

USER'S MANUAL

17" DIGITAL COLOR MONITOR
DIGITALER 17"-FARBMONITOR
MONITEUR COULEUR NUMÉRIQUE À 17"
MONITOR DIGITAL A COLOR

FCC ID = AMPJ71C

Federal Communications Commission (FCC) Statement

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 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:

- Reorient 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.

Warning:

Use only shielded cables to connect I/O devices to this equipment.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Operation Instructions

Thank you for purchasing a 17" series high-resolution multi-scan color monitor! Please read this guide thoroughly before installation.

FCC RADIO FREQUENCY INTERFERENCE STATEMENT WARNING: (FOR FCC CERTIFIED MODELS)

This monitor has been tested and found compliant with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide proper protection against harmful interference to a residential installation. This monitor generates, uses, and can radiate radio frequency energy. Harmful interference to radio communication may be led as a result if it's not properly installed and used. However, there is no guarantee that interference will not occur in a particular installation. If this monitor does cause serious interference to radio or television reception, resetting the monitor may determine it. Moreover, users are encouraged to correct interference by doing one or more of the following:

- Reorient or relocate the receiving antenna.
- Move the monitor and the receiver further away from each other.
- Connect the monitor into an outlet on a circuit different from that to which the receiver is connected.
- Consult your local dealer or an qualified technician.

FCC Warning:

To assure a continued FCC compliance, a user must use a grounded power supply cord and the provided shielded video interface cable with bonded ferrite cores. Also, any unauthorized changes or modifications to this monitor would void the user's authority to operate this device.

Note: If necessary, shielded interface cables and A.C. power cord must be used to meet the emission level limits.



*Page 1-2 stand for TCO95 models only. See the back label of the monitor for TCO distinction if any.

congratulations! You have just purchased a TCO95 approved and labeled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and also, to the further development of environmentally adapted electronics products.

Why do we have environmentally labeled computers?

In many countries, environmental labeling has become an established method for encouraging the adaptation of goods and services to the environment. The main problem, as far as computers and other electronics equipment are concerned, is that environmentally harmful substances are used both in the products and during the manufacturing. Since it has not been possible for the majority of electronics equipment to be recycled in a satisfactory way, most of those potentially damaging substances sooner or later enter Nature.

There are also other characteristics of a computer, such as energy consumption levels, that are important from the viewpoints of both the work (internal) and natural (external) environments. Since all methods of conventional electricity generation have a negative effect on the environment (acidic and climate-influencing emissions, radioactive waste, etc.), it is vital to conserve energy. Electronics equipment in offices consume an enormous amount of energy since they are often left running continuously.

What does labelling involve?

This product meets the requirements for the TCO95 scheme which provides for international and environmental labelling of personal computers. The labelling scheme was developed as a joint effort for the TCO (The Swedish Confederation of Professional Employees), Naturvårdsmyndigheten (The Swedish Society for Nature Conservation) and NUTEK (The National Board for Industrial and Technical Development in Sweden).

The requirements cover a wide range of issues: environment, ergonomics, usability, emission of electrical and magnetic fields, energy consumption and electrical and fire safety.

The environmental demands concern restrictions on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs (freons) and chlorinated solvents, among other things. The product must be prepared for recycling and the manufacturer is obliged to have an environmental plan which must be adhered to in each country where the company implements its operational policy.

The energy requirements include a demand that the computer and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level in one or more stages. The length of time to reactivate the computer shall be reasonable for the user.

Labeled products must meet strict environmental demands, for example, in respect of the reduction of electric and magnetic fields, physical and visual ergonomics and good usability.

On the back page of this folder, you will find a brief summary of the environmental requirements met by this product. The complete environmental criteria document may be ordered from:

Current information regarding TCO95 approved and labelled products may also be obtained via the Internet, using the address: <http://www.tco-info.com/>

TCO95 is a co-operative project between TCO (The Swedish Confederation of Professional Employees), Naturskyddsforeningen (The Swedish Society for Nature Conservation) and NUTER (The National Board for Industrial and Technical Development in Sweden).

