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IMPORTANT SAFEGUARDS

Warnings:

1. Read all of these instructions. Save these instructions for later use, Please.
2. Follow all warning and instructions marked on the product.
3. Unplug this monitor from the wall outlet before cleaning. Do not use liquid 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, washbowl, kitchen sink, or laundry tub, in a wet basement, 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 instructions, 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. 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.
12. Do not overload wall outlets and extension cords as this can result into fire or electric shock.
13. 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 on the monitor.
14. 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.
15. 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 has been exposed to rain or water.
 - d. 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.
 - e. If the monitor has been dropped or the cabinet has been damaged.
 - f. When the monitor exhibits a distinct change in performance this indicated a need for service.
16. When replacement parts are required, be sure the service technician has used replacement 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.
17. 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.
18. The socket outlet shall be near the equipment and shall be easily accessible.
19. The power supply cord is used as the main disconnect device.

1. Introduction

1.1. General Information

Thank you for your patronage. This Auto Scan color monitor display sharp images of text and graphics with an optimum for resolution up to 1280x1024 pixels non-interlaced by maximum 85Hz refresh rate. The maximum display resolution are from 1600x1200 pixels to 1920x1440 pixels non-interlaced mode.

The monitor automatically scans horizontal frequencies from:

30-98KHz	50-160Hz	(796,797,996,997,998A Series)
30-110KHz	50-160Hz	(911,215 Series)

You may use this color monitor with a computer which utilizes IBM VGA, XGA and all VESA non-interlaced SVGA and EVGA resolutions in the above mentioned frequencies ranges. The wide range included IBM PC, PC/XT, PC/AT, PS/2. 386, 486, 586, Pentium or other compatible systems.

1.2 Features

- Anti-Glare, Anti-Static and Anti-reflection, high contrast screen coating eliminate any bad effects caused by the screen surface such as reflection of the room lights and dust attraction.
- With Color Adjustment function you can easily choose different preset color temperatures or set your own customized color parameters.
- Image Tilt Adjustment function provides correction of rotated image. This correction can minimize the distortions caused by outside environments, such as earth magnetic field.
- Green Design including automatic power saving function (NUTEK) and low emission compliance shows our commitment in environmental care.
- DDC1/DDC2B allows communication between the monitor and PC system for optimal video configuration.
- Moire Cancellation function serves to eliminate the diffraction.
- Universal power supply.
- TCO 99 compliant (optional).
- Side-mount Provision for optional speakers.
- Built-in microphone to optimize speakerphone functionality. (optional)

2. Installation

NOTE: Before installing this monitor, please refer to the user's guides of your computer and video adapter to make sure if these equipments require any change of setting.

2.1. Package

After unpacking the shipping carton, check if you have received the following items:

- Your monitor.
- This user's manual.
- Power cord.
- USB software (Only for USB model)
- USB cable (Only for USB model)

If any of these item are missing, please contact your dealer for technical support and customer service.

NOTE: Be sure to save original box and all packing material for future transport of the monitor.

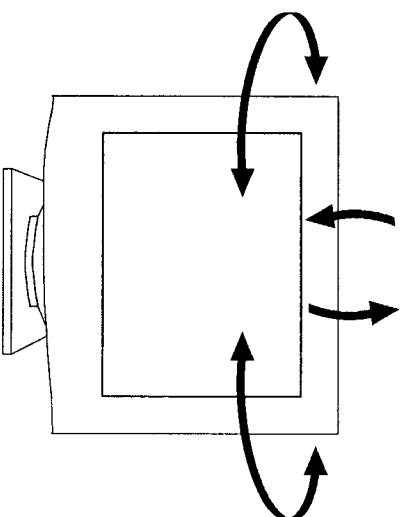
2.2 Precautions – when using this monitor

NOTE: when positioning this equipment ensure that the mains plug and socket is easily accessible.

- To avoid eyes fatigue, do not use the color monitor in bright background sunlight or other light sources shine directly on the screen.
- Do not place the monitor near a heat source.
- Set up in a good ventilated environment, and ensure that the ventilation openings of the monitor are not covered. The heat from the monitor can dissipate properly.
- Keep the monitor away from high capacity transformer, electric motor and other strong magnetic field.
- The monitor should not be used in damp, dusty or dirty area.

