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# digital<sup>™</sup>

# 14-inch SVGA Color Monitor Installation Guide

Order Number: EK-PCXCV-RX. A01

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#### July 1994

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**FCC Notice:** 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.

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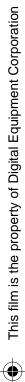
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# **About This Guide**

# **Overview**

The SVGA Color Monitor (PCXCV-Rx) has multi-modes: VGA, SVGA, and 1024  $\times$  768 interlaced modes.



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

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# 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.



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# 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.

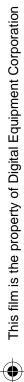
## Do Not . . .

- 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.





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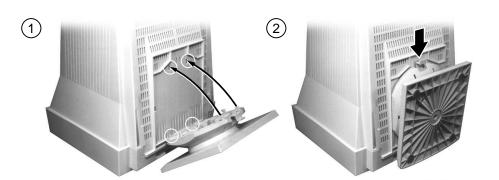


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# Installation

# 1.1 Install the tilt/swivel stand.

- 1. With the monitor face down, 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.



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Installation 1-1



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# Installation 1.2 Monitor Installation

# **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 **(b)** to turn on the monitor. The power indicator LED above this switch should light green.

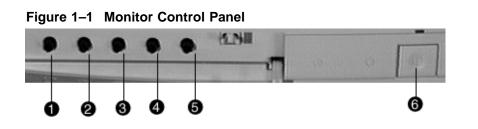


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1-2 Installation



# Installation 1.2 Monitor Installation



# Table 1–1 User Controls and Functions

Control	Action
Ċ.	<b>Brightness</b> – Turn the control clockwise to increase brightness. Turn the control counterclockwise to reduce brightness
•	<b>Contrast</b> – Turn the control clockwise to increase contrast. Turn the control counterclockwise to reduce contrast.
	Note
	If the picture is too small or not centered, the monitor does not recognize the input frequency mode. Adjust the position and size of the picture using the controls that follow.
	follow. (continued on next p

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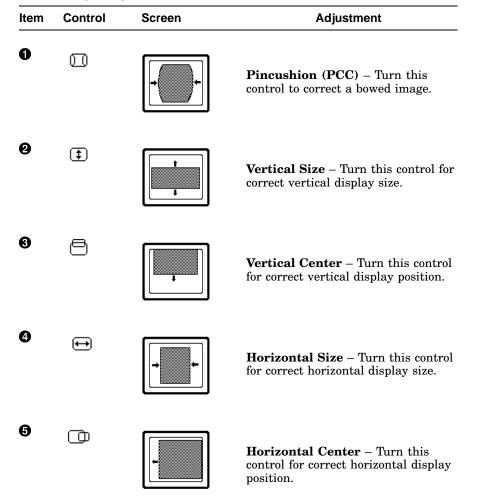
Installation 1-3



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# Installation 1.2 Monitor Installation

Table 1–1 (Cont.)	User Controls and Functions
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#### 1-4 Installation



# 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

Servicing 2-1



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## Servicing 2.2 Maintenance and Troubleshooting

# 2.2.2 Troubleshooting Table

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

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 electromechan- ical device, such as a fan or a motor, away from the monitor or move the monitor.	

Table 2–1 Identifying and Correcting Problems

# Ţ

#### 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.

2–2 Servicing



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# **3** Specifications

# 3.1 Monitor Specifications

Monitor	35.6 cm (14 in) non-glare
Active area	$24.8 \times 18.6 \text{ cm}$
Height	38.1 cm (15.0 in)
Width	36.2 cm (14.3 in)
Depth	38.0 cm (15.0 in)
Swivel	±45°
Tilt	-5° to +15°
Weight	11 Kg (24.2 lbs)
Video Signal	0.7V p-p R, G, B color (positive) 75Ω.
H-Sync	TTL positive or negative, 1KΩ min. 30K to 38KHz (multi-scanning).
V-Sync	TTL positive or negative, $1K\Omega$ min. 50 to 88 Hz.
Connector	15-pin D-sub
Power input	90 - 135 Vac, 1.0 A max at 60 Hz; 180 - 264 Vac, 0.4 A max at 50 Hz (auto-switching)
Power consumption	75 W (max)
<b>Environment:</b> Operating Temperature	10 - 40°C
Humidity	20 - 80% relative humidity (noncondensing)

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Specifications 3-1



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# Specifications 3.2 Scanning Modes

# 3.2 Scanning Modes

To minimize adjustment needs, the monitor has six 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

	Pre-set Addressability	Vertical	Horizontal	
Mode	(Pixels x Lines)	Refresh (Hz)	Frequency (kHz)	
1	640 x 350	70.09	$31.47^{+}$	
2	720 x 400	$70.09^{+}$	31.47	
3	640 x 480	59.94	31.47	
4	640 x 480	75.00	37.50	
5	800 x 600	$60.32^{+}$	37.88†	
6	1024 x 768	86.96‡	35.52	

# 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	GND
2	Green	7	Green Return	12	No pin
3	Blue	8	Blue Return	13	H-SYNC
4	GND	9	No pin	14	V-SYNC
5	Selftest	10	GND	15	No pin

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3-2 Specifications



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Specifications 3.4 Environment

# 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.

## 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 PCXCV-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.

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Specifications 3-3



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