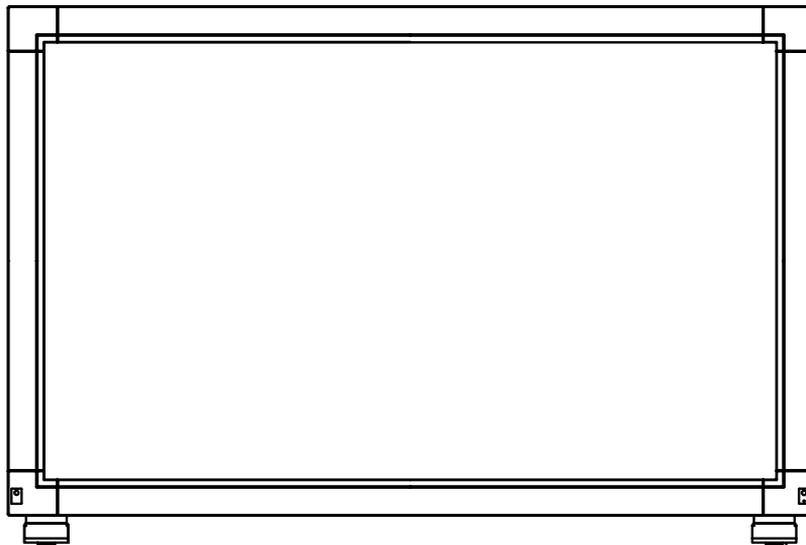




## INSTRUCTION MANUAL

**38-FP0002-01**

**40inch Multimedia LCD monitor**



## FCC DECLARATION OF CONFORMITY

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

This device has been tested and found to comply with the limits for Class B Personal Computers and peripherals, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the device is operated in a residential environment. This device 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 you determine the device does cause harmful interference to radio or television reception (this may be determined by monitoring the interference while turning the device off and on), you are encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the device and receiver.
- Connect the device into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or TV technician for help.

To meet the FCC requirements, you should use a signal cable with ferrite core at both ends.

### **CAUTION**

Changes or modifications not expressly approved by manufacturer could void the users authority to operate the device under FCC compliance regulations.

## CANADIAN DEPARTMENT OF COMMUNICATIONS COMPLIANCE STATEMENT

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulation of the Canadian department of communications.

## CE MARKING DECLARATION OF CONFORMITY

This LCD monitor complies with the requirements of the EC Directive 89/336/EEC "EMC Directive" and 73/23/EEC "Low Voltage Directive" as amended by Directive 93/68/EEC.

The electro-magnetic susceptibility has been chosen at a level that gives correct operation in residential areas, business and light industrial premises and small-scale enterprises, inside as well as outside of the buildings. All places of operation are characterised by their connection to the public low voltage power supply system.

- We reserve the right to change specifications without notice.
- All trademarks used in this user manual are the property of their respective owners.
- As an ENERGY STAR® Partner, manufacturer has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.
- This manual is printed on recycled paper.

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# FOR YOUR SAFETY

## SAFETY PRECAUTIONS

### WARNING

#### **STOP OPERATING THE MONITOR WHEN YOU SENSE TROUBLE**

If you notice any abnormal phenomena such as smoke, strange sounds or fumes, unplug the monitor and contact your dealer immediately. Further use may be dangerous and can cause fire or electric shock.

#### **NEVER REMOVE THE CABINET**

High voltage circuits are inside the monitor. Removing the cabinet may expose you to the danger of fire or electric shock.

#### **DO NOT PUT ANY OBJECT INTO THE MONITOR**

Do not put any solid objects or liquids such as water into the monitor. In case of an accident, unplug your monitor immediately and contact your dealer. Using the monitor with any object inside may cause fire, electric shock or damage.

#### **INSTALL THE MONITOR ON A FLAT, STABLE SURFACE**

The monitor may cause an injury if it falls or is dropped.

#### **DO NOT USE THE MONITOR NEAR WATER**

Do not use where water may be splashed or spilt onto the monitor as it may cause fire or electric shock.

#### **OPERATE UNDER THE SPECIFIED POWER SUPPLY**

Be sure to operate the monitor only with the specified power supply. Use of an incorrect voltage will cause malfunction and may cause fire or electric shock.

#### **PROTECT THE CABLES**

Do not pull or bend the power cable and signal cable. Do not place the monitor or any other heavy objects on the cables. If damaged, the cables may cause fire or electric shock.

#### **ADVERSE WEATHER CONDITIONS**

It is advisable not to operate the monitor during a heavy thunder storm as the continual breaks in power may cause malfunction. It is also advised not to touch the plug in these circumstances as it may cause electric shock.

## CAUTION

### INSTALLATION LOCATION

Do not install the monitor where sudden temperature changes may occur, or in humid, dusty or smokey areas as it may cause fire, electric shock or damage. You should also avoid areas where the sun shines directly on the monitor.

### DO NOT PLACE THE MONITOR IN A HAZARDOUS POSITION

The monitor may topple and cause injury if not suitably located. Please also ensure that you do not place any heavy objects on the monitor, and that all cables are routed such that children may not pull the cables and possibly cause injury.

### MAINTAIN GOOD VENTILATION

Ventilation slots are provided to keep the monitor from overheating. Covering the slots may cause fire. To allow adequate air circulation, place the monitor at least 10 cm (or 4 inches) from any walls. Ventilation slots on the back of the cabinet will be blocked and the monitor may overheat if the stand is removed. This may cause fire or damage. Operating the monitor on its back, side, upside down or on a carpet or any other soft material may also cause damage.

### DISCONNECT THE CABLES WHEN YOU MOVE THE MONITOR

When you move the monitor, turn off the power switch, unplug the monitor and be sure the signal cable is disconnected. If you do not disconnect them, it may cause fire or electric shock. It is recommended that two people are used when moving the monitor.

### UNPLUG THE MONITOR

If the monitor is not in use for a long period of time it is recommended that it is left unplugged to avoid accidents.

### HOLD THE PLUG WHEN DISCONNECTING

To disconnect the power cable or signal cable, always pull it by the plug. Never pull on the cable itself as this may cause fire or electric shock.

### DO NOT TOUCH THE PLUG WITH WET HANDS

Pulling or inserting the plug with wet hands may cause electric shock.

### DO NOT TURN ON AND OFF THE POWER FREQUENCY

Do not alternate between turning the power ON and OFF frequently as it may cause damage.

## OTHERS

### ERGONOMIC RECOMMENDATIONS

To eliminate eye fatigue, do not operate the monitor against a bright background or in a dark room. When using the monitor over a prolonged time, a ten minute break every hour is recommended as looking at the screen continuously can cause eye strain.

## SPECIAL NOTES ON LCD MONITORS

The following symptoms are normal with LCD monitors and do not indicate a problem.

### NOTE

- When you first turn on the LCD monitor, the picture may not fit in the display area because of the type of computer that is used. In this case, adjust the picture position to its correct position.
- Due to the nature of the backlight, the screen may flicker during initial use. Turn off the Power Switch and then turn it on again to make sure the flicker disappears.
- You may find slightly uneven brightness on the screen depending on the desktop pattern you use.
- Due to the nature of the LCD screen, an afterimage of the previous screen may remain after switching the image, when the same image is displayed for hours. In this case, the screen is recovered slowly by changing the image or turning off the Power Switch for hours. There is the possibility that the previous screen has been fixed. Pay attention sufficiently when you use a LCD Monitor.
- Contact your dealer for the backlight replacement when the screen is dark, flickering or not lighting up. Never attempt to replace it by yourself.

## CLEANING

### WARNING

- If you drop any materials or liquids such as water into the monitor when cleaning, unplug the power cable immediately and contact your dealer.

### CAUTION

- For safety reasons, turn off the power switch and unplug the monitor before you clean it.

### NOTE

- To protect the LCD panel, do not scratch or rub the screen with a hard object.
- Never use any of the following strong solvents. These will damage the cabinet and the LCD screen.

Thinner	Spray-type cleaner
Benzine	Wax
Abrasive cleaner	Acid or Alkaline solvent

- Touching the cabinet with any product made from rubber or plastic for a long time may cause degeneration or loss of paint on the cabinet.

### CABINET

Stains can be removed with a cloth lightly moistened with a mild detergent solvent. Then wipe the cabinet with a soft dry cloth.

### LCD

Periodic cleaning with a soft dry cloth is recommended.

### SCREEN

Don't use tissue paper etc. because these will damage the LCD screen.

# BEFORE YOU OPERATE THE MONITOR

## FEATURES

- ◆ 39.6" Wide Screen TFT Color LCD Monitor
- ◆ Supports Resolutions up to 1280 × 1024 (down scale)
- ◆ Super Wide Viewing Angle and High Contrast
- ◆ Digital Character Smoothing
- ◆ Automatic Set-up
- ◆ Plug & Play VESA DDC2B Compliant, Windows® 95/98/2000/Me/XP Compliant
- ◆ Power Management (ENERGY STAR® and VESA DPMS Compliant)
- ◆ Digital Input for Clear Display
- ◆ RS-232C Inter face Contorol
- ◆ Multiscreen with PIP and PBP Featured
- ◆ Supports Various Video Inputs
- ◆ Output Connectors for D-SUB and Composite Video Signals
- ◆ Automatic Dimmer

## CHECKING THE CONTENTS OF THE PACKAGE

The following accessories are included in your package. Check to see if they are enclosed with the monitor.

- |                      |                                   |
|----------------------|-----------------------------------|
| ■ Power Cable*       | ■ D-SUB Signal Cable              |
| ■ DVI-D Signal Cable | ■ RS-232C Cable                   |
| ■ Stand × 2          | ■ Screw for Stand (M8 × 20mm) × 4 |
| ■ Remote Control     | ■ AA Dry Battery × 2              |
| ■ Instruction Manual |                                   |

### CAUTION

\* Check the rating of the Power Cable enclosed is as follows.

