LANTRONIX®

Two-Port KVM Switch
Model 300.000.4000

User Guide

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2-Port KVM User Guide

Lantronix

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Disclaimer & Revisions

Operation of this equipment in a residential area is likely to cause interference in which case the user, at their own expense, will be required to take whatever measures may be required to correct the interference.

> **Attention:** *This product has been designed to comply with the limits for a Class A digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against such interference when operating in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with this guide, may cause harmful interference to radio communications.*

Changes or modifications to this device not explicitly approved by Lantronix will void the user's authority to operate this device.

The information in this guide may change without notice. The manufacturer assumes no responsibility for any errors that may appear in this guide.

Date	Rev.	Part No.	Comments
August 2002	A	15.00.040	Initial Release

Declaration of Conformity

(according to ISO/IEC Guide 22 and EN 45014)

Manufacturer's Name & Address:
Lightwave Communications, 100 Washington Street, Milford, CT 06460 USA
Lightwave is a Lantronix Company.

Declares that the following product:

Product Name & Model: KVM 2-Port

Conforms to the following standards or other normative documents:

Safety:
EN60950:   1992+A1, A2, A3, A4, A11

Electromagnetic Emissions:
EN55022 Class A: 1998 (CISPR 22, Class A: 1993, A1: 1995, A2: 1996)
   EN 1000-3-2/A14: 2000
   EN 10003-3:   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

Supplementary Information:
This Class A digital apparatus complies with Canadian ICES-003 (CSA) and has been verified as being compliant within the Class A limits of the FCC Radio Frequency Device Rules (FCC Title 47, Part 15, Subpart B CLASS A), measured to CISPR 22: 1993 limits and methods of measurement of Radio Disturbance Characteristics of Information Technology Equipment. This product also complies with the requirements of the Low Voltage Directive 72/23/EEC and the EMC Directive 89/336/EEC.

This product carries the **CE** mark since it has been tested and found compliant with the following standards:
   Safety: EN 60950
   Emissions: EN 55022 Class A
   Immunity: EN 55024

Table of Contents

1.0 System Description

The Lantronix **2-Port KVM** (300.000.4000) is a Keyboard, Mouse and Video switching system for one user and two PS/2-equipped computers.

2-Port KVM, Front View

1.1   System Features

- Control two computers with one Keyboard, Mouse and Monitor
- Emulates PS/2 Keyboard in the event of power interruption
- Front panel pushbutton controls AND keyboard control
- Front panel LEDs show connection status and power

2.0 Installation

The KVM 2-Port is connected in between two computers (or servers) and one user station, consisting of a PS/2-type keyboard, PS/2-type mouse or trackball device, and a video monitor. It must be placed within limited cable distances of these components, but is generally placed on a shelf or in a 19-inch EIA equipment rack near the computer equipment. The KVM 2-port requires one AC power connection (an IEC-type power cordset is provided with the unit).

All connections are made with industry-standard mouse, keyboard and video connectors found in conventional PC computer equipment. The necessary PS/2 and Video cables are ordered and shipped with the KVM 2-Port.

KVM 2-Port, Rear View, showing connections

The KVM 2-port unit has two pushbuttons and several LEDs on its front panel. The user will press the pushbuttons to switch from one server to the other. The User may also switch from server to server using keyboard commands, and need not press the front panel buttons to operate the unit.

There are no user-servicable parts inside the unit. A protective power fuse is located in the power entry module, accessible from the rear of the unit. The fuse should never need replacement during normal operation or usage.

2.1   System Features

- PS/2-type connections for Keyboard and Mouse
- HD-15 connectors for Video Monitors
- Independent of computer platform and OS
- Silent operation, suitable for placement near personnel
- Class A compliant device

2.2   Hardware Features

- Rack Mountable in standard EIA 19-inch rack, 1RU tall
- AC powered using a single universal AC power inlet (with IEC cordset)
- One User position for a Keyboard, Mouse and HD15 Video Connection
- Two Computer positions (A & B) for Keyboard, Mouse and HD15 Video connection inputs
- Keyboard connections are emulated to maintain proper signals between the two computers; keyboard emulation is maintained even if the 2-Port KVM loses power
- Low power usage and silent operation. Unit is convection cooled and requires no special environmental considerations

2.3   Mounting Instructions

The 2-port KVM is in a metal enclosure and may be placed on a shelf, or rack-mounted in a conventional EIA-type 19-inch rack. Removable rack mount brackets are included with the unit. You must provide rack mount screws for your rack assembly.

All connections are made to the rear of the unit, and the Power Switch is on the rear of the unit.

If placing the unit on a shelf or desktop, install the four rubber feet included with the unit to protect the desk surface.

KVM 2-Port, Side View, showing removable Rack Mount bracket

2.4   Connections

Your system is shipped with the two Video Cables and four PS/2 cables (for Mouse and Keyboard), based on your requirements. After locating the Computer equipment and the KVM 2-Port where desired:

1. Using conventional PS/2 (MiniDIN-6) mouse and keyboard male-to-male cables, connect 'Computer A' to the Mouse (M) and Keyboard (K) connector on the back of the unit. Connect Computer B in a similar fashion.

