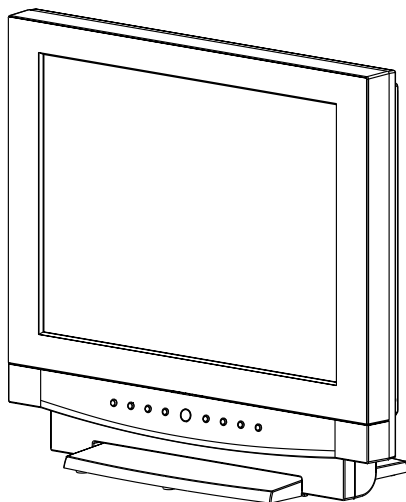


INSTRUCTION MANUAL

17.0" COLOR TFT-LCD MONITOR

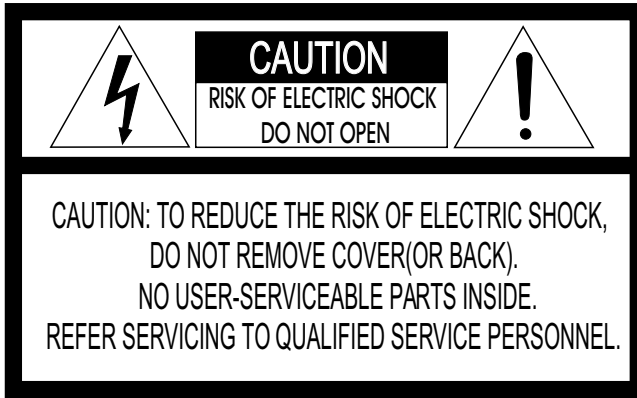


Please read this manual thoroughly before use, and keep it handy for future reference.

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.
DO NOT INSERT ANY METALLIC OBJECT THROUGH VENTILATION GRILLS.

CAUTION:



Explanation of Graphical Symbols



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

FCC COMPLIANCE STATEMENT

INFORMATION TO THE USER: 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

CAUTION: CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE MANUFACTURER COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THIS CLASS B DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.

CET APPAREIL NUMÉRIQUE DE LA CLASSE B EST CONFORME À LA NORME NMB-003 DU CANADA.

IMPORTANT SAFEGUARDS

1. **READ INSTRUCTIONS** -- All the safety and operating instructions should be read before the appliance is operated.
2. **RETAIN INSTRUCTIONS** -- The safety and operating instructions should be retained for future reference.
3. **CLEANING** -- Unplug video monitor or equipment from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
4. **ATTACHMENTS** -- Do not use attachments not recommended by the video monitor or equipment manufacturer as they may result in the risk of fire, electric shock or injury to persons.
5. **WATER AND MOISTURE** -- Do not use video monitor or equipment near water -- for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, or the like.
6. **ACCESSORIES** -- Do not place video monitor or equipment on an unstable cart, stand or table. The video monitor or equipment may fall, causing serious injury to a child or adult, and serious damage to the equipment. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.
- 6A. Video monitor or equipment and cart combinations should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the equipment and cart combination to overturn. 
7. **VENTILATION** -- Slots and openings in the cabinet and the back or bottom are provided for ventilation, and to ensure reliable operation of the video monitor or equipment and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the video monitor or equipment on a bed, sofa, rug, or other similar surface. Video monitor or equipment should never be placed near or over a radiator or heat register. Video monitor or equipment receiver should not be placed in a built-in installation such as a bookcase unless proper ventilation is provided.
8. **POWER SOURCES** -- Video monitor or equipment 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 to your home, consult your video monitor or equipment dealer or local power company. For video monitor or equipment designed to operate from battery power refer to the operating instructions.
9. **GROUNDING OR POLARIZATION** -- This video monitor may be equipped with a polarized alternating - current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
10. **POWER CORDS** -- Do not allow anything to rest on the power cord. Do not locate video monitor or equipment where the cord will be abused by persons walking on it.
11. **HEED WARNINGS** -- Follow all instructions marked on the video monitor or equipment.
12. **LIGHTNING** -- For added protection for video monitor or equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the video product due to lightning and power-line surges.
13. **OVERLOADING** -- Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.
14. **OBJECT AND LIQUID ENTRY** -- Never push objects of any kind into video monitor or equipment through openings 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 product.
15. **SERVICING** -- Do not attempt to service video monitor or equipment yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
16. **DAMAGE REQUIRING SERVICE** -- Unplug video monitor or equipment from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - A. When the power-supply cord or the plug has been damaged.
 - B. If liquid has spilled, or objects have fallen into the video product.
 - C. If the video product has been exposed to rain or water.
 - D. If the video product does not operate normally by following the operating instructions, adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.
 - E. If the video product has been dropped, or the cabinet damaged.
 - F. When the video product exhibits a distinct change in performance -- this indicates a need for service.
17. **REPLACEMENT PARTS** -- When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
18. **SAFETY CHECK** -- Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks to determine that the video product is in proper operating condition.
19. **FIELD INSTALLATION** -- This installation should be made by a qualified service person and should conform to all local codes.

