

OriginKVM 8250



Product Manual

High Performance KVM Switch

thinklogicaltm

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thinklogical[™]
The Future of Access and Control

Subject: OriginKVM 8250, 8x2 KVM Switch
Revision: C, February 2010

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1. Introduction

1.1. Contents

When you receive your Thinklogical OriginKVM 8250™, you should find the following items:

- OriginKVM 8250 Switch – KVM-008250
- AC Power Cord – PWR-000006-R (International connections may differ)
- OriginKVM 8250 Cable Kit – KIT-000063-R
- OriginKVM 8250 Product Manual CD

1.2. Product Overview

Thinklogical's OriginKVM 8250™ is a high performance KVM switch that enables true, simultaneous multi-user access from two user stations. The design allows users to access and switch between eight multi-platform servers. The OriginKVM 8250 improves operational productivity from the simplest to the most complex requirements and for a variety of applications such as hardware/software development and testing labs, network server management and multi-workstation operation.



FIGURE 1: Rear View of OriginKVM 8250.

PART NUMBER	DESCRIPTION
KVM-008250	OriginKVM 8250 Switch, DVI USB 8 IN x 2 OUT

2. System Features

2.1. General System Features

The Thinklogical OriginKVM 8250™ is a 2 user, 8 CPU switch. CPU connection ports 1 and 2 provide either PS2 or USB interface to the PC. Ports 3 through 8 provide USB connections to the PC.

The OriginKVM 8250 is built with Thinklogical's unique communication actuation technology which allows for Out Of Band Control. This feature gives users the ability to select ports, configure servers in the rack, assign names to servers and easily select and monitor them via on-screen menus. In addition, the OriginKVM 8250 supports USB 1.0 HID device emulation and PS2/USB conversion. This feature dedicates an individual device emulator to each connected computer, allowing the computer to have a continuous connection to the keyboard and mouse even when the CPU is not selected. This ensures flawless boot up of computers running a variety of operating systems. In addition, video intensive applications now benefit with OriginKVM 8250's DVI support. This feature maintains superior high resolution video quality over short or long cable lengths.

Each OriginKVM 8250 system includes the following features:

- Multi-user, simultaneous (2) user stations with access to 8 PCs
- CPU Ports 1 and 2 have the option of USB Keyboard and Mouse or PS/2 Keyboard and Mouse.
- KVM switch with DVI performance video support
- Easily **configure, select and manage your system and servers via Thinklogical's™** unique communication actuation technology and BIOS level access.
- DDC pass through for HDMI support
- USB pass through for support of USB 2.0 devices of any kind
- User collaboration in order for 2 users to work on the same CPU at the same time (HDMI and USB pass through for one user only while collaborating).
- Scalable for multiple applications such as dual display, triple display, or quad display.
- **Units are stand alone and rack mountable (brackets included).**

2.2. Technical Specifications

OriginKVM 8250	
Storage Temperature	-20 to 70°C (-4 to 158°F), 10 to 90% RH, non-condensing
Power Supply Voltage	100 to 240 VAC, 50/60 Hz
Power Consumption	26 Watts, typical
Heat Dissipation	89 BTUs per hour
Panel Connectors	<p>(2) Dual PS2 Keyboard and Mouse Connectors (8) USB (B) Connectors (8) HDMI Connectors (3) USB (B) Connectors for Updates (2) HDMI Connectors for Displays (8) USB (A) Connectors - HID Keyboard and Mouse for Users- (3) HID, (1) USB2.0 per User (1) Power Input with On/Off Switch (8) 3.5mm Audio Input Jacks (2) 3.5mm Audio Output Jacks for Users</p> <p>Refer to Section 3.3 for a view of the Rear Panel.</p>
Front Panel Display	2 x 24 Liquid Crystal Display
Operating Temperature and Humidity	0 to 50 °C (32 to 122 °F); 5 to 95% RH, non-condensing
Enclosure Dimensions	Approx. 14.25 x 17.50in x 1.75in high (36.2cm x 44.5cm x 4.4cm high)
Weight	11 lb (4.99 kg)
Shipping Weight	27 lbs (12.25 kg)
Copper Cables	<p>KIT-000063-R (CABLE KIT) contains the following:</p> <p>(8) Audio Cables, 3.5mm Male to Male, 6FT Thinklogical Part Number: CBL-000016-006-FR</p> <p>(4) PS/2 Male to PS/2 Male, 6FT Thinklogical Part Number: CBL000006-006FR</p> <p>(8) USB Type A to USB Type B Cable, 6 Feet Thinklogical Part Number: CBL000015-006FR</p> <p>(10) HDMI Male to DVI Male Cable, 2 Meters Thinklogical Part Number: CBL000030-002MR</p>

2.3. Product Overview

2.3.1. Mounting the OriginKVM 8250

You may choose to rack mount your OriginKVM 8250 or place it on a shelf or desktop (feet included). The front panel display should be visible and front panel buttons accessible. All connections are made to the rear of the chassis.

