2 x Transparent USB 2.0 device ports
Global and Local USB sharing available
Server rescue boot and emergency file
Tree-chainable up to next level
Backward compatible to daisy-chain with NEXIS KVMs
Active Sync Replication™ for Best Video Compatibility
Firmware upgradable

KV918 / KV9116

8/16-port Rackmount USB PS/2 KVM Switch
w/ 2 x Transparent USB Device Ports
OSD, Tree-chainable & Daisy-chainable

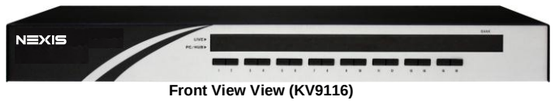
Quick Installation Guide



KV9116



KV918



Front View View (KV9116)



Rear View (KV9116)

Product Overview

The **KV**918/KV9116is an **8/16-port Tree-chainable USB PS/2 Rackmount KVM Switch** that offers 2 x transparent USB 2.0 device ports for easy sharing of at least two high speed USB devices, such as rescue flash disks or external storage hard disks, etc., among those connected servers on the rack. The KV918/KV9116 KVM Switch is especially useful when the server admins intend to deal more proactively with potential server crisis and to make sure that whenever there is a critical server situation, one can always perform a disk boot from the USB flash disk or external USB hard drive that are connected there for that emergency purpose. The NEXIS KVM switches can be tree-chained to next level. With KV9116, one can tree-chain another 16 NEXIS KVM Switches to the master unit and thus expand the server management capacity up to 156 computers. With global USB sharing and local USB sharing, the server admins can differentiate what is to be shared among all tree-chain and what to be shared among each local bank. The NEXIS KVM series is also backward compatible to be daisy-chained with NEXIS KVM switch (using the daisy-chain port).

The NEXIS KVM Switch features the **Active Sync Replication™ (A.S.R.)** technology that offers a full-time DDC emulation for best video compatibility with new type of Operating System that requires all-time DDC communication.

Front Panel Overview

The front panel is where you can locate the switching buttons. Just press each button to switch to its corresponding port. Each port status will be indicated by a LED indicator. The bank number will be shown on the Green Numerical LED. Bank 00 represents master KVM Switch, and Bank 01 ~ 16 represent tree-chained units.

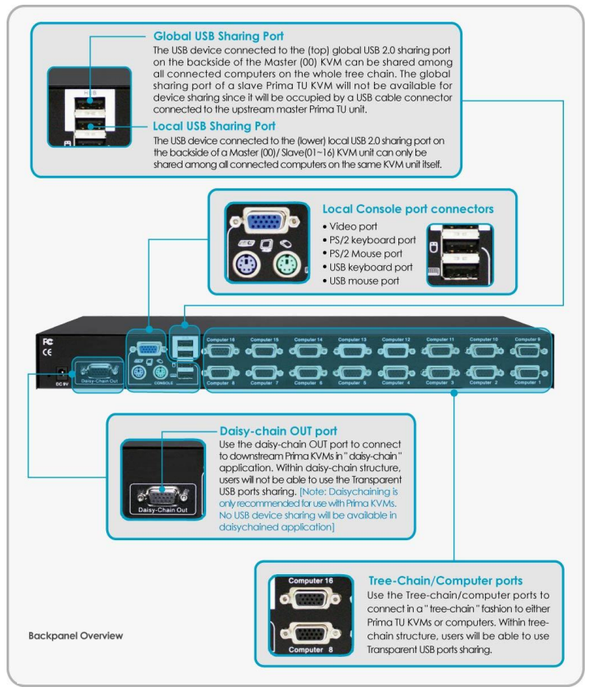


Front View View (KV9116)

Back Panel Overview

The 2 x Transparent USB 2.0 ports allows server admins to perform emergency server rescue booting or file backup from an external USB flash disk or hard disk connected either on the global sharing USB port or local sharing USB port …

The tree-chaining application can be done by connecting other NEXIS KVMs to the computer ports. However, the daisy-chaining application is only used when you have to connect the NEXIS KVM Switches



Out-of-the-box Installation

Take the NEXIS KVM Switch out of the box and begin installation…

If you are using any PS/2 computer: Please make sure all of PS/2 computers be powered off before connecting to the KVM Switch. Otherwise, the KVM Switch system might not be properly set up. However, USB computers do not have this limitation.