2.3. Pedestal

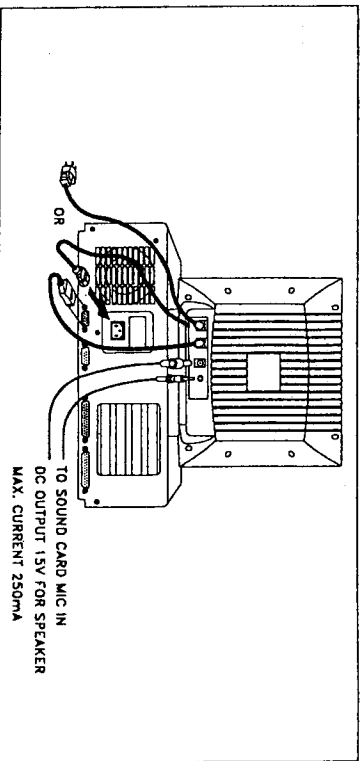
The pedestal enables you to place the monitor into a convenient position with best viewing comfort by tilting and/or turning the monitor.



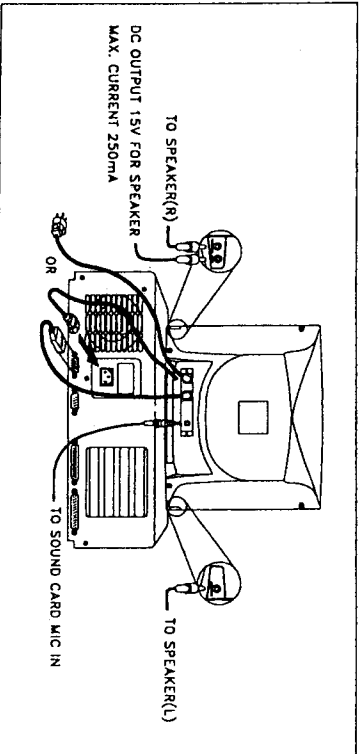
3. Connection to the computer

WARNING : Please be sure the AC power to your computer is " OFF " before connecting or disconnecting any display peripheral, Failure to do so may cause serious personal injury as well as permanent damage to your computer equipments.

3.1 Connecting the signal cable and the power cable



For TA series monitor



For PK/FX/~~AE~~ Series monitor

BZ LZ

- Follow the steps below to connect these cable
- Plug the 15-pin monitor signal cable into the video signal connector located at the rear of the system, and lock the two screws to ensure firm grounding.
 - This monitor is equipped with a universal power supply (100-240V). Please plug power cord into the power supply of PC or into the well outlet of the power. A three-wire cord is provided as a safety precaution to ensure proper electrical grounding.

