

# **DIGITAL TV**

**(37" LCD TV, 42" LCD TV, 47" LCD TV)**  
**(42" PDP TV, 50" PDP TV)**

## **USER'S Manual**

- Before operating the unit, please read this manual thoroughly and retain it for future reference.
- If you have any question in this document, feel free to contact us anytime and we will response to it immediately.

## Caution

	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	
CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE REAR COVER (OR FRONT). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		



This symbol is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the product 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 prevent damage which may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.

## Warning

- Push the plug into the socket until it is firmly in place.
  - A loose connection can cause a fire.
- Do not use a damaged power cord/plug or a loose electrical outlet.
  - It may result in electric shock or fire.
- Do not bend the power cord or use force to pull it out of the socket. Do not place it under heavy objects.
  - It may result in electric shock or fire.
- Hold the plug by the head to unplug. Pulling the plug by the cord can break the internal wires.
- Be sure to unplug before cleaning.
- Be sure that children should not ingest the batteries removed from the remote control. Keep the batteries out of children's reach.
  - If children ingest the batteries, contact a doctor immediately.
- Do not let metal objects such as silverware, wire or small tools, nor anything flammable, such as paper or matches, inside the TV vents, headphones or A/V terminals.
  - It may result in electric shock or fire.
- Do not place any liquids (water bottles, vases, drinks, chemicals) metal objects or heavy objects on top of the TV.
  - If liquids or metal gets inside the TV it can cause electric shock or fire. If a heavy object placed on top of the TV falls off, it can cause personal injury.
  - Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
- Do not block the vents with any cloth (table cloth or curtains).
  - It will cause the internal temperature to rise and can result in fire.
- Do not shake the TV back and forth or sideways, or knock it off a surface.
  - It can damage the TV. Height(PDP only)



## Safety Instructions

- Do not place the TV on an unstable cart, stand, tripod, bracket, table, or floor where it can fall.
- Do not expose the TV to extreme temperature conditions or to extreme humidity conditions.
- Do not expose the TV to direct sunlight and other sources of heat.
- Do not expose the TV to any liquids.
- Never put objects of any kind into the television, and do not place a water-containing vessel on the TV.
- During a storm conditions (especially when there is lightning) unplug the TV from the mains socket and aerial.
- Do not step on or twist the power cord.
- Do not overload wall outlets or extension cords as this can result in a risk of fire or electric shock.
- Please use a soft and dry cloth (not containing volatile matter) when you clean the TV.
- If the TV is broken, do not try to repair it yourself. Contact qualified service personnel.
- If the remote control is not used for a long period of time, remove the batteries and store it in a cool, dry place.
- Do not drop the remote control.
- When installing a TV such as for an exhibition, etc., there is risk of overheating the unit if placed directly on a floor or carpet. Be sure to use a proper stand, wall mount, ceiling mount, or Lift-Stand offered by your dealer. (Do not use and exhibit by laying down or sitting the unit directly on the floor.)
- Ventilation : The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers,table-clothes,curtains,etc.  
Accidental contact with high voltage components could be result in electric shock.  
Never place the set in a confined space such as a bookcase or built-in cabinet,unless proper ventilation is provided.  
The set requires minimum distances around the apparatus for sufficient ventilation
- Water and Moisture : Never install the set in the following places : in the bathroom,in a wet basement(Dripping or splashing water).  
No objects filled with liquids,such as vases,shall be placed on the apparatus.

## User Instructions

- Screen Image retention  
Do not display a still image (such as on a video game or when hooking up a PC to this TV) on the plasma monitor panel for more than 2 hours as it can cause screen image retention. This image retention is also known as "screen burn". To avoid such image retention, reduce the degree of brightness and contrast of this screen when displaying a still image.
- Cell Defect  
The plasma display panel consists of fine cells. Although the panels are produced with more than 99.9 percent active cells, there may be some cells that do not produce light or remain lit.
- Height  
The TV can normally operate only under 2000m in height. It might abnormally function at a place over 2000m in height and do not install and operate there.
- Warranty  
-Warranty does not cover any damage caused by image retention.  
- Burn-in is not covered by the warranty.

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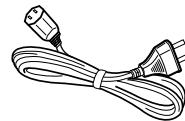
## Checking Parts



Owner 's Instructions



Remote Control/AAA Batteries



Power CORD

## Viewing the Control Panel

**37" LCD**



**A** **INPUT**

Press to display all of the available video sources.  
(TV, AV, S-Video, Component1, Component2, DVI, PC(RGB), HDMI)

**Menu**

Displays the main on-screen menu and exit the menu.

**- Vol +**

Press to increase or decrease the volume. Also used to select or adjust items on the on-screen menu.

**- CH +**

Change channels. Also used to move up or down in the On-screen menu.

**B**



Press to turn the TV on and off.

**Power Indicator**

Stand by : Red, Operate : Green

**Remote Control Signal Receiver**

Aim the remote control towards this spot on the TV.

## Viewing the Control Panel

### 42" LCD



#### A INPUT

Press to display all of the available video sources.  
(TV, AV, S-Video, Component1, Component2, DVI, PC(RGB), HDMI)

#### Menu

Displays the main on-screen menu and exit the menu.

#### - Vol +

Press to increase or decrease the volume. Also used to select or adjust items on the on-screen menu.

#### - CH +

Change channels. Also used to move up or down in the On-screen menu.

#### B I / O

Press to turn the TV on and off.

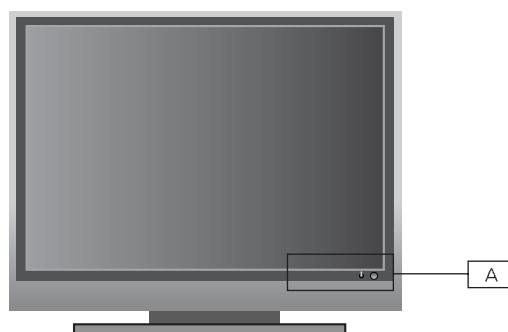
#### Power Indicator

Stand by : Red, Operate : Green

#### Remote Control Signal Receiver

Aim the remote control towards this spot on the TV.

### 47" LCD



#### A INPUT

Press to display all of the available video sources.  
(TV, AV, S-Video, Component1, Component2, DVI, PC(RGB), HDMI)

#### Menu

Displays the main on-screen menu and exit the menu.

#### - Vol +

Press to increase or decrease the volume. Also used to select or adjust items on the on-screen menu.

#### - CH +

Change channels. Also used to move up or down in the On-screen menu.

#### B I / O

Press to turn the TV on and off.

#### Power Indicator

Stand by : Red, Operate : Green

#### Remote Control Signal Receiver

Aim the remote control towards this spot on the TV.

## Viewing the Control Panel

### 42" PDP



#### A INPUT

Press to display all of the available video sources.  
(TV, AV, S-Video, Component1, Component2, DVI,  
PC(RGB), HDMI)

#### Menu

Displays the main on-screen menu and exit the menu.

#### - Vol +

Press to increase or decrease the volume. Also used to select or adjust items on the on-screen menu.

#### - CH +

Change channels. Also used to move up or down in the On-screen menu.

#### I / O

Press to turn the TV on and off.

#### Power Indicator

Stand by : Red, Operate : Green

#### Remote Control Signal Receiver

Aim the remote control towards this spot on the TV.

### 50" PDP



#### A INPUT

Press to display all of the available video sources.  
(TV, AV, S-Video, Component1, Component2, DVI,  
PC(RGB), HDMI)

#### Menu

Displays the main on-screen menu and exit the menu.

#### - Vol +

Press to increase or decrease the volume. Also used to select or adjust items on the on-screen menu.

#### - CH +

Change channels. Also used to move up or down in the On-screen menu.

#### I / O

Press to turn the TV on and off.

#### Power Indicator

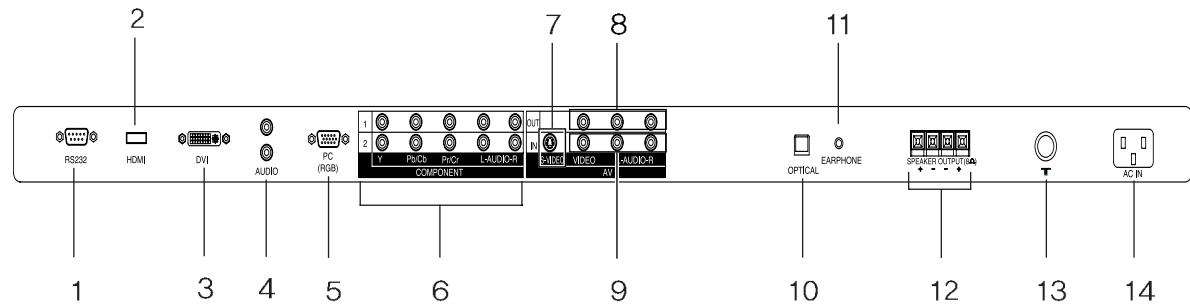
Stand by : Red, Operate : Green

#### Remote Control Signal Receiver

Aim the remote control towards this spot on the TV.