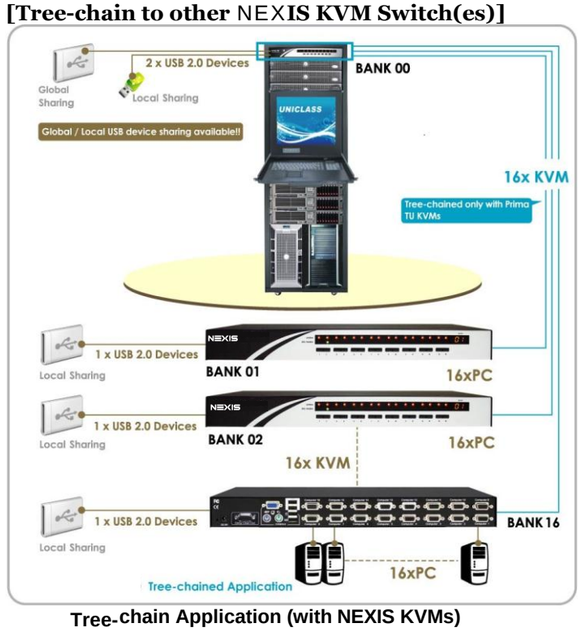
Step 1. Make sure (at least the PS/2) computers that are to be connected to the KVM switch are powered off. If not, power them off.

Step 2. Connect the shared keyboard, mouse and monitor to the console connectors on the rear of your (master) NEXIS KVM switch. Power on the KVM Switch by attaching the power adapter cord.

Although the power is constantly fed through the USB or PS/2 interface from the connected computers, it is still recommended to use the external power adapter for more stability.

If you use only a single KVM switch in non-cascaded application, you should ignore step 3, 4 and 5 and jump directly to step 5.

[Tree-chain to other NEXIS KVM Switch(es)]

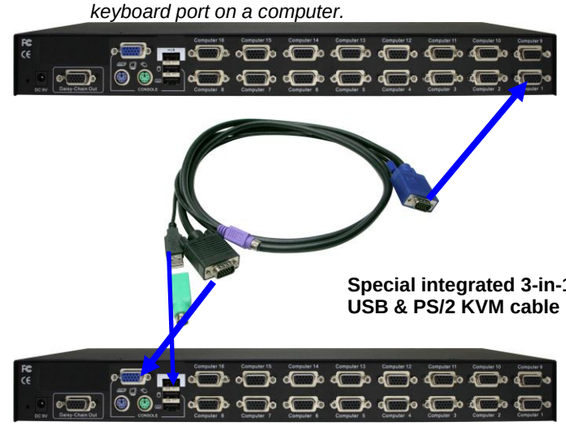


Tree-chain Application (with NEXIS KVMs)

If you want to tree-chain multiple KVM Switches: Go to step 3. <u>You can tree-chain, at every computer (KVM) port, down to **next** level of a maximum of 16 NEXIS KVM Switches, with a maximum cable length of **5M**.</u>

Step 3. Use the special 3-in-1 KVM cable (such as shown below) to connect **<u>any of the computer ports</u>** (HDB 15 female connectors) on the master NEXIS KVM Switch to the <u>console monitor connector as well as the first (global) USB device sharing port (USB type A)</u> of any of the downstream tree-chained NEXIS KVM Switches. Connect the power adapter cord to the second switch to power it on. *Note that the USB-to-PS2 adapter is not needed in tree-chaining application.*

It will be needed only when connecting to a PS/2 keyboard port on a computer.

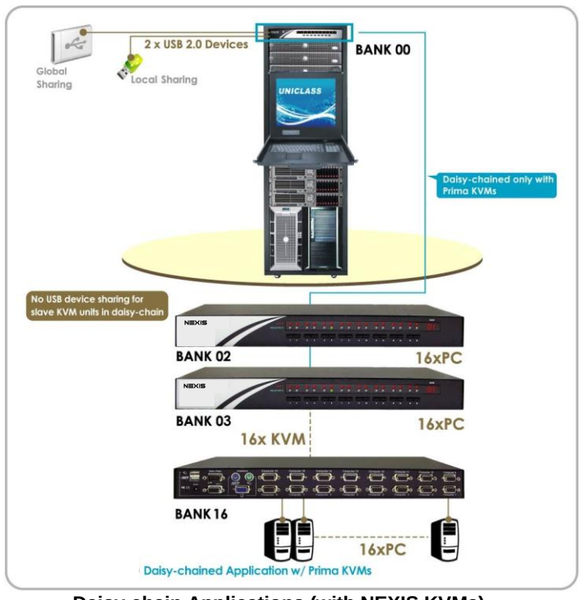


Special integrated 3-in-1 USB & PS/2 KVM cable

Daisy-chain cable **Terminator**

Step 4. If you have yet another switch to be tree-chained, just repeat Step 3 to connect them. You can tree-chain down one level with other 16 units of NEXIS KVM switches.

