

KTV

User's Manual



Part No. 11900000

TFT LCD TV

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Important Safety Instructions

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug.
A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet. Consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been moisture, does not operate normally, or has been dropped.
- 15) The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

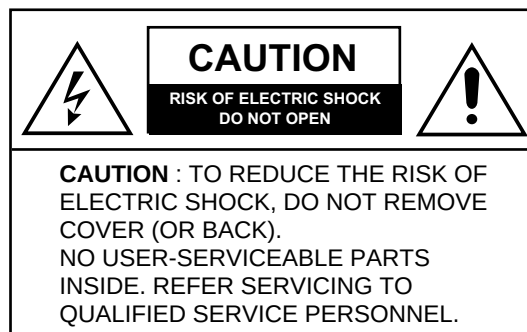


Important Safety Instructions

Shock Hazard Marking and Associated Graphical Symbols



Explanation of Safety Related Symbols



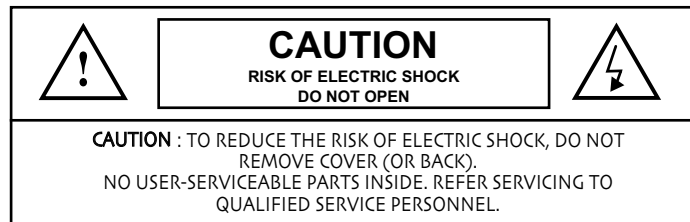
This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING – To Reduce The Risk Of Fire Or Electric Shock, Do Not Expose This Apparatus To Rain Or Moisture.

Important Safety Instructions



Before connecting the AC power cord to the DC adapter outlet, make sure the voltage designation of the DC adapter corresponds to the local electrical supply.

Never insert anything metallic into the cabinet openings of the Liquid Crystal Display Television LCD: doing so may create the danger of electric shock.

To avoid electric shock, never touch the inside of the Television LCD. Only a qualified technician should open the case of the Television LCD.

Never use your Television LCD if the power cord has been damaged. Do not allow anything to rest on the power cord, and keep the cord away from areas where people can trip over it.

Be sure to hold the plug, not the cord, when disconnecting the Television LCD from an electric socket.

Openings in the Television LCD cabinet are provided for ventilation. To prevent overheating, these openings should not be blocked or covered. Also, avoid using the Television LCD on a bed, sofa, rug, or other soft surface. Doing so may block the ventilation openings in the bottom of the cabinet.

If you put the Television LCD in a bookcase or some other enclosed space, be sure to provide adequate ventilation. Put your Television LCD in a location with low humidity and a minimum of dust.

Do not expose the Television LCD to rain or use it near water.

(in kitchen, near swimming pool, etc.). If the Television LCD accidentally gets wet, unplug it and contact an authorized dealer immediately. You can clean the Television LCD with a damp cloth when necessary, but be sure to unplug the Television LCD first.

Place the Television LCD on a solid surface and treat it carefully.

The screen is made of thin glass with a plastic front surface and be damaged if dropped, hit or scratched. Do not clean the front panel with keton-type materials (e.g., acetone), ethyl alcohol, toluene, ethylacid, methyl, or chloride - these may damage the panel.

Locate your Television LCD near an easily accessible AC outlet.



General safety precautions

Thank you for purchasing our product.
Before using it, please read this user's manual carefully and apply it correctly and safely.
Please keep this manual close to you so you can refer to it anytime after reading it.
Also, for the transportation of the product, please attach this manual without fail.
Please observe the notes below.

1. Use at the rated power voltage.
Use of non-rated voltage may cause fire, electric shock and breakdown.
2. Do not open the cabinet and external cover.
The high voltage inside of this product may cause the electric shock.
3. Do not remodel or disassemble this product.
Remodeling or disassembling in wrong method may cause fire, electric shock or breakdown.
4. Do not insert or drop any foreign substance such as metals or flammable object inside from the air hole.
It may cause fire, electric shock or breakdown.
If any foreign substance is inserted inside of this product, turn off the power, pull the plug out of the socket and contact the sales department. Do not use the product with the foreign substance in.
5. Do not place any vase, potted plant, cup, medicine and any container with water on this product.
If the liquid is spilt, it may cause the fire, electric shock or breakdown.
6. Do not place this product with water nor moisten it.
If water flows in it, it may cause the fire, electric shock or breakdown.
If there is water inside of the product, turn off the power immediately, pull the plug out of the socket and contact the sales department.
Do not use the product with water in it.
7. Never touch the antenna lie or power plug if it starts to thunder.
It may cause the electric shock.
8. If any impact is applied, the parts inside of the product may be fallen out or broken to be the cause of fire, electric shock or breakdown.
9. Clean the dust on the power plug periodically.
The dusty power plug may cause the poor insulation due to the moisture to be the reason of fire.
10. Do not destroy, process, make closer to heating device, bend or twist forcibly, place any heavy object on nor bind the power cord or power plug. If it is used in the broken condition, it may cause fire or electric shock.
11. Do not touch the power plug with wet hands.
If you pull in or out the power plug with wet hands, it may cause electric shocks.
12. Put the power plug in firmly.
Putting the plug incompletely may cause the electric shock or fire by the generation of heat.
13. Do not use any non-rated power socket with numerous devices jointed on one power socket or cable device.
The wire of non-designated capacity may cause the fire due to the generation of heat.
14. In case of malfunction, turn off the power switch immediately and pull out the power plug.
If this product is used in the abnormal condition such as damage to it, foreign substance inside of the product, generation of joints, smelling, smoking, overheating and non production of signal, it may cause fire, electric shock or breakdown.
Turn off the power switch immediately, pull the power plug out of the socket and contact to the sales store..
15. Leave space 10 cm or more from the wall for the installation of the device.
Do not install it close to the wall nor block the ventilation of the air.
Insufficient ventilation or accumulated heat inside of the product may cause the fire.
16. Do not install it at the unstable location such as on the bouncing prop or tilted place.
It may be tipped over as it loses balance or damaged as it is fallen down.



General safety precautions

17. Do not install at the place with moisture or dust.
It may cause the fire or the electric shock
18. Do not install it at the place with poisonous gas.
It may cause the fire.
19. Do not install it at the location with continuous vibration.
It may be tipped over as it loses balance or damaged as it is fallen down.
20. Do not install it at the place on the strong magnetic field or current field.
It may cause fire, electric shock or break down.
This equipment may be observed deterioration of the picture by electromagnetic radiation in electromagnetic environment.
21. Fasten the wheel of the product or shelf with wheels when installing this product.
If it moves or is tipped over, it may be damaged.
22. Do not leave it in the car under the burning sun for a long time.
The high temperature may distort the cabinet or the parts inside may be broken down or heated.
If you use this product in this condition, it may cause the fire, electric shock or breakdown due to the short circuit or poor insulation.
23. Do not place any fire source such as candlelight close to this product or place it on this product.
If it is tipped over or fallen down, it may cause damage or fire.
24. Do not sprinkle water drops or water on this product.
It may cause the fire, the electric shock or breakdown.
25. Do not place heavy objects on this product.
It may be tipped over as it loses balance or damaged as it is fallen down.
26. Do not transport it with the power cord or the connection cable connected.
If you move this product with the power cord or the connection cable connected, the damaged power cord, connection cable or connection terminal may cause the fire, the electric shock or breakdown.
27. Pull the power cord out while holding the plug portion.
If you pull the power cord out by force, the cord may the fire or the electric shock.
28. Do not use it outdoor.
Dust or rainstorm may cause the fire, electric shock or breakdown.
29. Do not climb on this product.
If you climb on it, it may damage or hurt it.
30. 2 persons or more shall transport the device, which is heavier than 18 kg.
If you drop or tip over the device, it may damage it.
The weight is indicated on the user's manual.
31. Use the attached power cord and connection cable, or those, which are indicated on the user's manual.
If you do not use the designated power cord and connection cable, it may cause the electric shock or breakdown.
32. Turn off the power switch when connecting the power cord or connection cable.
If you not turn off when connecting it, it may cause the electric shock or breakdown.
33. Do not use any chemical such as the paint thinner or benzine to clean the cabinet.
It may scratch the surface or disappear the indication to cause wrong operation, which can be the reason for disorder.
34. Clean the cabinet with 5~6 time diluted neutral detergent water on smooth cloth as stirring to remove the contamination.
After that, clean it with dry cloth to remove any stain.