2.3.1.1. Rack Mount or Desktop

The OriginKVM 8250 may be installed in an EIA-standard 19 inch rack (1U tall), or placed on a shelf or desktop. For shelf use, attachable rubber feet are provided and the rack mounted brackets can be easily removed. The OriginKVM 8250 chassis does not need to be opened or accessed. The sturdy metal case allows units to be stacked as required.

NOTE: Be sure to leave adequate ventilation space on both sides of the units, especially if units are being stacked. Each rack mount bracket is held on by 4 screws. The brackets may be positioned so that the unit sits forward or is recessed in your rack. If the brackets are removed or repositioned, it is not necessary to re-use the left-over rack mount screws.

2.3.2. Front Panel Display and Buttons

The front-panel LCD display should be visible and accessible for system setup. The front panel buttons are used to configure special video settings and to review existing OriginKVM 8250 configurations.

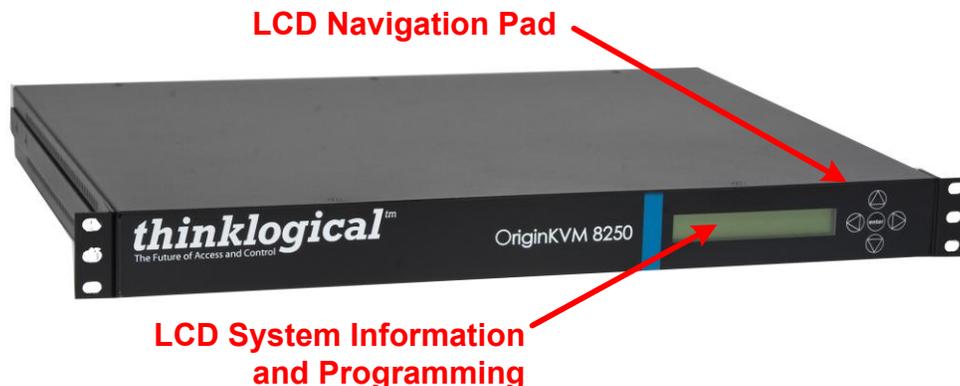


FIGURE 2: *OriginKVM 8250 Front Panel LCD Display*

2.3.3. Convection Cooled

The OriginKVM 8250 does not require special cooling or ventilation other than what is normally provided in the equipment rack. No fan means that it does not add to the ambient noise in your equipment room and it is less prone to equipment failure. Be sure not to block the air vents on the sides of the unit, and leave space on both sides. If mounted in an enclosed rack, it is recommended that the rack have an adequate ventilation fan to provide airflow through the unit(s).

3. Connecting the OriginKVM 8250

All physical connections to the product use industry-standard connectors. All connections are found on the rear of the unit.

3.1 The Front Panel



FIGURE 3: *OriginKVM 8250 Front Panel*

3.1.1 The Front Panel Menu

The Front Panel Menu is arranged as follows:

Display	Modifiable	Description
*Connections		
User1 Source	YES	Display and selects the number of the CPU selected by user 1
User2 Source	YES	Display and selects the number of the CPU selected by user 2
Display	Modifiable	Description
*Out Of Band Cntrl		
User 1 Resolution	YES	Resolution of user 1 in band control
User 1 Color	YES	Color of user 1 in band control
User 1 Alt. HOT Key	YES	Select for Apple Keyboard user 1
User 1 Scan Mode Delay	YES	# of seconds a CPU is displayed in scan mode for user 1
User 2 Resolution	YES	Resolution of user 2 in band control
User 2 Color	YES	Color of user 2 in band control
User 2 Alt. HOT Key	YES	Select for Apple Keyboard user 2
User 2 Scan Mode Delay	YES	# of seconds a CPU is displayed in scan mode for user 1

Display	Modifiable	Description
*USB-1 Country Code		
USB-1 Country	NO	For CPU 1 the country code of the USB KB that the device reports itself as being. This is the last USB KB country applied to the remote host. Most hardware is not localized and thus this value will be zero (0), which is displayed As "Not Supported."
USB-1 Device Enum	NO	For CPU 1 a bit pattern that indicates which ports have been enumerated at the device side. The bits are laid out as Bit0=KB, Bit1=MS, Bit2=TBLT, Bit3=DWNLD, Bit4=Daughter Card_KB, Bit5=Daughter_MS, Bit6=Daughter_TBLT.