[Daisy-chaining to NEXIS KVM Switch(es)]



Daisy-chain Applications (with NEXIS KVMs)

The NEXIS KVM Switch is backward compatible to be *daisy-chained* with NEXIS KVM Switches, using the daisychain OUT port. However, if you don't need to daisychain with any NEXIS KVM Switch, just skip Step 5, 6, 7.

If you want to daisy-chain multiple KVM Switches: Go to step 5. <u>You can daisy-chain with NEXIS KVM Switches up to **16** levels for a total daisy-chain cable length of at least **30M** and a maximum total of **256 computers** connected on the daisy-chain. Note that any daisy-chaining attempt to go beyond 30M will suffer trade-off of video degradation as depending on the cable quality.</u>

<u>DAISY-CHAIN USER MUST KNOW:</u> <u>PREVIOUS (OBSOLETE) VERSIONS OF NEXIS KVM SWITCH MIGHT NOT BE COMPATIBLE FOR DAISY-CHAINING WITH THE CURRENT</u>

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NEXIS KVM SWITCH. Erratic behaviors might occur if current and older versions working together. If that is the case, you should upgrade all units to the latest firmware version. If still in doubt, please consult your dealer for more information.

Step 5. Use the daisy-chain cable to connect the **DaisyChain OUT Port** (HDB 15 female) on the master NEXIS KVM Switch to the **DaisyChain IN Port** (HDB 15 male) of the downstream NEXIS KVM switch. Connect the power adapter cord to the second switch to power it on.



Daisy-chain cable



Terminator

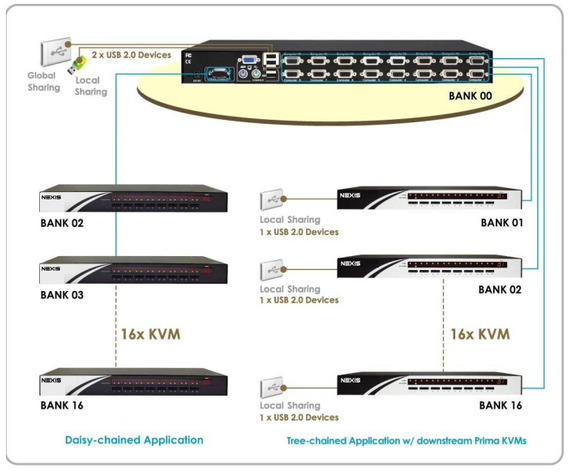
Step 6. If you have yet another switch to be daisy-chained, just repeat Step 5 to connect them. You can daisy-chain up to 16 units of KVM switches. **Plug a terminator onto the Daisy-chain Out Port of the last KVM switch unit.**

No Terminator required if only using a single master NEXIS KVM Switch unit.

Step 7. (*Now your NEXIS KVM switch(es) or daisy-chained NEXIS KVM Switches should have been powered-up and initialized….*) Connect each of your computers to a computer port on the rear of the switch(es). You should use the special USB PS/2 KVM cable (with the USB-to-PS/2 adapter) for connection to a USB computer (PS/2 computer).

The special KVM cable provides a PS/2 keyboard connector, a USB connector and a HDB video connector for computer connection. When connecting with a USB computer, just plug the USB connector to it and leave the PS/2 connector free. When connecting with a PS/2 computer, just add one USB-to-PS/2 adapter to the USB connector and you'll have a PS/2 connector for mouse. **Do not connect both USB connector and PS/2 connector to a computer at the same time.**

Step 8. Power up the connected computers. After your computer is powered up the keyboard and mouse will be recognized and now you can begin operating the switch.

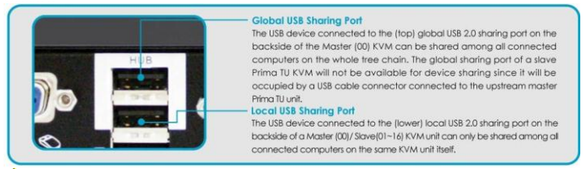


Tree-chain and Daisy-chain Applications

Connect USB devices for either Global / Local USB Sharing Ports

The Global USB sharing port: If you want to share the USB device to any of the computer on the tree-chain, you have to connect the USB device to the Global USB Sharing Port on the master NEXIS KVM Switch. Global USB Sharing Port is available for device connection only on the master NEXIS KVM Switch, since the Global USB sharing ports on the downstream tree-chained NEXIS KVMs will be occupied by the KVM cables.

