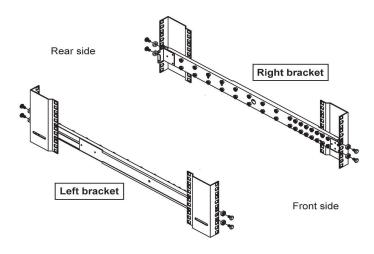


- 1. Carry handle to release the 2-pt lock
- 2. 2-point lock
- 3. LCD interchangeable module kit
- **4.** LCD membrane
- 5. "One Man" Installation Slide
- 6. Micro switch for screen auto power off
- 7. Membrane switch (KVM option)
- 8. Keyboard interchangeable module kit
- 9. 2 buttons mouse interchangeable module kit



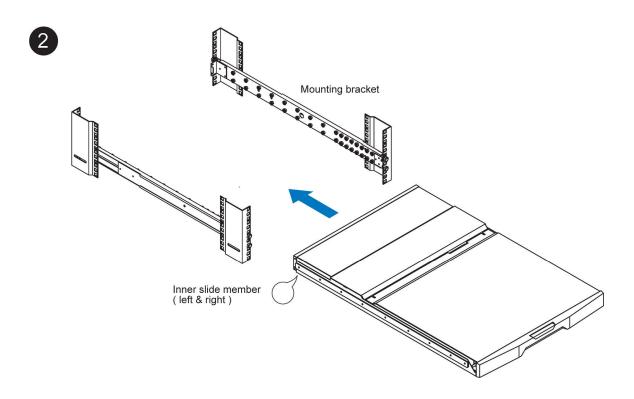
1.9 Installation Chapter 1





- Attach the left and right mounting bracket to rack 19" mounting rails.
- Adjust the mouting bracket to fit your rack.
- M6 screw and cup washer x 8 pcs included.

🚹 Caution:Leaving all M6 screw slightly loose, until you complete the installation in step 4

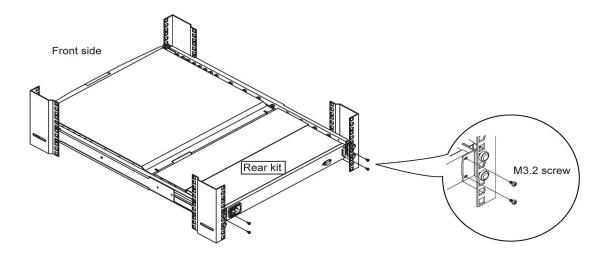


- Pick up the LCD tray.
- Insert the LCD tray by inner slide members into the mounting bracket.



1.9 Installation Chapter 1



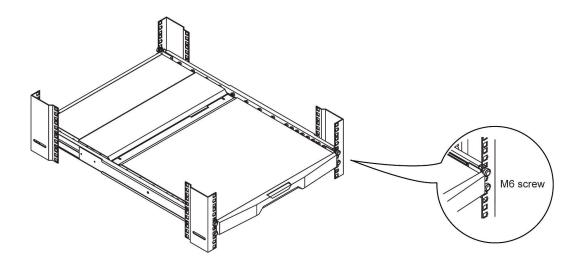


■ Fix the rear kit to the mounting bracket by M3.2 screw x 4 pcs included.

Caution: This step is necessary. Failure to complete this will cause damage.

4 Complete the installation

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





1.10 How to Use NVP / SNK Series LCD Keyboard Drawer

Chapter 1



Figure 1. Sliding out the LCD keyboard drawer by pressing the carry

■ Press the carry handle button. Gently pull the carry handle toward the front of the LCD shown in **Figure 1**.



Figure 2. Flipping up the LCD to a suitable angle.

■ Flip up the LCD to a suitable angle shown in **Figure 2**.



Figure 3. Operating the LCD keyboard drawer

■ Operate the LCD keyboard drawer shown in Figure 3.