3.2 Connecting the microphone and speaker cable (optional)

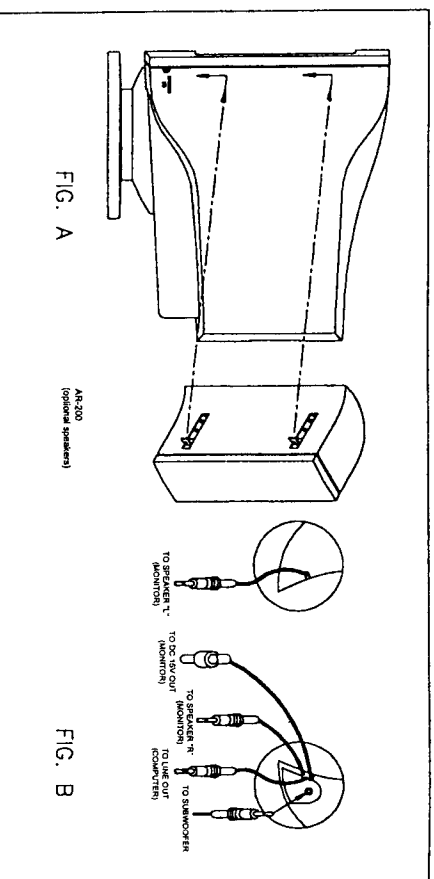


FIG. A

FIG. B

For TA series monitor

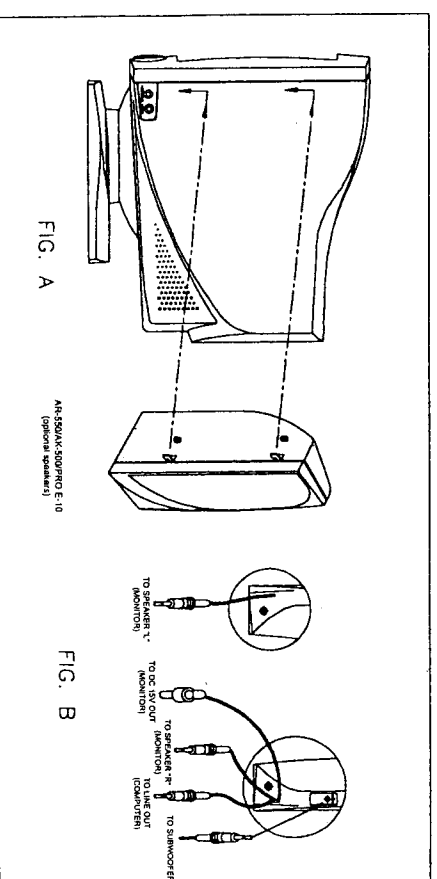


FIG. A

FIG. B

For PK/FX/~~AE~~ series monitor

BZ LZ

- a. Connect one end of the microphone cable to the connector on the back of the monitor and the other end to the sound card of computer.
- b. Connect two of the speaker cable to each side of speakers connector of monitor and the third speaker cable to the sound card of computer.
- c. DC15V output: (On the back of the monitor or right side of the monitor) The DC 15V/250mA output provides power only for multimedia speaker. To connect the DC 15V output from monitor to speaker sets.

NOTE: How to attach and connect the optional speakers to your monitor. Please refer to the user's manual of speaker.

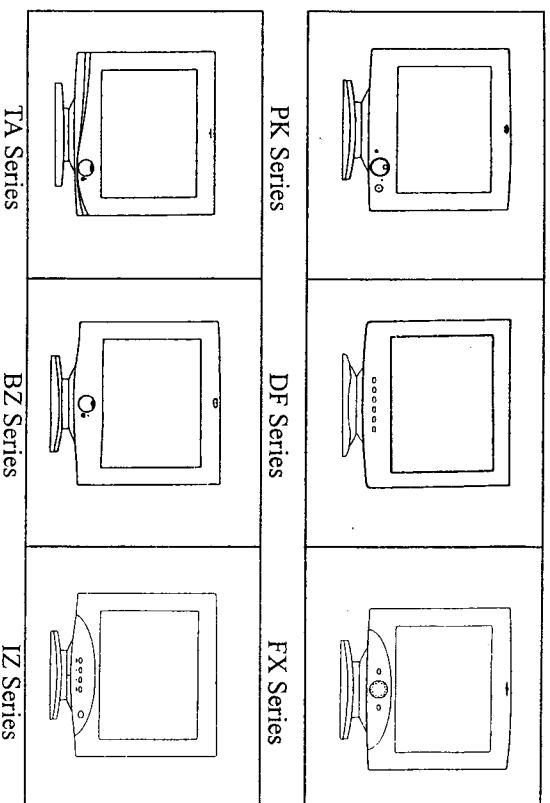
3.3 Connecting the USB cable (Only for USB model)

Connect one end of the USB cable to the USB connector on the back of the monitor and the other end to the downstream port of the USB compliant PC.

4. Front control locations and functions

4.1 Operation

The front control panel is shown in the following illustration.



Power ON/OFF Switch

This button is used to turn the monitor on and off.

Power (DPMS) indicator

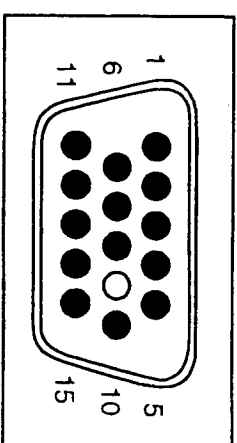
This indicator lights up green when the monitor operates normally. If the monitor is in DPMS (Energy saving) mode (stand-by/suspend/Power off), this indicator color changes to orange.

Using the volume and Volume muting (Optional function)

1. When turn the knob clockwise to increase or counter clockwise to decrease the volume up and down.
2. Volume mute: This control turns the speakers and headphone terminal sound ON or OFF.