# Viewing the Connecting Panel

## Rear View



### 1) RS232C

75 coaxial connector for communication with PC(software upgrade...)

### 2) HDMI

Connect to the DVD, setup, PVR for device with HDMI output.

### 3) DVI

Connect to the digital video for device with DVI output.

### 4) AUDIO Input

Connect to audio output jack for device with DVI, PC(RGB)

### 5) PC(RGB)

Connect to the video on your PC.

### 6) COMPONENT 1,2

Video (Y/Pb/Pr or Y/Cb/Cr) and audio (AUDIO L, R) inputs for Component.

### 7) S-VIDEO

Video inputs for external devices with an S-Video output, such as a camcorder or VCR.

### 8) AV In

Output for external devices, such as VCR, DVD, video game device or video disc players.

### 9) AV OUT

Connect to Video input for device with TV (Analog signal), Video, S-Video

### 10) Optical

Connect to Digital Audio input for device with AV receiver, Audio

### 11) Earphone

Connect to Headphone, Earphone

### 12) External Speaker Output

(Except 37" LCD TV)

Connect the external speakers.

### 13) ANT

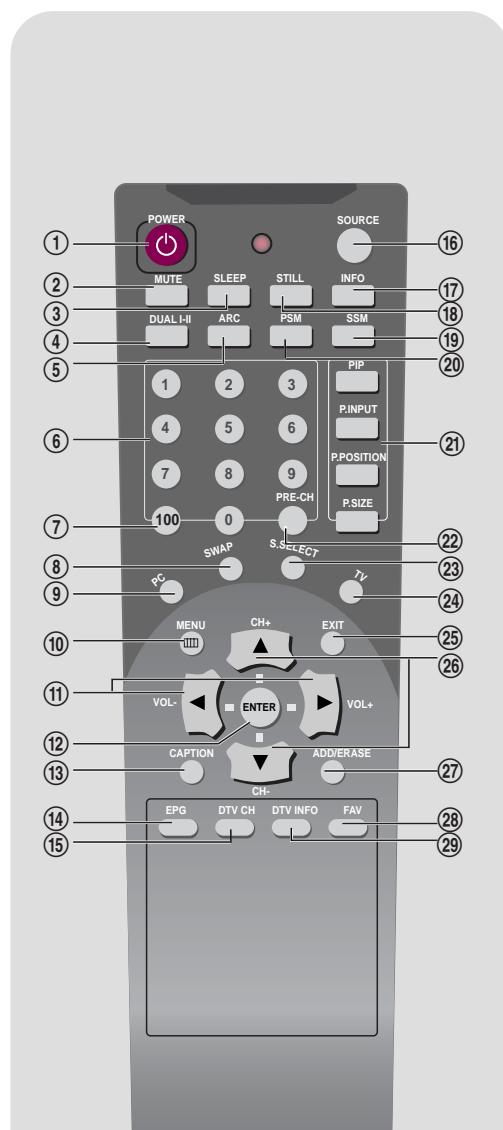
75Coaxial connector for Aerial/Cable Network.

### 14) AC IN

Connect the supplied power cord.

# Viewing the Remote Control

1. **Power**  
Power On/Off.
2. **Mute**  
Toggles speaker/headphone sound mute status.
3. **Sleep Time**  
Displays current sleep timer value by minute when no sleep timer OSD activated.  
Setup minimum sleep timer value more than current sleep timer value when sleep timer OSD activated.  
If sleep timer is maximum value, disables sleep timer.
4. **Dual I-II**  
Displays MTS of sound format when MTS OSD is not activated.  
Changes sound format when MTS OSD is activated.
5. **ARC**  
Displays aspect ratio of image when aspect ratio OSD is not activated.  
Changes aspect ratio when aspect ratio OSD is activated.
6. **0~9**  
Enters digit value to change program directly.
7. **100/-**  
Enter the channel over No.100
8. **Swap**  
Swaps main input source and PIP input source.
9. **PC**  
Changes to PC/Current source(TV,AV,Component..). If current input source is TV(AV,Component..), input source is changed to PC, If current input is PC, input source is changed to former input source(TV,AV,Component...)
10. **Menu**  
Same as Menu key on keypad.
11. **VOL+/VOL-**  
Same as Right key on keypad  
Same as Left key on keypad
12. **Enter**  
Same as Select key on keypad
13. **CAPTION**  
It is available when the main source includes CAPTION information.
14. **EPG (Built-in DTV Model only)**  
See Program Guide when you watch DTV.
15. **DTV CH (Built-in DTV Model only)**  
Searching digital channel.



## Viewing the Remote Control

### 16. Source

Activates source change OSD when source change OSD is not activated. Deactivates source change OSD when source change OSD is activated.

### 17. Info

Displays input source information.

### 18. STILL

Toggles status between motion and still image.

### 19. SSM (Sound Standard Mode)

Displays sound standard when sound standard OSD is not activated.

Changes sound standard when sound standard OSD is activated.

### 20. PSM (Picture Standard Mode)

Displays picture standard when picture standard OSD is not activated.

Changes picture standard when picture standard OSD is activated.

### 21. PIP

Toggles PIP status

- PIP Select

Changes PIP input sources when PIP is on.

- PIP Position

Changes PIP position when PIP image size is not double screen.

- PIP Size

Changes PIP image size when PIP is on.

### 22. PRE\_CH

Changes to last tuned program.

### 23. S.Select

Selects main / PIP sound source when PIP is on.

### 24. TV

If current input source is not TV, changes to TV input source.

### 25. TV

If curr

### 25. EXIT

### 26. CH+/CH-

Same as up key on keypad.

Same as down key on keypad.

### 27. ADD/ERASE

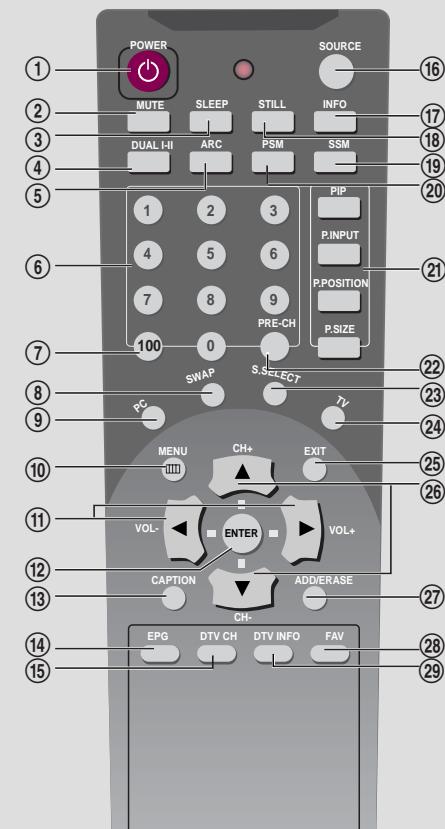
when you want to Add or delete of current channel.

### 28. FAV (Built-in DTV Model only)

Searching favorite channel that you chose.

### 29. DTV INFO (Built-in DTV Model only)

See information of presently watching Digital channel



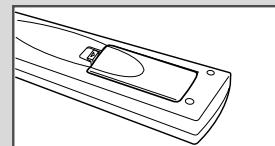
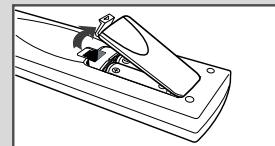
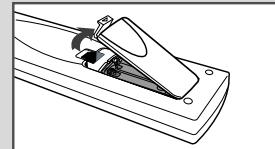
## Viewing the Remote Control

### Inserting the Batteries in the Remote Control

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

- Purchase the TV
- Find that the remote control is no longer operating correctly

1. Remove the cover on the rear of the remote control by pressing the symbol (▼)downwards and then pulling firmly to remove it.
2. Insert two R03,UM4,"AAA " 1.5V or equivalent batteries taking care to respect the polarities:
  - -on the battery against -on the remote control
  - +on the battery against +on the remote control
3. Replace the cover by aligning it with the base of the remote control and pressing it back into place.

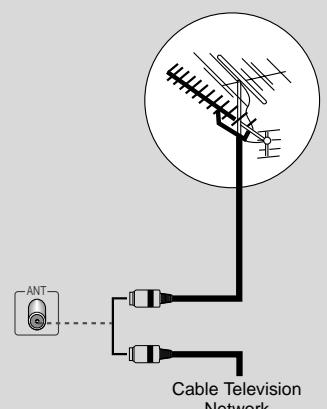


### Connecting to an Aerial or Cable Television Network

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

- An outdoor aerial
- A cable television network

- 1 In the first two cases,connect the aerial or network input cable to the  $75 \Omega$  coaxial socket on the rear of the TV.
- 2 If you are using an indoor aerial, you may need to turn it when tuning your TV until you obtain a picture that is both sharp and clear.



