1U Rack IP KVM LCD Drawer LDS Series

User Guide V1.0

This specification is subject to change without notice. Manufacturer assumes no responsibility for any Error Contained herein.

IMPORTANT SAFETY INSTRUCTIONS

1. Please read these instructions carefully before using the product and save for later reference.

2. Follow all warnings and instructions marked on the product.

3. Unplug this product from the wall outlet before cleaning. Clean the product with a damp soft cloth. Do not use liquid or aerosol cleaners as it may cause permanent damage to the screen.

4. Do not use this product near water.

5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.

6. Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The openings should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.

7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.

8. This product is equipped with a 3-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding-type plug.

9. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.

10. If an extension cord is used with this product, make sure that the total of the ampere ratings on the products plugged into the extension cord does not exceed the extension cord ampere rating. Also make sure that the total of all products plugged into the wall outlet does not exceed 15 amps.

11. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.

12. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks and will void the warranty. Refer all servicing to qualified service personnel.

13. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

a. When the power cord or plug is damaged or frayed.

b. If liquid has been spilled into the product.

c. If the product has been exposed to rain or water.

d. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.

e. If the product has been dropped or the cabinet has been damaged.

f. If the product exhibits a distinct change in performance, indicating a need for service.

Contents

1. Introduction

1.1. Overview

The LDS NP series (LDS210D-XXNP/LDS310D-XXNP /LDS410D-XXNP) are a series of compact devices, built-in a 15", 17" or 19" LCD display, standard keyboard with numerical keypad, heavy-duty touch pad, and IP module to eliminate hardware redundancy and to increase cost efficiency. The 1U rack mount is designed to be an ideal solution for saving valuable rack mounting space, while possessing features such as monitor flip up design, adjustable mounting brackets, built-in LCD OSD and an optional centralized control of 8/16 PCs.

1.2. Major Features

| Item	LDS210D-XXNP	LDS310D-XXNP	LDS410D-XXNP
TFT Display	15"	17"	19"
OSD Function	Built in OSD Screen Adjustment Function		
VGA	15-pin D-sub RGB Analog Input Signal		
Power Consumption(Watts)	35	50	50
Power Supply	AC 100-240V Universal		
Keyboard and Touch Pad	88-key Keyboard and Integrated Touch Pad		
Numerical Key Pad	17-key numerical Key Pad		
Dimensions	1U compact design, 515mm (D) x484mm (W) x44mm (H)		
Operating Temperature	0° to 50°C Operating Temperature		
KVM Switch (optional)	OSD controlled 8/16 port KVM switch		
IP module	1*Ethernet LAN:1x RJ45-10/100 Mbps, Serial port(RS232), mini USB		

1.3. Outline Drawing
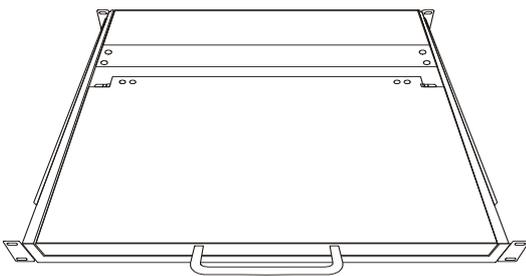
Front Side
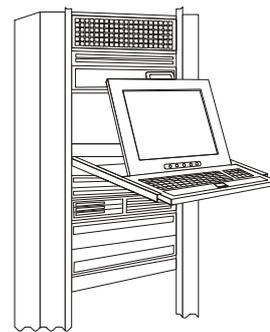
Mounted on Rack-Mount Chassis

Rear Side (16 port)
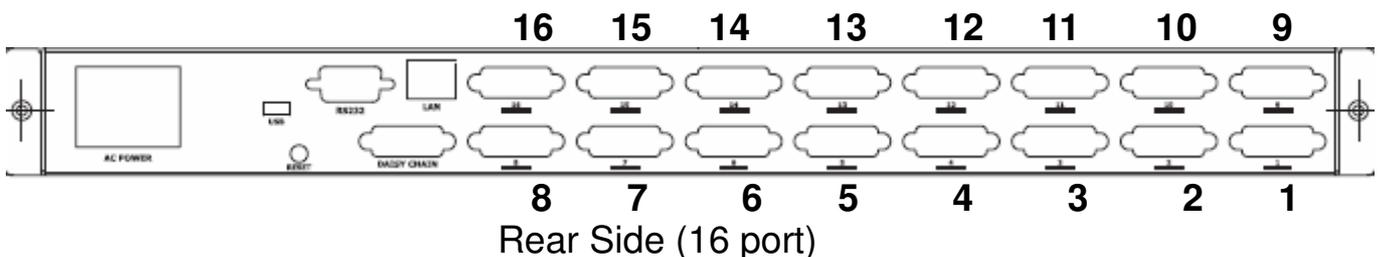
1.4. Notice

1. Do not touch the LCD panel surface with sharp or hard objects.
2. Please ensure the LCD Drawer is securely in place. The surface for placing and fixing the LCD Drawer should be stable and level or mounted into a suitable cabinet.
3. Ensure there is enough ventilation for the LCD Drawer, as well as out of direct sunlight, away from sources of excessive dust, heat, water, moisture, and vibration.
4. Ensure the location of the LCD Drawer is convenient enough for it to connect to its related facilities.

