

ALTUSCN™

Enterprise KVM Solutions by ATEN

Online Registration International:
• <http://support.aten.com>
North America:
• http://www.aten-usa.com/product_registration (ATEN TECH)
• <http://support.aten.com> (ATEN NJ)

Technical Phone Support International:
• 886-2-86926959
North America:
• 1-888-999-ATEN (ATEN TECH)
• 1-732-356-1703 (ATEN NJ)

KL3116 / KL3116T LCD KVMP Switch Quick Start Guide

© Copyright 2008 ATEN® International Co., Ltd. www.aten.com
Altusen and the Altusen logo are trademarks of ATEN International Co., Ltd.
All rights reserved. All other trademarks are the property of their respective owners.
This product is RoHS compliant PAPE-1214-N01G Printing Date: 01/2009



1 Package Contents

The basic KL3116 / KL3116T package consists of:

- | | |
|---|---------------------|
| 1 KL3116 / KL3116T LCD KVMP Switch with Standard Rack Mount Kit | 1 User Manual |
| 2 Custom KVM Cable Sets | 1 Quick Start Guide |
| 1 Custom Console Cable Set | 1 Registration Card |
| 1 Firmware Upgrade Cable | |
| 1 Power Cord | |
| 1 Grounding Wire | |

Optional Equipment

Depending on any optional equipment that you may have purchased, one of the following may be included in your package:

- Standard Rack Mounting Kit - Long
- Easy-Installation Rack Mounting Kit - Short
- Easy-Installation Rack Mounting Kit - Long

2 Requirements

External Console

The following hardware components are required for the external console:

- A VGA, SVGA, or multisync monitor capable of displaying the highest resolution provided by any computer in the installation.
- A USB or PS/2 keyboard and mouse

Computers

The following equipment must be installed on each computer:

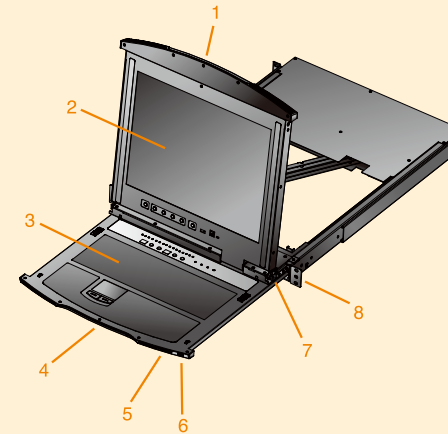
- A VGA, SVGA, or multisync video graphics card with an HDB-15 port.

Note: The integrated LCD monitor's maximum resolution is 1280 x 1024 @ 75 Hz. Make sure that none of the computer resolution settings exceed the LCD monitor's maximum resolution.

- PS/2 mouse and keyboard ports (6-pin Mini-DIN), or at least one USB port.
- Direct support Sun USB systems; or, for Sun legacy systems, an ATEN CV130A Sun Console Converter.

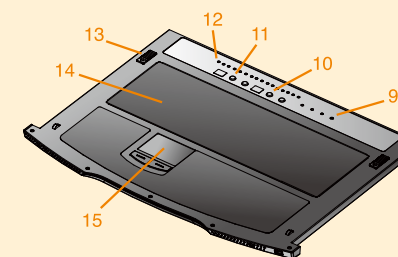
3 Hardware Review (Front View)

1. Upper Handle
2. LCD Module
3. Keyboard Module
4. Lower Handle
5. Power LED
6. External Mouse Port
7. LCD Release Catch
8. Rack Mounting Brackets



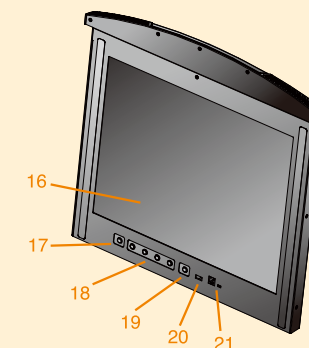
Keyboard Module

9. Lock LEDs & Reset Switch
10. Station Selection Area
11. Port Selection Area
12. Port LEDs
13. Keyboard Release Catch
14. Keyboard
15. Touchpad



