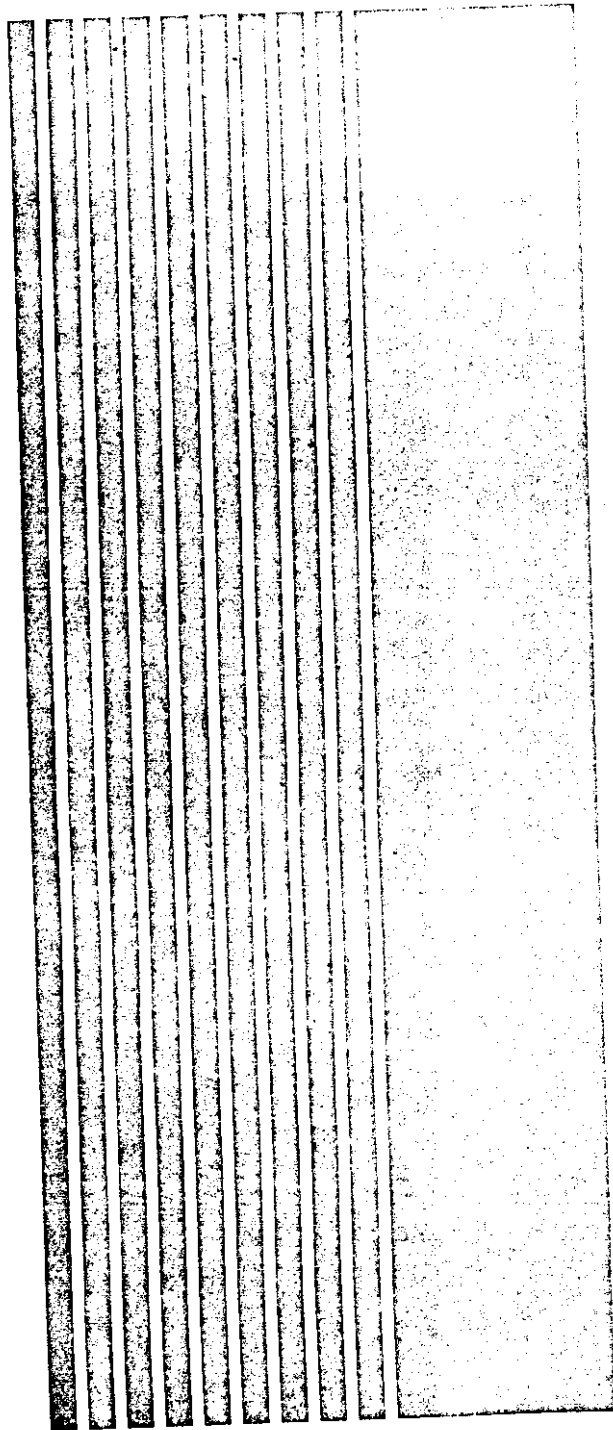


*User's
Manual*



Trademarks

IBM, PC, PC XT, PC/AT, VGA, SUPER VGA, 8514/A are registered trademarks of International Business Machines Corporation.

Class B Equipment

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 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:

- 1. Reorient or relocate the receiving antenna.
- 2. Increase the separation between the equipment and receiver.
- 3. Connect the equipment into an outlet on a circuit different from receiver is connected.
- 4. Consult the dealer or an experienced radio or television technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved

by _____ may void the user's authority to operate the equipment.

Cables

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods in order to maintain compliance with FCC Rules and Regulations.

Bescheinigung des Herstellers/Importeurs Hiermit wird bescheinigt, dass der/die/das _____

(Great, Typ, Bezeichnung)

in Übereinstimmung mit den Bestimmungen der

Vgf 243/1991, Vgf 46/1992

(Amtsblattverfugung)

funk-entstort ist.

der Deutschen Bundespost wurde das Inverkehrbringen dieses Gerates anzeigt und die Berechtigung zur Überprüfung der Serie auf Einhaltung der Bestimmungen eingeräumt.