Alternate Warnings - This video 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.

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FEATURES

- Versatile Professional Color TFT-LCD Monitor
- Bright, High Quality Pictures
- Thin and Lightweight
- Many Mounting and Installation Options
- Low-Power 12 volts DC Operation
- Flexible Input Connections

INSTALLATION

LCD Video monitors may be mounted in any position or orientation. Considerations for mounting include regard for how the monitor is going to be used, routing of connecting cords, and locations away from heat sources. Cooling is not required, but some airflow around the case will allow the small amount of heat generated to be dissipated. Power is required from a regulated supply (provided) or other 12 volts DC source.

- **Plug and Play**

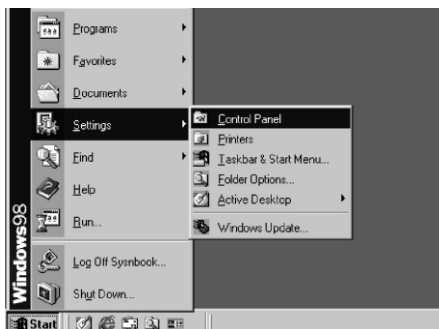
This monitor meets VESA Plug and Play standards, which eliminates complicated and time-consuming setup.

It allows you to install your monitor in a Plug and Play compatible system without the usual setup hassles and confusion. Your PC system can easily identify and configure itself for use with your display.

- **Installing the Video Driver (-Windows 95/98-)**

To install the Video driver, refer to the following sequence.

INSTALLATION



Select Start/Setting/Control Panel.



Click Add New Hardware.



Click **Next**.



Click **Next**.



Click Next after selecting No, the device isn't in the list.



Click Next after selecting No, I want to select the hardware from a list.

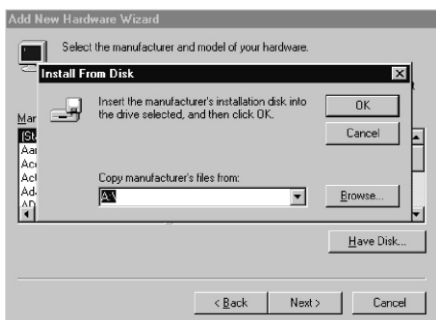
INSTALLATION



Click **Next** after selecting **Monitors**.



Click **Have Disk...**



Insert the supplied 3.5 floppy disk in A:\ Drive. Select **OK**.



Select **Next** after selecting **17" LCD**.



Click **Finish**.

INSTALLATION

• Microsoft® Windows® 2000 Operating System

1. Click **"Start"** , **"Setting"** , **"Control Panel"**.
2. Double click the **"Display"** Icon.
3. Choose the **"Settings"** tab and then click **"Advanced..."**.
4. Choose **"Monitor"**.
Case1: If the "Properties" button is inactive, it means your monitor is properly configured. Please stop installation.
Case2: If the "Properties" button is active, click the "Properties" button, then follow next steps.
5. Click **"Driver"** and then click on **"Update Driver..."** then click on the **"Next"** button.
6. Choose **"Display a list of the known drivers for this device so that I can choose a specific driver"** then click **"Next"** and then click **"Have disk"**.
7. Click the **"Browse"** button then choose A:.
8. Click the **"Open"** button, then click **"OK"** button.
9. Choose **17" LCD** and click the **"Next"** button then click **"Next"** button.
10. Click the **"Finish"** button then the **"Close"** button.

If you can see the **"Digital Signature Not Found"** window then click the **"Yes"** button.

And click the **"Finish"** button then the **"Close"** button.

• Microsoft® Windows® Millennium Operating System

1. Click **"Start"** , **"Setting"** , **"Control Panel"**.
2. Double click **"Display"** icon.
3. Select the **"Settings"** tab and click **"Advanced Properties"** button.
4. Select the **"Monitor"** tab.
5. Click the **"Change"** button in the **"Monitor Type"** area.
6. Choose **"Specify the location of the driver"**.
7. Choose **"Display a list of all the drivers in a specific location..."** then click **"Next"** button.
8. Click the **"Have Disk"** button
9. Specify A: then click **"OK"** button.
10. Select **"Show all devices"** and choose **17" LCD** and click **"OK"**.
11. Continue choosing **"Close"** button and **"OK"** button until you close the Display Properties dialogue box.

