## **Before Use**

- The size and appearance of this monitor may be changed for improvement without notice.
- This user manual contains proprietary information that is protected by copyright.
   All rights are reserved. No part of this user manual may be reproduced, photocopied, transcribed, translated or transmitted in whatsoever from without the prior permission of the manufacturer.
- Damage caused by using the unauthorized components or disregard of the information and cautions in this user manual is not covered by the warranty service.
- If you have problem with your monitor, please check TroubleShooting in this user manual before asking for help service center.
- The information in this user manual is subject to change without notice.
- If you let display the static images on the LCD monitor for prolonged time, the LCD monitor may show you the screen images retention. It is not a continuous condition and will fade away in a period time. The Image retention is a condition that may occur on all LCD monitors.
- The LCD consists of about 5 million pixels. One pixel includes 3 dots and some of dots could be seen bright and dark compared to other dots. Please, note that it may occur on all LCD monitors and it is not a product inferiority.

## **English**



## **English**

## **CE Conformity Notice**

The Product herewith complies with requirements of the Low Voltage Directive 73/23/EEC and the EMC Directive 89/336/EEC and carries the 'CE' mark accordingly.

Confirms to the following hamonized European standards have been applied:

EMC: EN 55022 Class B: 1998

EN 55024 : (EN 61000-4-2 : 1995, A1 : 1998, EN61000-4-3 : 1996, EN 61000-4-4:

1995, EN61000-4-5: 1995, EN61000-4-4: 1996, EN61000-4-8: 1993 and

EN61000-4-11: 1994)

EN61000-3-3: 1995, A1: 98, A2: 98

EN61000-3-3: 1995

## **FCC Compliance Statement**

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.

#### INFORMATION TO THE USER

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide resonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

#### **WARNING**

Changes or modifications not expressly approved by the manufacturer could void the use's authority to operate the equipment.

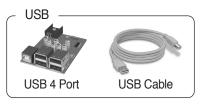
## **Unpacking**

After opening the box, make sure the following items are provided with the monitor. If you find that any of these items is missing or appears damaged, contact your dealer immediately.



## Optional (Simultaneous Selection is not possible)





## Optional





### Unbundled





Video(RCA) Cable

S-Video Cable

The actua/monitor and accessories may appear differently from those shown on the above figure.

**English** 

## **Instructions for Safety**

## **English**

"Matters that demand special attention are divided into 'Warning' and 'Caution', and are detailed a follows.



## Warning

In case of the possibility that a serious injury or death may occur during a violation of the instructions.



### Caution

In case of the possibility that a slight injury or product damage may occur during a violation of the instructions.



## Warning



Don't plug the power adapter into a non-grounding power outlet.



¡ Never touch the power plug with wet hands.
An electric shock accident may occur.



i Don't plug with other electrical cords into one power outlet.

An electric shock or fire accident may occur.



i Only use the adapter provided with the monitor.

An electric shock or fire accident may occur.



Don't use a power cord or plug that is frayed or damaged. An electric shock or ignition may be caused.



insert the plug completely so that the power supply unit can be connected tightly.

Unsafe power connection may cause a fire.

## Warning

ignition or heat generation.



Keep the power cord from proximity to a heating instrument. The covering material of the cord may melt, causing a fire or electric shock.



Grasp the power plug at the base to remove it from the wall, and pull firmly but gently.

If you yank at the cord, the wire may be broken, causing



; Pull the power cord out when the monitor is not used for a long time, or while you are away.

A dust covering may cause an electric shock, electric leakage, or fire by heat generation, ignition, and insulation degradation.



Select a cool, dry area and protect your monitor from extremes in temperature, humidity, dust and smoke. Accidents of electric shock, fire or failure may occur.



Avoid direct sunlight or any other source of heat such as a fireplace.

A fire or electric shock accident may be caused.



Place the monitor at a proper distance (over 10 cm) away from the wall for sufficient ventilation.

A fire may be caused due to an increase in internal temperature.



Place the monitor in a well-ventilated room.

A fire may be caused due to an increase in internal temperature.



Note that air-flow holes must not be blocked such as a table cloth or curtain.

A fire may be caused due to an increase in internal temperature.

