

**USB DVI KVM Switch**  
**AS-21DA / AS-41DA**

**User Manual**

## **FCC Information**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ◆ Reorient or relocate the receiving antenna;
- ◆ Increase the separation between the equipment and receiver;
- ◆ Connect the equipment into an outlet on a circuit different from that which the receiver is connected;
- ◆ Consult the dealer/an experienced radio/television technician for help.

## **RoHS**

This product is RoHS compliant.

## **User Information**

### **User Notice**

All information, documentation, and specifications contained in this manual are subject to change without prior notification by the manufacturer. The manufacturer makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties as to merchantability or fitness for any particular purpose. Any of the manufacturer's software described in this manual is sold or licensed *as is*. Should the programs prove defective following their purchase, the buyer (and not the manufacturer, its distributor, or its dealer), assumes the entire cost of all necessary servicing, repair and any incidental or consequential damages resulting from any defect in the software.

The manufacturer of this system is not responsible for any radio and/or TV interference caused by unauthorized modifications to this device. It is the responsibility of the user to correct such interference.

The manufacturer is not responsible for any damage incurred in the operation of this system if the correct operational voltage setting was not selected prior to operation. **PLEASE VERIFY THAT THE VOLTAGE SETTING IS CORRECT BEFORE USE.**

### **Package Contents**

The AS-21DA / AS-41DA package consists of:

1 AS-21DA / AS-41DA USB DVI KVM Switch

1 Power Cord

1 User Instructions\*

Check to make sure that all of the components are present and in good order.

If anything is missing, or was damaged in shipping, contact your dealer.

Read this manual thoroughly and follow the installation and operation procedures carefully to prevent any damage to the switch or to any other devices on the AS-21DA / AS-41DA installation.

\*Features may have been added to the AS-21DA / AS-41DA since this manual was printed. Please visit our website to download the most up to date version of the manual.

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## **About This Manual**

This User Manual is provided to help you get the most from your AS-21DA / AS-41DA system. It covers all aspects of installation, configuration and operation. An overview of the information found in the manual is provided below.

### **Overview**

**Introduction**, introduces you to the AS-21DA / AS-41DA System. Its purpose, features and benefits are presented, and its front and back panel components are described.

**Hardware Preparative Procedure**, provides step-by-step instructions for setting up your installation.

**Operation**, explains the concepts involved in operating the AS-21DA / AS-41DA.

**An Appendix**, provides specifications and other technical information regarding the AS-21DA / AS-41DA.

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# Introduction

## Overview

KVM switches can save money and human cost in multiple computer systems. Users need not to purchase a separate keyboard, monitor and mouse for each computer. They allow users to access and control up to 2 (AS-21DA) or 4 (AS-41DA) computers from a single USB keyboard, USB mouse, and DVI monitor console. The setup is easy and there is not software to configure, this lowers the difficulty of usage.

KVM AS-21DA/ AS-41DA with audio supports control of 2 (AS-21DA) / 4 (AS-41DA) computers using a set of keyboard, mouse, monitor and speaker. The console connection uses a set of USB mouse, keyboard, monitor with general DVI interface and a stereo speaker or earphone. It transfers keyboard and mouse data between KVM and host with USB interface. It helps users to setup multiple computer system with lowest cost and highest compatibility to save space and cost.

## Features

- ◆ 2/4-port USB DVI Dual-Link KVM Switch
- ◆ Port selection via Pushbutton and hotkey methods
- ◆ One USB console controls 2/4 computers
- ◆ Restricted USB connectivity – non HIDs (Human Interface Devices) are

ignored when switching

- ◆ Isolated channel per port – makes it impossible for data to be transferred between computers
- ◆ Multiplatform support – Windows 2000/XP/Vista, Linux, Mac, Sun
- ◆ Superior video quality – 2560x1600 (DVI Dual Link), 1920x1200 (DVI Single Link) and 2048x1536 (DVI-A)
- ◆ Speaker and microphone support

