

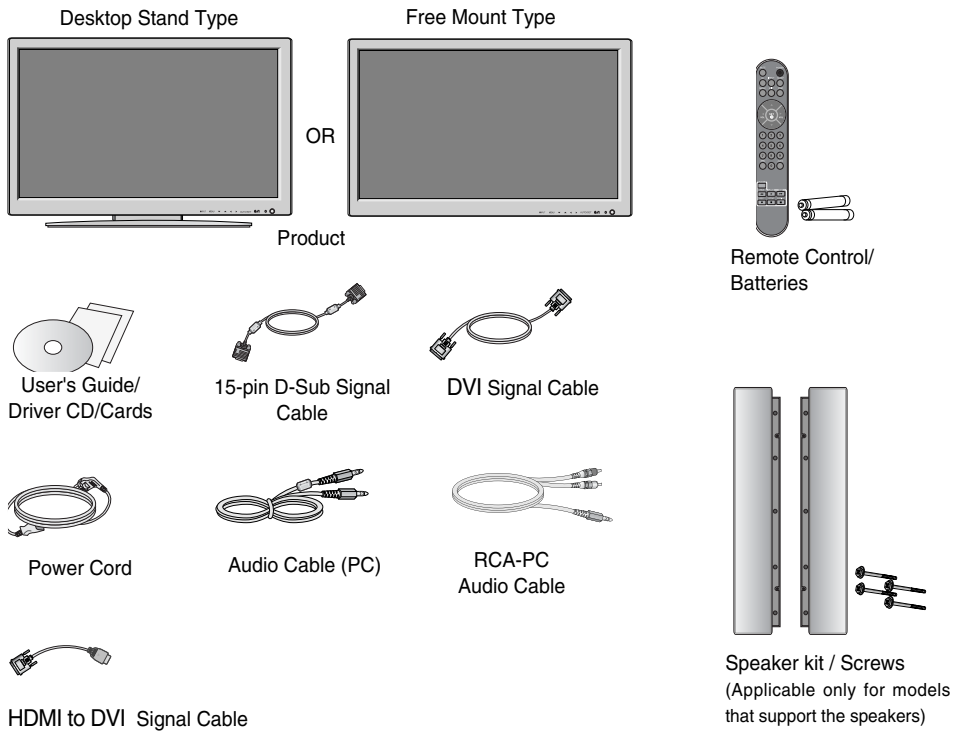
APPENDIX H  
: USER'S MANUAL

# Accessories

Please check the accessories in the product package.

\* The product and the accessories can be different from the figures shown here.

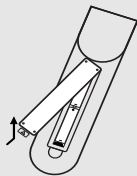
ENGLISH



## ● Wall-mount Rack (This has to be purchased separately if required.)

Please refer to the enclosed "Installation Guide" when installing the wall-mount rack.

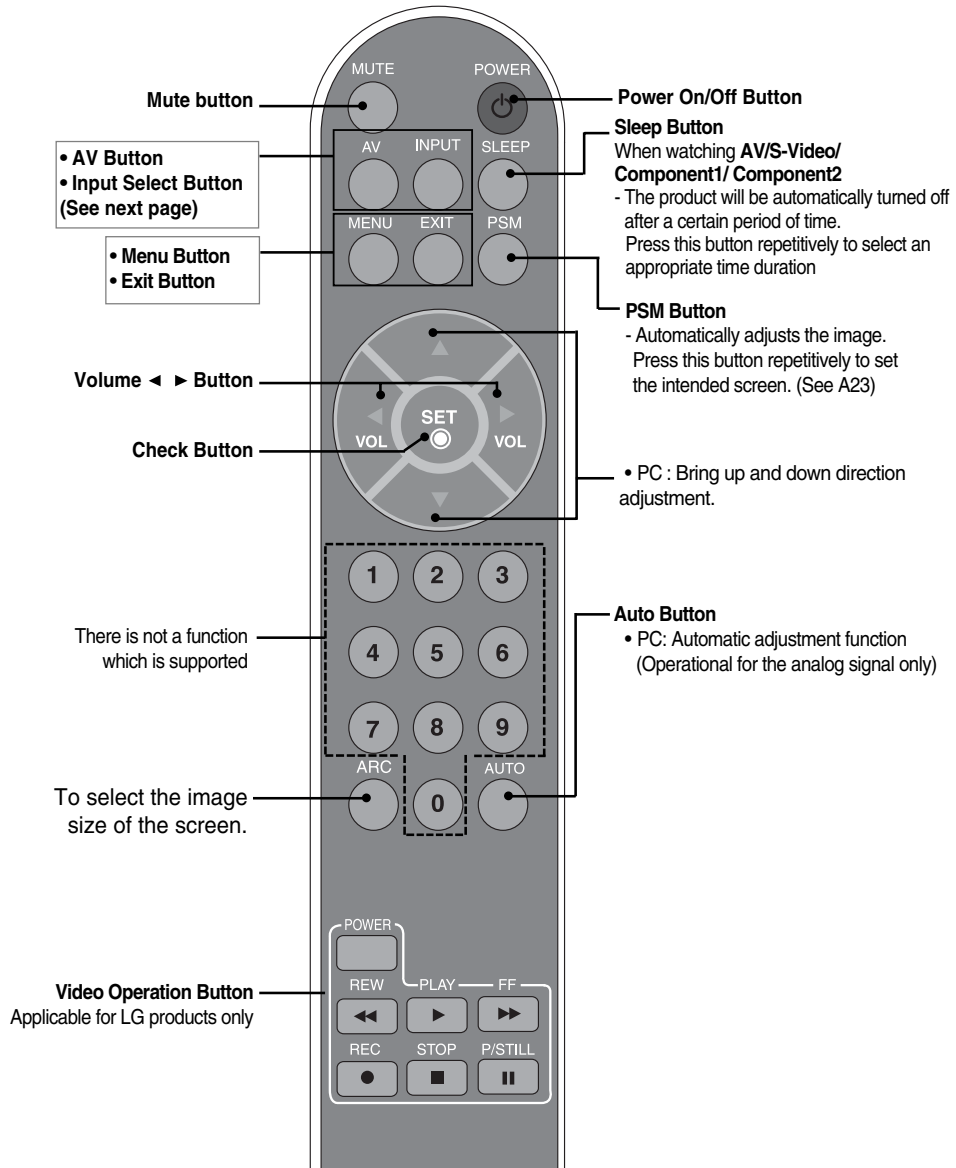
## ● Inserting batteries into remote Control.

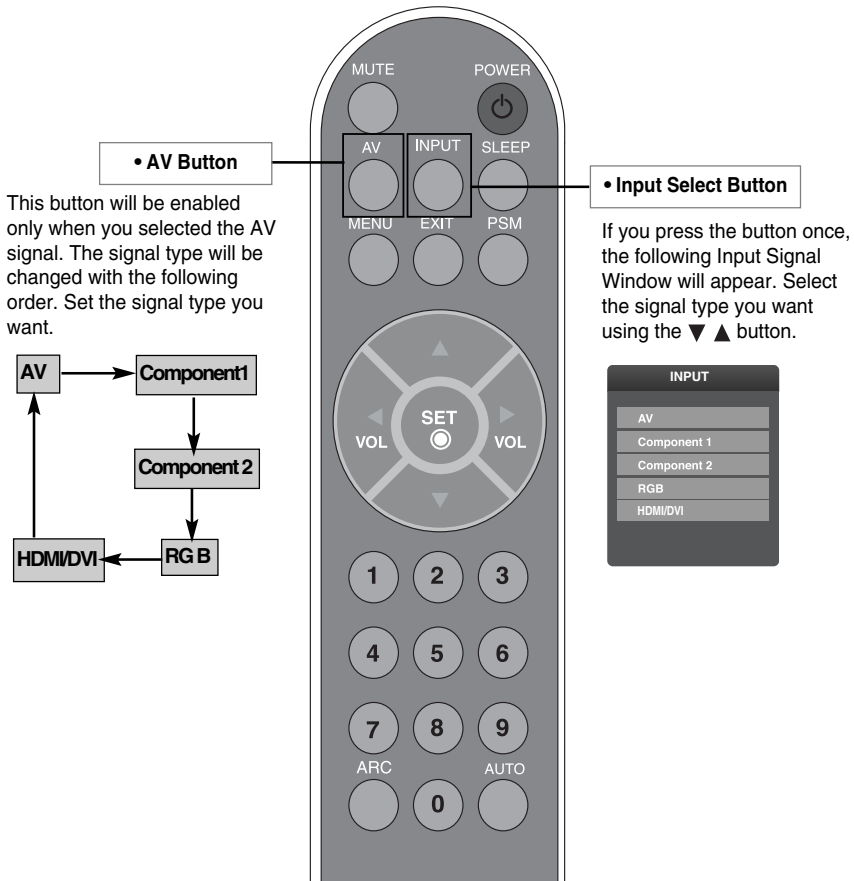


1. Take out the battery cap.
2. Insert batteries with correct polarity (+/-).
3. Close the battery cap.
  - You can use a remote Control 7 meter distance and 30 degree (left/right) within the receiving unit scope.
  - Dispose of used batteries in the recycle bin to prevent environmental pollution.

