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NEWSTAR computerproducts

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8-Port Keyboard, Video, and Mouse Switch with 2 consoles

NS832DM

User's Manual

CHAPTER 1
Introduction

Thank you for purchasing the NewStar KVM switch. The NS832DM luxurious series provide you the non-barricade in control. It is remarkable in features such as individual daisy-chain port for cascade, control 8 computer separately and simultaneously from one central location, IMCT (Integrated Mouse Conversion Technology), Simulation for error-free boot-up, OSD (On-Screen Display) select function and High resolution perform up to 1920 x 1440 without any enhancement in display quality. The NS832DM is also designed concise push button, or Hot Key command for quick operation. It absolutely has smart solution once you operate a Macintosh or Sun system attempting conjunction with NS832DM, it can be done through adding the MAC/SUN Adapter.

Features

Allows two users to control eight different hardware and software platforms simultaneously with one keyboard, mice and monitor.
On-Screen Display gives variety of system-related information on the monitor, that's ease to visual and selecting computers.
Stored and restored each computer status while switching among computers. Use of non-volatile RMA to stores configuration information. All information is saved until you decide to change, even if the unit is power-off.
IMCT allows connecting any AT-style computers that has serial mouse port when using a PS/2 mouse only at the console.
All units come with input/output daisy-chain ports. Allows mixed chain together up to 16 levels use one keyboard, mouse and monitor. The chain cable uses the standard parallel printer cable with 25HDDB male to male connectors.
Supports Microsoft IntelliMouse.
Provides high-resolution image quality up to 1920 x 1440.
Uses standard computer cable without extra cost.
Each channel contains a dedicated microprocessor to manage the boot up process for all computers boot up simultaneously.
Pass Through or Emulation, the selected computer is communicating directly with keyboard, mouse and monitor that the technology eliminates the problem of non-standard IBM compatible.
Concise push button and Hot Key command switching.
Auto Scanning allows user to quick monitor the entire computer in the system sequentially.
Auto recalling the status of each computer such as CAPS LOCK, NUM LOCK and SCROLL LOCK keys.
Operating without software.
36 month product warranty.

Specifications

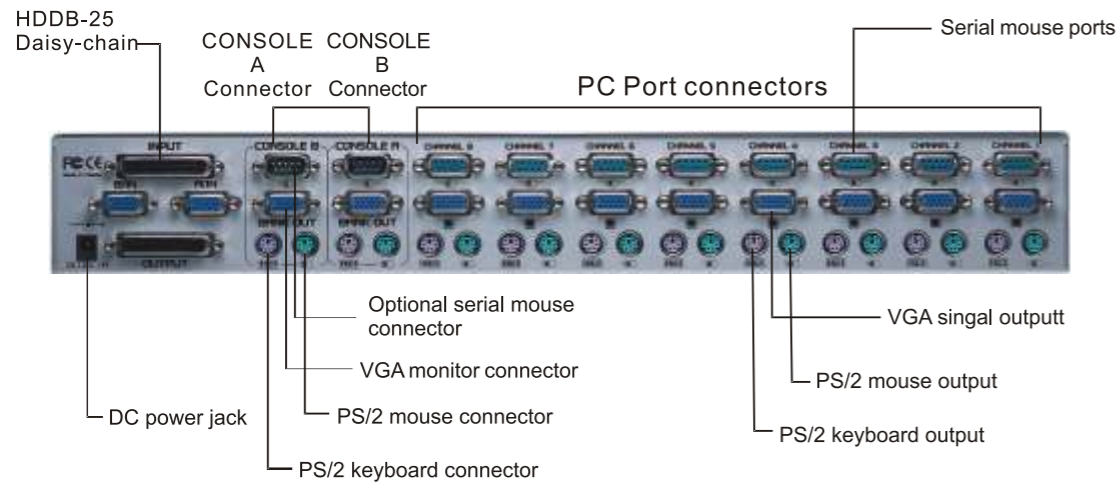|	
Computer connections	
Keyboard	8 sets; 6-pin mini DIN
Mouse	8 sets; 6-pin mini DIN(8sets;DB-9pin serial port)
Monitor	8 sets; 15-pin HDDB type
Console Connections	
Keyboard	2 set; 6-pin mini DIN
Mouse	2 set; 6-pin mini DIN
Monitor	2 set; 15-pin HDDB type
Cascade Port	2, D-SUB 25, 16 Levels
Max. Access PCs	128
Port LEDS	8
Bank 7-segment-LED	1
Port 7-segment-LED	2
On-Screen Manu	Yes
Hot Key	Yes
Display Data Channel	DDC1, DDC2B, DDC2AB
Resolution	1920 x 1440
Bandwidth	200Mhz
Dimensions	(w)440mm x (d)147mm x (h)60mm
Weight	1.35kgs
Operating Temp	32 to 104 deg. F (0-40 deg. C)
Storage Temp	-4 to 140 deg. F (-20-60 deg. C)
Humidity	0~80% RH, non-condensing
Power Supply	DC 12V, 1A

