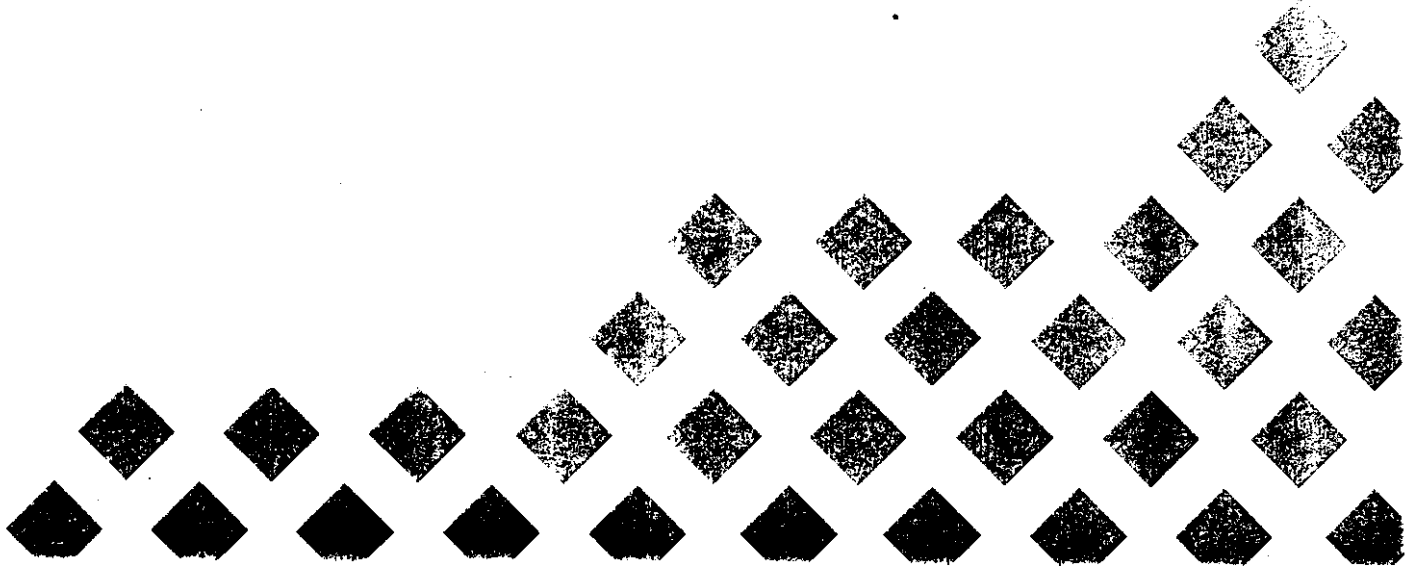


# USER'S MANUAL

## 15" DIGITAL COLOR MONITOR



FCC ID: AMPJ51H

## Operation Instructions

Thank you for purchasing a 15" 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.

### EMI

The Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulation.  
Cet appareil numerique de class B respecte toutes les exigences du Reglement sur le materiel brouilleur du Canada.

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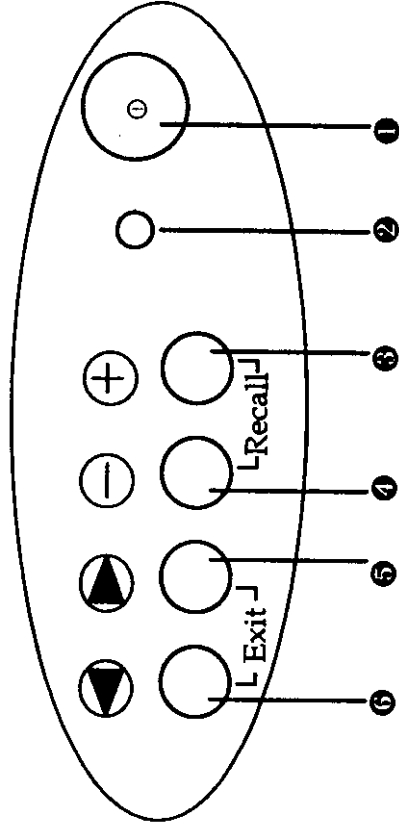
## GENERAL DESCRIPTION

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:

- 15" CRT color display.
- Support for graphic cards with VESA compatible DDC1/2B (Display Data Channel 1/2B) interface for monitor-to-PC communication.
- Easy to use On Screen Display (OSD) adjustment interface.
- Support EPA, NUTEK A/B, VESA compatible 4-staged power management systems.