# Using the Remote Control

## ● Name of the Remote Control Buttons

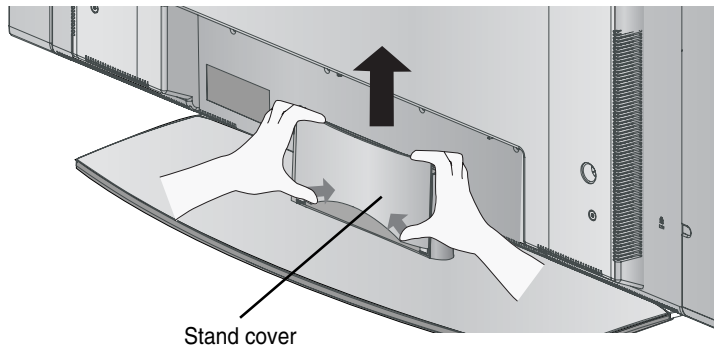




# To arrange cables in order

\* Applicable only for models that support the stand

1. Disassemble the **stand cover**. The cover may be easily disassembled by pressing down on the base as shown in the figure.



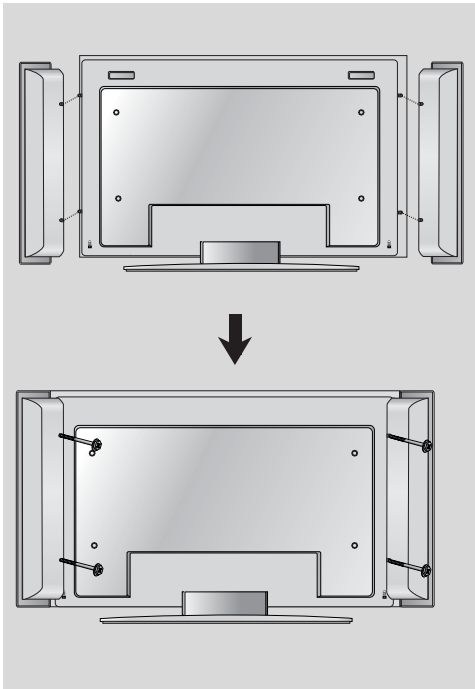
2. After connecting the cables, correctly position the stand cover into the holes on the stand. If securely connected, you will hear the latch click into place.

# Connecting the Speakers

\* Applicable only for models that support the speakers

Use the screws to secure the speakers on the rear side of the product as shown in the below figure.

ENGLISH

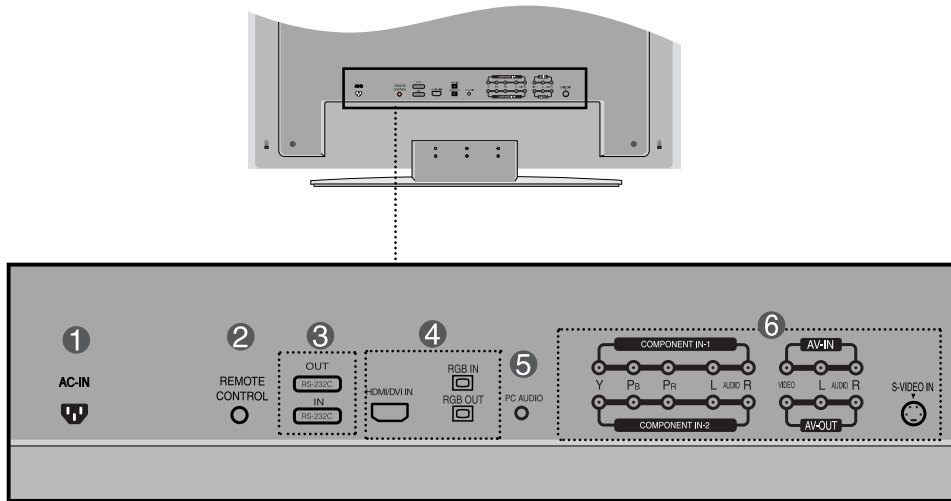


When the speaker is installed.

# Name and Function of the Parts

\* The product image in the user's guide could be different from the actual image.

## Rear View



### 1 Power Connector : Connect the power cord



Power connector and image are different by product size.

### 2 Wired Remote Control Port

### 3 RS-232C Serial Ports

### 4 PC Signal Inputs

### 5 PC Sound Jack

: Connect the audio cable to the \*LINE OUT jack of the PC sound card.

### 6 AV Ports

#### \*LINE OUT

A terminal used to connect to the speaker including a built-in amplifier (Amp). Make sure that the connecting terminal of the PC sound card is checked before connecting. If the Audio Out of PC sound card has only Speaker Out, reduce the PC volume.

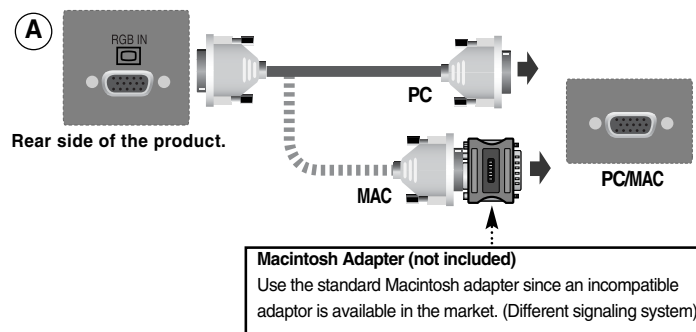
If the Audio Out of the PC sound card supports both Speaker Out and Line Out, convert to Line Out using the card jumper of the program (Refer to the Sound Card Manual).

# Connecting to External Devices

## ■ ■ ■ When Connecting to your PC

**1** First of all, see if the computer, product and the peripherals are turned off. Then, connect the signal input cable.

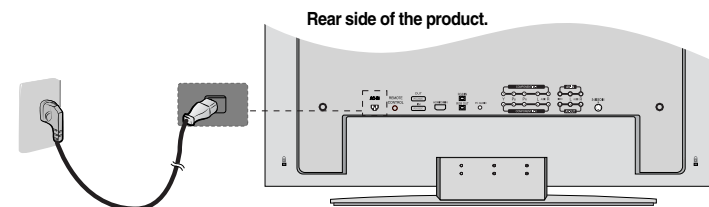
- (A)** When connecting with the D-Sub signal input cable.
- (B)** When connecting with the HDMI to DVI signal input cable.



**2** connect the Audio cable.



**3** Connect the power cord.

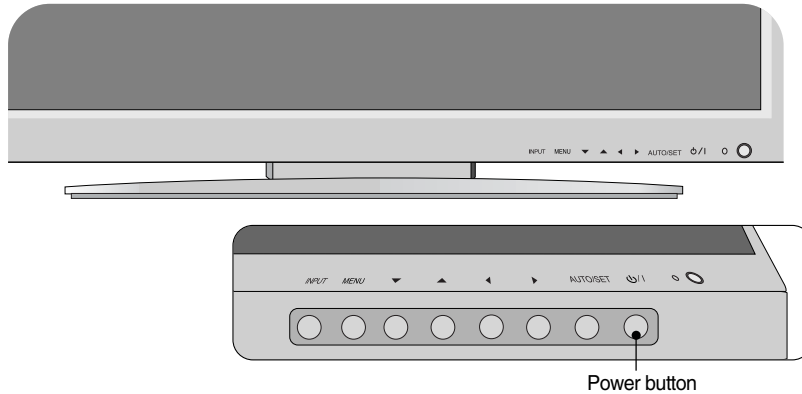


\* When connecting to a wall outlet.