The Global USB sharing port: If you want to share the USB device only to the computers connected on local NEXIS KVM switch, you have to connect the USB device to the Local USB Sharing Port. Local USB Sharing Port is available for device connection on any NEXIS KVM Switch on the tree-chain.



Note that the USB device sharing will not be available for computers connected on the daisy-chained NEXIS KVM Switches.

Easy Operation

There are three ways to select a specific computer (on a specific switch, if you have multiple daisy-chained KVM switches), using *front-panel push button*, *hotkey sequence* or *OSD Menu.*

Front-panel push buttons

The front-panel buttons let you have direct control over KVM switch operation and channel switching. Simply press a button to switch to its corresponding channel. *See Quick Reference Sheet*

Port Selection hotkeys

Standalone mode: (when using a single NEXIS KVM switch)
ScrLk + **ScrLk** + (*y*) + (*z*)
(*yz = channel no.*)²
e.g. **ScrLk** + **ScrLk** + 1 + 2 → Switch to port 12.

Tree-chained mode:
ScrLk + **ScrLk** + (*a*) + (*b*) + (*y*) + (*z*)
e.g. **ScrLk** + **ScrLk** + 0 + 7 + 0 + 9 → Switch to tree-chained bank 7 port 9

Daisy-chained mode:
ScrLk + ***ScrLk*** + D + (a) + (b) + (y) + (z)
*(*ab = bank no. ; yz = channel no ; D = daisychain.*)²*
e.g. ***ScrLk*** + ***ScrLk*** + D + 1 + 1 + 1 + 2 → *Switch to daisy-chained bank 11 port 12*

A keyboard hotkey sequence consists of at least three specific keystrokes: *See Quick Reference Sheet*

Hotkey sequence = [ScrLk]* + [ScrLk] * + Command key(s)
*** User-definable = SCROLL LOCK, CAPS, F12 or NUM LOCK**

The two consecutive ScrLk keystrokes should be pressed within 2 seconds and the command key(s) that follow should also be pressed within 2 seconds in likewise manner. Otherwise, the hotkey sequence will not be validated.

For detailed Hotkey sequences and their corresponding functional commands. *See Quick Reference Sheet*

For OSD Menu operation, please refer to the following section.

OSD Menu

On the OSD Menu, a computer port will be marked as → *to* indicate that it is tree-chained with a downstream NEXIS KVM, which can be access by selecting that port and hit Enter to access the tree-chain submenu. However, a daisy-chained bank (NEXIS KVM) can be access simply by scrolling down the main menu to next daisy-chained bank listing.

How to Switch USB Sharing Ports

To switch the USB sharing ports – either the Global Sharing Port or Local Sharing Port - to a certain computer port, simply evoke the OSD Main Menu and navigate to the port to which you want to share a USB port, and then hit either **G** for global USB port sharing or **L** for local USB port sharing.



ON the selected PC (PC06), hit **G** for Global USB Sharing, or hit **L** for Local USB Sharing, then you can share the USB device connected on the USB port to the connected computer on that specific computer port.

OSD Menu

To activate the OSD (*On Screen Display*) Menu, use the hotkey sequence:

Activate OSD = *ScrLk + ScrLk + Space Bar*
Deactivate OSD = *ESC (Escape key)*

Main menu



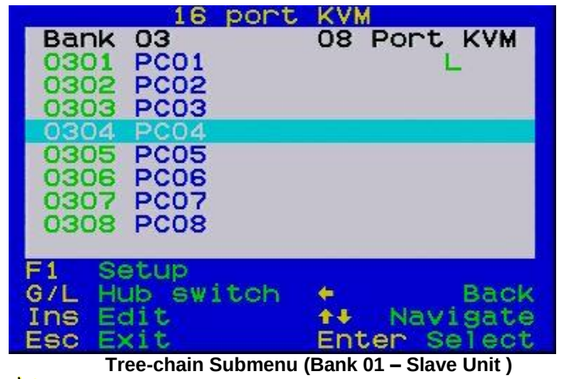
Main OSD Menu (Bank 00 – Master unit)

Select computer: use **Up/Down** Arrow key to navigate, **PgDn/Up** to scroll page to view computers on different banks. Hit **Enter** to select.
Edit computer name: just hit **Insert** to edit and **Enter** to confirm.
F1 : Next Page - rotate through Main Page / Setup page / System Info page
G/L: Switch Global / Local USB Sharing to the target PC port.
F10: Logout - lock your keyboard and mouse for security. Password will be needed to log in.
Esc: Exit the OSD Menu

