

Winmate Communication Inc.

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User Guide

Version: 11.2.2

REVISION HISTORY

<i>REVISION</i>	<i>AUTHOR</i>	<i>DATE</i>	<i>DESCRIPTION</i>
	Nelson	Nov 23, 2006 1.	Initial draft
	Bruce	May, 16,2007 1.	Modify Component description

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.

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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. G2A A/D Board	x1
2. VGA cable	x1
3. AC to DC adapter (optional)	x1
4. Power cable (optional)	x1
5. User manual	x1
6. DVI cable (optional)	x1
7. Audio cable (optional)	x1
8. RCA Cable (optional)	x1
9. S-Video Cable (optional)	x1
10. 24V to 12V transfer board(optional)	X1
11. 1 Channel Component board and cable (optional)	X1
12. 23 key Remote Controller (optional)	X1

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

2. Remote Controller

2.1. Install Battery in the Remote Controller

Insert two AAA alkaline batteries and match the (+) and (-) on battery to the marks inside the battery compartment.

Service life of battery:

1. The battery normally last for about one year although this depends on how often and for what operations the remote control is used.
2. If the remote control unit fails to work even then it's operated near the player, please replace the battery.

2.2. Remote Control Key Definitions



Key Function		Description
	Power Power	on/off
	Auto Auto	Adjust
	Source	Switch input source
	Swap	Swap images in PIP/PAP mode
	Menu Display	OSD menu
	Volume Adjust	volume
	PIP	Perform PIP mode
	Flip Flip	image
	Exit	Return to the previous menu level
	Reset Factory	reset
	Scaling	Change the scaling mode to 1:1, Fill or aspect
	Auto-color perform	Auto-Color Balance
	Mute Mute	
	Select	Navigating to Up/Down/Left/Right
	Enter Execute	

3. G2A Kit Memo (Optional for 24V input DC solution)

Warning:

1. See the instruction if the DC adapter is 12V or 24V. If the DC adapter is 24V DC, need to come with “24V to 12V power transfer board”.

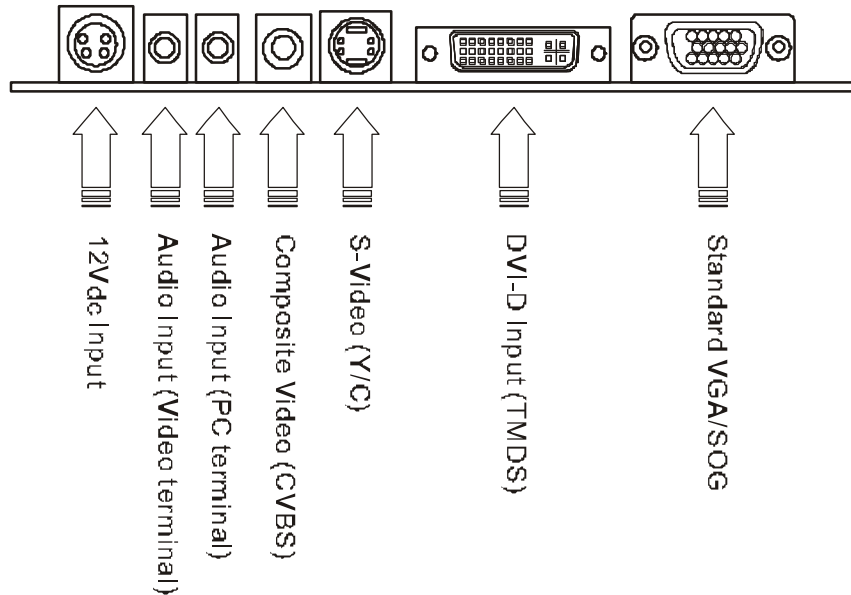
2. 24V to 12V Power transfer board installation Guide:

BEFORE connecting power cord to AC outlet, please ensure **ADAPTER CABLE, POWER CABLE to AD BOARD** and **INVERTER CABLE** have been connected. This action prevents volt converter board (GAP-P0420) from noise issue. This issue does not influence any function.