1.5. Check List

Before using this rack monitor, please make sure that all the items listed below are present in your package
- Analog color LCD Drawer
- Accessory Box containing:
    1. KVM (Keyboard, Video, Mouse) expansion cable   ×1
    2. Power cable   ×1
    3. User guide   ×1

If any items are missing or damaged, please contact your dealer immediately.

2. Configurations and Installation

2.1. Configurations
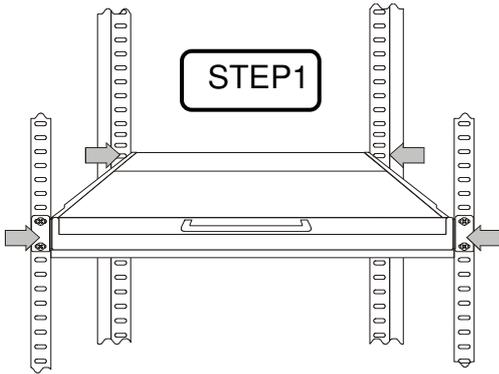
The LDS serials rack LCD drawer supports up to 16 computers. The configuration is as shown in following figure.
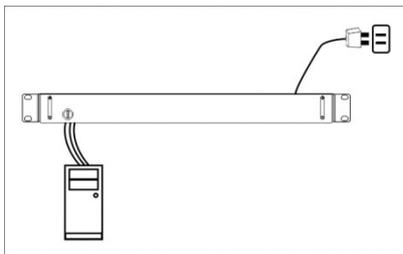
2.2. Installation

Step 1. Mount on Rack-Mount Chassis

Mount the Rack Drawer LCD on Rack-Mount Chassis with screws.

STEP1

Step 2. Power Cable Connection

Connect the power cord to the rack LCD monitor and AC outlet.

Step 3. PS2 Mouse, Keyboard and VGA Cable Connection
LDS210/310/410 – 8/16PNP:

◆ Power down all computers which will be connected to your rack LCD monitor.

◆ Plug one end of the KVM expansion cable to the connectors at the rear of all the PC systems and the other end to the rack LCD monitor.

◆ Secure the connectors with the screws on the cable connector at both ends

Note: The end of the KVM switch side is the 15-pin black connector for monitor, keyboard and mouse. The matching port of the KVM switch also uses 15 –pin black ports.

Note: All connectors are color coded; blue – video, green – mouse, purple – keyboard
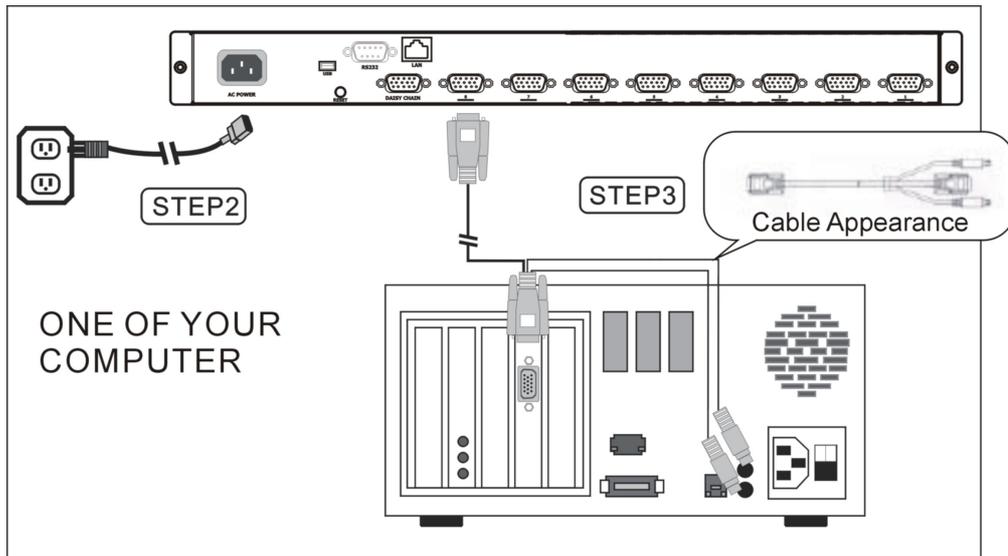
LDS210/310/410 – 8PNP
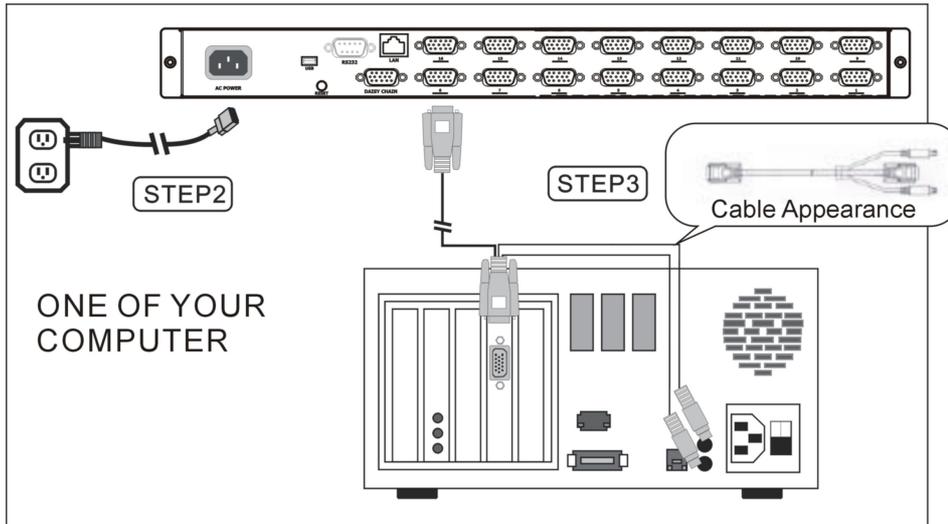
LDS210/310/410 – 16PNP