Environmental Requirements

Brominated flame retardants

Brominated flame retardants are present in printed circuit boards, cables, wires, casings and housings. In turn, they delay the spread of fire. Up to thirty percent of the plastic in a computer casing can consist of flame retardant substances. These are related to another group of environmental toxins, PCBs, which are suspected to give rise to similar harm, including reproductive damage in fish-eating birds and mammals, due to the bio-accumulative processes. Flame retardants have been found in human blood and researchers fear that disturbances in foetus development may occur.

TCO95 demand requires that plastic components weighing more than 25 grams must not contain organically bound chlorine and bromine.

Lead

Lead can be found in picture tubes, display screens, solders and capacitors. Lead damages the nervous system and in higher doses, causes lead poisoning.

TCO95 requirement permits the inclusion of lead since no replacement has yet been developed.

Cadmium

Cadmium is present in rechargeable batteries and in the colour-generating layers of certain computer displays. Cadmium damages the nervous system and is toxic in high doses.

TCO95 requirement states that batteries may not contain more than 25 ppm (parts per million) of cadmium. The colour-generating layers of display screens must not contain any cadmium.

Mercury

Mercury is sometimes found in batteries, relays and switches. Mercury damages the nervous system and is toxic in high doses.

TCO95 requirement states that batteries may not contain more than 25 ppm (parts per million) of mercury. It also demands that no mercury is present in any of the electrical or electronic components concerned with the display unit.

CFC's (freons)

CFC's (freons) are sometimes used for washing printed circuit boards and in the manufacturing of expanded foam for packaging. CFC's break down ozone and thereby damage the ozone layer in the stratosphere, causing increased reception on Earth of ultraviolet light with consequent increased risks of skin cancer (malignant melanoma).

The relevant TCO95 requirement: Neither CFC's nor HCFC's may be used during the manufacturing of the product or its packaging.

* Bio-accumulative is defined as substances which accumulate within living organisms

** Lead, Cadmium and Mercury are heavy metals which are Bio-accumulative

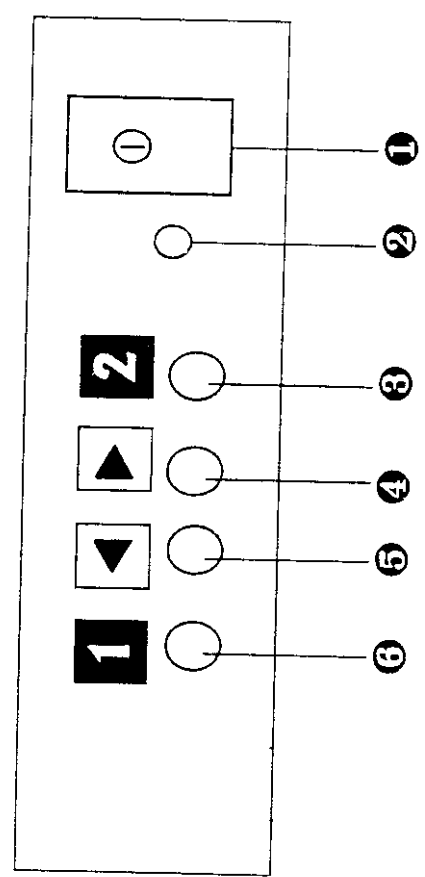
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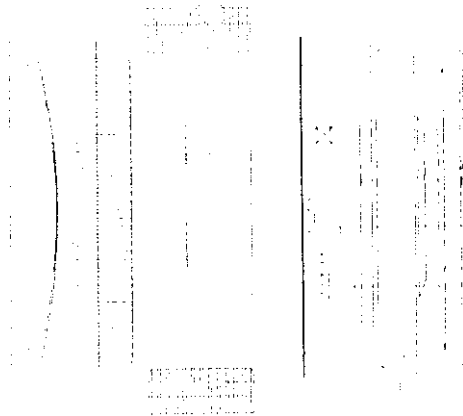
This color monitor is a microprocessor controlled multi-frequency system device. The monitor is compatible with many standard graphic formats, including VGA, SVGA, and XGA. The key features include:

- 17" CRT color display with resolutions up to 1280x1024 pixels.
- Support for graphic cards with VESA compatible DDCL/2B (Display Data Channel 1/2B) interface for monitor-to-PC communication.
- Easy to use On Screen Display (OSD) adjustment interface.
- Supports EPA, NUTEK A/B, VESA compatible 4-staged power management systems.

