

EUT:19"COLOR MONITOR

FCC ID:IQX98C1995

SHAMROCK TECHNOLOGY CO., LTD.

USER'S MANUAL

English

IMPORTANT NOTICE:

**SAVE ALL PACKAGING MATERIALS,
THE WARRANTY MAY BE VOID IF
UNIT IS SHIPPED WITHOUT ORIGINAL
PACKAGING MATERIALS AND BOX.**

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3.1 LOCATION AND FUNCTION OF CONTROLS

1. POWER AND POWER SAVING INDICATOR

When the power to the monitor is ON, the indicator is lit. In normal operation, the indicator is green. While in power saving mode, the indicator will turn to amber.

2. POWER SWITCH

Used to turn the power of the monitor ON and OFF.

3. STATUS BUTTON

When the status button is pressed, the On Screen Display (O.S.D.) "window" will appear indicating the monitor's active resolution, horizontal and vertical frequencies (see figure "A"). In addition, the wide range of precise screen control options will be present. Parameter bars will be utilized to guide adjustments for contrast, brightness, horizontal size and position, vertical size and position, side pin, trapezoid, parallelogram, pin balance, rotation and R.G.B. color. Other control options available include recall, color temperature, power management, manual degaussing, window exit and save.

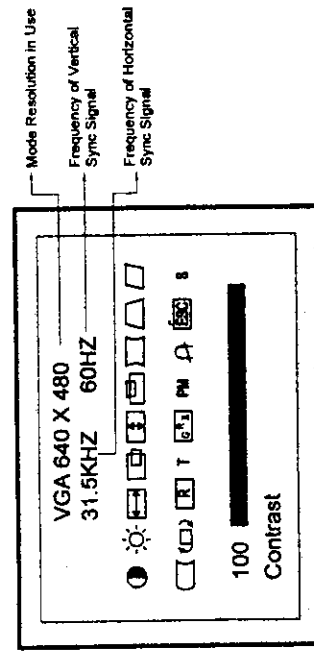


Figure A

Note: The O.S.D window will disappear automatically after 10(ten) seconds of nonuse or once the status button is pressed again.

4. FUNCTION BUTTON

Selects which function in the O.S.D. window to be adjusted.

5. ADJUST BUTTON

Used to decrease or increase the parameter bar of the selected function in the O.S.D window.

6. SAVE BUTTON

Used to save all function parameter settings which have been adjusted. The O.S.D window will display "SAVE" after the "SAVE" function is completed.

Note: The function of "Save Button" is effective only when select "Manual" method to save all parameters of precise screen control. However, all screen adjustments can automatically be saved in memory by selecting the "Auto" method after the adjust buttons "+" or "-" is released and the O.S.D. window disappears.

* A total of 27 different modes can be stored in memory and automatically recalled. 6 of them are factory preset for popular graphic standards (see Compatibility and Factory Preset Display Modes on page 11). The remaining 21 modes are reserved for user setting.

4. PLUG & PLAY

This monitor complies with VESA DDC (Display Data Channel) - DDC1/DDC2B - to support *Plug & Play* of Windows 95 / 98. The main function is to create a protocol that allows for communication between the monitor, video card and/or PC.

This function is effective only when used with a DDC compliant video card and/or PC. By means of the software driver of the DDC video card (or Windows 95 / 98 operating system) all information stored within the DDC device in the monitor (e.g. resolution, refresh rate, etc.) can be displayed for the user's reference. Based on the displayed information, the monitor user has the opportunity to select the DDC2B mode with different combinations of resolutions and refresh rates as required by the intended application.

5. POWER MANAGEMENT SYSTEM

This monitor meets the EPA Energy Star (15 Watts max. in power saving mode), VESA DPMS (Display Power Management Signaling) standard & NUTEK - TCO 1992 specifications. The monitor has a built-in power management system that automatically reduces power consumption when the PC is not in use. This power management system is effective only when used with VESA DPMS compliant PC or Video Card.