3. LCD OSD Key Definition
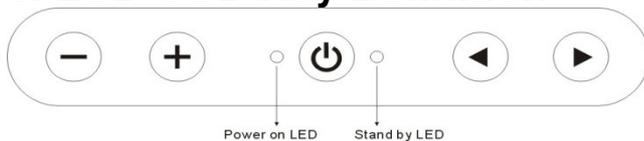

Power on LED   Stand by LED

1. MENU ◁/▷

Use this key to select the function you would like to adjust.

2. ADJUST   +/−

Use this key to adjust the selected function for optimal viewing.

3. POWER SWITCH   ⏻

Use the power switch to turn the power ON or OFF.   We recommend turning your PC system power on first, then the LCD monitor.

4. POWER STAND-BY MODE LED

Indicates when the power is in the stand-by mode.
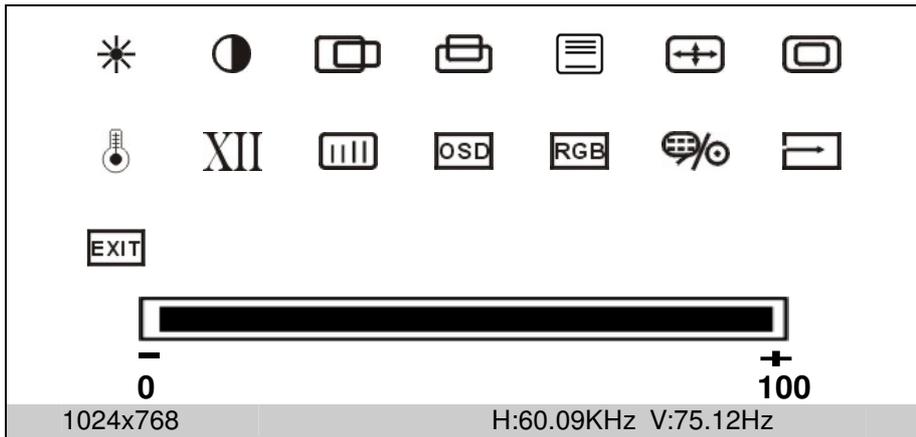
5. Power on LED

Indicates when the power is in the ON position.

3.1. The Control Key Description

⏻   : Power on/off control.

◁   : Call menu / Shifting the selection left.

▷   : Call menu / Shifting the selection right.

-    : Decrease value.

+   : Increase value. / Automatic adjustment.

3.2. LCD OSD SCREEN

☀ **BRIGHTNESS**
Press "+" to increase or "-" to decrease the brightness.

◑ **CONTRAST**
Press "+" to increase or "-" to decrease the contrast.

▭ **H-POSITION**
Press "+" or "-" to move the image to the left or right on the screen.

▭ **V-POSITION**
Press "+" or "-" to move the image up or down on the screen.

▭ **H-SCALING**
Press "+" or "-" to increase or decrease the Horizontal screen size.

⊹ **AUTO ADJUSTMENT**
Press "+" or "-" to have the monitor logic choose the best settings for the current input signal.

