3828TUL221E(REV05) 20049 21 8 34 PM 페이지 1

LG

Color Monitor



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Printed in Korea

FLATRON™ freedom of mind

L3020T

User's Guide
Benutzerhandbuch
Manuel d'utilisation
Guida dell'utente
Guía del usuario
Guia do usuário
Gebruiksaanwijzing
Felhasználói útmutatót

Please read this manual carefully before operating your set.
Retain it for future reference.
Record model number and serial number of the set.
See the label attached on the back cover and quote this information to your dealer when you require service.



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ENGLISH

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Safety Precautions

Please read these safety precautions carefully before using the monitor.

⚠ **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 Monitor

⚠ 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 monitor or sit upon it.**
- If the monitor 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 monitor 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 monitor or the case is broken, turn off the monitor 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 metallic objects such as coins, hair pins, chopsticks or wire into the monitor, or inflammable objects such as paper and matches. Children must pay particular attention.**
- Electrical shock, fire or injury can occur. If a foreign object is dropped into the monitor, unplug the power cord and contact the service center.

⚠ Caution

■ **Make sure the monitor ventilation hole is not blocked. Install the monitor in a suitably wide place (more than 10cm from the wall)**
- If you install the monitor 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 monitor by a tablecloth or curtain.**
- The monitor can be deformed or fire can break out due to overheating inside the monitor.

■ **Install the monitor on a flat and stable place that has no risk of dropping the monitor.**
- If the monitor is dropped, you may be injured or the monitor may be broken.

■ **Install the monitor where no EMI occurs.**

■ **Keep the monitor away from direct sunlight.**
- The monitor can be damaged.

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 monitor can be damaged, or you may be electrocuted.

■ **During a thunder or lightning storm, unplug the power cable or signal cable.**
- You may be electrocuted or a fire can break out.

■ **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, it 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 monitor for a long time, unplug the power cable from the monitor.**
- 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.

⚠ Caution

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

Precautions in Moving the Monitor

⚠ Warning

■ **Make sure to turn off the monitor.**
- You may be electrocuted or the monitor can be damaged.

■ **Make sure to remove all cables before moving the monitor.**
- You may be electrocuted or the monitor can be damaged.

Safety Precautions

⚠ Caution

■ **Do not shock the monitor when moving it.**
- You may be electrocuted or the monitor 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 monitor, the damaged monitor can cause electric shock or fire. Contact with the service center for repair.

Precautions in Using the Monitor

⚠ Warning

■ **Do not disassemble, repair or modify the monitor at your own discretion.**
- Fire or electric shock accident can occur.
- Contact the service center for check, calibration or repair.

■ **Do not spray water on the monitor or scrub with an inflammable substance (thinner or benzene). Fire or electric shock accident can occur**

■ **Keep the monitor away from water.**
- Fire or electric shock accident can occur.

⚠ Caution

■ **Do not put or store inflammable substances near the monitor.**
- There is a danger of explosion or fire due 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 monitor, which can cause electric shock or serious malfunction.

■ **Take a rest from time to time to protect your vision.**

■ **Keep the monitor clean at all times.**

■ **Take a comfortable and natural position when working with a monitor to relax the muscles.**

■ **Take a regular break when working with a monitor 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 monitor.**
- Your vision may be impaired if you look at the monitor too closely.

■ **Set the appropriate resolution and clock by referring to the User's Manual.**
- Your vision can be impaired.

■ **Use authorized detergent only when cleaning the monitor. (Do not use benzene, thinner or alcohol.)**
- Monitor 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.

Accessories

ENGLISH

Please check the accessories in the product package.
* The monitor and the accessories can be different from the figures shown here.



Monitor



Remote Controller/Batteries (AAA x 2)



User's Guide /Cards



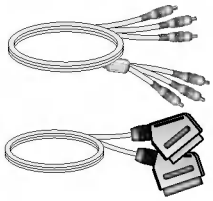
15-pin D-Sub Signal Cable



DVI-D Signal Cable



Power Cord



RCA Cable and SCART Cable

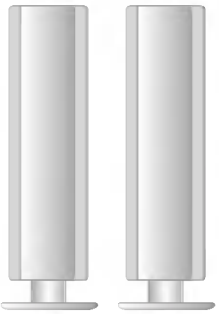
-It varies from country/region to country/region.



S-Video Cable



Audio Cable (PC)



Speaker

Refer to the manual in the speaker box for more details on speaker accessories.

Important Monitor Features

Swapping Function

You can swap the main screen and the sub-screen when the PIP/POP/PBP function is used.

Spectacle Function

The screen center area is close to a 4:3 ratio and the outskirt area is expanded by more than 16:9. Therefore, the different screen ratio is applied for each area. Because most ordinary people concentrate their focus on the screen center, a non-linear ratio increase at the outskirt area is not recognized, which makes it possible to watch 4:3 screen with a wide screen.
However, the spectacle function is useful in watching motion pictures but is not suitable for the PC environment in which you perform graphic or document work.

Sleep Function

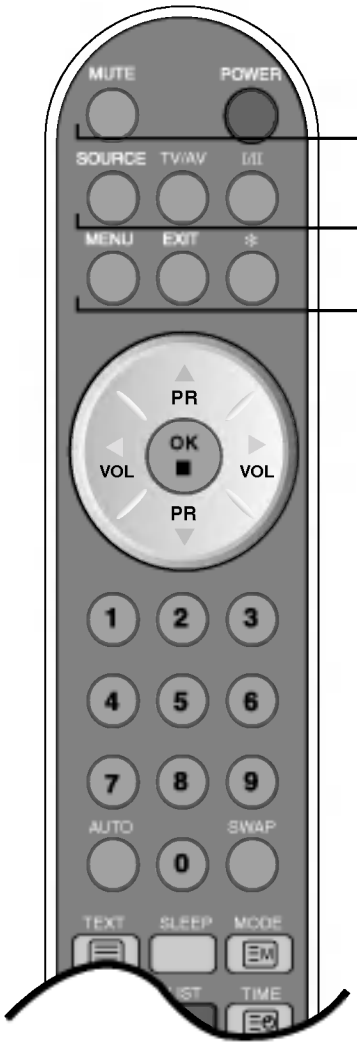
When watching TV/AV1/AV2/S-Video/HDTV – The monitor will be automatically turned off after a certain period of time.
Press this button repetitively to select an appropriate time duration.

Name and Function of the Parts

ENGLISH

For detailed instructions of each button on the remote control, refer to the appropriate pages of this manual.

Remote Control



MUTE
POWER

SOURCE



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

TV/AV : TV/AV button

TV > AV2 > S-Video > AV1 > HDTV

I/II : Bilingual choice and sound mode selection

Press this button

- to switch from **Stereo** to **Mono** sound in case of stereo transmission, or from **Nicam Stereo** to **Nicam Mono**, in case of digital transmission.
- to switch from **Nicam Dual I** to **Nicam Dual II** or **Nicam Dual I-II** in case of Nicam Dual transmission.
- to choose between **Dual I**, **Dual II** or **Dual I-II** in case of bilingual transmission :
  Dual I sends the primary broadcast language to the loudspeakers ;
  Dual II sends the secondary broadcast language to the loudspeakers ;
  Dual I-II sends a separate language to each loudspeakers.

■ **NOTE :** In case of weak stereo sound signals, with stereo or Nicam stereo transmission, select mono reception.