# Connecting to External Devices

- 3 A Turn on power by pressing the power button on the product.



- B Turn on the PC.

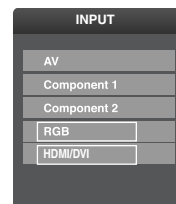
- 4 Select an input signal.  
Press the INPUT button on the remote control to select the input signal.

INPUT → ▼▲ → SET

Or, press the INPUT button at the front side of the product.

INPUT → ▼▲ → AUTO/SET

- A When connecting with a D-Sub signal input cable.  
• Select **RGB** : 15-pin D-Sub analog signal.
- B When connecting with a HDMI to DVI signal input cable.  
• Select **HDMI/DVI** : HDMI to DVI Digital signal.



## Note



- **How to connect to two computers.**  
Connect the signal cables (HDMI to DVI and D-Sub) to each computer.  
Press the INPUT button in a remote control to select the computer to use.
- **Directly connect to a grounded power outlet on the wall or a power bar with a ground wire.**

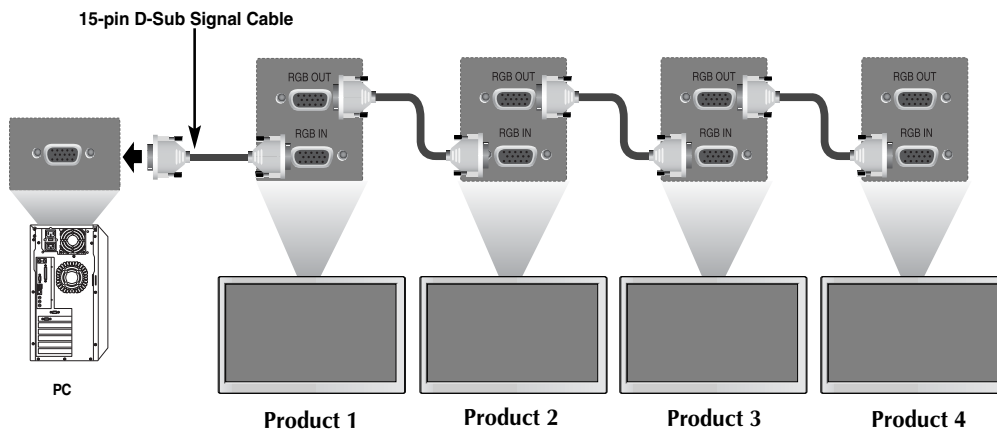
## ■ ■ ■ Watching RGB Outputs

Use this function when displaying ANALOG RGB inputs of a PC to the other product.

- **To use different products connected to each other**

Connect one end of the signal input cable(15-pin D-Sub Signal Cable) to the **RGB OUT** connector of **product 1** and connect the other end to the RGB INPUT connector of other products.

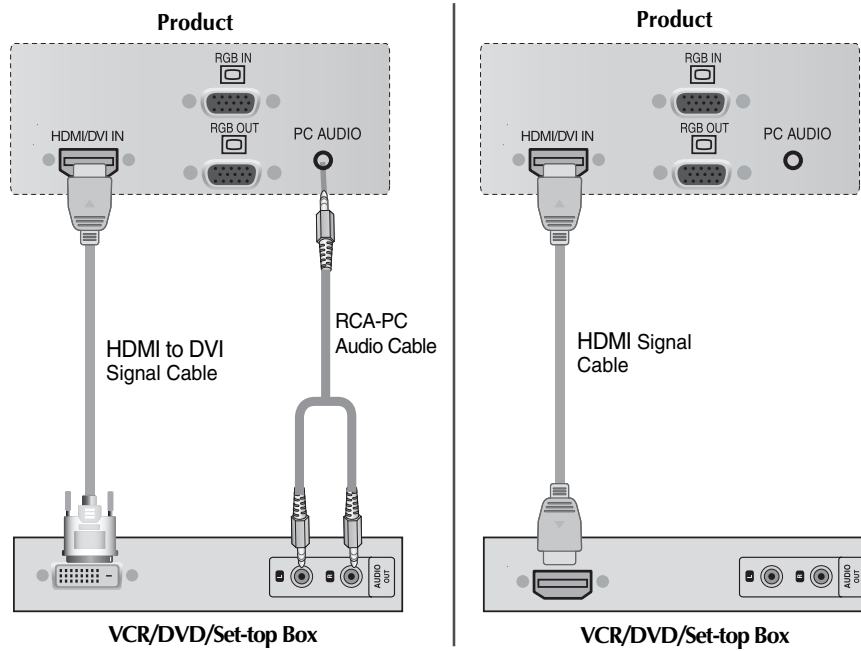
ENGLISH



# Connecting to External Devices

■ ■ ■ When watching HDMI/DVI from the VCR/DVD/Set-top Box

- 1 Connect the video/audio cable as shown in the below figure and then connect the power cord (See page A11).



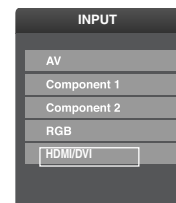
- 2 Select an input signal.  
Press the INPUT button on the remote control to select the input signal.

INPUT → ▼▲ → SET

Or, press the INPUT button at the front side of the product.

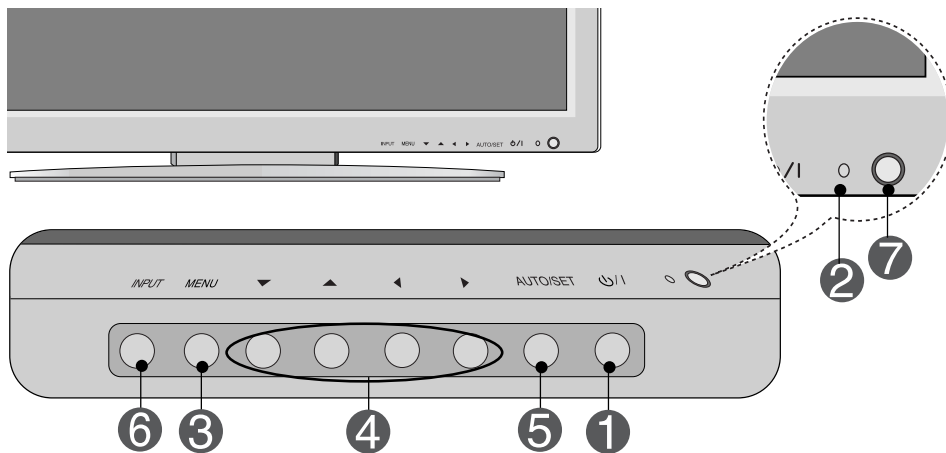
INPUT → ▼▲ → AUTO/SET

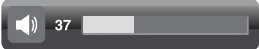
- Select HDMI/DVI.



# Selecting and Adjusting the Screen

## ● Name of the Buttons in the Screen Adjustment Unit



- 1 Power Button** • Press this button to turn on the power. Press this button again to turn it off.
  - 2 Power Indicator** • This Indicator lights up green when the display operates normally (on mode). If the display is in sleep (Energy Saving) mode, this indicator color changes to amber.
  - 3 MENU Button** • Use this button to show/hide the OSD (On Screen Display) menu screen.
  - 4 OSD Select / Adjust Button** • Use this button to select an icon or adjust the setting in the OSD screen.
    - ▼▲ • Adjust the up and down.
    - ◀▶ • Adjust the volume.
- 

## ● Name of the Buttons in the Screen Adjustment Unit

### 5 AUTO/SELECT Button [For PC Analog signal]

Auto in progress

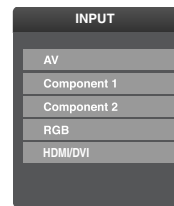
[Other signals]

- The current signal and mode information will be displayed.

### 6 INPUT Button INPUT → ▼▲ → AUTO/SET

- Select the input signal






<b>AV</b>	Composite Video
<b>Component 1</b>	HDTV, DVD
<b>Component 2</b>	HDTV, DVD
<b>RGB</b>	15-pin D-Sub analog signal
<b>HDMI/DVI</b>	Digital signal



### 7 IR Receiver Button • The unit that receives the signal from the remote control.

# Selecting and Adjusting the Screen

## ● OSD Menu

Icon	Function Description
 PICTURE	Adjusts screen brightness, contrast and color that you prefer.
 SOUND	Adjusts the audio function.
 TIMER	Adjusts the timer function.
 SPECIAL	Adjusts the screen status according to the circumstances.
 SCREEN	Adjusts the screen video.

