IMPORTANT SAFETY INSTRUCTIONS

1. Please read these instructions carefully before using the product and save for later reference.
2. Follow all warnings and instructions marked on the product.
3. Unplug this product from the wall outlet before cleaning. Clean the product with a damp soft cloth. Do not use liquid or aerosol cleaners as it may cause permanent damage to the screen.
4. Do not use this product near water.
5. Do not place this product on an unstable cart, stand, or table.
   The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered.
   The openings should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.
7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
8. This product is equipped with a 3-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 purpose of the grounding-type plug.
9. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
10. If an extension cord is used with this product, make sure that the total of the ampere ratings on the products plugged into the extension cord does not exceed the extension cord ampere rating. Also make sure that the total of all products plugged into the wall outlet does not exceed 15 amps.
11. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.
12. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks and will void the warranty. Refer all servicing to qualified service personnel.
13. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
14. When the power cord or plug is damaged or frayed.

15. If liquid has been spilled into the product.
16. If the product has been exposed to rain or water.
17. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
18. If the product has been dropped or the cabinet has been damaged.
19. If the product exhibits a distinct change in performance, indicating a need for service.

Contents

1. Introduction

1.1. About the Product

This product is a high quality TFT LCD panel. It is designed to meet the demanding performance requirements of today's business and industrial applications.

1.2. Notice

a. Do not touch the LCD panel surface with sharp or hard objects.

b. Do not use abrasive cleaners, waxes or solvents for cleaning, use only a dry or damp, soft cloth.

c. Use only with a high quality, safety-approved, AC/DC power adapter.

1.3. Check List

Before using this monitor, please make sure that all the items listed below are present in your package

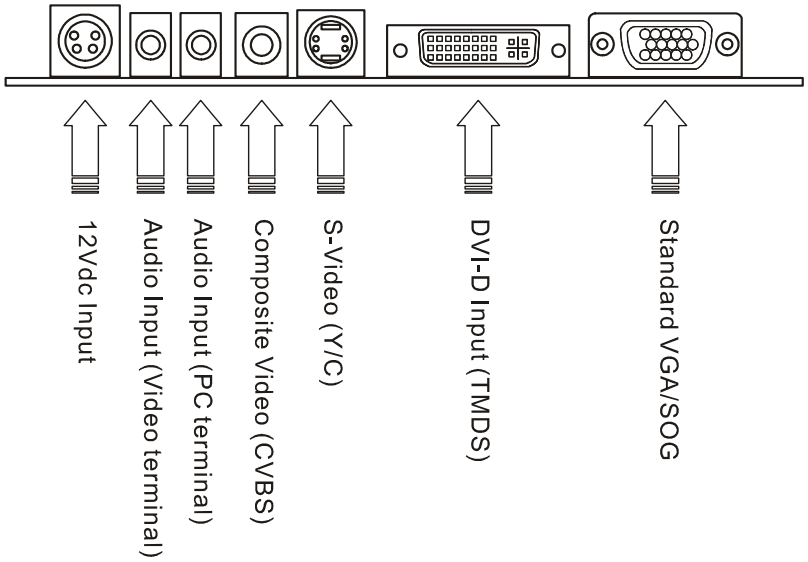
1. VGA cable	x1
2. AC to DC adapter	x1
3. Power cable	x1
4. User manual	x1
5. DVI cable (optional)	x1
6. Audio cable (optional)	x1

If any items are missing or damaged, please contact your dealer immediately.

2. Installation

Follow the instructions in this section to setup the basic configurations of the monitor. The default connections are VGA for main display and S-Video for PIP display. The LCD output can be configured to display any of the available input formats (VGA, DVI, S-Video, and Composite).

monitor Connector



****Please Note: Some connectors are optional.****

The procedures for setting up your TFT LCD monitor kit is as the following:

2.1. Power & Signal Connections

2.1.1. Power:

Switch off the power on both your monitor and your computer.

The Power Switch is located at the leftmost button of the keypad.