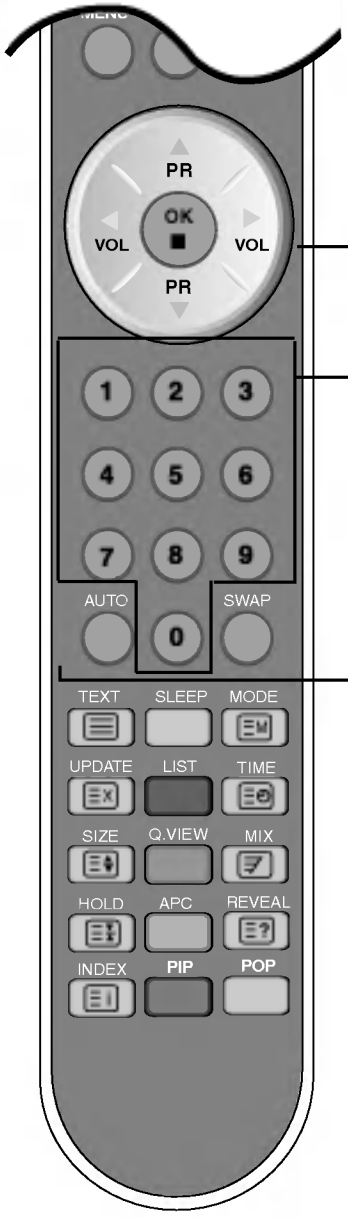
MENU
Use this button to enter the On Screen Display menu.

EXIT
Use this button to exit the On Screen Display menu.

*
There is not a function which is supported

Name and Function of the Parts

Remote Control



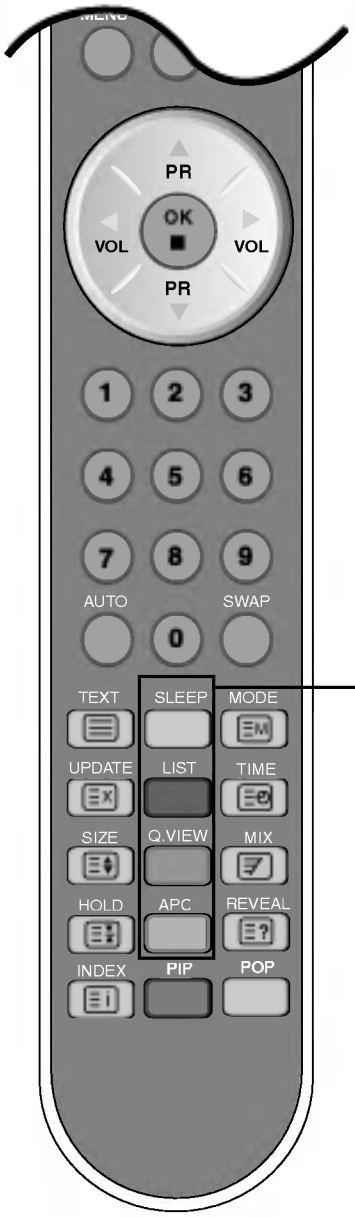
PR (▲▼) Buttons
VOL (◄ ►) Buttons
OK Button

Number buttons

AUTO Button
- This function is to automatically search the available channels. It is available to the TV signal inputs only.
- This function is to automatically adjust your display image to the ideal settings for the current screen resolution size (display mode). It is available to the PC analog signal input only.

SWAP function
To switch the main-screen and sub-screen in PIP/POP/PBP mode.

Remote Control



SLEEP : SLEEP Timer

You can set a time period after which the TV / AV1 / AV2 / S-Video / HDTV should switch itself to standby. Press the key repeatedly to select the number of minutes.

LIST : Programme list

To display the programme list (0~ 99).



Note: TV channels displayed in blue have been setup to skipped in the Programme Edit menu

Q.VIEW : QUICK VIEW Button

To display the previously selected TV channel.

APC (Auto Picture Control)

Press repeatedly to select Dynamic, Standard, Mild, Game or User picture mode. This function is not supported in PC mode.

Name and Function of the Parts

Remote Control - PIP/POP/PBP function



1. **PIP (Picture in Picture)**

The sub-screen is changed in the order shown below.
: SMALL -> MEDIUM -> LARGE -> OFF

2. **POP (Picture out Picture) Button**

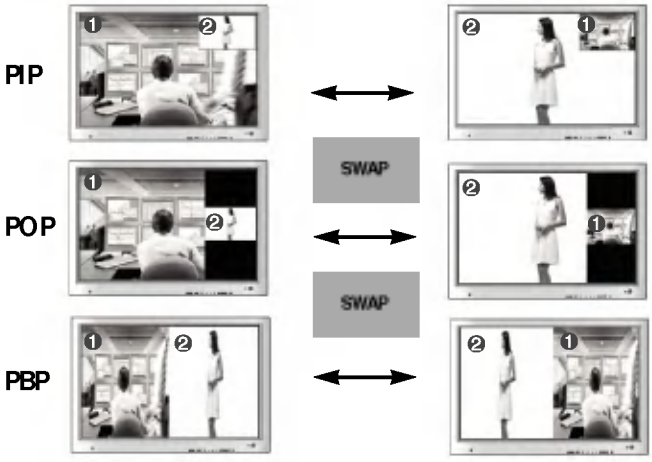
The sub-screen moves to the next mode whenever you press this button.
: POP ON -> PBP(FULL) -> PBP(4:3) -> OFF



POP ON PBP (FULL) PBP (4:3)

3. **Swap Button**

You can swap the main screen and the sub-screen when the PIP/POP/PBP function is used..

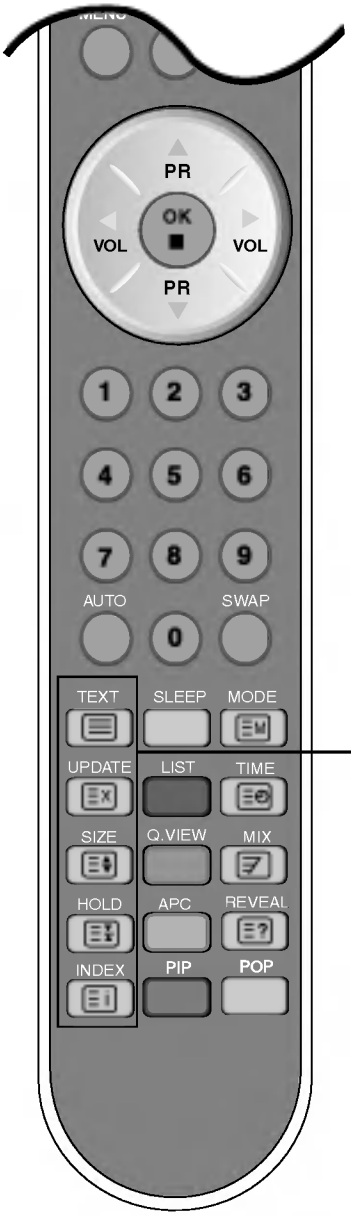


<Table of PIP/POP/PBP Function Support>

Main Screen / Sub-Screen	DVI	DSUB	TV	AV1	AV2	S-Video	HDTV
DVI	X	●	●	●	●	●	●
DSUB	●	X	●	●	●	●	X
TV	●	●	X	X	X	X	●
AV1	●	●	X	X	X	X	●
AV2	●	●	X	X	X	X	●
S-Video	●	●	X	X	X	X	●
HDTV	●	X	●	●	●	●	X

When '**Input Signal 1**' comes on in the main screen, only '**Input Signal 2**' can be displayed on the sub-screen. On the contrary, if the main screen displays '**Input Signal 2**', the sub-screen can display '**Input Signal 1**' only. You can swap '**Input Signal 1**' and '**Input Signal 2**' using the SWAP button.

Remote Control - Using the Teletext function



TEXT

To select the teletext on or off. The main index page or the last selected page appears on the screen together with an information headline and an option line at the bottom of the screen.