4. Input Signals Overview

The default output signal is VGA for the main display and S-Video for PIP display. The LCD output can be configured to use any of the available input formats (VGA, DVI, S-Video, and Composite).

Monitor Connectors



****Please Note: Some connectors are optional depends on the product model****

4.1. Power & Signal Connections

4.1.1. Power:

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

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

4.1.2. Power cable connection:

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

4.1.3. VGA cable connection:

Plug 15-pin VGA signal cable to the VGA connector in the rear of PC system, and plug the other end to the monitor.

Secure cable connectors with screws.

4.2. Optional Cable Connections

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

4.2.1. DVI cable connection (Optional):

Plug the DVI signal cable to the DVI connector in the rear of the PC system, and plug the other end to the monitor.

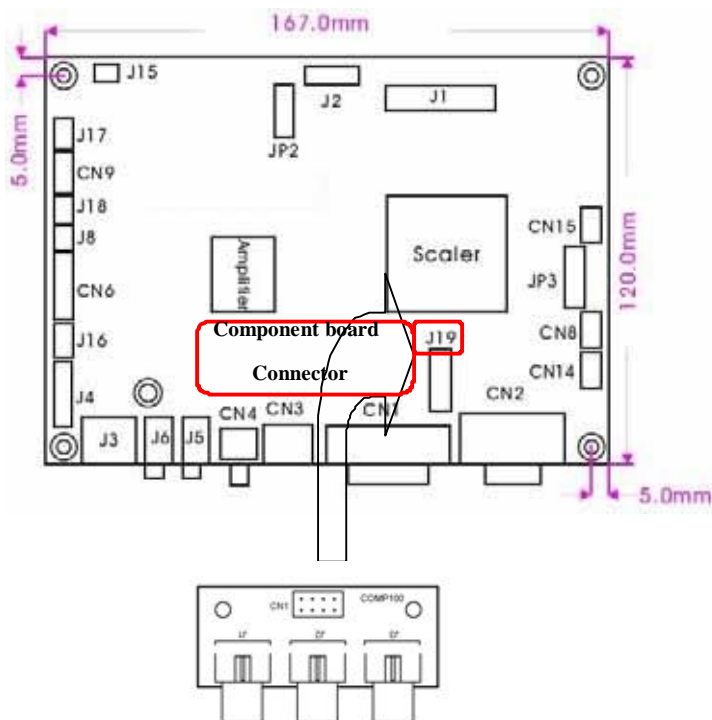
Secure cable connectors with screws.

4.2.3 RS232 cable connection (Optional):

You will be able to develop your own application software utilizing the built-in RS232 command code. The application software can send command from PC to LCD monitor via RS232 port to control LCD monitor. Please refer to Appendix B for built-in RS232 command code.

4.2.4 Component Board and Cable connection (Optional):

Plug the Component signal cable into J19 connector on G2A board and COMP100.



5. Using the LCD Monitor

5.1 OSD Key Definition



a. POWER

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

b. SWAP/AUTO

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

- i. 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.

5.2 OSD Hot Keys (Flip image and Auto)

Function Hot	Key
Mirror Image	Press “ ◀ ” and “ ▶ ” simultaneously to get a mirror image from the original source.
Upside-down Image	Press “ ◀ ” and “ ▶ ” simultaneously twice to get an upside down image from the original source.
Mirror + Upside-down Image	Press “ ◀ ” and “ ▶ ” simultaneously three times to get a mirror + upside down image from the original source.
Auto-Color Balance	When the OSD menu is disabled, press “ ▼ ” and “ ▲ ” simultaneously to perform Auto-Color Balance.

5.3 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 “◀ ” “▶” to navigate, “▼ ” to access Source Menu, and “ENTER” to access Sub Menu.
Source Menu	Input sources are chosen at this level. Accepts “◀ ” “▶” and “ENTER” 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” to access the Item Menu. Accepts EXIT key to return to Main Menu.
Item Menu	The third level system control. Accepts “◀ ” “▶ ” and “ENTER” for adjusting control features. Accepts “EXIT” to return to previous menu (either Main or Sub Menu).