▭ **WHITE BALANCE**
Press "+" or "-" to enable auto adjust white balance function.

🌡 **COLOR TEMPERATURE**
Press "+" or "-" to set the color temperature
USER: Use this function to set a proper color temperature.
- 9300K:Push to set monitor for the CIE coordinate 9300 color temperature
- 6500K:Push to set monitor for the CIE coordinate 6500 color temperature
- 5500K:Push to set monitor for the CIE coordinate 5500 color temperature

XII **GAMMA**
Press "+" or "-" to adjust GAMMA Function.

▥ **PHASE**
Press "+" or "-" button to adjust the Phase control. Phase adjustment may be required to optimize the display quality.

OSD **OSD TRANSPARENT**
Press "+" or "-" to adjust the OSD background color.

RGB **ADC ADJUST**
Press "+" or "-" to enter the ADC control manual for Brightness, Contrast, Red Color Gain, Green Color Gain and Blue Color Gain adjustment.

⊕/○ **CHANNEL**
Press "+" or "-" to change the input channel

▭ **RECALL**
Press "+" or "-" to RECALL the factory default settings.

EXIT **OSD EXIT**
Press "+" or "-" to EXIT the OSD MENU.

Summary

8

|	
☀	**BRIGHTNESS:** Press "+" or "-" to adjust.
◑	**CONTRAST:** Press "+" or "-" to adjust.
▱	**H-POSITION:** Move the screen to the left or right side.
▱	**V-POSITION:** Move the screen up or down.
▤	**CLOCK:** To adjust the Horizontal screen size.
↔	**AUTO:** To find the optimal screen settings.
▭	**WHITE BALANCE:** White Balance value adjust.
🌡	**COLOR TEMPERATURE:** Color Temperature settings.
XII	**GAMMA:** Gamma value adjust.
‖‖	**PHASE:** Adjust horizontal phase for optimal display quality.
OSD	**TRANSPARENT:** OSD Transparent adjustment.
RGB	**ADC CONTROL:** Color degree adjustment.
💬/○	**CHANNEL: change the input channel**
⟶	**RECALL:** Press "+" or "-" to reset the factory default settings.
EXIT	**EXIT:** To exit from the OSD function.

4. IP KVM

The 1U Rack IP KVM LCD Drawer build-in KVM Switch and IP module enables a single keyboard, video monitor and mouse to control multiple computers at a time. It also provides the internet access function for advance application remotely. This product supports one console and 8/16 computer ports.

This series IP KVM switch has an On-screen Display (OSD) menu so that you can operate the system easily. Besides, the Remote control function is also a key feature for this NP series switch. User just needs to set the IP module at first time, and access any place at any time

4.1. KVM OSD Control
4.1.1. Open OSD Window
The OSD Login screen will show up waiting for user name and password in the beginning

```
S  E  C  U  R  I  T  Y
U  S  E  R     N  A  M  E
_  _  _  _  _  _  _  _
P  A  S  S  W  O  R  D
_  _  _  _  _  _  _  _
```
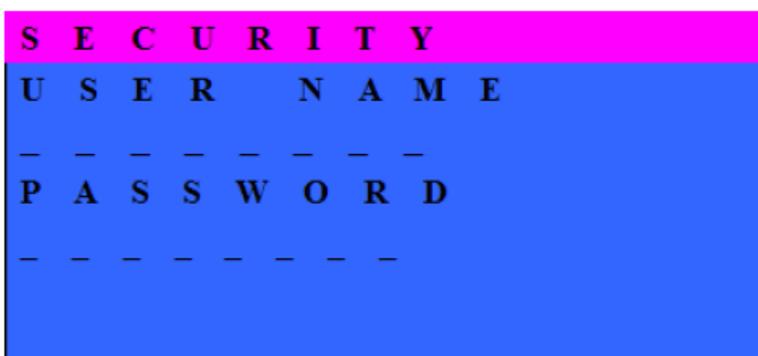
The Default User Name is eight zeros –"00000000".
The Default Password is eight zeros –"00000000".

There are two way to open the OSD window.
1. **Activate OSD window by window---** Press the **CapsLK key twice**+ **Space** to open this window, Press **Esc** to exit.
2. **Activate OSD window by Mouse ---** Press and hold the **right button** of the mouse and hit the **Esc** key to bring up the Main Menu.