UPDATE

Press the button to appear the TV programme. At the top of screen indicates that you are still in the teletext mode. Before interrupting teletext, you may select a page number. When the page has been found, the information line appears briefly on your screen. Press the button again to reappear teletext.

SIZE

Press the button repeatedly to display the upper part, the lower part and then to return to the normal page size. When the upper part is displayed, you can scroll the text, line by line using the ▲ ▼ buttons.

HOLD

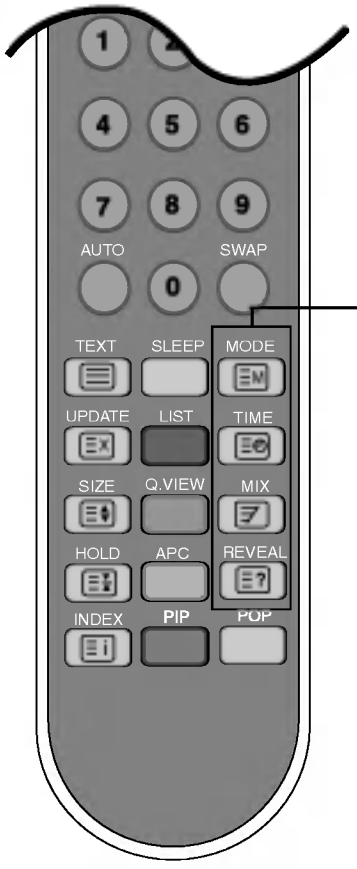
Press the button to stop the automatically rotating of the subpages. Press the button again to continue the automatic rotating again.

INDEX

To display the main index.

Name and Function of the Parts

Remote Control - Using the Teletext function



MODE

The mode will be switched in the Teletext mode.

TIME

When viewing a TV programme, press this button to display the time at the top right hand corner of the screen.
press this button to select a sub page number. The sub page number is displayed at the bottom of the screen. To hold or change the sub page, press the RED/GREEN, ▲▼ or NUMBER buttons. Press again to exit this function.

MIX

Display the teletext pages superimposed on the TV picture. To switch the TV picture off press this button again.

REVEAL

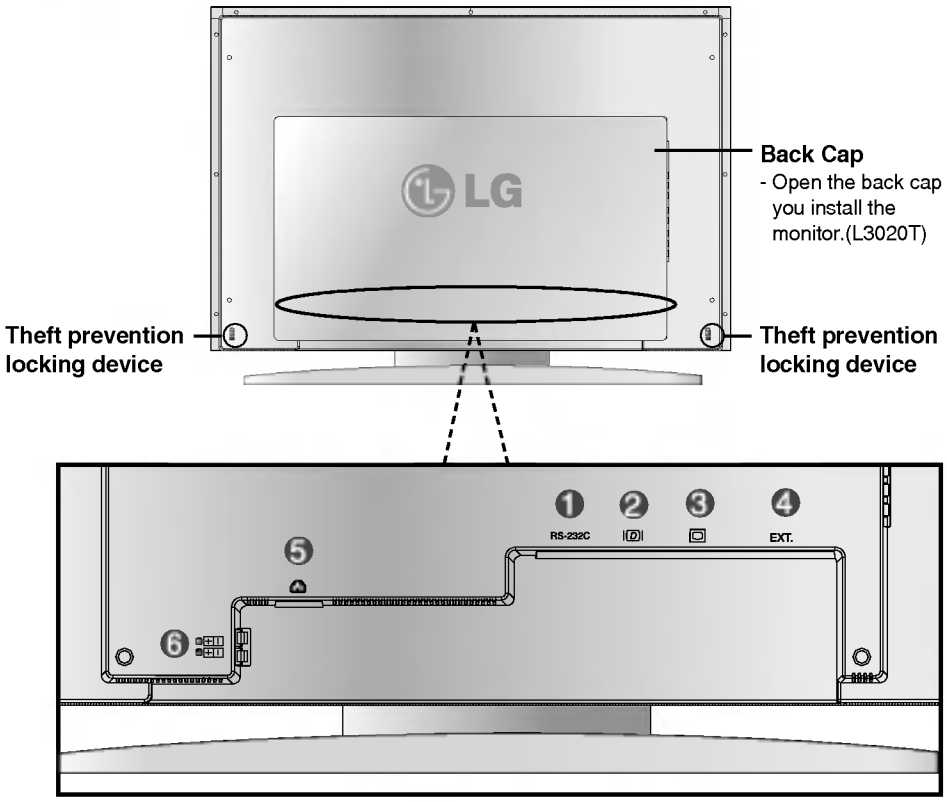
Press the button to reveal/conceal the hidden information, such as solutions to riddles and puzzles. Press this button again to remove the information from the display.

Inserting batteries into remote controller.



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

Rear View



❶ RS-232C Terminal

❷ DVI Digital Signal Connector

❸ DSUB Analog Signal Connector

❹ TV Tuner Jack : Connect the antenna.

❺ Connect the power cord.

❻ Speaker Terminal: Connect the speaker.

Connecting to External Devices

Side View

PC Audio Input Terminal
- Connect the audio cable to the LINE OUT jack in the PC sound card.



Headphone/Earphone Connection Terminal

HDTV Input Terminal(Audio)

AV Input Terminal(Audio)

HDTV Input Terminal(Video)

AV Input Terminal(Video)

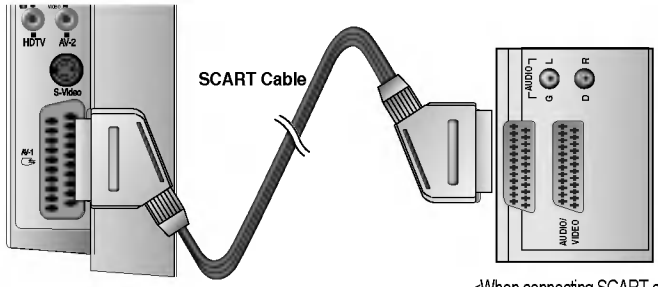
S-Video Input Terminal

SCART Input/Output Terminal

TV Output Terminal

Connect to the external device if you record the broadcasting.

■ When you set the input signal of the main screen as **'TV'**, you can transmit the signal that you're watching to the Scart output terminal.



Side of the Monitor

<When connecting SCART cable>

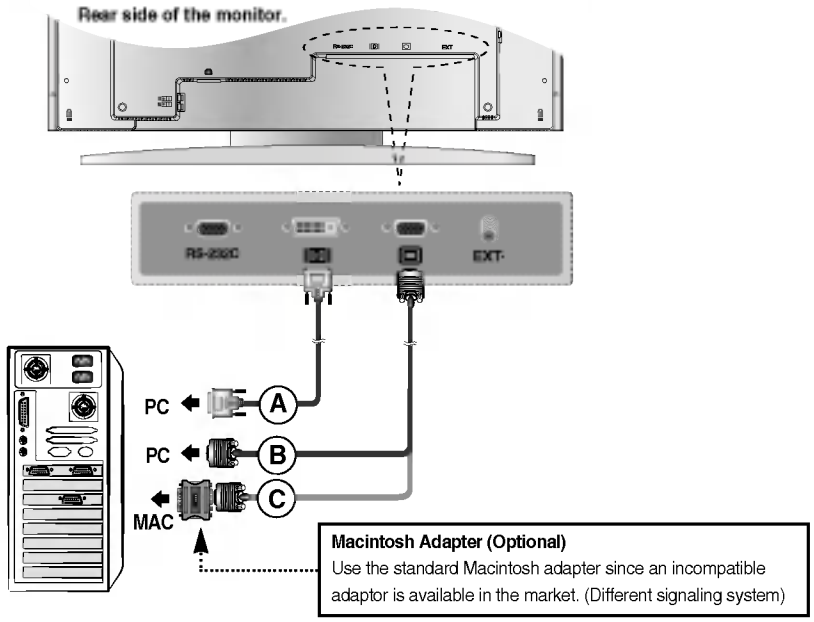
Connecting the sound card output terminal

· Make sure to check the sound card connection terminal in the PC before connecting to the monitor.
If the PC sound card supports both Speaker Out and Line Out, change it to Line Out by setting the jumper or the PC application. (For more details, refer to the sound card user's manual.)
- **Speaker Out :** The terminal connected to the speaker that is not equipped with an amplifier.
- ***Line Out :** The terminal connected to the speaker equipped with an amplifier.
If Audio Out in the PC sound card has only Speaker Out, reduce the PC volume. This monitor is integrated with an amplifier.