2.1.2. Power cable connection:

Connect the power cord to the AC outlet, and connect the power to the monitor through the AC/DC adapter.

2.1.3. VGA Signal cable connection:

Plug one end of the 15-pin signal cable to the video signal connector at the rear of the PC system and the other end to the monitor.

Secure the connectors with the screws on the cable connector at both ends.

2.2. Optional Connections

2.2.1. Compatible cable connection (Optional):

The LCD monitor is designed to work with a variety of compatible video sources. Due to possible deviations between these video sources, you may have to make some adjustment to the monitor settings when switching between these sources. These adjustments are made from the OSD menu.

2.2.2. DVI cable connection (Optional):

Plug one end of the DVI signal cable to the video signal connector at the rear of the PC system and the other end to the monitor.

Secure the connectors with the screws on the cable connector at both ends.

3. Using the LCD Monitor

3.1 Key Definition

a. **POWER**

Initiates power-up sequence from low power mode or enters low lower mode from normal operation.

b. **SWAP/AUTO**

i. When PIP is disabled, this will perform Auto Adjustment.

ii. When PIP enabled, it switches the image in the Main Display to the PIP Display and vice versa. When image side-by-side (PaP mode) is active, the SWAP key exchanges the left and right displays.

c. **PIP/EXIT**

i. When OSD is disabled, it cycles through the available PIP display modes. Repeated keystrokes will change the size of the PIP display to side-by-side (PaP) display, and then back to normal display.

ii. When OSD is enabled, it returns to the previous menu level or closes the OSD if pressed at the Main Menu level.

d. **ENTER/MENU**

i. When OSD is disabled, it displays the OSD Main Menu.

ii. When OSD is enabled, it confirms a selection.

e. **LEFT** ◀

Moves left when navigating the Main Menu and Sub Menu. It also decrements a slider bar.

f. **RIGHT/SOURCE** ▶

i. When OSD is disabled, it cycles through the available input sources for the Main Display.

ii. When OSD is enabled, it moves right when navigating the Main Menu and Sub Menu and increments a slider bar.

g. **UP** ▲

Selects the previous item in the Item Menu.

h. **DOWN** ▼

i. Opens the Main Display Source Menu, PIP Display Source Menu and Item Menu.

ii. Selects the next item in the Item Menu.

i. DOWN ▼ + UP ▲

When OSD is disabled, it performs Auto-Color Balance if the Main Display is currently set to a VGA graphics input source.

****Please Note: For VGA Only, the SWAP, PIP and Source functions will be inactive. ****

3.2. OSD Menu System

The OSD menu system consists of four menu types: Main Menu, Source Menu, Sub Menu and Item Menu.

Menu	Description
Default / Normal	No menus are displayed.
Main Menu	The first level system control. Accepts ◄ ► keys to navigate, ▼ key to access Source Menu, and ENTER key to access Sub Menu.
Source Menu	Input sources are chosen at this level. Accepts ◄ ► and ENTER key for selecting input source. Accepts EXIT key to return to Main Menu without changing input source.
Sub Menu	The second level system control. Accepts ▼ or ENTER key to access the Item Menu. Accepts EXIT key to return to Main Menu.
Item Menu	The third level system control. Accepts ◄ ► and ENTER key for adjusting control features. Accepts EXIT key to return to previous menu (either Main or Sub Menu).

Table 1: OSD Menu Description

3.2.1. Main OSD Menu

Figure 3.1: OSD Main Menu

Main Display

a. Press down "▼" to enter Main Display Source Menu.
b. Press "ENTER" to enter Main Display Sub Menu.

PIP Display

a. Press down "▼" to enter PIP Display Source Menu.
b. Press "ENTER" to enter Main Display Sub Menu.

OSD Control

Press "ENTER" to enter OSD Control Item Menu.

Audio (Optional)

Press "ENTER" to enter Audio Item Menu.

Factory Reset

Press "ENTER" to enter Factory Reset Item Menu.