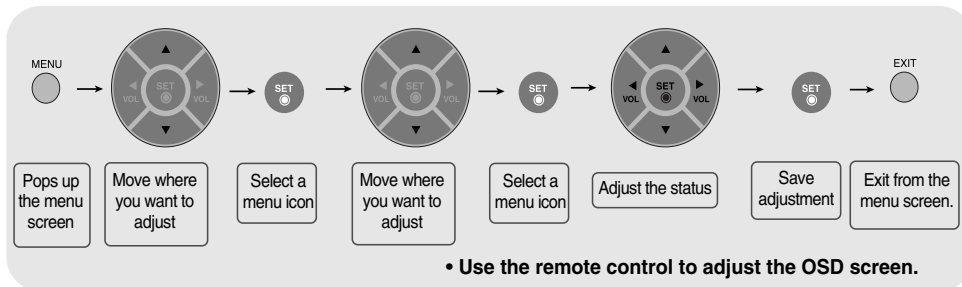


### Note

#### OSD(On Screen Display)

The OSD function enables you to adjust the screen status conveniently since it provides graphical presentation.

## ● How to adjust the OSD (On Screen Display) screen



- 1 Press the **MENU** Button, then the main menu of the OSD appears.
- 2 To access a control, use the ▼ ▲ Buttons.
- 3 When the icon you want becomes highlighted, press the **SET** Button.
- 4 Use the ▼ ▲ ◀ ▶ Buttons to adjust the item to the desired level.
- 5 Accept the changes by pressing the **SET** Button.
- 6 Exit the OSD by pressing the **EXIT** Button.

## ● How to adjust the screen automatically

You need to adjust the screen display when connecting the product to a new computer or changing the mode. Refer to the following section to set an optimal product screen.

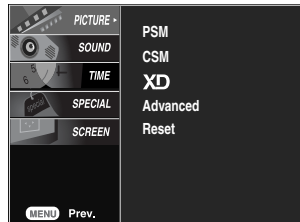
Auto in progress

Press the **AUTO/SELECT** button (**AUTO button** in a remote Control) in the PC analog signal. Then, an optimal screen status will be selected that fits into the current mode.

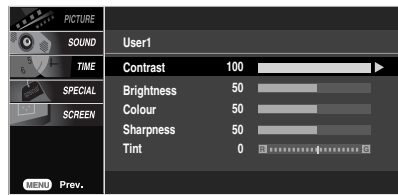
If adjustment is not satisfactory, you need to adjust screen position, clock and phase in the OSD menu.

# Selecting and Adjusting the Screen

## PICTURE Adjusting Screen Color



- PSM** The **PSM** function automatically adjusts the screen image quality depending on the AV usage environment.
- **Dynamic** : Select this option to display with a sharp image.
  - **Standard** : The most general and natural screen display status.
  - **Mild** : Select this option to display with a mild image.
  - **User1,2** : Select this option to use the user-defined settings.



**Contrast** : Adjust the difference between the light and dark levels in the picture.

**Brightness** : To adjust the brightness of the screen.

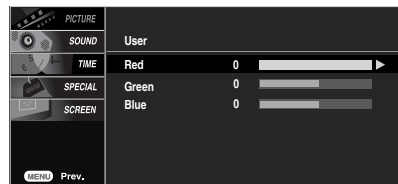
**Colour** : To adjust the color to desired level.

**Sharpness** : To adjust the cleanliness of the screen.

**Tint** :To adjust the tint to desired level.

- CSM** Selecting a factory setting color set.

- **Warm** : Slightly reddish white.
- **Normal** : Slightly bluish white.
- **Cool** : Slightly purplish white.
- **User** : Select this option to use the user-defined settings.



**Red / Green / Blue**  
Set your own color levels.



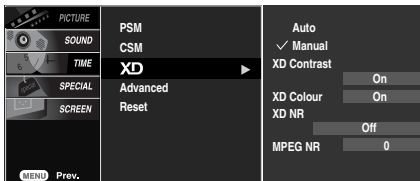
### Note

If the '**PSM**' setting in the **PICTURE** menu is set to **Dynamic**, **Standard**, **Mild** the subsequent menus will be automatically set.



## PICTURE Adjusting Screen Color

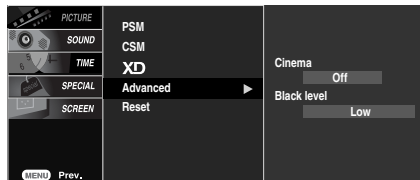
- XD** XD is LG Electronic's unique picture improving technology to display a real **HD** source through an advanced digital signal processing algorithm.  
It's not available to use this function in **RGB-PC** or **HDMI/DVI PC** modes.  
This menu is activated after selecting the **User1** or **User2** of **PSM**.



- **Auto** : XD is automatically change to Auto.
- **Manual** : When selecting the Manual, you can adjust the **XD Contrast**, **XD Colour**, **XD NR**, **MPEG NR**.

- **XD Contrast** : Optimizing the contrast automatically according to the brightness of the reflection.
- **XD Colour** : Adjusting the colors of the reflection automatically to reproduce as closely as possible to the natural colors.
- **XD NR** : Removing the noise up to the point where it does not damage the original picture.
- **MPEG NR** : You can select **MPEG NR** to reduce the picture noise which may appear on the screen during watching the AV.

### Advanced



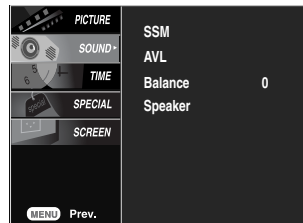
- **Cinema** : (Function works in the following mode - AV, Component 480i/576i)  
When you watch the movie, this function adjusts the set to the best picture appearance.
- **Black Level** : (Function works in the following mode - AV(NTSC), HDMI)  
adjusts the contrast and the brightness of the screen using the black level of the screen.

- **Low** : The reflection of the screen gets brighter.
- **High** : The reflection of the screen gets darker.
- **Auto** : Realizing the black level of the screen and set it to High or Low automatically.

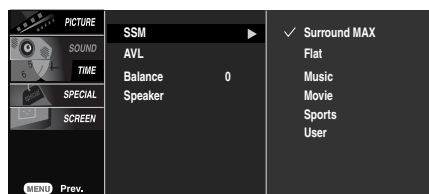
- Reset** Return to the default settings **PSM**, **CSM**, **XD**, **Advanced** at the factory.

# Selecting and Adjusting the Screen

## SOUND Adjusting the audio function

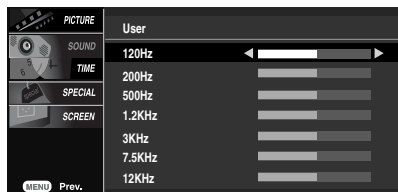


### SSM



The best sound tone quality will be selected automatically depending on the video type that you're currently watching.

- **Surround MAX** : Set the **Surround MAX** on. This function plays back the mono or stereo sound input with the dynamic surround effects. It will provide rich and profound sound tone. If you set the **Surround MAX** on, user audio setting can not be adjusted.
- **Flat** : The most commanding and natural audio.
- **Music** : Select this option to enjoy the original sound when listening to the music.
- **Movie** : Select this option to enjoy sublime sound.
- **Sports** : Select this option to watch sports broadcasting.
- **User** : Select this option to use the user-defined audio settings.



**AVL** To adjust uneven sound volumes across all channels or signals automatically to the most appropriate level. To use this feature, select On.

**Balance** Use this function to balance sound from the left and right speakers.

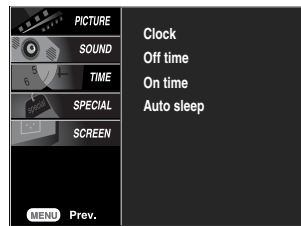
**Speaker** You can adjust internal speaker status.  
If you want to use your external hifi stereo system, turn off the internal speakers of the set.



#### Note

When connected to your computer and the 'SSM' setting in the audio menu is one of **Flat**, **Music**, **Movie** or **Sports**, the available menus are **Balance**, **AVL** and **Surround MAX**.

