

APPENDIX H  
: USER'S MANUAL

# User's Guide

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## M5201C

**M**ake sure to read the **Important Precautions** before using the product.


Keep the User's Guide(CD) in an accessible place for future reference.


**S**ee the label attached on the product and give the information to your dealer when you ask for service.



# Safety Precautions

**Please read these safety precautions carefully before using the product.**

 **Warning** If you ignore the warning message, you may be seriously injured or there is a possibility of accident or death.

 **Caution** If you ignore the caution message, you may be slightly injured or the product may be damaged

## Precautions in installing the Product

### **Warning**

- **Keep away from heat sources like electrical heaters.**
  - Electrical shock, fire, malfunction or deformation may occur.
- **Keep the packing anti-moisture material or vinyl packing out of the reach of children.**
  - Anti-moisture material is harmful if swallowed. If swallowed by mistake, force the patient to vomit and visit the nearest hospital. Additionally, vinyl packing can cause suffocation. Keep it out of the reach of children.
- **Do not put heavy objects on the product or sit upon it.**
  - If the product collapses or is dropped, you may be injured. Children must pay particular attention.
- **Do not leave the power or signal cable unattended on the pathway.**
  - The passerby can falter, which can cause electrical shock, fire, product breakdown or injury.
- **Install the product in a neat and dry place.**
  - Dust or moisture can cause electrical shock, fire or product damage.
- **If you can smell smoke or other odors or hear a strange sound unplug the power cord and contact the service center.**
  - If you continue to use without taking proper measures, electrical shock or fire can occur.
- **If you dropped the product or the case is broken, turn off the product and unplug the power cord.**
  - If you continue to use without taking proper measures, electrical shock or fire can occur. Contact the service center.
- **Do not drop an object on or apply impact to the product. Do not throw any toys or objects on the product screen.**
  - It can cause injury to human, problem to product and damage the display.

### **Caution**

- **Make sure the product ventilation hole is not blocked. Install the product in a suitably wide place (more than 10cm from the wall)**
  - If you install the product too close to the wall, it may be deformed or fire can break out due to internal heat.
- **Do not block the ventilation hole of the product by a tablecloth or curtain.**
  - The product can be deformed or fire can break out due to overheating inside the product.
- **Install the product on a flat and stable place that has no risk of dropping the product.**
  - If the product is dropped, you may be injured or the product may be broken.
- **Install the product where no EMI occurs.**
- **Keep the product away from direct sunlight.**
  - The product can be damaged.

# Safety Precautions

## Electrical Power Related Precautions

### Warning

- **Make sure to connect the power cable to the grounded current.**
  - You may be electrocuted or injured.
- **Use the rated voltage only.**
  - The product can be damaged, or you may be electrocuted.
- **In the presence of thunder and lightning, never touch the power cord and signal cable because it can be very dangerous.**
  - It can cause electric shock.
- **Do not connect several extension cords, electrical appliances or electrical heaters to a single outlet. Use a power bar with a grounding terminal designed for exclusive use with the computer.**
  - A fire can break out due to overheating.
- **Do not touch the power plug with wet hands. Additionally, if the cord pin is wet or covered with dust, dry the power plug completely or wipe dust off.**
  - You may be electrocuted due to excess moisture.
- **If you don't intend to use the product for a long time, unplug the power cable from the product.**
  - Covering dust can cause a fire, or insulation deterioration can cause electric leakage, electric shock or fire.
- **Fix the power cable completely.**
  - If the power cable is not fixed completely, a fire can break out.
- **Hold the plug when pulling out the power cable. Do not bend the power cord with excessive force or put heavy objects on the power cord.**
  - The power line can be damaged, which may cause electric shock or fire.
- **Do not insert a conductor (like a metal chopstick) into one end of the power cable while the other end is connected to the input terminal on the wall. Additionally, do not touch the power cable right after plugging into the wall input terminal.**
  - You may be electrocuted.
- **The power supply cord is used as the main disconnection device. Ensure that the socket-outlet is easily accessible after installation.**
- **Main power breaker is the power cord and this breaking device must be located at a location where it is easy to operate.**

### Caution

- **Do not unplug the power cord while the product is in use.**
  - Electrical shock can damage the product.

## Precautions in Moving the Product

### Warning

- **Make sure to turn off the product.**
  - You may be electrocuted or the product can be damaged.
- **Make sure to remove all cables before moving the product.**
  - You may be electrocuted or the product can be damaged.

# Safety Precautions

## Caution

- **Do not shock the product when moving it.**
    - You may be electrocuted or the product can be damaged.
  - **Do not dispose the product-packing box. Use it when you move.**
  - **Make the panel face forward and hold it with both hands to move.**
    - If you drop the product, the damaged product can cause electric shock or fire. Contact with the service center for repair.
- 

## Precautions in Using the Product

### Warning

- **Do not disassemble, repair or modify the product at your own discretion.**
  - Fire or electric shock accident can occur.
  - Contact the service center for check, calibration or repair.
- **When cleaning the brown tube surface, unplug the power cord and scrub with soft cloth to prevent scratching. Do not clean with a wet cloth.**
- **Keep the product away from water.**
  - Fire or electric shock accident can occur.

### Caution

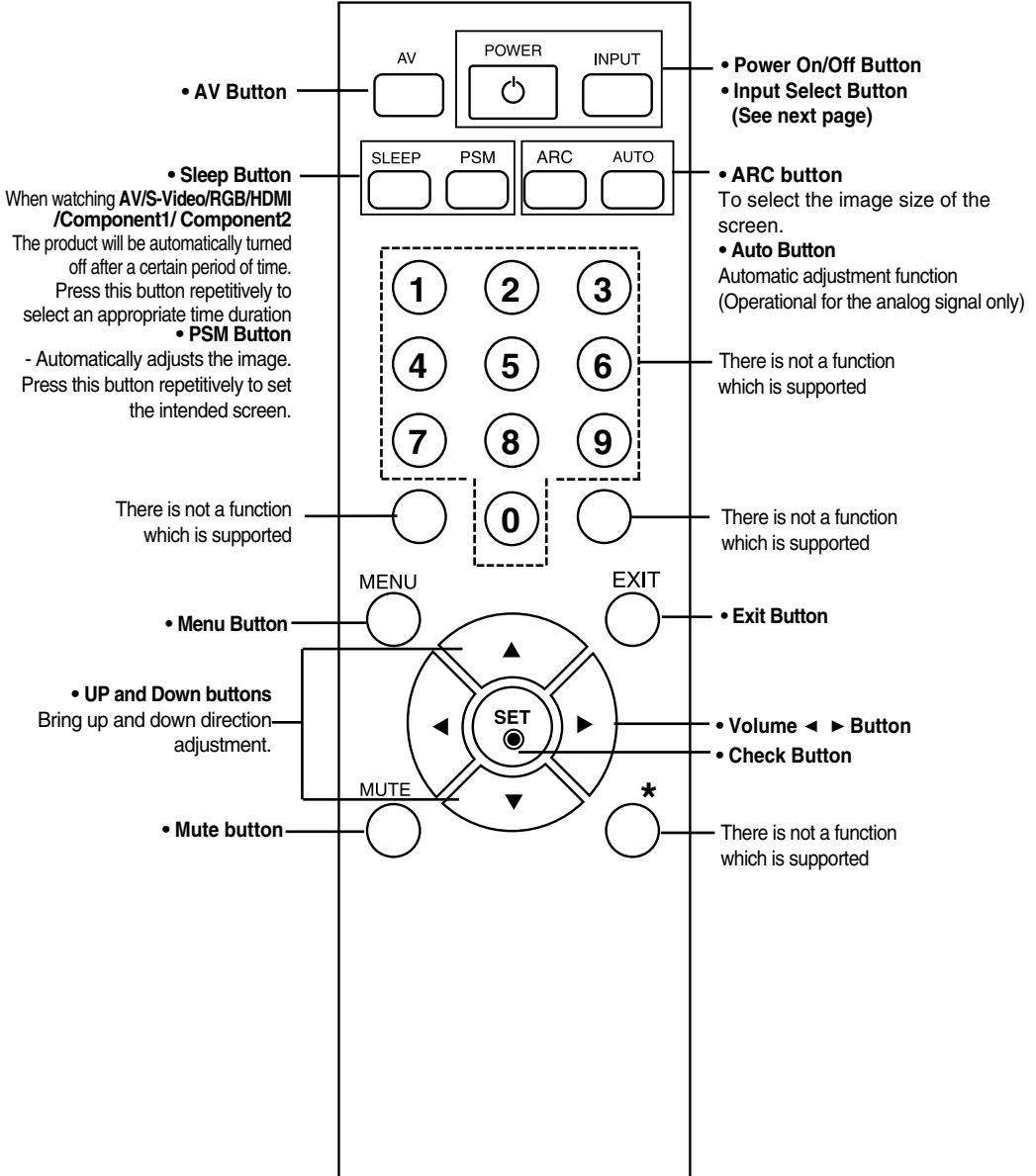
- **Do not put or store inflammable substances near the product.**
    - There is a danger of explosion or fire due to careless handling of the inflammable substances.
  - **When cleaning the brown tube surface, unplug the power cord and scrub with soft cloth to prevent scratching. Do not clean with a wet cloth.**
    - The water can sink into the product, which can cause electric shock or serious malfunction.
  - **Take a rest from time to time to protect your vision.**
  - **Keep the product clean at all times.**
  - **Take a comfortable and natural position when working with a product to relax the muscles.**
  - **Take a regular break when working with a product for a long time.**
  - **Do not press strongly upon the panel with a hand or sharp object such as nail, pencil or pen, or make a scratch on it.**
  - **Keep the proper distance from the product.**
    - Your vision may be impaired if you look at the product too closely.
  - **Set the appropriate resolution and clock by referring to the User's Guide.**
    - Your vision can be impaired.
  - **Use authorized detergent only when cleaning the product. (Do not use benzene, thinner or alcohol.)**
    - Product can be deformed.
- 

## On Disposal

- **The fluorescent lamp used in this product contains a small amount of mercury.**
- **Do not dispose of this product with general household waste.**
  - Disposal of this product must be carried out in accordance to the regulations of your local authority.

# Using the Remote Control

## ● Name of the Remote Control Buttons



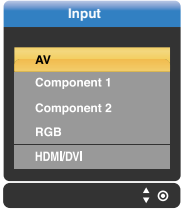
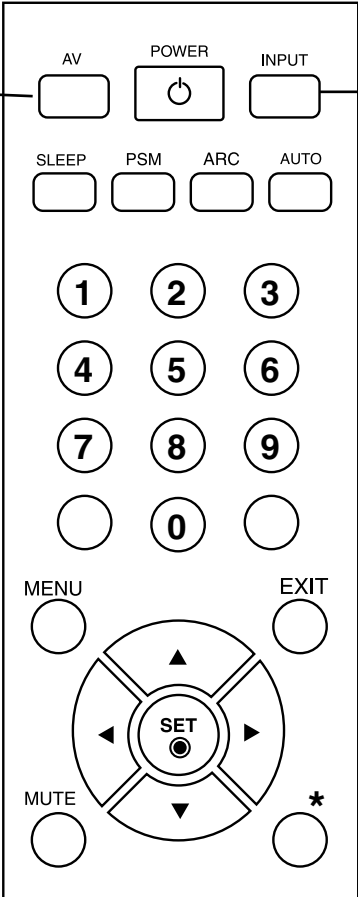
# Using the Remote Control

**• AV Button**

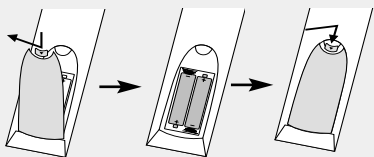
Each time you press the Input button it will change to  
AV → Component1 →  
Component2 → RGB →  
HDMI/DVI

**• Input Select Button**

If you press the button once, the following Input Signal Window will appear. Select the signal type you want using the ▼ ▲ button.