Display	Modifiable	Description
*PS2-1 Devices		
PS2-1 KB Scan Code	NO	For CPU 1 indicates a value of 1, 2 or 3 for the scan code that the device is told to emulate. If 0, then the keyboard is not properly connected to the CPU.
PS2-1 Mouse	NO	For CPU 1 indicates a value of 0, 3 or 4 for the mode that the device is told to emulate. If 255, then the mouse is not properly connected to the CPU.

Display	Modifiable	Description
*USB-2 Country Code		
USB-2 Country	NO	For CPU 2 the country code of the USB KB that the device reports itself as being. This is the last USB KB country applied to the remote host. Most hardware is not localized and thus this value will be zero (0), which is displayed As "Not Supported."
USB-2 Device Enum	NO	For CPU 2 a bit pattern that indicates which ports have been enumerated at the device side. The bits are laid out as Bit0=KB, Bit1=MS, Bit2=TBLT, Bit3=DWNLD, Bit4=Daughter Card_KB, Bit5=Daughter_MS, Bit6=Daughter_TBLT.

Display	Modifiable	Description
*PS2-2 Devices		
PS2-2 KB Scan Code	NO	For CPU 2 indicates a value of 1, 2 or 3 for the scan code that the device is told to emulate. If 0, then the keyboard is not properly connected to the CPU.
PS2-2 Mouse	NO	For CPU 2 indicates a value of 0, 3 or 4 for the mode that the device is told to emulate. If 255, then the mouse is not properly connected to the CPU.

Display	Modifiable	Description
<ul style="list-style-type: none"> System 		
Cntrl. Rev.	NO	Revision of Origin Mux Control Code
Host 1 Rev	NO	Host for user 1 revision
Host 2 Rev	NO	Host for user 2 revision
Device 1 Rev	NO	Revision of device connected to CPU 1
Device 2 Rev	NO	Revision of device connected to CPU 2
Device 3 Rev	NO	Revision of device connected to CPU 3
Device 4 Rev	NO	Revision of device connected to CPU 4
Device 5 Rev	NO	Revision of device connected to CPU 5
Device 6 Rev	NO	Revision of device connected to CPU 6
Device 7 Rev	NO	Revision of device connected to CPU 7
Device 8 Rev	NO	Revision of device connected to CPU 8
Debug Values	YES	Factory Debug facility
<ul style="list-style-type: none"> DDC 		
Acquire DDC from USER1	YES	Loads USER1 monitor's DDC Table into all CPU
Get Default DDC	YES	Loads Thinklogical default DDC Table

3.1.2 Out of Band Control

The Out Of Band Control is presented as follows:

```
USER1 SELECT CPU & PRESS ENTER
1 ► CPU 1 - WINDOWS XP.
    CPU 2 - LINUX 39.
    CPU 3 - UNASSIGNED NAME
    CPU 4 - UNASSIGNED NAME
    CPU 5 - UNASSIGNED NAME
    CPU 6 - UNASSIGNED NAME
    CPU 7 - UNASSIGNED NAME
2 ► CPU 8 - UNASSIGNED NAME
    SCAN MODE
```

The integrated ***Out Of Band Control** is accessed by users by pressing **Scroll Lock** twice within **2 seconds**. (For Apple keyboard users, see Appendix B on page 17.) This feature gives users the ability to select ports, configure servers in the rack, assign names to servers and easily select and monitor them via on-screen menus. CPUs are selected by pressing the up or down arrow key or by pressing the number of the CPU you wish to access. This will move the user number, (shown on the left) to the desired CPU. Once the desired CPU is selected enter is pressed to confirm selection. If a CPU is being used, the CPU can be viewed but the keyboard and mouse will be controlled by the first user to access the CPU.