**English** 

## **English**



## **Warning**



Don't block or obstruct the air-flow holes of the monitor. A fire or damage of the monitor may be caused due to an increase in internal temperature.



Don't spill liquids such as chemicals, water on the monitor.

A fire or electric shock accident may be caused.



Never disassemble and repair the monitor but trained repair engineers.

A fire or electric shock accident may be caused. If you need the repair and adjustment, please contact the appropriate sales agency or customer counsel window for check-ups.



Don't insert metals (such as coins, hair pins or ironware) or flammable items (such as paper or matches) into the monitor.

A fire or electric shock accident may be caused.



Stop using in case of smoke or abnormal odors. Immediately turn off the power and pull out the power cord from the wall and then contact the service center. Continuity of use in such a state may cause a fire or electric shock.



Don't spray any liquids directly onto the monitor.

An electric shock or fire accident may occur.



Clean the LCD panel with a soft material such as cotton cloth after removing the power cord from the monitor. A fire or electric shock accident may be caused.



## Caution



Place the monitor on a stable and secure surface.Fall or displacement of the monitor may cause an injury.



Turn off the monitor and disconnect all cables from the monitor before moving the monitor.



; Be careful with the shock when moving the monitor.



Don't scratch or jolt the monitor surface.
Damage or failure of the panel may be caused.



Take hold of the monitor with both hands setting the panel forward.

If the monitor is dropped, contact the service center to check it for a susceptibility to fire or electric shock.



Often take a rest to protect your eyes when you work for a long time.



 Don't press upon the panel or scratch the surface with your hands or sharp item such as a nail, pens.
 Damage or failure of the panel may be caused.



The fluorescent light of the monitor contains a mercury which could be exploded. Don't discard or bury the monitor without permission of the law concerned.

## CONTENTS

## English

## Installing the Monitor

1.1	Features	1-1
1.2	Monitor Overview	1-2
	Front Side	1-2
	Rear Side	1-3
1.3	Connecting the Peripheral Devices	1-4
Ins	stalling the Monitor Driver	
2.1	Installing the Monitor Driver Under Windows	1-7
2.1	Windows XP	1-7
2.2	Installing the Monitor Driver Under Linux	1-8
	Linux	1-8
Ac	djusting the OSD(On Screen Display) Menu	
3.1	Selecting and Adjusting the OSD(On Screen Display) Men	u 1-9
	Selecting and Adjusting the OSD Menu	1-9
3.2		1-10
	OSD Main Menu	1-10
	OSD Sub Menu CHANNEL MENU OSD (PAL/SECAM)	1-1( 1-13
	0. h u u 122 m = 110 002 (1 / 12 02 0 / 11)	
Tr	oubleshooting/Specification	
Λ 1	Troubleshooting	Α -1
A.1	Troubleshooting	A-1
<b>A.2</b>	Specification	<b>A-2</b>

## Adopt the 19.0" TFT LCD Narrow Bezel Panel

Adopt the 19.0" LCD(Liquid Crystal Display) narrow bezel panel which allows you efficient use in a small space due to the slim design with wide screen.

#### AUDIO

It gives user an amplified stereo sound through internally installed speakers (2 W).

## Power Consumption Economy Function

The VESA DPMS(Display Power Management Signaling) function is available to reduce power consumption by automatically switching the computer into the power saving mode if the system doesn't operate for a fixed period of time.

## Mandle for Conveyance

We have made a handle for the easy transport carriage of monitor.

## Support DVI (Digital Visual Interface) (Optional)

High quality screen through direct digital signal from the computer.

### Support the USB Ports (Optional)

It can be embedded to use the USB without an external Hub.

## Enable to watch TV (Optional)

Enable to watch TV after connecting antenna cable.

## 1.2 Monitor Overview

This section identifies the name of each component of the monitor and briefly describes the function of each component.



#### **TFT LCD Display**

Displays the current contents of the display.

#### **SELECT Button**

Selects the OSD menu item and the submenu item to be adjusted in the OSD menu window and save the modified value at any selected item. (If you press continuously every two times, the input source will be switched.)

#### **MENU Button**

Displays or Exits the OSD menu window.