Table 1: OSD Menu Description

5.3.1. Main OSD Menu



Figure 3.1: OSD Main Menu



- a. Press “▼ ” to enter Main Display Source Menu.
- b. Press “ENTER” to enter Main Display Sub Menu.



- a. Press “▼ ” 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: The PIP function is active only when the Main Display is in VGA input. ****

5.3.2. OSD Source Menu

There are VGA, DVI, S-Video, and Composite ports on the monitor. The VGA port and DVI port both support PC graphics signals as well as 1080i video signals. The S-Video and Composite ports support only video signals. In addition, Component port is optional for specific function.

When either the Main Display or PIP Display is selected, press “**▼**” to navigate the OSD Source Menu. Use “**◀**” / “**▶**” to select an input source In the Source Menu. Press “**ENTER**” to save the current selection. Press “**EXIT**” to return 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.

Composite



Press “**ENTER**” to set Composite as input source.

DVI



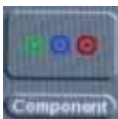
Press “**ENTER**” to set DVI as input source.

S-Video



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

Component



Press “**ENTER**” to set Component as input source.

5.3.3. 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 “**▼**”.

5.3.4. Item Menu

Press “**◀**” / “**▶**” to cycle through the Item Menu. Press “**ENTER**” or “**▼**” 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.

5.3.4.1. Display Item Menu



Figure 3.4: OSD Display Item Menu

Display Item Menu		
Menu	Input Source	Description and Usage
Brightness	VGA	Press “◀” / “▶” to adjust screen brightness.
Contrast		Press “◀” / “▶” to adjust contrast.
Internal Brightness	Composite	Press “◀” / “▶” to adjust the internal brightness of the screen.
Hue	S-Video	Press “◀” / “▶” to select hue to obtain the desired color settings.
Saturation	DVI	Press “◀” / “▶” to select saturation to adjust the optimal color degree level.
Flesh-Tone	Component	Press “◀” / “▶” to select Off, Weak, Soft or Strong effect for the Main Display.

5.3.4.2. 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 or aspect. Press “ENTER” 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.
Auto-Adjust		Initiate this to have the monitor logic to 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	VGA	Adjust Phase to optimize the display quality by using “◀” / “▶” to change the value.
Clock		Select Clock to adjust the horizontal screen size by using “◀” / “▶” to change the value.

5.3.4.3. 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		The sharpness of the image may be optimized by using “◀” / “▶” to change the value of the slider bar.
MPEG NR		To activate or deactivate MPEG noise reduction, use “◀” / “▶” to change the value between 0-15.
Noise Reduction	Composite	<i>Note: This function is unavailable under Component</i>
	S-Video	To activate or deactivate noise reduction, use “◀” / “▶” to change the value to either Off or On.
Angle Filtering	Component	To activate or deactivate angle filtering, use “◀” / “▶” to change the value to either Off or On.
Film Mode Detect		To activate or deactivate film mode detection, use “◀” / “▶” 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.

5.3.4.4. 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 “◀” / “▶” to change the vertical position value.
Horizontal		Move the screen left or right by using “◀” / “▶” to change the horizontal position value.
Zoom	VGA / DVI / Composite / S-Video	Change the current Zoom setting only to the Main Display, using “◀” / “▶” to select either In or Out. Zoom is at a temporary setting and will be lost at power down.
Horizontal Pan		Horizontal Pan is unavailable until the user performs a Zoom In action. Using “◀” / “▶” to select either Left or Right to change the current Horizontal Pan setting. Pan settings will be lost at power down. <i>Note: This function is unavailable under Component</i>
Vertical Pan		Vertical Pan is unavailable until the user performs a Zoom In action. Using “◀” / “▶” to select either Up or Down to change the current Vertical Pan setting and. Pan settings will be lost at power down. <i>Note: This function is unavailable under Component</i>