## Inserting batteries into remote control.

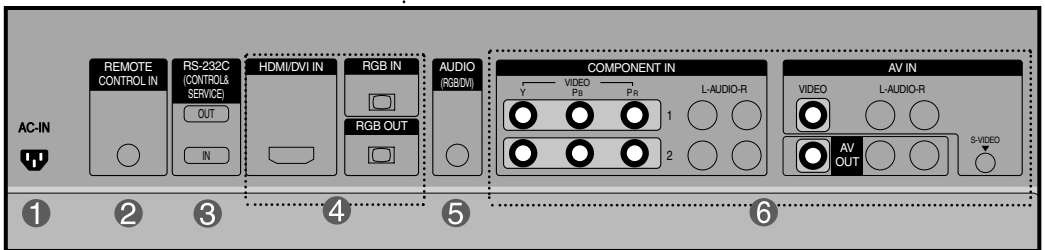
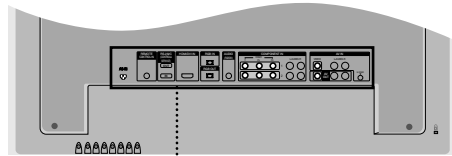


1. Take out the battery cap.
2. Insert the batteries with correct polarity (+/-).
3. Close the battery cap.
  - Dispose of used batteries in the recycle bin to prevent environmental pollution.

# 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
- 2 Wired Remote Control Port
- 3 RS-232C Serial Ports
- 4 RGB, HDMI/DVI Ports
- 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).

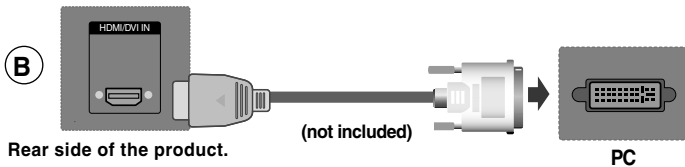
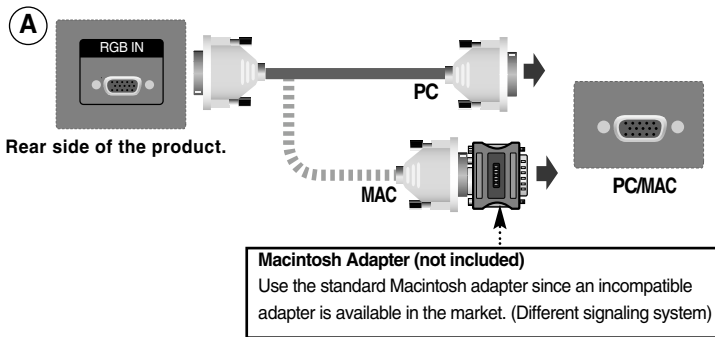


# Connecting to External Devices

## ■ ■ ■ 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.

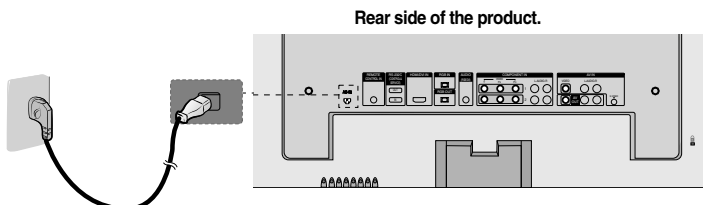
- A** When connecting with the D-Sub signal input cable.
- B** When connecting with the HDMI to DVI signal input cable (not included).



**2** Connect the Audio cable.

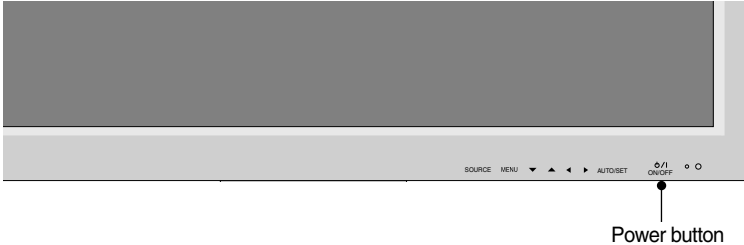


**3** Connect the power cord.



# Connecting to External Devices

- 4 1 Turn on power by pressing the power button on the product.



- 2 Turn on the PC.

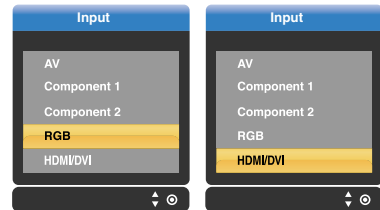
- 5 Select an input signal.  
Press the INPUT button on the remote control to select the input signal.

INPUT → ▼▲ → SET

Or, press the SOURCE button on the back of the product.

SOURCE → ▼▲ → 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 on the 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.**

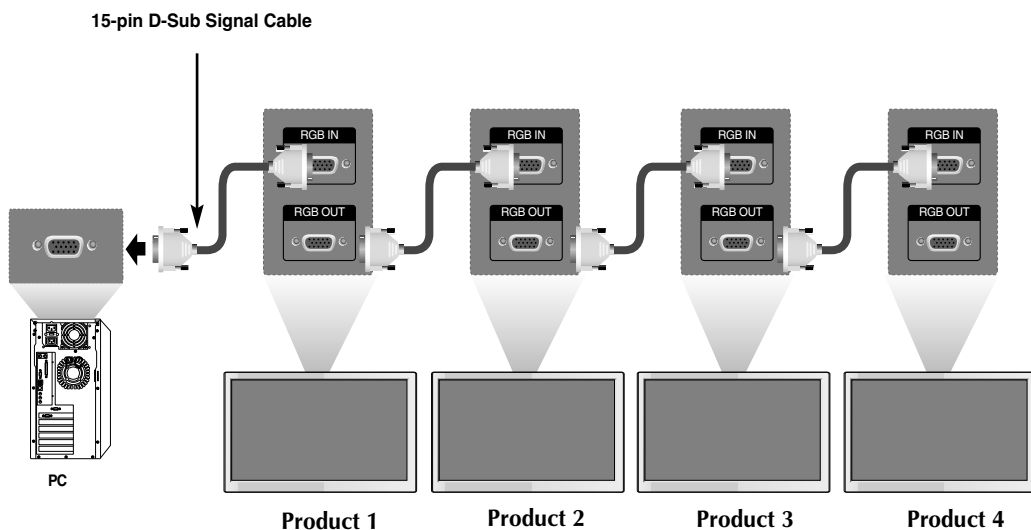
# Connecting to External Devices

## ■ ■ ■ 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 IN connector of other products.



### Note

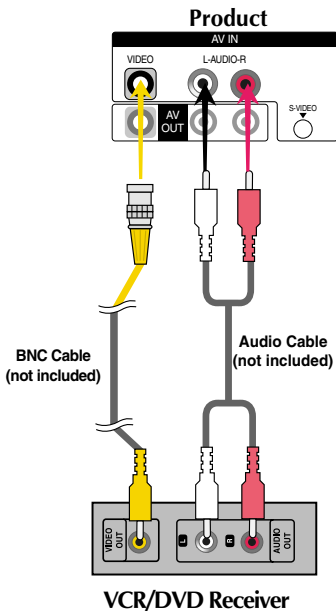
- When multi-connecting in/out cascade format, no loss cables are recommended. We recommend that you should use cable distributor.

# Connecting to External Devices

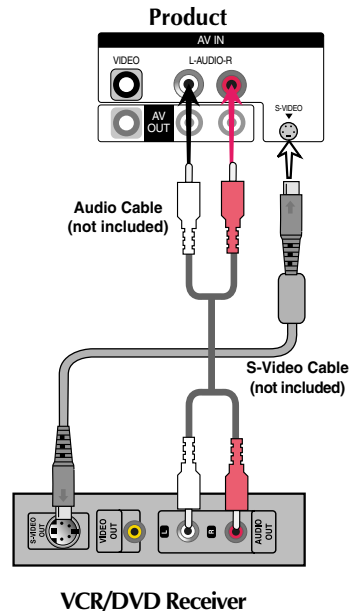
## When watching VCR / DVD

1 Connect the video cable as shown in the below figure and then connect the power cord (See page 7).

- A** When connecting with a BNC cable.
- Connect the input terminal with a proper color match.



- B** When connecting with a S-Video cable.
- Connect to the S-Video input terminal to watch high image quality movies.



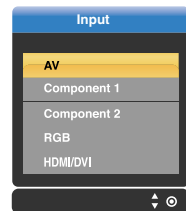
2 Select an input signal.  
Press the INPUT button on the remote control to select the input signal.

INPUT → ▼▲ → SET

Or, press the SOURCE button on the back of the product.

SOURCE → ▼▲ → AUTO/SET

- A** When connecting with an BNC cable.
- Select AV.
- B** When connecting with an S-Video cable.
- Select AV.



### Note

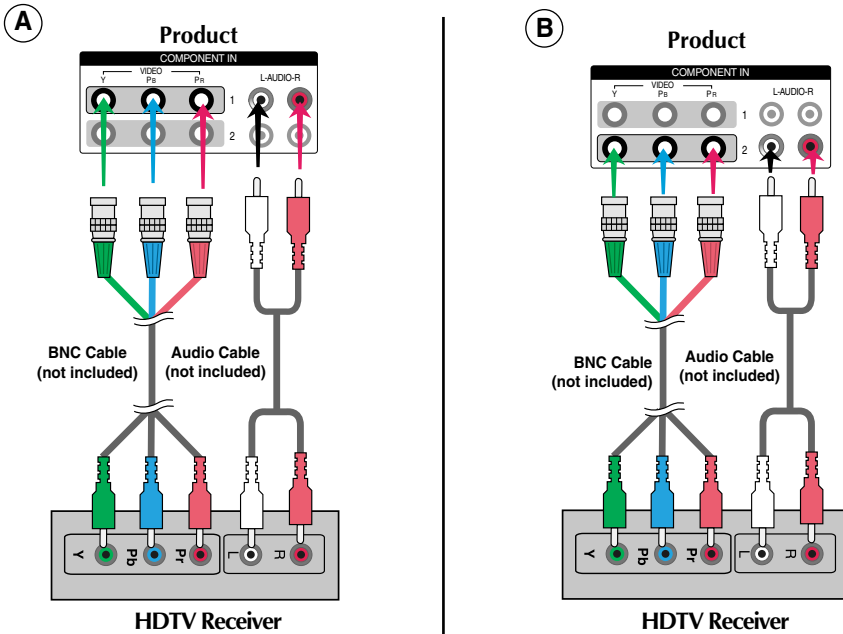
- When the BNC cable is connected simultaneously with S-Video cable, S-Video input has a priority.

# Connecting to External Devices

■ ■ ■ When watching HDTV/DVD(480p/576p/720p/1080p/1080i/480i/576i)

1 Connect the video/audio cable as shown in the below figure and then, connect the power cord (See page 7).

- Connect the input terminal with a proper color match.



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

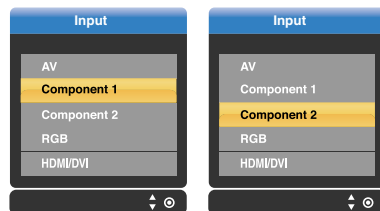
INPUT → ▼▲ → SET

Or, press the SOURCE button on the back of the product.