#### **DOWN Button**

Moves to the down menu item in the OSD menu window.

#### **UP Button**

Moves to the up menu item in the OSD menu window.



selected item. (Decreases the volume without pressing the **MENU** Button.)

#### **RIGHT Button**

Increases the value of the selected item. (Increases the volume without pressing the **MENU** Button.)

#### **POWER Button**

Turns the monitor on and off.

#### **AUTO Button**

When you press this button, it is automatically adjusted to the most appropriate condition to present mode. This does not function when DIGITAL VIDEO CARD(DVI Card) is used. (It is adjusted automatically)



## Note (TV)

When watching the TV after connected TV tuner(Optional), use the **UP/DOWN** Button without pressing the **MENU** Button to select TV Channel.



## Rear Side

#### **VIDEO Jack (Optional)**

Connects the video cable to the VIDEO jack on the camcorder or VTR.

#### **DVI Connector**

Connects the DVI cable to the DVI connector on the computer.



(In case using ANALOG in DVI

model monitor, you must set up the adaptor as shown on the illustration.)

#### DC-IN Jack

Connects the DC adapter to input the power.

### S-VIDEO Connector (Optional)

Connects the s-video cable to the S-VIDEO connector on the camcorder or VTR.

## **USB UP Port (Optional)**

Connects the USB cable to the USB connector on the computer.

#### **USB DOWN 4 Port (Optional)**

Connects USB devices.

#### TV Tuner (Optional)

Connects the TV antenna cable.

#### **AUDIO OUT Jack**

Connects a set of headphones or external speakers.

#### **AUDIO IN Jack**

Connects the audio cable to the LINE OUT jack on the computer or the stereo jack on the camcorder/VTR.



#### Note

#### ¢ "Self Diagnostics

If the signal cable is improperly connected between the monitor and the computer, the Self Diagnostics **NO SIGNAL** message appears on the monitor.

SELF DIAGNOSTICS ANALOG

NO SIGNAL

CHECK SIGNAL CABLE

6000

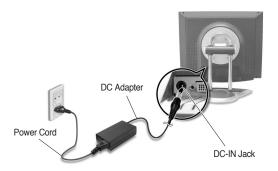
• |||||||•

## 1.3 Connecting the Peripheral Devices

Turn off the monitor, computer and other peripheral devices before connecting the monitor and peripheral devices.

## **1** Connecting the power

Plug into the power outlet at 220V or 110V. (The voltage is set utomatically.)



## **2** Connecting the computer

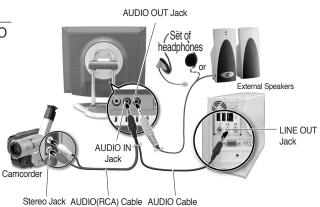
Connect the VGA cable to the VGA connector or the DVI cable to the DVI connector on the computer.

### Onnecting the DVI Connector



## **3** Connecting Audio Devices

Connect the audio cable to the AUDIO IN jack on the monitor and the LINE OUT jack on the computer or connect the audio cable (RCA) cable to the AUDIO IN jack on the monitor and the stereo jack on the camcorder/TV and connect a set of headphones or external speakers to the AUDIO OUT Jack.



## Connecting the Camcorder

Connect the S-VIDEO connector or VIDEO connector.

S-VIDEO Connector



VIDEO Connector (RCA Type)

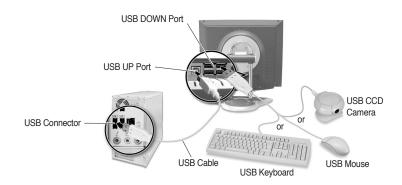


## **5** Connecting the TV Antenna



## **6** Connecting USB Devices (Optional)

At first, connect the USB cable to the USB UP port on the monitor and USB connector on the computer and then, connect USB devices to the USB DOWN port on the monitor.



## 2.1 Installing the Monitor Driver Under Windows

This section shows how to install the monitor driver under Windows or Linux by using the monitor driver diskette provided. To install the monitor driver, please refer to your OS in this section.

