



PCXBV-Ux Multi-Scanning Color Monitor

Installation Guide

Order Number: ER-XBVUX-IM. A01

Digital Equipment Corporation
Maynard, Massachusetts

February 1996

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Note: 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. Any changes or modification made to this equipment may void the user's authority to operate this equipment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio and television reception; 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 of the following measures:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to 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.

DO NOT attempt to modify this equipment. If modified, the FCC may void your authority to operate this equipment.

Canadian Department of Communications Statement

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

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As an ENERGY STAR™ partner, Digital Equipment Corporation has determined that this product meets the ENERGY STAR™ guidelines for energy efficiency.

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Audience

This guide is intended for user's who wish to install the monitor.

Conventions

The following conventions are used in this document:

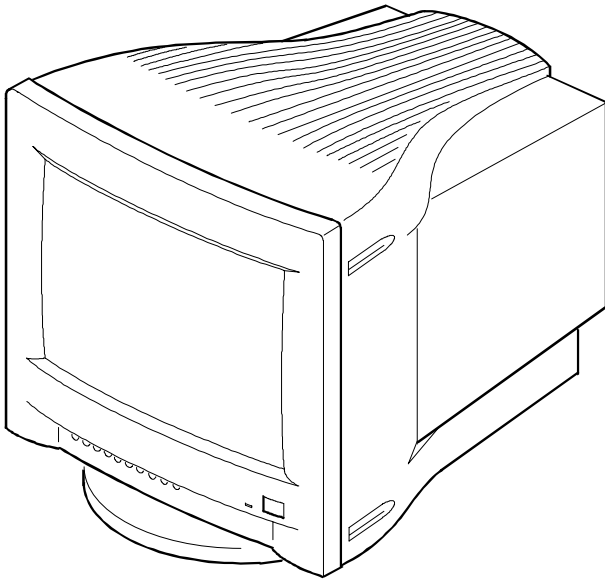
Convention	Meaning
Note	Provides general information.
Caution	Provides information to prevent damage to equipment.
Warning	Provides information to prevent injury.

Introduction

Overview

The PCXBV-Ux Monitor is a 17-inch, 15.7 viewable, *multi-scanning* color monitor with high resolution, compatible with VGA, SVGA, 1024 x 768, and 1280 x 1024 modes. The PCXBV-Ux offers the following features:

- 1280 x 1024 non-interlaced mode.
- Power Management system that exceeds EPA ENERGY STAR™ requirements for saving energy.
- VESA Data Display Channel - DDC1/2b
- Complies with Swedish MPR2 standards for low emissions*
- Complies with Swedish TCO '92 standards even lower emissions**
- Anti-glare screen with anti-static coating



DEC00800

Figure 1. PCXBV-Ux Color Monitor

*Models PCXBV-UA/UB/UC/UW/UX/UY.

**Models PCXBV-UD/UZ.

DDC (Display Data Channel)

DDC is a communication channel over which the monitor automatically informs the host system about its capabilities. DDC uses a formerly unconnected signal pin in the 15-pin VGA connector. The system will perform the “Plug ‘n Play” feature if both the monitor and the host implement DDC protocol.

Installation

Installation/Operating Guidelines

Observe the following basic rules for installation and use.

Do . . .

- Use the power cord supplied with the monitor, which is UL-, CSA-, and VDE-approved.
- Turn the monitor off when not being used for an extended period of time, or use Power Management if applicable.

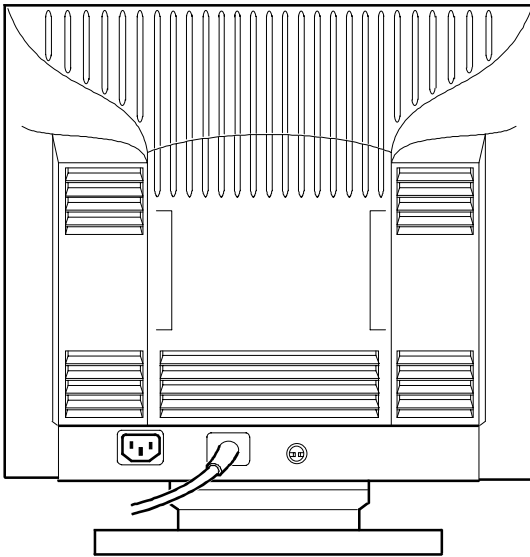
Do Not . . .