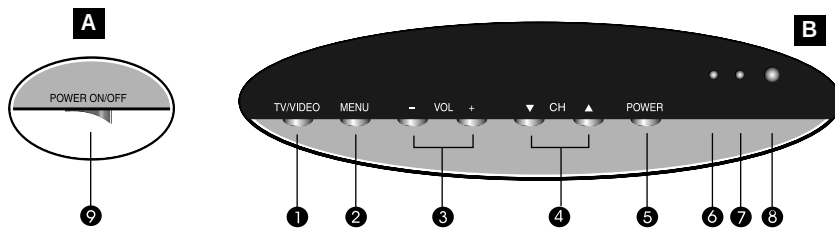
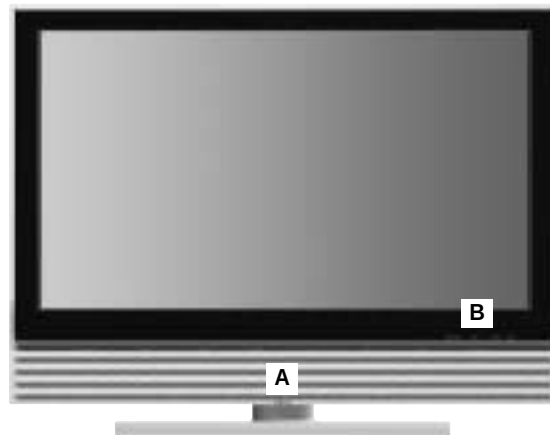


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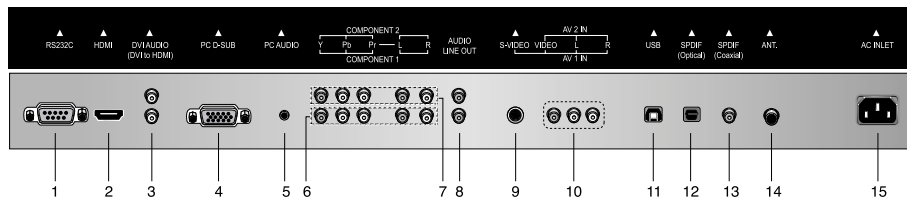
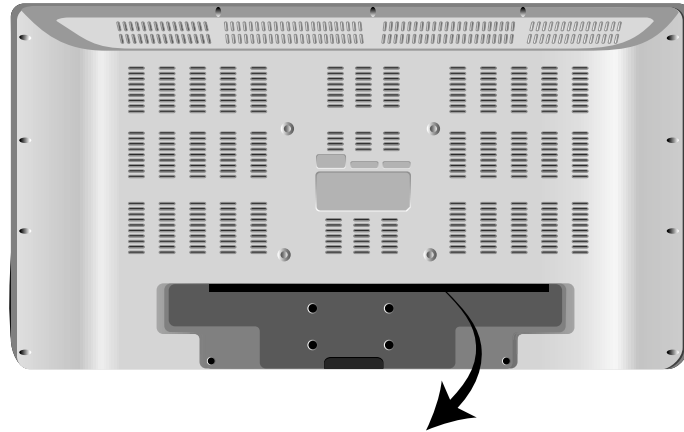


Front Panel



- | | |
|--------------------------|--|
| 1. TV/VIDEO | Display a menu of the available input sources. |
| 2. MENU | Display the main on-screen menu. Exit from sub-menu. |
| 3. VOL(-/+) | Press the increase or decrease the volume. Also used to increase or reduce the value of a menu option. |
| 4. CH(▼/▲) | Press CH ▼ or CH ▲ to change channels. Also used to highlight selections on the on-screen menus. |
| 5. POWER | Sub power switch |
| 6. STAND BY | The color of LED is changed into RED. |
| 7. ON | The color of LED is changed into GREEN. |
| 8. Remote Control Sensor | |
| 9. POWER ON/OFF | Turns ON/OFF the LCD TV/Video |

Rear Panel

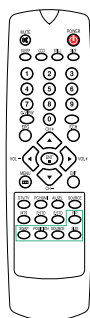


- | | |
|-----------------------------|---|
| 1. RS-232C JACK | Do not use this jack for customers. |
| 2. HDMI | Use to connect a video signal from a PC or DVD. |
| 3. DVI AUDIO | DVI to HDMI |
| 4. PC D-SUB | Used to connect a video signal from a personal computer. |
| 5. PC AUDIO | Connects to the sound-output port of a personal computer. |
| 6. COMPONENT 1 | HDTV Input (Video signals from a HDTV player. |
| 7. COMPONENT 2 | HDTV Input (Video signals from a HDTV player. |
| 8. AUDIO LINE OUT | |
| 9. S-VIDEO | S-Video signal from an VCR or laserdisc player |
| 10. A/V IN | Audio signals from VCR or similar device.(Audio input of A/V IN is used commonly with SVHS) |
| 11. USB V.2.0 (For Service) | |
| 12. SPDIF (Optical) | |
| 13. SPDIF (Coaxial) | |
| 14. ANTENNA JACK | Connect to an antenna or a cable TV system |
| 15. AC INLET | Use 100-250V AC, 50/60 Hz. |

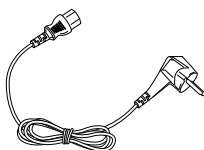
** SPDIF OUT (Optical/Coaxial) may have the signal compatibility problems with certain A/V receiver and this is known issues. Due to the problems, it may have difficulty in output sound.*

To prevent electrical shocks and fire hazards, do not use any other power source.

Accessory



Remote
Controller



Power Cable



User's Manual

Inserting the batteries in the remote controller

You must insert or replace the batteries in the remote controller when you:

Purchase the set.

Find that the remote controller is no longer operating correctly.



1 Remove the cover of the remote controller by pressing the symbol and pulling the cover space in the direction of the arrow.