   Example #1 – To bring up the OSD overlay window, press **"Caps Lock", "Caps Lock", and the "Space Bar"**. The OSD window will appear immediately. The superimposed menu screen is generated by the KVM switch, and does not affect your computers or software function in any way. The OSD window looks like the figure below.
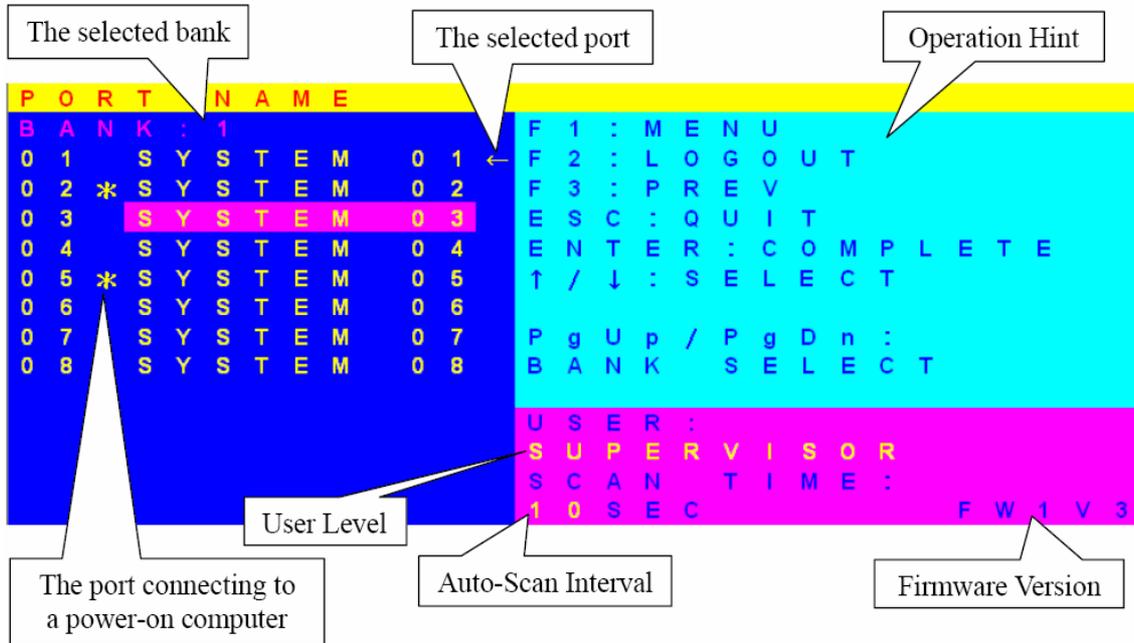
4.1.2. Characters Accepted by OSD Menu
a-z, A-Z
0-9
- = / ,。; SPACE

Key (and aliases)		
0 - 9	SPACE	PAGE DOWN
A - Z	ALTGR	UP
, TILDE	ESCAPE, ESC	LEFT
-, MINUS	F1	DOWN
=, EQUALS	F2	RIGHT
;	F3	NUM LOCK
'	F4	NUMPAD0
<, LESS	F5	NUMPAD1
,	F6	NUMPAD2
.	F7	NUMPAD3
/, SLASH	F8	NUMPAD4
BACK SPACE	F9	NUMPAD5
TAB	F10	NUMPAD6
[	F11	NUMPAD7
]	F12	NUMPAD8
ENTER	PRINTSCREEN	NUMPAD9
CAPS LOCK	SCROLL LOCK	NUMPADPLUS,NUMPAD PLUS
\, BACK SLASH	BREAK	NUMPAD/
LSHIFT, SHIFT	INSERT	NUMPADMUL,NUMPAD MUL
RCTRL	HOME	NUMPADMINUS,NUMPAD MINUS
RSHIFT	PAGE UP	NUMPADENTER
LCTRL, CTRL	DELETE	WINDOWS
LALT, ALT	END	MENU

4.1.3. Command Menu

You can conveniently command KVM switch through a simple hot key sequence.
To send commands to KVM switch, you must **press the hotkey (**default **Caps Lock) twice within 2 seconds**. You will hear a beep sound confirming entering Hotkey mode. If you do not press any key during Hotkey mode over 2 seconds the Hotkey mode will be escaped and back to Normal state.

Command	Function
Space bar	Bring up the OSD overlay screen
↑ or ↓	Moving Up or Down
[1,2,..,8] bank, [01, 02,..,32] port	■ The first digit is bank number starting with "1". The first KVM switch unit on the Daisy chain line is of bank 1 (the Master). A standalone KVM switch is fixed in bank 1. ■ The second & third digits are port number starting with "01".
PgUp	Previous bank
PgDn	Next bank
B	To enable/disable **beep sound** function
L	To enable/disable the **Screen Saving** function and 10min auto-logout function. This function is **default OFF (Disable).**
P	To **log out the OSD**. If Security is enabled it will show up the Login window waiting for username and password. If Security is disabled it will show up the Status window
R	For SUPERVISOR to set the OSD back **to factory default value** (except User Security settings).
S	For SUPERVISOR to activate the **Auto-Scan** function
U	For SUPERVISOR to enable/disable **Security** function. If the Security is off, we don't need user name & password to access to the KVM system. This function is **default OFF (Disable).**

4.2. Selection by Hot Key

Hot Key combination enables you to select a channel easily.