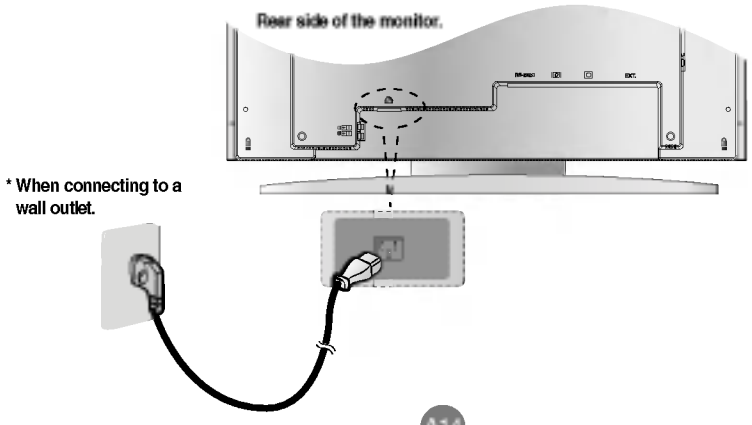
When Connecting to your PC

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

- (A) When connecting with the DVI signal input cable.
- (B) When connecting with the DSUB signal input cable. (IBM compatible PC)
- (C) When connecting with the DSUB signal input cable. (Macintosh)

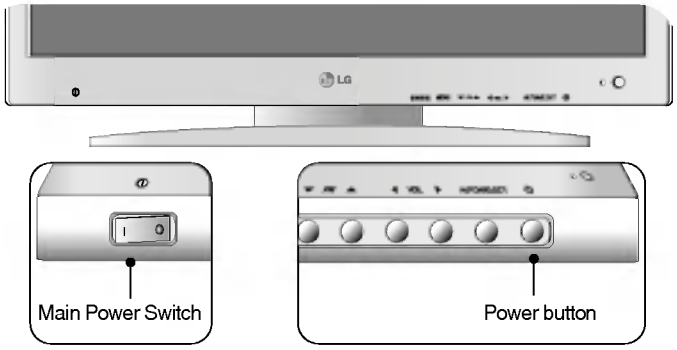


2 Connect the power cord.



Connecting to External Devices

3 **(A)** **Turn on power by pressing the power button on the monitor. If the system is not powered up, check if the main power switch is in the 'on' position.**



(B) **Turn on the PC.**

4 **Select an input signal.**
Press the Input Select button on the remote controller to select the input signal.
Or, press the SOURCE button at the front side of the monitor.

SOURCE → ▼▲ → OK

(A) When connecting with a DVI-D signal input cable.
• Select DVI Digital: DVI-D digital signal.

(B) When connecting with a DSUB signal input cable.
• Select DSUB Analogue: 15-pin DSUB analog signal





Note

· **How to connect to two computers.**
Connect the signal cables (DVI and DSUB) to each computer.
Press the Input Select button in a remote controller to select the computer to use.
* Directly connect to a grounded power outlet on the wall or a power bar with a ground wire.

When watching Video/DVD

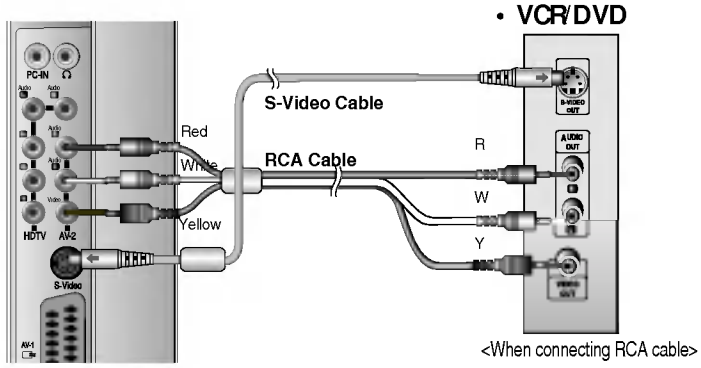
1 Connect the video cable as shown in the below figure and then connect the power cord (See page A14).

(A) When connecting with an RCA cable.

• Connect the input terminal with a proper color match. **(Video – Yellow, Sound (left) – White, Sound (right) – Red)**

(B) When connecting with an S-Video cable.

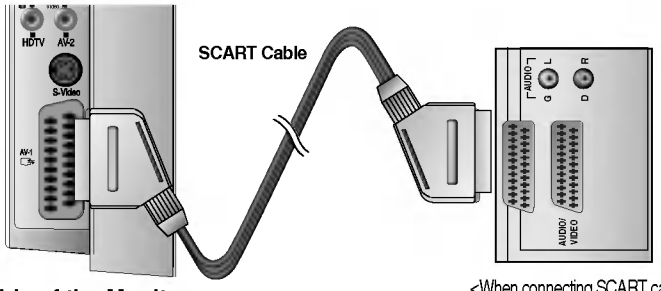
• Connect to the S-Video input terminal to watch high image quality movies.



Side of the Monitor

<When connecting RCA cable>

(C) When connecting with an SCART cable.



Side of the Monitor

<When connecting SCART cable>

2 Select an input signal.

Press the Input Select button on the remote controller to select the input signal. Or, press the SOURCE button at the front side of the monitor.

SOURCE → ▼▲ → OK





(A) When connecting with a RCA cable.
• Select AV2 (Video)

(B) When connecting with a S-Video cable.
• S-Video

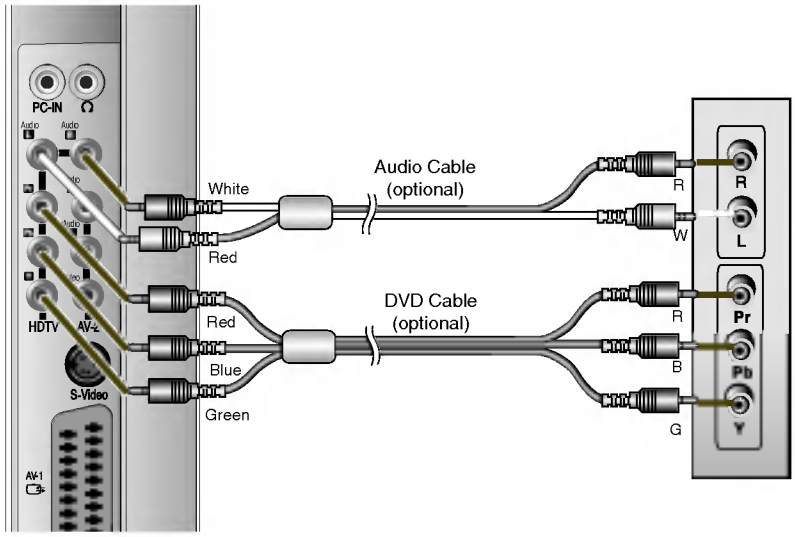
(C) When connecting with a SCART cable.
• Select AV1

Connecting to External Devices

When watching DVD (576i)

1 Connect the video/audio cable as shown in the below figure and then, connect the power cord (See page A14).

• Connect the input terminal with a proper color match.