## TIME Adjusting the timer function



### Clock

If the time is on the clock is incorrect, reset the clock manually.

- 1) Press the **MENU** button and then use **▼▲** button to select the **TIME** menu.
- 2) Press the **▶** button and then use **▼▲** button to select the **Clock** menu.
- 3) Press the **▶** button and then use **▼▲** button to set the hour(00~23).
- 4) Press the **▶** button and then use **▼▲** button to set the minutes(00~59).

### Off / On timer

The off timer automatically switches the set to standby at the pre-set time.

- 1) Press the **MENU** button and then use **▼▲** button to select the **TIME** menu.
- 2) Press the **▶** button and then use **▼▲** button to select **Off timer** or **On timer**.
- 3) Press the **▶** button and then use **▼▲** button to set the hour(01~23).
- 4) Press the **▶** button and then use **▼▲** button to set the minutes(00~59).
- 5) Press the **▶** button and then use **▼▲** button to select **On** or **Off**.

### Auto Sleep

If **Auto Sleep** is active and there is no input signal, the set switches to Standby mode automatically after 10 minutes.

- 1) Press the **MENU** button and then use **▼▲** button to select the **Auto Sleep** menu.
- 2) Press the **▶** button and then use **▼▲** button to select **On** or **Off**.

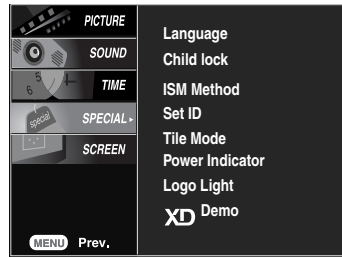


### Note

- In the event of power interruption (disconnection or power failure), the clock must be reset.
- Once the on or off time is set, these functions operate daily at the preset time.
- Off timer function overrides On timer function if they are set to the same time.
- The set must be in standby mode for the On timer to work.

# Selecting and Adjusting the Screen

## SPECIAL Selecting the options



**Language** To choose the language in which the control names are displayed.

**Child Lock** Use the **▼ ▲** buttons to select **On** or **Off**. The Set can be set up so that it can only be used with the remote control. This feature can prevent unauthorized viewing.

In order to lock the OSD screen adjustment, set the **Child Lock** tab to the 'On' position.  
In order to unlock it, do the following :

- Push the **MENU** button on the remote control and set **Child Lock** to the 'Off' position.

**ISM Method** A frozen of stillpicture from a PC/Video game displayed on the screen for prolonged periods will result in a ghost image remaining even when you change the image. Avoid allowing a fixed image to remain on the sets screen for a long period of time.

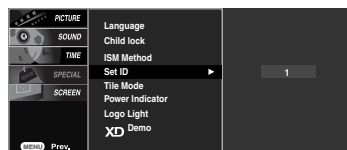
**Normal** : If you unnecessary to set this function.

**White wash** : white wash removes permanent images from the screen.  
(An excessive permanent image may be impossible to clear entirely with white wash.

**Orbiter** : may help prevent ghost images. However, it is best not to allow any fixed image to remain on the screen. To avoid a permanent image on the screen, the screen will move every 2 minutes.

**Inversion** : This is function to invert the panel color of the screen. The panel color is automatically inverted every 30 minutes.

## Set ID



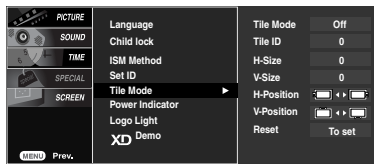
You can assign a unique **Set ID** NO (name assignment) to each product when several products are connected for display. Specify the number (0-99) using the **▼ ▲** button and exit. Use the assigned **Set ID** to individually control each product using the Product Control Program.

**SPECIAL** Selecting the options

• **To use this function**

- Must be displayed with various other products.
- Must be in a function that can be connected to RS-232C or RGB Out

**Tile mode**



It is used to enlarge the screen and also used with several products to view screen.

• **Tile Mode**

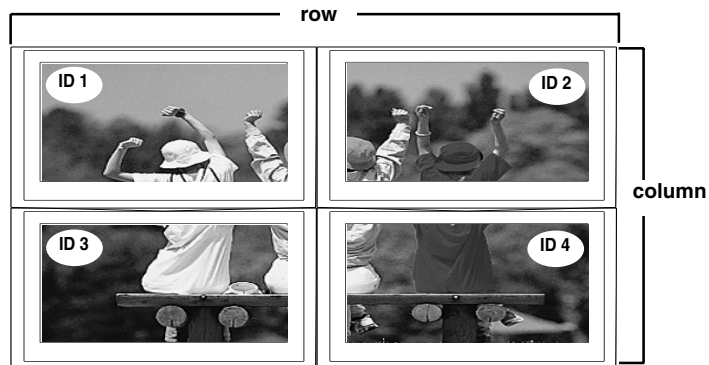
Tile mode and choose Tile alignment and set the ID of the current product to set location.

\* Only after pressing the SET button the adjustments made to the settings will be saved.

- Tile mode : row x column ( r = 1, 2, 3, 4 c = 1, 2, 3, 4)
- 4 x 4 available.
- Configuration of an integration screen is also available as well as configuration of One by one Display.



- Tile mode (product 1 ~ 4) : r(2) x c(2)



# Troubleshooting

## No image is displayed

- Is the product power cord connected?
  - Is the power indicator light on?
  - Power is on, power indicator is green but the screen appears extremely dark.
  - the power indicator amber?
  - Does the 'Out of range' message appear?
  - Does the 'Check signal cable' message appear?
- See if the power cord is properly connected to the outlet.
  - See if the power switch is turned on.
  - Adjust brightness and contrast again.
  - If the product is in power saving mode, move the mouse or press any key.
  - The signal from the PC (video card) is out of the vertical or horizontal frequency range of the product. Adjust the frequency range by referring to the Specifications in this manual.
    - \* **Maximum resolution**
    - 32 / 37 / 42 inch model
    - RGB : 1600 x 1200 @60Hz
    - HDMI/DVI : 1280 x 1024 @60Hz
  - The signal cable between PC and product is not connected. Check the signal cable.
  - Press the 'INPUT' menu in the remote Control to check the input signal.

## 'Unknown Product' message appears when the product is connected.

- Did you install the driver?
- Install the product driver, which is provided with the product, or download it from the web site. (<http://www.lge.com>)
  - See if the plug&play function is supported by referring to the video card user manual.

## 'Controls Locked' message appears.

- The 'Controls Locked' message appears when pressing the Menu button.
- The control locking function prevents unintentional OSD setting change due to careless usage. To unlock the controls, simultaneously press the Menu button and ► button for several seconds. (You cannot set this function using the remote control buttons. You can set this function in the product only.)



### Note

\* **Vertical frequency:** To enable the user to watch the product display, screen image should be changed tens of times every second like a fluorescent lamp. The vertical frequency or refresh rate is the times of image display per second. The unit is Hz.

\* **Horizontal frequency:** The horizontal interval is the time to display one vertical line. When 1 is divided by the horizontal interval, the number of horizontal lines displayed every second can be tabulated as the horizontal frequency. The unit is kHz.

### The screen image looks abnormal.

- **Is the screen position wrong?**
  - D-Sub analog signal – Press the “AUTO” button in the remote control to automatically select the optimal screen status that fits into the current mode. If adjustment is not satisfactory, use the Position OSD menu.
  - See if the video card resolution and frequency are supported by the product. If the frequency is out of range, set to the recommended resolution in the Control Panel – Display – Setting menu.
- **Do thin lines appear on the background screen?**
  - D-Sub analog signal – Press the “AUTO” button in the remote control to automatically select an optimal screen status that fits into the current mode. If adjustment is not satisfactory, use the Clock OSD menu.
- **Horizontal noise appears or the characters look blurred.**
  - D-Sub analog signal – Press the “AUTO” button in the remote control to automatically select an optimal screen status that fits into the current mode. If adjustment is not satisfactory, use the Phase OSD menu.
- **Unable to adjust the horizontal/vertical position in the Zoom menu.**
  - See if the Zoom value is set to 0. If it is, you cannot adjust the H/V Position value.
- **The screen is displayed abnormally.**
  - The proper input signal is not connected to the signal port. Connect the signal cable that matches with the source input signal.