(You might see some other warning screen message, then click the appropriate option for your monitor.)

INSTALLATION

- **Microsoft® Windows® XP Operating System**

1. Click **"Start"→"Control Panel"** then click the **"Appearance and Themes"** Icon.
2. Click **"Display"** icon and choose the **"Settings"** tab then click **"Advanced..."**.
3. Click the **"Properties"** button on the **"Monitor"** tab and select **"Driver"** tab.
4. Click **"Update Driver..."** and select **"Install from a list or..."** then click **"Next"** button.
5. Select **"Don't search, I will..."** then click **"Next"** and then click **"Have disk"**.
6. Click the **"Browse"** button then choose A: and choose **17" LCD** and click the **"Next"** button.
7. If you can see following **"Message"** window.

This monitor driver is not certified MS logo, and this installation don't damage your system.

Then, click the **"Continue Anyway"** button followed by the **"OK"** button.

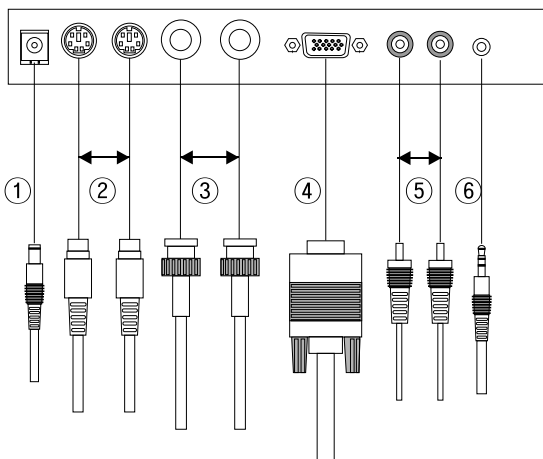
8. Click the **"Close"** button then click **"OK"** button until the installation is complete.
9. Monitor driver installation is complete.

- **Microsoft® Windows® NT Operating System**

1. Click **Start, Settings, Control Panel**, and then double-click **Display** icon.
2. In Display Registration Information window, click Settings Tab and then click **All Display Modes**.
3. Select a mode that you wish to use (Resolution, Number of colors and Vertical frequency) and then click **OK**.
4. Click **Apply** button if you see the screen working normally after clicking test. If the screen is not normal, change to a different mode (lower mode of resolution, colors or frequency).

Note: If there is no Mode at All Display Modes, select the level of resolution and vertical frequency by referring to the Preset Display Modes in the user guide.

CONNECTIONS



〈 Cable Connections 〉

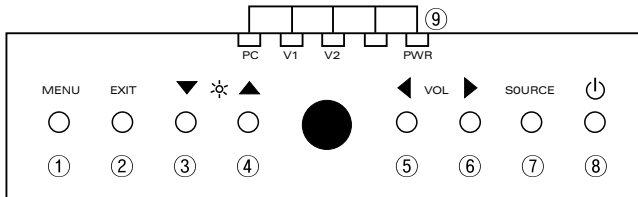
1. Connecting computer

- A. Connect the power cord to the DC Adaptor and connect the adaptor jack to the DC 12V power connector (-①-) on the back of the monitor.
- B. Connect the 15-pin D-SUB of the video signal cable to the PC video connector (-④-) on the back of the monitor.

2. Connecting VCR, /DVD or /Camera

- A. Connect BNC (-③-) or S-VHS (-②-) cable to the video output jacks of the VCR, /DVD or /Camera.
*Either left or right, BNC or Y/C socket, can be used for input or output.
The connectors have a auto-termination internal switches.*
- B. Connect RCA audio cables (-⑤-) to the audio output jacks of the VCR or /DVD.
- C. Headphones may be connected to the headphone output jack (-⑥-).

OPERATING INSTRUCTIONS - CONTROLS



<Control Buttons, Video Monitor Front>

1. Menu

This button is used to display the OSD menu and select the highlighted function.

2. Exit

Exits from the OSD system and the selected function.

3. Down / Brightness (▼)

Moves down the menu lists in the OSD.
Decreases the value of brightness.

4. Up / Brightness (▲)

Moves up the menu lists in the OSD.
Increases the value of brightness.