Side of the Monitor **DVD**

2 Select an input signal.

Press the Input Select button on the remote controller to select the input signal. Or, press the SOURCE button at the front side of the monitor.

SOURCE → ▼▲ → OK

When connecting with a DVD/audio cable.

• Select HDTV



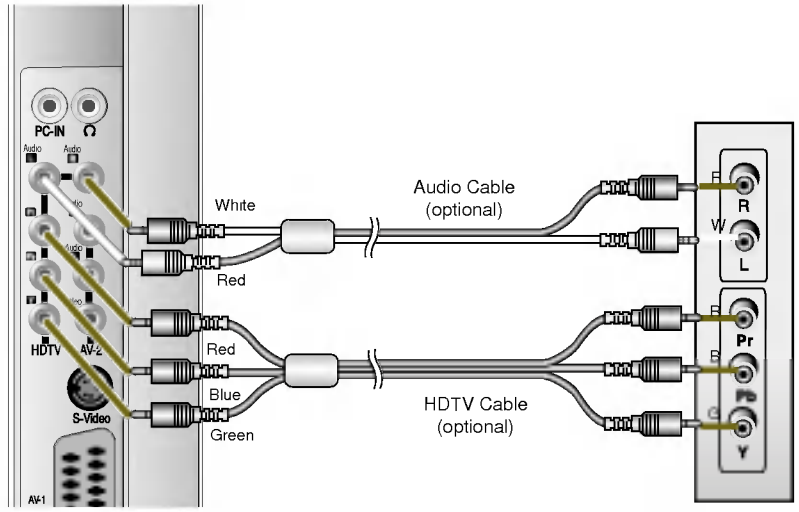


ENGLISH

When watching HDTV (720p/1080i)

1 Connect the video/audio cable as shown in the below figure and then, connect the power cord (See page A14).

• Connect the input terminal with a proper color match.



Side of the Monitor

HDTV Receiver

2 Select an input signal.

Press the Input Select button on the remote controller to select the input signal. Or, press the SOURCE button at the front side of the monitor.

SOURCE → ▼▲ → OK

When connecting with an HDTV/audio cable.

• Select HDTV

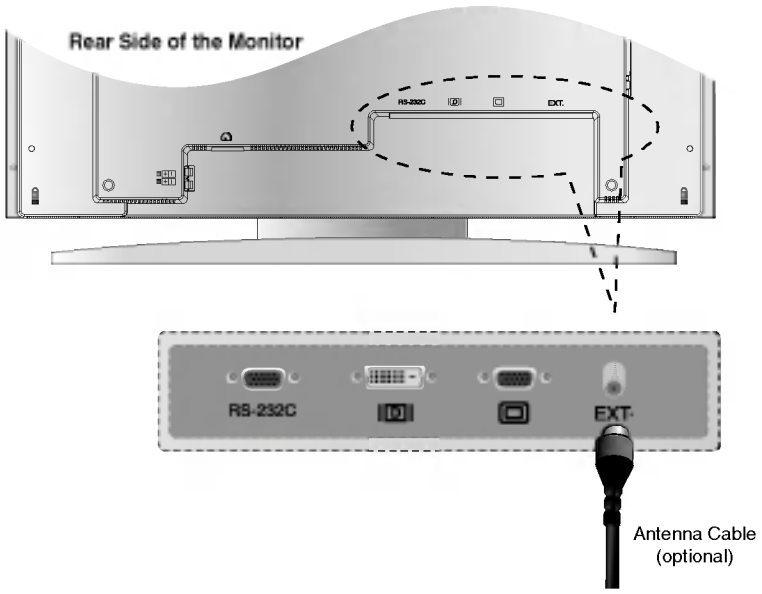




Selecting and Adjusting the Screen

When watching TV (option)

1 See if the antenna cable is connected at the rear side of the monitor and then, connect the power cord (see Page A14).



2 Select an input signal.
Press the Input Select button on the remote controller to select the input signal. Or, press the SOURCE button at the front side of the monitor.

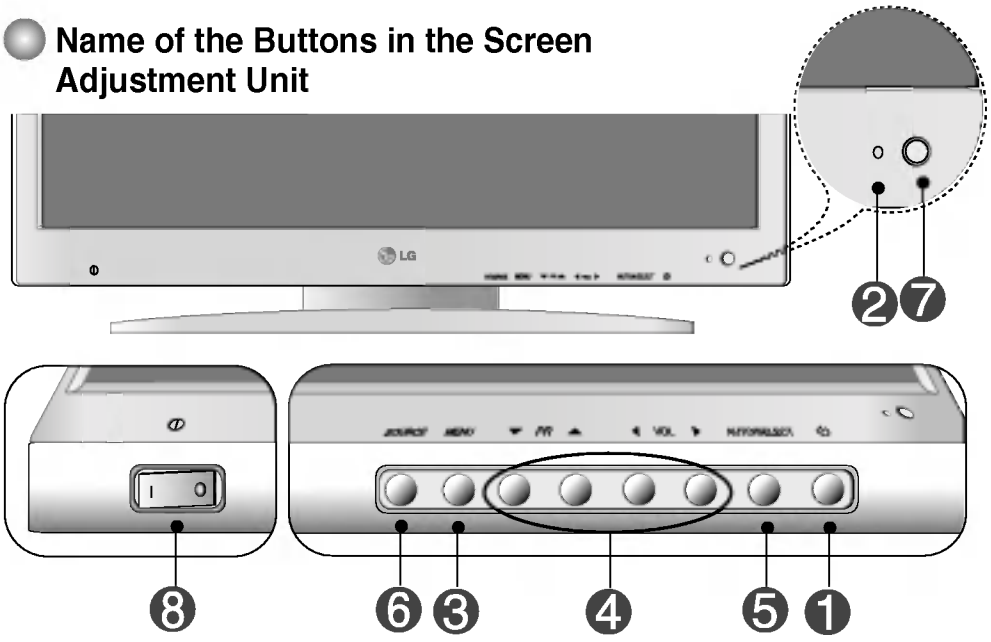
SOURCE → ▼▲ → OK

• Select TV





Name of the Buttons in the Screen Adjustment Unit



1 **Power Button** • Press the button to turn on the power. Press the button again to turn it off.

2 **Power LED** • This Indicator lights up green when the display operates normally. If the display is in DPM (Energy Saving) mode, this indicator color changes to amber.

3 **MENU Button** • Use this button to show/hide the OSD (On Screen Display) menu screen.

4 **OSD Select Adjust Button** • Use the button to select an icon or adjust the setting in the OSD screen.

▼▲ • Use this button to directly control brightness and contrast of the PC signal (DSUB/DVI).



◄ ► • Adjust the volume.



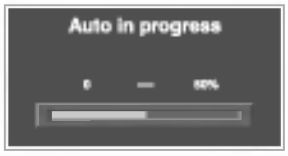
Selecting and Adjusting the Screen

Name of the Buttons in the Screen Adjustment Unit

5 AUTO/SELECT Button

[For TV signal]

• Automatic programming will be started.



[For PC Analogue signal]



[Other signals]

• The current signal and mode information will be displayed.

6 SOURCE Button

SOURCE → ▼▲ → AUTO/SELECT

• Select the input signal

DVI Digital	DVI digital signal
DSUB Analogue	15-pin DSUB analog signal
TV	Television
AV1	DVD
AV2	Composite video
S-Video	SeparateVideo
HDTV	HD television



7 IR Receiver

• The unit that receives the signal from the remote controller.