- 120V area : 10A/125V
- Higher than 120V area : 10A/250V

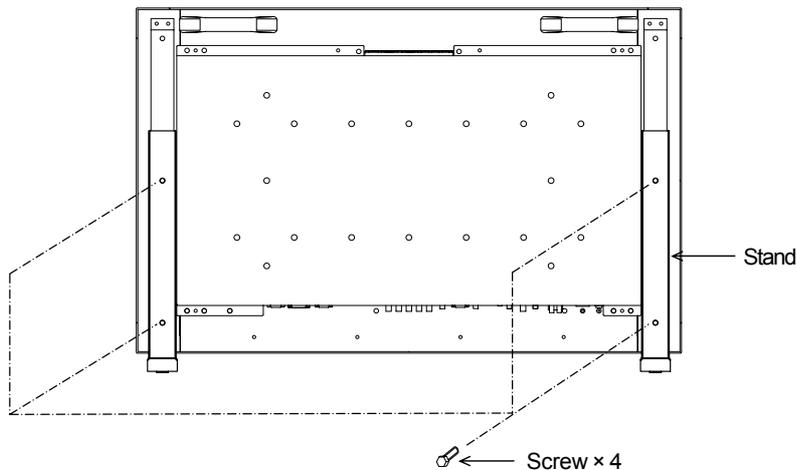
## INSTALLATION

### CAUTION

- The monitor is heavy. Two person handling is recommended.
- Install the stand on a stable surface. The monitor may cause injury or damage if it falls or is dropped.
- Do not give a strong impact to the monitor. It may cause damage.
- Unplug the monitor before installation to avoid electric shock or damage.

### INSTALLATION OF STAND

Install the Stand as shown in the illustration. Tighten the Screw (M8×20mm) to fasten the Stand. Tightening torque is recommended more than 1-1.5N·m (10-15kgf·cm).



### PROCEDURE AND CONDITIONS FOR MONITOR INSTALLATION

Follow the instructions below when installing the monitor to the wall.

- ① Environmental temperature and humidity for installation:  
Please be sure that an environmental temperature and humidity DO NOT exceed the range described in the page 30 SPECIFICATIONS.
- ② Size of screw
  - M6
  - Length: After fasten the bracket with screws, the length of screw in the monitor should be more than 10-15mm.
  - Position: more than 6 points

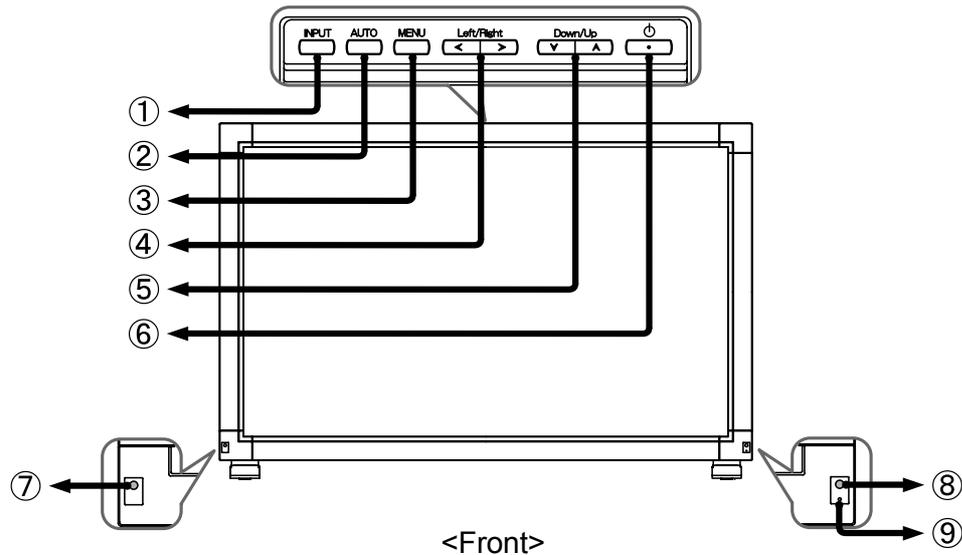
### NOTE

#### ATTENTION TO THE PORTRAIT INSTALLATION

For portrait installation, place the panel with rotating it 90 degrees in a counterclockwise direction.

Placing the panel with rotating it 90 degrees clockwise may cause damage to the screen.

## CONTROLS AND CONNECTORS



- ① Input Button (INPUT)
- ② Auto Button (AUTO)  
Adjusts Clock, Phase, H Position and V Position automatically.

### NOTE

- For best results, use the Auto Set-up in conjunction with the test pattern Test.bmp. (See page 26 for SCREENADJUSTMENTS.)

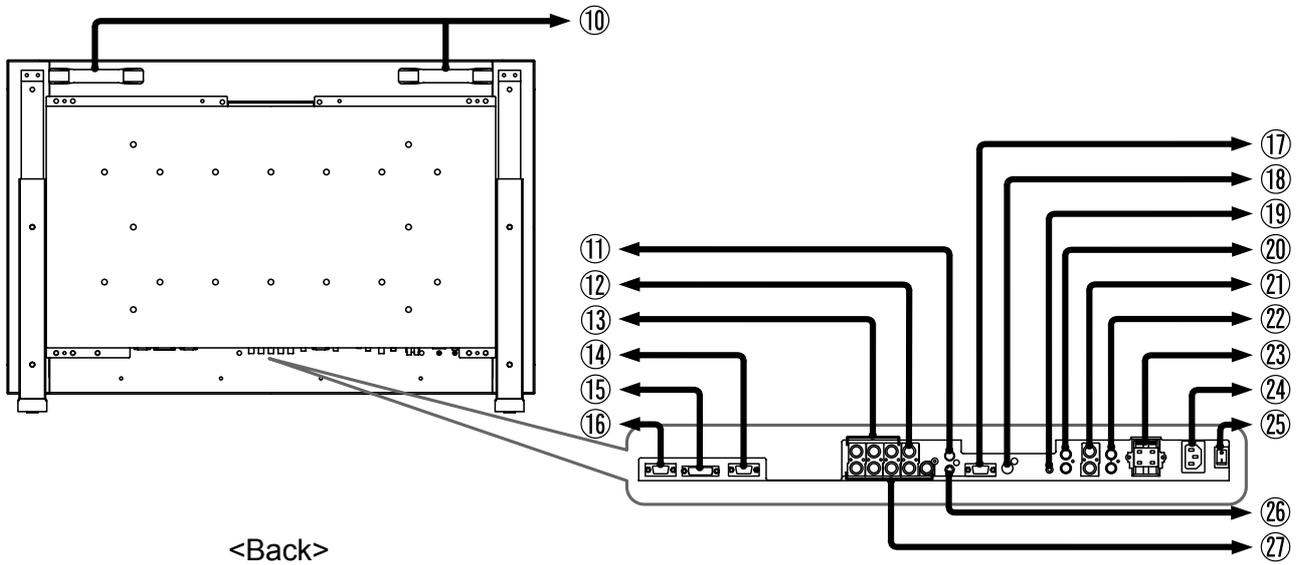
- ③ Menu Button (MENU)
- ④ Volume / Cursor Left/Right Button ( < / > )
- ⑤ Cursor Down / Up Button ( ▼ / ▲ )
- ⑥ Power Button ( ⏻ )
- ⑦ Ambient Light Sensor
- ⑧ Remote Sensor
- ⑨ Power Indicator

### NOTE

Blue: Normal operation

Orange: Power Management

The monitor enters into power management mode which reduces the power consumption to less than 4W when receiving no horizontal and/or vertical sync signal.

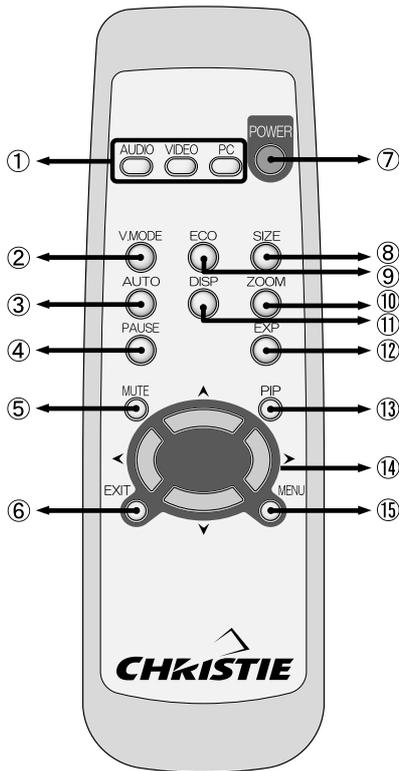


- ⑩ Handles
- ⑪ Composite Video Connector (VIDEO)\*1
- ⑫ Composite Video Connector (VIDEO)\*1
- ⑬ Component Video Connector (Y, Pb, Pr)
- ⑭ D-SUB mini 15pin Connector (D-SUB)
- ⑮ DVI-D 24pin Connector (DVI)
- ⑯ RS-232C Connector (RS-232C)
- ⑰ ANALOG-OUT Connector (D-SUB OUT)\*3
- ⑱ Composite VIDEO-OUT Connector (VIDEO OUT)\*2
- ⑲ AUDIO-IN1 Connector (IN1)
- ⑳ AUDIO-IN2 Connector (IN2)
- ㉑ AUDIO-IN3 Connector (IN3)
- ㉒ AUDIO-OUT Connector (OUT)\*4
- ㉓ External Speaker Output Terminal (SPEAKER)
- ㉔ AC Connector (AC IN)
- ㉕ Main Power Switch (POWER)
- ㉖ S-VIDEO Connector (S-VIDEO)
- ㉗ BNC Connector for PC (R, G, B, H, V)

**NOTE**

- \*1 Alternative connectors of ⑪ or ⑫.
- \*2 Signal from one of connectors ⑪ or ⑫ connected to the signal source is output.
- \*3 Active signal from one of connectors ⑭ or ㉗ is output.
- \*4 Active signal from one of connectors ⑲, ⑳ or ㉑ is output.