5.2 Signal connector pin assignment



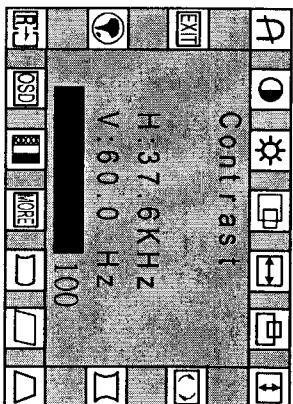
Pin	Assignment
1	Red Video
2	Green Video
3	Blue Video
4	Ground
5	Ground
6	Red Ground
7	Green Ground
8	Blue Ground
9	No connection
10	Ground
11	Ground
12	SDA (For DDC)
13	H. Sync.
14	V. Sync.
15	SCL (For DDC)

19-inch (48.26 cm) diagonal 0.25 mm	21-inch (53.34 cm) diagonal 0.25 mm
Tinted screen glass non-glare, black matrix	Tinted screen glass non-glare, black matrix
17.90-inch (45.47 cm) diagonal	19.94-inch (50.65 cm) diagonal
360 mm (H) x 270 mm (V) (Adjustable)	400 mm (H) x 300 mm (V) (Adjustable)
14.17 inch (H) x 10.63 inch (V) (Adjustable)	15.75 inch (H) x 11.81 inch (V) (Adjustable)
30-98 KHz	30-110 KHz
50-160 Hz	50-160 Hz
1600 x 1200, 1792 x 1344 (96 Series)	1600 x 1200
180 MHz	220 MHz
AC 100 240V / 50-60 Hz	AC 100 240V / 50-60 Hz
120 watts maximum	135 watts maximum
Video : Analog 0.7Vp-p / 75 Ohms	Video : Analog 0.7Vp-p / 75 Ohms
Sync. : Separate sync. TTL level	Sync. : Separate sync. TTL level
Unlimited Number of colors (depends upon video card)	Unlimited Number of colors (depends upon video card)
19.6 kg (43.1 Lb)	25.0 kg (55.0 Lb)
23.0 kg (50.6 Lb)	30.0 kg (66.0 Lb)
455 x 446 x 452 (mm)	480 x 496 x 491 (mm)
17.91 x 17.56 x 17.80 (inch)	18.90 x 19.53 x 19.33 (inch)
0°C-40°C (32°F to 104°F)	0°C-40°C (32°F to 104°F)
20%~80%	20%~80%
-20°C~-55°C (-4°F to 131°F)	-20°C~-55°C (-4°F to 131°F)
10%~90%	10%~90%
VESA standard	VESA standard

NOTE: All technical specifications are subject to change without notice.

To adjust visual settings

Please following the procedure of selection and adjusting an item using the OSD system as below steps for main functions adjustment.



1. One key model

Step 1 : Press and release the OSD control knob to activate the OSD menu.

Step 2 : Turn the knob to highlight the desired option of OSD icon.

Step 3 : Press and release the knob again to access the option. The color of the inner area of the OSD will changed from blue to green.

Step 4 : To make your adjustments, turn the knob clockwise to increase or counterclockwise to decrease the setting.

Step 5 : Press and release the knob again to store the changed, the color of the inner area will go back to blue. You can select other function to make adjustments by the knob. Also you can select EXIT icon and press the knob the exit the OSD menu.

2. Four key model

Step 1 : Press and release any digital control key to activate the OSD menu.

Step 2 : Press “+ / ▲” or “- / ▼” key to highlight the desired option of OSD icon.

Step 3 : Press and release MENU key to access the option. The color of the inner area of the OSD will changed from blue to green.

Step 4 : To make your adjustments, press “+ / ▲” key to increase or “- / ▼” key to decrease the setting.

Step 5 : Press and release MENU key to store the changed, the color of the inner area will go back to blue. You can select other function to make adjustments by “+ / ▲” and “- / ▼” key. Also you can select EXIT icon or press Exit key to exit the OSD menu.

4.2 Adjust and Programming

● CONTRAST:

Adjusts the image brightness in relation to the background.

☼ BRIGHTNESS:

Adjusts the overall image and background screen brightness.

▭ H. POSITION:

To moves the picture image horizontally left or right.

↔ H. SIZE:

To increases or decrease the horizontal size of the image.

▭ V. POSITION:

To moves the picture image vertically left or right.

↕ V. SIZE:

To increases or decrease the vertical size of the image.

⤴ ROTATION:

Rotates the entire display clockwise or counter clockwise.

⏏ PINCUSHION:

To increases or decreases the curvature of the sides either inward or outward.

▭ TRAPEZOID:

To increases or decreases the bottom of the screen to be the same as the top.

▭ PARALLELOGRAM:

To increase or decreases the tilt of the side either to the left or right.

▭ PIN. BALANCE:

To increase or decreases the curvature of the side either to the left or right.

MOIRE **ADVANCED SELECT:**

MOIRE ADJUSTMENT:

The screen image may shake slightly while the moire cancellation function is ON. It is normally OFF(H=0, V=0).

