DKM-UX15
LCD Monitor-Keyboard-Mouse Rack Console Drawer

Setup Guide

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Introduction

Your DKM series flat panel LCD monitor-keyboard is an integrated monitor-keyboard assembly designed for installing in a standard 19" rack. The chassis is mounted on slide rails. The retractable assembly occupies only one rack unit space, and its fold-down LCD design makes storage and access a real convenience.

The monitor-keyboard assembly consists of an active matrix LCD monitor with built-in A/D controller designed to automatically work with any standard analog video signal from a computer. It also includes a keyboard, touchpad or mouse, and an externally attached AC adapter power supply.

This guide provides step-by-step instructions for installation and use of your DKM series monitor-keyboard drawer.

Safety Guidelines

Before you set up your monitor-keyboard drawer, it is important to follow some basic safety precautions to prevent damage to the product and to ensure your own personal safety.

Handling the Drawer Assembly

The monitor-keyboard drawer is constructed of heavy gauge metal and can weight up to 30 lbs. To avoid injury during installation watch for edges and corners on the assembly.

To prevent the drawer from accidentally sliding out and cause bodily injury, the unit is shipped with a metal strap installed across the drawer handle. It is recommended that you do not remove it until the unit is installed in the rack, or when the uit is set down on a level work area.

Power Connections

The monitor is shipped with a high quality AC adapter. The adpater may already be mounted on the back side of the drawer assembly. If not, you will need to unpack the adapter and attach it to the back of the chassis before installing the entire assembly into the rack.

Care for the LCD

The monitor is an active matrix LCD. Liquid crystal displays are made of glass which will break or crack if mishandled.

Unpacking

As you unpack your unit check the packing material to ensure that you have found all of the proper cables and accessories. Save all of the shipping material in case you need it for transporting the unit in the future.

The monitor-keyboard comes completely assembled. You should find these items in your package:

- Monitor-keyboard drawer assembly with slide rails and rack mounting brackets.
- Combo cable for video, keyboard and mouse.
- Audio cable for the DKM series with built-in speakers.
- AC adapter power supply and power cord.
- Keys for the key lock.

DKM-UX15 Front Side View

The monitor-keyboard drawer features a flip-up LCD. Unlock the LCD panel and use the handle to lift it up. Facing the unit you'll find these components:

1. *LCD on/off momentary switch.*
2. *Built-in speaker.*
3. *Touchpad.*
4. *OSD control buttons.*

DKM-UX15 Back Side View

On the back side you'll find these components and connectors:

1. *Keyboard-touchpad mini-DIN 6-pin connectors.*
2. *D-Sub 15-pin VGA connector.*
3. *3.5mm audio connector.*
4. *AC input.*
5. *AC adapter.*
6. *DC in from AC adapter.*
7. *Ventilation fan.*
8. *Combo cable.*

System Requirements

Your LCD monitor-keyboard drawer connects to the video, keyboard and mouse ports of a computer system. Your computer system is required to have the following:

- A standard analog video card with a D-Sub 15-pin VGA connector. You are also responsible to have the video card and its driver already installed.
- Mini-DIN 6-pin ports for both the keyboard and mouse.
- An audio-out jack if you will be using the audio component of the monitor-keyboard drawer.

Installation

The DKM series monitor-keyboard drawer is designed to be installed in a 19" equipment rack or cabinet. The unit has mounting brackets that let you install it in rack cabinets up to 30" in depth.

You'll find the unit fully assembled on slide rails and functional. Use the following steps to install the unit, connect the cables and it's ready to use.

Step 1. Determine the height that you want to install the unit and locate it on the rack posts.

Step 2. Adjust the rear mounting bracket if necessary.

Step 3. Carefully insert the unit into the rack enclosure. Align the front and rear mounting brackets with the screw holes along the rack posts.

Step 4. Install the mounting screws. Tighten down all of the mounting bolts.

Step 5. Once the unit has been installed and secured, remove the metal strap.

Step 6. Turn OFF your computer and then make all of the cable connections. The keyboard and mouse port connectors are color coded— purple colored connector for the keyboard and green colored connector for the mouse.

Step 7. Unlock the flip-up LCD.

Step 8. Power up your system and then turn on the LCD by pressing the front panel on/off switch.

OSD Controls

The LCD is driven by a conversion board that converts the analog video signal into a digital video format for the LCD monitor's driver circuit. The conversion board includes an integrated RAM-based OSD (On-Screen Display) menu. The OSD uses four push buttons to let you access its menu system and make adjustments to the display for optimum performance.

The front panel push buttons are arranged and labeled as follows:

- Button M: pressing it toggles the OSD on and off.
- Button S: pressing it steps through the menu items.
- Buttons + and - changes the selected menu item's parameter.

Using the OSD

Follow these steps to activate the on-screen display:

Step 1. Power up the computer system and then turn on the LCD.

Step 2. Press M to invoke the on-screen menu.

Step 3. Press S to step through the main options.