<Remote Control>



- ① AUDIO / VIDEO / PC (Video / Audio Input Signal Select)
- ② V.MODE (Video Mode)  
This is switched as follows when you successively press the button when PC or AV equipment is connected.  

→ Standard → Movie → Game →
- ③ Auto Button (AUTO) Only Analog Input of PC  
Adjusts Clock, Phase, H Position and V Position automatically.  
**NOTE** ■ For best results, use the Auto Set-up in conjunction with the test pattern Test.bmp. (See page 26 for SCREENADJUSTMENTS.)
- ④ PAUSE (Picture Lock)  
The picture on the screen can be locked when pressing the button while the Menu is not displayed. Press the button again to release it.
- ⑤ MUTE  
Turn off the sound temporarily. Press again to return the sound volume to the previous level .
- ⑥ EXIT  
Go back to the previous screen when the menu page is displayed on the screen.
- ⑦ Power Button (POWER)
- ⑧ SIZE  
This is switched when you successively press the button as follows:  
  - Computer connection:  

→ Full → Off → Aspect →
  - AV equipment connection:  

→ Full → Wide → Aspect →
- ⑨ ECO (Economy Mode)  
The brightness of the backlight is switched as follows when you successively press the button to save the power consumption of the monitor.  

→ Mode1 → Mode2 → Off →
- ⑩ ZOOM\*  
The ZOOM Menu is displayed on the screen.
- ⑪ DISP (Screen Display)  
Following information is displayed on the screen.
  - Signal input port
  - Sound input port
- ⑫ EXP (Expanded functions)
  - Product Version
  - Operating time
- ⑬ PIP (Picture in Picture)  

→ PIP → PBP → Off →
- ⑭ Volume / Cursor L/R Button ( < / > )  
Cursor D/U Button ( ▼ / ▲ )
- ⑮ Menu Button (MENU)  
The Menu page is displayed on the screen. Press again to turn off the menu page.

\*ZOOM

Press ZOOM Button when the menu page is not displayed on the screen so that following menu appears.

- Off: Return to the previous screen.
- On: Zoom Down / Up is available.
- Zoom Down: The screen is returned.
- Zoom Up: The screen is expanded.

Press ZOOM Button again to change the zoom point.

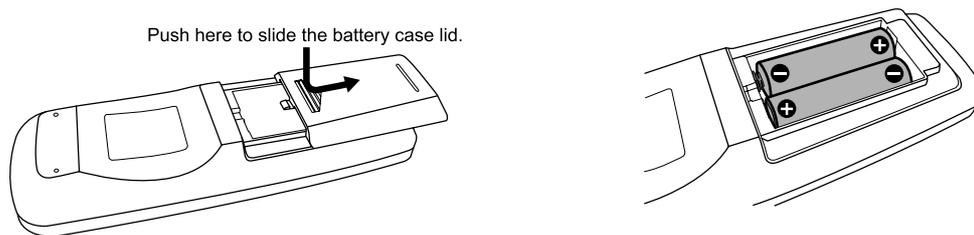
- Left: To the left
- Right: To the right
- Down: Downward
- Up: Upward

## PREPARING THE REMOTE CONTROL

To use the remote control, insert the two dry batteries.

**CAUTION** ■ Do not use any other batteries other than those specified in this manual for the Remote Control. Do not insert old and new batteries together in the Remote Control. Make sure that the terminals match the “+” and “-” indications in the battery compartment. Burst batteries or the electrolyte from these batteries may cause stains, fire or injury.

- ① Slide open the battery case lid on the reverse of the remote control as shown in the illustration.
- ② Take care not to mix up the “+” and “-” terminals.
- ③ Slide closed the battery case lid.



**NOTE** ■ Replace with new batteries when the Remote Control does not work close to the monitor. Use AA dry batteries.

■ Operate the Remote Control by pointing it toward the Remote Sensor on the monitor.

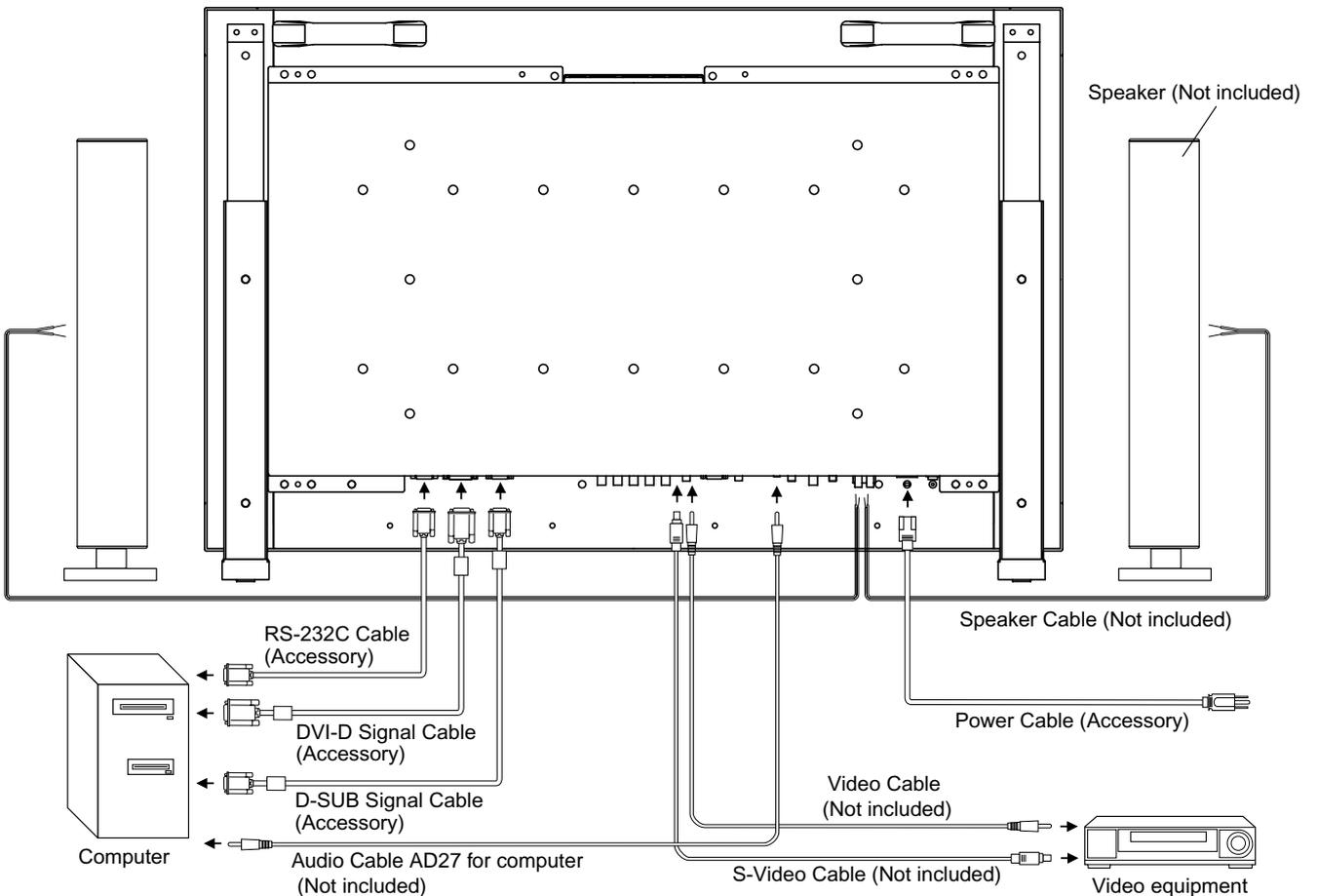
■ Other manufacturers remote control will not work with this monitor. Use the provided Remote Control ONLY.

# CONNECTING YOUR MONITOR

- ① Ensure that both the computer and the monitor are switched off.
  - ② Connect the computer to the monitor with the signal cable. (See page 32 for CONNECTOR PIN ASSIGNMENT.)
  - ③ Connect the RS-232C cable to the computer while using the RS-232C control feature.
  - ④ Connect the monitor to the audio equipment with the Audio Cable for computer when using the audio features.
  - ⑤ Connect the monitor to the speakers with the Speaker Cable when using the speakers.
- NOTE** ■ When connecting speakers, rating of speaker should be 10W (4Ω) or equivalent.
- ⑥ Connect the Power Cable to the monitor first and then to the power supply.

- NOTE** ■ The signal cables used for connecting the computer and monitor may vary with the type of computer used. An incorrect connection may cause serious damage to both the monitor and the computer.
- Make sure you tighten the finger screws at each end of the signal cable.

[Example of Connection]



## COMPUTER SETTING

### ■ Signal Timing

Change to the desired signal timings listed on page 31 in COMPLIANT TIMING, after you confirm that the picture appears normally.

### ■ Windows 95/98/2000/Me/XP Plug & Play

The LCD monitor complies with DDC2B of VESA standard. The Plug & Play function runs on Windows 95/98/2000/Me/XP by connecting the monitor to DDC2B compliant computer with the Signal Cable supplied.

#### **NOTE**

- Monitor Drivers are not required in most cases for Macintosh or Unix operating systems. For further information, please contact your computer dealer first for advice.

## BASIC OPERATION

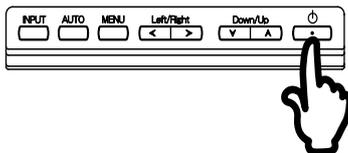
### ■ Turn on the monitor

Press the Main Power Switch of back on the monitor. The monitor is turned ON when you press the Power Button on the monitor or the Remote Control.

Press again to turn OFF the monitor.