SOURCE → ▼▲ → AUTO/SET

A • Select Component 1

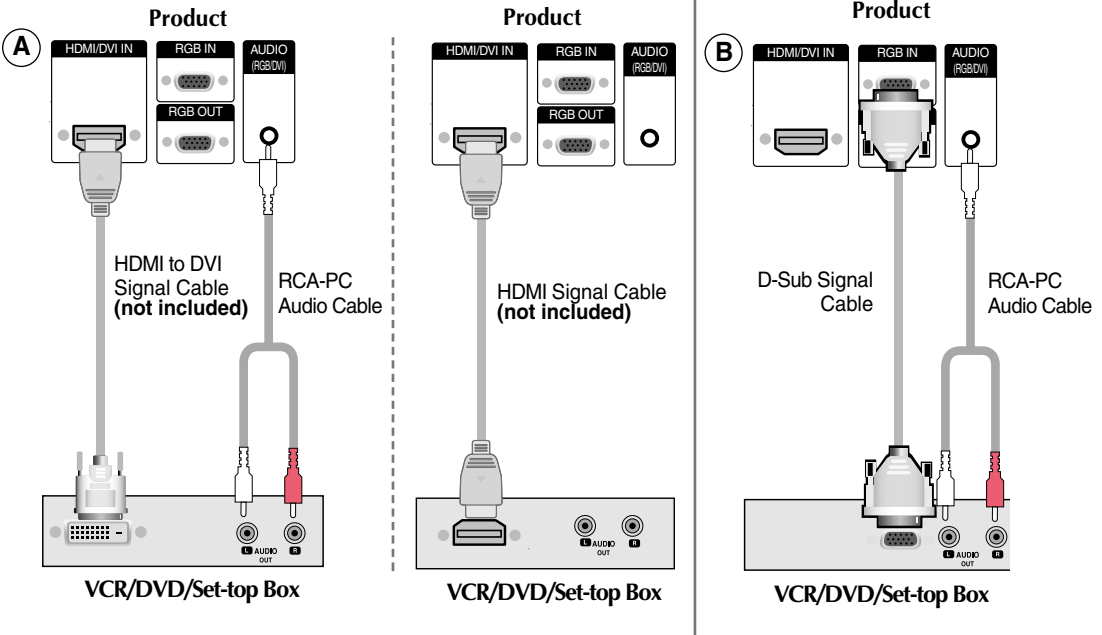
B • Select Component 2



# Connecting to External Devices

■ ■ ■ When watching HDMI/DVI/RGB from the VCR/DVD/Set-top Box (480p/576p/720p/1080p/1080i)

1 Connect the video/audio cable as shown in the below figure and then connect the power cord (See page 7).



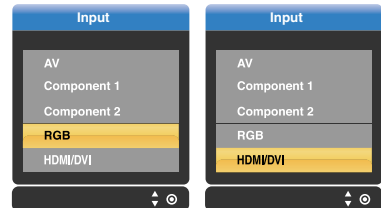
2 Select an input signal.  
Press the INPUT button on the remote control to select the input signal.

INPUT → ▼▲ → SET

Or, press the SOURCE button on the back of the product.

SOURCE → ▼▲ → AUTO/SET

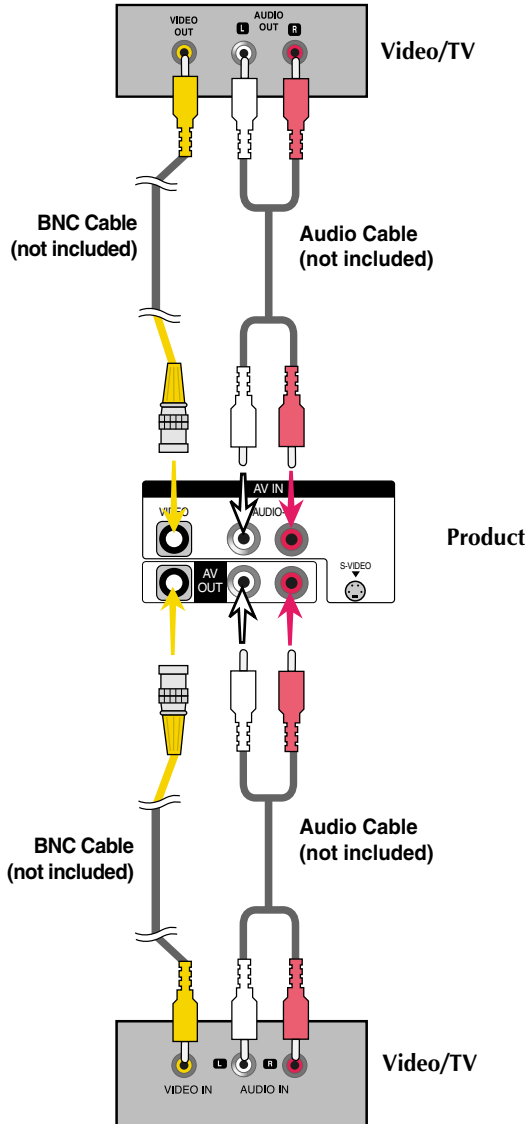
- A When connecting with a HDMI to DVI signal input cable.  
When connecting with a HDMI signal input cable.
  - Select **HDMI/DVI**
- B When connecting with a D-Sub signal input cable.
  - Select **RGB**



# Connecting to External Devices

## ■ ■ ■ Watching AV Outputs

- When you set the input signal of the main screen as 'AV (CVBS)', you can transmit the signal that you're watching to the AV output terminal.

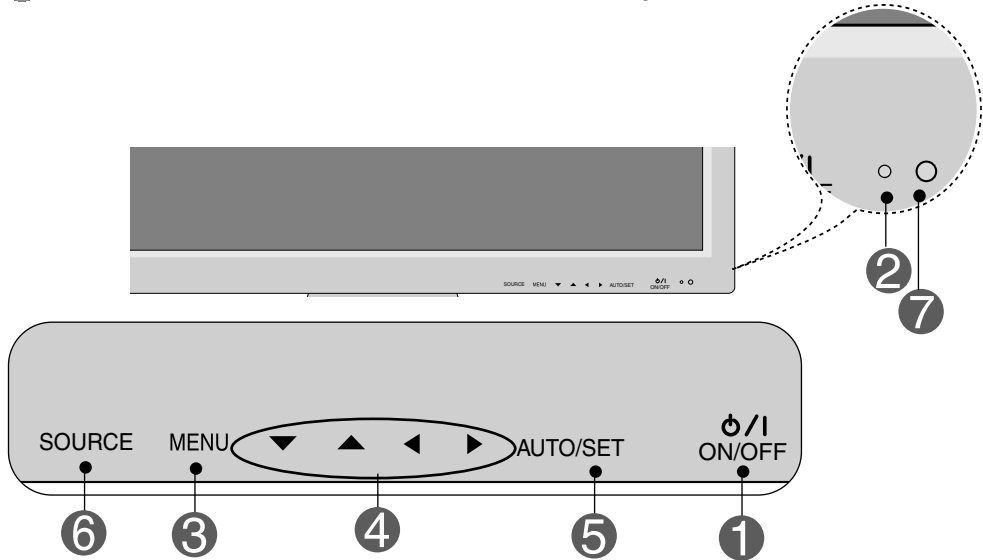


### Note

- When multi-connecting in/out cascade format, no loss cables are recommended. We recommend that you should use cable distributor.

# 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 blue when the display operates normally (on mode). If the display is in sleep (Energy Saving) mode, this indicator colour 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.





# Selecting and Adjusting the Screen

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

5

**AUTO/SET Button**

[For PC Analog signal]

Auto in progress  
For optimal display change  
resolution to 1920 X 1080

[When Full HD Mode is active  
and 1920 X1080 is selected]

Auto in progress

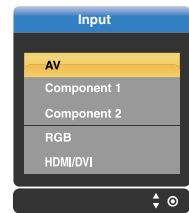
6

**SOURCE Button**

**SOURCE** → ▼▲ → **AUTO/SET**

• Select the input signal

<b>AV</b>	Composite Video, Separate 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**

• 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.



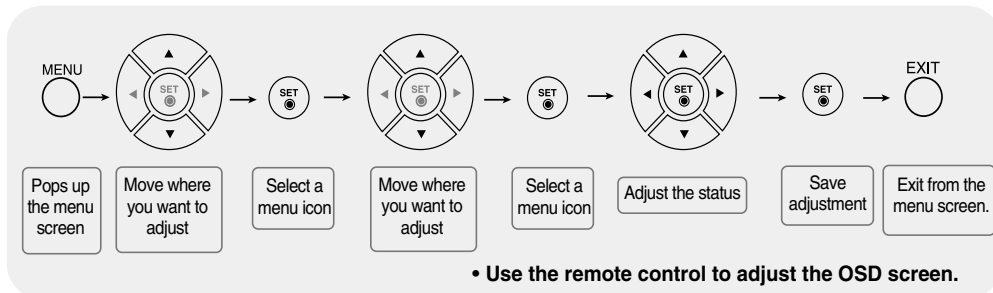
### Note

#### OSD(On Screen Display)

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

# Selecting and Adjusting the Screen

## ● 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.

Press the **AUTO/SET** 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.

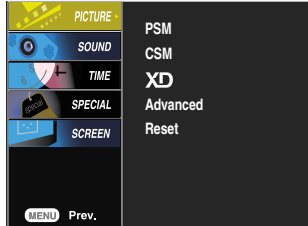
[When Full HD Mode is active and 1920 X1080 is selected]

Auto in progress

# Selecting and Adjusting the Screen

PICTURE

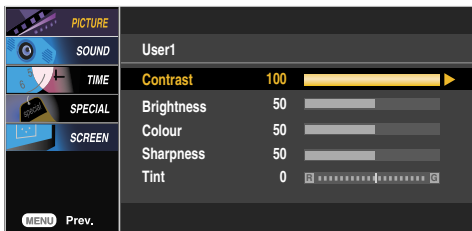
## Adjusting Screen Color



### 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.

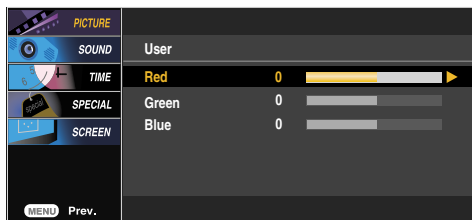
**Sharpness** : To adjust the clearness of the screen.

**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

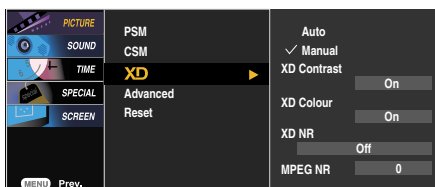
If the '**PSM**' setting in the **PICTURE** menu is set to **Dynamic**, **Standard** or **Mild** the subsequent menus will be automatically set.

# Selecting and Adjusting the Screen

PICTURE

## Adjusting Screen Color

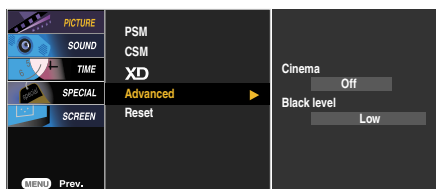
- XD** XD is LG Electronics' unique picture improving technology that displays a real **HD** source through an advanced digital signal processing algorithm. This function is not available in **RGB-PC** or **HDMI/DVI PC** modes. This menu is activated after selecting **User1** or **User2** of **PSM**.



- **Auto** : XD is automatically changed 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 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 while watching the AV.

## Advanced



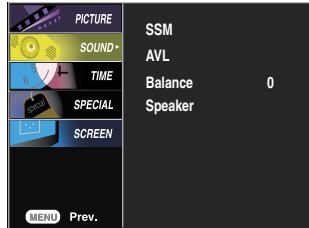
- **Cinema** : (Function works in the following mode - AV, Component 480i/576i) When you watch the movie, this function adjusts the set to the best picture appearance.
- **Black Level** : (Function works in the following mode - AV(NTSC), HDMI/DVI) adjusts the contrast and the brightness of the screen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

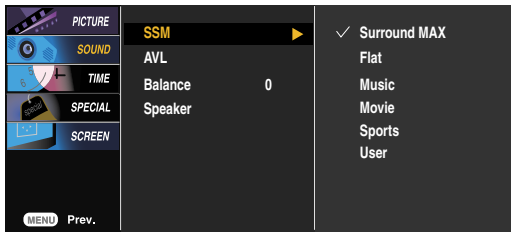
**Reset** Return **PSM**, **CSM**, **XD**, **Advanced** to the default factory settings.