****Please Note: For VGA only, the PIP Display function will be inactive. ****

3.2.2. OSD Source Menu

There are four physical ports on the monitor, they are: VGA, DVI, S-Video, and Composite. The VGA port supports both PC graphics signals as well as 1080i video signals. The DVI port also supports both graphics and video signals. The S-Video, Composite ports support only video signals.

Press ▼ key to navigate to the OSD Source Menu, when either the Main Display or PIP Display is selected in the Main Menu. In the Source Menu, the ◄ ► keys are used to select an input source. Pressing ENTER saves the current selection. Pressing EXIT returns to the Main Menu without saving.

Please Note: The Source Menus for both the Main Display and PIP Display are identical in appearance.

Figure 3.2: OSD Source Menu

VGA

Press “ENTER” to set VGA as input source.

DVI

Press “ENTER” to set DVI as input source.

Composite

Press “ENTER” to set Composite as input source.

S-Video

Press “ENTER” to set S-Video as input source.

****Please Note: For VGA Only, the DVI, Composite and S-Video functions are inactive. ****

3.2.3. OSD Sub Menu

When either the Main Display or PIP Display is selected in the Main Menu, press “ENTER” to access the Sub Menu. This Sub Menu gives the user access to **Display** / **Image** / **Position** / **Color** / **PIP Control** Item Menus. Note that the Image Item Menu is not accessible for the PIP Display. To access each of these Item Menus, press either the “ENTER” or Down “▼” keys.

3.2.4. Item Menu

In the Sub Menu, press the ◄ ► keys to cycle through the various Item Menus. Press the ENTER or ▼ keys to access the Item Menu currently selected. Note that the contents of the Item Menu are dependent on the input source, which is currently active.

3.2.4.1. Display Item Menu

Figure 3.4: OSD Display Item Menu

Display Item Menu		
Menu	**Input Source**	**Description and Usage**
Brightness	VGA / Composite / S-Video / DVI	Adjust the screen brightness by using the ◄ ► buttons.
Contrast		Adjust the contrast of the screen by using the ◄ ► buttons.
Internal Brightness		Adjust the internal brightness of the screen by using the ◄ ► buttons.
Hue		Select hue to obtain the desired color settings by using the ◄ ► buttons.
Saturation		Select saturation to adjust the optimal color degree level by using the ◄ ► buttons.
Flesh-Tone		Flesh-tone can be configured by using the ◄ ► buttons to select Off, Weak, Soft or Strong effect for the Main Display.