　　Example1:

　　　　To switch to Bank 1 Port1, press **"Caps Lock", "Caps Lock", and "1", "0", "1"**

　　Example2:

　　　　To switch to Bank 1 Port2, press **"Caps Lock", "Caps Lock", and "1", "0", "2"**

Note: Please refer to the manual of Hot Key Guide that contains all the operations were list in the Hot Key function.

4.3. IP module settings
4.3.1 Initial IP configuration

In factory default, DHCP mode is disabled (IP auto configuration = None), and the IP settings are as below:

　　　　IP address　　　　　　　192.168.1.22

　　　　Subnet　　　　　　　　　255.255.255.0

　　　　mask　　　　　　　　　　None

If DHCP mode is enabled (IP auto configuration = DHCP), the IP-KVM switch will try to contact a DHCP server in the subnet to which it is physically connected. If a DHCP server is found, it may provide a valid IP address, gateway address and net mask. Before you connect the device to your local subnet, be sure to complete the corresponding configuration of your DHCP server.

IP-KVM switch Setup Tool

If this initial configuration does not meet your local requirements, use the setup tool
to change the configurations to your needs. The setup tool **PSetup.exe** can be
found on the CD ROM delivered with this package. You can follow the procedures
described below.

1. DHCP

If you have installed the IP-KVM switch on a network that enables DHCP, you can use the
   PSetup to find out the IP-KVM switch's IP.
(1) Plug Ethernet cable to IP-KVM switch. IP-KVM will get an IP via DHCP.
(2) Using **PSetup** (run PSetup.exe) to look for IP-KVM.
         a. Click Query Device
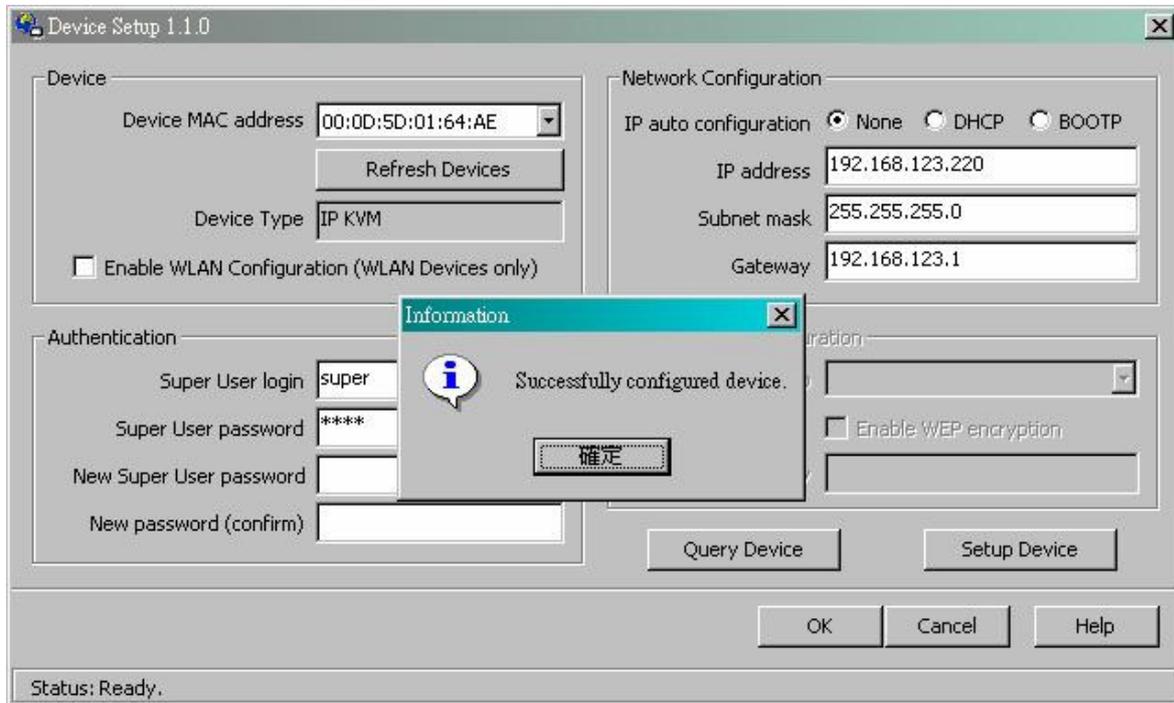
2. Setup fixed IP

 a. Setup "IP auto configuration" as "**None**" ; setup IP address and Subnet mask

 b. Enter Super user login and password for Authentication (default: super/pass)

 c. Click **Setup Device**. If super login was authenticated, it'll show "Successfully
  configured device". Otherwise it'll show "Permission Denied".