# Selecting and Adjusting the Screen

## SOUND Adjusting the audio function

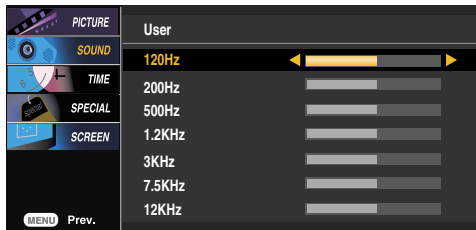


### SSM



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 hi-fi stereo system, turn off the internal speakers of the set.

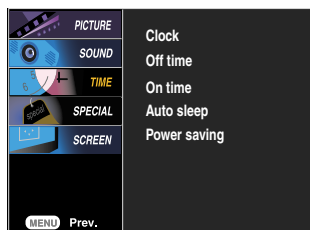


#### Note

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

# Selecting and Adjusting the Screen

## **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 time**

The off time 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 time** or **On time**.
- 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**.

### **Power saving**

As for power saving mode, the power consumption can be made by setting the power consumption level at desired hour.

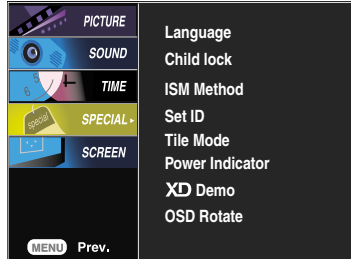
#### **Note**



- Once the on or off time is set, these functions operate daily at the preset time.
- Off time function overrides On time function if they are set to the same time.
- The set must be in standby mode for the On time to work.
- When On time is operated, input screen is turned on as it was turned off.

# 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 monitor 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 or still picture 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 screen for a long period of time.

**Normal** : If image sticking is never a problem, ISM is not necessary -set to Normal.

**White wash** : White wash removes permanent images from the screen.

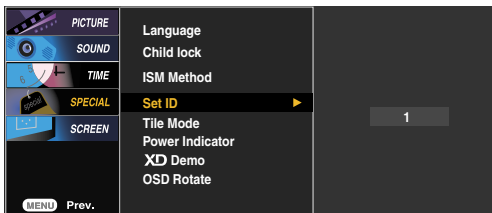
(An excessive permanent image may be impossible to clear entirely with white wash.)

**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 function inverts the panel colour of the screen. The panel colour is automatically inverted every 30 minutes.

**Orb.+Inv.** : This function inverts the panel colour of the screen and may help prevent ghost images. The panel colour is automatically inverted every 30 minutes and the screen will move every 2 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 (1~99) using the ▼▲ button and exit. Use the assigned **Set ID** to individually control each product using the Product Control Program.



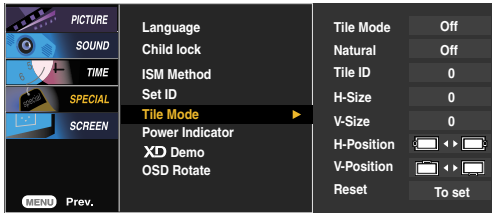
# Selecting and Adjusting the Screen

## 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

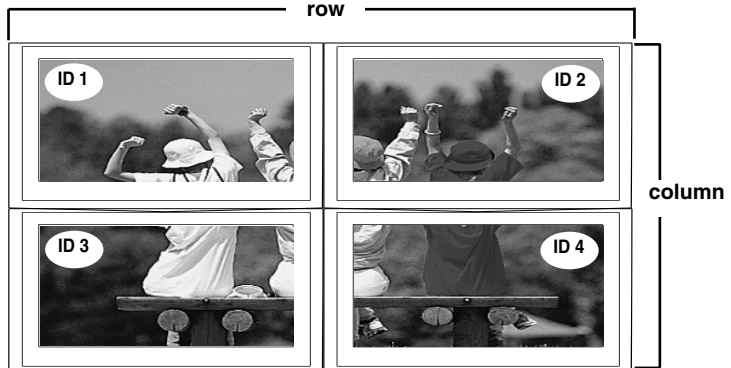
Tile mode and choose Tile alignment and set the ID of the current product to set location.

\* 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)



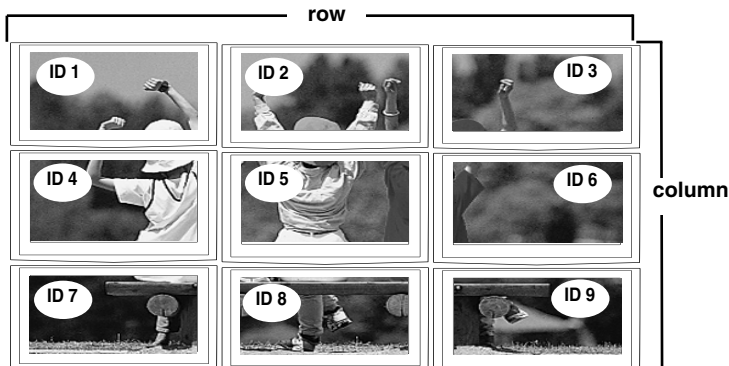
# Selecting and Adjusting the Screen



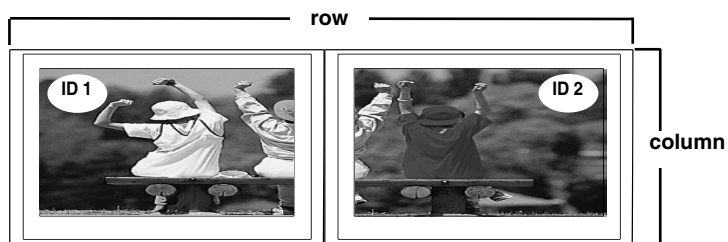
SPECIAL

## Selecting the options

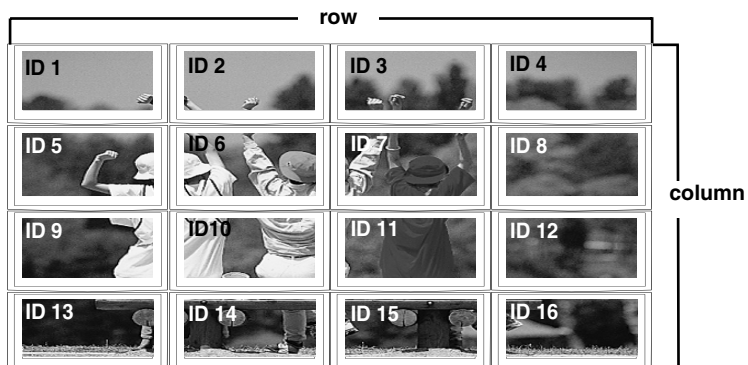
- Tile mode (product 1 ~ 9) : r(3) x c(3)



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

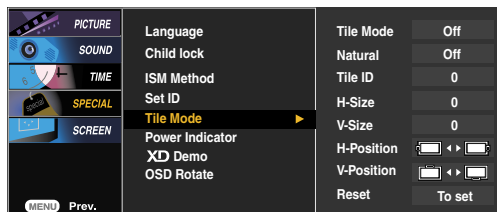


- Tile mode (product 1 ~ 16) : r(4) x c(4)



# Selecting and Adjusting the Screen

## **SPECIAL** Selecting the options



- **Natural** The image is omitted by the distance between the screens to be naturally shown.
- **Tile ID** Select the location of the Tile by setting an ID.
- **H Size** Adjust the horizontal size of the screen taking into account the size of the bezel.
- **V Size** Adjust the vertical size of the screen taking into account the size of the bezel.
- **H-Position** Moving the screen position horizontally.
- **V-Position** Moving the screen position vertically.
- **Reset** Function to initialize and release Tile.  
All Tile setting are released when selecting Tile recall and the screen returns to Full screen.

### **Power Indicator**

Use this function to set the power indicator on the front side of the product to **On** or **Off**.

If you set **Off**, it will go off. If you set **On** at any time, the power indicator will automatically be turned on.

### **XD Demo**

Use it to see the difference between XD demo on and XD Demo off.  
(XD Demo function is not available in RGB PC/ HDMI/DVI PC mode.)

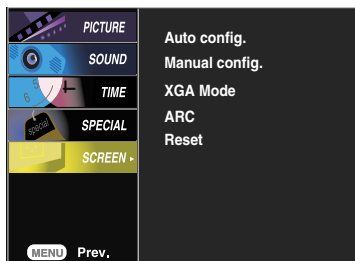
### **OSD Rotate**

The angle of the OSD menu screen is automatically adjusted depending on the monitor's rotation angle.

- **Normal** The OSD setting changes to the default OSD (Landscape.)
- **Rotate** The OSD menu screen is automatically changed depending on the monitor's rotation angle.

# Selecting and Adjusting the Screen

## SCREEN Adjusting Screen CLOCK/PHASE and Position



**Auto-config.**  
(RGB PC  
input only)

This button is for the automatic adjustment of the screen position, clock and phase. This function is suitable for analogue signal input only.

**Manual-  
config.**

If the picture isn't clear after auto adjustment and characters are still trembling, adjust the picture phase manually.

\* Phase, Clock function are not available in RGB DTV, Component, HDMI/DVI DTV.)

**Clock**

To minimize any vertical bars or stripes visible on the screen background. The horizontal screen size will also change. This function is suitable for analogue signal input only

**Phase**

To adjust the focus of the display. This item allows you to remove any horizontal noise and clear or sharpen the image of characters. This function is suitable for analogue signal input only.

**H-Position**

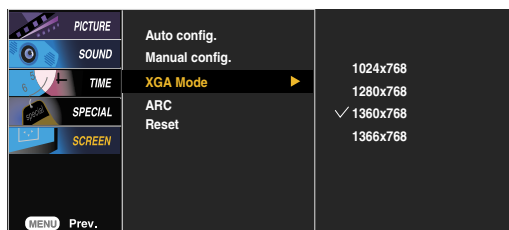
Moving the screen position horizontally.

**V-Position**

Moving the screen position vertically.

**XGA Mode**  
(RGB-PC  
only).

For more improved or better picture quality, select the same mode corresponding to computer resolution.



# Selecting and Adjusting the Screen



## Adjusting Screen CLOCK/PHASE and Position

**ARC** To select the image size of the screen.

- Spectacle** When your AV receives the wide screen signal, it will lead you to adjust the picture horizontally, in a nonlinear proportion, to fill the entire screen.
- Full** When your AV receives the wide screen signal, it will lead you to adjust the picture horizontally or vertically, in a linear proportion, to fill the entire screen fully. (Europe an version only)
- Original** When your AV receives the wide screen signal, it will be automatically changed to picture format to be sent.
- 4:3** This picture format is 4:3 of general AV.
- 16:9** You can enjoy movies (the picture format of 16:9) or general TV programmes thorough 16:9 mode. Programmes with 16:9 format are viewed naturally but 4:3 programmes are magnified on the left and right so that the screen is 16:9 format.
- 1:1** This picture format is 1:1 of general AV. (only RGB PC, HDMI/DVI PC)
- 14:9** You can enjoy the picture format of 14:9 or general AV programmes through 14:9 mode. Programmes with 14:9 are viewed naturally, but 4:3 programmes are magnified on the top/bottom and left/right sides.
- Zoom1, 2** You can enjoy movies on a vast screen through Zoom mode. The 4:3 programmes are magnified on the top/bottom and left/right sides so that screen is 16:9 format. The bottom and top of the picture may be lost.

ARC \ MODE	MODE		HDMI/DVI		RGB	
	AV	Component	DTV	PC	DTV	PC
Spectacle	●	×	×	×	×	×
Full	●	×	×	×	×	×
Original	●	×	×	×	×	×
4:3	●	●	●	×	●	×
16:9	●	●	●	●	●	●
14:9	●	×	×	×	×	×
Zoom1	●	●	●	×	●	×
Zoom2	●	●	●	×	●	×
1:1	×	×	×	●	×	●

**Reset**

Return **Manual config.** to the default factory settings.