## Requirements

### Console

- ◆ DVI monitor capable of the highest resolution that you will be using on any computer in the installation
- ◆ USB mouse
- ◆ USB keyboard
- ◆ Microphone and speaker

### Computers

- ◆ A DVI card
- ◆ USB Type A ports keyboard and mouse ports

### Operating Systems

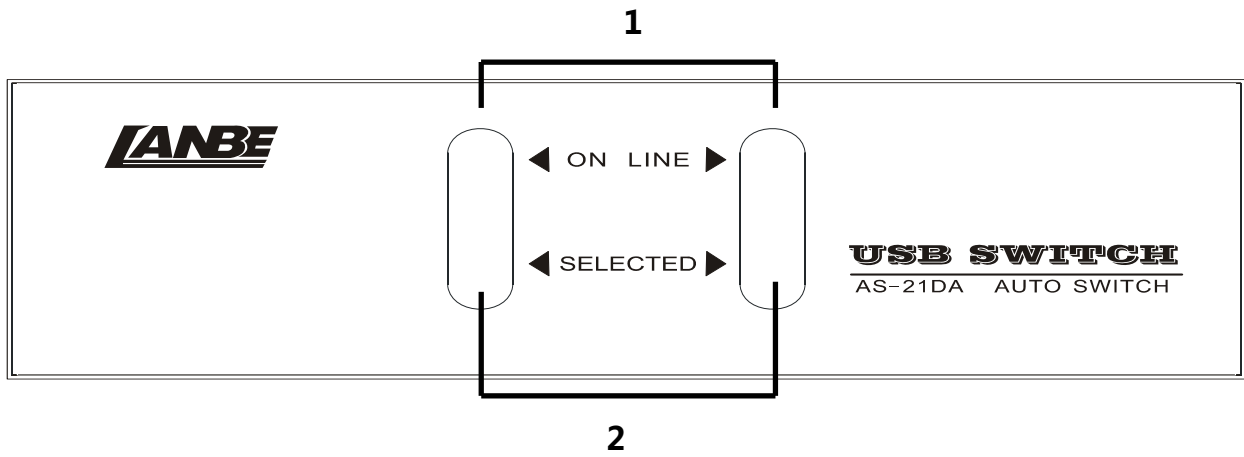
Windows		2000,2003,2008,XP,Vista,7
Linux	Redhat	9.0 and higher, Fedora Core 4 and higher
	SuSE	10 and higher
	Debian	3.1,4.0
	Ubuntu	7.04,7.10
UNIX	AIX	4.3 and higher
	FreeBSD	5.5 and higher

	Sun	Solaris 8 and higher
Novell	Netware	5.0 and higher
Mac		OS 9 and higher
DOS		6.2 and higher