Standalone mode:
ScrLk + **ScrLk** + (*y*) + (*z*)
(*yz = channel no.*)²
Tree-chained mode:
Standalone mode:
ScrLk + **ScrLk** + (*y*) + (*z*)
(*yz = channel no.*)²
Tree-chained mode:

Current Active Port
USB connection to computer
PS/2 Connection to computer
G Connected currently to the Global Sharing Port on Master NEXIS KVM
L Connected currently to the Local Sharing Port of the specific KVM switch
→ Tree-chain submenu available. Just select and hit Enter to access the Submenu of Bank 01 (the 1st downstream tree-chained KVM switch bank) such as below:

Bank 00: The **"Bank 00"** in black represents the master NEXIS KVM unit.
Bank 01: The **"Bank 01"** in black represents the 1st Tree-chained slave NEXIS KVM unit



Tree-chain Submenu (Bank 01 – Slave Unit)

Note that the Daisy-chained bank will be shown as DBank xx. (D for Daisy-chain)

The computer Bank and Port number will be shown as
0101
0102
….
However, the computer connected to a tree-chained KVM will be shown in green; while the computers connected to a daisy-chained KVM will be shown in red.

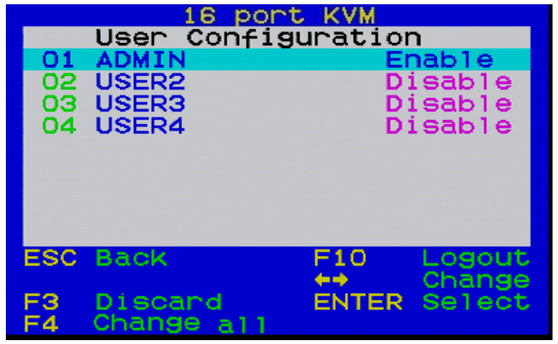
Setup Menu (Admin login)



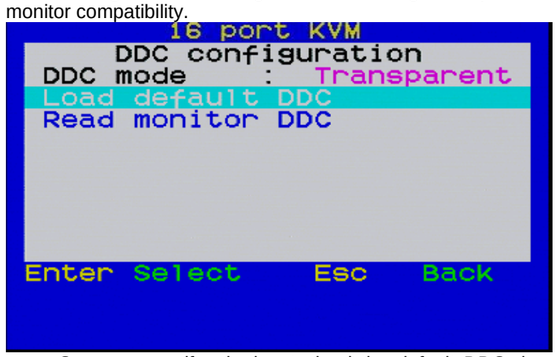
Setup Menu (when logging in with Admin)

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Auto logout: specify time for auto logout (00~99 min)
Hotkey: specify the hotkey preceding sequence (**SCROLL LOCK**, **CAPS**, **F12** or **NUM LOCK)**
Password: specify the password for access
User configuration->(User Profile..): Configure user-specific profile management



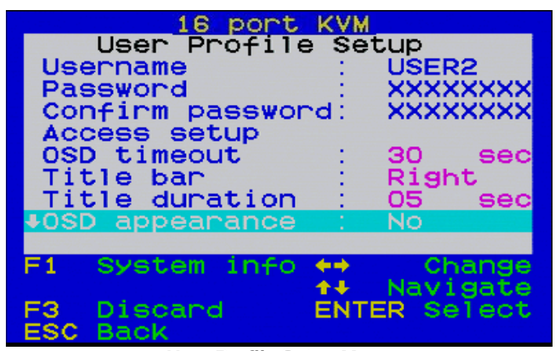
Load Default: Load default setting to all KVM switches in the daisy-chain.
Upgrade Firmware: Enter the Firmware upgrade mode and ready for the firmware upload from a host computer.
DDC configuration: Configure DDC setting for optimized monitor compatibility.



One can specify whether to load the default DDC data set for monitor emulation; or read the DDC data from the connected console monitor, and store it to serve for the purpose of DDC emulation. Normally, the default DDC can be good for most monitors. However, if you find it not compatible for your monitor, you can always ***"Read the monitor DDC"*** and use its original DDC data.

F3: Discard the current change without saving.