5.3.4.5. OSD Color Item Menu

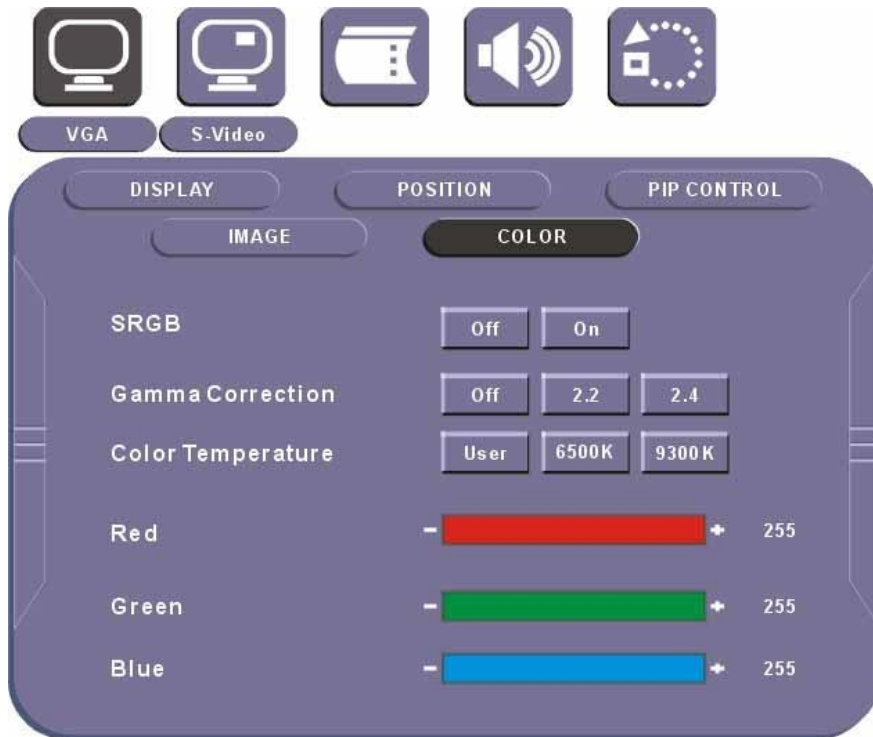


Figure 3.7: OSD Color Item Menu

Color Item Menu		
Menu	Input Source	Description and Usage
Gamma Corrections	VGA / DVI / Composite / S-Video	To configure gamma correction, by pressing the ENTER key; the OSD should display three selectable items. Use “◀” / “▶” to change the value to Off, 2.2, or 2.4. The setting will be saved in the NVRAM when exiting this control feature item.
Color Temperature		To configure color temperature, use “◀” / “▶” 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.