A. Front Panel



ENGLISH



- 7 AC SOCKET
- 8 15 PIN D-TYPE CONNECTOR

FUNCTION

A. External Control

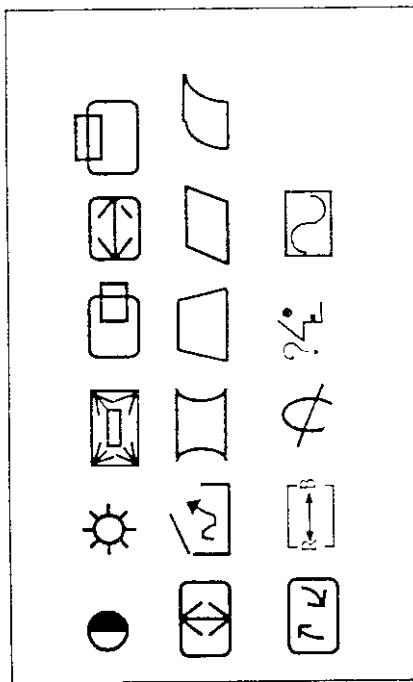
SYMBOL	ITEM	DESCRIPTION
①	① Power switch	-Controls Power on/off.
○	② Power Indicator	-Green light gives confirmation of power on. Orange light gives confirmation of power saving mode.
2	③ Active function	-Press to activate selected functions/sub-menu.
▷	④ Increase	-Press to select function items toward right. -Increases function parameter.
◁	⑤ Decrease	-Press to select function items toward left. -Decreases function parameter.
1	⑥ OSD on/off	-Activates/Inactivates OSD functions

B. Digital Features

1. This monitor has an adapted advance CPU to control the Contrast, Brightness, Zoom, H-phase, H-size, V-center, V-size, Pincushion, Trapezoid, Parallelogram, Pin-balance, Rotation, Color temperature. It also auto saves the configuration set up by users.
2. This monitor has 12 sets of factory preset timing and 10 sets of user definable timing.

USING OSD FUNCTIONS

- Press **1** **2** function buttons to activate OSD functions and adjust with **◀ ▶** to change function parameter.
- OSD icons:



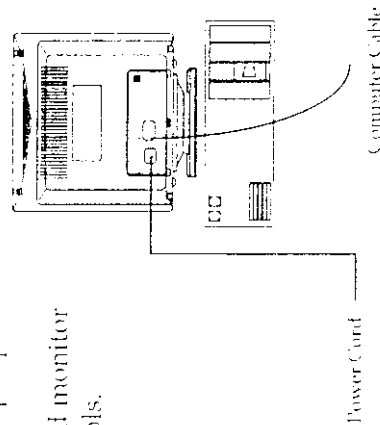
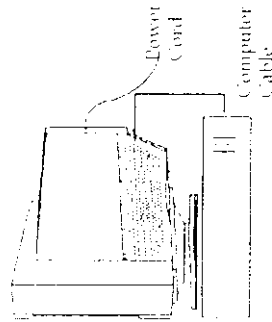
ENGLISH

ICON	ITEM	DESCRIPTION
	CONTRAST	Increases/ decreases video gain.
	BRIGHTNESS	Increases/ decreases raster black level.
	ZOOM	Zoom In or Zoom Out the video pattern.
	HORIZONTAL PHASE	Adjusts the H-phase of the picture.
	HORIZONTAL WIDTH	Adjusts the H-width of the picture.
	VERTICAL POSITION	Adjusts the vertical placement of the picture.
	VERTICAL HEIGHT	Adjusts the vertical size of the picture.
	RECALL	When use PRESET MODE press + or - to recall the factory default.
	PIN CUSHION	Controls the side distortion.
	TRAPEZOID	Controls the top of the H-width equal to the bottom of the picture.
	PARALLEL OGRAM	Controls the vertical line on both sides to become slope and symmetry.
	PEN BALANCE	Controls the vertical line on both sides to become parabola and symmetry.
	ROTATION	Controls the tilt of the display image.
	COLOR TEMPERATURE	Selects color temperature & adjust user color mode.
	DEGAUSS	Depausses the screen.
	LANGUAGE	Multi-language select. Use - and + key to select OSD display language.
	MODEL DISPLAY	Shows current horizontal & vertical frequency & mode type.