8 Main Power Switch

• Use this button to turn on/off the monitor.

OSD Lock/Unlock Button

Menu button + ►

■ Use this button to lock/unlock OSD screen adjustment.
(Activated when pressed together longer than 5 seconds.)



• OSD is locked



• OSD is unlocked.

OSD Menu – When Connected to Your PC

Icon	Function Description
 PICTURE	Adjusts screen brightness, contrast and color that you prefer.
 SOUND	Adjusts the audio function.
 PIP/POP/PBP	Adjusts PIP/POP/PBP mode function.
 SPECIAL	Adjusts the screen status according to the circumstances.
 RGB-PC	Adjusts position of the screen, clock and phase.

OSD Menu – When Watching TV/Video/DVD/HDTV

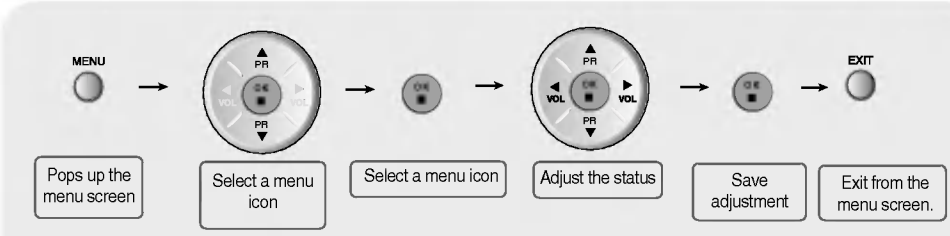
Icon	Function Description
 STATION	Set/Selects te channel. (available only when watching TV)
 PICTURE	Adjusts the screen video.
 SOUND	Adjusts the audio function.
 PIP/POP/PBP	Adjusts PIP/POP/PBP mode function.
 SPECIAL	Adjusts the screen status according to the circumstances.



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.



• **Use the remote controller to adjust the OSD 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 **OK** Button.
4. Use the ▼ ▲ ◄ ► Buttons to adjust the item to the desired level.
5. Accept the changes by pressing the **OK** 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 monitor to a new computer or changing the mode. Refer to the following section to set an optimal monitor screen.

Press the AUTO/SELECT button (**AUTO button** in a remote controller) 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.



adjust the screen when using the VCR/DVD/HDTV/TV



Auto programme



System Press the ▼▲ buttons to select the TV system of the country or part of the world from where you want to receive the TV channels.
If you want to receive 'SECAM L' channel, change the SYSTEM menu to 'L' before launching an automatic search.

Storage from To select a channel number or enter the channel number with the number buttons from where you want to start searching for new channels. If e.g. you want to keep the channels 1 to 10 stored earlier, enter channel number 11. Your TV search for new channels from number 11 onwards.

Start Press **OK** button to start automatic programming. all available TV channels are searched for and stored automatically. To stop auto programming, press the **MENU** or **OK** button. When auto programming is completed, the programme list menu appears.

Manual programme



To change the channel.

System Press the ▼▲ buttons to select the TV system of the country or part of the world from where you want to receive the TV channels.

Storage Press the ▲▼ buttons to select the channel number or enter the channel number with the number buttons in where you want to store channel.

Channel Press the ▲▼ buttons to select C-CH for aerial channels or S-CH for cable channels.If you know the C-(01~69) or S-channel number(01~47), enter it derectly with the digit buttons 0 to 9.
To select the channel reception type. : V/UHF / CABLE

Selecting and Adjusting the Screen

adjust the screen when using the VCR/DVD/HDTV/TV

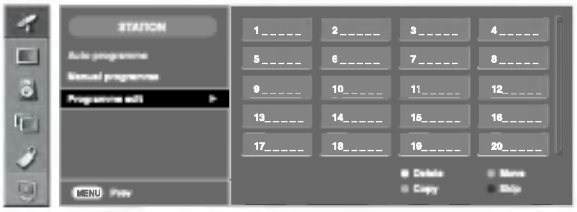
Name To see the assigned channel name.
It is possible to change the name stored in the memory or to assign a name to a TV channel which has not yet been entered. A name with up 5 letters or numbers can be given to the programme numbers 0 to 99.

Press the ◄ ► buttons to move cursor to be changed. -> Press the ▼▲ buttons to select a character.(space, number 0~9, and alphabet A~Z) -> Press the **AUTO/SELECT** button (or **OK** button on the remote control).

Fine tune In case of poor reception, you can improve the reception by fine tuning. Use the ◄ ► buttons to fine tune for the best picture and sound.

Search Use the◄ ► buttons to search next channel backward or foreward direction.

Programme edit



To adjust the **Edit** submenu function, Press the **OK** --> ◄ ► button on the remote control

Delete Press the ▼▲ ◄ ► buttons to select a TV channel to be deleted. -> Press the red key on the remote control -> The selected TV channel number is deleted, all the following channels are shifted up one position.

Copy Press the ▼▲ ◄ ► buttons to select a TV channel to be copyed. -> Press the green key on the remote control. All the following channel numbers are shifted down one position.

Move Press the ▼▲ ◄ ► buttons to select a channel number to be moved. -> Press the yellow key on the remote control. -> Press the ▼▲ ◄ ► buttons to move the TV channel to the desired channel number. -> Press the yellow key again to release this function.

Skip Press the ▼▲ ◄ ► buttons to select a channel number to be skipped. -> Press the blue key on the remote control. The skipped TV channel is displayed in blue.

Adjusting Screen Color

PSM



TV/AV1/AV2/S-Video/HDTV input only

The PSM function automatically adjusts the screen image quality depending on the AV/TV 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.
- **Game** : Select this option to enjoy dynamic image when playing a game.
- **User** : Select this option to use the user-defined settings.



Contrast
To adjust the contrast of the screen.

Brightness
To adjust the brightness of the screen.

Colour
To adjust the color to desired level.

Sharpness
To adjust the cleaness of the screen.

CSM



DSUB Analogue/DVI Digital input only

- **6500K/9300K**

Selecting a factory setting color set.

6500K: Slightly reddish white.

9300K: Slightly bluish white.

- **User** : Select this option to use the user-defined settings.



Red / Green / Blue
Set your own color levels.

Note

If the input is DSUB analogue/DVI Digital, the adjustable items in the PSM function are Contrast/Brightness

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

Selecting and Adjusting the Screen

Adjusting the audio function



SSM



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

- **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.
- **Speech**
  Select this option to watch sports broadcasting.
- **User**
  Select this option to use the user-defined audio settings.

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

AVL To adjust uneven sound volumes across all channels or signals automatically to the most appropriate level. To use this feature, select ON. (It is adjustble to the TV input signal only.)

SRS WOW Set the SRS WOW menu on.
The SRS WOW function plays back the mono or stereo sound input with the dynamic surround effects. It will provide rich and profound sound tone.
with SRS WOW on, user audio setting can not be adjusted.

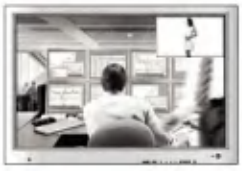
Note

When connected to your computer and the 'SSM' setting in the audio menu is one of Flat, Movie, Music or Speech, the available menus are Balance, AVL and SRS WOW .

Adjusting PIP/POP/PBP Mode (Multiple Screen) Functions



On/Off



PIP

After selecting **PIP** in the **PIP On/Off** menu, the following menu items can be adjusted.



POP

After selecting **POP** in the **POP On/Off** menu, the following menu items can be adjusted.



PBP

After selecting **PBP** in the **PBP On/Off** menu, the following menu items can be adjusted.