**** SRGB function has been disabled****

5.3.4.6. OSD PIP Control Item Menu

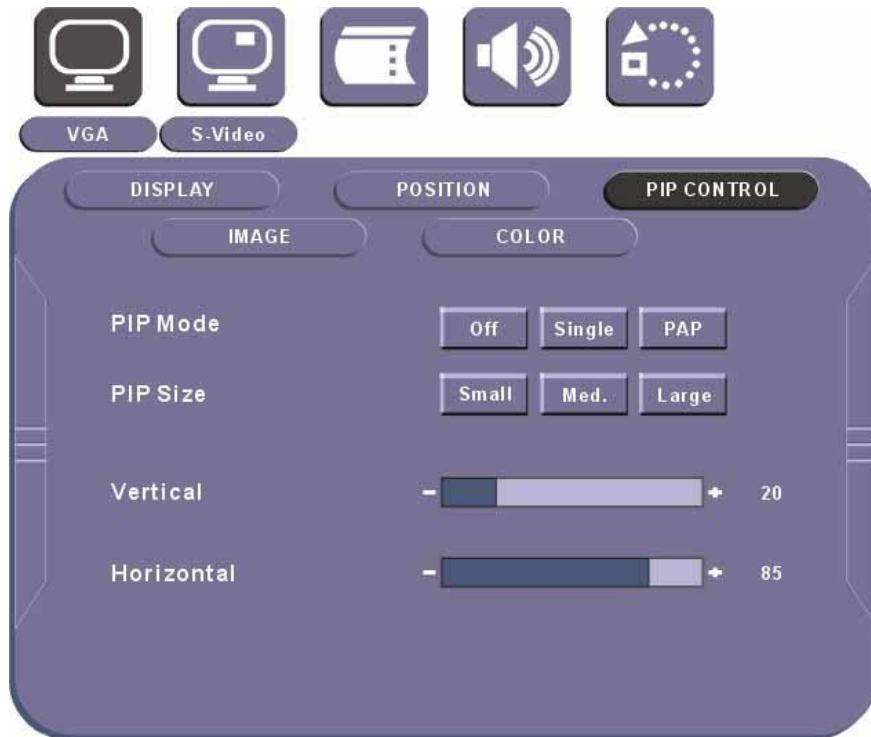


Figure 3.8: OSD PIP Control Item Menu

PIP Control Item Menu		
Menu	Input Source	Description and Usage
Mode	VGA / DVI / Composite / S-Video Component	Use “◀” / “▶” to change the Mode value to be 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 “◀” / “▶” 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 “◀” / “▶” to change the value using the slider bar.
Horizontal		

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 “◀” / “▶” to change to ‘PAP’ mode. The display area is now divided into two parts. The left window

displays the Main output, while the right window displays the PIP output. Each window is half size of the total display area. Each input is scaled down to fit the window.

To change the size and position of the PIP Display, use “◀” / “▶” to change the Mode to ‘Single’. Select the Size item and use “◀” / “▶” to change between Small, Medium, and Large displays. Select the Horizontal Position and Vertical Position sliders and use “◀” / “▶” 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.

5.3.4.7. OSD Item Menu



Figure 3.9: OSD Item Menu

OSD Item Menu		
Menu	Input Source	Description and Usage
Vertical	VGA / DVI /	Use “◀” / “▶” to change the value of the slider bar to configure the OSD Vertical and Horizontal Position. The OSD itself is moved each time the value is adjusted.
Horizontal	Composite / S-Video	

Blend	<p>Component Use “◀” / “▶” to change the value of the slider bar to configure the OSD Transparency Blend. The transparency of OSD icons is changed each time the value is adjusted. Some OSD elements may not be affected by Blend settings.</p>
Time-Out	<p>The OSD automatically closes itself if no buttons are pressed for a defined amount of time. To configure the OSD Time-Out, use “◀” / “▶” to change the value of the slider bar. A value of 0 disables OSD Time-Out, causing the OSD to remain visible until closed by the user.</p>
OSD Zoom	<p>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.</p>

5.3.4.8. 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 /	To adjust the volume, use “◀” / “▶” to change the value of the slider bar to increase or decrease the volume.

Balance	S-Video/ Component	To configure the audio balance, either left or right, use “◀” / “▶” to change the value of the slider bar to change the value.
Treble		Increase or decrease the audio treble by using “◀” / “▶” to change the value.
Bass		To configure the bass, use “◀” / “▶” 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.

5.3.4.9. 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 Component	To reset all settings to factory defaults, open the Factory Reset Item Menu. Use “◀” / “▶” 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.

6. 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.

7. 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.

8. 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	<p>Check if the signal cable is firmly seated in the socket.</p> <p>Check if the Power is ON at the computer</p> <p>Check if the brightness control is at the appropriate position, not at the minimum.</p>
2. The screen is not synchronized	<p>Check if the signal cable is firmly seated in the socket.</p> <p>Check if the output level matches the input level of your computer.</p> <p>Make sure the signal timings of the computer system are within the specification of the monitor.</p> <p>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.</p>