- Overload the ac outlet.
- Move the monitor on a stand over carpet or thresholds.
- Push objects into the monitor’s openings.
- Add accessories that are not designed for this monitor.
- Operate the monitor near water or in a damp environment, which could cause an electrical hazard.
- Operate the monitor near magnets, motor devices, transformers, high power lines, or large steel pillars, which can cause distortion in the picture.
- Obstruct the ventilation openings in the monitor’s cabinet, such as placing the monitor on a rug or within an enclosure.
- Place the monitor near a radiator or heat source.

Monitor Installation

To connect your monitor:

1. Make sure the power to the monitor and the computer is off.
2. Connect the signal cable to the monitor then to the 15-pin interface connector on the High Resolution Graphic Video Adapter on the back of the computer.
3. Plug the ac power cord to the monitor, then to a properly-grounded ac electrical outlet.

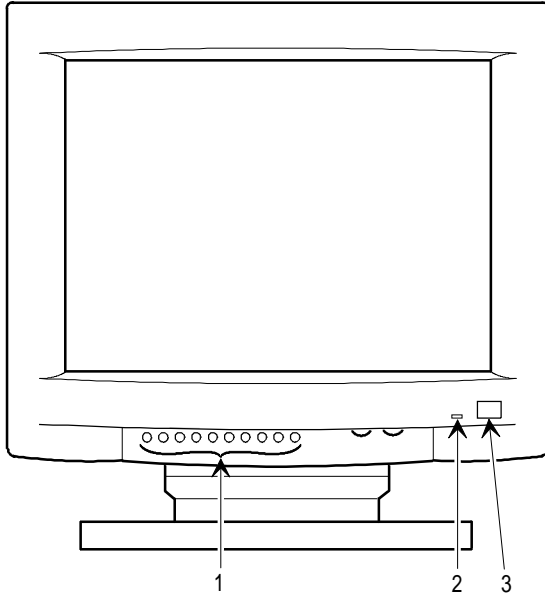


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Figure 2. PCXBV-Ux Monitor (Rear View)

Turn On Power to Monitor

Push the power switch button (3) to turn on the monitor. The power indicator LED (2) should light green. For screen alignment, use the monitor controls (1).

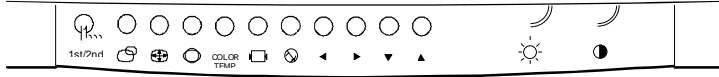


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Figure 3. Monitor Control Panel

Monitor Adjustments

Figure 4 shows the monitor adjustment controls. Some of the controls (1) have two functions. Press the button once or Function 1; press the button again for Function 2. Tables 1 and 2 define these functions. The monitor saves your settings four seconds after your last adjustment.



DEC00803







Figure 4. Monitor Controls

Table 1. User Controls and Functions

Icon	Name	Function
	Brightness	Adjusts black level for comfortable viewing.
	Contrast	Adjusts white level for comfortable viewing.
	Decrease	Decreases value for the selected control.
	Increase	Increases value for the selected control.
	Recall	Recalls factory default settings. See Caution .
	Degauss	Clears picture impurity caused by moving the monitor to a new location. See Caution .

CAUTION: Pressing the **Recall** button, or pressing the **Degauss** button for longer than 5 seconds, resets all of the data in the user memory area so you must remake your user adjustments.

Table 2. User Controls Used With Arrow Buttons

Icon	Name	With	Function 1	Function 2
	Position (H/V)	◀▶	Adjusts horizontal position.	Selects user or preset modes.
	Position (H/V)	▼▲	Adjusts vertical position.	Pages through list of modes.
	Size (H/V)	◀▶	Adjusts horizontal size.	Displays information on the specifications.
	Size (H/V)	▼▲	Adjusts vertical size.	Pages through list of specifications.
	Geometric distortion	◀▶	Pincushion: Adjusts the sides from bowing in or out.	Parallel: Adjusts the top and bottom to be parallel.
	Geometric distortion	▼▲	Trapezoid: Adjusts the top and bottom to be the same.	Tilt: Adjusts the tilt of the display.
COLOR TEMP.	Color temperature	▼▲	Adjusts temperature between 9300° and 6500°K color.	—

Servicing

Cleaning the Monitor

To clean the monitor:

1. Unplug the monitor.
2. Clean the monitor with a soft, slightly damp cloth. **Do not** use an aerosol cleaner directly on the screen.