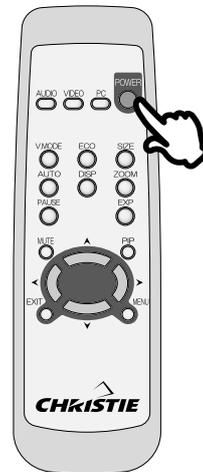
[ Monitor ]

Press the Power Button.



[ Remote Control ]

Press the Power Button.



### NOTE

Even when turning OFF the Power Button, the monitor will consume a small amount of electricity. Turn off the Main Power Switch whenever the monitor is not in use, during the night and weekends, to avoid unnecessary power consumption.

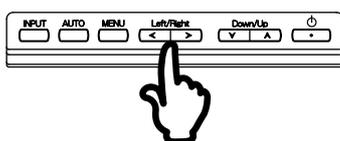
### ■ Adjust the volume of sound, Move the cursor horizontally

Press the Volume / Cursor Left/Right Button ( </ > ) on the monitor or Cursor Button ( < > ) on the Remote Control to adjust the volume of sound when the menu page is not displayed on the screen.

Select menu or setting, or perform the adjustment by pressing the Volume / Cursor Left/Right Button ( </ > ) on the monitor or Cursor Button ( </ > ) on the Remote Control while the menu page is displayed on the screen.

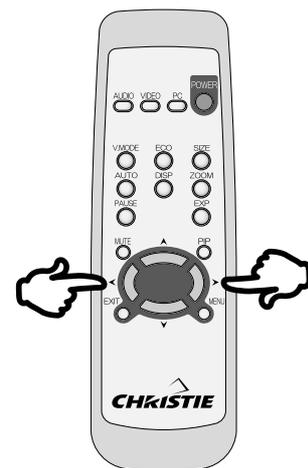
[ Monitor ]

Press the Volume / Cursor Left/Right Button ( < > ).



[ Remote Control ]

Press the Cursor Button ( </ > ).

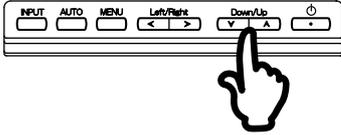


### ■ Move the cursor vertically

Select adjustment by pressing the cursor Down/Up Button (▼ / ▲) or the cursor Button (▼ / ▲) while the menu page is displayed on the screen.

[ Monitor ]

Press the cursor (▼ / ▲) Button.



[ Remote Control ]

Press the cursor (▼ / ▲) Button.



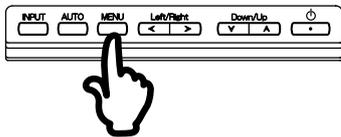
### ■ Display the adjustment menu page

The menu page appears on the screen when you press the Menu Button on the monitor or the Remote Control.

The menu page disappears when you press the Menu Button on the Remote Control again.

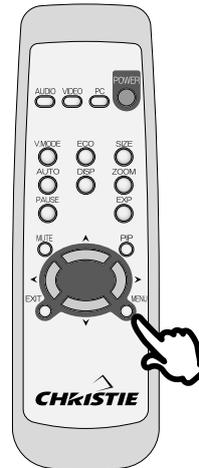
[ Monitor ]

Press the Menu Button.



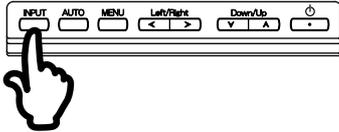
[ Remote Control ]

Press the Menu Button.

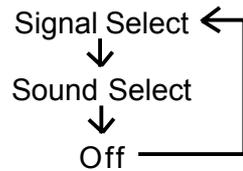


## ■ Switch the input signal

[ Monitor ] Press the Input Button.

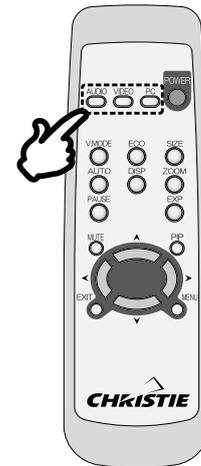


This is switched when you successively press the Input Button on the monitor or AUDIO/VIDEO/PC Button on the Remote Control as follows:



[ Remote Control ]

Press the AUDIO/VIDEO/PC Button.



- Audio input are switched as follows by pressing the AUDIO Button successively.

→ IN1 → IN2 → IN3 →

- Video input are switched as follows by pressing the VIDEO Button successively.

→ VIDEO → S-VIDEO → COMPONENT →

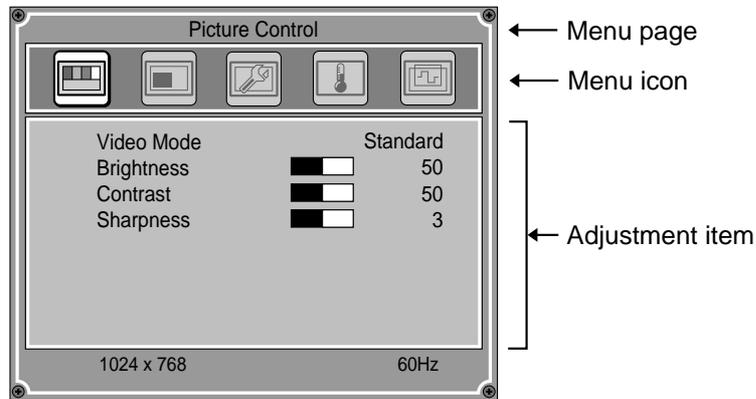
- PC input are switched as follows by pressing the PC Button successively.

→ D-SUB → BNC → DVI →

# OPERATING THE MONITOR

To create the best picture, your LCD monitor has been preset at the factory with the COMPLIANT TIMING shown on page 31. You are also able to adjust the picture by following the button operation shown below. For more detailed adjustments, see page 26 for SCREEN ADJUSTMENTS.

- 1 Press the Menu Button on the monitor or the Remote Control to start the On Screen Display feature. There are additional Menu pages which can be switched by using the < / > Buttons on the monitor or the Remote Control.



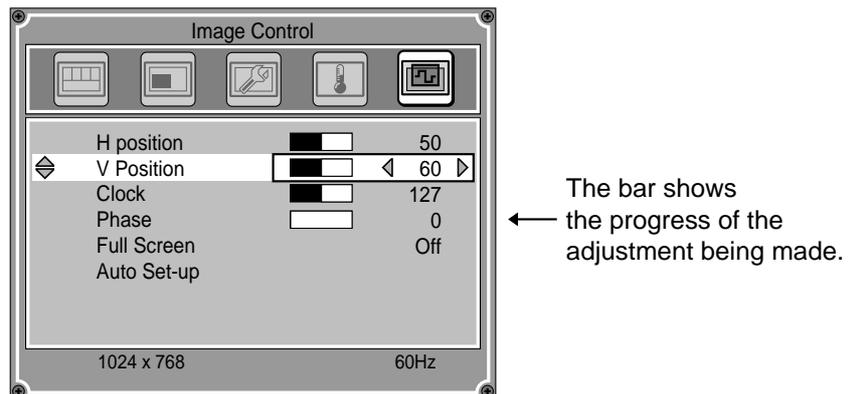
- 2 Select the Menu page which contains the adjustment icon relating to the adjustment you want to make. Then, use the ▼ / ▲ Buttons to highlight the desired adjustment icon.

- 3 Use the < / > Buttons to make the appropriate adjustment or setting.

Press EXIT Button on the Remote Control or press the ▲ Button while the cursor selects top adjustment item to return to the previous screen.

For example, to correct for vertical position, select Menu page of "Image Control". Then, select "V Position" by using the ▼ / ▲ Buttons.

Use the < / > Buttons to change the vertical position settings. The vertical position of the overall display should be changing accordingly while you are doing this.



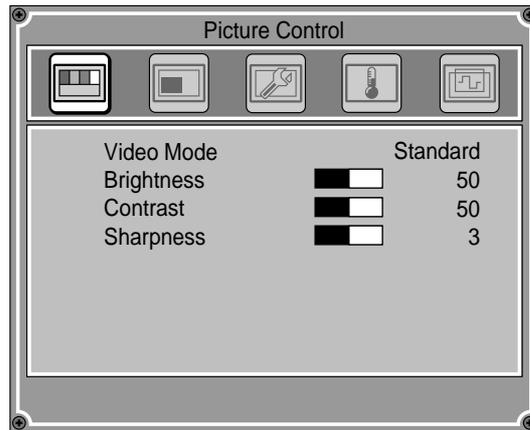
## NOTE

- The On Screen Display disappears several seconds after you stop pressing the buttons while performing an adjustment.
- Any changes are automatically saved in the memory when the On Screen Display disappears. Turning off the power should be avoided while using the Menu.
- Adjustments for Clock, Phase and Position are saved for each signal timing. Except for these adjustments, all other adjustments have only one setting which applies to all signal timings.