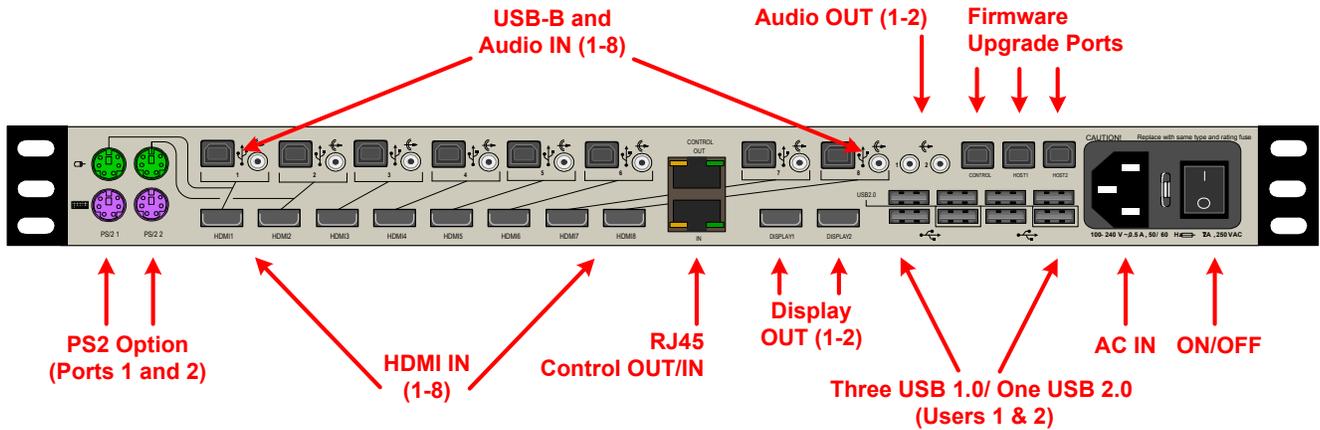
To take control of the keyboard and mouse, press the letter **"t"** just before pressing **enter** to select the CPU.

CPUs may be named by pressing the right arrow key and typing in a name. Pressing **enter** will store the name in non-volatile memory. The user interface will slowly shift positions diagonally down and to the right in order to prevent burning a retentive image onto the screen.

*Out Of Band Control resolution is selected via the front panel of the 8250. Resolutions provided are 1024x768, 1280x1024 and 1600x1200. The color of the Out Of Band Control may also be selected from the options of Green, Cyan, Red, Magenta and Yellow.

When the user selects Scan Mode, the Origin 8250 will first display the number of the CPU to be presented, then video from the CPU. The port number and the CPU will each be shown for ½ the number of seconds specified on the front panel "UserX Scan Mode Delay" menu. After the specified number of "UserX Scan Mode Delay" seconds, the next CPU will be selected.

3.2 The Rear Panel



3.3 Cable KIT-000063-R

PS/2 to PS/2 Male, 6' (CBL-000006-006FR) – Qty 4

USB A-B, 6' (CBL-000015-006FR) – Qty 8

HDMI to DVI, 6' (CBL-000030-002FR) – Qty 10

3.5mm M/M Audio, 6' (CBL-000016-006FR) – Qty 8

4. Installation

Please refer to the **Quick Start Guide** included in **Appendix A** on page 16.

5. Regulatory and Safety Compliance

5.1 Safety Requirements

5.1.1 Symbols Found on Product

Markings and labels on the product follow industry-standard conventions. Regulatory markings found on the products comply with domestic and many international requirements.

5.2 Regulatory Compliance

Thinklogical Inc. products are designed and made in the USA. Our products have been tested by a nationally certified testing laboratory and found to be compliant with the following standards (both domestic USA and many international locations).

5.2.1 North America

These products comply with the following standards:

Safety

- ANSI/UL60950-1: 1st Edition (2003)
- CAN/CSA C22.2 No. 60950-1-03

Electromagnetic Interference

- FCC CFR47, Part 15, Class 1
- Industry Canada ICES-003 Issue 2, Revision 1

5.2.2 Australia & New Zealand

This is a Class 1 product. In a domestic environment this product may cause radio interference, in which case the user may be required to take corrective measures.

5.2.3 European Union

5.2.3.1 Declaration of Conformity

Manufacturers name and address:

Thinklogical, a subsidiary of Logical Solutions™, Inc.
100 Washington Street
Milford, CT 06460 USA
Telephone (203)647-8700

Product name

- Model: OriginKVM 8250

This product complies with the requirements of the Low Voltage Directive 72/23/EEC and the EMC Directive 89/336/EEC.