2 Insert 2 batteries(AAA size), taking care to respect the polarities.

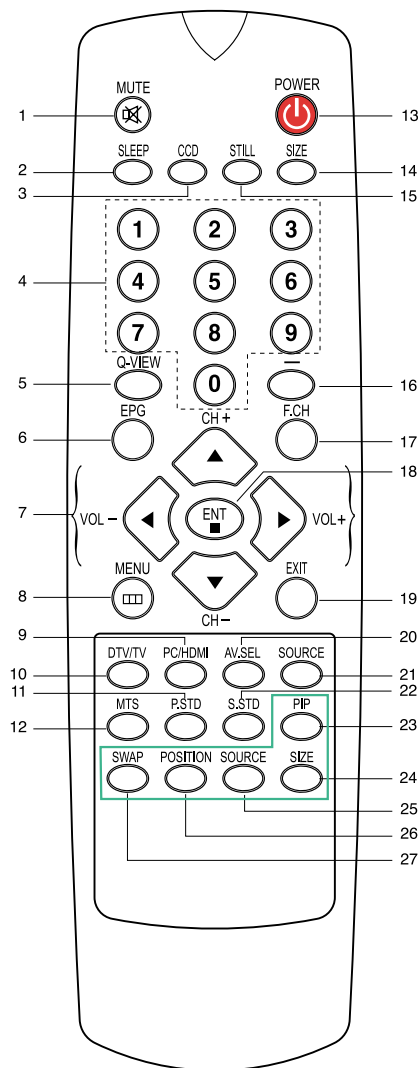


3 Replace the cover by put in it in the direction of the arrow.



You can use your remote controller within a distance of 7-10m and an angle of 30 degrees from the left and right sides of the remote controller receptor of your monitor.

Remote Control Unit



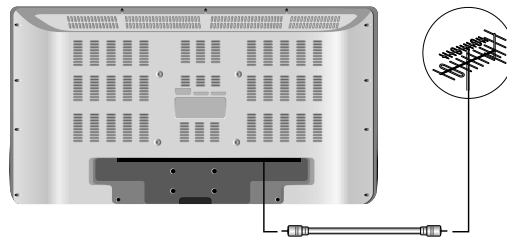
1. **MUTE** Button
(Press to temporarily cut of the sound)
 2. **SLEEP** Button
 3. **CCD** Button
 4. **Numeric** Buttons (Direct Channel select.)
 5. **Q-VIEW** Button (Quick view for previous channel)
 6. **EPG** Button (User can check about present channel, next program list and information by selecting the EPG key.)
 7. **VOLUME** Up(+) / Down(-) Button
Channel Up(+) / Down(-) Button
◀/▶, ▲/▼ Button
(This buttons are used to make adjustments to the selected menu item)
 8. **MENU** Button
 9. **PC/HDMI** Button (Select PC or HDMI mode)
 10. **DTV/TV** Button (Select DTV or TV)
 11. **P.STD** Button (Picture Standard Button)
 12. **MTS** Button (Multi Channel Television Stereo):
Sound mode change to Stereo, Mono, or
Separate Audio Program (SAP Broadcast)
 13. **POWER** button (Turns the TV On and Off)
 14. **SIZE** Button (Image size button)
 15. **STILL** Button (Pause the moving Image)
 16. **-** Button (DTV Channel Select Button)
 17. **F.CH** Button (User can add the wanted channel to favorite lists during watching TV)
 18. **ENT** Button
 19. **EXIT** Button (Terminated menu screen)
 20. **AV.SEL** Button (Change input source every time pushed)
 21. **SOURCE** Button (Display the all the connected or available external devices on the screen)
 22. **S.STD** Button (Sound Standard Button)
- PIP SELECTION**
23. **PIP** Button (Turn Picture-In-Picture on or off)
 24. **SIZE** Button (Adjusts the sub picture size)
 25. **SOURCE(SUB)** Button
 26. **POSITION** Button (Change the position of sub Picture)
 27. **SWAP** Button (Exchange main with sub picture)

Connecting to watch TV, VCR or DVD

Connecting the Aerial or Cable Television Network

To view television channels correctly, a signal must be received by the set from one of following sources:

- An outdoor aerial
- An indoor aerial (not recommendable)
- A cable television network



1. In the first three cases, connect the aerial or network input cable to the 75 ohm coaxial socket on the rear of the TFT LCD TV.
2. Press the TV button on the remote control.

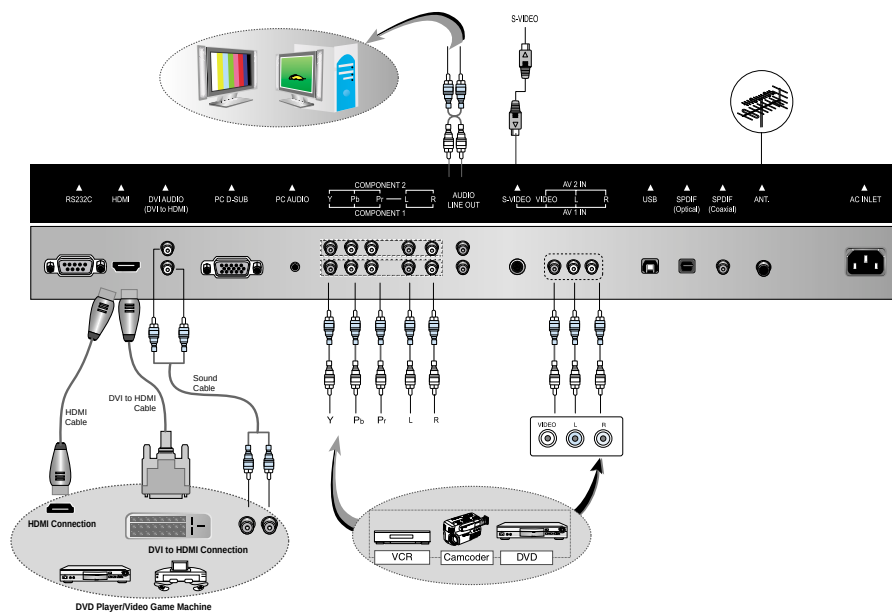
Connecting the VCR, DVD or Other external devices

1. Connect video and audio cable according to the shape and color or the video / audio cable. When an external devices is in MONO, the audio connection cable can be connected to either the left and S.MODE/MTS should be set MONO.
2. For optimal visual image, use S-VIDEO connector instead of video (yellow) connector.

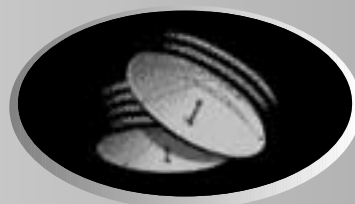
Connecting to watch TV, VCR or DVD

Connecting a DVD Player (Connecting to Y, P_b, P_r)

1. Connect a set of audio cables between the component AUDIO IN jacks on the TFT LCD TV and the AUDIO OUT jacks on the DVD Player.
2. Connect video cables between the Y, P_b and P_r inputs on the TFT LCD TV and Y, P_b and P_r outputs on the DVD Player.
(Note : For an explanation of Component video, see your DVD Player's Owner's manual.)



Setup Selection



Scanning Channels (Automatic)

This will scan all the available Channels. Channel scan should be done before using this product. You should set the proper TV reception method, 'Air' for outdoor air antenna and 'STD, HRC & IRC' for your cable

TV System. For the cable system, please contact your local cable TV provider.

1. Press MENU button on the remote control and navigate by pushing [▼] or [▲] Keys to select 'Channel' menu.
2. Press [◀] or [▶] button to enter [Setup] Menu.
3. Set your TV reception method among [Air/Cable/Hrc/Irc],



To do channel search, set the TV reception method, such as 'Air', 'Cable STD', 'Cable Hrc' or 'Cable Irc'. All the available Digital (ATSC) and Analog (NTSC) TV channels are scanned in each TV reception method and stored after the channel scan. When you watch TV, the channel system is set to DTV as a factory default.



4. Push [▼] or [▲] button to select [Auto Search] and press [◀] or [▶] button again, and then the channels are searched automatically
5. Press [▼] or [▲] button to display the scanned channels. Only scanned channels are on display



All the current stored channels will be replaced with new channel information after doing 'Auto Search'.





