digital™

PCXBV-Rx Multimode 15-inch Color Monitor

Installation and Operating Information

Order Number: EK–PCXBV–RX. A01

August 1994

FCC ID:

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 modifications 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 or more 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, your authority to operate this equipment might be voided by the FCC.

Canadian Department of Communications Statement
This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

This document was prepared using VAX DOCUMENT Version 2.1.

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About This Guide

Overview

The PCXBV-Rx Monitor is a 15-inch *multi-mode* color monitor with VGA, SVGA and 1024 × 768/60Hz non-interlaced modes.

The PCXBV-Rx offers the following features:

- Anti-glare screen with unlimited display colors
- Automatic selection of horizontal and vertical frequencies
- User controls for image size and centering to adapt to a variety of video cards

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

Audience

This guide is intended for users 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.

Installation/Operating Guidelines

Observe the following basic rules for installation and use.

Do . . .

- Use the power cord supplied with the monitor, which is UL- and CSA-approved, designed for a **grounded** outlet.
- Turn the monitor off when you clean the monitor or if you do not use it for an extended period of time.

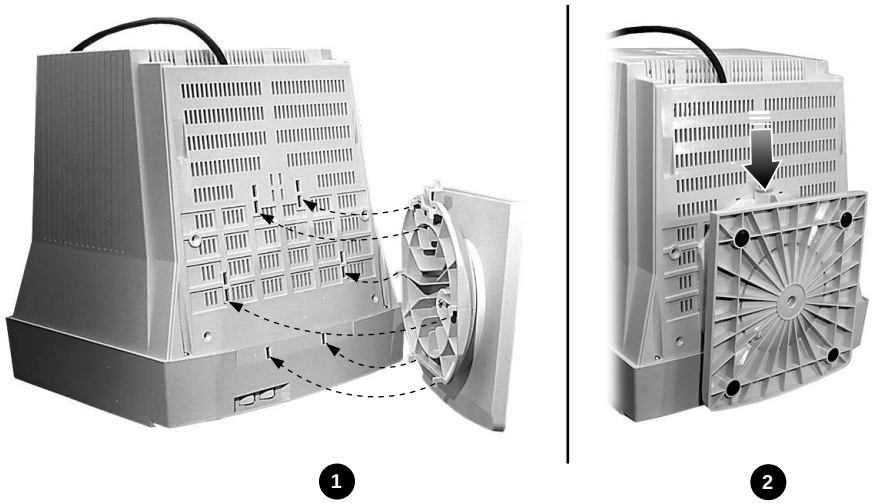
Do Not . . .

- Exceed the ac power output rating of the ac outlet of your computer or other source.
- 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 shock 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.
- Use liquid cleaners or aerosol cleaners. Instead, use a damp cloth for cleaning.

1
Installation

1.1 Install the tilt/swivel stand.

1. Insert the hooks on the stand into the slots in the bottom of the monitor.
2. Apply pressure near the latch so it is secure.



1.2 Monitor Installation

To connect your monitor:

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

Turn On Power to Monitor

Push the power switch button ❶ to turn on the monitor. The power indicator LED to the right of this switch should light green.

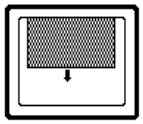
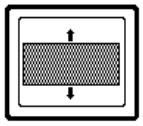
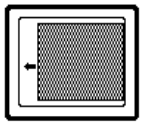
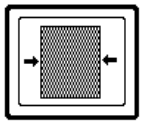
Figure 1–1 PCXBV-Rx Monitor (Control Panel)

◑ **Contrast** – Turn this control to adjust the contrast.

☼ **Brightness**—Turn this control to adjust the brightness.

If the display is too small or not centered, the monitor does not recognize the input frequency mode. Adjust the position and size of the display using the controls in Table 1–1

Table 1–1 User Controls and Functions

Control	Screen	Adjustment
		**Vertical Center** – Turn this control for correct vertical display position.
		**Vertical Size** – Turn this control for correct vertical display size.
		**Horizontal Center** – Turn this control for correct horizontal display position.
		**Horizontal Size** – Turn this control for correct horizontal display size.