# *Connecting your display*

## Connecting a Satellite Receiver or Decoder

In order to watch television programmes broadcast via a satellite network, you must connect a satellite receiver to the rear of the TV. Also, in order to descramble a coded transmission signal, you must connect a decoder to the rear of the TV.

## Using a Coaxial cable

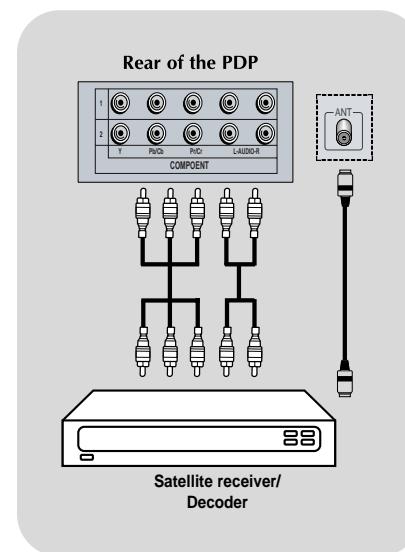
Connect a coaxial cable to the:

- Receiver (or Decoder) output socket.
- Television aerial input socket.

**NOTE:** If you wish to connect both a satellite receiver (or decoder) and a VCR, you should connect the:

- Receiver (or Decoder) to the VCR
- VCR to the TV

Otherwise, connect the receiver (or decoder) directly to the TV.



## *Basic Operation*

## Turning TV On And Off

Press Power button on the remote control. The TV will turn on and you will be ready to use its features. You can also use the Power key on the front panel.

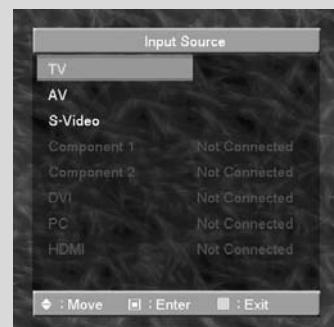
## Select Source

Press Source button on the remote control. Then you can see the source list menu. Press CH+/ CH-button on the remote control to select the source.

## Volume Control

Press VOL+/ VOL-button on the remote control to adjust the volume level.

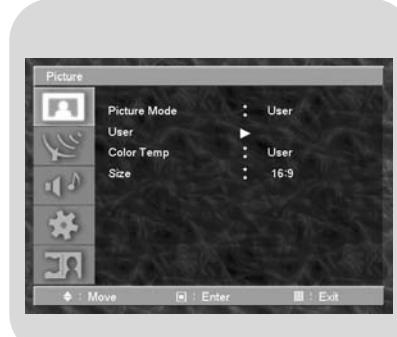
Press MUTE button on the remote control when you need to cut the sound temporarily.



## Basic Operation

### OSD Menu Structure

- OSD (On Screen Display) allows users to control or adjust various features and settings in accordance with user's preferences.
- Press the MENU/ENTER button on the remote control to see the main OSD menu.



#### 1 Main Menu

Press the MENU button on the remote control to enter the main OSD menu.

First, select Main menu item with CH+ & CH- button.

To select a main menu items, just press ENTER or VOL+ button on the Remote Control.

#### 2 Sub Menu

Each menu item has its own sub menu items to set.

#### 3 Sub Menu items

A : If there is no ► part, the item has an under menu.

You can enter the under menu and adjust an item you need.

Select sub-menu item with CH+/CH- button on the remote control and press VOL+ or ENTER or VOL+ button to enter the sub menu.

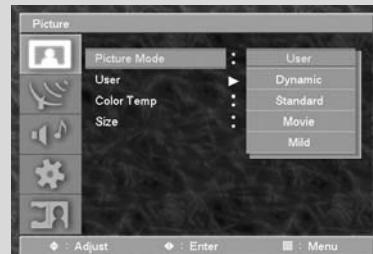
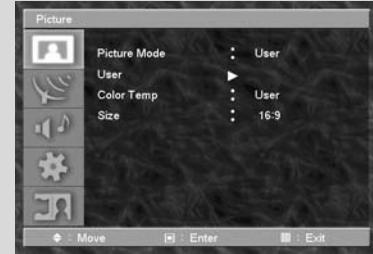
B: If there is a ► part, you can set the item by selecting ►.

## Basic Operation

### PICTURE

#### 1 Picture

1. Press MENU button to display the main OSD menu.
2. Select the picture main menu with CH+/CH- button and Press ENTER or VOL+ button to enter the sub menu.
3. Select Picture mode and press ENTER or VOL+ button to enter the sub menu. Then the picture popup window appears.
4. Select the Picture mode with CH+/CH- button and press ENTER or VOL+ button.
5. Press EXIT or MENU button to exit.

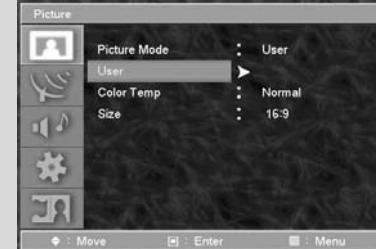


## Basic Operation

### PICTURE

#### 2 User

1. Press MENU button to display the main OSD menu.
2. Select the picture main menu with CH+/CH- button and Press ENTER or VOL+ button to enter the sub menu.
3. Select the User menu with CH+/CH- button to enter the sub menu.
4. You will see the picture setting bars. Just press VOL+/VOL- button on the remote control. You can adjust each values of the custom setting, but the changed values are stored as in Custom mode.
5. Press EXIT or MENU button to exit.



#### - Contrast -

Adjust brightness difference between bright part of the screen and dark part.

#### - Brightness -

Adjust brightness of the screen.

#### - Color -

Adjust deep and light color of the screen.

#### - Sharpness -

Adjust vividness of the screen.

## Basic Operation

### PICTURE

#### 3 Color Temp

##### Color Temp

Your TV has 5 screen temperatures (color settings).

1. Press MENU button to display the main OSD menu.
2. Select the picture main menu with CH+/CH- button and Press ENTER or VOL+ button to enter the sub menu.
3. Select the Color Temp menu with CH+/CH- button to enter the sub menu.
4. Select the Colour Tone with CH+/CH- button and press ENTER or VOL+ button.
5. Press EXIT or MENU button to exit.

##### WARM 1, 2

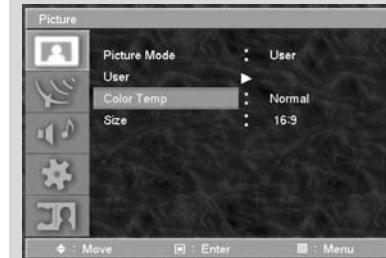
Screen seems warm: Strong Red.

##### Normal

Normal: Factory default.

##### Cool 1,2

Screen seems cool: Strong Blue.

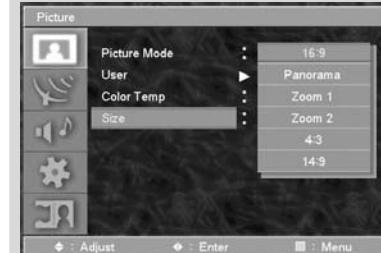
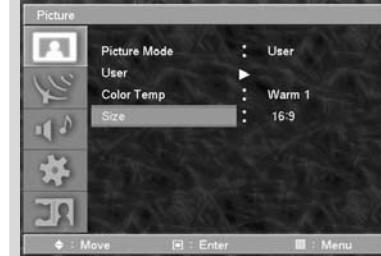


## Basic Operation

### PICTURE

#### 4 Size

1. Press MENU button to display the main OSD menu.
2. Select the picture main menu with CH+/CH- button and Press ENTER or VOL+ button to enter the sub menu.
3. Select the Size menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the Size with CH+/CH- button and press ENTER or VOL+ button.
5. Press EXIT or MENU button to exit.



## Basic Operation

### CHANNEL

#### 1 TV Source

1. Press MENU button to display the main OSD menu.
2. Select the Channel main menu with CH+/CH- button and Press ENTER or VOL+ button to enter the sub menu.
3. Select the TV Source menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the broadcasting type with CH+/CH- button. and press ENTER or VOL+ button.
5. Press EXIT or MENU button to exit.



## Basic Operation

### CHANNEL

#### 2 Auto Search

1. Press MENU button to display the main OSD menu.
2. Select the Channel main menu with CH+/CH- button and Press ENTER or VOL+ button to enter the sub menu.
3. Auto search will be executed on Analog, Digital , Analog and Digital channel indivisually. (Only built-in DTV model can search Digital channel)
4. Select the mode with CH+/CH- button and press ENTER button.
5. Then you can see the tuning bar.  
TV will execute auto program searching, while searching channel after selecting Start button with VOL+/VOL- button, you can also stop channel searching if you select Stop button.