Setup Selection

Setup Edit-Store or Delete the Channels

1. Press MENU button and select [Setup] menu by manipulating [▼] or [▲] button and then, press [▶] button to get into.
2. In this menu, select [Setup Edit] by pressing [▼] or [▲] button.
3. Setup Edit menu will be up when you press [▶] button.



Channel Edit mode manages Digital and Analog channels separately.

(For example, only available DTV channels will be displayed in DTV mode, no analog channels at all). It is recommend setting the channel system (Analog/Digital) properly before you edit channel.



Digital Channel



Analog Channel

* The right side of the menu is for the current available or stored channels. Before you watch TV, as mentioned, channel scan should be done.

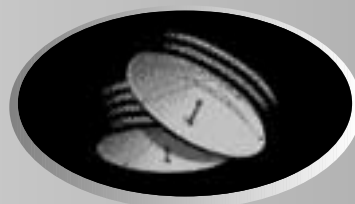
To Store/Memorize a Channel

1. Press ENT [■] button on the one you select and then input Channel Number.
2. Press ENT [■] button again and the channel configurations will be stored.

To Delete a Channel

1. Select the channel you would like to delete by manipulating [◀] or [▶] or [▼] or [▲] button on Remote Controller.
2. Press '-' button to delete the selected one.

Setup Selection



Using Favorite (FAV.) Channel Function

Favorite Channel Function is to ease channel change among your frequent watching or favorite channel by separately memorizing them in FAV.

To Register as Favorite Channel

1. Press [▼] or [▲] button or [◀] or [▶] button to select the channel you would like to register in the available channel menu on the right side of display.
2. Press 'FAV' on the selected one to register it as a favorite channel
3. The registered one is displayed in 'Favorite Channel', located at the bottom left of the screen.



Digital TV Channel



Analog TV Channel

* After you finish favorite channel registration, by each pressing of FAV, you can change the channels between them.



FAV function manages Digital TV Channels and Analog ones separately. For instance, if FAV button is pressed under Digital TV System(DTV), only DTV channels that is preset channels are displayed. To use in Analog, press DTV/TV button on Remote Controller to change the mode to Analog and push FAV.





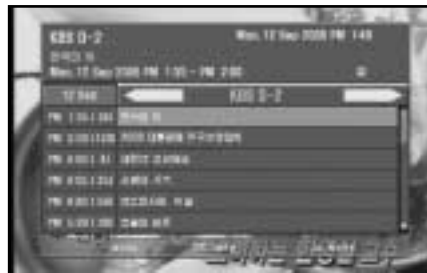
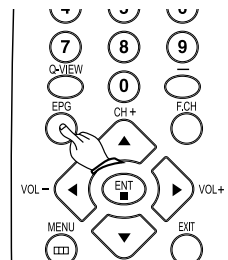
Setup Selection

Displaying EPG(Electronic Program Guide)

EPG is available only when you watch Digital TV.
EPG displays TV Programs with reference to a channel and time interval.

1. Press EPG button on the remote control during watching HD TV Program.
2. Press [▼] or [▲] or [◀] or [▶] button to navigate Programs with reference to each channel.
3. You can check the program schedule with reference to a channel and see program information by pushing 'OK'.

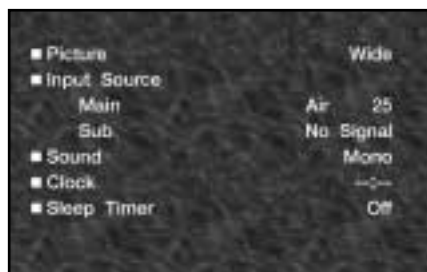
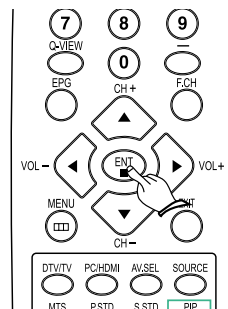
*Not every program has EPG information.
The program with information has information icon in EPG.



Viewing the Information

The information identifies the current channel and status of certain audio and video settings.

1. Press ENT [■] button on the remote control during watching TV.
2. The TV will display information on the channel, the type of sound and status of certain audio/video settings.
3. The information screen automatically disappears after about ten seconds or manually by pushing ENT [■] button again.



The information window will disappear about 10 seconds later.

Setup Selection

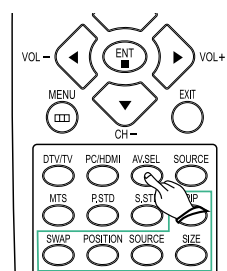


Changing the input mode

This explains how to change and watch other Input Sources by pushing AV.SEL buttons

1. Press [AV.SEL] button on the Remote control.
2. You can change Input Source to be displayed every time you press the button. It changed among the connected source only.

* You can select TV, PC/HDMI Mode directly by pressing [DTV/TV] / [PC/HDMI] button on the remote control accordingly.



Concerning how to connect external devices, you can consult "Installation" section.

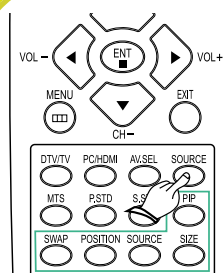


Viewing the Current Connected External Devices

This explains how to change and watch other Input Sources by pushing 'Source' button.

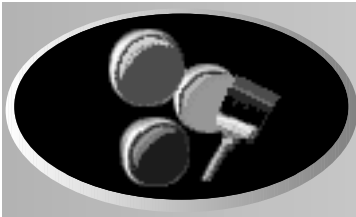
1. Press [Source] button on the remote control. The status of input source will appear.
2. Press [▼] or [▲] button and then push ENT [■] button to change the input source.

* The Connected (Available) external devices or port is brightened with "Connected" message while deactivated ones are in gray and with "Not Connected" message.



Input Source	
TV/DTV	
S-Video (AV1)	Not Connected
AV1	Connected
AV2	Connected
Component 1	Not Connected
Component 2	Not Connected
HDMI	Not Connected
PC	Not Connected





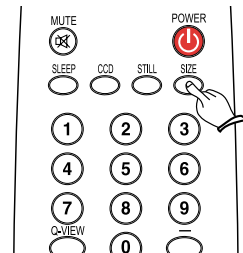
Picture Configuration

Adjusting the Aspect Ratio

This explains how to change Aspect Ratio to '4:3, 14:9, Panorama and Wide'.

Press [SIZE] button on the remote control. The Aspect Ratio is changed in turn as you press the button.

Wide → Panorama → Zoom → 4:3 → 14:9



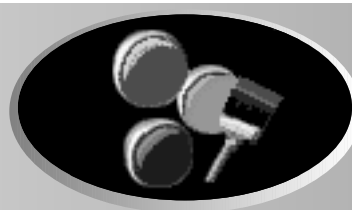
To change the Aspect Ratio in OSD Menu

1. Press MENU button on the remote control.
2. Press [▼] or [▲] button to select '[Picture]' menu and push ► button.
3. In [Picture] menu, select [Size] with [▼] or [▲] button.
4. Change Aspect Ratio by pressing [◀] or [▶] button.



	Wide	Convert display ratio to 16:9
	Panorama	Panorama Mode
	Zoom	Zooming the original Image (Press [▼] or [▲] button to move the center position of picture.)
	4:3	Convert display ratio to 4:3
	14:9	Convert display ratio to 14:9

Picture Configuration

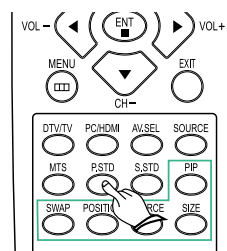


Changing the Preset Picture Mode

Your TV has several factory presets which allow you to control the picture.