V. MOIRE:

To increase or decrease the vertical moire of the image.

H. MOIRE:

To increase or decrease the horizontal moire of the image.

AUTO **AUTO SIZING(Optional function):**

Use to auto calibration the size, position and geometric of the image by itself when video display mode is changed. You can use this function to keep the appropriate image size and have it centered in any user mode.

CONVERGENCE(Optional function):

Use to adjust the alignment of red and blue fields.

V. CONVERGENCE:

To increase or decrease the vertical convergence of the image.

H. CONVERGENCE:

To increase or decrease the horizontal convergence of the image.

RGB **COLOR SELECT:**

This control adjusts the color temperature of the screen image.

9300°K, 6500°K and 5500°K are preset by factory. You can not to adjustment.

9300°K: Which is bluish white light.

6500°K: Which is reddish white light.

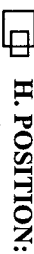
5500°K: Which is yellowish white light.

USER:

You can adjust the individual color gun intensity by yourself. Increase or decrease red, green or blue depending upon which is selected.

OSD **OSD ADJUSTMENT:**

You can choose where you would like OSD image to appear on your screen.



H. POSITION:

Moves the OSD image horizontally left or right.



V. POSITION:

Moves the OSD image vertically up or down.



TIMER (SEC.):

You can select how long the monitor waits after the last adjust of the knob to shut off the OSD menu. The time setting choices are

from 8 to 127 seconds.

F-1 **RESET:**

Reset all settings and back to the factory defaults. If the monitor is operating in a user mode, this control has no effect.



LANGUAGE:

Activates the LANGUAGE submenu. Allow you to choose the language for the menu screens.

Seven languages can be chosen, English, German, French, Italian, Spanish, Portugal and Chinese.

EXIT **EXIT:**

Exits the OSD controls. (Turning off the OSD windows)



DEGAUSS:

Eliminates the build-up of stray magnetic fields which alter the correct scan of the electron beams and affect the purity of the screen colors, focus and convergence. When pressed, your image will jump and waver a bit as the screen is demagnetized.

4.3 Built-in microphone (optional)

Built-in microphone to optimize speakerphone functionality. When used with multimedia computers.

4.4 Self test pattern

The monitor may display a three colors test pattern. This is to indicate that the monitor is functioning properly, but the computer's video signal is not reaching the monitor. In this case, please make sure the video cable is properly connected. The test pattern will disappear when the monitor is able to receive the video signal. However, if the test pattern does not display all three colors (blue, green and red), the monitor is not functioning properly. Please contact your local dealer for assistance.

4.5 Safety protection

The safety protection function is protect of the monitor itself. When frequency of video signal from computer's was out of range, (please refer to monitor's specifications")The monitor will protect by itself and a warning message of OSD will appear on the screen, warning you to resetting monitor type on your computer.

4.6 Timing guide

(A) Factory preset mode

This multi-scanning monitor can automatically detect and display several video modes. This monitor offers 15 to 17 factory preset modes that cover most of the common video modes supported by popular graphics adapters. If the monitor recognizes one of preset timing signals, it will reset that mode and any stored display adjustments you have made.

The factory preset modes as indicated in the following table:

Mode	Resolution (dots x lines)	Horizontal Freq. (KHz)	Vertical Freq. (Hz)	Remark
IBM/VGA	720 x 400	31.47	70	Non-interlaced
IBM/VGA	640 x 480	31.47	60	Non-interlaced
VESA/75	640 x 480	37.50	75	Non-interlaced
VESA/85	640 x 480	43.27	85	Non-interlaced
VESA/100	640 x 480	50.60	100	Non-interlaced
VESA/75	800 x 600	46.88	75	Non-interlaced
VESA/85	800 x 600	53.67	85	Non-interlaced
VESA/100	800 x 600	63.92	100	Non-interlaced
VESA/60	1024 x 768	48.36	60	Non-interlaced
VESA/75	1024 x 768	60.02	75	Non-interlaced
VESA/85	1024 x 768	68.67	85	Non-interlaced
VESA/75	1280 x 1024	79.98	75	Non-interlaced
VESA/85	1280 x 1024	91.50	85	Non-interlaced
VESA/75	1600 x 1200	93.75	75	Non-interlaced
VESA/85	1600 x 1200	106.25	85	Non-interlaced
VESA/75	1920 x 1440	112.50	75	Non-interlaced

(B) User mode

The monitor reserved for 10 user modes in case non-standard video modes are used. If the input signal is different from our factory-preset modes, the new timing data will be automatically stored. However, the displayed parameters may need to be adjusted and can't be RESET.