Name des Herstellers/importeurs

Beim Einsatz dieses Gerätes in Bildschirmarbeitsplätzen für den Bürobereich muß die Ansteuerung durch die Zentraleinheit eine Zeichendarstellung gemäß ZH 1/618 gewährleisten.

The monitor complies with CISPR 22 requirement.

The monitor complies with IEC 801-2~6 standard.

SAFETY INSTRUCTION

WARNINGS:

1. Read all of these instructions.
2. Save these instructions for later use.
3. Unplug this monitor from the wall or P.C. outlet before cleaning. Do not use liquid or cleaners or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use attachments not recommended by the monitor manufacturer as they may cause hazards.
5. Do not use this monitor near water. For example near a bathtub, or near a swimming pool, etc.
6. Do not place this monitor on an unstable cart, stand, or table, the monitor may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart or stand recommended by the manufacturer or sold with monitor. Wall or shelf mounting should follow the manufacturer's instruction, and should use a mounting kit approved by the manufacturer.
7. Slots and openings in the cabinet and the back or bottom are provided for ventilation, and to insure reliable operation of the television receiver and to protect it from overheating, these openings must not be blocked or covered, the openings should never be blocked by placing the monitor on a bed, sofa, rug, or other similar surface. This monitor should never be placed near or over a radiator or heat register. This monitor should not be placed in built-in installation such as a bookcase unless proper ventilation is provided.
8. This monitor should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied in your home, consult your monitor dealer or local power company.
9. This monitor is equipped with a three-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
10. Do not allow anything to rest on the power cord. Do not locate this monitor where the cord will be abused by persons working on it.
11. Follow all warnings and instructions marked on the monitor.
12. For added protection for this monitor, when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the monitor due to power-line surges.

13. Do not overload wall outlets and extension cords as this can result into fire or electric shock.
14. Never push objects of any kind into this monitor through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind of the monitor.
15. Do not attempt to service this monitor yourself since opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
16. Unplug this monitor from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - a. When the power cord or plug is damaged or frayed.
 - b. If liquid has been spilled into the monitor.
 - c. If the monitor does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the monitor to normal operation.
 - d. If the monitor has been dropped or the cabinet has been damaged.
 - e. When the monitor exhibits a distinct change in performance this indicates a need for service.
17. When replacement parts are required parts specified by the manufacturer that have the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock, or other hazards.
18. Upon completion of any service or repairs to this monitor, ask the service technician to perform routine safety checks to determine that the monitor is in safe operating condition.

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CHAPTER 1 INTRODUCTION

1-1 Welcome to the CA-1768 series

This CA-1768 series color digital controlled monitor have many features taht make them the best monitor on the market. The unit also features OSD (On Screen Display) which allows you to adjust the screen parameters to your viewing comfort. For example, all series meet the U.S. EPA's (Environmental Protection Agency) specifications for low power consumption and have earned the right to be called "Energy Star". The intelligent microprocessorbased design and flat screen display make itself more friendly with users.

1-2 Feature

- * Auto-scanning from 30 KHz to 68 KHz for horizontal frequency, and 50Hz to 100 Hz for vertical frequency.
- * Flicker-free for 1024 x 768 resolution, and 1280 x 1024 (Fv=60Hz) for graphic application.
- * 17"inch flat screen.
- * Microprocessor-based design with 11 modes preset and auto-memorized.
- * Picture tilt adjustable.
- * Compatible with IBM VGA, 8514/A, SVGA, XGA and VESA ergonomics standards.
- * Horizontal and vertical overscan capability.
- * Power saving with VESA DPMS standard.
- * Full range power supply.
- * Anti-electricity, extremely low magnetic and electric field (MPR II model only)
- * OSD (On Screen Display)

CHAPTER 2 INSTALLATION

3 Preparing Your Working Area

When using your monitor, it is important that you are comfortable and that your monitor is protected from damage. Before using your monitor, please read the following precautions:

Make sure that your monitor will be set up in a stable surface. If mounting on a wall or shelf, use a mounting kit approved by the manufacturer.

Do not use near water or in damp, dirty or dusty areas.

Do not put the monitor in a location where the screen will be exposed to direct sunlight. Direct sunlight and very bright background lighting make it difficult to read the screen.