Press [P.STD] button on the remote control. The picture mode is changed as you press the button.

Custom → Dynamic → Standard → Movie → Mild



To change the Picture mode in OSD Menu

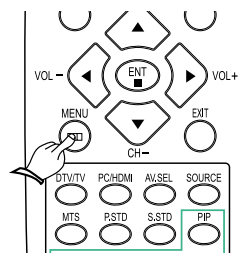
1. Press MENU [] button on the remote control.
2. Press [▼] or [▲] button to select [Picture] menu and push Volume [] button.
3. In [Picture] menu, select [Picture Mode] with [▼] or [▲] button.
4. Change the Picture mode by pressing [◀] or [▶] button.

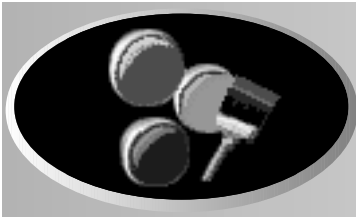


Customizing the Picture

You can adjust Brightness, Contrast, Sharpness or the depth of Color.

1. Press MENU button on the remote control.
2. Press [▼] or [▲] button to select [Picture] menu and push [▶] button.
3. In [Picture] menu, select [Picture Mode] with [▼] or [▲] button and manipulating [◀] or [▶] button until "Custom" appears.
4. Use [▼] or [▲] button to select among Brightness, Contrast, Sharpness, Tint and Color and then adjust the values with [◀] or [▶] button.



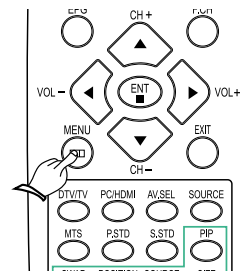


Picture Configuration

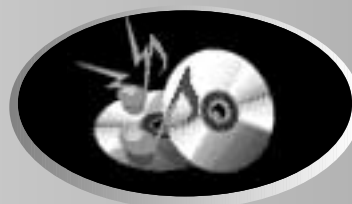
Adjusting the Color Tone

This explains how to change the tone of the screen.

1. Press MENU button on the remote control.
2. Press [▼] or [▲] button to select [Picture] menu and push [◀] or [▶] button.
3. In [Picture] menu, select [Color Tone] with [▼] or [▲] button
4. Change Color Tone Preset with [◀] or [▶] button.



Sound Configuration

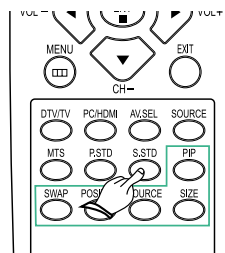


Changing the Preset Sound Mode

This TV set offers five sound modes (Custom, Standard, Music, Movie, Speech).

Press [S.STD] button on the remote control. The mode is changed one by one every time you press it.

Custom → Standard → Music → Movie → Speech



To change the Sound mode in OSD Menu

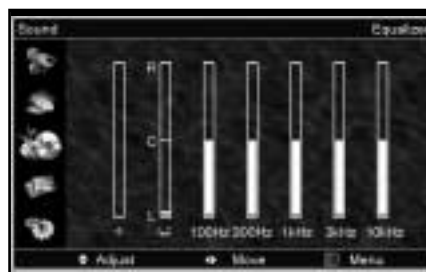
1. Press MENU button on the remote control.
2. Press [▼] or [▲] button to select [Sound] menu and push [▶] button.
3. In [Sound] menu, select [Sound Mode] with [▼] or [▲] button.
4. Change the Sound Mode by pressing [◀] or [▶] button.

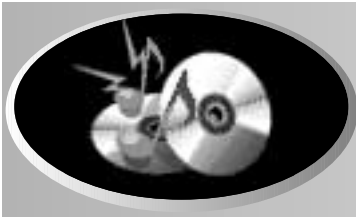


Adjusting the Equalizer

This explains how to set and adjust equalizer.

1. Press MENU button on the remote control.
2. Press [▼] or [▲] button to select [Sound] menu and push [▶] button.
3. In [Sound] menu, select [Equalizer] with [▼] or [▲] button and push [▶] button.
4. Select the Frequency to be set by pressing [▼] or [▲] button.
5. Adjust the level properly by pressing [◀] or [▶] button.





Sound Configuration

Automatic Volume Level Control

Auto Volume normalizes the different sound volume level that can be different in broadcast station. This lets you have adjusted mean value of volume level per channel.

1. Press MENU button on the remote control to select [Sound] menu.
2. Press [▶] button on [Sound] menu.
3. Press [▼] or [▲] button to select [Auto Volume].
4. Push [◀] or [▶] button until [Auto Volume] is "on".



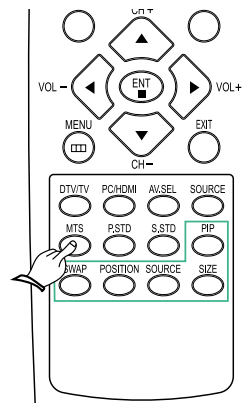
Setting MTS (Multi Track Sound) Mode

You can adjust the Stereo or MTS function manually.
Press [MTS] button on the remote control.

Stereo / Mono

You can select between 'Stereo' and 'Mono' when the Stereo broadcasting is received.

- **Stereo:** Two speakers out (2 Channels, Left/Right) and the different sound per channel
- **Mono:** Two speakers out but both channel has the same signal (the identical sound).



SAP Stereo / SAP Mono

You can select the SAP mode which is 'SAP Stereo', 'SAP Mono' when the SAP broadcasting, which is usually a foreign translation, is received. The mode is automatically detected.

- **SAP Stereo:** There is at least one more dubbing language in addition to default language in incoming broadcasting signal. You can change the language by pushing [MTS] button
- **SAP Mono:** Only default language is on air.

*** STEREO, MONO, SAP Stereo and SAP Mono modes are automatically detected. You just press the key to toggle the each mode.**

PIP(Picture In Picture) Selection



PIP is the function to display two different input source simultaneously.

1. Press [PIP] on the remote control.
[PIP] is changed as following every time you press [PIP] button

On → Off



To set PIP in On Screen Display Menu

1. Press MENU button on the remote control.
2. Select PIP menu by pressing [▼] or [▲] button.
3. Press [▶] button and select [PIP] by pressing [▼] or [▲] button
4. Set PIP to "On" with [◀] or [▶] button



*** Please check the following PIP combination table of Main and Sub picture.**
('Graphic-in-Graphic or Video-in-Video' is not supported)

SUB MAIN	TV	AV1	S-VIDEO	AV2	DTV	Component 1	Component 2	PC	HDMI
TV	X	X	X	X	X	O	O	O	O
AV1	X	X	X	X	O	O	O	O	O
S-Video	X	X	X	X	O	O	O	O	O
AV2	X	X	X	X	O	O	O	O	O
DTV	X	O	O	O	X	X	X	X	X
Component1	O	O	O	O	X	X	X	X	X
Component2	O	O	O	O	X	X	X	X	X
PC	O	O	O	O	X	X	X	X	X
HDMI	O	O	O	O	X	X	X	X	X



PIP(Picture In Picture) Selection

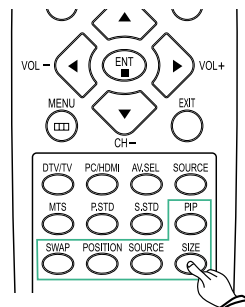
Adjusting the Size of Sub picture

Press [SIZE] button on the remote control.
The size is changed in the following order each press.