<p>3. The position of the screen is not in the center</p>	<p>Adjust the H-position, and V-position, or Perform the Auto adjustment.</p>
<p>4. The screen is too bright (too dark).</p>	<p>Check if the brightness or contrast control is at the appropriate position, not at the Maximum (Minimum).</p>
<p>5. The screen is shaking or waving</p>	<p>Perform the Auto adjustment..</p> <p>Moving all objects which emit a magnetic field such as motor or transformer, away from the monitor.</p> <p>Check if the specific voltage is applied.</p> <p>Check if the signal timing of the computer system is within the specification of monitor.</p>

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	640x480	67	MAC
2	640x480	72	VESA
3	640x480	75	VESA
4	640x480	80	VESA
5	720x400	70	IBM
6	800x600	56	VESA
7	800x600	60	VESA
8	800x600	72	VESA
9	800x600	75	VESA
10	1024x768	60	VESA
11	1024x768	70	VESA
12	1024x768	72	IBM
13	1024x768	75	VESA
14	1024x768	75	MAC
15	1280x1024	60	VESA
16	1280x1024	75	VESA
17*	1600x1200	60	VESA
18*	1680x1050	60	VESA
19*	1920x1200	60	VESA
20*	1366x768	60	VESA
21*	1920x1080	60	VESA

*Depend on pixels of panel.

Video

No.			
1	NTSC / 480I / 525I	720 x 240 x 60I	
2	PAL / 576I / 625I	720 x 288 x 50I	
3	480P / 525P	720 x 483 x 60P	
4	480P(16:9)	960 x 483 x 60P	
5	576P / 625P	720 x 756 x 50P	
6	(HDTV) 720P	1280 x 720 x 50P	
7	(HDTV) 720P	1280 x 720 x 60P	
8	(HDTV) 1080I	1920 x 1080 x 50I	
9	(HDTV) 1080I	1920 x 1080 x 60I	

Appendix B: RS-232 Command Code (Optional)

01	DOWN	0x04, 0x12, 0x02, 0xE8,
02	UP	0x04, 0x12, 0x03, 0xE7,
03	LEFT	0x04, 0x12, 0x05, 0xE5,
04	RIGHT	0x04, 0x12, 0x06, 0xE4,
05	ENTER	0x04, 0x12, 0x07, 0xE3,
06	EXIT	0x04, 0x12, 0x08, 0xE2,
07	SWAP	0x04, 0x12, 0x0A, 0xE0,
08	SOURCE	0x04, 0x12, 0x0E, 0xDC,
09	POWER	0x04, 0x12, 0x0F, 0xDB,
10	AUTO ADJUST	0x04, 0x12, 0x11, 0xD9,
11	ASPECT	0x04, 0x12, 0x14, 0xD6,
12	MENU	0x04, 0x12, 0x15, 0xD5,
13	PIP	0x04, 0x12, 0x16, 0xD4,
14	Vol DOWN	0x04, 0x12, 0x19, 0xD1,
15	Vol UP	0x04, 0x12, 0x1A, 0xD0,
16	RESET	0x04, 0x12, 0x23, 0xC7,
17	AUTO COLOR	0x04, 0x12, 0x29, 0xC1,
18	FLIP	0x04, 0x12, 0x2C, 0xBE,
19	MUTE	0x04, 0x12, 0x2D, 0xBD,
20	AV	0x04, 0x12, 0x33, 0xB7,
21	COMPONENT1	0x04, 0x12, 0x34, 0xB6,
22	COMPONENT1 (Optional*)	0x04, 0x12, 0x35, 0xB5,
23	VGA	0x04, 0x12, 0x36, 0xB4,
24	ACK	0x 3, 0x0C, 0xF1

Description: ex. DOWN 0x04, 0x12, 0x02, 0xE8,

Function par1, par2, par3, par4

Function: DOWN down key

Par1: 0x04 length (cannot be modified by user)

Par2: 0x12 inquiry code (cannot be modified by user)

Par3: 0x02 command code (can be modified by user)

Par4: 0xE8 check sum (cannot be modified by user)

* Note: Component 2 function is available when using “ I-2COMP” 2 channel component board.