3.2.4.2. OSD Image Item Menu

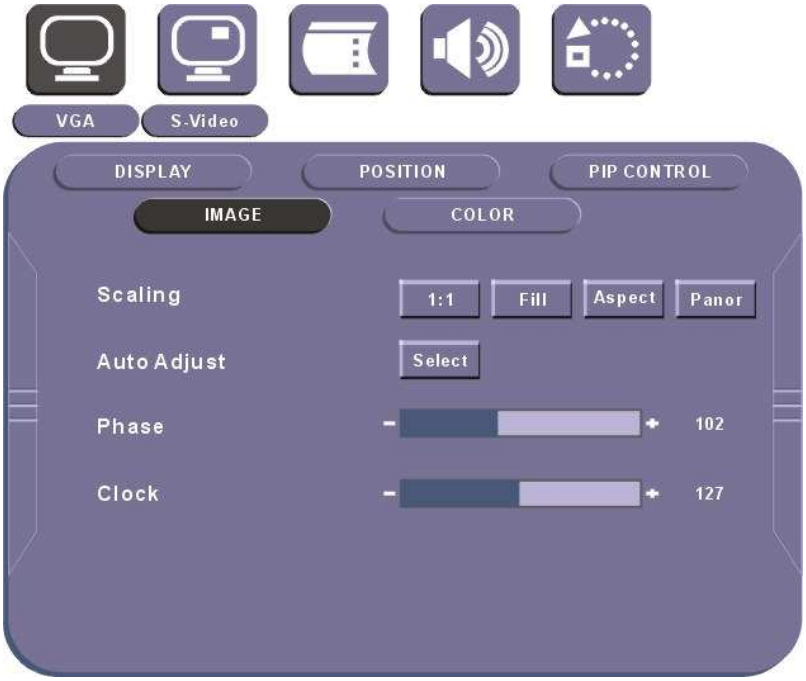


Figure 3.5: OSD Image Item Menu

Image Item Menu		
Menu	**Input Source**	**Description and Usage**
Scaling	VGA / Composite / S-Video / DVI	Change the scaling mode by using the ◄► buttons to select 1:1, Fill, aspect, or Panor. Press the ENTER key to activate the selected Scaling mode. In **1:1** mode, the input image is centered on the screen. In **Fill** mode, the input image is stretched (or compressed) to fill the available display area. In **Aspect** mode, the input image is stretched (or compressed) by the same horizontal and vertical factor. Panor mode (Panoramic Scaling) stretches the input image to fill the available display area.
Auto-Adjust	VGA	Initiate this to have the monitor logic choose the best settings for the current input signal. The only button available is SELECT. Note this may change the values of Phase and Clock, and there is no 'undo' feature.
Phase		Adjust Phase to optimize the display quality by using the ◄► buttons to change the value.
Clock		Select Clock to adjust the horizontal screen size by using the ◄► buttons to change the value.

3.2.4.3. OSD Image Item Menu for Composite and S-Video

Figure 3.6: OSD Image Item Menu for Composite/S-Video

Image Item Menu for Composite and S-Video		
Menu	**Input Source**	**Description and Usage**
Sharpness	Composite / S-Video	The sharpness of the image may be optimized by using the ◄► buttons to change the value using the slider bar.
Adaptive De-interlacing		To activate or deactivate motion adaptive de-interlacing, use the ◄► buttons to change the value to either Off or On.
Noise Reduction		To activate or deactivate noise reduction, use the ◄► buttons to change the value to either Off or On.
Angle Filtering		To activate or deactivate angle filtering, use the ◄► buttons to change the value to either Off or On.
Film Mode Detect		To activate or deactivate film mode detection, use the ◄► buttons to change the value to either Off or On.

Please Note:

Adaptive De-interlacing / Noise Reduction / Angle Filtering / Film Mode Detection are not available for progressive video inputs. For interlaced video inputs, Adaptive De-interlacing / Noise Reduction / Angle Filtering / Film Mode Detection can be configured only when the video signals are routed through video channel and pass the bandwidth checking.

3.2.4.4. OSD Position Item Menu

Figure 3.6: OSD Position Item Menu

Position Item Menu		
Menu	**Input Source**	**Description and Usage**
Vertical	VGA	Move the screen up or down by using the ◄► buttons to change the vertical position value.
Horizontal		Move the screen left or right by using the ◄► buttons to change the horizontal position value.
Zoom	VGA / DVI / Composite / S-Video	Change the current Zoom setting only to the Main Display, use the ◄► buttons to select either In or Out. Zoom is at a temporary setting and is lost at power down.
Horizontal Pan		Horizontal Pan is unavailable until the user performs a Zoom In action. To change the current Horizontal Pan setting use the ◄► buttons to select either Left or Right. Pan settings are lost when power is off.
Vertical Pan		Vertical Pan is unavailable until the user performs a Zoom In action. To change the current Vertical Pan setting use the ◄► buttons to select either Up or Down. Pan settings are lost when power is off.