#### 3 EPG (PROGRAM GUIDE, AUDIO LANGUAGE)

EPG(PROGRAM GUIDE), AUDIO LANGUAGE are one of the additional functions which are providing from broadcasting station, and subject to the broadcasting station, and it is subject to the broadcasting signal has to contain this funtions when you watch Digital Channel.

1. Press MENU button to display the main OSD manual
2. Selet the main menu with CH+/CH-button and Press ENTER or VOL+ button to enter select the main channel menu
3. Select the EPG / Audio language with CH+/Ch-button
4. Selec the mode with CH+/CH- button and press VOL+/VOL- button
5. Press EXIT or MENU button to exit

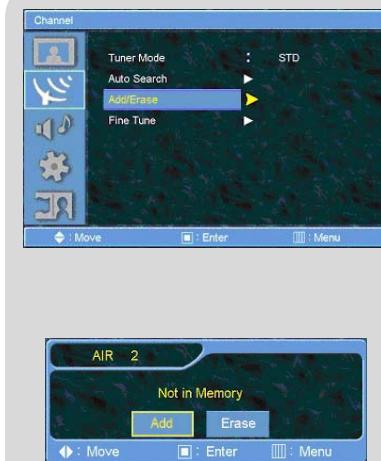


## Basic Operation

### CHANNEL

#### 4 ADD/ERASE

1. Press MENU button to display the main OSD manual.
2. Select the channel main menu with CH+/CH- button on the remote control and press the ENTER or VOL+ button to enter the sub menu.
3. Select the Add/Erase menu with CH+/CH- button and press ENTER or VOL+ button
4. Select the Add or Erase with VOL+/VOL- button and press MENU button



#### 5 Manual store

The manual store function lets you manually adjust the TV's tuner to tune analog Channels.

## Basic Operation

### SOUND

#### 1 Mode

This TV has four automatic sound settings ("Standard", "Music", "Movie", "Speech")that are preset at the factory. You can active either Standard, Movie, Music or News by pressing "SOUND"on the remote control(or by making a selection from the menu) or you can select "Custom" which automatically recalls your personalized sound settings. EAR PHONE VOLUME menu is activated, only when the headphone is connected

1. Press MENU button to display the main OSD menu.
2. Select the Sound main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Mode menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the mode with CH+/CH- button and press ENTER or VOL+ button
5. Press EXIT or MENU button to exit

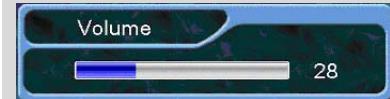


## Basic Operation

### SOUND

#### 2 Volume

1. Press MENU button to display the main OSD menu.
2. Select the Sound main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Volume menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Adjust the volume with VOL+/VOL- button and press ENTER or VOL+ button.
5. Press EXIT or MENU button to exit



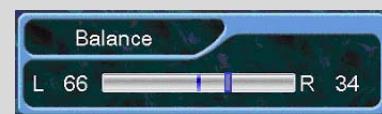
## Basic Operation

### SOUND

#### 3 Balance

This control allows you to adjust the balance of the left and right speaker output.

1. Press MENU button to display the main OSD menu.
2. Select the Sound main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Balance menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Adjust the balance with VOL+/VOL- button.
5. Press EXIT or MENU button to exit.



## Basic Operation

### SOUND

#### 4 Equalizer

You can use the OSD menu to change the Treble, Bass and Balance according to your preference.

1. Press MENU button to display the main OSD menu.
2. Select the Sound main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Equalizer menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select a gain bar with VOL+, VOL- button on the remote control and adjust it with CH+/CH- button.
5. Press EXIT or MENU button to exit equalizer.



## Basic Operation

### SOUND

#### 5 AVC(AutoVolume)

1. Press MENU button to display the main OSD menu.
2. Select the Sound main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the AVC menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
4. You can select On/Off with CH+/CH- button and press VOL+/VOL- button.
5. Press EXIT or MENU button to exit equalizer.



#### 6 MTS(Sound Mode)

1. Press MENU button to display the main OSD menu.
2. Select the Sound main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the MTS menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
4. Select the mode with CH+/CH- button and press ENTER or VOL+ button
5. Press EXIT or MENU button to exit equalizer.



#### 7 Ear Phone

The Ear Phone function lets you manually adjust the Volume of ear phone, this menu will be activated when the earphone is connected.

## Basic Operation

### SETUP

#### 1 Reset

1. Press MENU button to display the main OSD menu.
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select Reset and press MENU/ENTER button to enter the sub menu.
4. If you want to reset your TV, press ENTER button, then the system will be reset.



## Basic Operation

### SETUP

#### 2 Time ► Clock (set the current time)

1. Press MENU button to display the main OSD menu.
2. Select the SETUP main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Time menu with CH+/CH- button and press ENTER or VOL+ button
4. Select Clock by pressing VOL+ button.
5. Move the cursor by pressing VOL-, VOL+ button and adjust time by CH+ and CH- button.
6. Press EXIT or MENU button to exit.



#### 3 Time ► On Timer

This TV can be set to turn on automatically at specific time that you chose. Before using timer, you must set the TV's Time as described previously.

1. Press MENU button to display the main OSD menu.
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Time menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Move the cursor by pressing VOL-, VOL+ button and adjust on time by CH+ and CH- button.  
(Notice: You can't see the real time on this picture since this picture isn't a real operating mode but a design mode. In a real mode, you can see the real clock time.)
5. Press EXIT or MENU button to exit.



## Basic Operation

### SETUP

#### 4 Time ► Off Timer

This TV can be set to turn off automatically at specific time that you chose.

Before using timer, you must set the TV's Time as described previously.

1. Press MENU button to display the main OSD menu.
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Time menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Move the cursor by pressing VOL-, VOL+ button and adjust off time by CH+ and CH- button.  
(Notice : You can't see the real time on this picture since this picture isn't a real operating mode but a design mode. In a real mode, you can see the real clock time.)
5. Press EXIT or MENU button to exit.



#### 5 Time ► On Time Channel

Set the channel when TV power turns on automatically.

- Available only when the Time is set and On Time is ON.

1. Press MENU button to display the main OSD menu.
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Time menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the On Time Channel with CH+/CH- button
5. Adjust the channel with VOL+/VOL- button.
6. Press EXIT or MENU button to exit.



## Basic Operation

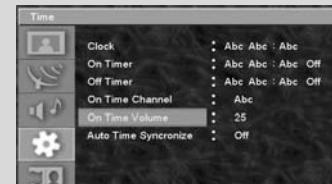
### SETUP

#### 6 Time ▶ On Time Volume

Set the sound volume level when TV power on automatically.

- Available only when the Time is set and On Time is ON.

1. Press MENU button to display the main OSD menu.
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Time menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the On Time Volume with CH+/CH- button and press ENTER or VOL+ button
5. Adjust the channel with VOL+/VOL- button.
6. Press EXIT or MENU button to exit.



#### 7 Time ▶ AUTO TIME SYNCRONIZE

This TV can use the information of broadcasting standard time as a present time when you watch digital channel

1. Press MENU button to display the main OSD manual
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Time menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the Auto Time Syncronize with CH+/CH- button and press ENTER or VOL+ button
5. Select On/Off with CH+/CH- button and press enter or VOL+ button
6. Press EXIT or MENU button to exit.



## Basic Operation

### SETUP

#### 8 Language

Set the language to use in OSD.

Supported languages are English, Spanish, Portuguese.

1. Press MENU button to display the main OSD menu.
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Language menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the language with CH+/CH- button and press ENTER or VOL+button.
5. Press EXIT or MENU button to exit.



#### 9 OSD Tone

1. Press MENU button to display the main OSD menu.
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the OSD tone menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the Deslig/Lig with CH+/CH- button and press ENTER or VOL+ button
5. Press EXIT or MENU button to exit.



## Basic Operation

### SETUP

#### 10 DIGITAL CAPTION

DIGITAL CAPTION is one of the additional function, which is providing from broadcasting station, and it is subject to the broadcasting signal has to contain this function when you watch Digital channel.

1. Press MENU button to display the main OSD manual
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Digital Caption menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the caption mode with CH+/CH- button and press ENTER or VOL+ button
5. Press EXIT or MENU button to exit.



#### 11 Screen Saver- Blue Screen(TV only)

1. Press MENU button to display the main OSD menu.
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Screen Saver menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the Blue Screen and press ENTER or VOL+ button to enter the sub menu.
5. Select the On/Off with CH+/CH- button and press VOL+/VOL- button
6. Press EXIT or MENU button to exit.