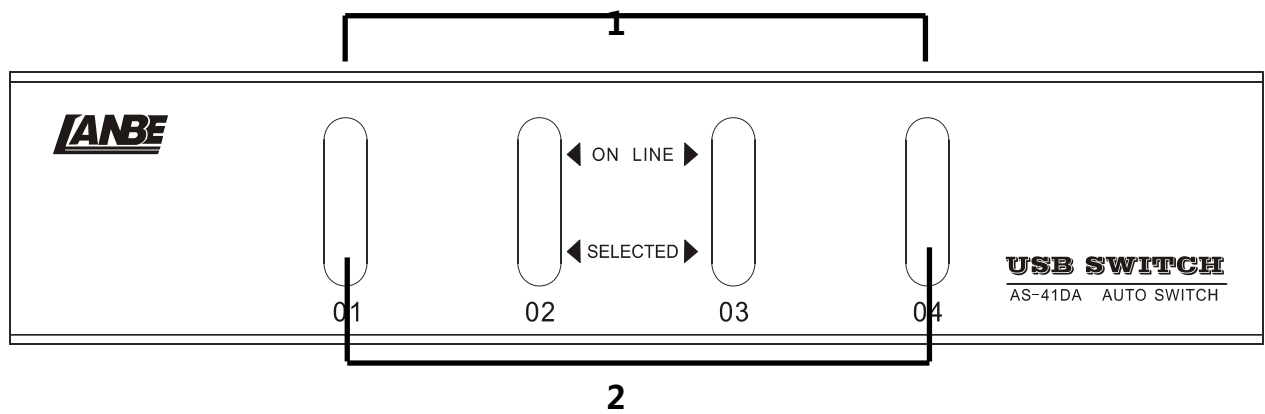
# Components

## Front View

### AS-21DA

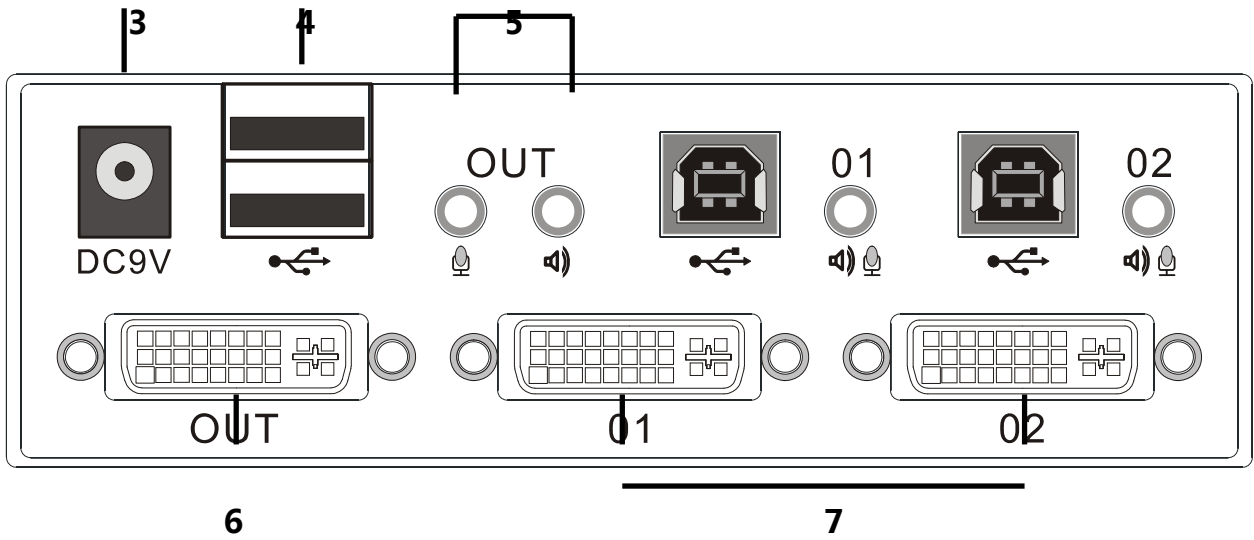


### AS-41DA

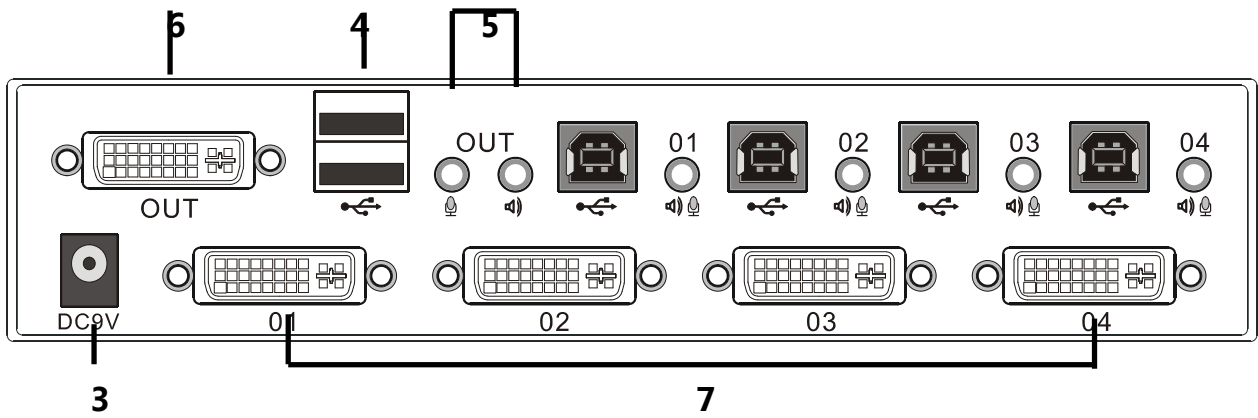


## Rear View

### AS-21DA



### AS-41DA



No.	Component	Description
1	Port Selection Pushbuttons	Pressing a Port Selection Pushbutton brings the focus to the computer attached to its corresponding port.
2	Port LEDs	<p>The Port LEDs are built into the Port Selection Pushbuttons.</p> <p>Online – Lights <b>green</b> to indicate that the computer attached to its corresponding port is up and running.</p> <p>Note: The green light for a given port is lit for as long as there is a powered on USB connection between the KVM switch and computer.</p> <p>Selected – Lights <b>red</b> to indicate that the computer attached to its corresponding port has the KVM.</p>
3	Power Switch	The power adapter cable plugs in here.
4	USB Console Ports	Your USB keyboard and mouse plug into these ports.
5	Audio Ports	The cables from your main speakers and

		main microphone plug in here.
6	Console Monitor Port	The cable from your console monitor plugs in here.
7	KVM Port Selection	The custom KVM cables that attach to your computers plug in here.



# Hardware Preparative Procedure

## Before You Use

1. To prevent damage to your installation it is important that all devices are properly grounded.
2. Make sure that the power to all devices connected to the installation are turned off. You must unplug the power cords of any computers that have the Keyboard Power On function.
3. A computer connected to the KVM switch should only be powered on after all of the connections to the device are made (DVI, USB and audio).

## Cable Connection

To set up your AS-21DA / AS-41DA installation, do the following:

1. Plug your USB keyboard and USB mouse into the USB console ports located on the unit' s rear panel.
2. Plug your console monitor into the DVI console port located in the unit' s rear panel and power on the monitor.
3. Plug your microphone and speakers into the console microphone and speaker jacks located on the unit' s rear panel.
4. Using a KVM cable set, plug the DVI connector into any available DVI socket in the KVM port section of the switch, then plug the accompanying USB, microphone and speaker connectors into their corresponding USB,

microphone, and speaker sockets.

**Note:** Verify that all the plugs are in the same KVM Port sockets (all in Port 1, all in Port 2, etc.).

5. At the other end of the cable, plug the USB, video, microphone, and speaker cables into their respective ports on the computer.
6. Plug the DC adaptor into power switch.
7. Turn on the product.

## Operation

### Powering On

When you power on your computers, the AS-21DA / AS-41DA emulates both a mouse and keyboard on each port and allows your computers to boot normally.

When you power on the AS-21DA / AS-41DA, the default selected port at switch power on is the lowest port with a computer connected. The selected computer will be displayed on the console monitor.

**Note:** The default connection is determined by the lowest numbered DVI connection that is powered on.

### Manual Switching

The AS-21DA / AS-41DA offers manual port-switching. This is achieved by pressing the port selection pushbuttons located on the unit's front panel.

Press and release a port selection pushbutton to bring the KVM focus to the computer attached to its corresponding port.

The Selected LED lights red to indicate that the computer attached to its corresponding port has the KVM.