# ADJUSTMENT MENU CONTENTS

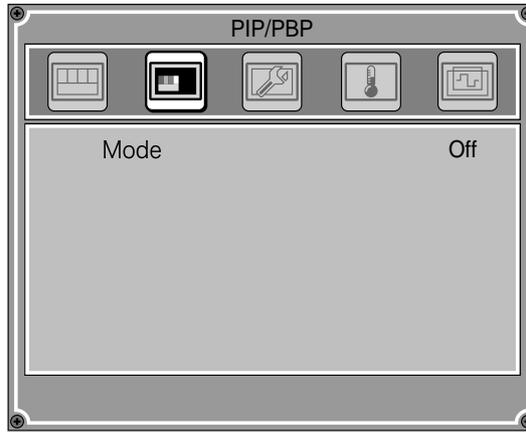
## PC Input

### Menu : Picture Control (PC)



Adjustment Item		Problem / Option	Button to Press
Video Mode	Standard	Normal	
	Movie	Suitable for a dark screen such as movie	
	Game	Suitable for Games	
Brightness	Too dark		
	Too bright		
Contrast	Too dull		
	Too intense		
Sharpness	Too soft		
	Too sharp		

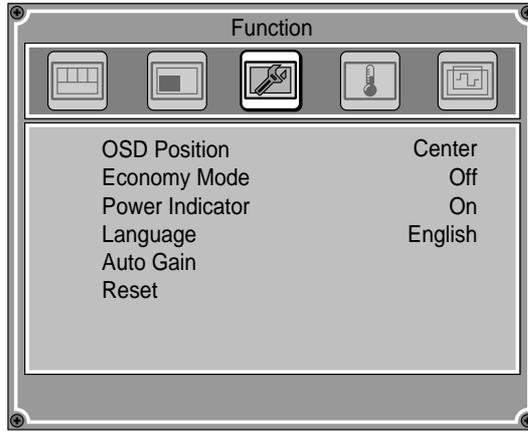
**Menu : PIP/PBP  
(PC)**



Adjustment Item		Problem / Option	Button to Press	
Mode	Off	PIP/PBP function is turned off.		
	<b>PP</b> PIP= Picture in Picture: With this function, you can display two different pictures, such as a computer image in the main screen and a DVD / Video image in the sub screen at the same time. You can also display a DVD / Video image in the main screen and a computer image in the sub screen.	PIP Size	Sub screen is too small. Sub screen is too large.	
		H Position	Sub screen is too far to the left. Sub screen is too far to the right.	
		V Position	Sub screen is too high. Sub screen is too low.	
		Signal Select	Video	Display a Video picture in the sub screen.
			S-Video	Display a S-Video picture in the sub screen.
			Component	Display a Component Video picture in the sub screen.
		Swap	To switch between sub and main screens.	
	<b>PBP</b> PBP= Picture by Picture: You can arrange a computer image and a DVD / Video image horizontally in the screen.	Signal Select	Video	Display a Video picture in the sub screen.
			S-Video	Display a S-Video picture in the sub screen.
Component			Display a Component Video picture in the sub screen.	
Swap		To switch between sub and main screens.		

**NOTE** For PC input, PIP and PBP are not available at the resolution of more than 768 vertical lines.

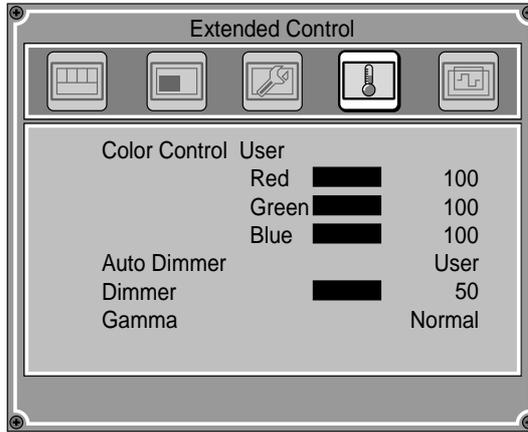
**Menu : Function  
(PC)**



Adjustment Item		Problem / Option	Button to Press	
OSD Position		UL/BL/Cent./UR/BR		
Economy Mode*	Off	Normal		
	Mode 1	Brightness of back-light is reduced by Approx.30%.		
	Mode 2	Brightness of back-light is reduced by Approx.50%.		
Power Indicator	Off	Power Indicator is turned off when the Power Switch is turned ON.		
	On	Power Indicator is turned on when the Power Switch is turned OFF.		
Language	English	English	日本語	Japanese
	Français	French	中文	Chinese
	Italiano	Italian	Nederlands	Dutch
	Deutsch	German	Русский	Russian
	Español	Spanish	Svenska	Swedish
Auto Balance	Only Analog Input of PC	Adjust R / G / B gains automatically to get optimum color gradation.		
<b>NOTE</b>		<ul style="list-style-type: none"> <li>■ The adjustment starts automatically as soon as you press the ➤ Button.</li> <li>■ For the Auto Balance to work correctly, display a white window no smaller than 5cm × 5cm.</li> <li>■ This adjustment takes approximately five seconds and then the screen becomes dark.</li> <li>■ The Auto Balance may not work correctly due to your computer system, resolution or displayed pattern. In this case, select “Reset” on Function and restore factory-preset data.</li> </ul>		
Reset		Factory-preset data is restored.		
<b>NOTE</b>		Reset starts automatically as soon as you press the ➤ Button.		

\* Economy Mode is turned off when Auto Dimmer is active.

**Menu :Extended Control (PC)**



Adjustment Item			Problem / Option	Button to Press
Color Control*1	User	Red	Too weak	➡
		Green		
		Blue	Too strong	⬅
		9300K	Bluish white (Approx. 9300K)	
		7500K	Yellowish white (Approx. 7500K)	
		6500K	Reddish white (Approx. 6500K)	
	sRGB	sRGB mode		
<p><b>NOTE</b></p> <ul style="list-style-type: none"> <li>■ sRGB is an international standard which defines and unifies the difference of color appearance between equipment.</li> <li>■ You can not adjust the Gamma because those settings are locked.</li> </ul>				
Auto Dimmer*2,3	User	Brightness of back-light is adjusted manually by "Dimmer" function.		
	Auto	Brightness of back-light is adjusted automatically.		
	Fixed*4	Brightness of back-light is locked.		
Dimmer*2		Too dark	➡	
		Too bright	⬅	
<p><b>NOTE</b> Adjust the brightness of back-light.</p>				
Gamma	Normal	Normal brightness		
	Hi Cont.	Brighter than normal		
	Dark	Darker than normal		

\*1 The indicated color temperature in Kelvin is approximately the standard.

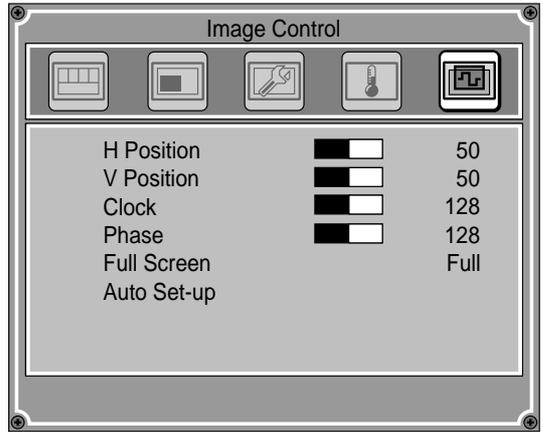
\*2 Adjust the Dimmer when you are using the monitor in a dark room and feel the screen is too bright.

\*3 Economy Mode is turned off when Auto Dimmer is active.

\*4 When two or more monitors are aligned, you can set the same level of brightness for each monitor.

**Menu : Image Control (PC)**

Digital input of PC is Full Screen only.



Adjustment Item		Problem / Option	Button to Press
H Position* <sup>2</sup>		Too far to the left	
		Too far to the right	
V Position* <sup>2</sup>		Too low	
		Too high	
Clock* <sup>2</sup>		To correct flickering text or lines	
Phase* <sup>2</sup>		To correct flickering text or lines	
Full Screen	Full	Expansion display.	
	Off	Display a picture in actual of the input signal.	
	Aspect	Stretch or shrink the picture in the same aspect ratio.	
Auto Set-up* <sup>1,2</sup>	<b>Only Analog Input of PC</b>	Adjust Clock, Phase, V Position and H Position automatically.	

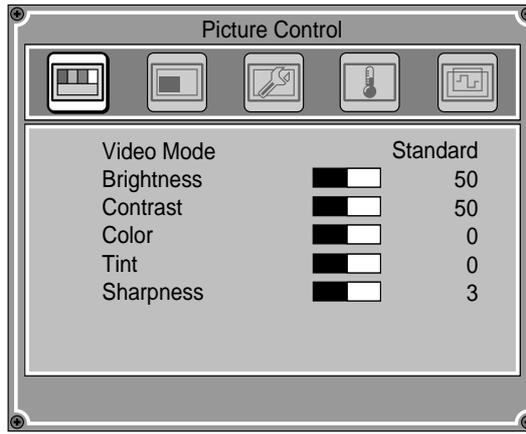
**NOTE**

- The adjustment starts automatically as soon as you press the Button.
- The screen becomes dark for approximately five seconds during the adjustment.

\*<sup>1</sup> For best results, use the Auto Set-up in conjunction with the adjustment pattern.  
 \*<sup>2</sup> See page 26 for SCREEN ADJUSTMENTS.

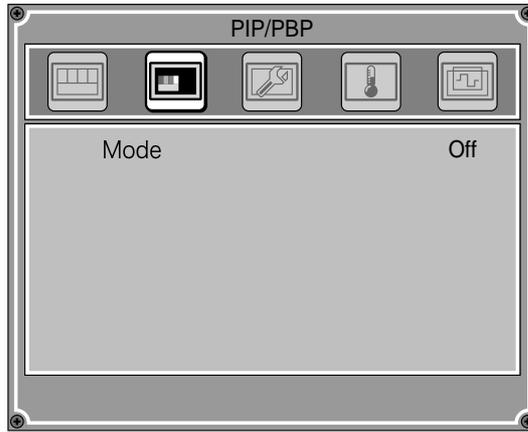
## Video Component Input

### Menu : Picture Control (Video Component)



Adjustment Item		Problem / Option	Button to Press
Video Mode	Standard	Normal	
	Movie	Suitable for a dark screen such as movie	
	Game	Suitable for Games	
Brightness	Too dark		
	Too bright		
Contrast	Too dull		
	Too intense		
Color	Too weak		
	Too strong		
Tint	Purplish		
	Greenish		
Sharpness	Too soft		
	Too sharp		