Package Enclosed

Item	Qty		Remark
NS832DM	1	pcs	KVM Switch
Power Cord	1	pcs	AC inlet power cable
Rack mount bracket	2	pcs	
Users Manual	1	pcs	
Screw	10	pcs	M4, fasten rack mount bracket
Rubber foot	4	pcs	

Name and Function of Parts

Front Panel

Current Active Bank Display

Power switch

Port Select Buttons

Bank Select/Scan Button

Rear Panel

HDDB-25 Daisy-chain

CONSOLE A Connector

CONSOLE B Connector

PC Port connectors

Serial mouse ports

Optional serial mouse connector

VGA monitor connector

PS/2 mouse connector

DC power jack

PS/2 keyboard connector

VGA singal outputt

PS/2 mouse output

PS/2 keyboard output

Accessories

To connect the 128 computers with NS832DM we recommend purchasing cable kits as below NewStar part name:
All-In-One KVM Cable K3C6 180cm (6 fts)

2 x PS/2 cable kit, 1 x 15-pin D-SUB

Daisy-Chain Cable Kit KDCC 25HDDB

CHAPTER 2

Installation

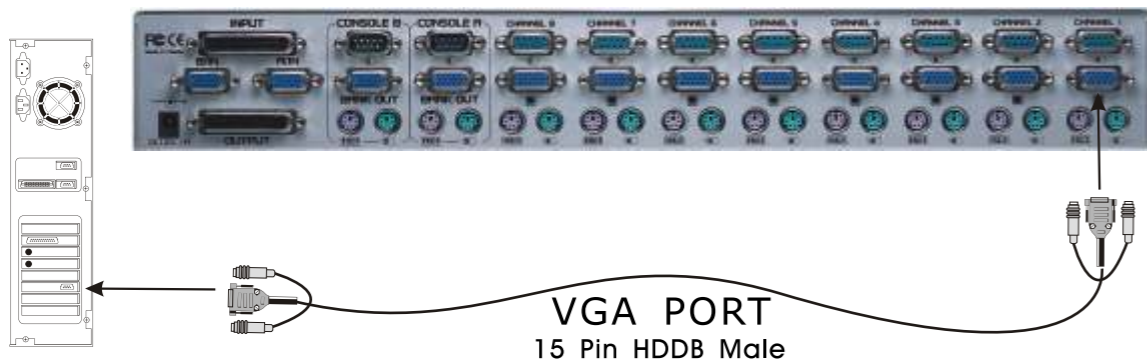**ENSURE OPERATION WITHOUT PROBLEM. PLEASE FOLLOW THIS INSTALLATION GUIDE.**

1. Put your NS832DM at a convenient place. Basically its form factor makes it well for 48.3cm racks. Attach the two brackets to both side of NS832DM when it is fixing on a rack.
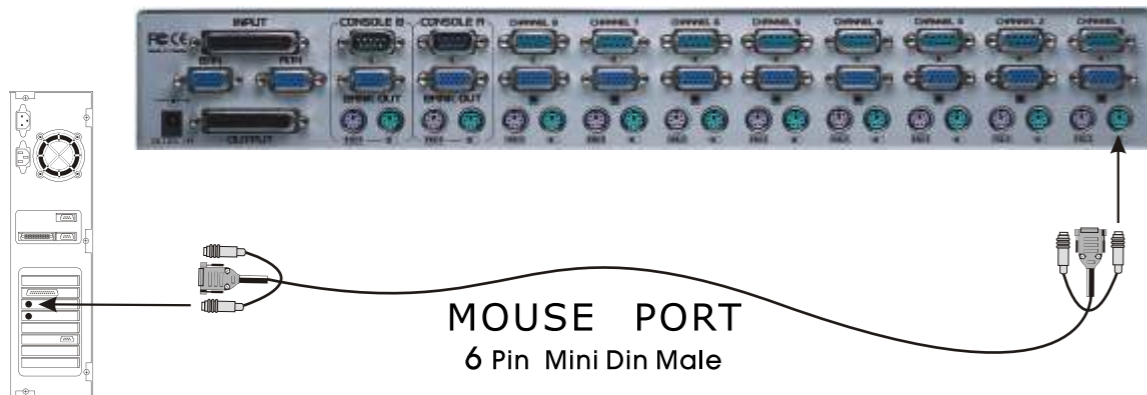

2. Ensure that all computers are powered off before connect or disconnect in the cables. Most computers do not allow online disconnecting and reconnecting its keyboard and mice during operation, that those may cause un-predict damage to your computer and NS832DM.

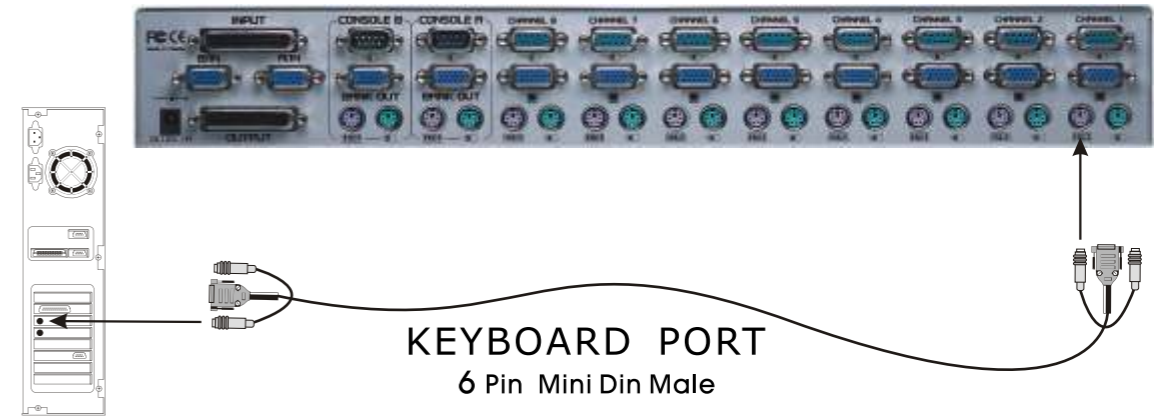3. Connect all computers NS832DM using NewStar All-in-One KVM cables

3.1 For video display using 15-pin HDDB VGA cable to connect the male end of the cable to the VGA port on the computer, and connect the other end on the PC1 VGA at the back of EM-820L.
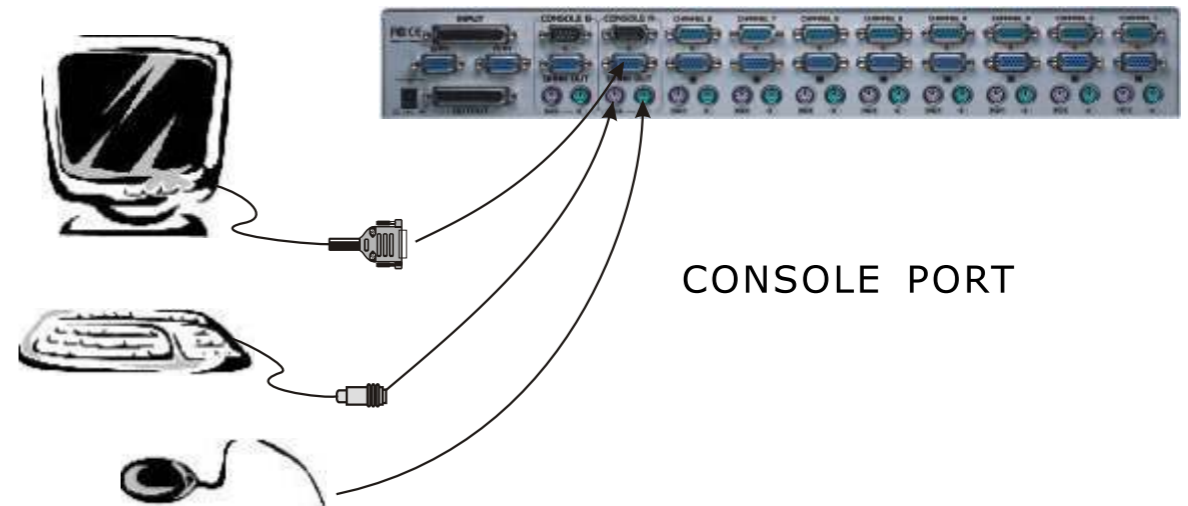