Small → DOUBLE → DOUBLE2

To adjust the size in On Screen Display Menu

1. Press MENU button on the remote control.
2. Select PIP menu by pressing [▼] or [▲] button.
3. Press [▶] button and select [Size] by pressing [▼] or [▲] button.
4. Press [◀] or [▶] button to adjust the size.



Changing Input Source of Sub picture

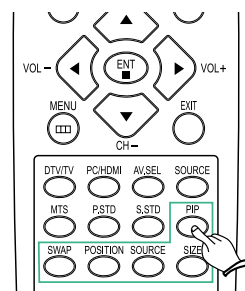
You can change the input source of sub picture.

Press [P.INPUT] button on the remote control.
The input source is changed as you press the button. Source change will be available only among connected sources. For more information, check the PIP Combination table.

To change the input source in On Screen Display Menu

1. Press MENU button on the remote control.
2. Select PIP menu by pressing [▼] or [▲] button.
3. Press [▶] button and select [Input Source] by pressing [▼] or [▲] button.
4. Press [◀] or [▶] button to change input source.

(To adjust the input source of Sub picture, PIP should be active.)



PIP(Picture In Picture) Selection



Adjusting the position of Sub picture

You can change the position to 'Up', 'Down', 'Left', 'Right'.

The position of Sub picture is changed as you press [POSITION] button on the remote control.

To adjust the position in On Screen Display Menu

1. Press MENU button on the remote control.
2. Select PIP by pressing [▼] or [▲] button.
3. Press [◀] or [▶] button.
4. Select [Position] by pressing [▼] or [▲] button.
5. Adjust the position by pressing [◀] or [▶] button
(To adjust the position of Sub picture, PIP should be active.)

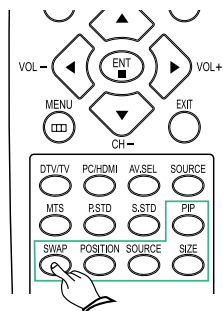


Swapping the main with sub picture in PIP mode

Press [SWAP] button on the remote control.

To do this in On Screen Display Menu

1. Press MENU button on the remote control.
2. Select PIP by pressing [▼] or [▲] button.
3. Press [▶] button.
4. Select [SWAP] by pressing [▼] or [▲] button.
5. Pressing [◀] or [▶] button to swap the picture





Function Selection



Setting the Current Time (Time Zone)

Time Zone setting is required for setting the time and receiving EPG properly. Once system time is set, all the relevant functions such as timer are available.

1. Press MENU button on the remote control.
2. Select Setup menu by pressing [▼] or [▲] button.
3. Press [▶] button, select 'Time' with [▼] or [▲] button and press [▶] button again.
4. In [Time Zone] menu, manipulate [▶] button to select the region you live.

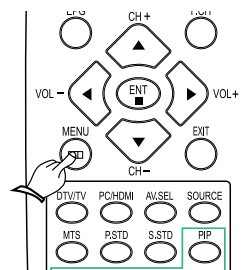


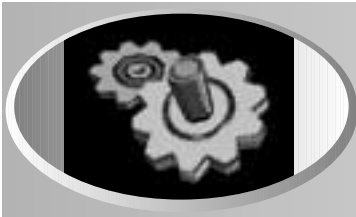
The current time can be check by pressing ENT[] button on the remote controller.



Automatic Power On and Off

1. Press MENU button on the remote control.
2. Select Setup menu by pressing [▼] or [▲] button.
3. Press [▶] button, select 'Time' with [▼] or [▲] button and press [▶] button again.
4. Select 'On timer' or 'Off timer' by pressing [▶] button.
5. Set the time with [▼] or [▲] button.





Function Selection

Setting the Sleep Timer

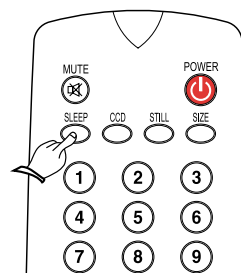
You can adjust the time for automatic system down.

Press [Sleep] button.
Sleep Timer is changed as following every time you press [Sleep] button.

**OFF → 30Min → 60Min → 90Min →
120Min → 150Min → 180Min**

To set the sleep timer in [Setup] menu.

1. Press MENU button on the remote control.
2. Select Setup menu by pressing [▼] or [▲] button.
3. Press [▶] button, select 'Time' with [▼] or [▲] button and press [▶] button again
4. Select [Sleep Timer] by pressing [▼] or [▲] button.
5. Set the timer with [◀] or [▶] button
6. When configuration is done, press MENU button to save the changes and exit.



Time is automatically set, once you set the Time Zone and then watch a DTV channel. After Time is set, you can use On Timer and Off Timer functions.



The current time is automatically received or synchronized by Digital TV EPG once Digital TV channel information is set and stored, it is not required for setting the time.



Function Selection

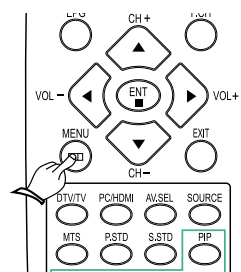


Pixel Shift

Due to its fundamental and built-up technology of LCD, when it is turned on long time of period especially with a still image, it can have afterimage that does not disappear even though it is turned off. During watching TV, this can affect serious image quality problem. However, with this feature, each pixel of LCD is shifted to right or left minutely and regularly, surely impossible to be noticed by human eyes, to protect afterimage effect.

1. Press MENU button on the remote control.
2. Select 'PIXELSHIFT' or 'SCREEN WIPER' in Setup menu.
3. Set 'PIXELSHIFT' or 'SCREEN WIPER' function 'ON' by pressing [◀] or [▶] button.

* If Screen Wiper is on, in some of time, a vertical white bar will be moving from right to left or vice versa every 3 minutes.



Digital Noise Reduction

When the incoming signal is weak or picture noise appears at moving image, DNR function helps to reduce the noise and eye strain by its filtering procedure.

1. Press MENU button on the remote control.
2. Select 'DNR' in Setup menu.
3. Set 'DNR' function 'ON' by pressing [◀] or [▶] button.





Function Selection

Viewing Closed Caption

Closed Caption feature is to display On Screen Text Messages during watching TV. This feature is available in both analog and digital broadcast.

1. Press MENU button on the remote control, select Setup menu by manipulating [▼] or [▲] button and press [▶] button.
2. Press [▼] or [▲] to select [Caption] and then [▶] button
3. 'Caption' sub menu will appear.



Sub Menus of Caption

Caption : Turn the feature on or off. This can be set by [◀] or [▶] button.

Caption Box : Set the Text Box. You can turn it on or off with [◀] or [▶] button.

Caption Box Color : change the color of Caption Box. Press [◀] or [▶] button to change it.

Function Selection



Parental Rating Control (U-Chip)

V-chip feature automatically locks TV Programs (TV Parent Guide Lines) or Movie (MPAA) that is considered as inappropriate for children. To activate, deactivate or set the rating, you should enter a PIN (Personal ID Number).

1. Press [MENU] button to display the menu.
2. Press [▼] or [▲] button to select 'Setup', and then press [◀] or [▶].
3. Press [▼] or [▲] button to select 'V-Chip', and then press [◀] or [▶].
4. The message "Enter PIN" will be appear. Enter your four digit PIN Number. The V-Chip screen will appear. (*The default Pin Number of a new TV set is '0000'.)

* To change PIN Number, select Change Pin Number menu and then the menu will appear. Choose and enter 4 digits.