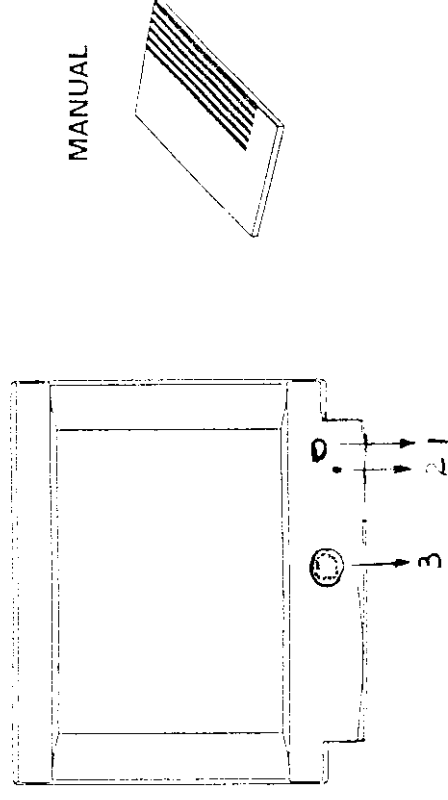
Avoid using the monitor in areas where there are strong magnetic fields, such as near high-capacity transformers and electric motors.

Do not set any liquids near or on the top of your monitor.

Always ensure that there is adequate ventilation around all of your monitor's slots and openings.

2-1 Unpacking Your Monitor

Please make sure that all of the items listed below have been included with your monitor.



2-2 Getting To Know Your Monitor

1. POWER SWITCH
2. LED
3. FUNCTIONS SELECT & ADJUSTMENT KEY

2-3 OSD Icon Descriptions

Icon	Description
------	-------------

 Contrast: This field allows you to adjust the display contrast level to accommodate the ambient lighting conditions of your working environment.

 Brightness: This field allows you to fine tune the display brightness level.

 H-Size: This field allows you to stretch or squeeze the display area horizontally.

 H-Position: This field allows you to adjust the display to the right or to the left.

 V-Size: This field allows you to stretch or squeeze the display area vertically.

 V-Position: This field allows you to adjust the display up or down on the screen.

 Pincushion: This field allows you to alter the image geometry of the display area to prevent the image from curving either inwardly or outwardly.

 Trapezoid: This field allows you to stretch or squeeze the top or bottom of the display.

 Rotation: This field allows you to fine tune the tilt of the display.

 Red Gain: This field allows you to control the red color intensity.

 Green Gain: This field allows you to control the green color intensity.

 Blue Gain: This field allows you to control the blue color intensity.

 Recall: This field allows you to call back the memory.

2-4 Using Your Monitor

After you have unpacked your monitor and become familiar with the controls, connect your monitor to the computer with the video cable. Next, connect the power cord to the monitor and plug the three-prong plug into the proper power outlet. Now you can turn on your monitor and adjust the display.

2-5 Adjusting the Display

Using the function selection key and adjustment keys to position the picture, proper size and geometry. If the display will not display properly, please contact the factory for instruction.

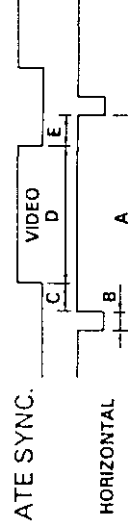
2-6 Using the Energy-saving Feature

The CA-1768 series Energy Star monitors incorporate power management features to conserve valuable energy. Signals from the computer's video output send the monitor into the appropriate power consumption state of either STAND-BY, SUSPEND or OFF. The power indicator LED will change the color to indicate the monitor is in power-saving state and is consumption Less than 30Watts. The screen display is specially designed to recover rapidly from the STAND-BY, SUSPEND or OFF states.

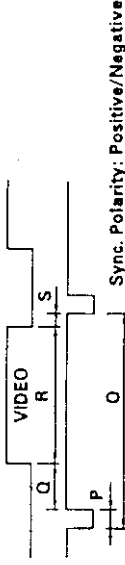
2-7 Setting the Timing

The following timing setting are recommended for this monitor:

SEPARATE SYNC.