5. Left / Volume (◀)

Moves left in the OSD menu lists.
Decreases the value of the selected function or audio volume.

6. Right / Volume (▶)

Moves right in the OSD menu lists.
Increases the value of the selected function or audio volume.

7. Source

Selects video source.

8. Power

Turns the monitor on and off.

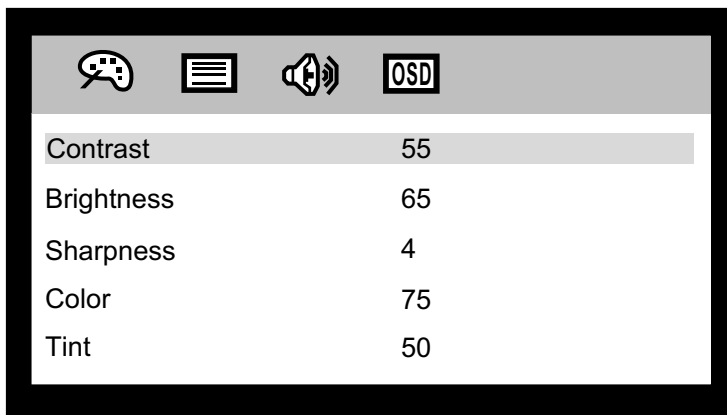
9. LEDs

Four source indicator LEDs at the top of the controls indicate current active video source.

PWR LED

- Green : Normal operation.
- Amber : Power saving mode.

USER CONTROLS - MENU OPERATIONS







- **Accessing the menu system**

1. Press the MENU button to display the OSD menu.
2. Select an icon using the ◀, ▶ buttons, and then press the MENU button to select a function.
3. Select the item that you want to adjust using the ▼, ▲ buttons
4. Adjust the values of the chosen function using the ◀, ▶ buttons.
5. To exit the OSD menu, press the **EXIT** button.

(This process stores the new settings that you have adjusted automatically.)





USER CONTROLS - MENU OPERATIONS

PC

Icon	Menu	Function Descriptions
	Brightness	Use to adjust the light output of the darkest areas of the picture to black.
	Contrast	Use to adjust the light output of the brightest areas of the picture to white.
	Image Effect	Use to soften or sharpen the image.
	RGB Offset	Adjusts the video input range. When the bright areas of the picture is too high (low), increase (decrease) the RGB Offset value.
	Recall	Resets the monitor to the original factory settings.
	Auto	Allows the monitor to self-adjust to the incoming video signal. The values of clock, phase and position are adjusted automatically.
	Clock	Minimizes any vertical bars or stripes visible on the screen background. The horizontal screen size will also change.
	Phase	Adjusts the focus of the display. This item allows you to remove any horizontal noise and clear or sharpen the image of characters.
	H Position	Adjusts the horizontal position of the image on the monitor screen.
	V Position	Adjusts the vertical position of the image on the monitor screen.
	Volume	Controls the output of the internal speakers.
	Mute	Turns the volume of the internal speakers to zero.
	H Position	Adjusts the horizontal position of the OSD window.
	V Position	Adjusts the vertical position of the OSD window.
	Blending	Changes the opaqueness of the background of the OSD.
	Language	Selects OSD language displayed. (English, /Deutsch, /Français, /Italiano, /Español, or /Polski)

USER CONTROLS - MENU OPERATIONS

V1(Video) / V2(S-Video)

Icon	Menu	Function Descriptions
	Contrast	Use to adjust the light output of the darkest areas of the picture to black
	Brightness	Use to adjust the light output of the brightest areas of the picture to white.
	Sharpness	Use to adjust the desired sharpening enhancement to the picture.
	Color	Adds coloring to the black and white picture content (of a color signal), and is usually set for pleasing facial skin tones.
	Tint (NTSC Only)	Used to adjust all the colors on the screen, but is most noticeable to the eye in reds and yellows, and is also usually set for pleasing facial skin tones.
	Motion Mode	Changes the scanning method of the LCD monitor. There are three methods which can be controlled.(Motion, /Still and /Progressive) Still and Progressive modes are both progressive scans but Progressive is better than Still for moving images and Still is better than Progressive for still images. Motion uses the interlace scan.
	Under Scan	Adjusts the image size.
	DVCO	Reduce unwanted vertical lines that flow horizontally. In some cases, vertical lines flowing to the right or left appear depending on the video source. When flowing vertical lines appear, it is convenient to reduce them by adjusting the DVCO.
	Filter	Adjusts Filter "ON" to reduce the video noise.
	AFC	AFC (auto frequency control) is used to adjust for the skew distortion of a video signal from a recorder (or other equipment). The options are NORMAL, SLOW and FAST.
	Recall	Resets the monitor to the original factory setting.
	Volume	Controls the output of the internal speakers.
	Mute	Turns the volume of the internal speakers to zero.
	H Position	Adjusts the horizontal position of the OSD window.
	V Position	Adjusts the vertical position of the OSD window.
	Blending	Changes the opaqueness of the background of the OSD.
	Language	Selects OSD language displayed. (English, /Deutsch, /Français, /Italiano, /Español, or /Polski)