## FEATURES

### A. Front Exterior



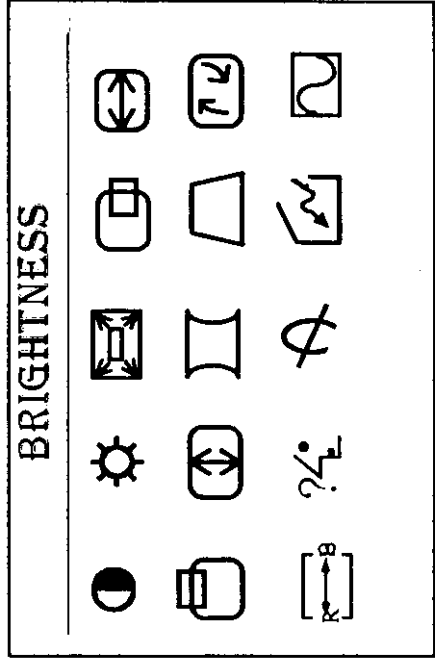
- ① POWER ON/OFF SWITCH
- ② POWER ON/OFF INDICATOR
- ③ INCREASE BUTTON
- ④ DECREASE BUTTON
- ⑤ FUNCTION Right
- ⑥ FUNCTION Left

E N G L I S H

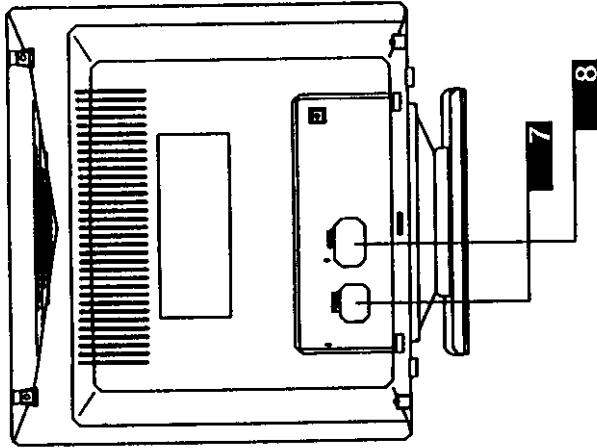
## USING OSD FUNCTIONS

- Press Function  $\leftarrow$   $\rightarrow$  function buttons to activate OSD functions and adjust with  $+$   $-$  (up/down) buttons for function parameter.

- OSD icons:



### B. Rear Exterior



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

# FUNCTION

## A. External Control

SYMBOL	ITEM	DESCRIPTION
①	Power switch	-Controls Power
○	Power Indicator	-Green lit gives confirmation of power on. Lit orange gives confirmation of power saving mode.
+	Increase	-Increase function parameter
-	Decrease	-Decrease function parameter
▶	Function right	-Scroll through OSD icons and menus to select function items to right.
◀	Function left	- Scroll through OSD icons and menus to select function items to left.

## 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, Color temperature, and Rotation (for 70 KHz model only.) It also auto saves the configuration set up by users.
2. This monitor has 12 sets of factory preset timing and 7 sets of user definable timing.

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 SIZE	Adjusts the vertical size of the picture.
	PINCUSHION	Controls the straight of the vertical line on both sides of the picture.
	TRAPEZOID	Controls the top of the H-width equal to the bottom of the picture.
	ROTATION (70 KHz model only)	Controls the tilt of the display image.
	COLOR TEMPERATURE	Selects color temperature & adjust user color mode.
	LANGUAGE	Multi-language select Use - and + key to select OSD display language.
	DEGAUSS	Degausses the screen.
	SAVE (70 KHz model only)	Saves the latest adjustment..
	MODEL DISPLAY	Shows current horizontal & vertical frequency & mode type.

**SIGNAL TIMING**

**USER TIMING MODE SETUP**

The monitor is capable of storing up to 19 modes for total, with 12 factory programmed, this leaves 7 available set spaces for users.

To successfully install a new timing mode, some certain things have to be considered.

The new mode must have a horizontal frequency difference of 0.5 KHz. Minimum or a vertical frequency difference of 1Hz. minimum from any single mode previously installed. For example:

Assuming the timing requirements are met, the new mode is automatically installed when the monitor is connected to the signal source. Thus the front panel controls for horizontal/vertical display and position can be adjusted. The last made horizontal/vertical adjustment last will always be stored with the current timing mode.

After 7 user modes are installed, the first installed ones will be removed when any more modes are added. However, the factory preset modes will not be affected.

