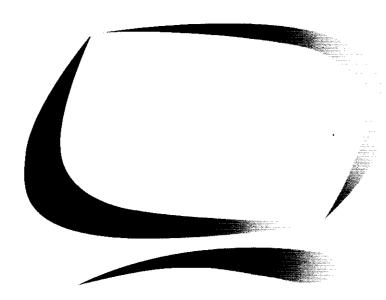
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CHA4217L

Color Monitor



Owner's Instructions



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and servicing instructions in the literature accompanying the appliance.

Unpacking your Monitor

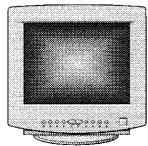
Please make sure the following items are included with your computer monitor:



This Manual



Warranty Card (Not available in all areas)



Monitor and Stand



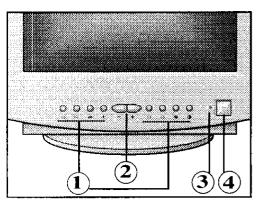
Preface: Safety Information

Please read and follow these instructions when connecting and using your computer monitor.

- Before connecting the AC power cord to an outlet, make sure the voltage designation on your monitor corresponds to the local electrical supply.
- Never insert anything metallic into the monitor openings. Doing so may create the danger of electric shock.
- To avoid electric shock, never touch the inside of the monitor.
 Only a qualified technician should open the monitor's case.
- A Never use your monitor if the power cord has been damaged.
 Do not allow anything to rest on the power cord, and keep the cord away from where people could trip over it.
- Be sure to hold the plug, not the cord, when disconnecting the monitor from an electric socket.
- Openings in the monitor cabinet are provided for ventilation. To prevent overheating, these openings should not be blocked or covered. Also, avoid using the monitor on a bed, sofa, rug, or other soft surface. Doing so may block the ventilation openings in the bottom of the cabinet. If you put the monitor in a bookcase or some other enclosed space, be sure to provide adequate ventilation.

- Put your monitor in a location with low humidity and a minimum of dust. Avoid places like damp basements or dusty hallways.
- Do not expose the monitor to rain or use it near water (in kitchens, next to swimming pools, etc.). If the monitor accidentally gets wet, unplug it and contact an authorized dealer immediately. You can clean the monitor with a damp cloth when necessary, but be sure to unplug the monitor first.
- Place the monitor on a solid surface and treat it carefully. The screen is made of glass and can be damaged if dropped or sharply hit.
- 10 Locate your monitor near an easily accessible AC outlet.
- 11 If your monitor does not operate normally in particular, if there are any unusual sounds or smells coming from it unplug it immediately and contact an authorized dealer or service center.
- 12 High temperatures can cause problems. Don't use your monitor in direct sunlight, and keep it away from heaters, stoves, fireplaces, and other sources of heat.
- 13 Unplug the monitor when it is going to be left unused for an extended period of time.
- 14 Unplug your monitor from the AC outlet before any service.

Chapter One: Overview of Your Monitor



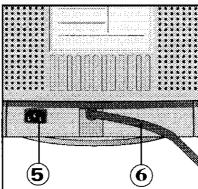


Table 1

Front Panel

- Function control buttons
 Use these buttons to control the shape of the display area, and to control the color qualities of the display image.
- Adjustment buttons
 Use the decrease () button to lower the value of the selected function. Use the increase (+) button to raise the value of the selected function.
- Power indicator
 This light glows green during normal operation.
- 4 Power button
 Use this button to turn the monitor on and off.

Rear Panel

- 5 Power port Connect the power cable here.
- 6 Signal cable
 Connect this cable to the video connector on your computer.



Specifications

Picture Tube

• 36 cm (14") Full square type [33.5 cm (13.2") viewable]

• 90° deflection • 0.28 Dot pitch

· Silica coated with anti electrostatic properties

• Medium-short persistence phosphor

Synchronization

Horizontal: 30 kHz to 55 kHz (automatic)
Vertical: 50 Hz to 120 Hz (automatic)

Display Color

Unlimited

Maximum Resolution

Horizontal: 1024 dotsVertical: 768 lines

Active Display

Horizontal: 255 ± 4 mm (10.04" ± 0.16")
 Vertical: 191 ± 4 mm (7.52" ± 0.16")

(Active display size is dependent upon signal timing)

Input Signal, Terminated

. Analog 0.714 Vpp positive at 75 Ω

· Separate sync: TTL level, positive or negative

Maximum Pixel Clock

• 65 MHz

Power Supply

• AC 100-240 Volt ± 10%, 60 Hz/50 Hz ± 3 Hz

Power Consumption

• 73 Watt maximum

Dimensions/Weight

• Unit: 348 x 385 x 362.5 mm; 10.5 Kg

13.7 x 15.2 x 14.3 inch (W x D x H); 23.1 lbs.