# Troubleshooting

## No image is displayed

- Is the product power cord connected?
  - See if the power cord is properly connected to the outlet.
- Is the power indicator light on?
  - See if the power switch is turned on.
- Power is on, power indicator is blue but the screen appears extremely dark.
  - Adjust brightness and contrast again.
- the power indicator amber?
  - If the product is in power saving mode, move the mouse or press any key.
- Does the 'Out of range' message appear?
  - 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**
    - RGB : 1600 x 1200 @60Hz
    - HDMI/DVI : 1280 x 1024 @60Hz
- Does the 'Check signal cable' message appear?
  - 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.

# Troubleshooting

## 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.
- **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 screen-saver 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.

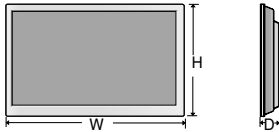
## LCD Panel

52 inches (132.1816 cm) TFT (Thin Film Transistor)  
LCD (Liquid Crystal Display) Panel  
Anti-Glare coating  
Visible diagonal size: 132.1816 cm  
0.200 mm X 0.600 mm (Pixel Pitch)

## Power

<b>Rated Voltage</b>	AC 100-240V~ 50/60Hz 3.0A
<b>Power Consumption</b>	On Mode : 400W Typ.
	Sleep Mode : ≤ 2W (RGB) / 4W(HDMI/DVI)
	Off Mode : ≤ 1W

## Dimensions & Weight



Width x Height x Depth  
128.3 cm (50.51 inches) x 76.62 cm (30.17 inches) x 11.74 cm (4.62 inches)

## Net

42.36 kg (93.39 lbs)

## NOTE

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

# Specifications

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

<b>Video Signal</b>	<b>Max. Resolution</b>	RGB : 1920 X 1080 @60Hz HDMI/DVI : 1920 X 1080 @60Hz
	<b>Recommended Resolution</b>	RGB : Full HD 1920 X 1080 @60Hz HDMI/DVI : Full HD 1920 X 1080 @60Hz
	<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/Digital
<b>Input Connector</b>		15-pin D-Sub type, HDMI (digital), S-Video, Composite Video, Component, RS-232C
<b>Environmental Conditions</b>	<b>Operational Condition</b>	Temperature: 5°C ~ 35°C , Humidity: 10% ~ 80%
	<b>Storage Condition</b>	Temperature: -20°C ~ 60°C , Humidity: 5% ~ 90%

## NOTE

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

# Specifications

## ● PC Mode – Preset Mode

Preset mode		Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Preset mode		Horizontal Frequency (kHz)	Vertical Frequency (Hz)
1	640 x 350	31.469	70.8	11	1024 x 768	60.123	75.029
2	720 x 400	31.468	70.8	12	1024 x 768	68.68	85
3	640 x 480	31.469	59.94	13	1280 x 720	44.772	59.855
4	640 x 480	37.500	75	14	1280 x 768	47.7	60
5	640 x 480	43.269	85	15	1360 x 768	47.72	59.799
6	800 x 600	37.879	60.317	16	1366 x 768	47.7	60
7	800 x 600	46.875	75	17	1280 x 1024	63.981	60.02
8	800 x 600	53.674	85.061	18	1280 x 1024	79.98	75.02
9	832 x 624	49.725	74.55	19	1680 x 1050	65.290	59.954
10	1024 x 768	48.363	60	20	1920 x 1080	67.50	60

RGB : Mode 1 ~ Mode 19

HDMI/DVI : Mode 1 ~ Mode 17

## ● DTV Mode

	Component	RGB(DTV)	HDMI/DVI(DTV)
480i	o	x	x
576i	o	x	x
480p	o	o	o
576p	o	o	o
720p	o	o	o
1080i	o	o	o
1080p	o	o	o

## ● Power Indicator

Mode	Product
On Mode	Green
Sleep Mode	Amber
Off Mode	-

### NOTE

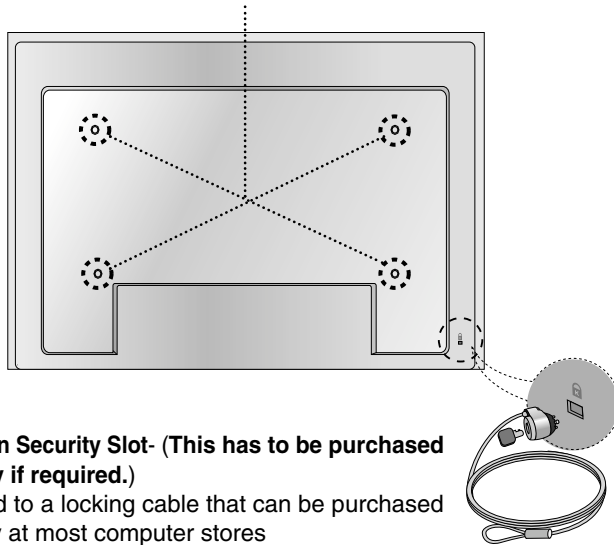
- DTV/PC selection on RGB and HDMI/DVI inputs is available for PC resolutions : 640 X 480/60Hz, 1920 X 1080/60Hz and DTV resolutions : 1080p.

# Specifications

## 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.)**

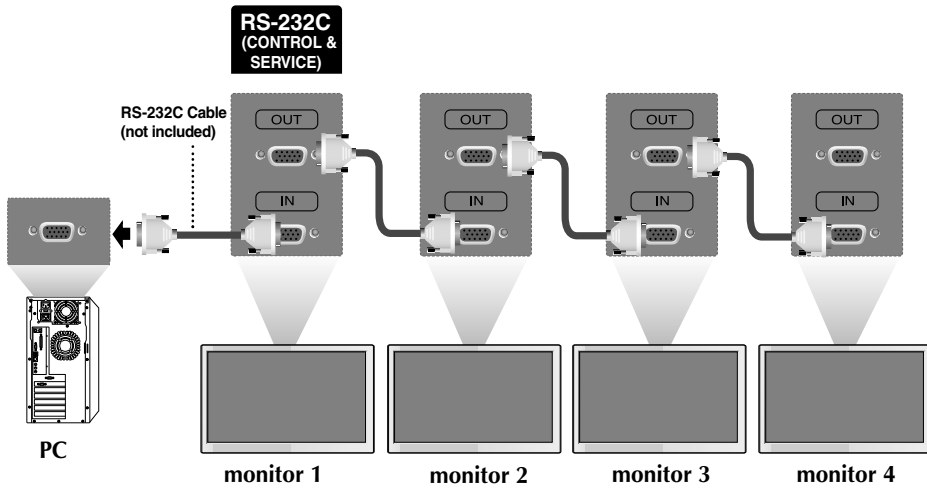
Connected to a locking cable that can be purchased separately at most computer stores

**Use this method to connect several products to a single PC.  
You can control several products at a time by connecting them to a single PC.**

## Connecting the cable

Connect the RS-232C cable as shown in the picture.

\* The RS-232C protocol is used for communication between the PC and product. You can turn the product on/off, select an input source or adjust the OSD menu from your PC.



## RS-232C Configurations

### 7-Wire Configurations (Standard RS-232C cable)

	PC	Monitor	
RXD	2	2	TXD
TXD	3	3	RXD
GND	5	5	GND
DTR	4	4	DSR
DSR	6	6	DTR
RTS	7	7	CTS
CTS	8	8	RTS

D-Sub 9 (Female)      D-Sub 9 (Male)


### 3-Wire Configurations (Not Standard)

	PC	Monitor	
RXD	2	2	TXD
TXD	3	3	RXD
GND	5	5	GND
DTR	4	4	DSR
DSR	6	6	DTR
RTS	7	7	CTS
CTS	8	8	RTS

D-Sub 9 (Female)      D-Sub 9 (Male)

## Communication Parameter

- ▶ Baud Rate : 9600baudRate (UART)
- ▶ Data Length : 8bits
- ▶ Parity Bit : None
- ▶ Stop Bit : 1bit
- ▶ Flow Control : None
- ▶ Communication Code : ASCII code
- ▶ Use a straight cable

 Command Reference List

	COMMAND1	COMMAND2	DATA(Hexa)
01. Power	k	a	00H - 01H
02. Input Select	k	b	02H - 09H
03. Aspect Ratio	k	c	01H - 09H
04. Screen Mute	k	d	00H - 01H
05. Volume Mute	k	e	00H - 01H
06. Volume Control	k	f	00H - 64H
07. Contrast	k	g	00H - 64H
08. Brightness	k	h	00H - 64H
09. Color	k	i	00H - 64H
10. Tint	k	j	00H - 64H
11. Sharpness	k	k	00H - 64H
12. OSD Select	k	l	00H - 01H
13. Remote Lock/ key Lock	k	m	00H - 01H
14. Balance	k	t	00H - 64H
15. Color Temperature	k	u	00H - 03H
16. Abnormal state	k	z	FFH
17. ISM mode	j	p	00H - 08H
18. Auto configuration	j	u	01H
19. Key	m	c	Key Code
20. Tile Mode	d	d	00H - 44H
21. Tile H Size	d	g	00H - 64H
22. Tile V Size	d	h	00H - 64H
23. Tile ID Set	d	i	00H - 10H
24. Natural Mode (In Tilemode)	d	j	00H - 01H
25. Elapsed time return	d	l	FFH
26. Temperature value	d	n	FFH
27. Lamp fault check	d	p	FFH

## ● Transmission / Receiving Protocol

### Transmission

```
[Command1][Command2][ ][Set ID][ ][Data][Cr]
```

- \* [Command 1]: First command. (j, k, m, d)
- \* [Command 2]: Second command.
- \* [Set ID]: Set up the Set ID number of product.  
range : 1~99. by setting '0', server can control all products.  
\* In case of operating with more than 2 sets using set ID as '0' at the same time, it should not be checked the ack message.  
Because all sets will send the ack message, so it's impossible the check the whole ack messages.
- \* [DATA]: To transmit command data.  
Transmit 'FF' data to read status of command.
- \* [Cr]: Carriage Return  
ASCII code '0x0D'
- \* [ ]: ASCII code Space (0x20)

### OK Acknowledgement

```
[Command2][ ][Set ID][ ][OK][Data][x]
```

- \* The Product transmits ACK (acknowledgement) based on this format when receiving normal data. At this time, if the data is data read mode, it indicates present status data. If the data is data write mode, it returns the data of the PC computer.

### Error Acknowledgement

```
[Command2][ ][Set ID][ ][NG][Data][x]
```

- \* If there is error, it returns NG

## ● Transmission / Receiving Protocol

### 01. Power(Command : a)

- ▶ To control Power On/Off of the Set.

#### *Transmission*

```
[k][a][ ][Set ID][ ][Data][Cr]
```

Data 0 : Power Off      1 : Power On

#### *Acknowledgement*

```
[a][ ][Set ID][ ][OK][Data][x]
```

- ▶ To show the status of Power On/Off.

#### *Transmission*

```
[k][a][ ][Set ID][ ][FF][Cr]
```

#### *Acknowledgement*

```
[a][ ][Set ID][ ][OK][Data][x]
```

Data 0 : Power Off      1 : Power On

### 02. Input Select (Command : b) (Main Picture Input)

- ▶ To select input source for the Set.  
You can also select an input source using the SOURCE button on the remote control.