2

Servicing

2.1 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 product may discolor the monitor's cabinet. Likewise, do not place rubber or vinyl on the monitor.

2.2 Maintenance and Troubleshooting

2.2.1 Identifying and Correcting Problems

The following can be sources of problems:

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

2.2.2 Troubleshooting Table

Use Table 2–1 to identify and correct any problem areas.

Table 2–1 Identifying and Correcting Problems

Symptom	Possible Cause	Suggested Solution
Display does not appear.	Brightness or Contrast control is set too low.	Increase the brightness and contrast control setting.
	There is no power.	Check the power cord. Use another ac outlet.
Video display has moving dots and distorted lines. The display rolls or flickers.	There is electromagnetic interference.	Move any electromechanical device, such as a fan or a motor, away from the monitor or move the monitor.

Warning

Serious shock hazards exist inside this display. There are no user serviceable parts inside. DO NOT remove covers under any circumstances or attempt to service the monitor yourself. Call a qualified service representative.

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

3
Specifications

3.1 Monitor Specifications

Monitor	38.1 cm (15 in) non-glare, non-static
Active area	26.0 × 19.5 cm
Height	38.0 cm (14.9 in)
Width	37.3 cm (14.7 in)
Depth	38.7 cm (15.2 in)
Swivel	±135°
Tilt	-5° to +15°
Weight	13.2 Kg (29 lbs)
Video Signal	0.7V p-p R, G, B color (positive) 75Ω.
H-Sync	TTL positive or negative, 1KΩ min. 30 to 48KHz (multi-scanning).
V-Sync	TTL positive or negative, 1KΩ min. 55 to 90 Hz.
Connector	15-pin D-sub
Power input	88 - 132 Vac, 1.0 A max at 60 Hz.
Power consumption	80 W (max)
Environment:	
Operating Temperature	0 - 40°C
Humidity	20 - 80% relative humidity (noncondensing)

3.2 Scanning Modes

To minimize adjustment needs, the monitor has seven factory pre-set display standards, shown in Table 3–1. When the monitor detects any of these display standards, it automatically adjusts the picture size and centering.

Table 3–1 Factory Pre-set Resolution and Frequencies

Mode	Pre-set Addressability (Pixels x Lines)	Vertical Refresh (Hz)	Horizontal Frequency (kHz)
1	720 x 400	70.09†	31.47
2	640 x 480	59.94	31.47
3	640 x 480	72.81	37.86
4	800 x 600	60.32†	37.88†
5	800 x 600	72.19	48.08†
6	1024 x 768	59.90	48.36†
7	1024 x 768	86.96 interlaced	35.52

†positive polarities

3.3 Pin Assignments

The pin assignments for the 15-pin D-type connector are:

Pin	Signal	Pin	Signal	Pin	Signal
1	Red	6	Red Return	11	Monitor GND
2	Green	7	Green Return	12	No pin
3	Blue	8	Blue Return	13	H-SYNC
4	Monitor GND	9	No pin	14	V-SYNC
5	Selftest	10	Logic GND	15	No pin

3.4 Environment

This product has been designed and manufactured to minimize the impact to the environment. The packaging is recyclable and the monitor can be returned for proper disposal.

Acoustic Levels

Preliminary declared values per ISO 9296 and ISO 7779:

	Sound Power Level[1] L_{wAd}, B		Sound Pressure Level[2] L_{pAm}, dBA	
Product	Idle	Operate	Idle	Operate
PCXBV-Rx	<4.0	<4.0	<35	<35

[1] 1 B = 10 dBA.
[2] Operator position.

Asbestos

This product 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 dibenzodixion gases.

Ozone Depleting Substances (ODS)

The PCXBV-Rx is 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.