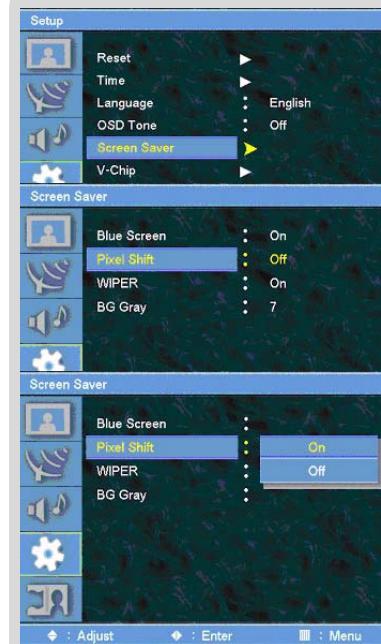


## Basic Operation

### SETUP

#### 12 Screen Saver- Pixel Shift (TV only)

1. Press MENU button to display the main OSD menu.
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Screen Saver menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the Pixel shift menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
5. Select the On/Off with CH+/CH- button and press VOL+/VOL- button
6. Press EXIT or MENU button to exit.



#### 13 Screen Saver- WIPER (TV only)

This function is for prevention of "Image retention", when the still image is lasted long.

1. Press MENU button to display the main OSD menu.
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Screen Saver menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the Wiper and press ENTER or VOL+ button to enter the sub menu.
5. Select the On/Off with CH+/CH- button and press VOL+/VOL- button.
6. Press EXIT or MENU button to exit.



## Basic Operation

### SETUP

#### 14 Screen Saver- BG Gray (TV only)

1. Press MENU button to display the main OSD menu.
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Screen Saver menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the BG Gray menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
5. You can adjust BG Gray with VOL+/VOL- button
6. Press EXIT or MENU button to exit.



#### 15 V-Chip

1. Press MENU button to display the main OSD menu.
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the V-Chip menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Enter password to see V-Chip sub menus.



## Basic Operation

### SETUP

#### 16 V-Chip(Status)

1. Press MENU button to display the main OSD menu.
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the V-Chip menu with CH+/CH- button and enter password.
4. Select the status menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
5. Select the On/Off with CH+/CH- button and press VOL+/VOL- button.
6. Press EXIT or MENU button to exit.

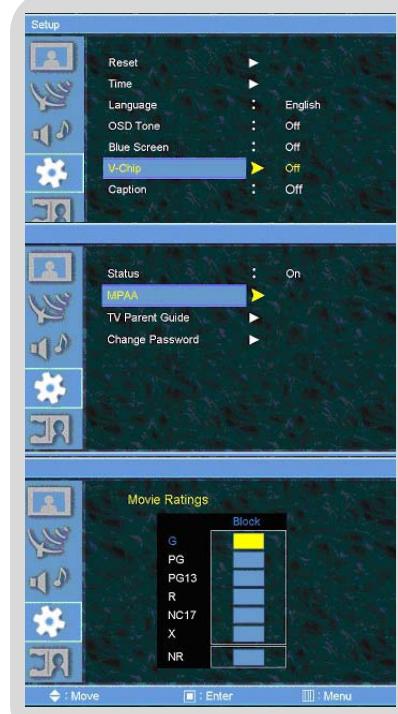


#### 17 V-Chip(MPAA)

1. Press MENU button to display the main OSD menu.
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the V-Chip menu with CH+/CH- button and enter password.
4. Select the MPAA menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
5. Select the Movie Rating with button CH+/CH- button and press ENTER or VOL+ button.
6. Press EXIT or MENU button to exit.

#### MPAA Rating Note

MPAA ratings	
G	All children and General audience
PG	Parental guidance suggested
PG-13	Parental guidance suggested
R	Restricted viewing, parental guidance is suggested for children under 17
NC-17	No children under age 17
X	Adults only
NR	Not rated



## Basic Operation

### SETUP

#### 18 V-Chip(TV Parent Guide)

1. Press MENU button to display the main OSD menu.
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the V-Chip menu with CH+/CH- button and enter password.
4. Select the TV Parent Guide menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
5. Select the TV Parent Guide mode with CH+/CH- button and press VOL+/VOL- button.
6. Press EXIT or MENU button to exit.



#### TV Parent Guide Note

These restrictions ratings consist of two separate groups:TV-Y and TV-Y7 (young children through age 7),and TV-G through TV-MA(everybody else) The restrictions for these two groups work independently:If a household includes very young children as well as young adults.TV guidelines must be set up separately for each age group.

Aged-base Restriction ratings		Content-base restriction ratings			
TV-Y	Young children	F	V	Fantasy Violence	
TV-Y7	Child 7 and over	V		Violence	
TV-G	General audience	S		Sex.Scenes	
TV-PG	Parental guidance suggested	L		Language	
TV-14	Parents strongly cautioned	D		Dialogue	
TV-MA	Mature audience				

## Basic Operation

### SETUP

#### 19 V-Chip(Change Password)

1. Press MENU button to display the main OSD menu.
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the V-Chip menu with CH+/CH- button and enter password.
4. Select the Change Password menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
5. Change your password.
6. Press EXIT or MENU button to exit.



#### 20 Caption

1. Press MENU button to display the main OSD menu.
2. Select the Setup main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Caption menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the Caption mode with CH+/CH- button and press VOL+/VOL- button
5. Press EXIT or MENU button to exit.



## Basic Operation

### PIP

#### 1 PIP(Picture In Picture)

You can watch two programs or sources at the same time. And set up PIP size and position.

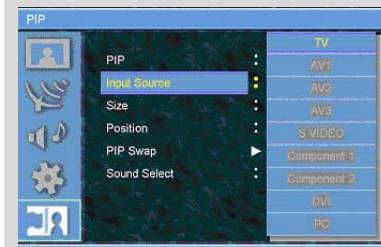
1. Press MENU button to display the main OSD menu.
2. Select the PIP main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the PIP mode and press ENTER or VOL+ button to enter the sub menu.
4. Select the On/Off with CH+/CH- button and press VOL+/VOL- button.
5. Press EXIT or MENU button to exit.



#### 2 Input Source

You can watch two programs or sources at the same time. And set up PIP size and position.

1. Press MENU button to display the main OSD menu.
2. Select the PIP main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Input Source menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the input source with CH+/CH- button and press VOL+/VOL- button.
5. Press EXIT or MENU button to exit.

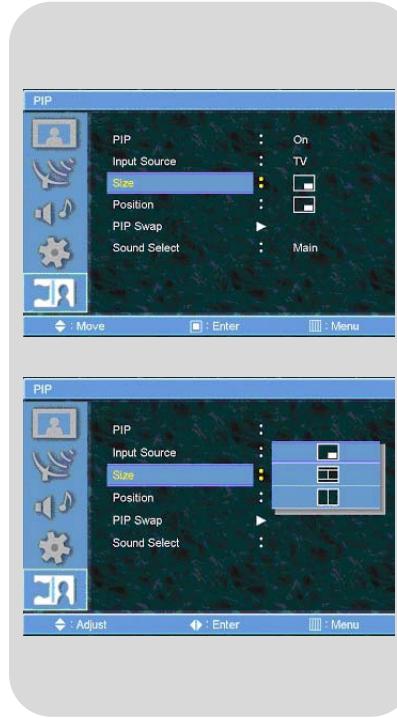


## Basic Operation

### PIP

#### 3 Size

1. Press MENU button to display the main OSD menu.
2. Select the PIP main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Size menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the PIP Size with CH+/CH- button and press VOL+/VOL- button.
5. Press EXIT or MENU button to exit.



#### 4 Position

1. Press MENU button to display the main OSD menu.
2. Select the PIP main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Position menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the input source with CH+/CH- button and press VOL+/VOL- button.
5. Press EXIT or MENU button to exit.



## Basic Operation

### PIP

#### 5 Swap

Using swap fuction, you can exchange two programs or sources at the same time.

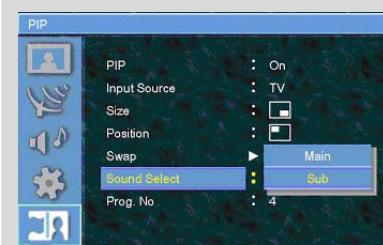
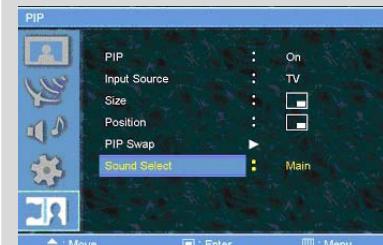
1. Press MENU button to display the main OSD menu.
2. Select the PIP main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the PIP Swap menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu .
4. Select Swap and press VOL+/VOL- button to swap two programs or sources that you want.
5. Press EXIT or MENU button to exit.



#### 6 Sound Select

Using Sound Select fuction, you can exchange the sound of two programs or sources at the same time.

1. Press MENU button to display the main OSD menu.
2. Select the PIP main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Sound Select menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the Main or Sub sound with CH+/CH- button and press VOL+/VOL- button to swap the sound of two programs or sources that you want.
5. Press EXIT or MENU button to exit.