## Windows XP

- 1 Turn on the computer and the monitor.
- **2** Insert the monitor driver diskette into the FDD on the computer.
- **3** Click the **Start** button on the Windows display and select **Control Panel**.
- 4 Double click the **Display** icon in the **Control Panel** window.
- 5 In the Display Properties window, click the Setting tab and then select Advanced.
- 6 Select the Monitor tab and click Properties.
- 7 Select the **Driver** tab, click **Update Driver** and then click **Next**.
- 8 Welcome to the Hardware Update Wizard
  Select Install a list or specific location(Advanced) option and click Next.
- 9 Please choose your search and installation option
  Select Don't search. I will choose the driver to install option and click Next.
- 10 Select the device drivers you want to install for this hardware. Click Have Disk.
- 11 Install From Disk

Click **Browse**, select <A: > and then click **OK**.

12 Select the device drivers you want to install for this hardware.

Select 19.0 ANALOG MONITOR and click Next.



#### Note

If you connect to your computer which is supported DVI, select 19.0 DIGITAL MONITOR.

- **13** Please wait while the wizard installs the software. Now, start installing the monitor driver.
- **14** Completing the Hardware Update Wizard Click Finish.
- 15 Now, the model name of the monitor is changed. Close all windows opened and restart the computer.

## 2.2 Installing the Monitor Driver Under Linux

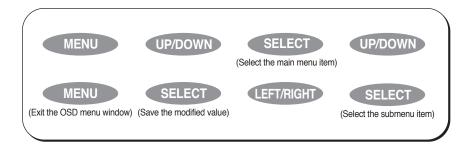
## Linux

- 1 You'd make xf86config file to run X-Window. Your monitor is surely and easily configured with this file. This file will be made as running xf86config.
- **2** Press Enter in the first and second window after running xf86config file.
- **3** In third window, we come up with the mouse setting window.
- 4 Configure it as opt for user system.
- **5** Next will be the screen for selecting Keyboard.
- 6 Configure it as opt for user system.
- **7** First, configure a horizontal frequency. Please refer to the horizontal frequency in monitor manual. (User may directly input frequency.)
- **8** Next, configure a vertical frequency. Please refer to the horizontal frequency in monitor manual. (User may directly input frequency.)
- **9** Then, configure a monitor.
- 10 Type in the model name of monitor. The monitor's identification and description (typed in here) aren't directly related with the execution of X-Window.
- **11** After complete with other hardware settings, run X-Window.
- 12 As the configuration has been successfully finished, save a configuration file.
- 13 Now run X-Window. Theoretically, it is supposed to be executed. But in some cases, it won't even start. In this case, edit a xf86config file.

## 3.1 Selecting and Adjusting the OSD(On Screen Display) Menu

You can select the OSD menu in the OSD window by using all the control buttons under the display. To change the current settings or adjust it to what you prefer, please follow these steps.

## Selecting and Adjusting the OSD Menu



- 1 Press the MENU button to open the OSD menu window.
- **2** Press the **UP/DOWN** button to move the desired main menu item.
- **3** The main menu item you moved is highlighted, press the **SELECT** button.
- 4 Press the **UP/DOWN** button to move the desired submenu item.
- **5** The submenu item you moved is highlighted, press the **SELECT** button.
- **6** Press the **LEFT/RIGHT** button to modify the current value.
- **7** Press the **SELECT** button to save the modified value.
- **8** To close the OSD menu window. press the MENU button or select **Exit**' (in the submenu window) in order.



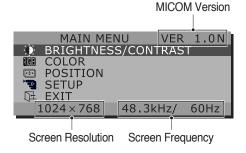
#### Note

OSD window will be disappeared in a few seconds if there's no input on OSD windows.

## 3.2 OSD(On Screen Display) Menu Functions

## **OSD Main Menu**

The OSD main menu window that you can select and adjust the OSD menu to the optimal display appears by pressing the MENU button.



#### ; 'S SETUP

Controls the OSD position, OSD time, and input source of the display.

### BRIGHTNESS/CONTRAST

Controls the brightness and contrast of the display.

#### ; REB COLOR

Changes the value of the display color(Red, Green, Blue).

#### **POSITION**

Adjusts the horizontal and vertical position, clock and phase of the display.

#### ; F EXIT

Exits the OSD menu.