User Profile Setup menu (Admin)

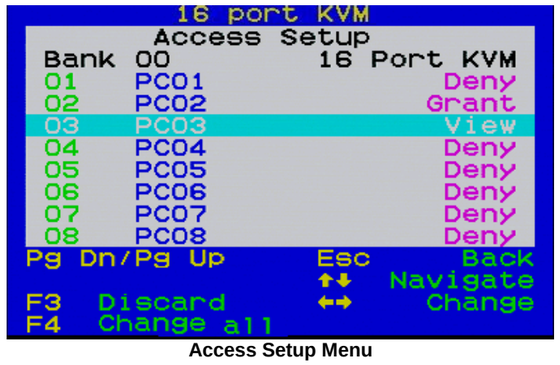


User Profile Setup Menu

User Name: specify the user account name for login.

Password: specify the password for console access
Confirm password: enter the correct password for confirmation.
Access Setup: set up the access privilege per port. There are three different access Privileges:

- **Grant** – Full Access with keyboard/mouse control and monitor.
- **View** – View Only without keyboard/mosue control
- **Deny** – No access (No Video and No keyboard/mouse control)

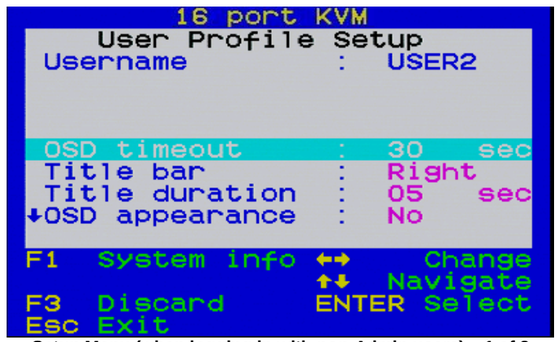


Access Setup Menu

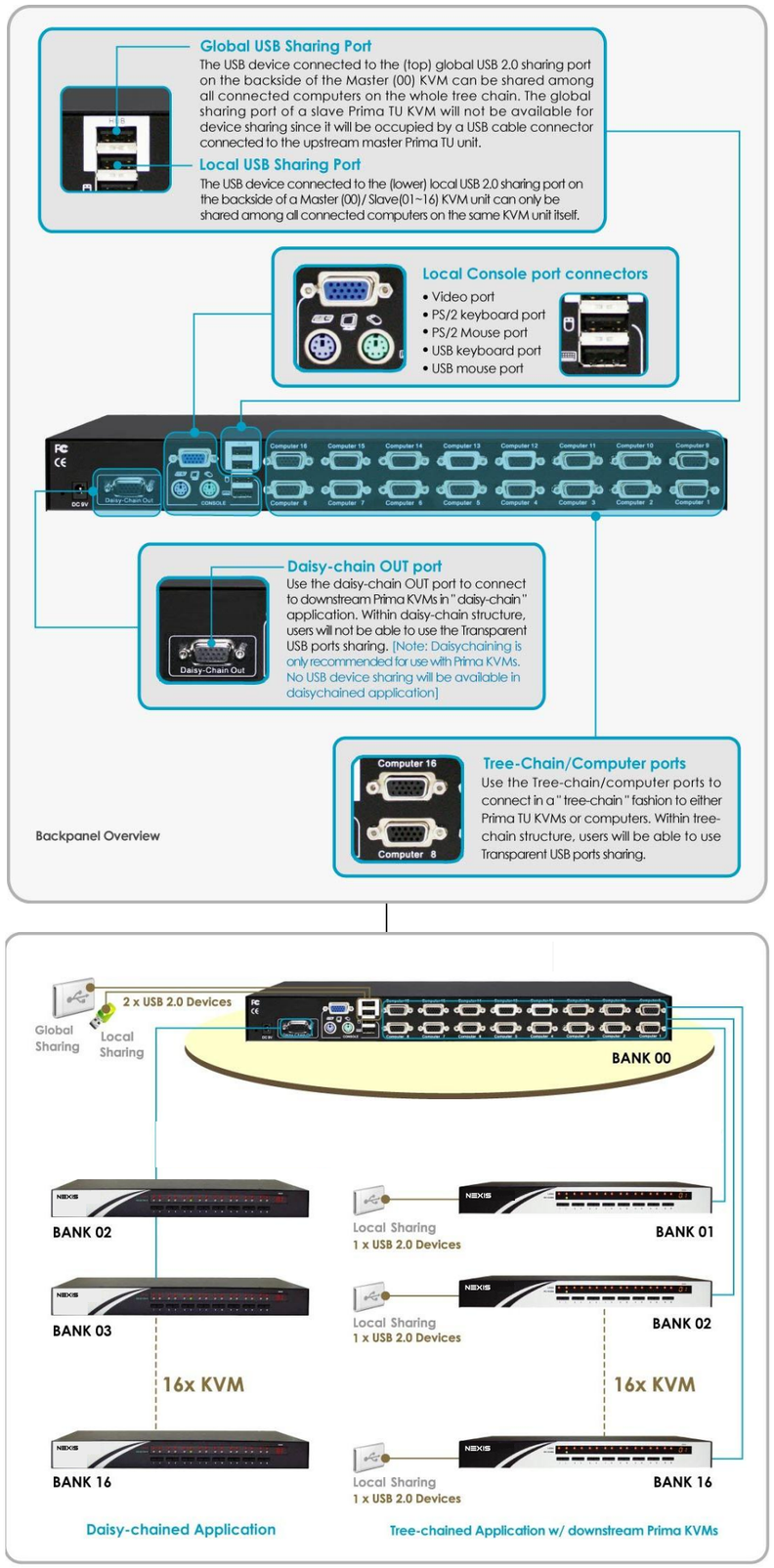
OSD timeout: specify duration for OSD menu to stay on screen
Autoscan period: specify time for autoscan period
Title bar: enable/disable the title bar, and also specify its position. There are five title bar options:
Disable - Disable the title bar
Left – Title bar on left
Right – Title bar on left
Left ⊗ (Left Timeout) – Title bar on left for 5 seconds
Right ⊗ (Right Timeout) – Title bar on right for 5 seconds
Title Bar Duration: Specify the timeout for the OSD title bar
OSD Appearance: Specify whether you want to keep or hide the OSD menu after port switching operation.