*Step 4. Press either **+** or **-** button to bring up sub-menus of the highlighted option.*

Step 5. Press M to step through the sub-menu options.

*Step 6. Press either **+** or **-** to modify the selected parameter value. Pressing a button once increases or decreases the numerical value by a single digit. Holding down a button increases the rate of change. Press M to return to the previous screen.*

Step 7. After you've made your adjustments press M repeatedly until the OSD is turned off.

OSD Menu Item Description

The OSD menu system consists of a main menu and four sub menus. The following is a brief description of each of the menu items:

1. RGB MENU

BRIGHTNESS: Adjusts the black level of the Red, Green and Blue channels.

COLOR TEMP: The settings are available to set white point reference.

SHARPNESS: Adjusts image sharpness.

2. GEOMETRY MENU

AUTO-ADJUSTMENT: Performs automatic adjustment of the vertical and horizontal image positions within the display area of the LCD.

H.POSITION: Adjusts the horizontal image position within the display area of the LCD.

V.POSITION: Adjusts the vertical image position within the display area of the LCD.

AUTO PHASE: Performs automatic adjustment of the ADC sample pixel clock.

DELAY: Manual adjustment of the sample pixel clock phase.

3. CONTRAST MENU

AUTO-BALANCE: Performs automatic adjustment of color brightness in relation to the background.

CONTRAST: Manual adjustment of individual RGB channel contrast.

4. LANGUAGE MENU

Selects English or Spanish language OSD.

5. RESET

Reloads all parameters to factory settings.

6. SAVE

Saves current parameters.

Troubleshooting

Symptom

Screen is blank and power indicator is off.

Possible Cause

No power to the display

Suggested Action

Ensure that the electrical outlet and the monitor are both switched on. Check that the power cord is firmly plugged into the electrical outlet and the AC adpter power supply. Ensure the AC adpter is working by examining the green LED indicator on the adpater.

Symptom

Screen is blank and power indicator is red.

Possible Cause

No video signal to the LCD. The computer may be in a power-save mode.

Suggested Action

Press the standby button on the front bezel of the LCD. Press a key or move the mouse to restore operation to the computer. Check the power management setup of your computer or adjust the screen saver properties of your operating system.

Symptom

A few dots are missing, discolored, or inappropriately lighted.

Possible Cause

An XGA LCD (1024 x 768 resolution) contains over 2,300,000 thin-film transistors (TFTs). A small number of missing, discolored, or lighted dots may be present on the screen, which is an intrinsic characteristic of the TFT LCD technology and is not an LCD defect. Imperfections may appear on the screen if either the pixel or sub-pixel is stuck always ON; a bright spot on a dark background, or it is stuck always OFF; a dark spot on a bright background.

Suggested Action

The criteria for replacement of LCDs with defective pixels depends on the manufacturer of the LCD. Use the following as a guideline to see if your LCD is defined as "defective" and possibly replaceable through your manufacturer.

The LCD meets one of the following criteria:

- a total of 15 stuck sub-pixels or 10 stuck full pixels
- 10 stuck red sub-pixels
- 10 stuck blue sub-pixels
- 4 stuck green sub-pixels
- No more than two "adjacent" pixels may be stuck, adjacent being defined as less than 2.5mm edge to edge
- No more than two pairs of two-adjacent stuck pixels per display

note: A pixel (picture element) consists of one red, one green and one blue sub-pixel. A stuck green sub-pixel is more visible than blue or red.

Symptom

My LCD displays this message "OUT OF RANGE" when I connect it to my computer. What should I do?

Possible Cause

Either the resolution, or the vertical fresh rate, or both of these settings of your graphics card has exceeded the range of the LCD.

Suggested Action

Ensure your graphics card is set to a resolution no higher than that of the LCD. Check the refresh rate of the graphics card through your computer's display properties (also known as vertical sync, screen refresh). Make sure it doesn't exceed the capability of the LCD. Set it to 60Hz if you're unsure of your LCD's maximum acceptable refresh rate.

Symptom

The image on my LCD seems to jitter.

Possible Cause

In an LCD, each pixel corresponds to a specific set of red, green, and blue LCD cells. When an LCD monitor gets an analog signal, it has to decide which cell is supposed to display a specific pixel. If it can't make up its mind, the pixel will jump back and forth between adjacent sets of cells, creating an annoying jitter in the display.

Suggested Action

Look for an "automatic" adjustment feature that will eliminate the jitter, and adjust image size and position at the same time. The feature is available as a choice in the on-screen display (OSD).

If the OSD does not have an automatic adjustment feature, or the feature doesn't stop the jitter completely, you'll have to adjust the settings manually. Start by adjusting the coarse timing for the LCD, which should be an available setting in the onscreen display (OSD). Typical names for this feature are Clock and Tuning. Increase or decrease the setting until you have minimized the jitter you see in the image. Next, you may also adjust the fine timing for the LCD. Typical names for this adjustment are Phase and Fine Tuning.

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