How to set up restrictions using the "TV Parental Guidelines".

1. Press [▼] or [▲] button to select 'TV Parent Guide Lines' and then push [◀] or [▶] button. The menu will appear. You can set up the restrictions in this menu.

*** Restriction Categories based on six aged base.**

TV-Y	Young Children
TV-Y7	Children 7 and over
TV-G	General Audience
TV-PG	Parental Guidance
TV-14	Viewers 14 and Over
TV-MA	Mature Audience



Function Selection

For instances, if you block TV-Y, TV-Y7 will automatically be blocked and similarly, if you block the TV-G, all the categories in "young adult" (TV-Y, TV-Y7, TV-G, TV-PG, TV-14, and TV-MA) will be blocked.

*** Each Restriction Category has additional options, sub-ratings.**

FV: Fantasy Violence
D: Sexually Suggestive Dialog
L: Adult Language
S: Sexual Situation
V: Violence

V-Chip will automatically block certain sub-categories that are more restrictive. For example, if you block "L" sub-rating in TV-PG, then the "L" sub ratings in TV-14 and TV-MA will automatically be blocked.

How to set up restrictions using the "MPAA"

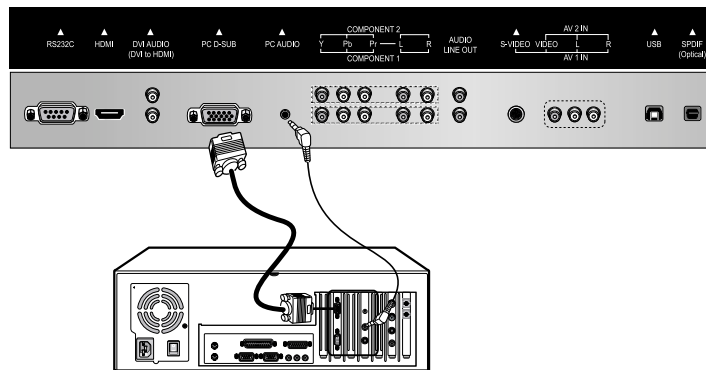
1. Press [▼] or [▲] button to select 'MPAA Rating' and then push [◀] or [▶] button. The menu will appear. You can set up the MPAA restrictions in this menu.

*** Restriction Categories based on six aged base.**

G	General Audience (No Restrictions)
PG	Parental Guidance Suggested
PG-13	PG-13 (Parents Strongly Cautioned)
R	R (Restricted. Children under 17 should be accompanied by an adult)
NC-17	No Children under age 17.
X	X (Adults Only)
NR	Not Rated

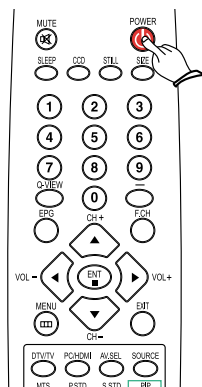
Adjusting the PC Picture Settings

Connecting a PC



1. Turn off your computer and LCD TV.
2. Connect a PC D-sub cable between your PC and PC-VIDEO-IN of the LCD TV.
And then fasten the screws of both sides of the cable.
3. Connect a PC Audio cable between the sound output jack of the sound card on a PC and the PC-AUDIO-IN of the LCD TV.
4. Power on the computer before turning on the LCD TV.

Initial set PC mode



1. Power on your LCD TV by pressing the POWER button on the main set or on the remote controller.
2. Press the PC/HDMI button on the remote controller to switch to the PC mode.
Then the PC screen is automatically set.
When a CD-Title runs, the music is output from speakers.
(You can use an external speaker via the Audio Output jack on the rear of the main set.)

Adjusting the PC Picture Settings

Using as a PC Monitor

This LCD TV is designed to be used as a PC Monitor. Concerning the Maximum Resolution, please refer to specification table in Appendix. Since it has driver software implemented, you don't have to install any additional software. Just PLUG N' PLAY!!!



To use it as a PC monitor, your PC and TV should be connected via D-sub cable (15 Pin Analog). For details, please check the Installation section.

Check the current Resolution and Frequency rate

This will display information on current resolution and frequency rate on the bottom of the screen. To check, press MENU button and select 'Picture menu'.

1. Select 'PC' and press [◀] or [▶] button.
2. The resolution and Frequency rate are displayed on the bottom of the screen.



Automatic Adjustment of the PC picture

This is the function that the LCD TV System finds the optimal value for adjustment and automatically applies it. Use this function when the position of WINDOWS image is not centered or the characters on the screen are not clear.

1. Press MENU [] button on the remote control.
2. Press [▼] or [▲] button to select [Picture] menu and push [▶] button.
3. In [Picture] menu, select [PC] with [▼] or [▲] button and push [▶] button.
4. Select 'Auto Adjustment' by pressing [▼] or [▲] button
5. Press [▶] button and then Automatic adjustment starts.



Adjusting the PC Picture Settings

Setting the Position of PC Picture

You can adjust the position of a PC picture manually. Use this function when the picture is not centered or shifted to sides.

1. Press [◀] or [▶] button.
2. Press [▼] or [▲] button and then select 'Position' by pressing [◀] or [▶] button.
3. The position adjustment screen is displayed when you press [◀] or [▶] button.
4. Adjust the position by pressing [▼] or [▲] button and [◀] or [▶] button.



Adjusting the PC Picture Size

This explains how to set the screen size of PC.

1. Press MENU button on the remote control.
2. Press [▼] or [▲] button to select [Picture] menu and push [▶] button.
3. Select [Picture Size] by pressing [▼] or [▲] button and adjust the value with [◀] or [▶] button.



PC Picture Size

- Wide - Full Screen
- Real - Display Real Resolution
- 4:3 - Display in 4:3 aspect ratio



Adjusting the PC Picture Settings

Adjusting the PC Picture Settings

You can adjust the PC picture, by selecting the preset values or user value. In this Menu, you can adjust Brightness, Contrast and Sharpness.

To use the preset values

1. Press MENU button on the remote control.
2. Press [▼] or [▲] button to select [Picture] menu and push [▶] button.
3. Select [Picture Mode] by pressing [▼] or [▲] button and adjust the value with [◀] or [▶] button.



Adjusting the Color Tone

You can adjust the color tone of the PC Picture.

1. Press MENU button on the remote control.
2. Press [▼] or [▲] button to select [Picture] menu and push [▶] button.
3. Select [Color Tone] by pressing [▼] or [▲] button and press [▶] button.
4. [Color Tone] Menu will display.
5. Adjust RGB by pressing [▼] or [▲] button and [◀] or [▶] button.



Adjusting the PC Picture Settings

Adjusting the Frequency/Fine Tune

Use this function to adjust the Frequency range or Phase.