2. Connect the User's Keyboard or Keyboard/Trackball device to the User's Keyboard (K) and Mouse (M) connectors.

3. Connect the Video sources from Computer A and Computer B to the appropriate Video connectors on the back of the unit.

4. Connect the User's Monitor to the User video connector.

5. Connect the power cords. Turn the Computers on, turn the Monitor On and turn the **KVM 2-Port** On (no particular order required).
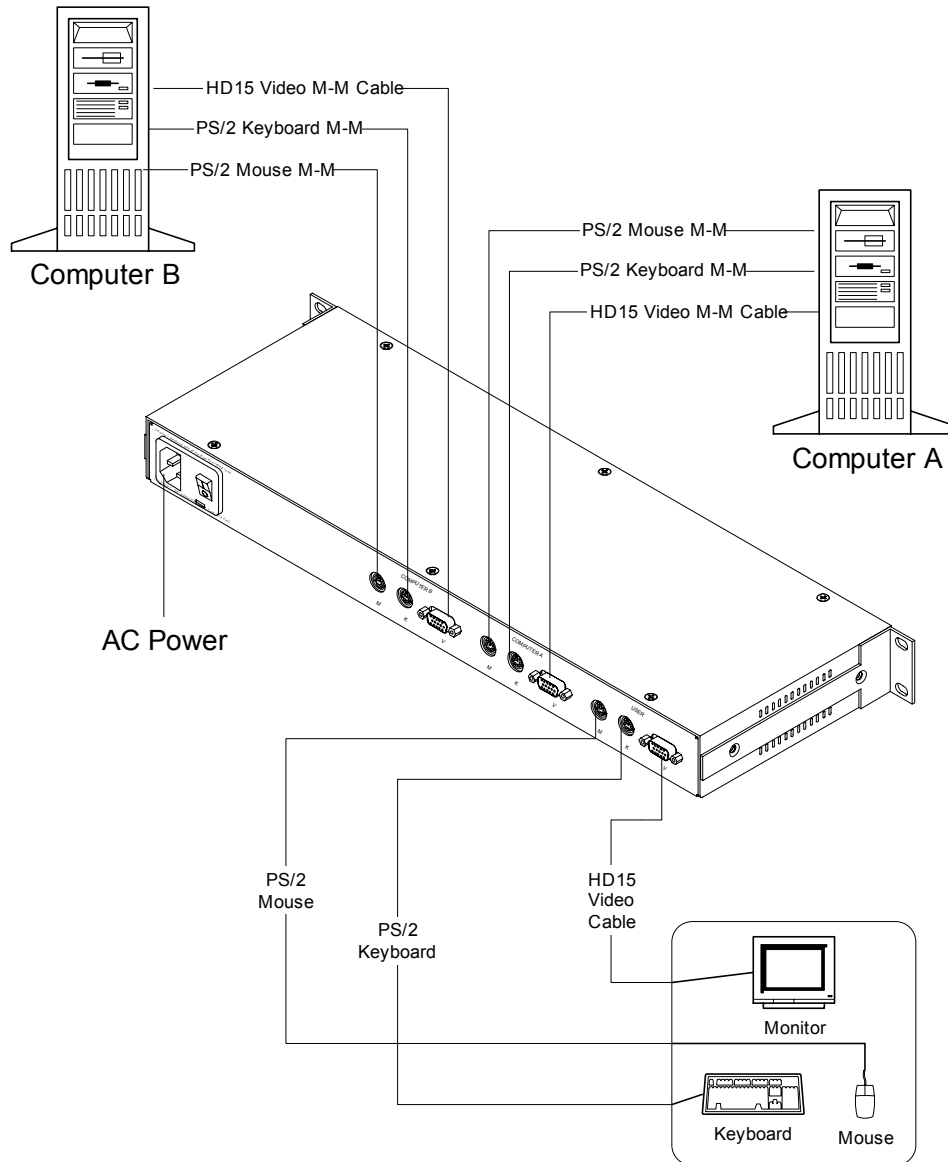
KVM 2-Port, Rear View, showing typical connections

3.0 Operation

User Operation does not interfere with any mouse or keyboard activity of the attached computers. There are two methods of operations: buttons and keyboard control.

The front panel **Power LED** (to the left side) will show **GREEN** with normal power. If the KVM 2-Port loses power, the Video signal will be lost.

3.1   Front Panel Button operation

The User can switch between **Computer A** and **Computer B** by pressing the front panel button labeled 'A' or 'B'.

The front panel LEDs for A and B will show **GREEN** for the active computer, and **RED** for the inactive computer.

The Video display may take a second to return, depending on the monitor used and its internal switching capabilities.

3.1   Keyboard operation

The User can toggle between **Computer A** and **Computer B** by **pressing and releasing** both **'Control'** or **'CTRL'** keys at the same time, on their PC-type PS/2 keyboard.

Note: This will not interfere with any computer operations or data.

The KVM 2-port will switch from one Computer to the other. The front panel LEDs for **A** and **B** will show **GREEN** for the active computer, and **RED** for the inactive computer.

3.3   Keyboard Emulation

As long as the keyboard cables remain connected, the Keyboard connections will be maintained with the attached servers, even in the event of a power failure to the **KVM 2-Port** (this is important for some servers, which might reset if the keyboard is disconnected).

The Keyboard connection to Computer A or B is maintained during a power failure. When power is restored, the Video signal will become active again.