#### Note

- ▶ When you use the digital video card, the Color and Position menu are not selected.
- ▶ Factory Reset : If you want to return to Factory Reset, press the MENU Button for 5 seconds.

## OSD Sub Menu

The OSD submenu window appears by selecting the main menu.

BRIGHTNESS/CONTRAST

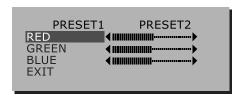


**BRIGHTNESS**: Controls the brightness of the display.

**CONTRAST**: Adjusts the level of difference between light and dark areas of the display.

**EXIT**: Exits BRIGHTNESS/CONTRAST menu.

## COLOR



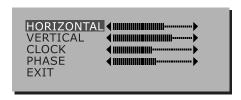
**RED**: Changes the value of red.

**GREEN**: Changes the value of green.

**BLUE**: Changes the value of blue.

**EXIT**: Exits COLOR menu.

### POSITION



**HORIZONTAL**: Adjusts the horizontal position of the display.

**VERTICAL**: Adjusts the vertical position of the display.

**CLOCK**: Increases or decreases the number of pixel to adjust the horizontal size.

**PHASE**: Adjusts the focus and clarity of the display.

**EXIT**: Exits POSITION menu.

## SETUP



**OSD POSITION**: Adjusts the position of the OSD window.

OSD TIME: Selects the waiting time the OSD window fades away on the screen within 100 sec. (Dafault: 15 sec)

**INPUT SOURCE**: Selects the input source according to the display device you connected.

- DIGITAL : Selects when connect the DVI cable to the DVI connector of the computer.
- ANALOG : Selects when connect the VGA cable to the VGA connector of the computer.
- S-VIDEO : Selects when connect the S-VIDEO cable to the S-VIDEO connector of the camcorder.
- COMPOSITE : Selects when connect the VIDEO cable to the VIDEO jack of the camcorder.

**EXIT**: Exits SETUP menu.



### Caution (It's different by the product option.)

When you press the **SELECT** button in Windows display, the current input source will be appeared and it will be switched to ANALOG DIGITAL COMPOSITE S-VIDEO TUNER(Optional) by pressing the **SELECT** button every two times continuously. The screen will be blanked unless the input source is correct. Select the proper input source according to the display device you connect.



#### Note

The OSD menu when connect the TV tuner(Optional)
The OSD menu window appears with pressing MENU

button after connecting the TV tuner.



#### (a) RCB COLOR



**SHARPNESS**: Adjusts the level of display sharpness.

COLOR: Adjusts the amount of RGB(Red, Green, Blue) color from white color in the display.

; TINT: Adjusts the tint of the display color.

; EXIT : Exits COLOR menu

#### 



#### ; AIR/CATV

- AIR: Selects when watching the air TV.

CATV : Selects when watching the CATV.

i AUTO CHANNEL : Automatically memorize all the active TV or CABLE channels.

START : Starts detecting the active channels. STOP : Stops detecting the active channels.

MANUAL CHANNEL: Manually memorize or erase the TV or CABLE channel.

; **FINE**: Adjust when the display color is blur or unfocused.

: **EXIT**: Exits CHANNEL Menu.

#### The OSD menu when connect S-VIDEO connector



#### The OSD menu when connect VIDEO jack



For more details, please refer to '3.1 Selecting and Adjusting the OSD(On Screen Display) Menu' and '3.3 The OSD(On Screen Display) Menu Functions' in this chapter.
The COLOR supment of the SavIDE

The COLOR submenu of the S-VIDEO and VIDEO OSD MENU is same as the COLOR submenu of the TV TUNER.

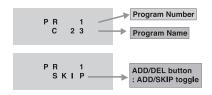
## CHANNEL MENU OSD (PAL/SECAM)

#### CHANNEL MENU



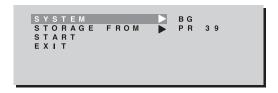
- ; AUTO PROGRAM : Automatically memorize all the active channels.
- ; **MANUAL PROGRAM**: Manually change the program number and name.
- ; **PROGRAM EDIT**: Edit the program number and name.

#### O CHANNEL OSD

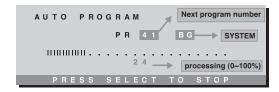


; CHANNEL OSD is displayed on the right-top position.