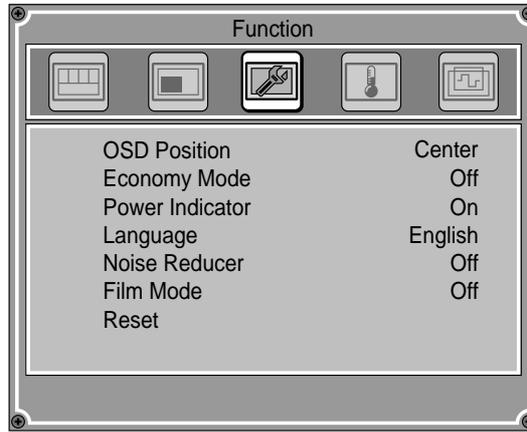
**Menu : PIP/PBP  
(Video Component)**



Adjustment Item		Problem / Option		Button to Press
Mode	Off	PIP/PBP function is turned off.		
	<b>PP</b> PIP= Picture in Picture: With this function, you can display two different pictures, such as a computer image in the main screen and a DVD / Video image in the sub screen at the same time. You can also display a DVD / Video image in the main screen and a computer image in the sub screen.	PIP Size	Sub screen is too small.	>
			Sub screen is too large.	<
		H Position	Sub screen is too far to the left.	>
			Sub screen is too far to the right.	<
		V Position	Sub screen is too high.	>
			Sub screen is too low.	<
	Signal Select	D-SUB	Display a D-SUB picture in the sub screen.	
		BNC	Display a BNC picture in the sub screen.	
		DVI	Display a DVI picture in the sub screen.	
Swap	To switch between sub and main screens.		>	
<b>NOTE</b> Press > Button to switch between sub and main screens at the same time.				
<b>PBP</b> PBP= Picture by Picture: You can arrange a computer image and a DVD / Video image horizontally in the screen.	Signal Select	D-SUB	Display a D-SUB picture in the sub screen.	
		BNC	Display a BNC picture in the sub screen.	
		DVI	Display a DVI picture in the sub screen.	
	Swap	To switch between sub and main screens.		>
<b>NOTE</b> Press > Button to switch between sub and main screens at the same time.				

**NOTE** PIP and PBP are not available at the 1080i of Component Video.

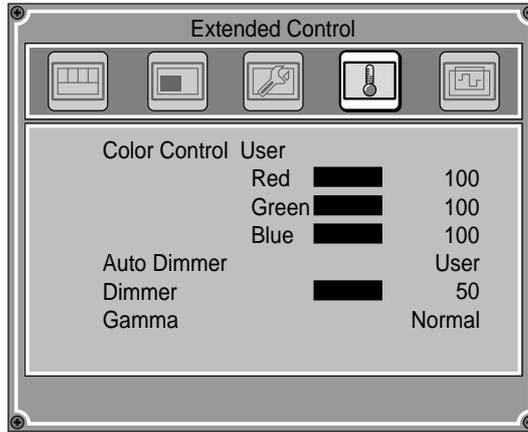
**Menu : Function  
(Video Component)**



Adjustment Item		Problem / Option	Button to Press	
OSD Position		UL/BL/Cent./UR/BR		
		<p>You can move the OSD display area to any one of the following 5 positions within the overall display:            Press the ► Button to move the OSD in numerical order.            Press the ◀ Button to move the OSD in reverse numerical order.</p>		
Economy Mode*	Off	Normal		
	Mode 1	Brightness of back-light is reduced by Approx.30%.		
	Mode 2	Brightness of back-light is reduced by Approx.50%.		
Power Indicator	Off	Power Indicator is turned off when the Power Switch is turned ON.		
	On	Power Indicator is turned on when the Power Switch is turned OFF.		
Language	English	English	日本語	Japanese
	Français	French	中文	Chinese
	Italiano	Italian	Nederlands	Dutch
	Deutsch	German	Русский	Russian
	Español	Spanish	Svenska	Swedish
Noise Reducer	Off	Noise Reducer is turned off.		
	Weak	To reduce the noise of picture (Effect of decreasing: weak)		
	Strong	To reduce the noise of picture (Effect of decreasing: weak)		
<b>NOTE</b>		Whole screen may be blurred depending on the picture displayed.		
Film Mode	Off	Film Mode is turned off.		
	On	To make a film picture such a movie natural without shakiness		
Reset		Factory-preset data is restored.		
<b>NOTE</b>		The adjustment starts automatically as soon as you press the ► Button.		

\* Economy Mode is turned off when Auto Dimmer is active.

**Menu :Extended Control  
(Video Component)**



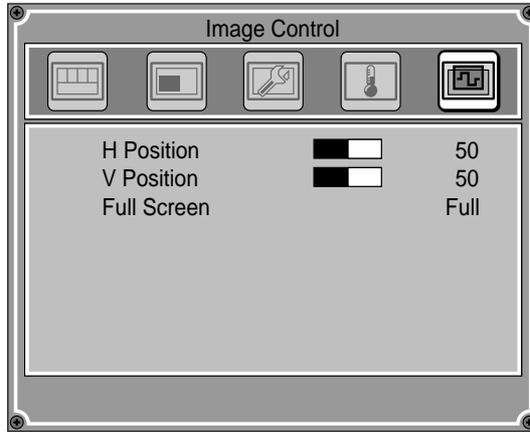
Adjustment Item		Problem / Option	Button to Press	
Color Control*1	User	Red	Too weak Too strong	
		Green		
		Blue		
		9300K	Bluish white (Approx. 9300K)	
		7500K	Yellowish white (Approx. 76500K)	
		6500K	Reddish white (Approx. 6500K)	
		sRGB	sRGB mode	
Auto Dimmer*2,3	User	Brightness of back-light is adjusted manually by "Dimmer" function.		
	Auto	Brightness of back-light is adjusted automatically.		
	Fixed*4	Brightness of back-light is locked.		
Dimmer*2		Too dark Too bright	 	
Gamma	Normal	Normal brightness		
	Hi Cont.	Brighter than normal		
	Dark	Darker than normal		

**NOTE**

- sRGB is an international standard which defines and unifies the difference of color appearance between equipment.
- You can not adjust the Gamma because those settings are locked.

\*1 The indicated color temperature in Kelvin is approximately the standard.  
 \*2 Adjust the Dimmer when you are using the monitor in a dark room and feel the screen is too bright.  
 \*3 Economy Mode is turned off when Auto Dimmer is active.  
 \*4 When two or more monitors are aligned, you can set the same level of brightness for each monitor.

**Menu : Image Control  
(Video Component)**



Adjustment Item		Problem / Option	Button to Press
H Position*		 Too far to the left	
		 Too far to the right	
V Position*		 Too low	
		 Too high	
Full Screen	Full	Expansion display.	
	Wide	Expand with keeping aspect ratio near the screen center.	
	Aspect	Stretch or shrink the picture in the same aspect ratio.	

\* See page 26 for SCREEN ADJUSTMENTS.

## SCREEN ADJUSTMENTS

Adjust the image by following the procedure below to get the desired picture when selecting Analog input.

- The screen adjustments described in this manual are designed to set image position and minimize flicker or blur for the particular computer in use.
- The monitor is designed to provide the best performance at resolution of 1280 × 768, but can not provide the best at resolutions of less than 1280 × 768 because the picture is automatically stretched to fit the full screen. It is recommended to operate at a resolution of 1280 × 768 in normal use.
- Displayed text or lines will be blurred or irregular in thickness when the picture is stretched due to the screen enlargement process.
- It is preferable to adjust the image position and frequency with the monitor controls, rather than with computer software or utilities.
- Perform adjustments after a warm-up period of at least thirty minutes.
- Additional adjustments may be required after the Auto Set-up depending on the resolution or signal timing.
- The Auto Set-up may not work correctly when displaying the picture other than the screen adjustment pattern. In this case, manual adjustments are required.

There are two ways to adjust the screen. One way is automatic adjustment for Clock, Phase and Position. The other way is performing each adjustment manually.

Perform the Auto Set-up first when the monitor is connected to a new computer, or resolution is changed. If the screen has a flicker or blur, or the picture does not fit in the display area after performing the Auto Set-up, manual adjustments are required.

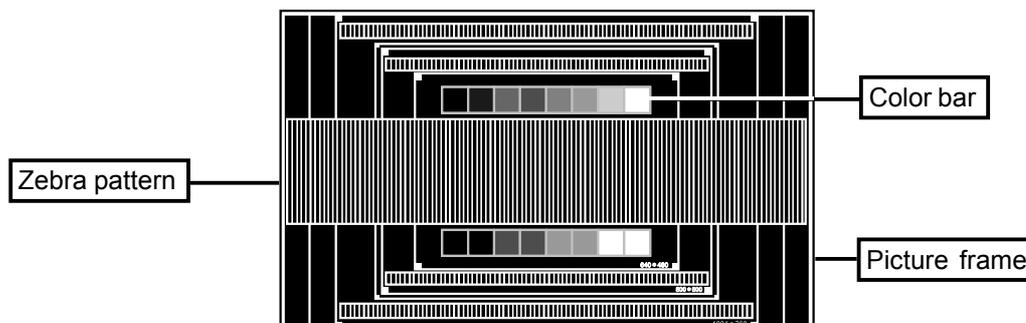
This manual explains adjustment under Windows 95/98/2000/Me/XP.

- ① **Set the Full Screen feature to Off and display the picture at the optimum resolution.**
- ② **Enter the Test.bmp (screen adjustment pattern) to wallpaper.**

### NOTE

- Consult the appropriate documentation for doing this.
- Test.bmp is made at resolution of 1280 × 1024. Set the display position to center in the wallpaper setting dialogue box. If you use Microsoft® PLUS! 95/98 cancel the setting of “Stretch desktop wallpaper to fit the screen”.