User Profile Setup menu (Users other than Admin)

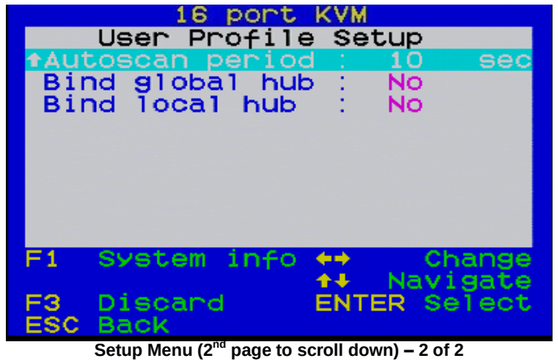
If you log in with a non-admin user name, then you will see a more limited user profile setup menu such as below:



Setup Menu (when logging in with non-Admin users) – 1 of 2



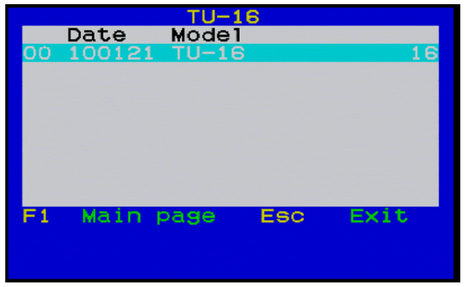
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Setup Menu (2nd page to scroll down) – 2 of 2

Autoscan Period: to specify the Autoscan delay time.
Bind global hub: Bind the global hub to computer port switching
Bind local hub: Bind the local hub to computer port switching

System Info Menu



FC CE **RoHS Compliant**

Quick Reference Sheet

QUICK REFERNCE SHEET for NEXIS KVM Switch -- Operation Commands Hotkeys/ OSD Menu / Front-Panel Buttons
Hotkey sequence = [ScrLk]* + [ScrLk]* + Command key(s) * User-definable Preceding sequence = SCROLL LOCK, CAPS, F12 or NUM