*There's no pin-balance control in multimedia models.

Follow these step-by-step instruction for proper monitor installation.

1. Make certain your computer's power switch is off before plugging power cord.
This is very important!!!
2. Then plug the power cord into your monitor's AC socket and the other end to the power source as shown.
3. Now attach the video cable to your monitor and the other end to your computer's video card output port.
4. Turn your computer and monitor on. Adjust user controls.



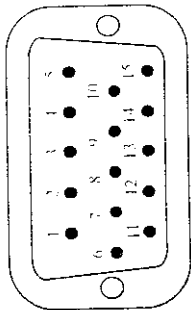
This monitor is manufactured and tested on a ground principle that a user's safety comes first. However, improper use or installation may result danger to the monitor as well as to the user. Carefully go over the following WARNINGS before installation and keep this guide handy.

WARNINGS:

- ◆ This monitor should be operated only at the correct power sources indicated on the label on the rear end of the monitor. If you're unsure of the power supply in your residence, consult your local dealer or power company.
- ◆ Do not try to repair the monitor yourself as it contains no user-serviceable parts. The monitor should only be repaired by a qualified technician.
- ◆ Do not remove the monitor cabinet. There is high-voltage parts inside that may cause electric shock to human bodies, even when the power cord is disconnected.
- ◆ Stop using the monitor if the cabinet is damaged. Have it checked by a service technician.
- ◆ Put your monitor only in a clean, dry environment. Unplug the monitor immediately if gets wet and consult your service technician.
- ◆ Always unplug the monitor before cleaning it. Clean the cabinet with a clean, dry cloth. Apply non-ammonia based cleaner onto the cloth, not directly onto the glass screen.
- ◆ Keep the monitor away from magnetic objects, motors, TV sets, and transformer.
- ◆ Do not place heavy objects on the cable or power cord.

D-SUB CONNECTOR

15-PIN D-SUB CONNECTOR



1. R

2. G

3. B

4. GND

5. NC
6. GND

7. GND

8. GND

9. NC

10. GND
11. GND

12. SDA

13. H. SYNC

14. V. SYNC

15. SCL

SIGNAL LEVEL

CONNECTOR	SIGNAL	DESCRIPTION
R	RED	0.7 VP-P(VIDEO)
G	GREEN	0.7 VP-P(VIDEO)
B	BLUE	0.7 VP-P(VIDEO)
H	H/SYNC	TTL positive or negative
V	V/SYNC	TTL positive or negative
SDA	DDC1/2B	TTL
SCL	DDC1/2B	TTL

SPECIFICATIONS

CRT	Size	17-inch Diagonal Flat Square Type
	Viewable Size	15.6 inch (Diagonal)
	Dot Pitch	0.27/0.25mm (optional)
	Deflection	90°
	Size	300mm X 325mm
Display	Color	Unlimited Colors
	Resolution	Up to 1280 x 1024
	Pixel Rate	110 MHz
Input Signal	Video Signal	RGB Analog 0.7 Vpp 75 Ohms
	Sync. Signal	H/V. Separated, TTL
	Scanning Freq.	Level Positive or Negative 30 KHz to 50 KHz for Horizontal 50 Hz to 120 Hz for Vertical
Power Source	Power Supply	AC 100-240 V, 60 Hz, 50 Hz
	Power Consumption	120W Max
Dimensions	Monitor	412mm (W) x 402mm (H) x 450mm (D) Short CRT
	Carton	405mm (W) x 412mm (H) x 399mm (D)
	Net Weight	15.3mm (W) x 515mm (H) x 557mm (D) Short CRT 515mm (W) x 578mm (H) x 535mm (D) Approx. 16.5Kgs 17.2Kgs (Multimedia model)

POWER MANAGEMENT

The Power Management states are controlled by the presence and /or absence of horizontal and vertical sync signals according to the following:

State	H. Sync.	V. Sync.	Power (nominal)	LED
ON	ON	ON	<100 WATTS	GREEN
STANDBY	OFF	ON	<15 WATTS	ORANGE
SUSPEND	ON	OFF	<05 WATTS	ORANGE
OFF	OFF	OFF	<05 WATTS	ORANGE