5.2.3.2 Standards with which the Products Comply

Safety

- CENELEC EN 60950-1, 1st Edition (2001)

Electromagnetic Emissions

- EN55022: 1994 (IEC/CSP1R22:1993)
- EN61000-3-2/A14:2000
- EN61000-3-3:1994

Electromagnetic Immunity

- EN55024:1998 Information Technology Equipment-Immunity Characteristics
- EN61000-4-2:1995 Electro-Static Discharge Test
- EN61000-4-3:1996 Radiated Immunity Field Test
- EN61000-4-4:1995 Electrical Fast Transient Test
- EN61000-4-5:1995 Power Supply Surge Test
- EN61000-4-6:1996 Conducted Immunity Test
- EN61000-4-8:1993 Magnetic Field Test
- EN61000-4-11:1994 Voltage Dips & Interrupts Test

5.2.4 Supplementary Information

The following statements may be appropriate for certain geographical regions and might not apply to your location.

NOTE: This equipment has been tested and found to comply with the limits for a Class 1 digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment uses, generates and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user may be required to correct the interference.

NOTE: This Class 1 digital apparatus complies with Canadian ICES-003 and has been verified as being compliant within the Class 1 limits of the FCC Radio Frequency Device Rules (FCC Title 47, Part 15, Subpart B Class 1), measured to CISPR 22: 1993 limits and methods of measurement of Radio Disturbance Characteristics of Information Technology Equipment.

This Class 1 digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe 1 respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

WARNING: This is a Class 1 product. In a domestic environment this product may cause radio interference, in which case the user may be required to take corrective measures.

NOTE: The user may notice degraded audio performance in the presence of electromagnetic fields.

5.2.5 Product Serial Number

Thinklogical products have a unique serial number, imprinted on a small silver label that is placed on the bottom of the chassis. The serial number includes a date-code. The format for the date-code is two digits for the month; two digits for the day and two digits for the year and two or three digits for a unique unit number. This serial number is also found on the original shipping carton.

6. How to Contact Us

6.1 Customer Support

Thank you for choosing Thinklogical™ products for your application. We appreciate your business and are dedicated to helping you use our products. Let Thinklogical help you with any issues you may have.

Thinklogical is an engineering company and we believe that the first line of support is the design engineer that developed your product. Therefore, your questions will be handled promptly by our in-house engineers that are most familiar with your products.

To contact Thinklogical, please use the following telephone numbers and internet-based methods.

6.1.1 Website

Check out our website for product information, current updates and the full line of Thinklogical products.

Our internet website offers product information on all current systems, including technical specification sheets and installation guides (for viewing online or for download), Quick Start Guides showing physical connections and other information you might need.

Internet: **www.thinklogical.com**

***NOTE:** Most online documents are stored as Adobe Acrobat “PDF” files. If you do not have the Adobe Acrobat reader needed to view PDF files, visit www.adobe.com for a download.

6.1.2 Email

Thinklogical is staffed Monday through Friday from 8:30am to 5:00pm, Eastern Time Zone. We will respond to your email inquiries promptly. Please use either of the following email addresses:

info@thinklogical.com – Information about Thinklogical and our products.

sales@thinklogical.com – Sales Department - orders, questions or issues.

support@thinklogical.com – Product support, technical issues or questions, product repairs and request for Return Authorization.

6.1.3 Telephone

Telephone Sales: Please contact our expert sales staff via telephone in Milford, CT at **1-203-647-8700** or if in the continental US, you may use our **toll-free number 1-800-291-3211**. We are here Monday through Friday from 8:30am to 5:00pm, Eastern Time Zone. Ask for their direct dial phone number when you call.

Telephone Product Support: Please contact Product Support via telephone in Milford, Connecticut at **1-203-647-8700**. Our support lines are manned Monday through Friday, 8:30 am to 5:00pm, Eastern Time Zone.

International Sales: Please contact our US sales staff in Milford, CT at **1-203-647-8700**. We are here Monday through Friday, 8:30am to 5:00pm, Eastern Time Zone (same as New York City). If leaving a voice message, please suggest a “best time to call back” so we may reach you at your convenience.

Our switchboard attendant will direct your call during regular business hours. We have an automated attendant answering our main telephone switchboard after regular business hours and on holidays. You can leave voice messages for an individual at any time. Our Sales Representatives have direct numbers to help facilitate your next call to us.