VGA PORT
15 Pin HDDB Male

3.2 Connect mouse port using PS/2 cable to both sides (PS/2 mouse port on the computer; PC1 PS/2 mouse port on the back of NS832DM).

MOUSE PORT
6 Pin Mini Din Male

3.3 Connect keyboard port using PS/2 cable to both sides (PS/2 keyboard port on the computer; PC1 PS/2 keyboard on the back of NS832DM).

KEYBOARD PORT
6 Pin Mini Din Male

3.4 Connect the monitor, keyboard and mouse to the CONSOLE A section with those are symbol at the back of NS832DM. Repeat steps 1-3 for CONSOLE B.
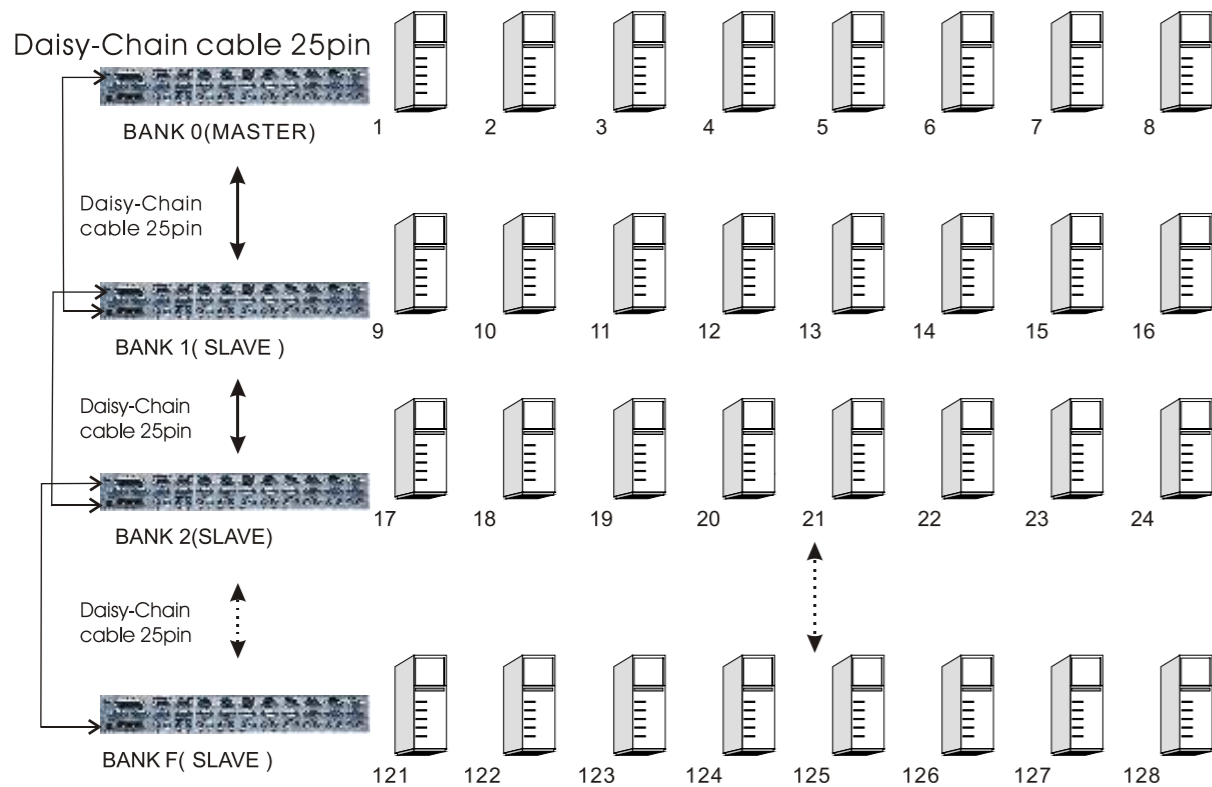