4.7 Power management

This monitor meets VESA DPMS (Display power management signaling) standards, and complies with both the EPA'S energy star requirements and Europe's TCO NUTEK'S power management. The following is the description of the power indicator for the power saving modes.

Power Management Definition				POWER SAVING STATES	POWER SAVING(%)	POWER INDICATOR
VESA DPMS		POWER USED				
MODE	VIDEO	H-SYNC	V-SYNC			
ON	ACTIVE	YES	YES	NORMAL	0%	GREEN
STAND-BY	BLANKED	NO	YES	<15 watts	86%	ORANGE
SUSPEND	BLANKED	YES	NO	<15 watts	86%	ORANGE
OFF	BLANKED	NO	NO	<5 watts	93%	ORANGE

NOTE : 1. This monitor is Energy Star compliant when used

with a computer equipped with DPMS.

- The monitor automatically goes through the power management step when it is idle. To release the monitor from the power saving condition, press any key on the keyboard or mouse.

4.8 Plug and Play

This monitor features the VESA DDC (Display Data Channel) standard which, when used with a DDC compatible video card, will simplify the monitor's set up. With VESA DDC1/2B, when the monitor is powered up, it will automatically notify a windows 95/98 host computer of its scanning frequencies, capabilities and characteristics. Windows 95/98 will automatically recognize the connection of the monitor and select the appropriate display resolution.

4.9 USB (Optional function)

As an added advantage, the monitor can be controlled from a computer with a mouse or keyboard. Making adjustments to the image size, position, screen color and operating parameters of the monitor is easy with the USB monitor software (please refer to the supplied disk).

5. Technical information

5.1 Products specifications

Picture tube	
Size:	17-inch (43.18cm) diagonal
Dot pitch:	0.26mm / 0.25mm
Surface / transmission:	Tinted screen glass non-glare, black matrix
Maximum viewable area	15.70 (39.88cm) diagonal
Display size (factory setting)	310 mm (H) x 235 mm (V) (Adjustable) 12.20 inch (H) x 9.25 inch (V) (Adjustable)
Synchronization range	30-98KHz
Horizontal frequency:	50-160Hz
Vertical frequency:	1600x1200
Max. Resolution	180MHz
Dot Rate	
Power supply (universal)	AC100-240V / 50-60Hz
Input Voltage:	110 watts maximum
Consumption:	
Input signal	Video : Analog 0.7Vp-p / 75 Ohms Sync : Separate sync: TTL level
Display Analog Input	Unlimited Number of colors (depends upon video card)
Weight	16.5kg (36.3Lb)
Net :	19.0kg (41.8Lb)
Gross :	
Unit dimension (L x W x H)	420 x 410 x 410 (mm) 16.54 x 16.14 x 16.14 (inch)
Operating condition	
Temperature:	0°C-40°C (32°F to 104°F)
Humidity:	20%-80%
Storage condition	
Temperature:	-20°-55°C (-4°F to 131°F)
Humidity:	10%-90%
DDCI/DDC2B	VESA standard

NOTE : All technical specifications are subject to change without notice.

6. Troubleshooting

If your monitor is not performing properly, use the following troubleshooting for quick solutions to common problems. If the problem persists, call the dealer. Where you purchased the monitor.

No Picture:

Please check these items

- Power cord and signal cable are securely connected.
- Monitor in power save mode?
- Adjust the brightness and contrast controls.

Display image is too large or small:

- Use the function keys to adjust the image.

Picture is scrolling or unstable:

- Signal cable should be completely attached to the computer.
- Check the signal cable pin assignments incorrect?

Color is abnormal:

- Magnetic object nearby?
- Signal cable pin assignments incorrect?
- Signal cable properly connected?

The built – in microphone does not operate:

- Please connect the microphone cable correctly.
- Speak distance is too far. Speak into the microphone is a normal voice from a distance of 30-50 cm (12"-20")

Image is not correctly shaped:

- A new video mode is selected
- User control has not yet been adjusted. Use the function keys to adjust image.

FEDERAL COMMUNICATIONS COMMISSION(F.C.C)STATEMENT

This equipment has been tested and found to comply with the limits of 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:

1. Reorient/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 that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

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

NOTE: The use of a non-shielded interface cable with this equipment is prohibited.