6.1.4 Fax

Our company facsimile number is **1-203-783-9949**. Please indicate the nature of the fax on your cover sheet and provide return contact information.

6.2 Product Support

Thinklogical’s support personnel are available Monday through Friday from 8:30am to 5:00pm, Eastern Time Zone. If your application requires assistance at some time outside of our normal business hours, please contact us beforehand and we will do our best to make arrangements to help you with your Thinklogical products.

6.2.1 Limited Warranty Information

Thinklogical, LLC (“Thinklogical”) warrants this product against defects in materials and workmanship for a period of one (1) year from the date of delivery (ordinary wear and tear excluded). This limited warranty does not cover defects resulting from (i) use of the product other than as described in the applicable documentation for the product; (ii) modifications to or repairs of the product that are made by any party other than Thinklogical or a party acting on Thinklogical’s behalf, or (iii) combination of the product with third party products that is not consented to by Thinklogical. Occurrences of events described in (i) – (iii) shall void the foregoing warranty. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Except for the express warranty set forth above, to the fullest extent permitted under applicable law, Thinklogical, LLC and its suppliers disclaim any and all other warranties, express and implied, including without limitation the implied warranties of merchantability, fitness for a particular purpose, title and non-infringement.

If the defective product is returned to the authorized dealer within one (1) year of the delivery date, repair or replacement of the product will be made. Repairs may be made with refurbished parts. If repair or replacement is not possible, Thinklogical may keep the defective product and refund the amount that you paid for the defective product. These are Thinklogical's sole obligations, and your exclusive remedies, for a breach of the limited warranty set forth above.

To return a defective product, contact the Thinklogical authorized dealer from whom you purchased the product. Do not return a product directly to Thinklogical without prior authorization from your dealer.

If you have received prior authorization from your dealer and are returning a product directly to Thinklogical:

1. Contact your sales representative, or call Customer Support at (800)291-3211 or + (203)647-8700.
2. Describe the defect with the product and Customer Support will issue a Return Merchandise Authorization Number (RMA#).
3. Pack the product in all of its original packing, if possible, and write the RMA number on the box.
4. Return the product to:
Thinklogical, LLC
Attn: RMA# [Insert the RMA# issued to you, by Thinklogical, here.]
100 Washington Street
Milford, CT 06460 USA