1.11 SNK120 (Single console)

Chapter 1

- Use NB-6 to connect to server via USB interface

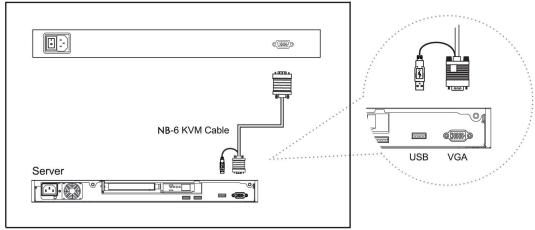
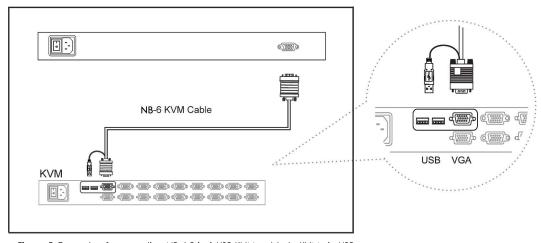


Figure 4. Example of connecting NB-6 2-in-1 USB KVM cable to server via USB interface

1.12 SNK120 (Single console)

- Use NB-6 to connect to KVM via USB interface



 $\begin{tabular}{ll} \textbf{Figure 5.} Example of connecting NB-6 2-in-1 USB KVM cable to KVM via USB interface \end{tabular}$

Remarks:

- The above connection is only for the LCD keyboard without KVM switch built-in.
- For the LCD keyboard drawer with KVM switch built-in, please refer to attached KVM switch user manual.



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



Chapter 1

1.13 NVP120 (Single console)

- Use NE-6 to connect to server via PS/2 interface

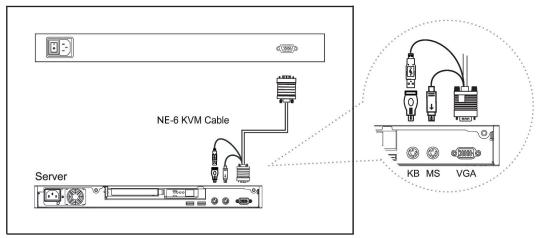


Figure 6. Example of connecting NE-6 Combo 4-in-1 KVM cable to server via PS/2 interface

1.14 NVP120 (Single console)

- Use NE-6 to connect to KVM via PS/2 interface

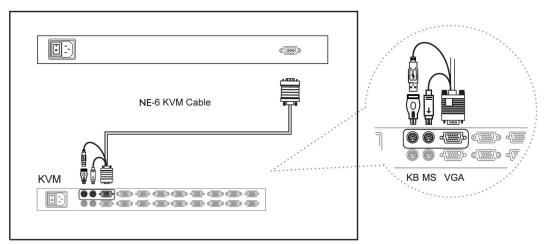


Figure 7. Example of connecting NE-6 Combo 4-in-1 KVM cable to KVM via PS/2 interface

Remarks:

- The above connection is only for the LCD keyboard without KVM switch built-in.
- For the LCD keyboard drawer with KVM switch built-in, please refer to attached KVM switch user manual.



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



1.15 NVP120 (Single console)

Chapter 1

- Use NE-6 to connect to server via USB interface

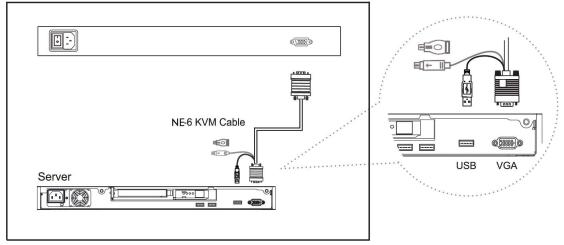


Figure 8. Example of connecting NE-6 Combo 4-in-1 KVM cable to server via USB interface

1.16 NVP120 (Single console)

- Use NE-6 to connect to KVM via USB interface

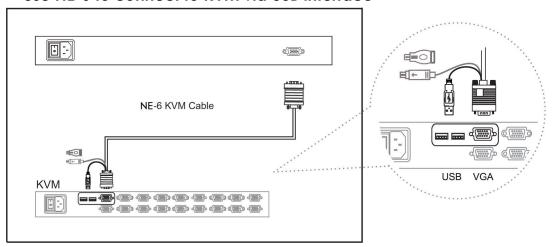


Figure 9. Example of connecting NE-6 Combo 4-in-1 KVM cable to KVM via USB interface

Remarks:

- The above connection is only for the LCD keyboard without KVM switch built-in.
- For the LCD keyboard drawer with KVM switch built-in, please refer to attached KVM switch user manual.