CONSOLE PORT

4. Double check all of the connections are fix and go the connect port.

5. To connect the power cord to the power inlet at the back of EM-NS832DM, then turn on power and two seven segment LEDs of master bank will display 1, 1.

6. To power on all computers.

NOTE:
Avoid causing the computer without detect, when all computers are underbooting up, please do not use the push button at the panel or pressing any key on the keyboard and moving the mouse.

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7. Daisy-Chained, using a 25-pin HDDB daisy-chain cable male to male connecting one end to input port at the back of EM-820L and the other end to output port at the back of another one NS832DM. Please refer to the example following to show two NS832DM are cascaded to control 16 levels The maximum of cascade can be together controlling over 128 computers.
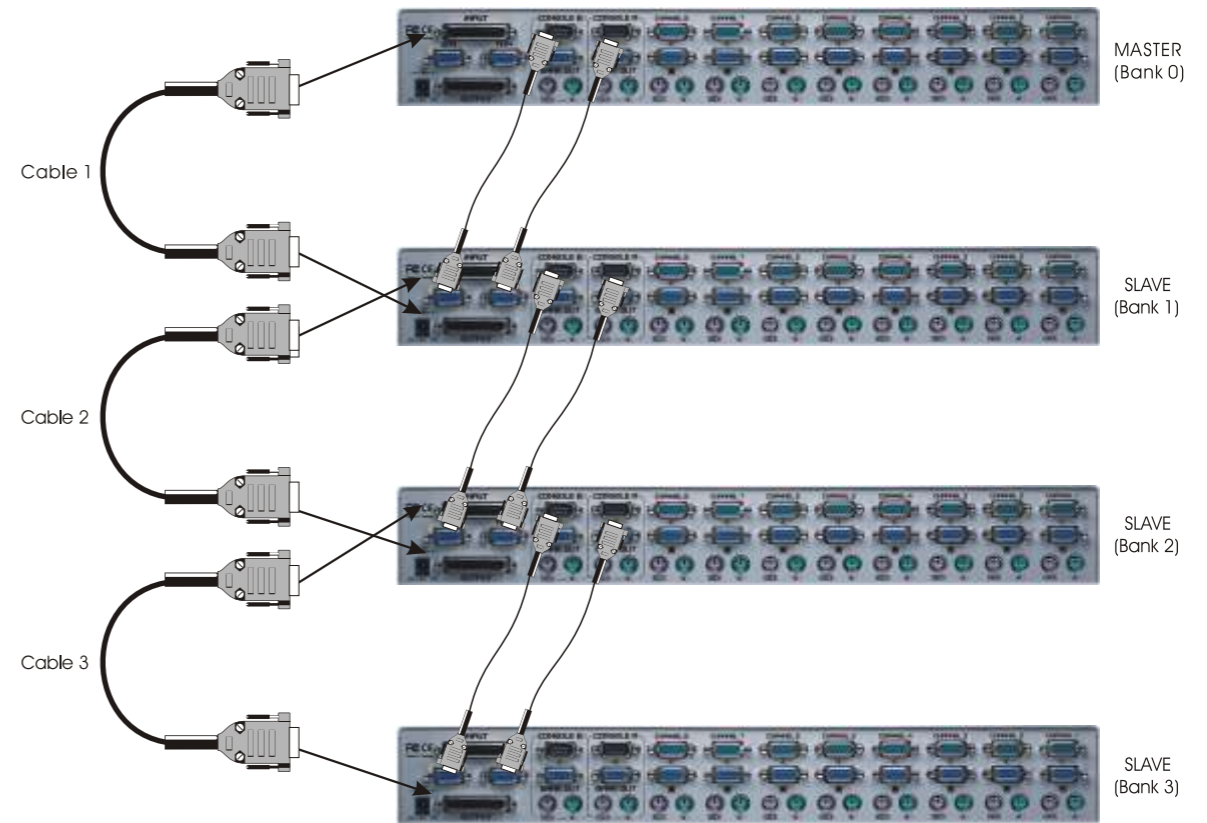