Source To select an input signal for PIP/POP/PBP.

Size To adjust the size of the PIP/POP/PBP screen. (PIP : Small, Medium, Large / PBP : Full, 4:3)

Image To adjust the image of the PIP/POP/PBP screen; Press the ▶ button to display the submenu for PIP/POP/PBP IMAGE. Use the ◀ ▶ buttons to adjust the item to the desired level. The items of the sub-menu may vary depending on the type of the source.



■ **Contrast**
Adjust PIP/POP/PBP screen contrast.

■ **Brightness**
Adjust PIP/POP/PBP screen brightness.

■ **Colour**
Adjust the PIP/POP/PBP screen colour.

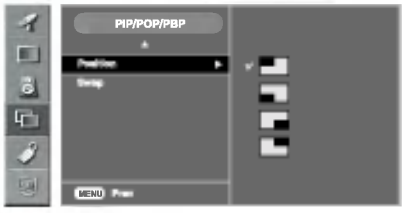
* The sub-menu can differ according to the type of the input signal.

Sound To turn the PIP/POP/PBP sound on/off.

Selecting and Adjusting the Screen

Adjusting PIP/POP/PBP Mode (Multiple Screen) Functions

Position

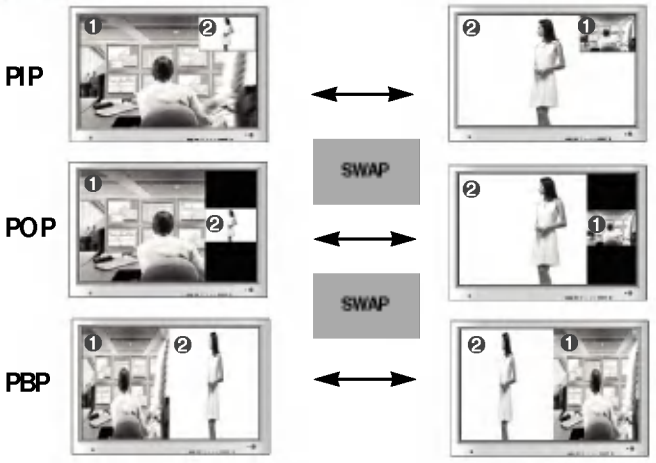


To adjust the position to PIP screen.

Swap



To switch the main-screen and sub-screen in PIP/POP/PBP mode.



Selecting the options



Input



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

Child lock Use the ▼▲ buttons to select ON or OFF. The TV 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 :
1) Push the menu button on the remote control and set Child lock to the 'off' position.
2) Simultaenously push the menu button on the bottom of the monitor and the ► button for 5 seconds.

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

Image size To select the image size of the screen. (Full/4:3/Spectacle/1:1)

Transparency To adjust the transparency of the OSD menu screen.

Zoom



Use this function to zoom in the screen. When you turn the monitor off and on again, the default screen size will be restored. Press the ► button to display the submenu for Zoom

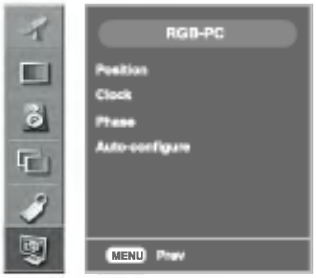
* If the zooming value is set to '0', vertical and horizontal positioning cannot be adjusted.

Reset Use this function to reset the monitor to the factory default. However, language selection will not be initialized.

Note the **Zoom menu** will be disabled if the screen size is not Full or PIP/POP/PBP is in use.

Selecting and Adjusting the Screen

Adjusting Screen CLOCK/PHASE and Position



Position



To adjust position of the screen. Press the ► button to display the submenu for Position.

◄ **Left**	Moving the screen position horizontally.
► **Right**	
▲ **Up**	Moving the screen position vertically.
▼ **Down**	

Clock

To minimize any vertical bars or stripes visible on the screen background.The horizontal screen size will also change.

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.

Auto-Configure



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

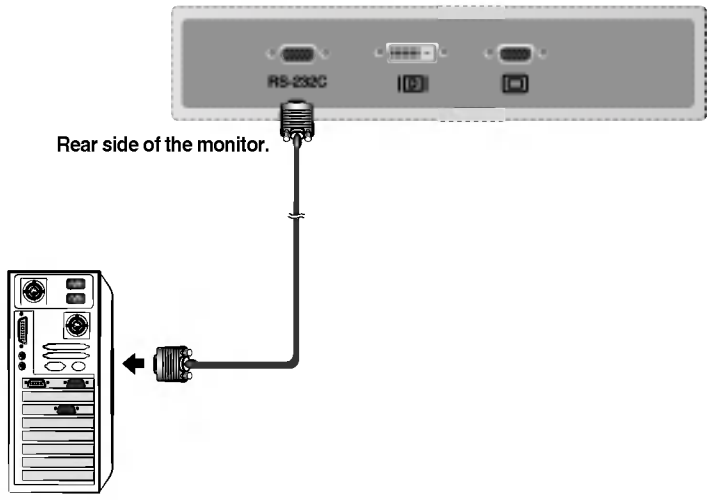
Adjusting Functions using your PC

ENGLISH

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

Connecting the cable

- Connect the PC RS-232C (serial connector) terminal to the RS-232C terminal at the rear side of the monitor.
- The cable for RS-232C terminal connection is not an accessory included in the product. Please purchase the cable.



Communication Parameter

- ▶ Baud Rate : 115200bps
- ▶ Data Length : 8bits
- ▶ Parity Bit : NONE
- ▶ Stop Bit : 1bit
- ▶ Flow Control : NONE

Adjusting Functions using your PC

Commands Related with User Control

Function		Command (HEX)	Parameter#3 (HEX)	Parameter#4 (HEX)
POWER	ON	01h	01h	-
	OFF		00h	-
MAIN INPUT	DVI Digital	0Fh	00h	-
	DSUB Analogue		01h	-
	AV2(Video)		02h	-
	S-Video		03h	-
	AV1(SCART)		04h	-
	HDTV		05h	-
	TV		06h	-
SUB INPUT	DVI Digital	10h	00h	-
	DSUB Analogue		01h	-
	AV2(Video)		02h	-
	S-Video		03h	-
	AV1(SCART)		04h	-
	HDTV		05h	-
	TV		06h	-
CONTRAST		03h	00h ~64h	-
BRIGHTNESS		04h	00h ~64h	-
SHARPENESS		05h	00h ~64h	-
COLOR		06h	00h ~64h	-
9300K		08h	–	-
6500K		09h	–	-
USER		0Ah	–	-
USER	RED	0Bh	00h	00h ~ FFh
	GREEN		01h	00h ~ FFh
	BLUE		02h	00h ~ FFh

Adjust Command/Protocol

Parameter #1 (8 Byte length) : Device selection

0	1	2	3	4	5	6	7
Length : 08h	11h	Param ID : 01h	00h	00h	00h	Device ID (00h~63h)	Check sum

Parameter #2 (8 Byte length) : Read/Write selection

0	1	2	3	4	5	6	7
Length : 08h	11h	Param ID : 02h	00h	00h	00h	Write : 01h	Check sum

Parameter #3 (8 Byte length) : Value

0	1	2	3	4	5	6	7
Length : 08h	11h	Param ID : 03h	Parameter value (4 Byte : DWORD)				Check sum
			High 2Byte		Low 2Byte		

Parameter #4 (8 Byte length) : Value

Function command (4 Byte length)

0	1	2	3
Length = 04h	AAh	Function Command	Check sum

Troubleshooting

No image is displayed

◉ Is the monitor power cord connected?	• See if the power cord is properly connected to the outlet.
◉ Does the power LED is turned on?	• See if the power switch is turned on.
◉ Power is on, power LED is green but the screen appears extremely dark.	• Adjust brightness (☼) and contrast (◑) again.
◉ Does the power LED look yellow?	• If the monitor 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 monitor. Adjust the frequency range by referring to the Specifications in this manual. *** Maximum resolution** DSUB : 1280x1024 @60Hz DVI-D : 1280x1024 @60Hz
◉ Does the 'CHECK SIGNAL CABLE' message appear?	• The signal cable between PC and monitor is not connected. Check the signal cable. • Press the 'SOURCE' menu in the remote controller to check the input signal.