### After-image appears on the product.

- **After-image appears when the product is turned off.**
  - If you use a fixed image for a long time, the pixels may be damaged quickly. Use the screensaver function.

# Troubleshooting

## The audio function does not work.

- **No sound?**
  - See if the audio cable is connected properly.
  - Adjust the volume.
  - See if the sound is set properly.
- **Sound is too dull.**
- **Sound is too low.**
  - Select the appropriate equalize sound.
  - Adjust the volume.

## Screen color is abnormal.

- **Screen has poor color resolution (16 colors).**
  - Set the number of colors to more than 24 bits (true color)  
Select Control Panel – Display – Settings – Color Table menu in Windows.
- **Screen color is unstable or mono-colored.**
  - Check the connection status of the signal cable.  
Or, re-insert the PC video card.
- **Do black spots appear on the screen?**
  - Several pixels (red, green, white or black color) may appear on the screen, which can be attributable to the unique characteristics of the LCD panel. It is not a malfunction of the LCD.



# Specifications

The product specifications can change without prior notice for product improvement.

ENGLISH

<b>LCD Panel</b>	<b>[32 inch]</b>	32 inches (80.04 cm) TFT (Thin Film Transistor) LCD (Liquid Crystal Display) Panel Visible diagonal size: 80.04 cm 0.5025 mm (Pixel Pitch)
	<b>[37 inch]</b>	37 inches (94.03 cm) TFT (Thin Film Transistor) LCD (Liquid Crystal Display) Panel Visible diagonal size: 94.03 cm 0.6000 mm (Pixel Pitch)
	<b>[42 inch]</b>	42 inches (106.73 cm) TFT (Thin Film Transistor) LCD (Liquid Crystal Display) Panel Anti-Glare coating Visible diagonal size: 106.73 cm 0.681 mm (Pixel Pitch)
<b>Power</b>	<b>[32 inch]</b>	<b>Rated Voltage</b> AC 100-240V~ 50/60Hz 1.5A <b>Power Consumption</b> On Mode : 145W Sleep Mode : ≤ 1W (RGB) / 4W (HDMI, DVI) Off Mode : ≤ 1W
	<b>[37 inch]</b>	<b>Rated Voltage</b> AC 100-240V~ 50/60Hz 2.0A <b>Power Consumption</b> On Mode : 180W Sleep Mode : ≤ 1W (RGB) / 4W(HDMI, DVI) Off Mode : ≤ 1W
	<b>[42 inch]</b>	<b>Rated Voltage</b> AC 100-240V~ 50/60Hz 2.5A <b>Power Consumption</b> On Mode : 240W Sleep Mode : ≤ 1W (RGB) / 4W(HDMI, DVI) Off Mode : ≤ 1W

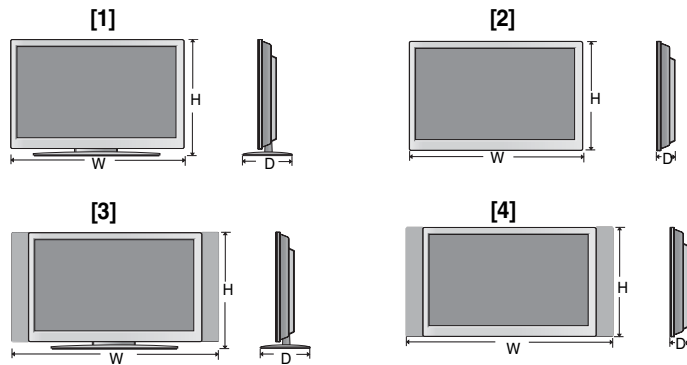
## NOTE

- Information in this document is subject to change without notice.

# Specifications

The product specifications can change without prior notice for product improvement.

## Dimensions & Weight



Width x Height x Depth

### [32 inch]

[1] 80.30 cm (31.61 inches) x 54.00cm (21.26 inches) x 18.00 cm (7.09 inches)

[2] 80.30 cm (31.61 inches) x 49.30 cm (19.4 inches) x 9.99 cm (3.93 inches)

[3] 96.40 cm (37.95 inches) x 54.00cm (21.26 inches) x 18.00 cm (7.09 inches)

[4] 96.40 cm (37.95 inches) x 49.30 cm (19.4 inches) x 9.99 cm (3.93 inches)

### [37 inch]

[1] 92.80 cm (36.54 inches) x 61.90 cm (24.37 inches) x 22.77 cm (8.96 inches)

[2] 92.80 cm (36.54 inches) x 57.12 cm (22.49 inches) x 11.50 cm (4.53 inches)

[3] 112.9 cm (44.45 inches) x 61.90 cm (24.37 inches) x 22.77 cm (8.96 inches)

[4] 112.9 cm (44.45 inches) x 57.12 cm (22.49 inches) x 11.50 cm (4.53 inches)

### [42 inch]

[1] 105.7 cm (41.61 inches) x 70.20 cm (27.64 inches) x 29.45 cm (11.59 inches)

[2] 105.7 cm (41.61 inches) x 65.30 cm (25.71 inches) x 11.91 cm (4.69 inches)

[3] 125.9 cm (49.57 inches) x 70.20 cm (27.64 inches) x 29.45 cm (11.59 inches)

[4] 125.9 cm (49.57 inches) x 65.30 cm (25.71 inches) x 11.91 cm (4.69 inches)

The product specifications can change without prior notice for product improvement.

ENGLISH

Dimensions & Weight	Net		
	<b>[32 inch]</b>		
	[1] 19.4 kg (42.77 lbs)	[2] 16.0 kg (35.27 lbs)	
	[3] 21.1 kg (46.52 lbs)	[4] 17.7 kg (39.02 lbs)	
	<b>[37 inch]</b>		
	[1] 26.1 kg (57.54 lbs)	[2] 22.0kg (48.50 lbs)	
	[3] 30.5 kg (67.24 lbs)	[4] 25.7 kg (56.66 lbs)	
	<b>[42 inch]</b>		
	[1] 35.2 kg (77.60 lbs)	[2] 30.8 kg (67.90 lbs)	
	[3] 38.0 kg (83.77 lbs)	[4] 33.6 kg (74.07 lbs)	

# Specifications

## ■ ■ ■ 32/37/42 inch model

The product specifications can change without prior notice for product improvement.

<b>Video Signal</b>	<b>Max. Resolution</b>	RGB : 1600 X 1200 @60Hz HDMI/DVI : 1280 X 1024 @60Hz – It may not be supported depending on the OS or video card type.
	<b>Recommended Resolution</b>	RGB : WSXGA 1360 X 768 @60Hz HDMI/DVI : WSXGA 1360 X 768 @60Hz – It may not be supported depending on the OS or video card type.
	<b>Horizontal Frequency</b>	RGB : 30 - 83 kHz HDMI/DVI : 30 - 72 kHz
	<b>Vertical Frequency</b>	56 - 85 Hz
	<b>Synchronization Type</b>	Separate/Composite/SOG (Sync On Green)/Digital
<b>Input Connector</b>	15-pin D-Sub type, HDMI (digital), S-Video, Composite Video, HDTV, DVD, RS-232C	
<b>Environmental Conditions</b>	<b>Operational Condition</b>	Temperature: 10°C ~ 35°C , Humidity: 10% ~ 80%
	<b>Storage Condition</b>	Temperature: -20°C ~ 60°C , Humidity: 5% ~ 95%

\* Applicable only for models that support the speakers

<b>Audio</b>	<b>RMS Audio Output</b>	10W+10W(R+L)
	<b>Input Sensitivity</b>	0.7Vrms
	<b>Speaker Impedance</b>	8Ω

### NOTE

- Information in this document is subject to change without notice.