[Adjustment pattern]

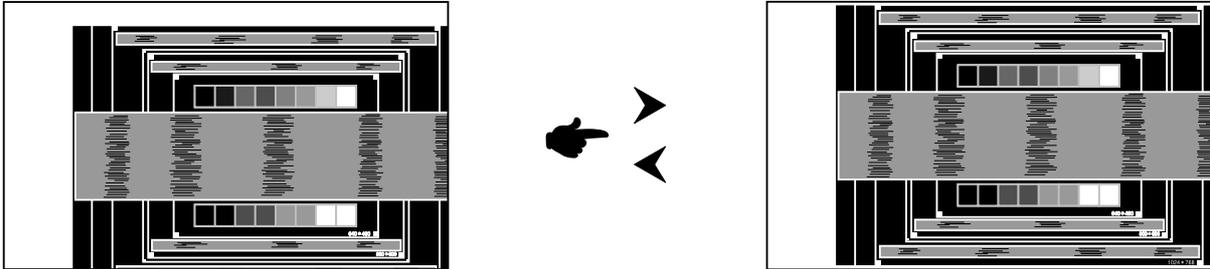


This is the image displayed at 1280 × 768.

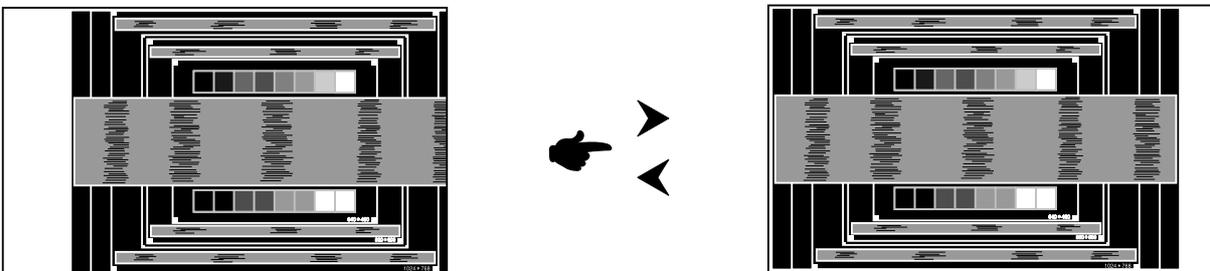
③ Press the Auto Button. (Auto Set-up)

④ Adjust the image manually by following procedure below when the screen has a flicker or blur, or the picture does not fit in the display area after performing the Auto Set-up.

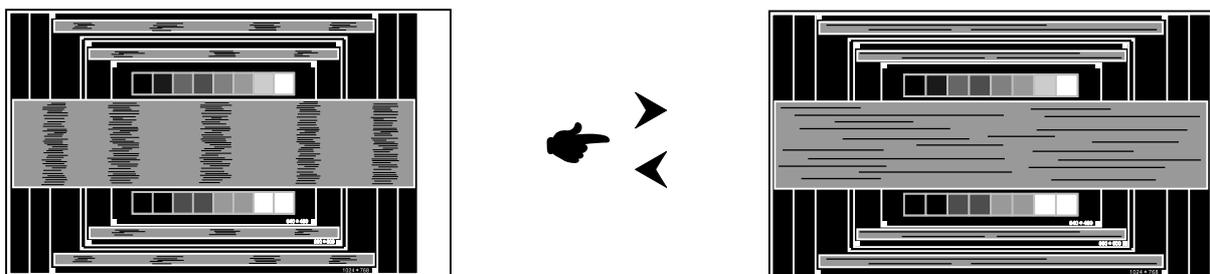
⑤ Adjust the V Position so that the top and bottom of the picture frame will fit to the display area.



⑥ 1) Adjust the H Position so that the left side of the picture frame will move to the left edge of the display area.



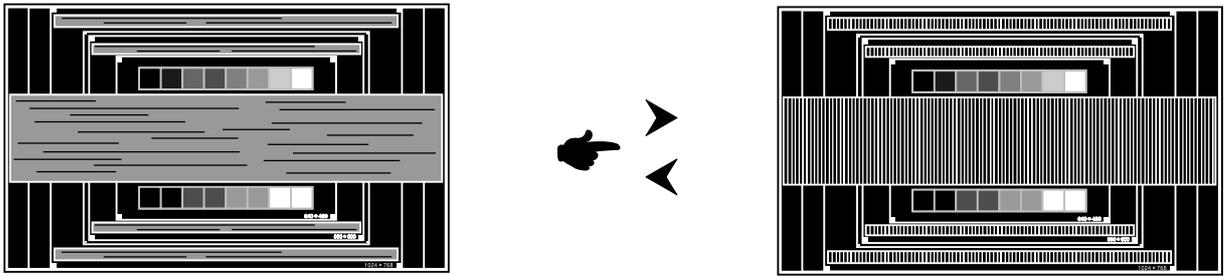
2) Stretch the right side of the picture frame to the right edge of the display area by adjusting the Clock.



**NOTE**

- When the left side of the picture frame moves apart from the left edge of the display area during the Clock adjustment, adjust steps 1) and 2).
- Another way to make the Clock adjustment is to correct the vertical wavy lines in the zebra pattern.
- The picture may flicker during the Clock, H Position and V Position adjustment.
- In case the picture frame is bigger or smaller than the data display area after the Clock adjustment, repeat steps from ③.

⑦ Adjust the Phase to correct horizontal wavy noise, flicker or blur in the zebra pattern.



**NOTE**

- In case the strong flicker or blurs remain on a part of the screen, repeat steps ⑥ and ⑦ because the Clock may not be adjusted correctly. If the flicker or blurs still remain, set the refresh rate of computer to low (60Hz) and repeat steps from ③ again.
- Adjust the H Position after the Phase adjustment if the horizontal position moves during the adjustment.

⑧ Adjust the Brightness and Color Temp. to get the desired picture after you complete the Clock and Phase adjustments.

Put back your favorite wallpaper.

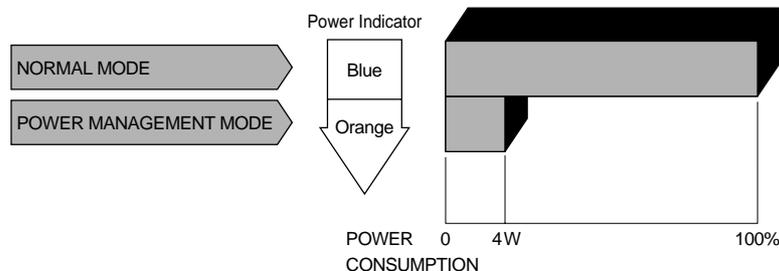
## POWER MANAGEMENT FEATURE

The power management feature of this product complies with every power saving requirement of ENERGY STAR® and VESA DPMS. When activated, it automatically reduces unnecessary power consumption of the monitor when your computer is not in use.

To use the feature, the monitor needs to be connected to a VESA DPMS compliant computer. There is a power management step the monitor takes as described below. The power management function, including any timer settings is configured by the operating system. Check your operating system manual for information on how this can be configured.

■ Power Management Mode

When the H-sync signal / V-sync signal / H and V sync signals from the computer are off, the monitor enters into Power Management Mode which reduces the power consumption to less than 4W. The screen becomes dark, and the power indicator turns to orange. From Power Management Mode, the image reappears in several seconds when either the keyboard or the mouse are touched again. To recover from the Power Management Mode, input the signal again before the monitor enters into Power Management Mode, or keep pressing INPUT Button (on the monitor) or any one of the input signal switching buttons (on the Remote Control) for a few seconds.



**NOTE**

- Even when using the power management mode, the monitor consumes electricity. Turn off the Power Switch whenever the monitor is not in use, during the night and weekends, to avoid unnecessary power consumption.
- It is possible that the video signal from the computer may be on while the H or V sync signal is missing. In this instance, the POWER MANAGEMENT feature may not work properly.

# TROUBLE SHOOTING

If the monitor fails to operate correctly, please follow the steps below for a possible solution.

1. Perform the adjustments described in OPERATING THE MONITOR, depending on the problem you have. If the monitor does not get a picture, skip to 2.
2. Consult the following items if you cannot find an appropriate adjustment item in OPERATING THE MONITOR or if the problem persists.
3. If you are experiencing a problem which is not described below or you cannot correct the problem, discontinue using the monitor and contact your dealer for further assistance.

<b>Problem</b>	<b>Check</b>
① The picture does not appear.  (Power indicator does not light up.)  (Power indicator is blue.)  (Power indicator is orange.)	<input type="checkbox"/> The Power Cable is firmly seated in the socket. <input type="checkbox"/> The Power Switch is turned ON. <input type="checkbox"/> The AC socket is live. Please check with another piece of equipment. <input type="checkbox"/> "Power Indicator" in the Function menu is off.  <input type="checkbox"/> If the blank screen saver is in active mode, touch the keyboard or the mouse. <input type="checkbox"/> Increase the Contrast and/or Brightness. <input type="checkbox"/> The computer is ON. <input type="checkbox"/> The Signal Cable is properly connected. <input type="checkbox"/> The signal timing of the computer is within the specification of the monitor.  <input type="checkbox"/> If the monitor is in power management mode, touch the keyboard or the mouse. <input type="checkbox"/> If the input video signal selection is different, switch the Signal Select. <input type="checkbox"/> The computer is ON. <input type="checkbox"/> The Signal Cable is properly connected. <input type="checkbox"/> The signal timing of the computer is within the specification of the monitor.
② The screen is not synchronized.	<input type="checkbox"/> The Signal Cable is properly connected. <input type="checkbox"/> The signal timing of the computer is within the specification of the monitor. <input type="checkbox"/> The video output level of the computer is within the specification of the monitor.
③ The screen position is not in the center.	<input type="checkbox"/> The signal timing of the computer is within the specification of the monitor.
④ The screen is too bright or too dark.	<input type="checkbox"/> The video output level of the computer is within the specification of the monitor. <input type="checkbox"/> "Auto Dimmer" in the Extended Control menu is on.
⑤ The screen is shaking.	<input type="checkbox"/> The power voltage is within the specification of the monitor. <input type="checkbox"/> The signal timing of the computer is within the specification of the monitor.
⑥ Remote Control does not work.	<input type="checkbox"/> Replace with new batteries. <input type="checkbox"/> The battery terminals match the "+" and "-" indications in the battery compartment. <input type="checkbox"/> The Remote Sensor is bathed in an intense light such as a fluorescent light. <input type="checkbox"/> There is an obstacle between the Remote Control and the Remote Sensor. <input type="checkbox"/> If the monitor is in power management mode, only POWER, VIDEO and PC Buttons are available.