Daisy-Chain cable 25pin

BANK 0(MASTER)   1   2   3   4   5   6   7   8

Daisy-Chain cable 25pin

BANK 1(SLAVE)   9   10   11   12   13   14   15   16

Daisy-Chain cable 25pin

BANK 2(SLAVE)   17   18   19   20   21   22   23   24

Daisy-Chain cable 25pin

BANK F(SLAVE)   121 122 123 124 125 126 127 128

CHAPTER 3
Operation
Channel Selection

Select which computer to be operating either by the CHANNEL push button shows out On-Screen Display that there are 4 channels port, or through Hot Key commands

MASTER (Bank 0)

Cable 1

SLAVE (Bank 1)

Cable 2

SLAVE (Bank 2)

Cable 3

SLAVE (Bank 3)

7.1 Initially, you must complete all computers to the SLAVE unit as previous steps. *
Don't power up the computers connected to the slave unit(s) yet. *

7.2 Connect the HDDB 25-pin to the **INPUT**   connector on the MASTER unit. Connect the HDDB 15-pin A cable to the   **A/IN** , and the HDDB 15-pin B cable to the **B/IN** on the MASTER.

7.3 Connect the HDDB 25-pin to the   **OUTPUT**   connector on the SLAVE unit. Connectthe HDDB 15-pin A cable to the **BANK OUT** connector under console A, andthe HDDB 15-pin B cable to the **BANK OUT** under console B on the slave.

7.4 Repeat the process above to add more slave units.

7.5 Upon connecting the daisy-chain cable to the previously unit, it should be automatically power up when the pervious unit is powered up. However, we still recommendedthat power supply be used with slave unit.

7.6 Reset the MASTER unit with BANK and any port button simultaneously. This is needfor the MASTER unit to detect the newly added slave unit.

7.7 Verify that the MASTER unit has detected the new slave by pressing the BANK button. If it detected the new slave properly, the LED display on MASTER will register the slave units bank address. If you have many slave units, you may have to press the bank button many times to cycle through all of preexisting slave units before reaching the newly added unit.

7.8 Finally you can power up the computers connected to the newly added slave unit. after booted up, you may need to RESET the MASTER unit again to detect the presenceof powered computers bon the new slave unit.

on keyboard. Pushing the channel button cycling all the ports like $\boxed{C1 \to C2 \to C3 \to C4 \to C5 \to C6 \to C7 \to C8}$ you will find that behind the unit switches to another computer, the mouse will be stop for about 1-2 seconds. This ensures mouse sync is linked without problem.

Simultaneous Access

When both consoles have selected the same PC port, the first consoles that switched to that PC port has control of its keyboard and mouse. The second console merely view .

Both consoles cannot control the same pc port at the same time if console A has control, and console B is viewing

A BANK $\boxed{C1 \to C2 \to C3 \to C4 \to C5 \to C6 \to C7 \to C8}$
B BANK $\boxed{C1 \to C2 \to C3 \to C4 \to C5 \to C6 \to C7 \to C8}$

LEDs Display

Glisten Green Color to indicate that the push button to ports.

Green Color to indicate the port is current in use.

Red Color to indicate that the computer is power up.

No Color to indicate that the KVM does not detect any signal.