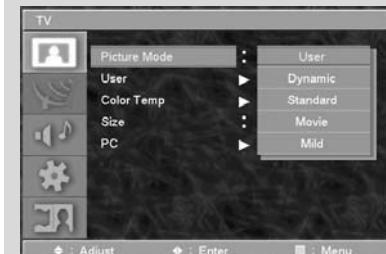
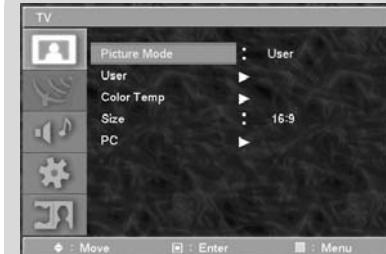


## Basic Operation

### PICTURE (PC)

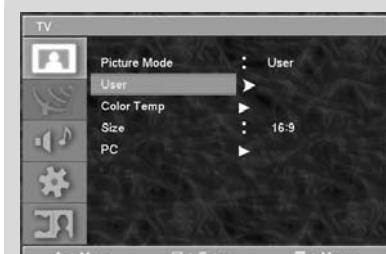
#### 1 Picture

1. Press MENU button to display the main OSD menu.
2. Select the Picture main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Picture Mode menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu .
4. Select the picture mode with CH+/CH- button and press VOL+/VOL- button.
5. Press EXIT or MENU button to exit.



#### 2 User

1. Press MENU button to display the main OSD menu.
2. Select the Picture main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the User menu with CH+/CH- button and press ENTER or VOL+ button to enter the sub menu.
4. Select the Brightness or Contrast with CH+/CH- button and adjust with VOL+/VOL- button
5. You will see the picture setting bars. You can adjust each values of the custom setting, but the changed values are stored as in Custom mode.
6. Press EXIT or MENU button to exit.



## Basic Operation

### PICTURE (PC)

#### 3 Color Temp(PC)

1. Press MENU button to display the main OSD menu.
2. Select the Picture main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Color Temp menu and press ENTER or VOL+ button to enter the sub menu.
4. Select the color tone with CH+/CH- button and press VOL+/VOL- button.
5. Press EXIT or MENU button to exit.



#### 4 Color Temp(1)

If you select User in the Color Temp popup window on PC, you can select sub modes like as Red, Green, and Blue..

1. Press MENU/ENTER button to display the main OSD menu.
2. Select the Picture main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Red(R) menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu. Then the setting bar appears.
4. You can adjust each values of the Color Tone setting.
5. Press EXIT or MENU button to exit.

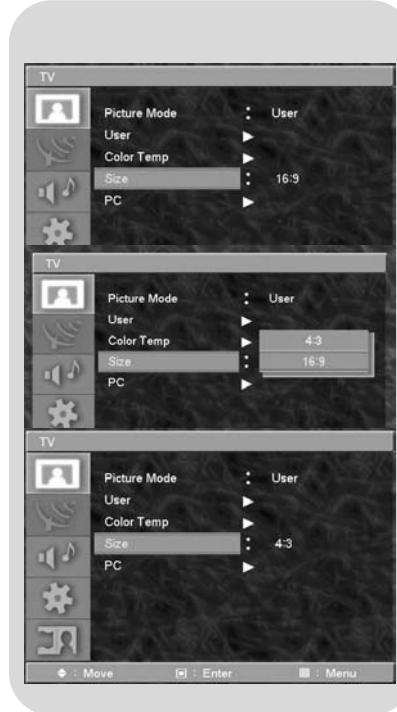


## Basic Operation

### PICTURE (PC)

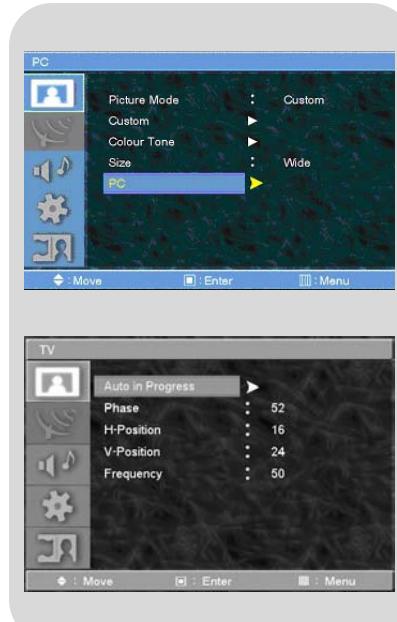
#### 5 Size

1. Press MENU button to display the main OSD menu.
2. Select the Picture main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the Size menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
4. Select the Size with CH+/CH- button and press VOL+/VOL- button.
5. Press EXIT or MENU button to exit.



#### 6 PC

1. Press MENU button to display the main OSD menu.
2. Select the Picture main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the PC menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
4. Select the Auto in Progress menu with CH+/CH- button and press VOL+/VOL- button.
5. Press EXIT or MENU button to exit.



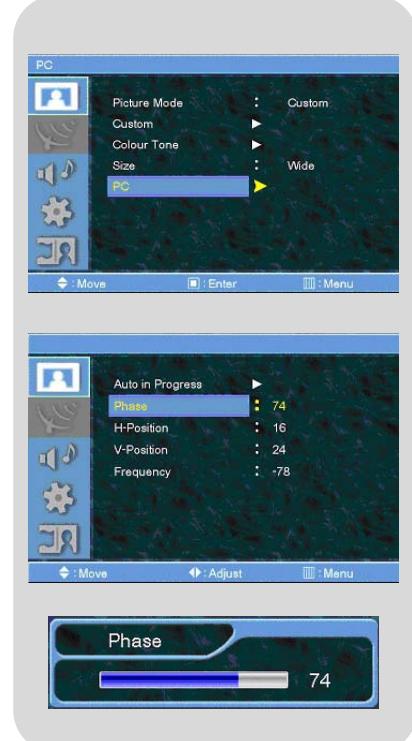
## Basic Operation

### PICTURE (PC)

#### 7 PC(2)

1. Press MENU button to display the main OSD menu.
2. Select the Picture main menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
3. Select the PC menu with CH+/CH- button on the remote control and press ENTER or VOL+ button to enter the sub menu.
4. Select the Phase menu with CH+/CH- button and press VOL+/VOL- button.
5. You can adjust each values of the PC setting.
6. Press EXIT or MENU button to exit.

\* For more detail description refer to the next page.



#### H-POSITION



#### V-POSITION



#### PHASE



## Basic Operation

### PC Display Settings

Both screen position and size will vary, depending on the type of PC graphic card and its resolution. The table below shows all of the display modes that are supported : Section Resolution

Section	Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)	Pixel Frequency(MHz)
PC	640x400	37.861	85.08	31.5
	640x350	31.469	70.087	25.175
	640x350	37.861	85.08	31.5
	640x480	31.469	59.94	25.175
	640x480	35.000	66.667	30.24
	640x480	34.940	69.884	28.513
	640x480	37.861	72.809	29.765
	640x480	37.500	75.0	31.5
	640x480	43.269	85.008	36.0
	640x480	45.540	90.0	37.889
	720x400	31.469	70.087	28.322
	720x400	37.927	85.039	35.5
	800x600	35.156	56.25	36.0
	800x600	37.879	60.317	40.0
	800x600	43.764	70.02	45.513
	800x600	48.077	72.188	50.0
	800x600	46.875	75.0	49.5
	800x600	53.674	85.061	56.25
	800x600	56.880	90.0	60.065
	832x624	49.726	74.551	57.284
	1024x768	48.780	60.001	64.11
	1024x768	48.363	60.004	65.0
	1024x768	56.476	70.069	75.0
	1024x768	57.703	72.039	78.476
	1024x768	60.241	74.927	81.724
	1024x768	60.030	75.029	78.75
	1024x768	68.677	84.997	94.5
	1024x768	72.810	90.0	100.187
	1152x864	53.700	60.0	81.624
	1152x864	62.932	69.924	96.663
	1152x864	67.500	75.0	104.993
	1152x870	68.681	75.062	100.0
	1152x900	61.846	66.0	94.787
	1152x900	72.713	76.047	105.561
	1280x720	47.760	60.0	74.481
	1280x720	52.500	70.0	89.040
	1280x720	54.072	72.0	91.706
	1280x720	56.400	75.0	95.654
	1280x768	47.700	60.0	80.136
	1280x768	60.150	75.0	102.977
	1280x960	60.000	60.0	102.104
	1280x960	59.640	60.0	102.104
	1280x1024	63.337	59.978	108.18
	1280x1024	63.981	60.02	108.0
	1280x1024	64.754	60.06	108.992
	1280x1024	63.600	60.0	108.883
	1600x1200	75.000	60.0	162.00

- The TV might operate abnormally if a non-standard video format is selected.