'Unknown Monitor' message appears when the monitor is connected.

◉ Did you install the driver?	• Install the monitor driver, which is provided with the monitor, 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 5 seconds. (You cannot set this function using the remote controller buttons. You can set this function in the monitor only.)

Note

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

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

The screen image looks abnormal.

Is the screen position wrong?	• DSUB analogue signal – Press the "AUTO" button in the remote controller 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 monitor. 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?	• DSUB analogue signal – Press the "AUTO" button in the remote controller 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.	• DSUB analogue signal – Press the "AUTO" button in the remote controller to automatically select an optimal screen status that fits into the current mode. If adjustment is not satisfactory, use the Phase OSD menu.
Unable to adjust the horizontal/vertical position in the Zoom menu.	• See if the Zoom value is set to 0. If it is, you cannot adjust the H/V Position value.
Screen size is automatically adjusted when connected to the PC.	• If the screen size is not full when connected to the PC, execute the SPECIAL menu to change to full screen mode.

After-image appears on the monitor.

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

Troubleshooting

The audio function does not work.

◉ No sound?	• See if the audio cable is connected properly. • Adjust the volume. • See if the sound is set properly.
◉ No sound is available when the PIP/POP/PBP mode is engaged.	• See if the Sound is set to On in the PIP/POP/PBP menu.
◉ Sound is too dull.	• Select the appropriate equalize sound.
◉ Sound is too low.	• Adjust the volume.

The screen size function in the OSD menu does not work.

◉ The screen size function in the OSD menu does not work.	• See if the PIP/POP/PBP function is in use. If the PIP/POP/PBP function is in use, the screen size function may not work.

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	**Screen Type**	30 inches (75.0062cm) TFT (Thin Film Transistor) LCD (Liquid Crystal Display) Panel Visible diagonal size: 75.0062cm
	Pixel Pitch	0.5025mm
Video Signal	**Max. Resolution**	DSUB : 1280 X 1024 @60Hz DVI-D : 1280 X 1024 @60Hz
	Recommended Resolution	DSUB : WXGA 1280 X 768 @60Hz DVI-D : WXGA 1280 X 768 @60Hz
	Horizontal Frequency	DSUB : 30 - 66 kHz DVI-D : 30 - 66 kHz
	Vertical Frequency	56 - 85 Hz
	Synchronization Type	Separate/Composite/SOG (Sync On Green)/Digital
Input Connector		15-pin DSUB type, DVI-D (digital), S-Video, Composite video, HDTV, DVD
Power	**Rated Voltage**	AC 100-240V~ 50/60Hz 1.8A
	Power Consumption	Normal operation: 160W Power saving preparation state: ≤ 5W Power saving state: ≤ 5W Power switch off: ≤ 5W Power cut-off, switch off: ≤ 1W
Dimension/Weight	**Size (WxLxH)**	733.8mm x 538.0 mm x 107.0mm
	Weight (excl. package)	17.0 kg
Environmental Conditions	**Operational Condition**	Temperature: 10˚C ~ 35˚C , Humidity: 10% ~ 80%
	Storage Condition	Temperature: -20˚C ~ 60˚C , Humidity: 5% ~ 95%

Specifications

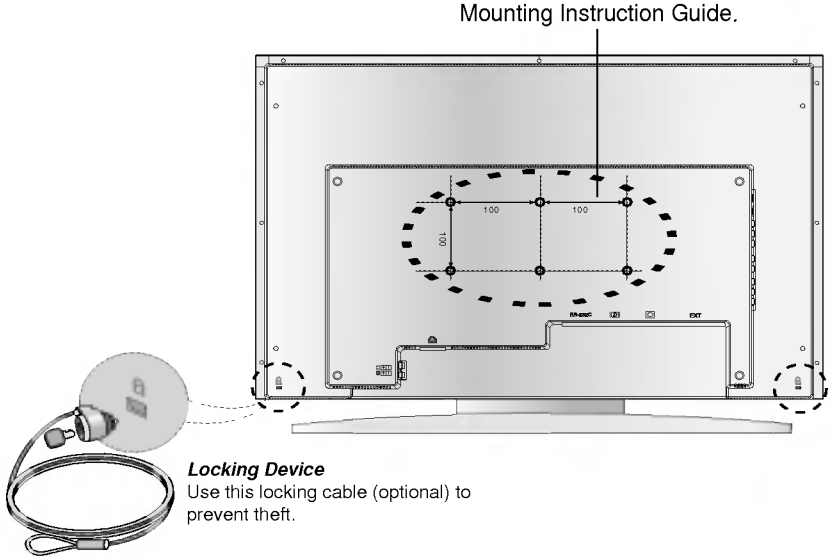
PC Mode – Preset Mode

Preset mode		Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Preset mode		Horizontal Frequency (kHz)	Vertical Frequency (Hz)
1	VGA 640 x 350	31.469	70	8	VESA 800 x 600	53.674	85
2	VGA 720 x 400	31.468	70	9	MAC 832 x 624	49.725	75
3	VGA 640 x 480	31.469	60	10	VESA 1024 x 768	48.363	60
4	VESA 640 x 480	37.500	75	11	VESA 1024 x 768	60.123	75
5	VESA 640 x 480	43.269	85	12	VESA 1280 x 1024	63.981	60
6	VESA 800 x 600	37.879	60	13	VESA 1280 x 768	47.7	60
7	VESA 800 x 600	46.875	75				

Power LED

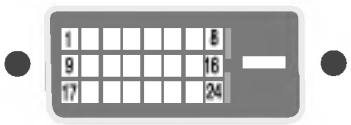
Mode	Monitor
Normal Operation	Green
Pre-power Saving State	Amber
Power Saving State	Amber
Power Switch Off	-
Power Cut-off Switch Off	-

VESA wall mounting
Connected to another object (stand type and wall-mounted type. This monitor accepts a VESA-compliant mounting interface pad.-optional) For further information, refer to the VESA Wall Mounting Instruction Guide.



Locking Device
Use this locking cable (optional) to prevent theft.

DVI-D



No.	Signal
1	T. M. D. S. Data 2-
2	T. M. D. S. Data 2+
3	T. M. D. S. Data 2/4 Shield
4	T. M. D. S. Data 4-
5	T. M. D. S. Data 4+
6	DDC Clock
7	DDC Data
8	Analog Vertical Synchronization
9	T. M. D. S. Data 1-
10	T. M. D. S. Data 1+
11	T. M. D. S. Data 1/3 Shield
12	T. M. D. S. Data 3-
13	T. M. D. S. Data 3+
14	+5V Power
15	Grounding (return for +5V, horizontal sync and vertical sync)
16	Hot Plug Detect
17	T. M. D. S. Data 0-
18	T. M. D. S. Data 0+
19	T. M. D. S. Data 0/5 Shield
20	T. M. D. S. Data 5-
21	T. M. D. S. Data 5+
22	T. M. D. S. Clock Shield
23	T. M. D. S. Clock+
24	T. M. D. S. Clock

T.M.D.S. (Transition Minimized Differential Signaling)