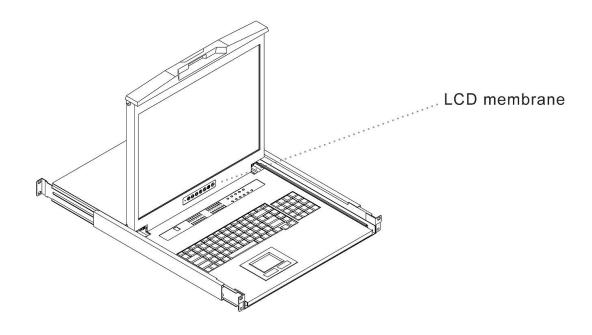


Caution: The LCD keyboard drawer is hot-pluggable, but components of connected devices, such as the servers and KVM switch, may not be hot-pluggable. Plugging and unplugging cables while servers and KVM are powered on may cause irreversible damage to the servers, KVM and LCD keyboard drawer. Before attempting to connect anything to the LCD keyboard drawer, we suggest turning off the power to all devices before connecting them. Apply power to connected devices again only after the LCD keyboard is receiving power. The company is not responsible for damage caused in this way.



2.1 On-screen Display Operation

Chapter 2



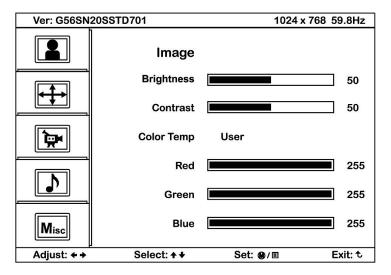
Membrane Switch	Function
	Power light
0	Power light
	Green = On
•	Orange = Power saving
	Power on / off LCD
M =	Display the OSD menu
	Scrolls through menu options and adjusts the displayed control

Exit the OSD screen



2.2 On-screen Menu

Chapter 2



OSD Configuration Page



Image:

To enter into the brighness, contrast, color temp, red, green, and blue



Geometry:

To enter into the auto adjust, H position, V position, phase and clock



Video:

To enter into the colour, tint, sharpness, noise reduction, DCDi and TV Setup $\,$



Audio:

To enter into volume, bass, treble, balance, AVL and mute



Misc:

To enter into the language, OSD position, graphic mode, ratio, reset and timer



3.1 Specifications

Chapter 3

Item	Description		
Form Factor	1U rack mountir	ng on slide-out rails	
LCD Manufacturer	SAMSUNG		
Series	NVP	SNK	
Diagonal Size	20" TFT	20" TFT	
Max. Resolution	n 1600 x 1200 1152 x 900 (Direct)		
		1600 x 1200 (Native)	
Brightness (cd/m²)	300	300	
Color Support	16.7 M	16.7 M	
Contrast Ratio (typ.)	800:1	800:1	
Viewing Angle (H/V)	160° x 160°	160° x 160°	
Display Area (mm)	408 x 306	408 x 306	
Tr Response Time (ms)	1	1	
LCD Panel MTBF (hrs)	50,000	50,000	
VGA Signal Input	Analog R	GB, 0.7Vp-p	
Sync. Type	Separate H/V, Composite, SOG		
	720 x 400, 70 Hz		
	640 x 480, 60/ 70/ 72/ 75 Hz		
	800 x 600, 60/ 70/ 72/ 75 Hz		
	1024 x 768,	60/ 70/ 75 Hz	
	1152 x 864, 60/ 70/ 75 Hz		
Resolution	1280 x 720, 60/ 75 Hz	1280 x 720, 60 Hz	
	1280 x 1024, 60/ 70/ 75 Hz	1280 x 1024, 60/ 75 Hz	
	1400 x 1	050, 60 Hz	
	1600 x 1	200, 60 Hz	
		1152 x 900, 60/ 76 Hz	
Plug & Play DDC		ID 1.3	
Console Port (Combo)	DB-15 connector for VGA / keyboard / mouse	DB-15 connector for VGA / keyboard / mouse	
	(Combo interface)	Support USB servers or Combo KVM switches	
Power Input	Auto-sensing 100 to 240VAC, 50 / 60Hz		
Power Consumption	Max. 48 Watt, Standby 5 Watt		
Compatibility	Multi-platform - Mix PCs, SUNs, IBMs, HPs & DELLs.		
Regulation Approval	FCC, CE		
Options			
KVM Integration	Matrix & combo KVM with IP console and 2-console selection		
Koyboard & mouse	Full size keyboard integrated with touched SUN compatible keyboard integrated		