3.2.4.5. OSD Color Item Menu

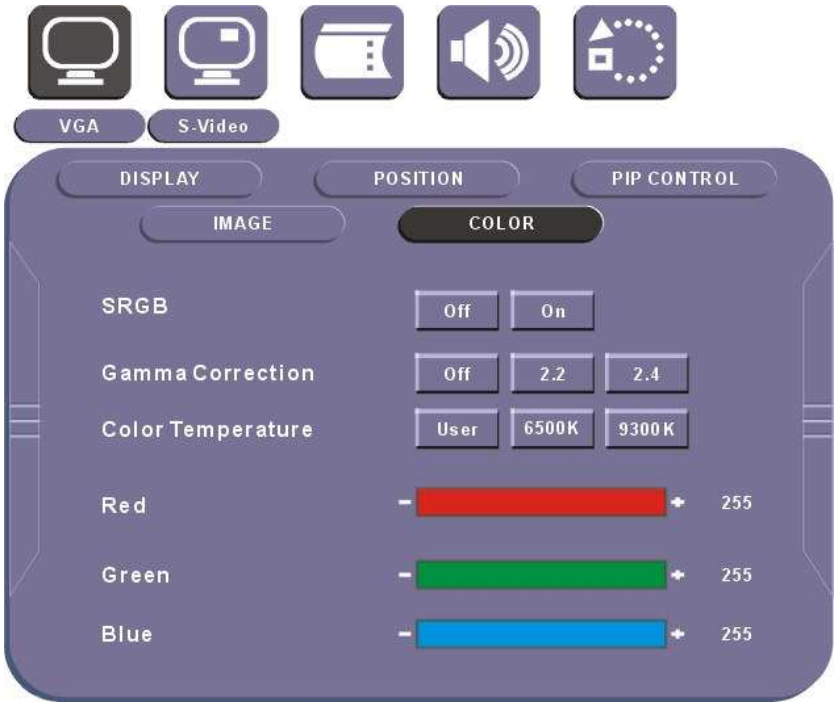


Figure 3.7: OSD Color Item Menu

Color Item Menu		
Menu	**Input Source**	**Description and Usage**
sRGB	VGA / DVI / Composite / S-Video	To activate or deactivate sRGB, use the ◄► buttons to change the value to either Off or On. The sRGB function works with the gamma LUT's and the 3x3 color matrix. The setting should be saved in the NVRAM when exiting this control feature item.
Gamma Corrections		To configure gamma correction, by pressing the ENTER key; the OSD should display three selectable items. Use the ◄► buttons to change the value to Off, 2.2, or 2.4. The setting should be saved in the NVRAM when exiting this control feature item.
Color Temperature		To configure color temperature, use the ◄► buttons to change the value to 9300 K, 6500 K, or User Preset to set a color temperature to suit your own preference. When User Preset is selected, the values of the Red, Green, and Blue sliders below are used to determine color settings.