#### *Transmission*

```
[k][b][ ][Set ID][ ][Data][Cr]
```

Data 2 : AV	6 : RGB (DTV)
4 : Component 1	7 : RGB (PC)
5 : Component 2	8 : HDMI (DTV)
	9 : HDMI (PC)

#### *Acknowledgement*

```
[b][ ][Set ID][ ][OK][Data][x]
```

Data 2 : AV	6 : RGB (DTV)
4 : Component 1	7 : RGB (PC)
5 : Component 2	8 : HDMI (DTV)
	9 : HDMI (PC)



## ● Transmission / Receiving Protocol

### 03. Aspect Ratio(Command : c) (Main picture format)

▶ To adjust the screen format.

You can also adjust the screen format using the ARC (Aspect Ratio Control) button on remote control or in the Screen menu.

#### Transmission

[k][c][ ][Set ID][ ][Data][Cr]
--------------------------------

Data 1 : Normal Screen (4:3)	5 : Zoom2
2 : Wide Screen (16 :9)	6 : Original
3 : Horizon (Spectacle)	7 : 14 : 9
4 : Zoom1	8 : Full (Europe version only)
	9 : 1 : 1 (PC)

#### Acknowledgement

[c][ ][Set ID][ ][OK][Data][x]
--------------------------------

### 04. Screen Mute(Command : d)

▶ To select screen mute on/off.

#### Transmission

[k][d][ ][Set ID][ ][Data][Cr]
--------------------------------

Data 0 : Screen mute off (Picture on)
1 : Screen mute on (Picture off)

#### Acknowledgement

[d][ ][Set ID][ ][OK][Data][x]
--------------------------------

## ● Transmission / Receiving Protocol

### 05. Volume Mute(Command : e)

▶ To control On/Off of the Volume Mute.

#### Transmission

```
[k][e][ ][Set ID][ ][Data][Cr]
```

Data 0 : Volume Mute On (Volume Off)

1 : Volume Mute Off (Volume On)

#### Acknowledgement

```
[e][ ][Set ID][ ][OK][Data][x]
```

Data 0 : Volume Mute On (Volume Off)

1 : Volume Mute Off (Volume On)

### 06. Volume Control(Command : f)

▶ To adjust Volume .

#### Transmission

```
[k][f][ ][Set ID][ ][Data][Cr]
```

Data Min : 00H ~ Max : 64H  
(Hexadecimal code)

#### Acknowledgement

```
[f][ ][Set ID][ ][OK][Data][x]
```

Data Min : 00H ~ Max : 64H

• Refer to 'Real data mapping' page A7.

## Transmission / Receiving Protocol

### 07. Contrast(Command : g)

- ▶ To adjust screen contrast.  
You can also adjust the contrast in the Picture menu.

#### *Transmission*

```
[k][g][ ][Set ID][ ][Data][Cr]
```

Data Min : 00H ~ Max : 64H

- Refer to 'Real data mapping' as shown below.

#### *Acknowledgement*

```
[g][ ][Set ID][ ][OK][Data][x]
```

\* Real data mapping

0 : Step 0

:

A : Step 10

:

F : Step 15

10 : Step 16

:

64 : Step 100

### 08. Brightness(Command : h)

- ▶ To adjust screen brightness.  
You can also adjust the brightness in the Picture menu.

#### *Transmission*

```
[k][h][ ][Set ID][ ][Data][Cr]
```

Data Min : 00H ~ Max : 64H

- Refer to 'Real data mapping' as shown below.

#### *Acknowledgement*

```
[h][ ][Set ID][ ][OK][Data][x]
```

\* Real data mapping

0 : Step

:

A : Step 10

:

F : Step 15

10 : Step 16

:

64 : Step 100

## ● Transmission / Receiving Protocol

### 09. Color(Command : i) (Video only)

- ▶ To adjust the screen color.  
You can also adjust the color in the Picture menu.

#### *Transmission*

```
[k][i][ ][Set ID][ ][Data][Cr]
```

Data    Min : 00H ~ Max : 64H  
(Hexadecimal code)

- Refer to 'Real data mapping' page A7.

#### *Acknowledgement*

```
[i][ ][Set ID][ ][OK][Data][x]
```

Data    Min : 00H ~ Max : 64H

### 10. Tint(Command : j) (Video only)

- ▶ To adjust the screen tint.  
You can also adjust the tint in the Picture menu.

#### *Transmission*

```
[k][j][ ][Set ID][ ][Data][Cr]
```

Data    Red: 00H ~ Green: 64H  
(Hexadecimal code)

- Refer to 'Real data mapping' page A7.

#### *Acknowledgement*

```
[j][ ][Set ID][ ][OK][Data][x]
```

Data    Red: 00H ~ Green: 64H

- \* Tint Real data mapping  
0 : Step -50  
:  
64 : Step 50

## Transmission / Receiving Protocol

### 11. Sharpness(Command : k) (Video only)

- ▶ To adjust the screen Sharpness.  
You can also adjust the sharpness in the Picture menu.

#### *Transmission*

```
[k][k][ ][Set ID][ ][Data][Cr]
```

Data Min : 00H ~ Max : 64H  
(Hexadecimal code)

- Refer to 'Real data mapping' page A7.

#### *Acknowledgement*

```
[k][ ][Set ID][ ][OK][Data][x]
```

Data Min : 00H ~ Max : 64H

### 12. OSD Select(Command : l)

- ▶ To control OSD on/off to the set.

#### *Transmission*

```
[k][l][ ][Set ID][ ][Data][Cr]
```

Data 0 : OSD Off      1 : OSD On

#### *Acknowledgement*

```
[l][ ][Set ID][ ][OK][Data][x]
```

Data 0 : OSD Off      1 : OSD On

### 13. Remote Lock /Key Lock (Command : m)

- ▶ To control Remote Lock on/off to the set.  
This function, when controlling RS-232C, locks the remote control and the local keys.

#### *Transmission*

```
[k][m][ ][Set ID][ ][Data][Cr]
```

Data 0 : Off      1 : On

#### *Acknowledgement*

```
[m][ ][Set ID][ ][OK][Data][x]
```

Data 0 : Off      1 : On

## ● Transmission / Receiving Protocol

### 14 Balance(Command : t)

▶ To adjust the sound balance.

#### Transmission

```
[k][t][ ][Set ID][ ][Data][Cr]
```

Data Min : 00H ~ Max : 64H  
(Hexadecimal code)

- Refer to 'Real data mapping' page A7.

#### Acknowledgement

```
[t][ ][Set ID][ ][OK][Data][x]
```

Data Min : 00H ~ Max : 64H

\* Balance : L50 ~ R50

### 15. Color Temperature (Command : u)

▶ To adjust the screen color temperature.

#### Transmission

```
[k][u][ ][Set ID][ ][Data][Cr]
```

Data 0 : Normal

- 1 : Cool
- 2 : Warm
- 3 : User

#### Acknowledgement

```
[u][ ][Set ID][ ][OK][Data][x]
```

Data 0 : Normal

- 1 : Cool
- 2 : Warm
- 3 : User

## ● Transmission / Receiving Protocol

### 16. Abnormal state (Command : z)

▶ Abnormal State : Used to Read the power off status when Stand-by mode.

#### *Transmission*

```
[k][z][ ][Set ID][ ][Data][Cr]
```

Data FF : Read

- 0 : Normal (Power on and signal exist)
- 1 : No signal (Power on)
- 2 : Turn the monitor off by remote control
- 3 : Turn the monitor off by sleep time function
- 4 : Turn the monitor off by RS-232C function
- 6 : AC down
- 8 : Turn the monitor off by off time function
- 9 : Turn the monitor off by auto off function

#### *Acknowledgement*

```
[z][ ][Set ID][ ][OK][Data][x]
```

### 17. ISM mode(Command: j p)

▶ Used to select the afterimage preventing function.

#### *Transmission*

```
[j][p][ ][Set ID][ ][Data][Cr]
```

- Data
- 1 : Inversion
  - 2 : Orbiter
  - 3 : Orb.+Inv.
  - 4 : White Wash
  - 8 : Normal

#### *Acknowledgement*

```
[p][ ][Set ID][ ][OK][Data][x]
```

 Transmission / Receiving Protocol**18. Auto Configure(Command: j u)**

- ▶ To adjust picture position and minimize image shaking automatically. it works only in RGB(PC) mode.

*Transmission*

```
[j][u][ ][Set ID][ ][Data][Cr]
```

Data 1 : To set

*Acknowledgement*

```
[u][ ][Set ID][ ][OK][Data][x]
```

**19. Key(Command : m c)**

- ▶ To send IR remote key code.

*Transmission*

```
[m][c][ ][Set ID][ ][Data][Cr]
```

Data Key code : Refer to page A18.

*Acknowledgement*

```
[c][ ][Set ID][ ][OK][Data][x]
```



## ● Transmission / Receiving Protocol

### 20. Tile Mode(Command : d d)

▶ Change a Tile Mode.

#### Transmission

```
[d][d][Set ID][Data][x]
```

Data	Description
00	Tile mode is off.
12	1 x 2 mode(column x row)
13	1 x 3 mode
14	1 x 4 mode
...	...
44	4 x 4 mode

\* The data can not be set to 0X or X0 except 00.

#### Acknowledgement

```
[d][00][OK/NG][Data][x]
```

 Transmission / Receiving Protocol**21. Tile H Size(Command : d g)**

▶ To set the Horizontal size.

*Transmission*

[d][g][ ][Set ID][ ][Data][x]
-------------------------------

Data    Min : 00H ~ Max : 64H

*Acknowledgement*

[g][ ][Set ID][ ][OK/NG][Data][x]
-----------------------------------

**22. Tile V Size(Command : d h)**

▶ To set the Vertical size.

*Transmission*

[d][h][ ][Set ID][ ][Data][x]
-------------------------------

Data    Min : 00H ~ Max : 64H

*Acknowledgement*

[h][ ][Set ID][ ][OK/NG][Data][x]
-----------------------------------

## ● Transmission / Receiving Protocol

### 23. Tile ID Set(Command : d i)

- ▶ To assign the Tile ID for Tiling function .

#### Transmission

```
[d][i][Set ID][Data][x]
```

Data Min : 00H ~ Max : 10H  
(Hexadecimal code)

#### Acknowledgement

```
[i][Set ID][OK/NG][Data][x]
```

### 24 Natural Mode (In Tilemode) (Command : d j)

- ▶ The image is omitted by the distance between the screens to be naturally shown.

#### Transmission

```
[d][j][Set ID][Data][x]
```

Data 0 : Natural Off  
1 : Natural On  
ff : Read Status

#### Acknowledgement

```
[j][Set ID][OK/NG][Data][x]
```

### 25. Elapsed time return(Command : d l)

- ▶ To read the elapsed time.

#### Transmission

```
[d][l][Set ID][Data][x]
```

\* The data is always FF(in Hex).

#### Acknowledgement

```
[l][Set ID][OK/NG][Data][x]
```

\* The data means used hours.  
(Hexadecimal code)

## ● Transmission / Receiving Protocol

### 26. Temperature value (Command : d n)

▶ To read the inside temperature value.

#### *Transmission*

```
[d][n][Set ID][Data][x]
```

\* The data is always FF(in Hex).

#### *Acknowledgement*

```
[n][Set ID][OK/NG][Data][x]
```

\* The data is 1 byte long in Hexadecimal.

### 27. Lamp fault Check(Command : d p)

▶ To check lamp fault.

#### *Transmission*

```
[d][p][Set ID][Data][x]
```

\* The data is always FF(in Hex).

#### *Acknowledgement*

```
[p][Set ID][OK/NG][Data][x]
```

Data 0 : Lamp Fault

1: Lamp OK

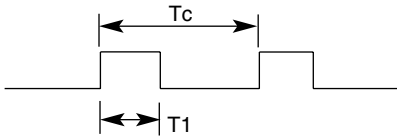
### How to connect

- ▶ Connect your wired remote control to Remote Control port on the Product.