0 0 110 110			
KVM Integration	Matrix & combo KVM with IP console and 2-console selection		
Keyboard & mouse	Full size keyboard integrated with touchpad SUN-compatible keyboard integrated		
	& 2 buttons mouse interchangeable module	with touchpad	
	kit	& 2 buttons mouse interchangeable module kit	
Graphic Input	DVI-D, BNC & S-Video input		
DC Power	DC power input with 12V, 24V, 48V selection		

Environmental

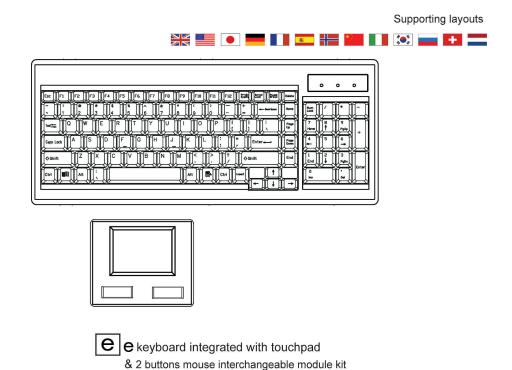
Operation	0° to 50°C Degree	
Storage	-5° to 60 °C Degree	
Relative Humidity	5~90%, non-condensing	
Shock	10G acceleration (11ms duration)	
Vibration	5~500Hz 1G RMS random vibration	



3.2 Keyboard & Mouse

Chapter 3

For NVP120 series



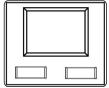
For SNK120 series

Supporting layouts



NS







NS keyboard integrated with touchpad & 2 buttons mouse interchangeable module kit

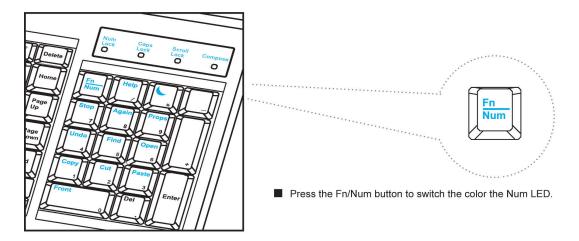
- Incorporates SUN keys, including Stop, Cut, Paste, Compose, Copy and Help
- 104 key notepad keyboard with full numerical pad and SUN function
- USB interface

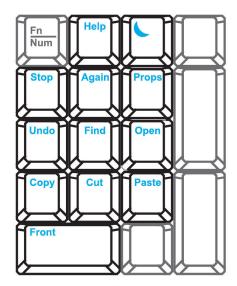


3.3 How to Use "NS" keyboard

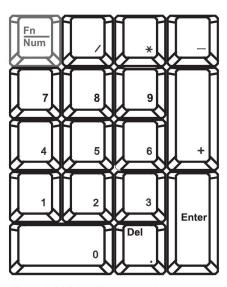
Chapter 3

■ NS SUN-compatible keyboard incorporates SUN short-cut keys.





Num LED in Off mode
Key pad behaves as a SUN Solaris system
administration command mode



Num LED in Green color
Key pad behaves as a normal key pad mode

Three Audio / Display keys are located in the upper-right corner of the NS keyboard:

- Audio: Mute, decrease in volume and increase in volume.
- Display: Degauss, decrease contrast and increase contrast.
- Please ask your supplier for full details









4.1 KVM Options Chapter 4

Our KVM is designed to seamlessly integrate into the rear of our full range of LCD drawer solutions:

- For KVM operation, please refer to KVM user manual
- Option with Multiple consoles Matrix KVM
- Option with high density & cost efficient Combo KVM integration with either 8 / 16 / 32 ports
- Option with low cost PS/2 KVM
- Please ask your supplier for full KVM details

Remarks

■ SNK Series is for Matrix & Combo KVM only.