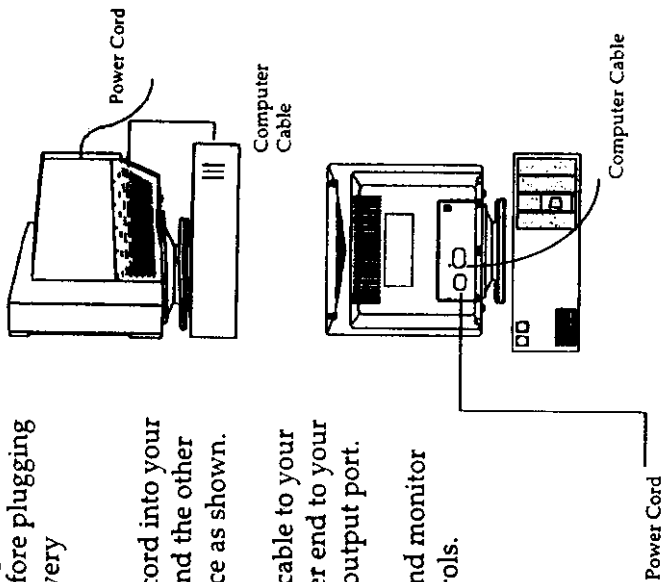
Mode	Unit	(1)	(2)	(3)	(4)	(5)	(6)
Resolution		640*350	720*400	720*400	640*480	640*480	640*480
Pixel	(MHz)	25.175	28.3220	35.550	25.175	31.500	36.000
H. Sync Polarity		+	-	-	-	-	-
V. Sync Polarity		-	+	+	-	-	-
H. Frequency	(KHz)	31.469	31.469	37.927	31.469	37.500	43.269
H. Period	(usec)	31.778	31.778	26.366	31.778	26.667	23.111
Sync Width (SW)	(usec)	3.813	3.813	2.028	3.815	2.032	1.556
Back Porch (BP)	(usec)	1.907	1.907	3.042	1.907	3.810	2.222
Active Video	(usec)	25.422	25.422	20.282	25.422	20.317	17.778
Front Porch (FP)	(usec)	0.636	0.636	1.014	0.636	0.508	1.556
V. Frequency	(Hz)	70.087	70.087	85.039	59.940	75.000	85.008
V. Period	(msec)	14.268	14.269	11.759	16.683	13.333	11.764
Front Porch(FP)	(msec)	1.176	0.381	0.026	0.318	0.027	0.023
Sync Width(SW)	(msec)	0.064	0.064	0.079	0.064	0.080	0.069
Back Porch(BP)	(msec)	1.907	1.112	1.107	1.048	0.427	0.578
Active Video	(msec)	11.122	12.711	10.546	15.253	12.800	11.093
Interlaced		No	No	No	No	No	No
Mode		(7)	(8)	(9)	(10)	(11)	(12)
Resolution		800*600	800*600	800*600	1024*768	1024*768	1024*768
Pixel	MHz	50.000	49.500	56.250	65.000	78.750	94.500
H. Sync Polarity		+	+	+	-	+	+
V. Sync Polarity		+	+	+	-	+	+
H. Frequency	(KHz)	48.077	46.875	53.674	48.363	60.023	68.677
H. Period	(usec)	20.800	21.333	18.631	20.677	16.660	14.561
Sync Width (SW)	(usec)	2.400	1.616	1.138	2.092	1.219	1.016
Back Porch (BP)	(usec)	1.280	3.232	2.702	2.462	2.235	2.201
Active Video	(usec)	16.000	16.162	14.222	15.754	13.003	10.896
Front Porch (FP)	(usec)	1.120	0.323	0.569	0.369	0.203	0.508
V. Frequency	(Hz)	72.188	75.000	85.061	60.004	75.029	84.997
V. Period	(msec)	13.853	13.333	11.756	16.666	13.328	11.765
Front Porch (FP)	(msec)	0.770	0.021	0.019	0.062	0.017	0.015
Sync Width (SW)	(msec)	0.125	0.064	0.056	0.124	0.050	0.044
Back Porch (BP)	(msec)	0.478	0.448	0.503	0.600	0.466	0.524
Active Video	(msec)	12.480	12.800	11.179	15.88	12.795	11.183
Interlaced		No	No	No	No	No	No

Note: Timing modes 1-10 apply to 55KHz models.  
Timing modes 1-12 apply to 70KHz models.

## INSTALLATION

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.



## SAFETY PRECAUTIONS

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.

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