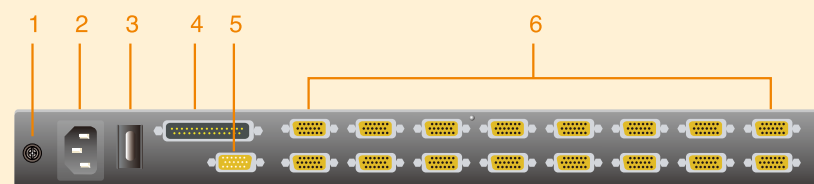
LCD Module

16. LCD Display
17. KVM OSD Button (KL3116T)
18. LCD OSD Controls
19. LCD Power Button
20. USB Port
21. Firmware Upgrade Section



4 Hardware Review (Rear View)

1. Grounding Terminal
2. Power Socket
3. Power Switch
4. Daisy-chain Port
5. External Console Port
6. KVM Ports



5 Hardware Installation

Standard Rack Mountin

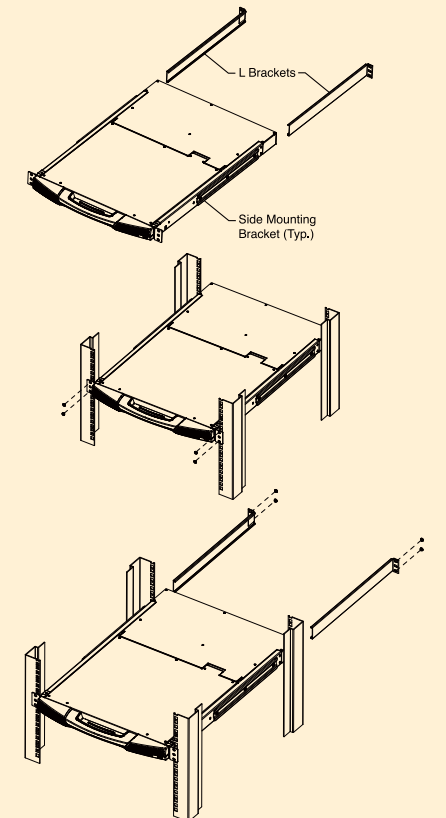
IA standard rack mounting kit is provided with your KL3116 / KL3116T. The kit enables the switch to be mounted in rack with a depth of 42–77 cm.

To rack mount the switch, do the following:

1. While one person positions the switch in the rack and holds it in place, the second person loosely screws the front brackets to the rack.

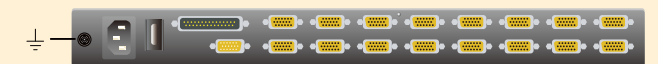
2. While the first person still holds the switch in place, the second person slides the L brackets into the switch's side mounting brackets, from the rear until the bracket flanges contact the rack, then screws the L brackets to the rack.

3. After the L brackets have been secured, tighten the front bracket screws.



Grounding

To prevent damage to your installation it is important that all devices are properly grounded. Use a grounding wire to ground the KL3116 / KL3116T by connecting one end of the wire to the grounding terminal, and the other end of the wire to a suitable grounded object.