#### AUTO PROGRAM



#### AUTO PROGRAM START



- ; **SYSTEM**: Select the TV SYSTEM (Default: BG).
- AUTO : BG (PAL/SECAM, BG/DK/I) & SECAM-L
- BG : BG (PAL/SECAM, BG/DK/I) Only
- L : SECAM-L Only
- **STORAGE FROM**: Save channel from the selected program number.
- ; After processing the AUTO PROGRAM, move to the PROGRAM EDIT menu.

#### MANUAL PROGRAM : SYSTEM



- : SYSTEM: Select the TV SYSTEM.
  - PAL(BG/DK/I) / SECAM(BG/DK) / SECAM-L
- ¡ EXIT : If you want to save in the MANUAL PROGRAM, please press the SELECT button on the EXIT.

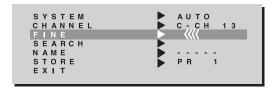
#### MANUAL PROGRAM : CHANNEL





- ; CHANNEL : Select the AIR or the CATV.
  - C-CH : AIR TV - S-CH : CABLE TV
- ; **UP/DOWN KEY**: Select the C-CH or the S-CH. Select the channel number.
- ; LEFT/RIGHT KEY: Select the CHANNEL menu.

#### MANUAL PROGRAM : FINE



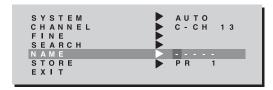
; **FINE**: Adjust when the display image is blurred or unfocused.

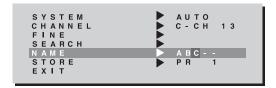
#### MANUAL PROGRAM : SEARCH



; **SEARCH**: Search the next channel signal (CHANNEL and NAME are updated after search).

### **MANUAL PROGRAM: NAME**





- : **NAME**: Save the channel name.
- ; UP/DOWN KEY: 0 1 ; f 9 A B ; f Y Z (Blank) . / + 0
- i **LEFT/RIGHT KEY**: Move the digit.

#### MANUAL PROGRAM



; STORE : Save the channel to the selected number (Default : the present number).

#### PROGRAM EDIT



O : A B C D E : ADDED PR (selected)

O : A B C D E : ADDED PR (unselected)

O : A B C D E : SKIPPED PR (unselected)

O : A B C D E : SKIPPED PR (selected)

- i **UP/DOWN KEY**: select the Program.
- ; Function select : "1", "2", "3", "4" (AUTO button is toggling ;
  - 1(DEL) 2(COPY) 3(MOVE) 4(SKIP) 5(EXIT) cancel)

### PROGRAM EDIT : DEL



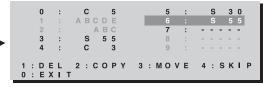
ex) Delete PR 0



- i DEL: Delete the Program (select the program 1 SELECT).
- PROGRAM EDIT : COPY



ex) Copy PR6 from PR3



- $_{\rm i}$   $\,$  COPY : Copy the Program (select the source program
  - 2 select the destination program SELECT).

#### PROGRAM EDIT : MOVE



MOVE : Move the Program (select the source program 3 select the destination program SELECT).

## ex) Move PR4 to PR8



### PROGRAM EDIT : SKIP



- ; **SKIP**: Skip the Program (select the program 4 SELECT).
- i When you use the SKIP function, the skipped channel is not selected during up and down.
- ; The SKIP function is toggling to the ADD.

### ex) Skip PR8



## A.1 Troubleshooting

Please check the below particulars before you contact the service center to notify an abnormality of the monitor.

# The window doesn't show anything

- Is the monitor power cord inserted?
  Please connect the power cord correctly to the concent.
- Is the power turned off?
  Please press the power button.
- Is the power turned on and the power pilot lamp blinking amber? The monitor is in the power saving mode. Please therefore move the mouse or press any key on the keyboard.
- Is the message 'Out Of Range' shown?
  If a power indicating lamp of amber color blinks, press any key to go back to previous mode. As it passes over the frequency limit of horizon (31.5-80 kHz) and verticality (60-75 Hz) in computer (video card), you'd reconfigure it as referring to the specification of this manual. (when you install the monitor driver that we have provided, it won't come up with the message 'OUT OF RANGE'.)
- Is the message 'No Input Signal' shown? It shows up as computer changes to power-saving mode or the signal cable between computer and monitor isn't rightly connected. Move your mouse or press keyboard button. But it won't still show you a right screen, then recheck a signal cable connection.