CAUTION

Do not use benzene, thinner, or any volatile substance to clean the monitor, as these products may discolor the monitor's cabinet. Likewise, do not place rubber or vinyl on the monitor.

Maintenance and Troubleshooting

Identifying and Correcting Problems

The following can be sources of problems:

- Communications cables
- Host system
- Nearby power or electrical sources

Troubleshooting Table

Use Table 3 to identify and correct any problem area.

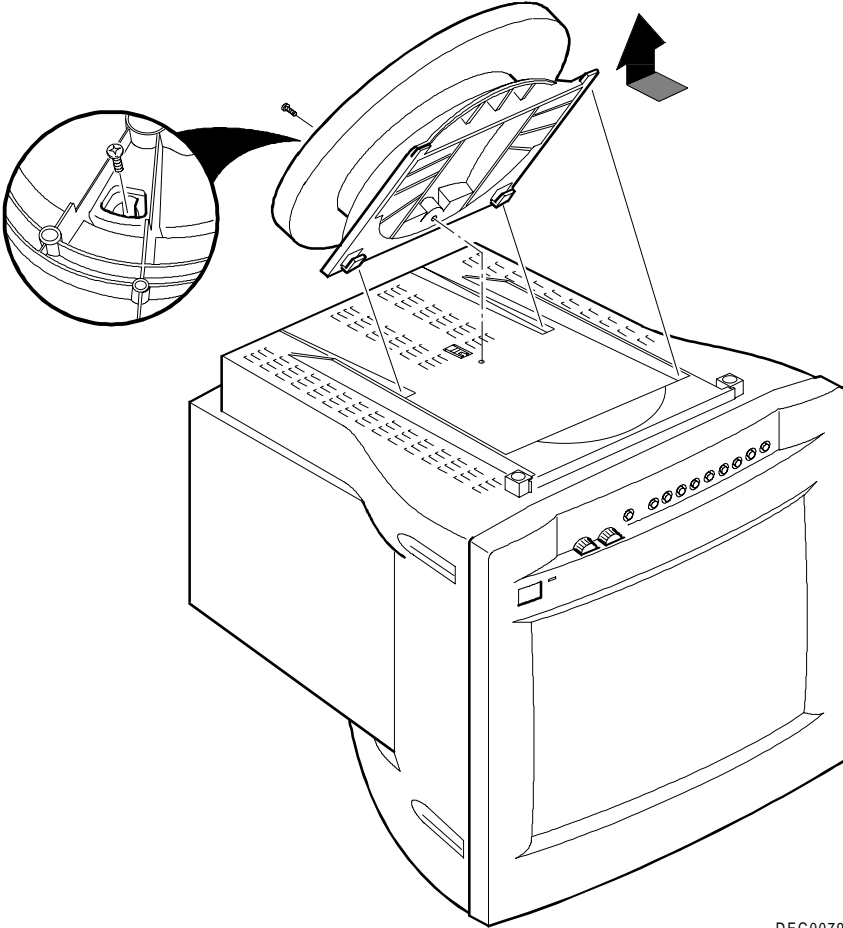
Table 3. Identifying and Correcting Problems

Symptom	Possible Cause	Suggested Solution
Display does not appear.	Brightness or contrast control is set too low. Power Management feature is active in the off state. There is no power.	Increase the brightness and contrast control setting to suit you. Press any key and allow 20 seconds for monitor to warm up. Check the power cord. Use another ac outlet.
Color impurity	Magnetic fields can build up on the CRT.	Press the degauss switch to demagnetize the CRT. See Caution below.
Video display has moving dots and distorted lines. The display rolls or flickers.	There is electromagnetic interference. Adjustments may be out of alignment.	Move any electromagnetic device, such as a fan or motor, away from the monitor or move the monitor. Hold the Recall button until the LED changes from green to orange then back to green. See Caution below.

CAUTION: Pressing the **Recall** button, or pressing the **Degauss** button for longer than 5 seconds, resets all of the data in the user memory area so you must remake your user adjustments.