TROUBLESHOOTING

- **Screen is black and power indicator is off.**
 - Ensure that the power cord is firmly connected and the LCD monitor on.
- **"Check Signal Cable" message.**
 - Ensure that the signal cable is firmly connected to the PC or video sources.
 - Ensure that the PC or video sources are turned on.
- **"Out of Range" message.**
 - Check the maximum resolution and the frequency of the video adaptor.
 - Compare these values with the data in the input resolution in the Specifications.
- **The image is too light or too dark.**
 - Adjust the Brightness and Contrast.
- **Horizontal bars appear to flicker, jitter or shimmer on the image.**
 - Adjust the Phase function.
- **Vertical bars appear to flicker, jitter or shimmer on the image.**
 - Adjust the Clock function and then adjust the Phase function.
- **Image is not stable and may appear to vibrate.**
 - Check that the display resolution and frequency from your PC or video board is a supported mode for your monitor.
- **Image is not centered on the screen.**
 - Adjust the horizontal and vertical position.
- **No sound.**
 - Ensure that the audio cables are firmly connected to both the audio-in ports on your monitor.
 - Check the volume level.
- **Picture is light or the tint is bad.**
 - Check color adjustment.

SPECIFICATIONS

LCD

LCD Panel	17.0 inches TFT LCD Panel
Active display area (Diagonal)	17.0 inches
Pixel format	1280 (H) x 1024 (V) , RGB vertical stripe
Pixel pitch	0.264mm x 0.264mm
Color depths	8 Bit / 16.2 M Colors
Contrast ratio	350 : 1 (Typical)
Brightness	250 cd/m ² (Typical)
Viewing angles (L/R/U/D)	75° / 75° / 65° / 60° (Typical)
Light source	4CCFL
Response time	25 ms

Video

Video Mode	NTSC / PAL (Auto Selection)
Scanning method	Digital progressive scan (Still/Progressive mode)
Video input signals	
Composite	1.0Vp-p / 75 Ω
S-video	0.7Vp-p(Luminance) , 0.3Vp-p (Chrominance) / 75 Ω
Video connector	
Composite	BNC x 2
S-video	4 Pin Mini-DIN x 2
Termination	75 Ω , Auto termination
Audio connector	RCA x 2 (Stereo) , Headphone jack x 1
Audio output	2.5W x 2
Resolution (Composite & Y/C)	More than 500 TV Lines

PC

Input signal	Analog RGB (0.714 Vp-p, 75 Ω) , H & V Sync (TTL)
Input connector	15-pin, D-sub
Input resolution	VGA 640 x 480 / 60 ~ 75Hz SVGA 800 x 600 / 56 ~ 75Hz XGA 1024 x 768 / 60 ~ 75Hz SXGA 1280 x 1024 / 60Hz
Plug & Play	DDC 2B

SPECIFICATIONS

User controls	Brightness, Contrast, Tint, Color, Sharpness, etc
OSD Languages	English, / French, / German, / Italian, / Spanish and / Polish
Power requirement	12VDC \pm 5%
Power consumption	\leq 50 Watts Normal operation, \leq 2watts (Power Saving Mode)
DC power connector	Barrel, 5.5/2.1mm (+ Center)
AC power connector	IEC- 320 Male, 100 - 240VAC
Dimensions (W x H x D)	418 x 426 x 196 mm (Monitor Body) 418 x 481.5 x 74.5 mm (When folded) 522 x 566 x 131 mm (Packaging)
Weight	7.55 kg (Monitor Body) 9.9 kg (With packaging)
Operating temperature	0° to +40 °C (32° to 104° F)
Storage temperature	0° to +50 °C (32° to 122° F)
Case color	Silver & Dark Gray
Case material	Plastic
Accessories	DC Adaptor, VGA cable, Video & Audio cable, Diskette, Power Cord, Manual

Design and specifications are subject to change without notice.

**17" COLOR
TFT-LCD MONITOR**

50301622A