Install JVM on Client system
IP-KVM switch was accessed using a standard JAVA enabled web browser. You must install Sun JVM 1.4.2 or above to your client system.

Note: At a minimum you must have Internet Explorer 6.0 or Netscape 7.0 or Mozilla 1.6 (and above) installed on your client computer.

Connect IP-KVM switch via Web
Using the HTTP protocol or a secure encrypted connection via HTTPS and entering the configured IP address of IP-KVM switch into your web browser to connect IP-KVM switch.

4.3.2 Login into the IP-KVM switch
Launch your web browser. Direct it to the address of your IP-KVM switch, which you configured during the installation process. The address used might be an IP address or a domain name, in the case where you have given your IP-KVM switch a symbolic name in the DNS. For instance, type the following in the URL field of your browser when establishing an unsecured connection:
http://<IP address of IP-KVM switch>
When using a secure connection, type in:
https://<IP address of IP-KVM switch>
This will lead you to the IP-KVM switch login page as shown below

The IP-KVM switch has a built-in super user that has all permissions to administrate your IP-KVM switch:

<div align="center">

Username: super (factory default)
Password: pass (factory default)

</div>

Warning: The user "super" is not allowed to login via the serial interface of the IP-KVM switch.
Warning: Please make sure to change the super user password immediately after you have installed and accessed your IP-KVM switch for the first time. Unchanging of the password for the super user is a severe security risk and might result in unauthorized access to the IP-KVM switch and to the host system including all possible consequences!

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Warning:
Your web browser has to accept cookies, or else login is not possible.

Navigation
Having logged into the IP-KVM switch successfully, the main page of the IP-KVM switch appears below.

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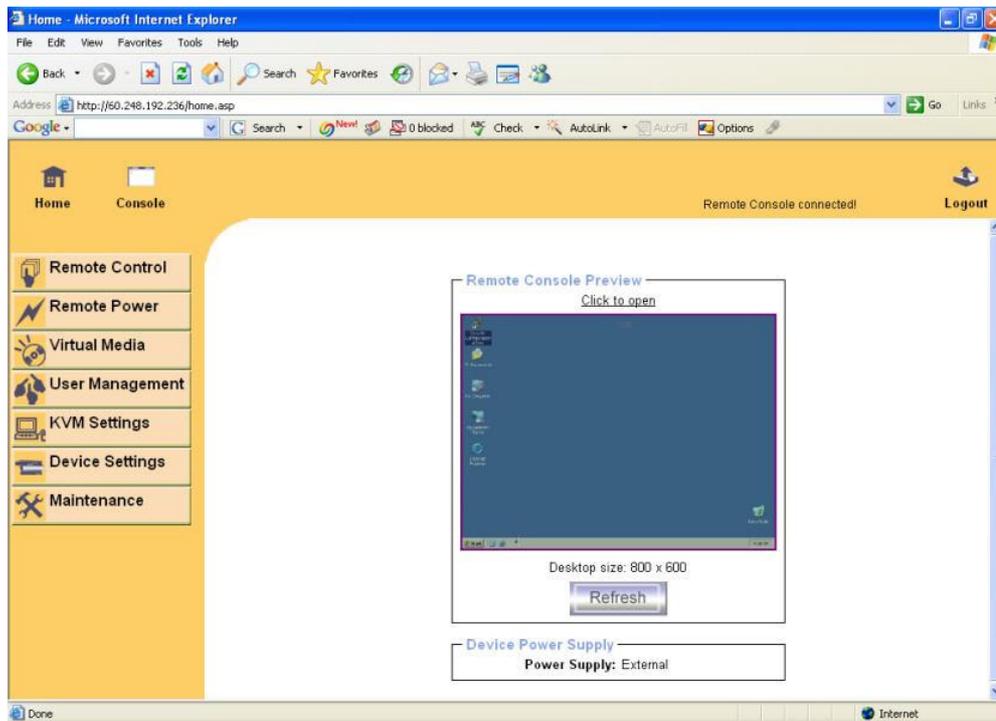
Warning
If there is no activity for 30 minutes, the IP-KVM switch will log you out automatically. A click on one of the links will bring you back to the login screen.

Note: Please refer to the manual of KVM over IP module that contains all the details of Remote control function.