• Carton: 422 x 460 x 390 mm; 12.4 kg

16.6 x 18.1 x 15.4 inch (W x D x H); 27.3 lbs.

(All measurements approximate.)

Environmental Considerations

• Operating Temperature: 32°F to 104°F (0°C to 40°C) Humidity: 10% to 80%

Storage Temperature: -4°F to 113°F (-20°C to 45°C)
 Humidity: 5% to 95%

NOTE: Design and specifications are subject to change without prior notice.

Pin Assignments

| Sync Type | 15 Pin Side of the Signal Cable (Figure 1) | Cable Adapter (Figure 2) | |
|-----------|--|--------------------------|--|
| Pin No. | Separate | Apple MAC II | |
| 1 | Red | GND-R | |
| 2 | Green | Red | |
| 3 | Blue | H/V Sync | |
| 4 | GND | Sense 0 | |
| 5 | DDC Return | Green | |
| 6 | GND-R | GND-G | |
| 7 | GND-G | Sense 1 | |
| 8 | GND-B | Reserved | |
| 9 | Reserved | Blue | |
| 10 | GND-Sync/Self-Raster | Sense 2 | |
| 11 | GND | GND | |
| 12 | DDC Data | V-Sync | |
| 13 | H-Sync | GND-B | |
| 14 | V-Sync | GND | |
| 15 | DDC Clock | H-Sync | |

Figure 1 : Male Type

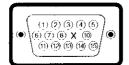


Figure 2 : Male Type



Display Modes Timing Chart

| Display Mode | Horizontal Frequency (kHz) | Vertical Frequency (Hz) | Pixel Clock (MHz) | Sync Polarity (H/V) |
|----------------------|-------------------------------|----------------------------|----------------------|------------------------|
| IBM, VGA2, 720 x 400 | 31.469 | 70.087 | 28.322 | -/+ |
| IBM, VGA3, 640 x 480 | 31.469 | 59.940 | 25.175 | -/- |
| VESA, 640 x 480 | 37.500 | 75.000 | 31.500 | -/- |
| VESA, 640 x 480 | 43.269 | 85.008 | 36.000 | -/- |
| VESA, 800 x 600 | 46.875 | 75.000 | 49.500 | +/+ |
| VESA, 800 x 600 | 53.674 | 85.061 | 56.250 | +/+ |
| VESA, 1024 x 768 | 48.363 | 60.004 | 65.000 | -/- |



FCC Information

User Instructions

The Federal Communications Commission Radio Frequency Interference Statement includes the following warning:

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. 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 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 receptions, 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:

- · Recrient 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

User Information

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

If necessary, consult your dealer or an experienced radio/television technician for additional suggestions. You may find the booklet called *How to Identify and Resolve Radio/TV Interference Problems* helpful. This booklet was prepared by the Federal Communications Commission. It is available from the U.S. Government Printing Office, Washington, DC 20402, Stock Number 004-000-00345-4.

Warning

User must use shielded signal interface cables to maintain FCC compliance for the product.

Provided with this monitor is a detachable power supply cord with IEC320 style terminations. It may be suitable for connection to any UL Listed personal computer with simi-

lar configuration. Before making the connection, make sure the voltage rating of the computer convenience outlet is the same as the monitor and that the ampere rating of the computer convenience outlet is equal to or exceeds the monitor voltage rating.

For 120 Volt applications, use only UL tisted detachable power cord with NEMA configuration 5-15P type (parallel blades) plug cap. For 240 Volt applications use only UL Listed Detachable power supply cord with NEMA configuration 6015P type (tandem blades) plug cap.

IC Compliance Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations of ICES-003.

MPR II Compliance

This monitor complies with SWEDAC (MPR II) recommendations for reduced electric and magnetic fields.

European Notice

Products with the CE Marking comply with both the EMC Directive (89/336/EEC), (92/31/EEC), (93/68/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to

the following European Norms:

- EN55022 (CISPR 22) Radio Frequency Interference
- EN50082-1: 1992 Electromagnetic Immunity
- EN60555-2 (IEC555-2) Power Line Harmonics
- EN60555-3 (IEC555-3) Voltage Fluctuations
- EN60950 (IEC950) Product Safety