3.2.4.6. OSD PIP Control Item Menu

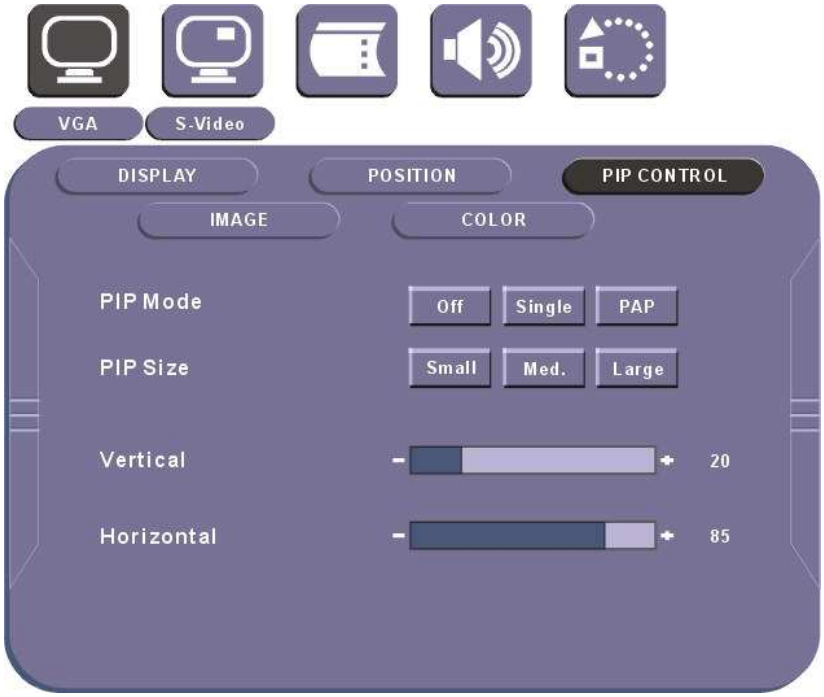


Figure 3.8: OSD PIP Control Item Menu

PIP Control Item Menu		
Menu	**Input Source**	**Description and Usage**
Mode	VGA / DVI / Composite / S-Video	Use the ◄► buttons to change the Mode value to Off, Single, or PAP. In Off mode, the Main display fills the entire screen. In Single mode, a PIP display floats over the screen. In PAP mode, the screen is divided into two side-by-side display areas.
Size		PIP Size can be altered only when Single PIP mode is selected. To configure the PIP display size, use the ◄► buttons to change the value to Small, Medium or Large.
Vertical		Both vertical and horizontal PIP position can be altered only when Single PIP mode is selected. Configure the PIP Vertical and Horizontal Position, by using the ◄► buttons to change the value using the slider bar.
Horizontal		

3.2.4.7. OSD Item Menu

Figure 3.9: OSD Item Menu

OSD Item Menu		
Menu	**Input Source**	**Description and Usage**
Vertical	VGA / DVI / Composite / S-Video	To configure the OSD Vertical and Horizontal Position, use the ◄► buttons to change the value using the slider bar. The OSD itself is moved each time the value is adjusted.
Horizontal		
Blend		To configure the OSD Transparency Blend, use the ◄► buttons to change the value using the slider bar. The transparency of OSD icons is changed each time the value is adjusted. Some OSD elements may not be affected by Blend settings.
Time-Out		The OSD automatically closes itself if no buttons are pressed for a defined amount of time. To configure the OSD Time-Out, use the ◄► buttons to change the value using the slider bar. A value of 0 disables OSD Time-Out, causing the OSD to remain visible until closed by the user.
OSD Zoom		To increase the size of the OSD, select Yes for OSD zoom. By default, OSD zoom is set to No, or turned off. Changing this option to Yes increases the size of the OSD. On lower resolution panels, the OSD zoom feature may cause the OSD to extend beyond the screen.

3.2.4.8. OSD Audio Item Menu (Optional)

Figure 3.10: OSD Audio Item Menu

Audio Item Menu		
Menu	**Input Source**	**Description and Usage**
Volume	VGA / DVI / Composite / S-Video	To adjust the volume, use the ◄► buttons to increase or decrease the volume.
Balance		To configure the audio balance, either left or right, use the ◄► buttons to change the value.
Treble		Increase or decrease the audio treble by using the ◄► buttons to change the value.
Bass		To configure the bass, use the ◄► buttons to change the bass value.
Mute		To turn mute off/on, select either On/Off for Mute. By default, mute is set to No, or turned off.

3.2.4.9. Factory Reset Item Menu

Figure 3.11: OSD Factory Reset Item Menu

Factory Reset Item Menu		
Menu	**Input Source**	**Description and Usage**
Factory Reset	VGA / DVI / Composite / S-Video	To reset all settings to factory defaults, open the Factory Reset Item Menu. Use the ◄► buttons to select the "Yes" option, and press ENTER. WARNING: All user adjustments will be lost. Press EXIT to return to the Main Menu without making changes.

3.2.5. PIP Configuration

This section describes how to change the size and screen position of the PIP Display.

To activate side-by-side (PAP) display, open the Main Menu, select Main Display or PIP Display. Navigate to the PIP control Item, and open the PIP Control Item Menu. Use the ◄ ► keys to change the Mode to 'PAP'. The display area is now divided in two. The left window displays the Main output, while the right window displays the PIP output. Each window is ¼ the size of the total display area. Each input is scaled to fit the window. No special configuration of PAP display is possible.