● **PC Mode – Preset Mode**

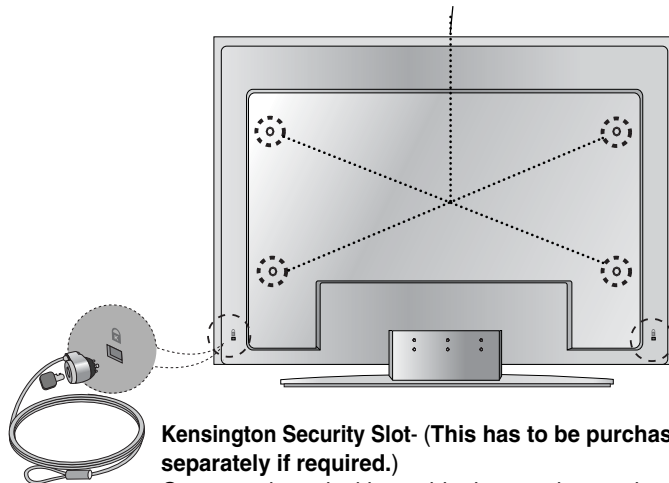
Preset mode		Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Preset mode		Horizontal Frequency (kHz)	Vertical Frequency (Hz)
1	VGA 640 x 350	31.469	70	11	VESA 1024 x 768	60.123	75
2	VGA 720 x 400	31.468	70	12	VESA 1024 x 768	68.68	85
3	VGA 640 x 480	31.469	60	13	VESA 1280 x 720	44.772	60
4	VESA 640 x 480	37.500	75	14	VESA 1360 x 768	47.72	60
5	VESA 640 x 480	43.269	85	15	VESA 1280 x 1024	63.981	60
6	VESA 800 x 600	37.879	60	16	VESA 1280 x 1024	79.98	75
7	VESA 800 x 600	46.875	75	17	VESA 1600 x 1200	75.00	60
8	VESA 800 x 600	53.674	85	RGB : Mode 1 ~ Mode 17 HDMI/DVI : Mode 1 ~ Mode 15			
9	MAC 832 x 624	49.725	75				
10	VESA 1024 x 768	48.363	60				

● **Power Indicator**

Mode	Product
On Mode	Green
Sleep Mode	Amber
Off Mode	-

**VESA wall mounting**

Connected to another object (stand type and wall-mounted type.) This product accepts a VESA-compliant mounting interface pad. - **(This has to be purchased separately if required.)**  
For further information, refer to the VESA Wall Mounting Instruction Guide.



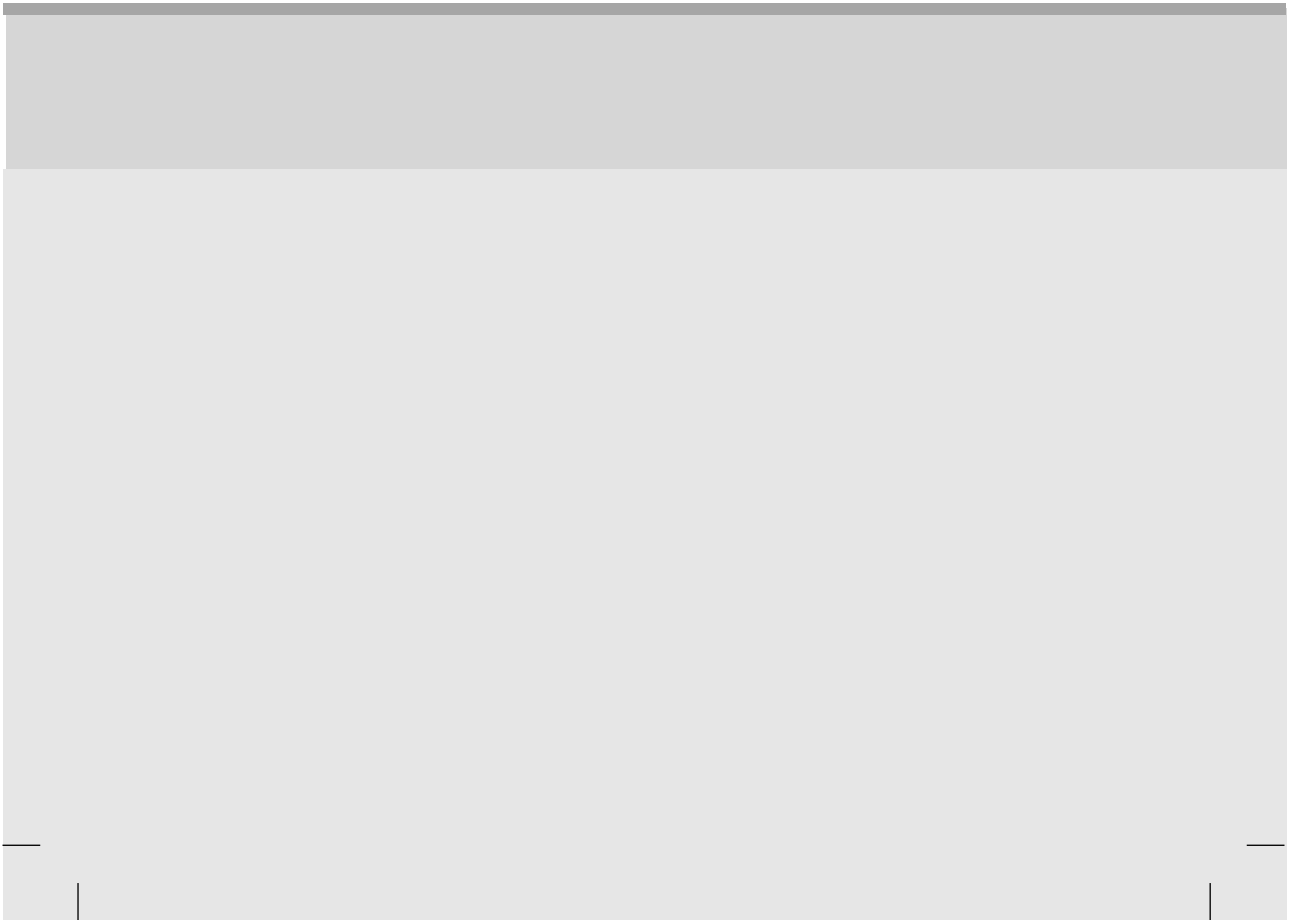
**Kensington Security Slot- (This has to be purchased separately if required.)**

Connected to a locking cable that can be purchased separately at most computer stores



# Regulatory information

## Regulatory information



## ■■■ Regulatory Information cont.

### :: FCC Compliance Statement

This equipment has been tested and found to comply within the limits of a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception (which can be determined by turning the equipment on and off), the user is encouraged to try to correct the interference by using one or more of the following measures:

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

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's (or your) authority to operate the equipment. Only peripherals (digital input/output devices, terminals, printers, etc.) certified to comply with the Class B limits may be attached to this monitor. Operation with non-certified peripherals is likely to result in interference to radio and TV reception. Only shielded signal cables may be used with this System.

#### NOTICE

The regulations are applied only to the products with the ID LABEL indicating specific requirements.

### :: Canadian DOC Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la classe B

respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

#### NOTICE

The regulations are applied only to the products with the ID LABEL indicating specific requirements.

### :: CE Conformity Notice (for Europe)

Products with the "CE" Marking comply with the EMC Directive(89/336/EEC) and LOW VOLTAGE Directive (73/23/EEC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European Norms :

- EN 55022 ; Radio Frequency Interference
- EN 55024 ; Electromagnetic Immunity
- EN 61000-3-2 ; Power Line Harmonics
- EN 61000-3-3 ; Voltage Fluctuations
- EN 60950 ; Product Safety

#### NOTICE

The regulations are applied only to the products with the ID LABEL indicating specific requirements.

### :: Low Radiation Compliance (MPR II)

This monitor meets one of the strictest guidelines available today for low radiation emissions, offering the user extra shielding and an antistatic screen coating. These guidelines, set forth by a government agency in Sweden, limit the amount of emission allowed in the Extremely Low Frequency (ELF) and Very Low Frequency (VLF) electromagnetic range.

### :: TCO95 (TCO95 applied model only)



#### Congratulations!

You have just purchased a TCO'95 approved and labelled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and to the further development of environmentally-adapted electronic products.

## ■■■ Regulatory Information cont.

### Why do we have environmentally labelled computers?

In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment. The main problem as far as computers and other electronic equipment are concerned is that environmentally harmful substances are used both in the products and during their manufacture. Since it has not been possible so far for the majority of electronic equipment to be recycled in a satisfactory way, most of these potentially damaging substances sooner or later enter Nature.

There are also other characteristics of a computer, such as energy consumption levels, that are important from both the working and natural environment viewpoints. Since all types of conventional electricity generation have a negative effect on the environment (acidic- and climatic-influencing emissions, radioactive waste, etc.), it is vital to conserve energy. Electronic equipment in offices consumes an enormous amount of energy, since it is often routinely left running continuously.