Tilt/Swivel Stand Removal

To remove the stand, remove the screw that secures the bottom of the stand and slide it back.



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Figure 5. Tilt/Swivel Stand Removal

Specifications

Scanning Modes

Table 4 Display Modes and Addressability

Mode	Display Mode	Addressability	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	H Sync	V Sync
1	VGA 60	640 x 480	31.47	59.95	-	-
2	DOS 70	720 x 400	31.47	70.08	-	+
3	VGA/350 70	640 x 350	31.47	70.08	+	-
4	VGA VESA 75	640 x 480	37.50	75.00	-	-
5	ErgoVGA 72	640 x 480	37.86	72.81	-	-
6	SVGA/60	800 x 600	37.88	60.32	+	+
7	SVGA VESA 75	800 x 600	46.88	75.00	+	+
8	1024 x 768	1024 x 768	48.36	60.00	-	-
9	VESA 70	1024 x 768	56.48	70.07	-	-
10	1024 x 768 VESA 75	1024 x 768	60.02	75.03	+	+
11	1280 x 1024	1280 x 1024	64.98	60.10	-	-

Monitor Specifications

Table 5 Monitor Specifications

Monitor	43 cm (17-inch, 15.7 maximum viewable) non-glare, non-static, multilayer optical coating
Active Area	32.0 x 24.0 cm (12.6 x 9.4 in)
Height	42.6 cm (16.8 in), includes tilt/swivel base
Width	43.4 cm (17.1 in)
Depth	44.4 cm (17.5 in)
Swivel	±45°
Tilt	-5° to +13°
Weight	18 Kg (39.6 lb)
Video Signal	0.7V p-p R, G, B color; separate Sync (positive or negative); 75Ω TTL
Horizontal Scan Rate	30 - 65 kHz
Vertical Scan Rate	50 - 120 Hz, non-interlaced
Connector	15-pin D-sub
Power input	100 - 240 Vac, 1.0 A. maximum, 50 - 60 Hz.
Environment	
Operating Temperature	0° - 40°C
Humidity	10 - 90% relative humidity (noncondensing)

Power Management System

The monitor has three power-saving states indicated by the LED on the front panel. A personal computer can control these states to reduce the monitor's output power levels while not in use, thus saving energy.

For proper operation of this Power Management System, make sure that the monitor signal cable is connected to the host system and that the host is On.

Table 6 Power Saving States

LED	State	Power Consumption (Watts)*	Recovery Time
Green (Normal)	On	110 (max)	n/a
Amber	Standby	< 75	3 s
Alternating Amber/Green	Suspend	< 15	3 s
Alternating Amber/Off	Off	< 5	15 s

*These power-saving states exceed the Environmental Protection Agency (EPA) Energy Star requirements using the Video Electronics Standards Association (VESA) methodology for Display Power Management Signals.

Environment

This monitor has been designed and manufactured to minimize the impact to the environment.

Acoustic Levels

Preliminary declared values per ISO 9296 and ISO 7779:

	Sound Power Level ¹		Sound Pressure	
	L _{Wad} B		Level ²	L _{pAm} dBA
	Idle	Operate	Idle	Operate
PCXBV-Ux	N/A	3.2	N/A	25

¹ 1 B = 10 dBA

² Operator position

Asbestos

This monitor does not use asbestos in any form.

Flame Retardants

The enclosures do not contain polybrominated diphenylether (PBDE) as a flame retardant additive; therefore, they do not emit toxic dibenzofuran and dibenzodioxin gases.

Ozone Depleting Substances (ODS)

These monitors are in full compliance with the labeling requirements in the U.S. Clean Air Act Amendments of 1990. It does not contain, nor is it manufactured with, a Class 1 ODS, as defined in Title VI section 611 of this act.

PVC

The plastic enclosures are not made of rigid PVC. The material has a non-halogenated, flame-retardant system and is cadmium free.

Recyclable Material

The packaging material can be recycled, or you can save it to return the monitor to a service center for repair or disposal.

Monitor Disposal

WARNING

If you need to dispose of a monitor, ask a qualified service representative for the proper procedure. Improper disposal could result in personal injury from implosion.

VCCI Class 2