When you operate with commands through simple keyboard key sequences (be pressed twice on the SCROLL LOCK).
You will hear a buzzer turn on for confirmation. Below are the different commands for your reference:

HOT KEY		
Previous Active Channel	SCROLL LOCK SCROLL LOCK	↑
Next Active Channel	SCROLL LOCK SCROLL LOCK	↓
Previous Bank	SCROLL LOCK SCROLL LOCK	Page UP
Next Bank	SCROLL LOCK SCROLL LOCK	Page Down
Go to Bank # on Channel # (Bank = O-F) (Channel = 1-8)	SCROLL LOCK SCROLL LOCK	X Y
Scan Mode (0, 0)	SCROLL LOCK SCROLL LOCK	0 0
OSD Mode (SPACEBAR)	SCROLL LOCK SCROLL LOCK	Space Bar

Note:
1. Directly selects to channel number on bank number. For example, if you press (SCROLL LOCK)(SCROLL LOCK)(A)(2), means the computer on channel 2 of the unit is set to bank 2.

2. In Auto Scan Mode, switches from one computer to another at a time interval set by user. To select scan mode either by pressing bank scan button after last bank or by hot key (0, 0). To get out of Scan Mode, press the Space Bar.

On-Screen Display Control

To get into the OSD function, press SCROLL LOCK key twice follow by SPACEBAR within half second. The OSD window appears. You can use the (↑) key to navigate through each active channel.

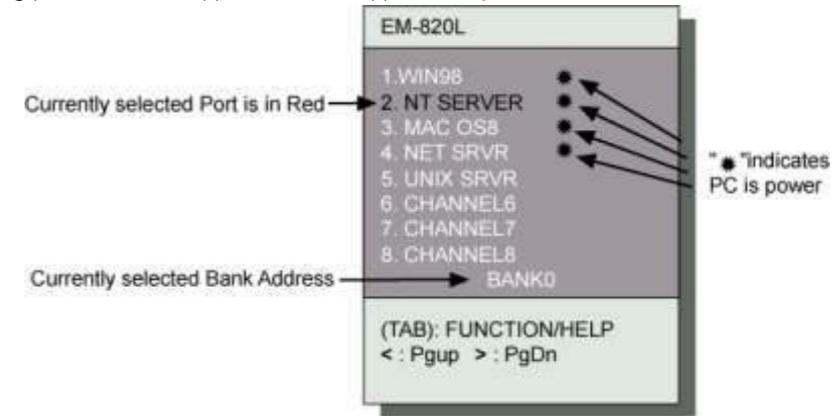| SCROLL LOCK	SCROLL LOCK	Space Bar

The first line appears current Bank Number selected. Using PgUp and PgDn key on the keyboard to switch the banks. If you only one NS832DM, it will show BANK 0.
The CHANNEL indicated is following the BANK. There are 4 channels to show computers active or inactive. The current selected channel is shown in RED, a * indicates that computer linked to that channel is work on.
Note: Pressing (ESC) to abort the channel selection.
    Pressing (ENTER) to make channel selection
    Pressing(Scroll Lock)(Scroll Lock)(Insert)keys to make channel name.
    Pressing(Scroll Lock)(Scroll Lock)(Delete)keys to delete channel name.

EM-820L

Currently selected Port is in Red → 2. NT SERVER

1.WIN98
2. NT SERVER
3. MAC OS8
4. NET SRVR
5. UNIX SRVR
6. CHANNEL6
7. CHANNEL7
8. CHANNEL8

" ● "indicates PC is power

Currently selected Bank Address → BANK0

(TAB): FUNCTION/HELP
< : Pgup > : PgDn

Scan Time
Interval of scan mode before switching to next channel.

SCAN TIME:
■7sec ■15sec ■30sec ■60sec
DISPLAY TIME:
■7sec ■15sec ■30sec ■60sec

[ ]: SELECT
(INS): RENAME
(Enter): COMPLETE
(ESC): Exit

Display Time
The time of OSD Menu or Channel name remains displayed on-screen behind channel selected.

DISPLAY TIME:
■7sec ■15sec ■30sec ■60sec

Setting Scan Time and Display Time
Using Up and Down cursor key to select which mode to be setting, moving left or right cursor key to change Scan Time/Display Time. Once it is completed, press (ESC) to save and exit.