Table of Power Consumption in each Advanced Power Management (APM) state:

APM State	Signal Requirement	Monitor Action	Power Consumption	Power Indicator
Standby	H sync OFF	Switches to saving mode & screen darkens	15W max.	Orange
Suspend	V sync OFF		15W max.	Orange
Off	V sync OFF and H sync OFF		8W max.	Orange

Note: This monitor meets VESA DPMS "power management" standards. The monitor's power management system is initiated once it has received a proper signal from the PC side. If a proper connection between the PC side and the monitor has not been established during the initial setup, the power indicator will remain green and the power management feature will not be effective. Once a proper connection has been established, the power indicator will show green or amber according to VESA DPMS standards.

6. SPECIFICATION

The following are general characteristics:

CRT	19" (18" viewable image), 0.26 mm dot pitch, 90° deflection, dark tint, F.S.T. double focus, ARASC coating
RESOLUTION	1600 x 1200 max. (depends on video card)
INPUT/VIDEO SYNC	Analog : 0.7 Vp-p, 75 ohm, RGB (+) Separate : TTL level (+) or (-) Composite : TTL level (+) or (-) Horizontal : 31-94 KHz Vertical : 60-85 Hz
VIDEO RESPONSE	150 MHz nominal
POWER	100 - 240VAC, 60/50 Hz, 2.5A (max.) Degaussing : line operated automatic & manual Consumption : 120W max
LOW RADIATION	MPR-II, TCO '95 (standard)
USB HUB	1 Up stream & 4 Down streams (option)
PLUG & PLAY	VESA *DDC: 1/2B
OPERATING	Temperature : 32°F to 104°F / 0°C to 40°C Humidity : 10 to 90% R. H. Altitude : 0 to 10,000 ft

VIDEO CABLE 15 pin, D-type male connector

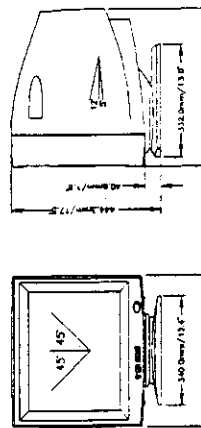
DB-15 pin out

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
R	G	B	Gnd	DDC	R	G	B	NC	Gnd	Gnd	*SDA	H	V	*SCL
				Gnd	Gnd	Gnd	Gnd							

* DDC: Display Data Channel

SDA: Bi-directional Data SCL: Data Clock

Dimensions and features of the Tilt-Swivel Base:



Weight: 57.1 lbs / 23.5 Kg Approx

This specification subject to change without notice.

7. COMPATIBILITY AND FACTORY PRESET DISPLAY MODES

7.1 COMPATIBILITY MODES

IBM - VGA (350, 400, 480 line modes) & 8514/A
VGA (350, 400, 480 line modes) 60/70/72/75/85 Hz
VGA standard (800 x 600) 56/60/72/75/85 Hz
VESA standard (1024 x 768) 60/70/75/85 Hz

VESA standard (1280 x 1024) 60/75/85 Hz
VESA standard (1600 x 1200) 60/65/70/75 Hz

7.2 FACTORY PRESET DISPLAY MODES

Mode name	Resolution	Frequency (Fh / Fv)
Standard VGA	640 x 480	31.47 KHz / 59.90 Hz
VESA standard	640 x 400	37.86 KHz / 85.08 Hz
VESA standard	800 x 600	53.67 KHz / 85.06 Hz
VESA standard	1024 x 768	68.68 KHz / 85.0 Hz
VESA standard	1280 x 1024	91.15 KHz / 85.02 Hz
VESA standard	1600 x 1200	93.75 KHz / 75.00 Hz

3.2 FUNCTIONS ADJUSTMENTS

For each function control, use the adjust buttons "+" and "-" to adjust the monitor's parameter bars to your satisfaction according to the following table:

Adjust Switch		+	-
Function			
 Contrast		Contrast Increased 	Contrast Reduced 
 Brightness			
 Horizontal Size			
 Horizontal Phase			
 Vertical Size			
 Vertical Center			
 Pincushion			
 Trapezoid			
 Parallelogram			
 Pin Balance			
 Image Rotation			
 Recall		Recalls the Factory preset modes-see page 11	
T Color Temperature		To select 9300°k / 6500°k or user	
 Color		Intensity Increased 	Intensity Reduced 
PM Power Management		OFF	ON
A CRT Degaussing		Manual Degaussing	
 Exit OSD Window		Exit OSD Window	
S Save		Manual	Auto

CAUTION:

When the monitor is turned on continuously for a long period, the phosphors of the CRT face plate may "burn" leaving a permanent image on the screen. In order to preserve the CRT life, be sure to turn off the monitor or decrease the displayed intensity when not in use (e.g. utilizing Windows 95 / 98 "Display Properties" screen saver and/or utilizing the energy saving features of this monitor).

1. CHECK LIST

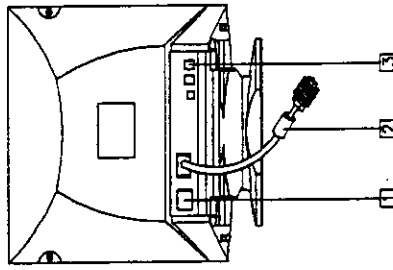
Before installation, please check the contents of the shipping carton. The carton should contain the following items:

- Power cord
- User's manual
- Color monitor

If any of the above items are missing, contact your supplier as soon as possible.

2. MONITOR INSTALLATION

Rear View



Turn off your computer before following installation.

1.AC socket

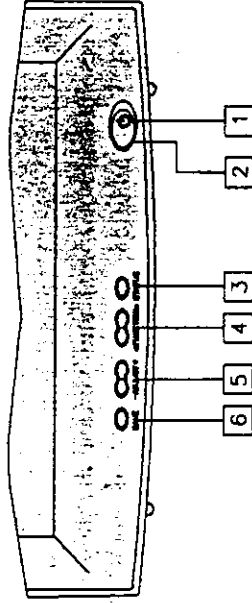
Connect one end of the supplied power cord to this socket and the other end to an AC power outlet.

2.Video cable with 15 pin male D-SUB connector connected to the PC video card.

3.USB HUB (Option)

3. CONTROLS AND ADJUSTMENTS

Front View I



Important Safety Instructions

Please read the following instructions carefully to prevent potential hazards. This manual should be retained for future use.

Please install the swivel base below this product before using the monitor.

Do not expose the monitor to rain, water, moisture, or direct sunlight.

Do not spill liquid into the monitor.

Do not insert any objects into the monitor cabinet's openings.

Do not place near or above sources of heat such as heaters or radiators.

Do not block or cover ventilation opening with any material. The openings and slots on the cabinet provide necessary air flow for heat dissipation. The unit should never be enclosed or built upon unless adequate ventilation is provided.

Do not remove the cover to try to service this unit. Servicing of any nature should only be performed by authorized service personnel.

WARNING! Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards.

English

9. The On/Off switch is not a disconnecting device. Make sure to remove the AC power cord after using.

10. When the monitor is turned on continuously for a long period, the phosphors of the CRT face plate may "burn" leaving a permanent image on the screen. In order to preserve CRT life, be sure to turn off the monitor or decrease the displayed intensity when not in use.

11. **WARNING!** The voltage ratings and the rated frequencies are posted on the back panel of this product. Please see the overlay in the center of the back panel of this product. NEVER connect to any other voltage or frequency. Follow ALL warnings and instructions marked on the product.

12. This product is equipped with a 3-wire grounding-type plug. It 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, the outlet can be replaced by an electrician. Do not defeat the safety purpose of the grounding-type plug by improper use or alteration.

13. Power source

- This monitor is able to operate using power sources from 100-240V/AC, 60/50Hz by means of internal auto power switching.
- For 120V operation, use only with power cord having a parallel blade grounding-type plug, rated at 10A-125V.
- For 240V operation, use only with power cord having a tandem blade grounding-type plug rated 10A-250V minimum.

FEDERAL COMMUNICATIONS COMMISSION

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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. 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.

Shielded interface cables (except power cord) must be used in order to comply with emission limits.

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