To change the size and position of the PIP Display, use the ◄ ► keys to change the Mode to 'Single'.Select the Size item and use the ◄ ► keys to change between Small, Medium, and Large displays. Select the Horizontal Position and Vertical Position sliders and use the ◄ ► keys to adjust the screen position of the floating PIP Display.

Note that the PIP screen can have any position on the screen. This can be achieved by adjusting both Horizontal and Vertical positions.

4. Cleaning the Monitor

1. Make sure the monitor is turned off.
2. Never spray or pour any liquid directly on the screen or case.
3. Wipe the screen with a clean, soft, lint-free cloth. This removes dust and other particles.
4. The display area is highly prone to scratching. Do not use ketone type material (ex. Acetone), Ethyl alcohol, toluene, ethyl acid or Methyl chloride to clear the panel. It may permanently damage the panel and void the warranty.
5. If it is still not clean enough, apply a small amount of non-ammonia, non-alcohol based glass cleaner onto a clean, soft, lint-free cloth, and wipe the screen.
6. Don't use water or oil directly on the monitor. If droplets are allowed to drop on the monitor permanent staining or discoloration may occur.

5. Disclaimer

We do not recommend using any ammonia or alcohol-based cleaners on the monitor screen or case. Some chemical cleaners have been reported to damage the screen and/or case of the monitor. Seller will not be liable for damage resulting from the use of any ammonia or alcohol-based cleaner.

6. Troubleshooting

If your monitor fails to operate correctly, consult the following chart for possible solution before calling for repairs:

Condition	Check Point
1. The picture does not appear	● Check if the signal cable is firmly seated in the socket. ● Check if the Power is ON at the computer ● Check if the brightness control is at the appropriate position, not at the minimum.
2. The screen is not synchronized	● Check if the signal cable is firmly seated in the socket. ● Check if the output level matches the input level of your computer. ● Make sure the signal timings of the computer system are within the specification of the monitor. ● If your computer was working with a CRT monitor, you should check the current signal timing and turn off your computer before you connect the VGA Cable to this monitor.
3. The position of the screen is not in the center	● Adjust the H-position, and V-position, or Perform the Auto adjustment.
4. The screen is too bright (too dark).	● Check if the brightness or contrast control is at the appropriate position, not at the Maximum (Minimum).
5. The screen is shaking or waving	● Perform the Auto adjustment.. ● Moving all objects which emit a magnetic field such as motor or transformer, away from the monitor. ● Check if the specific voltage is applied. ● Check if the signal timing of the computer system is within the specification of monitor.

If you are unable to correct the fault by using this chart, stop using your monitor and contact your distributor or dealer for further assistance.

Appendix A: Supported Modes

Graphics

No.	Resolution	Frequency (Hz)	Note
1	640x350	70	IBM
2	640x350	85	VESA
3	640x400	56	
4	640x400	70	IBM
5	640x400	85	VESA
6	640x480	60	VESA
7	640x480	72	VESA
8	640x480	75	VESA
9	640x480	80	VESA
10	720x350	70	IBM
11	720x400	70	IBM
12	720x400	85	VESA
13	800x600	56	VESA
14	800x600	60	VESA
15	800x600	72	VESA
16	800x600	75	VESA
17	800x600	85	VESA
18	1024x768	60	VESA
19	1024x768	70	VESA

No.	Resolution	Frequency (Hz)	Note
20	1024x768	72	IBM
21	1024x768	75	VESA
22	1024x768	85	VESA
23	1280x768	60	
24	1152x864	70	
25	1152x864	75	
26	1280x960	60	VESA
27	1280x960	85	VESA
28	1280x1024	60	VESA
29	1280x1024	60	HP
30	1280x1024	67	IBM
31	1280x1024	70	NCD
32	1280x1024	72	HP
33	1280x1024	75	VESA
34	1280x1024	85	VESA
35	1600x1200	60	VESA
36	1920x1200	60	VESA
37	1360x768	60	

Video

No.		
1	NTSC / 480I / 525I	720 x 240 x 60I
2	PAL / 576I /625I	720 x 288 x 50I

Not all modes will be supported, due to different panel brands