Command	Hotkeys	OSD control[1]	Front-panel	Description
Select Computer	Standalone mode: **ScrLk** + **ScrLk** + *(y)* + *(z)* (*yz = channel no.*)[2] Tree-chained mode: **ScrLk** + **ScrLk** + *(a)* + *(b)* + *(y)* + *(z)* Daisy-chained mode: **ScrLk** + **ScrLk** + *D* + *(a)* + *(b)* + *(y)* + *(z)* (*ab = bank no. ; yz = channel no ; D = daisychain.*)[2]	*Cursor keys to navigate* *Enter to select*	*Press corresponding button yz on Switch ab for channel yz on bank ab.*	Select the active bank (switch) and channel
Global Sharing of USB	G *Hit G key only when OSD Main Menu is activated*	G *Hit G key only when OSD Main Menu is activated*	--	Switch the Global Sharing USB port to the selected computer
Local Sharing of USB	L *Hit L key only when OSD Main Menu is activated*	L *Hit L key only when OSD Main Menu is activated*	--	Switch the Local Sharing USB port to the selected computer
Next lower channel	**ScrLk** + **ScrLk** + ↑ **(arrow up)**	*Cursor keys to navigate* *Enter to select*	*Press corresponding button*	Select the next lower connected channel within the current active bank
Next higher channel	**ScrLk** + **ScrLk** + ↓ **(arrow down)**	*Cursor keys to navigate* *Enter to select*	*Press corresponding button*	Select the next higher connected channel
Next lower bank	**ScrLk** + **ScrLk** + **PgUp**	*PgUp (w/ OSD Menu)*	*Press corresponding button on that switch*	Select the next lower bank (switch) when with multiple daisy-chained units
Next higher bank	**ScrLk** + **ScrLk** + **PgDn**	*PgDn (w/ OSD Menu)*	*Press corresponding button on that switch*	Select the next higher bank (switch) when with multiple daisy-chained units
Autoscan Beep Sound On/Off	**ScrLk** + **ScrLk** + **B**	--	--	Toggle on/off the beep sound for switching confirmation while autoscanning
Define Hotkey Preceding Sequence	**ScrLk** + **ScrLk** + **H** + **(y)** *y = SCROLL LOCK, CAPS, F12 or NUM LOCK*	*Main Menu/Setup/Hotkey* *[SCROLL LOCK, CAPS, F12 or NUM LOCK]*	--	Select the hotkey preceding sequence among 5 alternative keys
Load Default	--	*Main Menu / Setup / Load Default*	--	Restore all settings (Autologout, OSD timeout, etc.) on all KVM switch to the factory default ** This will not affect password*
OSD Appearance	--	*Main Menu / Setup /OSD Appearance*	--	Specify whether you want to keep or hide the OSD menu after port switching operation.
Change Computer Name	--	*Cursor keys to navigate* *Enter (Ins) to select/edit*	--	Change the computer name [max. length = 8 alphanumeric characters]
Previous PC channel	**ScrLk** + **ScrLk** + ← *(Backspace)*	--	Toggle between the previous channel and current channel	**Previous PC channel**
Show OSD Menu	**ScrLk** + **ScrLk** + (Space Bar)	--	--	Activate the OSD Menu on the console screen
Autoscan	**ScrLk** + **ScrLk** + **S**	--	--	Autoscan through every connected channel for quick screen browsing of each channel.
Stop Autoscan	*Any key*	--	*Press any push button*	Terminate Autoscan activity
Autoscan Period [5 ~ **10** ~ 95 seconds]	--	*Main Menu / Setup / Autoscan period*	--	Specify delay time within a range of 5 ~ 99 seconds [default = 10 sec]
Auto Logout Timeout Enable/Disable [**0** ~ 99 min]	--	*Main Menu / Setup / Auto Logout*	--	Specify the time out for auto logout – screen /keyboard/mouse locked after timeout period for security. (default = 0 = disable)
OSD Menu Timeout [0 ~ **60** ~ 95 seconds]	--	*Main Menu / Setup / OSD Timeout*	--	Specify the timeout for OSD menu [default = 60 seconds; 0 = disable]
OSD Title Bar On/Off [**ON**/OFF]	**ScrLk** + **ScrLk** + **T**	--	--	Enable/disable the OSD Title Bar [default = ON]
OSD Title Bar Position [**Left**/Right]	--	*Main Menu / Setup / Title Bar*		Select the OSD title bar position on your screen
Setup Password [3] [**Disable**/Enable]	--	*Main Menu / Setup / Setup Password*	--	Enable/disable password protection [default == disable; password length <= 8 characters]

Notes:
1. OSD Menu control is only available when the OSD menu is activated on the screen. To activate the OSD menu, use the hotkey sequence ScrLk + ScrLk + *(Space Bar)*. For detailed OSD operation reference, please refer to the *User Guide. When OSD Menu is active, the mouse will be locked until the OSD Menu is off. For detailed OSD function, please refer to previous OSD Menu section.*
2. Note that a, b, y *and* z *each denotes a number key. (ab) = 01 ~ 16 ; (yz) = 01 ~ 08. For example, ScrLk + ScrLk + 03 + 06 is for bank 3 port 6. When using a single KVM Switch configuration, the default bank no. is 01, therefore hit ScrLk + ScrLk + 01 + 12 for port 12 for a single KVM Switch configuration.*
3. The password is up to 8-character length. You should remember the password since it is required for access to your KVM switch once you enable the password protection for your KVM switch. However, if you forget the password and thus are blocked from KVM access, you should contact your local dealer for tech support.

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