To adjust the Frequency by using On Screen Display Menu

1. Press MENU button on the remote control.
2. Press [▼] or [▲] button to select [Picture] menu and push [▶] button.
3. Select [PC] by pressing [▼] or [▲] button and press [▶] button.
4. Press [▼] or [▲] button to select [Frequency] or [Phase].
5. Press [◀] or [▶] button to adjust the Frequency range or phase



Support Timing Table (PC & HDMI)

Section	Resolution	H Frequency (KHz)	V Frequency (Hz)	Pixel Frequency (MHz)	Comment
PC Resolution (Analog RGB)	640x400	3 7.861	85.08	31.5	
	640x350	31.469	7 0.087	25.175	
		37.861	85 .08	31.5	
	640x480	31.469	59 .94	25.175	
		37.861	7 2.809	29.765	
		37.500	75 .0	31.5	
		43.269	85.008	36.0	Not Support
		45.540	90.0	37.889	Not Support
		50.900	100	43.163	Out of range
	720 X 400	31.469	7 0.087	28.322	
		37.927	85 .039	35.5	
	720 X 480	31.469	60	26.9	Not Support
	720 X 576		60		Not Support
	800x600	35.156	56 .25	36.0	
		37.879	60 .317	40.0	
		43.764	70 .020	45.5	
		48.077	72 .188	50.0	
		46.875	75 .0	49.5	
		53.674	85.061	56.25	Not Support
		56.880	90.0	60.065	Not Support
		62.5	100	66	Out of range
	848 X 480	29.8	60	31.4	Not Support
		35.000	70	37.5	Not Support
		36.072	72	39.2	Not Support
		37.500	75	40.9	Not Support
	960 X 600		60		Not Support
			70		Not Support
			72		Not Support
			75		Not Support
	1024 X 768	48.780	60 .001	64.11	
		48.363	60 .004	65.0	
		56.476	70 .069	75.0	
		60.030	75 .029	78.75	
		60.241	74 .927	80	
		68.677	84.997	94.5	Not Support
		72.810	90.0	100.187	Not Support
		81.845	100.795	110	Out of range
	1088 X 612		60,70,72,75		Not Support
	1152 X 864	53.700	60	81.6	Not Support
		62.932	69.924	96.6	Not Support
	1152 X 864	67.500	75.0	104.993	Not Support
	1152 X 900	61.846	66.0	94.787	Not Support
		72.713	76.047	105.561	Not Support
	1280 X 720		60,70,72,75		Not Support
	1280 X 768	47.700	60 .0	80.136	
			70		Not Support



Support Timing Table (PC & HDMI)

Section	Resolution	H Frequency (KHz)	V Frequency (Hz)	Pixel Frequency (MHz)	Comment
			72		Not Support
			75		Not Support
	1280 X 960	60.000	60.0	102.104	Not Support
	1280 X1024	63.337	59.978	108.18	Not Support
		63.981	60.02	108.0	Not Support
		64.754	60.060		Out of range
		74.405	69.995	125	Out of range
		74.664	70.032		Out of range
		78.125	72.005	135	Out of range
		79.976	75.025	135	Out of range
		91.146	85.024		Out of range
		91.375	85.0		Out of range
	1360 X 768		60		nVidia Only
DTV Resolution (Analog RGB/HDMI(DVII))	720 X 480	31.469	59.94	25.175	
	720 X 480	31.5	60	27.027	
	720 X 576	31.250	50.0	26.566	
	1280 X 720	44.964	59.94	74.176	
	1280 X 720	45	60	74.25	
	1280 X 720	37.5	50	74.25	Not Support
	1920x1080	33.750	60.0	74.25	
	1920x1080	33.176	59.94	74.176	
	1920x1080	28.125	50.0	74.25	
	1920x1080	31.25	49.96	74.25	
	1440x1152	31.25	49.96	74.25	Not Support

*DVI doesn't support PC resolutions, it only support DTV resolutions!

*Shade Box is Not Support or requires compatibility Test



Troubleshooting

If you have a problem setting up or using your LCD TV, you may be able to solve it yourself. Before contacting customer service, try the suggested actions that are appropriate to your problem.

What you see...	Suggested Actions
Screen is blank and power indicator is off	● Ensure that the power cord is firmly connected and the LCD TV is on.
"Check to Signal" message	● Ensure that the signal cable is firmly connected to the PC(D-Sub) sources. ● Ensure that the PC(D-Sub) are turned on.
The image is too light or too dark	● Adjust the Brightness and Contrast.
Vertical bars appear to flicker, jitter or shimmer on the image	● Adjust the Frequency function. ● Auto Tracking will clear it automatically.
Horizontal bars appear to flicker, jitter or shimmer on the image.	● Adjust the phase function and then adjust the clock function. ● Auto tracking will clear it automatically.
Screen is blank and power indicator light is steady red	● The monitor is using its power management system. ● Move the computer's mouse or press a key on the keyboard.
Image is not stable and may appear to vibrate	● Auto tracking will clear it automatically ● Check that the display resolution and frequency from your PC or video board is an available mode for your monitor. On your computer check: Control Panel, Display, Settings
Image is not centered on the screen.	● Auto tracking will set the best position automatically ● Adjust the horizontal and vertical position.



Troubleshooting

Problem	Suggested Actions
No sound	● Ensure that the audio cable is firmly connected to both the audio-in jack on your monitor and the audio-out jack on your sound card. ● Check the volume level.
Sound level is too low	● Check the volume level. ● If the volume is still too low after turning the control to its maximum, check the volume control on the computer sound card or software program.
Sound is too high pitched or too low pitched	● Adjust the Treble and Bass to appropriate level.
TV signal is not received	● Ensure that the antenna cable is firmly connected to the VHF/UHF jack. ● Check "Channel Memory" and make sure you choose the correct channel system.(PAL Model) ● Select "Auto Tuning" to configure the channel system automatically.(PAL Model)

Specification

		SPECIFICATION (32")	SPECIFICATION (42")
Panel	Panel Type	TFT Color LCD	TFT Color LCD
	Display Area	697.685 x 392.256mm	930x 523mm
	Display Color	16.7 million	16.7 million
	Pixel Pitch	0.17 x 0.51 x RGB mm	0.227 x 0.681 x RGB mm
	Recommended Resolution	1366 x 768	1366 x 768
In/Out	PC	Analog RGB 15 pin D-sub PC Audio Input	Analog RGB 15 pin D-sub PC Audio Input
	Video	Composite Input S-Video In DVD (Y, Pb, Pr) Input HDMI Input	Composite Input S-Video In DVD (Y, Pb, Pr) Input HDMI Input
	Audio	Composite Input PC Input Component (Y,Pb,Pr) Audio Line Out(RCA Stereo L/R) DVI to HDMI (RCA Stereo In) SPDIF (Optical) SPDIF (Coaxial)	Composite Input PC Input Component (Y,Pb,Pr) Audio Line Out(RCA Stereo L/R) DVI to HDMI (RCA Stereo In) SPDIF (Optical) SPDIF (Coaxial)
TV Signal	Video System	NTSC, ATSC, (PAL M and PAL N)	NTSC, ATSC, (PAL M and PAL N)
	Sound System (ATSC)	Dolby AC-3	Dolby AC-3
	EPG	MPEG 1/2 Layer 1 & 2 EPG(Electronic Program Guide) with ATSC PSIP(Program and Service Information Protocol)	MPEG 1/2 Layer 1 & 2 EPG(Electronic Program Guide) with ATSC PSIP(Program and Service Information Protocol)
Others	Certifications	CE	CE
	Power Consumption	116W	220W
	Speaker	10W x 10W	10W x 10W
	Plug & Play	DDC 2 B	DDC 2 B
	Screen Control	On Screen Display Menu	On Screen Display Menu
	Weight	Net 21Kg / Gross 24.5Kg	Net 34Kg / Gross 40Kg
	Power Supply	AC 100-250V~	AC 100-250V~
	Remote Controller	Yes	Yes
	Dimension	808 (W) x 643 (H) x 243 (D)	1063(W) x 830(H) x 290(D)



FCC Information

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This Device may not cause harmful interface, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for CLASS B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. 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 off and on, the user is encouraged to try correct the interference by one or more of the following measures:

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

WARNING

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