5. Specifications

Item	LDS210D-xxNP	LDS310D-xxNP	LDS410D-xxNP
Display Area(mm)	304.128 (H) x 228.096 (V)	337.92 (H) x 270.34 (V)	376.32 (H) x 301.06 (V)
Pixel Pitch	0.297 (H) x 0.297 (V)	0.264 (H) x 0.264 (V)	0.294 (H) x 0.294 (V)
Number of Pixels	1024(H)x768(V)	1280(H) x 1024(V)	1280(H) x 1024(V)
Contrast Ratio	700:1 (typ.)	800:1 (typ.)	800:1 (typ.)
Display Color	16.2M colors	16.7M colors	16.7M colors
Brightness (CD/m^2)	250	300	300
Backlight Unit	2 replaceable CCFLs edge-light (top/bottom)	4 replaceable CCFLs edge-light (top/bottom)	
Viewing Angle	-70~70 (H); -65~60 (V)	-80~80 (H); -80~80 (V)	-80~80 (H); -80~80 (V)
I/O	Power: 12V AC Adapter 3-in-1 VGA control(VGA, 2*PS2)		
Keyboard and Key pad	88-key keyboard and integrated Touch Pad 17-key numerical key pad		
Power Consumption	35 Watts	50 Watts	50 Watts
Power Supply	AC 100-240V Universal		
On-Screen Display	Contrast, Brightness, H/V Position, H/V Size, H-scaling, Auto-adjust, Color Temp.(9300, 6500, User), Red-Gain, Blue-Gain, Green-Gain, Gamma, Recall, Phase, OSD & Exit		
Hot Key Control	OSD Hot Key		
Environmental consideration	Operating temperature:0ºC~ 50ºC (32 F~ 122 F) Storage temperature:-20ºC~ 60ºC(-4 F~ 140 F)		
Humidity	10~85% in operating; 10-90% in storage		
Size	517mm(D) x 484mm(W) x 44mm(H)		

6. Cleaning the Rack Drawer Monitor

- Make sure the rack drawer monitor is turned off.
- Never spray or pour any liquid directly onto the screen or case.
- Wipe the screen with a clean, soft, lint-free cloth. This removes dust and other particles.
- The display area is highly prone to scratching. Do not use ketene type material (ex. Acetone), Ethyl alcohol, toluene, ethyl acid or Methyl chloride to clear the panel. It might permanently damage the panel.
- If still not clean, apply a small amount of non-ammonia, non-alcohol based glass cleaner onto a clean, soft, lint-free cloth, and wipe the screen
- Don't let water or oil penetrate the monitor. If the droplets are kept for a long time, Staining and discoloration may occur.

7. Disclaimer

We do not recommend the use of any ammonia or alcohol-based cleaners on the monitor screen or case. Some chemical cleaners have been reported to damage the screen and/or case of the rack LCD monitor. Seller will not be liable for damage resulting

from use of any ammonia or alcohol-based cleaner.

8. Troubleshooting:

Ensure that all cables are well seated. Check that keyboard/mouse cables are not swapped. If your monitor fails to operate correctly, consult the following chart for possible solution before calling for repairs:

If you are unable to correct the fault by using this chart, stop using your monitor and contact your distributor or dealer for further assistance.

9. Appendix:

9.1 Supporting Resolution Modes:

LDS210D-XXNP (15"):

Mode	Resolution	H-Freq. (KHz)	V-Freq. (KHz)
Mode 1	640×350	31.5	70
Mode 2	640×400	31.5	70
Mode 3	640×480	31.5	60
Mode 4	640×480	37.9	72
Mode 5	640×480	37.5	75
Mode 6	720×400	31.5	70
Mode 7	800×600	35.1	56
Mode 8	800×600	37.9	60
Mode 9	800×600	48.1	72
Mode 10	800×600	46.9	75
Mode 11	1024×768	48.4	60
Mode 12	1024×768	56.5	70
Mode 13	1024×768	60.0	75

LDS310D-XXNP (17")/LDS410D-xxNP(19"):

Mode	Resolution	H-Freq.(KHz)	V-Freq.(KHz)
Mode 1	640×350	31.5	70
Mode 2	640×400	31.5	70
Mode 3	640×480	31.5	60
Mode 4	640×480	37.9	72
Mode 5	640×480	37.5	75
Mode 6	720×400	31.47	70
Mode 7	800×600	35.1	56
Mode 8	800×600	37.9	60
Mode 9	800×600	48.1	72
Mode 10	800×600	46.9	75
Mode 11	1024×768	48.4	60
Mode 12	1024×768	56.5	70
Mode 13	1024×768	60.0	75
Mode 14	1280×1024	64.0	60
Mode 15	1280×1024	80.0	75

9.2. Limited Warranty

In no event shall the direct vender's liability for direct or indirect, special, incidental or consequential damages, loss of profit, loss of business, or financial loss which may be caused by the use of the product exceeds the price paid for the product.

The direct vendor makes no warranty or representation, expressed or implied with respect to the contents or use of this documentation, and especially disclaims its quality, performance, merchantability, or fitness for any particular purpose.

The direct vendor also reserves the right to revise or update the product or documentation without obligation to notify any user of such revisions or updates. For further information, please contact your direct vendor.

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