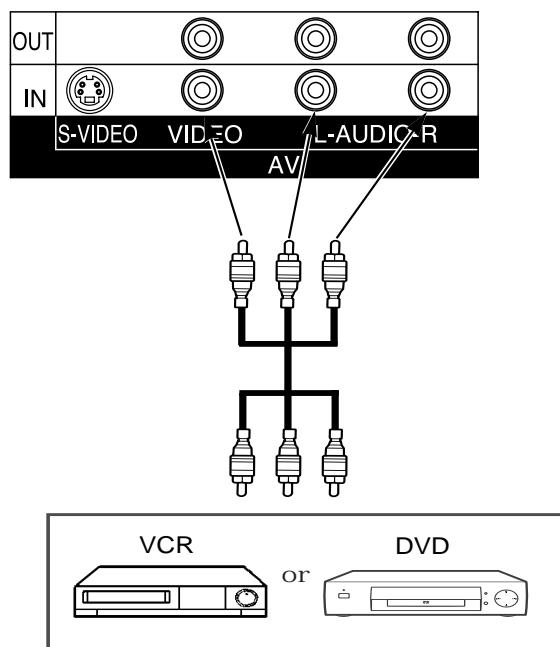
- This monitor provides plug and play capability.

# Connecting to the External Devices

## Connecting to the AV Input

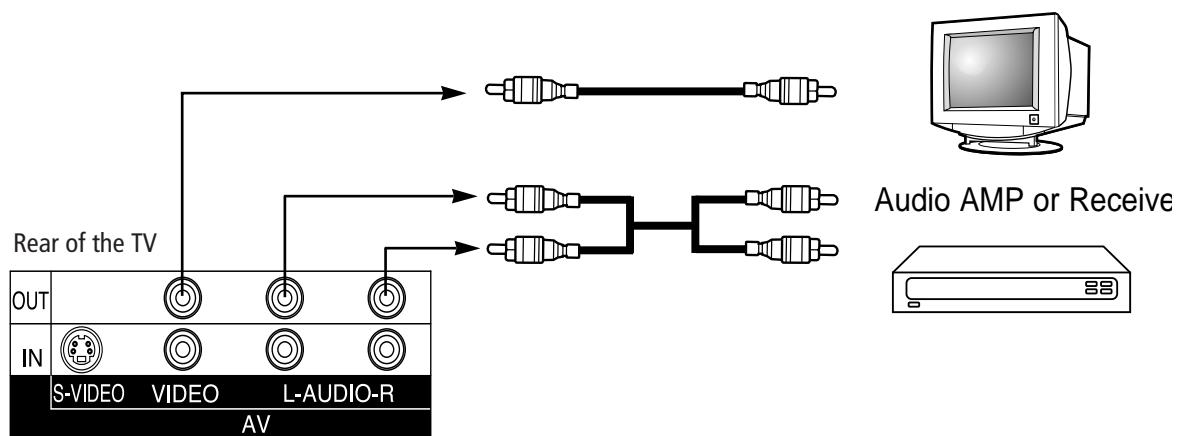
AV Input connectors are used for equipment with Video & Audio output, such as DVD, Game player, VCR.

Rear of the TV



## Connecting to the AV output

AV output connectors are used for equipment with a video & Audio input, such as Audio AMP or AV receiver, External speaker.

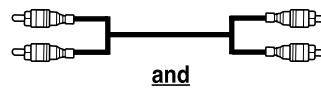
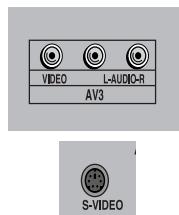


## Connecting to the External Devices

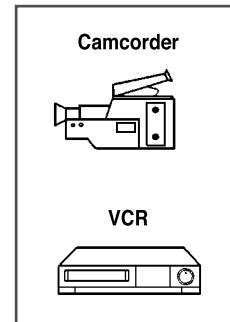
### Connecting to the S-Video input

The S-VIDEO1 and RCA (AUDIO-L/R) connectors are used for equipment with an S-Video output, such as a camcorder or VCR.

**Rear Of the TV**



and



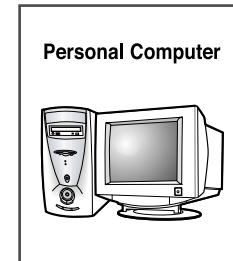
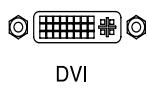
To play picture and sound, both the S-VIDEO and RCA connectors must be used.

Whenever you connect an audio or video system to your television, ensure that all elements are switched off. Refer to the documentation supplied with your equipment for detailed connection instructions and associated safety precautions.

### Connecting to the DVI output

The DVI (video) and L-AUDIO-R connectors are used for equipment with a DVI output.

**Rear Of the TV**



## Connecting to the External Devices

### Connecting to the HDMI input

HDMI connector is used for equipment with DVD, Setop box, PVR, which has HDMI output



### Connecting to the Optical output

OPTICAL connector is used for equipment with AV receiver, Audio AMP, which can support to digital CH(TV), HDMI digital Audio output

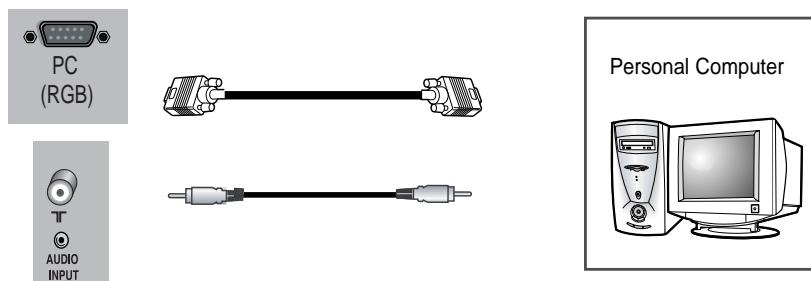


## Connecting to the External Devices

### Connecting to the PC(RGB)output

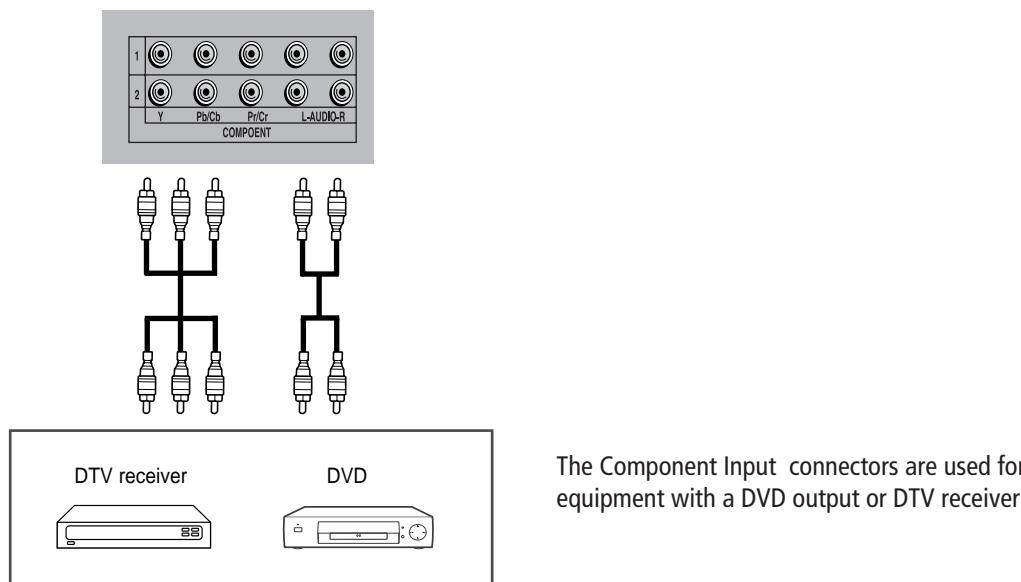
The RGB(video) and AUDIO connectors are used for interfacing with your PC.

#### Rear Of the TV



### Connecting to the Component

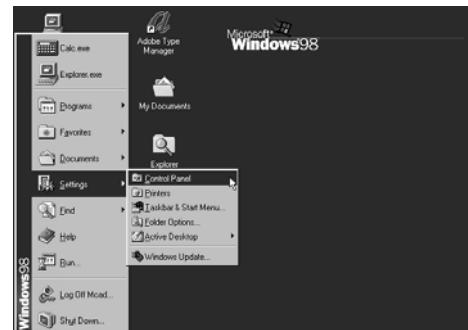
#### Rear Of the TV



# Setting up Your PC Software (Windows only)

The Windows display-settings for a typical computer are shown below. But the actual screens on your PC will probably be different, depending upon your particular version of Windows and your particular video card. But even if your actual screens look different, the same, basic set-up information will apply in almost all cases. (If not, contact your computer manufacturer or your dealer Dealer.)

On the windows screen, select in the following sequence:  
Start -> Settings -> Control Panel.