4.2 DVI-D Option

3-in-1 VGA KB mouse DVI-D console port





Remarks:

■ Package includes 1 x 6ft DVI-D cable

4.3 BNC + S-Video Option

3-in-1 VGA KB mouse console port





S-Video BNC

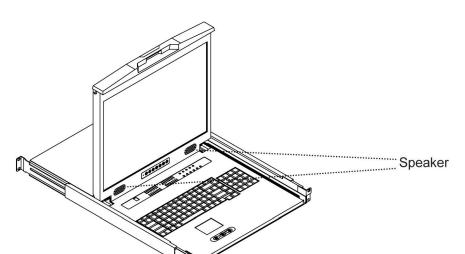


Remarks:

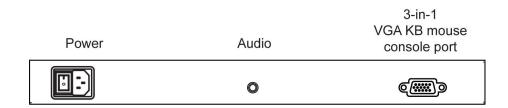
■ Package includes 1 x 6ft S-Video cable



4.4 Audio Option



Chapter 4



Remarks

- Audio input is 35mm audio plug
- The speaker is sharing the same power with LCD.



4.5 DC Power Options of the control of the control



Chapter 4

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	50mA	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 and AC power adapter



5.1 Troubleshooting

Chapter 5

1. Is interference signal appeared on LCD normal when shutting down the computer?

In rare cases, interference may appear on the monitor. This may be caused by signal rate of VGA card and is considered

normal. The image quality can be improved by adjusting the phase or pixel rate automatically or manually.

2. The membrane power light is not ON

Press the power On / Off on LCD membrane to check if the monitor is in the ON mode.

Check the power cord is properly connected to the LCD keyboard drawer and power outlet.

3. Screen image is not centered or sized properly

Press 1 the button for two seconds to automatically adjust the image.

Adjust the H-position and V-position settings via On-screen menu

4. Is the LCD keyboard drawer hot-pluggable?

The LCD keyboard drawer is hot-pluggable, but components of connected devices, such as the servers and KVMs, may

not be hot-pluggable. We suggest turning off the power to all devices before connecting them. Apply power to connected

devices again only after the LCD keyboard receives power.

5. How do I adjust the resolution?

To change monitor resolution, click Start -> Control Panel -> Display. Select Setting tab to adjust the monitor resolution in Desktop Area. The available resolutions, "640 x 480", "800 x 600", "1024 x 768", "1152 x 864", "1280 x 1024", "1600 x 1200" are determined by the display card in your computer.

For SNK120 series

1. How can I adjust the monitor resolution to 1152 x 900 for SUN Micro system?

The LS solution LCD keyboard drawer will automatically detect the 1152 x 900 resolution, so no user confi guration should be necessary.

2. The Stop-A hot key is not work in Trusted Solaris

The keyboard combination Stop-A (L1-A) is not available in Trusted Solaris by default. The security administrator can change this.

3. Is interference signal appeared on LCD normal when shutting down the computer?

In rare cases, interference may appear on the monitor. This may be caused by signal rate of VGA card and is considered

normal. The image quality can be improved by adjusting the phase or pixel rate automatically or manually.



6.1 Dimensions Chapter 6

Model	Product Dimension (W x D x H)	Packing Dimension (W x D x H)	Net Weight	Gross Weight
NVP120 series	442 x 650 x 44 mm	589 x 856 x 168 mm	20 kg	26 kg
	17.4 x 25.6 x 1.73"	23.2 x 33.7 x 6.6"	44 lb	57 lb
SNK120 series	442 x 650 x 44 mm	589 x 856 x 168 mm	20kg	26 kg
	17.4 x 25.6 x 1.73"	23.2 x 33.7 x 6.6"	44 lb	57 lb