### Remote Control IR Code

#### ▶ Output waveform

single pulse, modulated with 37.917KHz signal at 455KHz



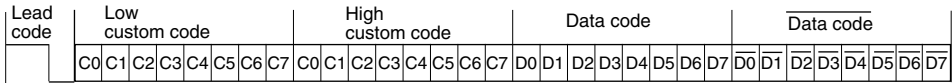
Carrier frequency

$$FCAR = 1/Tc = fosc/12$$

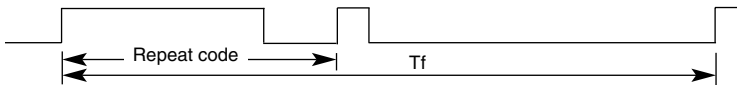
$$\text{Duty ratio} = T1/Tc = 1/3$$

#### ▶ Configuration of frame

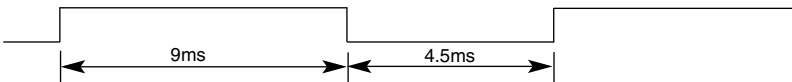
- 1st frame



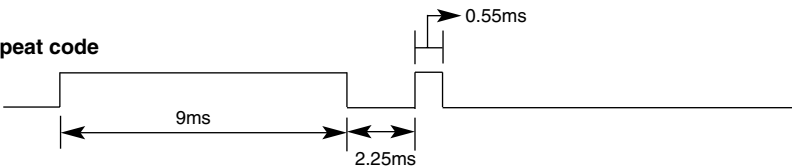
- Repeat frame



#### ▶ Lead code

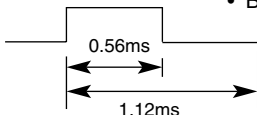


#### ▶ Repeat code

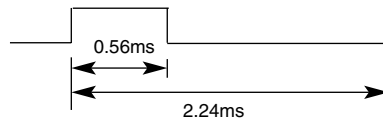


#### ▶ Bit description

- Bit "0"

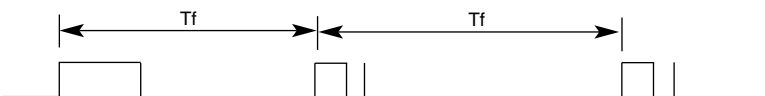


- Bit "1"



#### ▶ Frame interval : Tf

- The waveform is transmitted as long as a key is depressed.



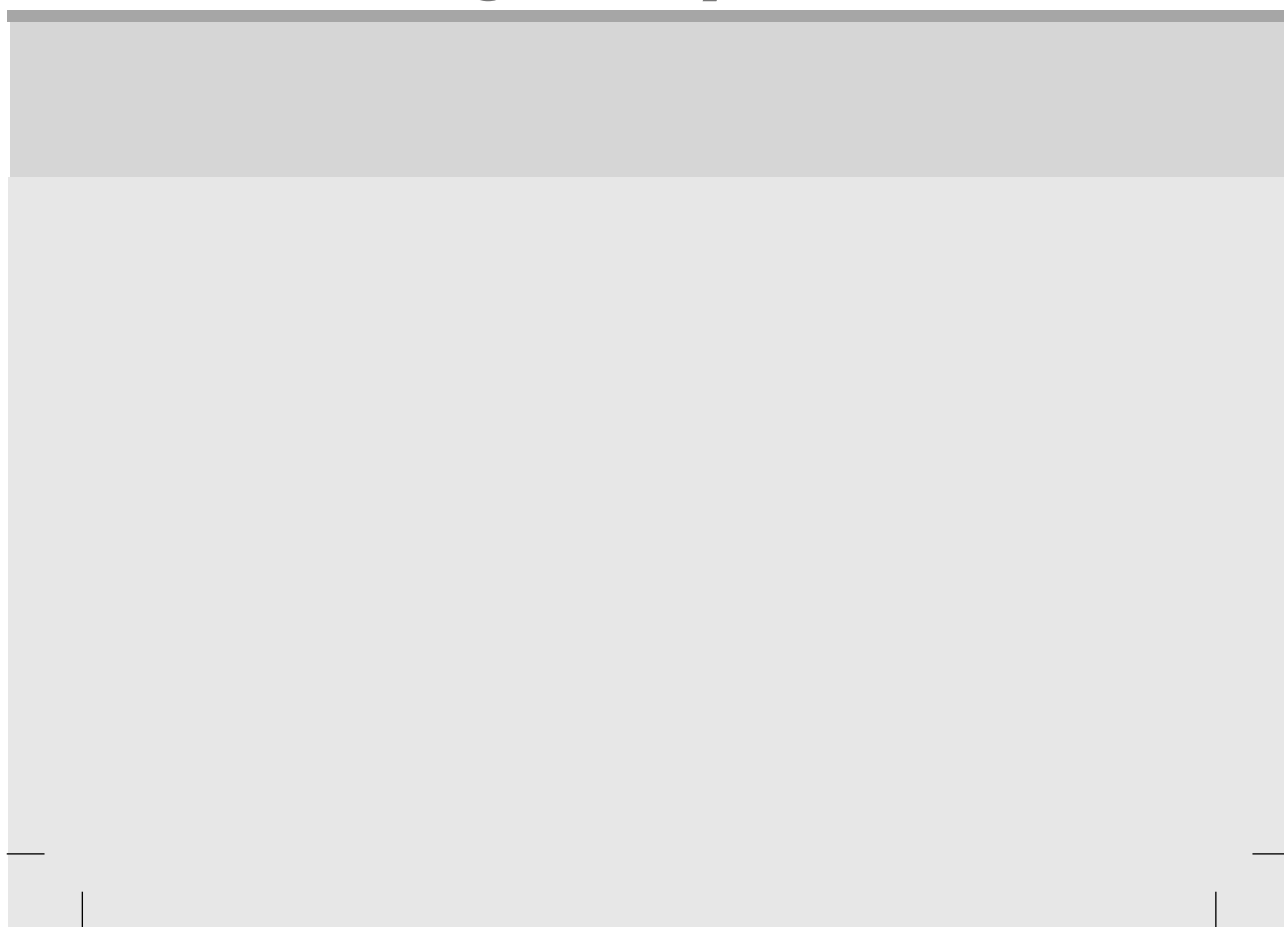
Tf=108ms@455KHz

Code(Hexa)	Function	Note
00	▲	R/C Button
01	▼	R/C Button
02	VOL(▶)	R/C Button
03	VOL(◀)	R/C Button
08	POWER ON/OFF	PR/C Button (Power On/Off)
C4	POWER ON	Discrete IR Code(Only Power On)
C5	POWER OFF	Discrete IR Code(Only Power On)
09	MUTE	R/C Button
98	AV	R/C Button
0B	INPUT	R/C Button
0E	SLEEP	R/C Button
43	MENU	R/C Button
5B	EXIT	R/C Button
6E	PSM	R/C Button
44	SET	R/C Button
10	Number Key 0	R/C Button
11	Number Key 1	R/C Button
12	Number Key 2	R/C Button
13	Number Key 3	R/C Button
14	Number Key 4	R/C Button
15	Number Key 5	R/C Button
16	Number Key 6	R/C Button
17	Number Key 7	R/C Button
18	Number Key 8	R/C Button
19	Number Key 9	R/C Button
5A	AV	Discrete IR Code(Input AV Selection)
BF	COMPONENT1	Discrete IR Code(Input COMPONENT1 Selection)
D4	COMPONENT2	Discrete IR Code(Input COMPONENT2 Selection)
D5	RGB PC	Discrete IR Code(Input RGB PC Selection)
D7	RGB DTV	Discrete IR Code(Input RGB DTV Selection)
C6	HDMI/DVI	Discrete IR Code(Input HDMI/DVI Selection)
79	ARC	R/C Button
76	ARC (4:3)	Discrete IR Code(Only 4:3 mode)
77	ARC (16:9)	Discrete IR Code(Only 16:9 mode)
AF	ARC (ZOOM)	Discrete IR Code(Only ZOOM1, ZOOM2 mode)
99	AUTO CONFIC	Discrete IR Code



# 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.

## ■■■ Regulatory Information cont.

:: **TCO'03** (TCO'03 applied model only)



### **Congratulations!**

The display you have just purchased carries the TCO'03 Displays label.

This means that your display is designed, manufactured and tested according to some of the strictest quality and environmental requirements in the world. This makes for a high performance product, designed with the user in focus that also minimizes the impact on our natural environment. Some of the features of the TCO'03 Display requirements:

### **Ergonomics**

- Good visual ergonomics and image quality in order to improve the working environment for the user and to reduce sight and strain problems. Important parameters are luminance, contrast, resolution, reflectance, colour rendition and image stability.

### **Energy**

- Energy-saving mode after a certain time – beneficial both for the user and the environment
- Electrical safety

### **Emissions**

- Electromagnetic fields
- Noise emissions

### **Ecology**

- The product must be prepared for recycling and the manufacturer must have a certified environmental management system such as EMAS or ISO 14 001
- Restrictions on
  - chlorinated and brominated flame retardants and polymers
  - heavy metals such as cadmium, mercury and lead.

The requirements included in this label have been developed by TCO Development in co-operation with scientists, experts, users as well as manufacturers all over the world. Since the end of the 1980s TCO has been involved in influencing the development of IT equipment in a more user-friendly direction. Our labelling system started

with displays in 1992 and is now requested by users and IT-manufacturers all over the world.

For more information, please visit  
[www.tcodevelopment.com](http://www.tcodevelopment.com)

## **English**

### **Information for Environmental Preservation**

LGE. announced the 'LG Declaration for a Cleaner Environment' in 1994, and this ideal has served as a guiding managerial principle ever since. The Declaration is a foundation that has allowed us to undertake environmentally friendly activities in careful consideration of economic, environmental, and social aspects.

We promote activities for environmental preservation, and we specifically develop our products to embrace the concept of environment-friendly.

We minimize the hazardous materials contained in our products. For example, there is no cadmium to be found in our monitors.

### **Information for recycling**

This monitor may contain parts which could be hazardous to the environment. It is important that this monitor be recycled after use.

LGE. handles all waste monitors through an environmentally acceptable recycling method. There are several take-back and recycling systems currently in operation worldwide. Many parts will be reused and recycled, while harmful substances and heavy metals are treated by an environmentally friendly method.

If you want to find out more information about our recycling program, please contact your local LG vendor or a corporate representative of LG.

We set our vision and policies on a cleaner world by selecting the issue of the global environment as a task for corporate improvement. Please visit our website for more information about our 'green' policies.

[http://www.lge.com/experience/social\\_commitment/environment.jsp](http://www.lge.com/experience/social_commitment/environment.jsp)

## ■ ■ ■ Regulatory Information cont.

### ■ ■ ■ Deutsch

#### Informationen zur Erhaltung der Umwelt

Im Jahr 1994 verkündete LGE die 'LG Declaration for a Cleaner Environment' (LG Erklärung für eine sauberere Umwelt). Seitdem dient dieses Ideal als führendes Prinzip des Unternehmens. Diese Erklärung war die Basis für die Durchführung von

umweltfreundlichen Aktivitäten, wobei wirtschaftliche, umweltbezogene und soziale Aspekte in die Überlegungen mit einbezogen wurden.

Wir fördern Aktivitäten zum Schutz der Umwelt und die Entwicklung unserer Produkte ist darauf ausgerichtet, unserem Konzept bezüglich Umweltfreundlichkeit gerecht zu werden.

Wir sind darauf bedacht, den Anteil der in unseren Produkten enthaltenen schädlichen Materialien zu minimieren. So ist in unseren Monitoren beispielsweise kein Kadmium zu finden.

#### Informationen zum Thema Recycling

Dieser Monitor enthält Teile, die umweltschädlich sein können. Es ist unbedingt erforderlich, dass der Monitor recycelt wird, nachdem er außer Dienst gestellt wurde.

Bei LGE werden alle ausrangierten Monitore in einem unter umweltbezogenen Aspekten geeigneten Verfahren recycelt. Augenblicklich sind weltweit mehrere Rücknahme- und Recyclingsysteme im Einsatz. Viele Teile werden wieder verwendet und recycelt. Schädliche Substanzen und Schwermetalle werden durch umweltverträgliche Verfahren behandelt.