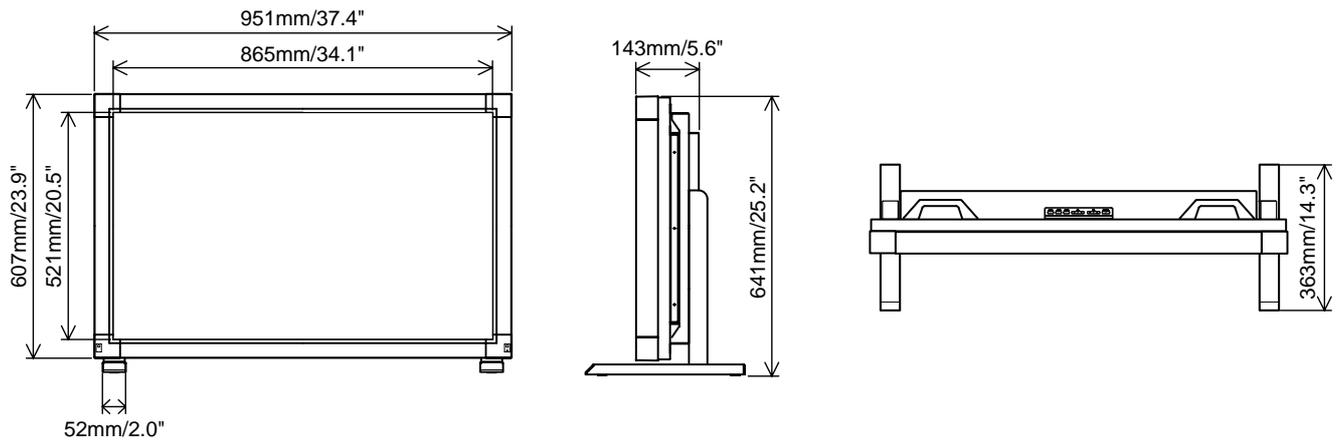
# APPENDIX

## SPECIFICATIONS

LCD Panel	Driving system	a-Si TFT Active Matrix	
	Size	Diagonal: 100.5cm / 39.6"	
	Pixel pitch	0.6735mm H × 0.6735mm V	
	Brightness	470cd/m <sup>2</sup> (Typical)	
	Contrast ratio	700 : 1 (Typical)	
	Viewable angle	Right / Left / Up / Down: 85 degrees each	
	Response time	22ms (Black, white, black)	
Display Colors	16,777,216 maximum		
Sync Frequency	Horizontal: 24.82-60.24kHz, Vertical: 56-75Hz		
Dot Clock	108.00MHz maximum		
Maximum Resolution	1280 × 1024, 1 Mega Pixels		
Recommend Resolution	1280 × 768, 1 Mega Pixels		
Input / Output Video Connector	D-SUB mini 15pin (ANALOG IN) BNC x5 (ANALOG IN) BNC (COMPOSITE VIDEO IN)* BNC x3 (COMPONENT VIDEO IN) RCA (COMPOSITE VIDEO OUT)	DVI-D 24pin (DIGITAL IN) RCA (COMPOSITE VIDEO IN)* S-VIDEO (S VIDEO IN) D-SUB mini 15pin (ANALOG OUT)	
Control Input Connector	RS-232C		
Plug & Play	VESA DDC2B™		
Input Sync Signal	Separate sync: TTL, Positive or Negative Composite sync: TTL, Positive or Negative Sync on green: 0.3Vp-p, Negative		
Input Video Signal	Analog: 0.7Vp-p (Standard), 75Ω, Positive Digital: DVI (Digital Visual Interface standard Rev.1.0) compliance		
Input / Output Audio Connector	Stereo mini jack (AUDIO IN1) BNC (L,R) (AUDIO IN3) Speaker terminal	RCA (L,R) (AUDIO IN2) RCA (AUDIO OUT)	
Input Audio Signal	0.7Vrms maximum		
Speaker output	10W × 2 (4Ω, Stereo)		
Maximum Screen Size	862.080mm W × 517.248mm H / 33.9" W × 20.4" H		
Power Source	100-230VAC, 50/60Hz, 2.3-1.0A		
Power Consumption	210W Power management mode: 4W		
Dimensions Net Weight	951 × 641 × 363mm / 37.4 × 25.2 × 14.3" (W×H×D) 32kg / 70.5lbs (With Stand)		
Environmental Considerations	Operative temperature: 0 to 40°C / 32 to 104°F Storage temperature: -20 to 60°C / -4 to 140°F Humidity: 85% maximum (No condensation)		
Approvals	CE, FCC-B, CSA, VCCI-B, UL, CSA		

**NOTE** Alternative connectors of RCA or BNC of COMPOSITE VIDEO IN.

# DIMENSIONS



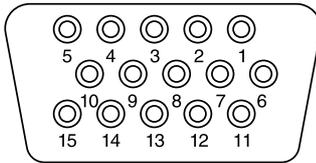
# COMPLIANT TIMING

Video Mode		Horizontal Frequency	Vertical Frequency	Dot Clock	
VESA	VGA 640 × 480	31.469kHz	59.940Hz	25.175MHz	
		37.861kHz	72.809Hz	31.500MHz	
		37.500kHz	75.000Hz	31.500MHz	
	SVGA 800 × 600	37.879kHz	60.317Hz	40.000MHz	
		48.077kHz	72.188Hz	50.000MHz	
		46.875kHz	75.000Hz	49.500MHz	
	XGA 1024 × 768	48.363kHz	60.004Hz	65.000MHz	
		56.476kHz	70.069Hz	75.000MHz	
		60.023kHz	75.029Hz	78.750MHz	
	WXGA 1280 × 768	47.776kHz	59.870Hz	79.500MHz	
60.289kHz		74.893Hz	102.250MHz		
SXGA 1280 × 1024	63.981kHz	60.020Hz	108.000MHz		
VGA TEXT	720 × 400	31.469kHz	70.087Hz	28.322MHz	*
Macintosh	640 × 480	35.000kHz	66.667Hz	30.240MHz	*
	832 × 624	49.725kHz	74.500Hz	57.283MHz	*
	1024 × 768	60.150kHz	74.720Hz	80.000MHz	*
NEC PC98	640 × 400	24.827kHz	56.424Hz	21.053MHz	*

**NOTE** \* DVI input is not compliant.

# CONNECTOR PIN ASSIGNMENT

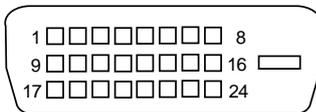
## ■ D-SUB mini 15pin Connector



D-SUB

Pin	Input Signal	Pin	Input Signal
1	Red video	9	5V in
2	Green video	10	Ground
3	Blue video	11	Ground
4	NC	12	Data line (SDA)*
5	NC	13	H-Sync
6	Red video ground	14	V-Sync
7	Green video ground	15	Clock line (SCL)*
8	Blue video ground		* Compliant to VESA DDC.

## ■ DVI-D 24pin Connector

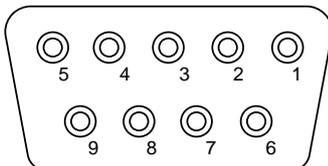


DVI-D

Pin	Input Signal	Pin	Input Signal
1	T.M.D.S Data 2-	13	Not Connection
2	T.M.D.S Data 2+	14	+5V Power
3	T.M.D.S Data 2 Ground	15	Ground
4	Not Connection	16	Hot Plug Detect
5	Not Connection	17	T.M.D.S Data 0-
6	Clock line (SCL) *	18	T.M.D.S Data 0+
7	Data line (SDA) *	19	T.M.D.S Data 0 Ground
8	Analog V-Sync	20	Not Connection
9	T.M.D.S Data 1-	21	Not Connection
10	T.M.D.S Data 1+	22	T.M.D.S Clock Ground
11	T.M.D.S Data 1 Ground	23	T.M.D.S Clock +
12	Not Connection	24	T.M.D.S Clock -

\* Compliant to VESA DDC.

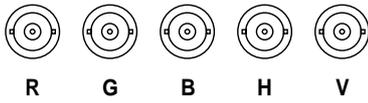
## ■ RS-232C (D-SUB 9pin) Connector



D-SUB

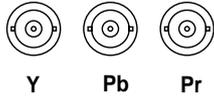
Pin	Input Signal	Pin	Input Signal
1	NC	6	NC
2	TxD (Transmit Data)	7	NC
3	RxD (Receive Data)	8	RTS (Request To Sent)
4	NC	9	NC
5	Ground		

■ PC BNC Connectors



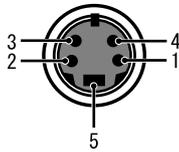
Pin	R	G	B	H	V
Input Signal					
Separate Sync	Red	Green	Blue	H-Sync	V-Sync
Composite Sync	Red	Green	Blue	HV-Sync	
Sync On Green	Red	Green/ HV-Sync	Blue		

■ Component Video Connectors



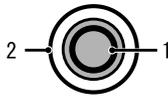
Pin	Input Signal
Y	Brilliance Signal
Pb	Chrominance Difference Signal
Pr	Chrominance Difference Signal

■ S-Video Connectors



Pin	Input Signal
1	VG
2	VG
3	CIN
4	YIN
5	GND

■ Composite Video Connectors (RCA)



Pin	Input Signal
1	VIN
2	GND

■ Composite Video Connectors (BNC)



Pin	Input Signal
1	VIN
2	GND



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Part No. 870Z296A01R