# The color of the window is not normal

- Has a discoloration (into 16 colors) of the screen occurred?
  Set the number of colors to more than 256 colors. On the Windows 95/98/XP, perform the following process [Control Panel] [Display] [Setting] [Color Table/Screen Resolution] [256 Colors] [OK]
- Do you see a spot on the screen? You may see a few spots (in red, green, white and black) on the screen during the operation. Occurrence of such a phenomenon is not a failure but a characteristic of the LCD panel, and therefore has no relation to the performance of the monitor.

## The window is under a bias toward one side, or is not centrally positioned

Is the positional adjustment made correctly?

Press the **AUTO** button, then the screen will be adjusted automatically into the optimal state applicable to the current mode. If you are not satisfied with the auto adjustment, you can directly adjust the H Position (Horizontal Position), V Position (Vertical Position), and Clock (Horizontal Size) of the OSD menus.

Is the Phase adjustment made properly?
Press the AUTO button, then the screen will be adjusted automatically into the optimal state applicable to the current mode. If you are not satisfied with the auto adjustment, you may manually adjust the Phase (Focus) of the OSD menus.

A faint letter is shown, or the phase is out of focus. Noise is also generated horizontally Is the screen set in the best state?

While you are using this product in the mode of  $1280 \times 1024$  and 60Hz, the best condition of the screen is available. In the mode of VGA( $640 \times 480$ ), SVGA( $800 \times 600$ ) or XGA ( $1024 \times 768$ ), the outline of a letter may be seen dimly or unevenly.



## A.2 Specification

The details of product specification can be changed without notice to improve the product.

LCD	Type	a-Si active matrix TFT-LCD		
LOD	Size	19.0 (481.84 mm)		
	Pixel Pitch	0.294 mm x 0.294 mm		
	Contrast Ratio	400 : 1(typical)		
	Color depth	8 bit(16,777, 216 Color)		
	Luminance, white	250 cd/m <sup>2</sup>		
Frequency	Maximum	SXGA 1280 x 1024		
	Horizontal frequency	31.5~80 kHz		
	Vertical frequency	60~75 Hz		
	View Angle(H/V)	U/D:±176, R/L:±176		
	input signal	Analog RGB		
Audio	Output	Stereo 2 Watt x 2(Provided, TV is MONO)		
Signal Input	input connector	DVI Connector(Analog or Digital)		
	User's control	Auto Configuration, Brightness, Contrast,		
		H-Position, V-Position, Color RGB, Phase,		
		Frequency, Volume, Language, etc.		
Dimension		448 x 241.3 x 441 mm		
	Weight	7.5 kg(Unit), 10 kg(Packed)		
Consumption		VESA DPMS Standard		
	On Working	50 Watts (Max.)		
		AC 110~200 V, DC 12 V		
Option	DVI	DVI-D		
	VIDEO	RCA, S-VHS		
	USB TV	UP Port 1EA, DOWN Port 4EA		
	1 V	NTSC, PAL, SECAM		

<b>Factory-specified</b>
Mode

	Factory-s	pecified Mode	Horizontal Frequency(kHz)	Vertical Frequency(kHz)
1	VGA	640 x 350	31.47	70
2	VGA	640 x 480	31.47	60
3	VGA	640 x 480	37.86	72
4	VGA	640 x 480	37.50	75
5	VGA	720 x 400	31.47	70
6	SVGA	800 x 600	37.88	60
7	SVGA	800 x 600	48.68	72
8	SVGA	800 x 600	46.88	75
9	XGA	1024 x 768	48.36	60
10	XGA	1024 x 768	56.48	70
11	XGA	1024 x 768	60.02	75
12	SXGA	1280 x 1024	64.0	60
13	SXGA	1280 x 1024	79.98	75



The indication in above diagram and actual value shall not be always coincident. This product automatically adjusts for optimum condition by itself.