### What does the environmental labelling involve?

This product meets the requirements for the TCO'95 scheme, which provides for international environmental labelling of personal computers. The labelling scheme was developed as a joint effort by the TCO (The Swedish Confederation of Professional Employees), Naturkyddsforeningen (The Swedish Society for Nature Conservation), and NUTEK (The National Board for Industrial and Technical Development in Sweden), and SEMKO AB (an international certification agency).

The requirements cover a wide range of issues: environment, ergonomics, usability, emission of electrical and magnetic fields, energy consumption and electrical and fire safety.

The environmental demands concern, among other things, restriction on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs (freons), and chlorinated solvents. The product must be prepared for recycling, and the manufacturer is obliged to have an environmental plan, which must be adhered to in each country where the company implements its operational policy.

The energy requirements include a demand that the

computer and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level, in one or more stages. The length of time to reactivate the computer shall be reasonable for the user.

Labelled products must meet strict environmental demands, for example, in respect of the reduction of electric and magnetic fields, along with physical and visual ergonomics and good usability.

The following is a brief summary of the environmental requirements met by this product. The complete environmental criteria document may be ordered from:

TCO Development Unit  
Linnegatan 14, S-11494 Stockholm, Sweden  
FAX +46-8 782 92 07  
E-mail (Internet): [development@tco.se](mailto:development@tco.se)

Current information regarding TCO'95 approved and labelled products may also be obtained on the Internet using the address: <http://www.tco-info.com/>

TCO'95 is a co-operative project between:



Naturkydds  
foreningen



NUTEK

SEMKO

Närings- och teknikutvecklingsverket

### Environmental requirements

Brominated flame retardants are present in printed circuit boards, cabling, casings, and housings, and are added to delay the spread of fire. Up to 30% of the plastic in a computer casing can consist of flame-retardant substances. These are related to another group of environmental toxins, PCBs, and are suspected of giving rise to similar harm, including reproductive damage in fish-eating birds and mammals. Flame retardants have been found in human blood, and researchers fear that they can disturb fetus development.

Bio-accumulative<sup>1</sup> TCO'95 demands require that plastic components weighing more than 25 grams must not contain flame retardants with organically bound chlorine or bromine.

Lead can be found in picture tubes, display screens, solder, and capacitors. Lead damages the nervous system and in higher doses causes lead poisoning. The



## ■■■ Regulatory Information cont.

relevant bio-accumulative TCO'95 requirement permits the inclusion of lead, as no replacement has yet been developed.

Cadmium is present in rechargeable batteries and in the color-generating layers of certain computer displays. Cadmium damages the nervous system and is toxic in high doses. The relevant bio-accumulative TCO'95 requirement states that batteries may not contain more than 25 ppm (parts per million) of cadmium. The color-generating layers of display screens must not contain any cadmium.

Mercury is sometimes found in batteries, relays and switches. Mercury damages the nervous system and is toxic in high doses. The relevant bio-accumulative TCO'95 requirement states that batteries may not contain more than 25 ppm of mercury and that no mercury is present in any of the electrical or electronic components concerned with the display unit.

CFCs (freons) are sometimes used for washing printed circuit boards and in the manufacture of expanded foam for packaging. CFCs break down ozone and thereby damage the ozone layer in the atmosphere, causing increased reception on Earth of ultra-violet light with consequent increased risks of skin cancer (malignant melanoma). The relevant TCO'95 requirement: Neither CFCs nor HCFCs may be used during the manufacture of the product or its packaging.

<sup>1</sup> Bio-accumulative means that the substance accumulates within living organisms.

### Shipping Package

The packaging material can be recycled, or you can save it to return the monitor to a service center for repair or disposal.

### CFC Compounds in Distribution Packaging

Cushioning material used for shipping finished monitors are not manufactured with nor do they contain any CFC compounds.

### Design for Disassembly/Recycling

These monitors have been designed for easy end-of-life disassembly and recycling. Fasteners are generally of the same type for efficient disassembly. Components made of different materials can be easily separated and plastics have been identified using international symbols to aid in recycling.

### Monitor Disposal

#### WARNING

If you need to dispose of a monitor, ask a qualified service representative for the proper procedure. Improper disposal could result in personal injury from implosion.

:: **TCO'99** (TCO'99 applied model only)



### Congratulations!

You have just purchased a TCO'99 approved and labelled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and also to the further development of environmentally adapted electronics products.

### Why do we have environmentally labelled computers?

In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment. With the growing manufacture and usage of electronic equipment throughout the world, there is a recognized concern for the materials and substances used by electronic products with regards to their eventual recycling and disposal. By proper selection of these materials and substances, the impact on the environment can be minimized.

There are also other characteristics of a computer, such as energy consumption levels, that are important from the viewpoints of both the work (internal) and natural (external) environments. Electronic equipment in offices is often left running continuously, resulting in unnecessary consumption of large amounts of energy and additional power generation. From the standpoint of carbon dioxide emissions alone, it is vital to save energy.

### What does labelling involve?

The product meets the requirements for the TCO'99 scheme which provides for international and environmental labelling of personal computers and/or displays.

The labelling scheme was developed as a joint effort by the TCO (The Swedish Confederation of Professional Employees), Svenska Naturskyddsforeningen (The Swedish Society for Nature Conservation) and Statens Energimyndighet (The Swedish National Energy Administration).

## ■■■ Regulatory Information cont.

Approval requirements cover a wide range of issues: ecology, ergonomics, emission of electrical and magnetical fields, energy consumption and electrical safety.

Ecological criteria impose restrictions on the presence and use of heavy metals, brominated and chlorinated flame retardants, and other substances. The product must be prepared for recycling and the manufacturing site(s) shall be certified according to ISO14001 or EMAS registered.

Energy requirements include a demand that the system unit and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level in one or more stages. The length of time to reactivate the system unit shall be reasonable for the user.

Labelled products must meet strict environmental demands, for example, in respect of the reduction of electrical and magnetical fields as well as work load and visual ergonomics.

Below you will find a brief summary of the ecological requirements met by this product. The complete ecological criteria document can be found at TCO Development's website <http://www.tcodevelopment.com> or may be ordered from:

**TCO Development**  
SE-114 94 STOCKHOLM, Sweden  
Fax: +46 8 782 92 07  
Email : [development@tco.se](mailto:development@tco.se)  
Information regarding TCO'99 approved and labelled products may also be obtained at <http://www.tcodevelopment.com>

### Ecological requirements

#### Flame retardants

Flame retardants may be present in printed wiring board laminates, cables, and housings. Their purpose is to prevent, or at least to delay the spread of fire. Up to 30% by weight of the plastic in a computer casing can consist of flame retardant substances. Many flame retardants contain bromine or chlorine, and these flame retardants are chemically related to PCBs (polychlorinated biphenyls). Both the flame retardants containing bromine or chlorine and the PCBs are suspected of giving rise to health effects, including reproductive damage in fish-eating birds and mammals, due to the bio-accumulative\* processes when not disposed of in accordance with strict standards for disposal.

TCO'99 requires that plastic components weighing more than 25 grams shall not contain flame retardants with organically bound bromine or chlorine. Flame retardants are allowed in the printed wiring board laminates due to the lack of commercially available alternatives.

#### Cadmium\*\*

Cadmium is present in rechargeable batteries and in the colour-generating layers of certain computer displays. TCO'99 requires that batteries, the colour-generating layers of display screens, and the electrical or electronics components shall not contain any cadmium.

#### Mercury\*\*

Mercury is sometimes found in batteries, relays and switches. TCO'99 requires that batteries shall not contain any mercury. It also demands that mercury is not present in any of the electrical or electronics components associated with the labelled unit. There is however one exception. Mercury is, for the time being, permitted in the back light system of flat panel monitors as there today is no commercially available alternative. TCO aims on removing this exception when a mercury free alternative is available.

#### Lead\*\*

Lead can be found in picture tubes, display screens, solders and capacitors. TCO'99 permits the use of lead due to the lack of commercially available alternatives, but in future requirements TCO Development aims at restricting the use of lead.

\* Bio-accumulative is defined as substances which accumulate in living organisms.

\*\*Lead, Cadmium and Mercury are heavy metals which are bio-accumulative.