Falls Sie mehr über unser Recyclingprogramm erfahren möchten, wenden Sie sich bitte an Ihren lokalen LG-Händler oder einen Unternehmensvertreter von LG.

Wir richten unsere Firmenpolitik auf eine sauberere Umwelt hin aus, indem wir umweltspezifische Aspekte als wichtigen Punkt in die Weiterentwicklung unseres Unternehmens einfließen lassen. Zusätzliche Informationen über unsere 'grüne' Firmenpolitik erhalten Sie auf unserer Website.

[http://www.lge.com/experience/social\\_commitment/environment.jsp](http://www.lge.com/experience/social_commitment/environment.jsp)

### ■ ■ ■ Français

#### Information sur la protection de l'environnement

LGE a publié sa 'Déclaration en faveur d'un

environnement plus propre' en 1994 et celle-ci est restée, depuis lors, un principe directeur de notre entreprise. Cette déclaration a servi de base à notre réflexion et nous a permis de prendre en compte à la fois les aspects économiques et sociaux de nos activités, tout en respectant l'environnement.

Nous encourageons les activités en faveur de la préservation de l'environnement et c'est dans cet esprit que nous développons nos produits : nous réduisons au minimum les matières dangereuses qui entrent dans leur composition et l'on ne trouve pas de cadmium, par exemple, dans nos moniteurs.

#### Information sur le recyclage

Ce moniteur peut contenir des composants qui présentent un risque pour l'environnement. Il est donc important que celui-ci soit recyclé après usage.

LGE traite les moniteurs en fin de cycle conformément à une méthode de recyclage respectueuse de l'environnement. Nous reprenons nos produits et les recyclons dans plusieurs sites répartis dans le monde entier. De nombreux composants sont réutilisés et recyclés, et les matières dangereuses, ainsi que les métaux lourds, sont traités selon un procédé écologique.

Si vous souhaitez plus de renseignements sur notre programme de recyclage, veuillez contacter votre revendeur LG ou un l'un de nos représentants.

Nous voulons agir pour un monde plus propre et croyons au rôle de notre entreprise dans l'amélioration de l'environnement. Pour plus de renseignements sur notre politique "verte", rendez visite à notre site :

[http://www.lge.com/experience/social\\_commitment/environment.jsp](http://www.lge.com/experience/social_commitment/environment.jsp)

### ■ ■ ■ Italiano

#### Informazioni per la tutela dell'ambiente

La LGE ha annunciato nel 1994 la cosiddetta 'LG Declaration for a Cleaner Environment' (Dichiarazione di LG a favore di un ambiente più pulito), un ideale che da allora funge da principio ispiratore della gestione aziendale. La dichiarazione rappresenta il fondamento che consente di intraprendere attività a favore dell'ambiente tenendo conto degli aspetti economici, ambientali e sociali.

## Regulatory Information cont.

Noi della LG, promuoviamo attività a favore della tutela dell'ambiente sviluppando appositamente i nostri prodotti per cogliere il concetto del rispetto dell'ambiente riducendo i materiali dannosi presenti nei nostri prodotti. Ad esempio nei nostri monitor non è presente il cadmio.

### Informazioni per il riciclaggio

Il monitor può presentare componenti che potrebbero risultare eventualmente dannosi per l'ambiente. È importante che il monitor sia riciclato al termine del suo utilizzo.

La LGE. gestisce tutti i monitor di rifiuto con un metodo di riciclaggio soddisfacente dal punto di vista ambientale. In tutto il mondo sono attualmente in funzione numerosi sistemi di riciclaggio e recupero. I diversi componenti sono riutilizzati e riciclati, mentre le sostanze dannose e i metalli pesanti vengono trattati con un metodo rispettoso dell'ambiente.

Se si desiderano maggiori informazioni in merito al programma di riciclaggio, è consigliabile rivolgersi al proprio rivenditore LG o ad un rappresentante aziendale della LG.

Noi della LG impostiamo la nostra visione e le nostre politiche a favore di un mondo più pulito ponendo la questione dell'ambiente dal punto di vista globale come una mansione rivolta al miglioramento della nostra azienda. Vi invitiamo a visitare il nostro sito internet per ulteriori informazioni sulla nostra politica "verde".

[http://www.lge.com/experience/social\\_commitment/environment.jsp](http://www.lge.com/experience/social_commitment/environment.jsp)

### Espanol

#### Información para la conservación medioambiental

LGE. presentó la 'Declaración para un entorno más limpio de LG' en 1994 y este ideal ha servido para guiar nuestros principios empresariales desde entonces. La Declaración es la base que nos ha permitido llevar a cabo tareas que respetan el medio ambiente siempre teniendo en cuenta aspectos sociales, económicos y medioambientales.

Promocionamos actividades orientadas a la conservación del medio ambiente y desarrollamos nuestros productos específicamente para que se ajusten a la filosofía que protege el entorno.

Reducimos al máximo el uso de materiales de riesgo en nuestros productos. Un ejemplo de ello es la ausencia total de cadmio en nuestros monitores.

### Información para el reciclaje

Este monitor puede contener piezas que entrañen riesgos medioambientales. Es importante reciclar este monitor después de su utilización.

LGE. trata todos los monitores usados siguiendo un método de reciclaje que no daña al entorno. Contamos con diversos sistemas de recuperación y reciclaje que funcionan a nivel mundial en la actualidad. Es posible reciclar y reutilizar muchas de las piezas, mientras que las sustancias dañinas y los metales pesados se tratan siguiendo un método que no perjudique al medio ambiente. Si desea obtener más información acerca del programa de reciclaje, póngase en contacto con su proveedor local de LG o con un representante empresarial de nuestra marca.

Basamos nuestra visión y nuestras políticas en un mundo más limpio y para ellos optamos por un entorno global como tarea principal de nuestra evolución como empresa. Visite nuestra página Web para obtener más información sobre nuestras políticas ecológicas.

[http://www.lge.com/experience/social\\_commitment/environment.jsp](http://www.lge.com/experience/social_commitment/environment.jsp)

### Português

#### Informações relacionadas à preservação ambiental

A LGE. anunciou a 'LG Declaration for a Cleaner Environment' (Declaração da LG para um ambiente mais limpo) em 1994 e esse ideal tem servido desde então como um princípio administrativo de orientação. A Declaração é a base que nos tem permitido realizar atividades favoráveis ao ambiente com consideração atenta aos aspectos econômicos, ambientais e sociais.

Promovemos atividades de preservação ambiental e desenvolvemos nossos produtos para englobar especificamente o conceito de favorável ao ambiente.

Reduzimos os materiais perigosos contidos em nossos produtos. Por exemplo, não há cádmio em nossos monitores.

## ■■■ Regulatory Information cont.

### Informações relacionadas à reciclagem

Este monitor pode conter peças que podem representar riscos ao ambiente. É importante que ele seja reciclado após o uso.

A LGE cuida de todos os monitores descartados através de um método de reciclagem agradável ao ambiente. Há vários sistemas de devolução e reciclagem atualmente em operação no mundo. Muitas peças serão reutilizadas e recicladas e as substâncias nocivas e os metais pesados passarão por tratamento através de um método favorável ao ambiente.

Para obter mais informações sobre nosso programa de reciclagem, entre em contato com seu fornecedor LG local ou com um representante corporativo da LG.

Definimos nossa visão e nossas políticas relacionadas a um mundo mais limpo selecionando a questão do ambiente global como uma tarefa de aprimoramento corporativo. Visite nosso site para obter mais informações sobre nossas políticas de meio ambiente.

[http://www.lge.com/experience/social\\_commitment/environment.jsp](http://www.lge.com/experience/social_commitment/environment.jsp)

### ■ ■ ■ Nederlands

#### Informatie met betrekking tot het behoud van het milieu

LGE publiceerde in 1994 de 'LG Declaration for a Cleaner Environment' (de LG-verklaring met betrekking tot een schoner milieu). Deze verklaring en het ideaal van een schoner milieu fungeren sindsdien als een bestuurlijke leidraad voor onze onderneming. Op basis van deze verklaring ontplooiën wij milieuvriendelijke activiteiten, waarbij er zowel met sociale en economische aspecten, als met milieuaspecten zorgvuldig rekening wordt gehouden.

Wij ondersteunen activiteiten die zijn gericht op het behoud van het milieu en wij houden bij het ontwikkelen onze producten specifiek rekening met de milieuvriendelijkheid van onze producten.

Wij minimaliseren het gebruik van schadelijke stoffen in onze producten. Er wordt bijvoorbeeld geen cadmium verwerkt in onze monitoren.

#### Informatie met betrekking tot recycling

Deze monitor bevat materialen die schadelijk zouden kunnen zijn voor het milieu. Het is belangrijk dat deze

monitor aan het einde van zijn levensduur wordt gerecycled.

LGE verwerkt alle afvalmonitoren via een milieuvriendelijke recyclingmethode. Hiervoor worden er momenteel wereldwijd verscheidene inname- en recyclingsystemen gehanteerd. Een groot aantal onderdelen wordt opnieuw gebruikt en gerecycled, waarbij schadelijke stoffen en zware metalen volgens een milieuvriendelijke methode worden verwerkt.

Voor meer informatie over ons recyclingprogramma kunt u contact opnemen met uw plaatselijke LG-vertegenwoordiger of een LG-vestiging.

Onze visie en ons beleid met betrekking tot een schonere wereld vloeien voort uit het feit dat wij het milieu hebben aangemerkt als een onderwerp dat speciale aandacht verdient binnen onze onderneming. Bezoek onze website voor meer informatie over ons 'groene' beleid.

[http://www.lge.com/experience/social\\_commitment/environment.jsp](http://www.lge.com/experience/social_commitment/environment.jsp)

### ■ ■ ■ Russian

#### Информация по охране окружающей среды

В 1994 году корпорация LGE опубликовала 'Декларацию LG по охране окружающей среды', которая с тех пор служит основным принципом управления. На основе этой декларации мы смогли предпринять действия, обеспечивающие безопасность окружающей среды, уделяя при этом должное внимание экономическим, экологическим и социальным аспектам.

Мы стимулируем деятельность по охране окружающей среды, уделяя особое внимание разработке нашей продукции в соответствии с концепцией экологической безопасности.

Мы сводим к минимуму содержание опасных веществ в нашей продукции. Например, в наших мониторах вы не найдете кадмия.

#### Информация по утилизации отходов

Этот монитор может содержать компоненты, которые могут нанести ущерб окружающей среде.

Необходимо утилизировать монитор после использования.

■■■ Regulatory Information cont.

Корпорация LGE перерабатывает все бракованные мониторы с помощью экологически приемлемого метода утилизации отходов. По всему миру действуют системы утилизации отходов и возврата использованной продукции. Многие компоненты будут вторично использованы и утилизированы, в то время как вредные вещества и тяжелые металлы будут обработаны с помощью экологически приемлемого метода.

За более подробной информацией по нашей программе утилизации отходов обращайтесь к местному поставщику или представителю корпорации LG.

Мы ориентируемся на обеспечение экологической безопасности, ставя себе целью глобальную защиту окружающей среды. Дополнительную информацию о нашей политике по охране окружающей среды вы можете найти на нашем сайте:

[http://www.lge.com/experience/social\\_commitment/environment.jsp](http://www.lge.com/experience/social_commitment/environment.jsp)

한국어

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<http://www.lge.co.kr/about/digitalg/environment/environment.jsp>

:: **EPA (U.S.A only)** (EPA applied model only)

ENERGYSTAR is a set of power-saving guidelines issued by the U.S. Environmental Protection Agency(EPA).



As an ENERGY STAR Partner LGE U. S. A.,Inc. has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

:: **NOM MARK (Mexico only)**