VERTICAL



Sync. Polarity: Positive/Negative

APPENDIX A : SPECIFICATIONS

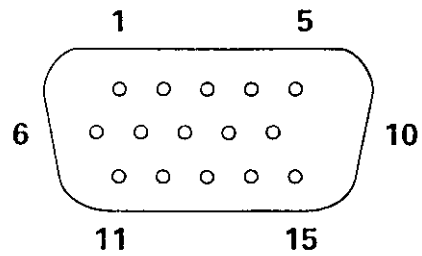
Picture Tube	17" diagonal, flat screen Tint glass, non-glare Medium short persistence phosphor (Anti-static surface treatment for MPR II model)
Input Signal	Video: Analog, 0.7 Vpp / 75 ohm positive Sync. : TTL, Separate, positive or negative
Resolution	1280 × 1024 non-interlaced
Scanning Frequency	Horizontal : 30 ~ 68 KHz Vertical : 50 ~ 100 Hz
Video Bandwidth	85MHz
Power Saving	VESA DPMS
Display Color	Unlimited (depending on the VGA card)
Display Size	Horizontal : 300 + / - 2.5 mm (adjustable) Vertical : 225 + / - 2.0 mm (adjustable)
Power Input	Full range 110 - 120 Vac, 1.6 A (MAX.) 220 - 240 Vac, 0.8 A (MAX.)
Power Consumption	90 Watts (MAX) 30 Watts max in power-saving states
Dimension	L × W × H 470 × 480 × 475 mm
Weight	18.5 × 18.9 × 18.7 inches 15kg (28.6 lbs), net 17kg (33 lbs), gross
Environments	Operating Temperature : +0 ~ +45 degree C Humidity : 30 ~ 80 % Storage Temperature : -20 ~ +60 degree C Humidity : 10 ~ 90 %

Presel Modes	Fh	Aps	Bus	Cus	Dus	Eus	Fv	Qms	Pms	Qms	Rms	Sms	Video	Interlaced
IBM VGA	720 × 350	31.47 KHz	3.813	1.907	25.423	0.636	70.78 Hz	1.875	0.064	1.080	11.122	1.208	Analog	No
	720 × 400	31.47 KHz	3.813	1.907	25.423	0.636	59.94 Hz	1.017	0.064	1.017	12.711	0.413	Analog	No
	640 × 480	31.47 KHz	3.813	1.907	25.423	0.636	56.25 Hz	0.626	0.057	0.626	17.067	0.028	Analog	No
	800 × 600	35.52 KHz	3.920	1.247	22.804	0.178	86.96 Hz	0.563	0.113	0.578	12.480	0.770	Analog	Yes
IBM 8514/A	1024 × 768	38 KHz	26.413	1.27	20.317	1.120	72.8 Hz	13.735	0.079	0.478	15.880	0.062	Analog	No
VESA 800 × 600	800 × 600	38 KHz	26.4	2.2	20.794	0.369	60.00 Hz	16.656	0.124	0.609	12.51	0.509	Analog	No
VESA 800 × 600	800 × 600	48.09 KHz	20.794	1.009	20.794	0.908	72 Hz	13.887	0.124	0.479	15.88	0.5	Analog	No
VESA 1024 × 768	1024 × 768	48 KHz	20.677	2.46	20.677	0.91	60 Hz	18.66	0.106	0.513	13.599	0.053	Analog	No
VESA 1280 × 1024	1280 × 1024	63.96 KHz	17.707	1.813	11.636	0.727	70.07 Hz	14.272	0.078	0.579	16.012	0.016	Analog	No

VESA*: VESA Standard VESA*: VESA Guideline

APPENDIX B : PIN ASSIGNMENT

15 pin mini D-SUB (Male)



- 1. Red
- 2. Green
- 3. Blue
- 4. No-connection
- 5. No-connection

- 6. Red ground
- 7. Green ground
- 8. Blue ground
- 9. No-connection
- 10. Ground

- 11. Ground
- 12. No-connection
- 13. Horizontal sync.
- 14. Vertical sync.
- 15. No-connection