### LED Display

The AS-21DA / AS-41DA has port LEDs (Online and Selected) that are built into

the port selection pushbuttons to indicate port operating status, as shown in the table below:

LED	Indication
Online	<p>Lights <b>green</b> to indicate that the computer attached to its corresponding port is up and running.</p> <p>Note: The green light for a given port is lit for as long as there is a powered on USB connection between the KVM switch and computer.</p>
Selected	<p>Lights <b>red</b> to indicate that the computer attached to its corresponding port has the KVM.</p>

# Appendix

## Safety Instructions

- ◆ Read all of these instructions. Save them for future reference.
- ◆ Follow all warnings and instructions marked on the device.
- ◆ Do not place the device on any unstable surface (cart, stand, table, etc.). If the device falls, serious damage will result.
- ◆ Do not use the device near water.
- ◆ Do not place the device near, or over, radiators or heat registers.
- ◆ The device cabinet is provided with slots and openings to allow for adequate ventilation. To ensure reliable operation, and to protect against overheating, these openings must never be blocked or covered.
- ◆ The device should never be placed on a soft surface (bed, sofa, rug, etc.) as this will block its ventilation openings. Likewise, the device should not be placed in a built in enclosure unless adequate ventilation has been provided.
- ◆ Never spill liquid of any kind on the device.
- ◆ Unplug the device from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
- ◆ The device should be operated from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
- ◆ The device is designed for power distribution systems with 220V voltage.

- ◆ To prevent damage to your installation it is important that all devices are properly grounded.
- ◆ Never push objects of any kind into or through cabinet slots. They may touch dangerous voltage points or short out parts resulting in a risk of fire or electrical shock.
- ◆ Do not attempt to service the device yourself. Refer all servicing to qualified service personnel.
- ◆ If the following conditions occur, unplug the device from the wall outlet and bring it to qualified service personnel for repair.
  - ◆ The power cord or plug has become damaged or frayed.
  - ◆ Liquid has been spilled into the device.
  - ◆ The device has been exposed to rain or water.
  - ◆ The device has been dropped, or the cabinet has been damaged.
  - ◆ The device exhibits a distinct change in performance, indicating a need for service.
  - ◆ The device does not operate normally when the operating instructions are followed.

## Specifications

Function			AS-21DA	AS-41DA	
Computer Connections			2	4	
Port Selection			Pushbutton		
Connectors	Console	Keyboard		1 x USB Type-A F (Black)	
		Video		1 x DVI-I Dual Link F (White)	
		Mouse		1 x USB Type-A F (Black)	
		Audio	Speaker	2 x Mini Stereo Jack F (Green)	
			Microphone	2 x Mini Stereo Jack F (Pink)	
	Computer	Keyboard/Mouse		2 x USB Type-B F (White)	2 x USB Type-B F (White)
		Video		2 x DVI-I Dual Link F(White)	2 x DVI-I Dual Link F(White)
		Audio	Speaker	2 x Mini Stereo Jack F(Green)	2 x Mini Stereo Jack F(Green)
			Microphone	2 x Mini Stereo Jack F(Pink)	2 x Mini Stereo Jack F(Pink)
	Power		1 DC Adaptor		
LEDs	Online		2 (Green)	4 (Green)	
	Selected		2 (Red)	4 (Red)	

Switches	Port Selection	2 x Pushbuttons	4 x Pushbuttons
Video		DVI Dual Link: 2560x1600; DVI Single Link: 1920x1200; DVI-A: 2048x1536	
Power Consumption		5.1W	5.7W
Environment	Operating Temp	0-40 °C	
	Storage Temp	-20-60°C	
	Humidity	0-80% RH	
Physical Properties	Housing	Metal	
	weight	2.06kg	2.10kg
	Dimensions (L x W x H)	132 x 92 x 43 mm	202 x 110 x 43 mm



**FCC NOTE:**

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS OR CHANGE TO THIS EQUIPMENT. SUCH MODIFICATIONS OR CHANGE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.**

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- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.