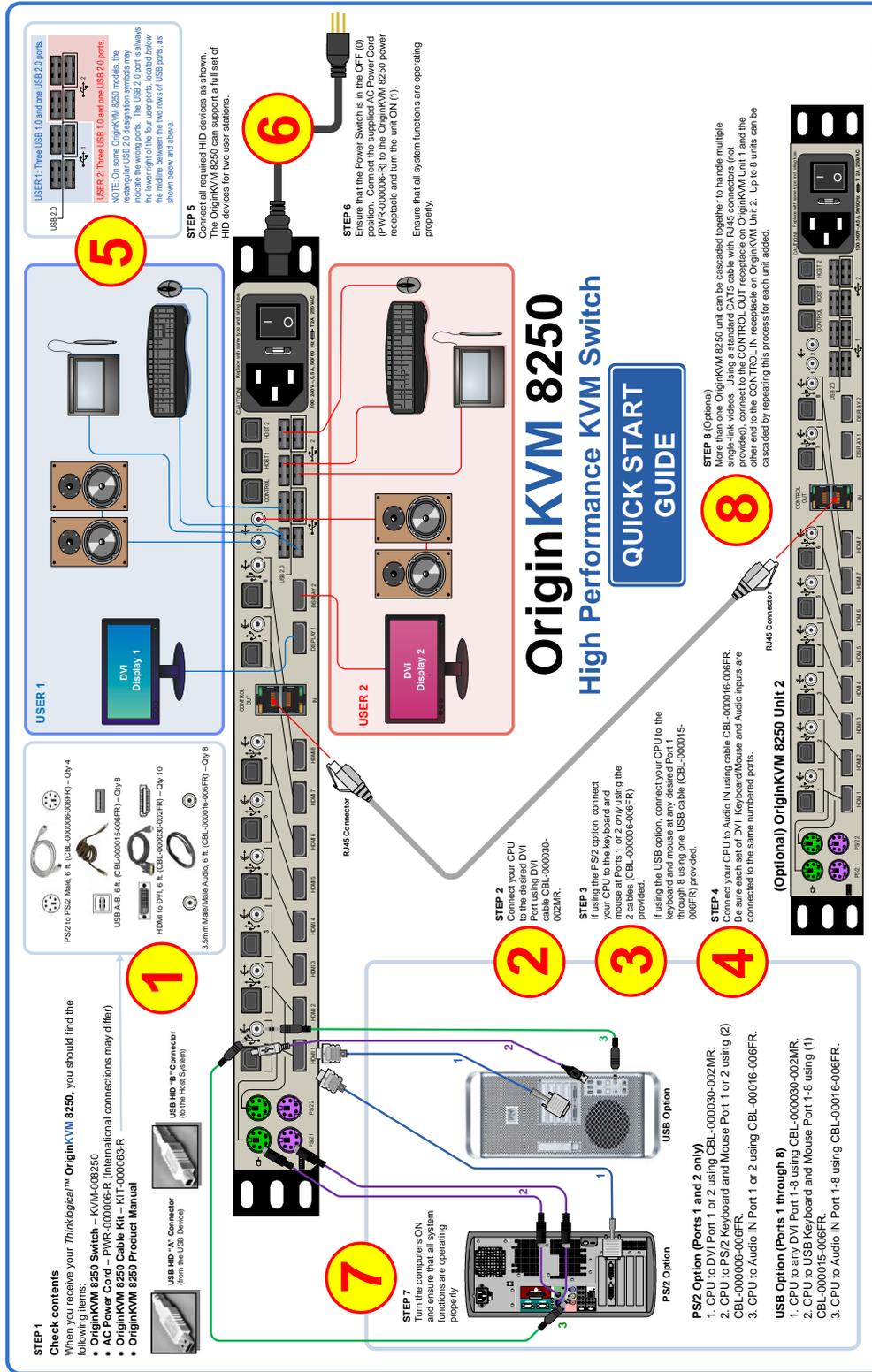
6.2.2 Our Address

If you have any product issues, have product questions or need technical assistance with your Thinklogical system, please call us at **1-203-647-8700** and let us help.

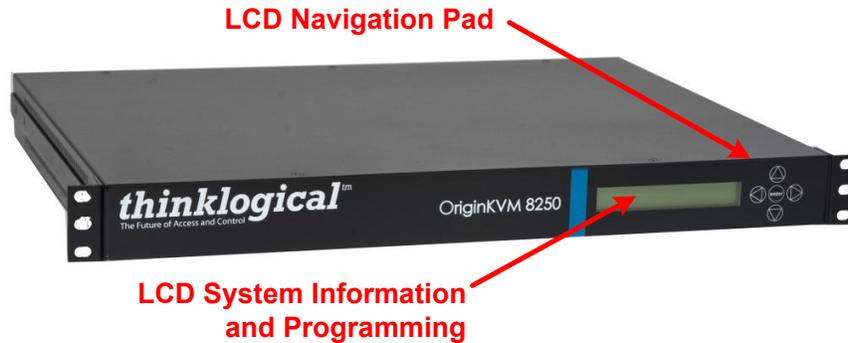
If shipping something with an RMA # or if you'd like to write us, our location is:

**Thinklogical™ Inc.
100 Washington Street
Milford, CT 06460 USA**

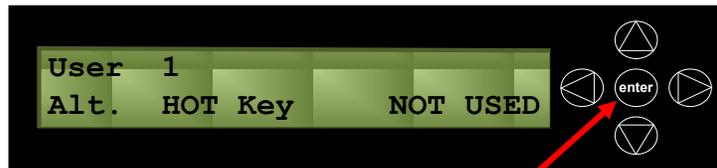
Appendix A: Origin 8250 Quick Start Guide



Appendix B: Out of Band Control For Apple Keyboard Users



If using an Apple Keyboard, once the firmware has been installed into the OriginKVM 8250, for **User 1** use the **UP arrow**  on the Navigation Pad to reach ***Out of Band CTRL** from the main menu. Then use the **RIGHT arrow**  to reach **User 1 Alt. HOT Key NOT USED**. If not using an Apple Keyboard, leave this setting as it is.



To make a change from the **Alt. HOT Key** menu, press **enter**. Use the **UP**  or **DOWN arrow**  to access the available alternate hot key options:

Alt. HOT Key (F13, F14, F15, LEFT CTRL, RIGHT CTRL or R or L CTRL).

Press **enter** to implement the change. Each keyboard is handled separately. The user may need to repeat the procedure for User 2.