5-1 Hardware Installation

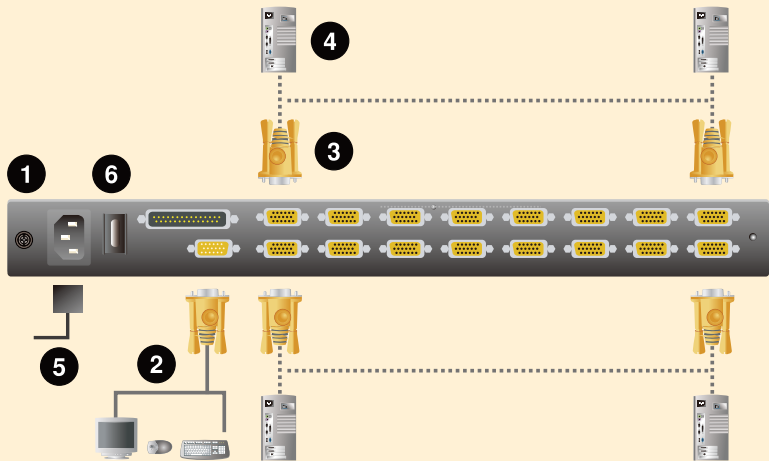
Single Level Installation

In a single level installation, there are no additional switches daisy-chained down from the first unit. To set up a single level installation, refer to the installation diagram (the numbers in the diagram correspond to the numbers of the installation steps) and do the following:

1. Ground the KL3116 / KL3116T.
2. (Optional) Using the provided console cable set, plug the custom SPHD connector into the console port on the rear panel of the switch. Connect the external console's monitor and USB (or PS/2) keyboard and mouse to the appropriate connectors on the other end of the console cable.
3. Using a KVM cable set, plug the custom SPHD connector into any available KVM port on the switch.
Note: Ignore the daisy-chain port at this time. It is only used when daisy-chaining additional switches.
4. At the other end of the cable:
 - a) For a USB connection, plug the USB and video cables into their respective ports on the computer.
 - b) For a PS/2 connection, plug the keyboard, mouse and video cables into their respective ports on the computer.Repeat steps 2 and 3 for any additional computers you are installing.
5. Connect the power cord to the switch and to an AC power source appropriate for the KL3116 / KL3116T.
6. Power on the switch.
7. After the switch is powered on, power on the computers.

5-2 Hardware Installation

Single Level Installation Diagram



6 Operation

Operation 1

Basic Operation

LCD OSD Configuration - The LCD OSD allows you to set up and configure the LCD display. Four LCD buttons are used to perform the configuration.

Port Selection - The KL3116 / KL3116T provides three port selection methods to access the computers on the installation: manual, an OSD (on-screen display) menu system, and hotkeys.

Hot Plugging - The KL3116 / KL3116T supports hot plugging - components can be removed and added back into the installation by unplugging their cables from the ports without the need to shut the unit down.

Powering Off and Restarting - If it becomes necessary to power off one of the units, please shut down all the computers that are attached to it, wait 10 seconds then plug the switch back in. After the station is up, power on the computers.

Port ID Numbering - Each computer port on a KL3116 / KL3116T installation is assigned a unique port ID. The port ID is made up of two parts: a station number, and a port number.

Operation 2

OSD Operation

- To invoke the OSD Main Menu, tap the OSD key once, tap the [Scroll Lock] key twice, or press the KVM OSD button on the LCD module.
- The OSD incorporates a two level (Administrator / User) password system. If this is the first time that the OSD is being run, or if the password function has not been set, simply press [Enter].
- The OSD Main Screen comes up in Administrator Mode. In this mode, you have administrator privileges, with access to all Administrator and User functions, and can set up operations, as you like.

6-1 Operation

OSD Port Selection

To bring the KVM focus to a port, double-click it, or move the highlight bar to it then press [Enter].



Operation 3

Hotkey Operation

To invoke Hotkey Setting Mode (HSM), do the following:

- Press and hold down the **Num Lock** key
- Press and release the **Minus [-]** key
- Release the **Num Lock** key

Operation 4

Hotkey summary table

After invoking Hotkey Setting Mode, key in one of the following keys to perform the corresponding function:

[Num Lock] + [-] or [Ctrl] + [F12]	[A] [Enter] or [Q] [Enter]	Invokes Auto Scan mode. When Auto Scan mode is in effect, [P] or left-click pauses auto-scanning. When auto-scanning is paused, pressing any key or another left-click resumes auto-scanning.
	[B]	Toggles the beeper on or off.
	[Esc] or [Spacebar]	Exits hotkey mode.
	[F1]	Set Operating System to Windows
	[F2]	Set Operating System to Mac
	[F3]	Set Operating System to Sun
	[F5]	Performs a keyboard / mouse reset on the target computer.
	[H]	Toggles the Quick Hotkey invocation keys between [Ctrl] + [F12] and [Num Lock] + [-].
	[R] [Enter]	This administrator only hotkey restores the switch's default values.
	[SN][PN] [Enter]	Switches access to the computer that corresponds to that port ID.
	[T]	Toggles the OSD Hotkey between [Ctrl] [Ctrl] and [Scroll Lock] [Scroll Lock].
	[←]	Invokes Skip mode and skips from the current port to the first accessible port previous to it.
	[→]	Invokes Skip mode and skips from the current port to the next accessible port.
	[↑]	Invokes Skip mode and skips from the current port to the last accessible port of the previous station.
	[↓]	Invokes Skip mode and skips from the current port to the first accessible port of the next station.

Operation 5

Touchscreen Calibration

To calibrate the touchscreen, do the following:

- Invoke the OSD and access the F3: Set function.
- Scroll down the list and select one of the following:
 - OSD CALIBRATION – use to calibrate the OSD.
 - TWO-POINT CALIBRATION – use when calibrating a port for the first time.
 - ONE-POINT CALIBRATION – use to quickly recalibrate a port that has already been calibrated using the two-point calibration method.
- Follow the on-screen instructions for calibrating the touchscreen.

6-2 Operation

Alternative Touchscreen Cursor Synchronization

You can use the one-point calibration method to resynchronize the cursor , or use the following method to resynchronize the cursor without having to access the OSD.

- Touch the center of the screen.
- Keeping your finger on the screen, move the cursor to the closest corner of the screen.
- Lift your finger from the touchscreen and touch the cursor. The cursor should track properly when you move your finger across the screen.

7 Specification

Function			KL3116 / KL3116T
Computer Connections	Direct		16
	Max		512 (via daisy-chain)
Port Selection			OSD, Hotkey, Pushbutton
Connectors	External Console Port		1 x SPHD-18 (Male)
	External Mouse Port		1 x USB Type-A (Female)
	KVM Ports		16 x SPHD-15 (Female)
	Daisy-chain		1 x DB-25 (Male)
	FW Upgrade		1 x RJ-11 (Female)
	Power		1 x 3-prong AC Socket
	USB 1.1 Hub		1 x USB Type-A (Female)
Switches	Reset		1 x Semi-recessed Pushbutton
	Power		1 x Rocker Switch
	Firmware Upgrade		1 x Switch
	LCD Adjustment		4 x Pushbutton
	LCD Power		1 x LED Pushbutton (Orange)
	KVM OSD		1 x Pushbutton (available on the KL3116T only)
	Port Selection		2 x Pushbutton
	Station Selection		2 x Pushbutton
LEDs	On Line		16 (Green)
	Port ID		2 x 7-segment LED Display (Yellow)
	Station ID		2 x 7-segment LED Display (Yellow)
	Power		1 (Blue)
	Lock	Num	1 (Green)
		Caps	1 (Green)
Scroll		1 (Green)	
Emulation	Keyboard / Mouse		PS/2, USB
Video			1280 x 1024 @ 75 Hz; DDC2B
Scan Interval (OSD Select)			1–255 sec.
I/P Rating			100–240 VAC, 50/60 Hz, 1 A
Power Consumption			120V, 27.5W / 230V, 28W
Environment	Operating Temp.		0–40°C
	Storage Temp.		-20–60°C
	Humidity		0–80% RH, Noncondensing
Physical Properties	Housing		Metal + Plastic
	Weight		17.10 kg
	Dimensions (L x W x H)		63.40 x 48.20 x 4.40 cm