When the control panel screen appears, click on Display and a display dialog-box will appear.



Select the Settings tab in the display dialog-box.

The two key variables that apply the television-PC interface are "Resolution" and "Colours".

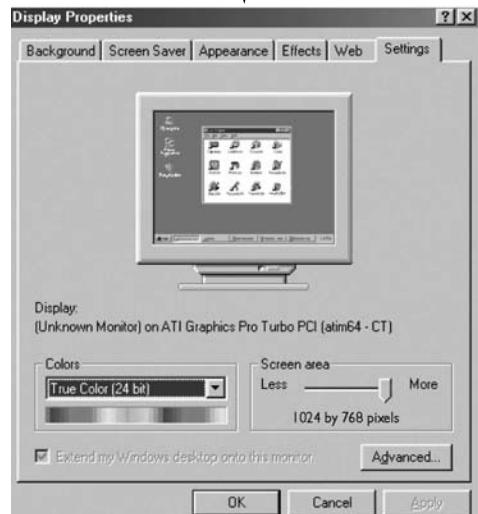
The correct settings for these two variables are:

- Size (sometimes called "Resolution")
  - 640 x 480 pixels
- Colour
  - 24-bit colour (might also be expressed as "16 million colours")

Shown at left is a typical screen for "Display" dialog box.

If a vertical-frequency option exists on your display settings dialog box, the correct value is 60 Hz.

Otherwise, just click OK and exit the dialog box.



# Troubleshooting:

## Before Contacting Service Personnel

**Before contacting your dealer after-sales service, perform the following simple checks.**  
**If you cannot solve the problem using the instructions below, note the model and serial number of the television and contact your local dealer.**

No sound or picture

- Check that the mains lead has been connected to a wall socket.
- Check that you have pressed the "I/" button (On/Off) and the POWER () button.
- Check the picture contrast and brightness settings.
- Check the volume.

Normal picture but no sound

- Check the volume.
- Check whether the volume MUTE () button on the remote control has been pressed.

No picture or black and white picture

- Adjust the colour settings.
- Check that the broadcast system selected is correct.

Sound and picture interference

- Try to identify the electrical appliance that is affecting the television, then move it further away.
- Plug your television into a different mains socket.

Blurred or snowy picture, distorted sound

- Check the direction, location and connections of your aerial. This interference often occurs due to the use of an indoor aerial.

Remote control malfunctions

- Replace the remote control batteries.
- Clean the upper edge of the remote control (transmission window).
- Check the battery terminals.

# Technical Specifications

## Common Use for All model

ITEM			SPECIFICATIONS
In/Out Terminals	HDMI Input	HDMI 19Pin(Type A)X1	HDMI In (With 8CH Audio Stream)
	DVI Input	DVI 24-pin x 1	Digital RGB :TMDS up to 1600 X 1200/60Hz
	Audio Input	RCAJack x 1	0.5V[ rms] (L+R)
	RGB(PC) Input	D-Sub 15-pin x1	RGB : 0.7V [p-p ](75 Ω), H/CS/V : TTL (2.2 k Ω), SOG : 1V [p-p ](75 Ω), up to 1600 X 1200/60Hz
	Component Input	RCA-pin x 2	Y:1V [p-p ](75 Ω), Pb/Cb :0.7V [p-p ](75 Ω) Pr/Cr :0.7V [p-p ](75 Ω) SDTV :576i, 480i, 576p, 480p
	S-Video Input	Mini DIN 4-pin x1	Y:1V [p-p ] (75 Ω), C : 0.286V [p-p ] (75 Ω)[NTSC ] C : 0.3V [p-p ] (75 Ω)[PAL/SECAM ] [NTSC/PAL/SECAM] HDTV :720p, 1080i
	AV In	RCA-pin X 1	Video :1.0V[ p-p ] (75 ΒÝ),Composite Audio : 0.5V[ rms] (L+R),Stereo
	AV Out	RCA-pin X 1	Video :1.0V[ p-p ] (75 ΒÝ),Composite Audio : 0.5V[ rms] (L+R),Stereo
	Optical Output	Optical(TX)Jack X 1	SPI/DIF Audio (Optical),AC3 or PCM
	Earphone Output	Earphone Jack X 1	Stereo Headphone Out (32 ΒÝ)
	Speaker Output	Push terminal 4-Pin X1	10W(L)+10W(R) / 8 ΒÝ
	Antenna Input	DIN -Type x 1	Analog Ant./Cable (75 Ω)[Unbalanced ] PAL/SECAM -B/G,D/K,I,L/L'
Environment Condition	Temperature	Operational	5° ~ 35°C
		Storage	-5° ~ 50°C
	Humidity	Operational	20 ~80%(Without condensation)
		Storage	10 ~90%(Without condensation)
Pressure	Operational	800 ~ 1000 hPa (Altitude : 0~2,000m)	
	Storage		

\* The specifications are subject to change without notice.

## Technical Specifications

### 37" LCD TV

ITEM		SPECIFICATIONS
Display	Screen Size & Aspect ratio	37.02", 819.6mm(H) X 460.8mm(V), 16:9
	Number of Pixels	1,366(H) X 768(V), WXGA
	Pixel Pitch	0.200mm x 0.600mm x RGB
	Displayable Colors	16.77 M(8 bit)
	Brightness	500 cd/m <sup>2</sup>
	Contrast Ratio	1,600 : 1
	Color Temp	9500K
	Viewing Angle	89°(U)/ 89°(D)/ 89°(L)/ 89°(R)
General	Power Supply	AC 100~240V / 50, 60Hz
	Power Consumption	Stand-by: 5W, Typical : 150W (220V)
	Dimensions(WxHxD)	1,077mm X 565mm X 270mm(with stand)
	Weight	Net 25kgs
		Gross 28kgs

### 42" LCD TV

ITEM		SPECIFICATIONS
Display	Screen Size & Aspect ratio	42.02", 930.25mm(H) X 523.01mm(V), 16:9
	Number of Pixels	1,366(H) X 768(V), WXGA
	Pixel Pitch	0.227mm x 0.681mm X RGB
	Displayable Colors	16.77 M(8 bit)
	Brightness	500 cd/m <sup>2</sup>
	Contrast Ratio	800 : 1
	Color Temp	9500K
	Viewing Angle	88°(U)/ 88°(D)/ 88°(L)/ 88°(R)
General	Power Supply	AC 100~240V / 50, 60Hz
	Power Consumption	Stand-by: 5W, Typical : 200W (220V)
	Dimensions(WxHxD)	1,213mm X 741mm X 312mm(with stand)
	Weight	Net 28kgs
		Gross 32kgs

## Technical Specifications

### 47" LCD TV

ITEM		SPECIFICATIONS
Display	Screen Size & Aspect ratio	46.96 inch (1192.87mm), 16:9
	Number of Pixels	1,920(H) X 1,080(V), Real HD
	Pixel Pitch	0.5415 mm x 0.5415 mm
	Displayable Colors	16.77 M(8 bit)
	Brightness	500 cd/m <sup>2</sup>
	Contrast Ratio	1,600 : 1
	Color Temp	9500K
	Viewing Angle	89°(U)/ 89°(D)/ 89°(L)/ 89°(R)
General	Power Supply	AC 100~240V / 50, 60Hz
	Power Consumption	Stand-by: 5W, Typical : T.B.D.
	Dimensions(WxHxD)	1,212mm X 880mm X 138mm(without stand)
	Weight	30kgs
	Gross	35kgs

### 42" PDP(SD) TV

ITEM		SPECIFICATIONS
Display	Screen Size & Aspect ratio	42", 932.940mm(H) X 532.800mm(V), 16:9
	Number of Pixels	852(H) X 480(V), WVGA
	Pixel Pitch	1.095mm X 1.110 mm
	Displayable Colors	16.77 M(8 bit), 1073.7 M(10 bit)
	Brightness	1,100 cd/m <sup>2</sup>
	Contrast Ratio	10,000 : 1
	Color Temp	9500K
	Viewing Angle	Over 160° (U/D & L/R)
General	Power Supply	AC 100~240V / 50, 60Hz
	Power Consumption	Stand-by: 5W, Typical : 300W(MAX)
	Dimensions(WxHxD)	1,036mm X 691mm X 270mm(with stand)
	Weight	32kgs
	Gross	35kgs

## Technical Specifications

### 42" PDP(HD) TV

ITEM		SPECIFICATIONS
Display	Screen Size & Aspect ratio	42", 933.89mm(H) X 532.22mm(V), 16:9
	Number of Pixels	1,024(H) X 768(V), WVGA
	Pixel Pitch	0.912 mm X 0.693 mm
	Displayable Colors	16.77 M(8 bit), 1073.7 M(10 bit)
	Brightness	1,100 cd/m <sup>2</sup>
	Contrast Ratio	10,000 : 1
	Color Temp	9500K
	Viewing Angle	Over 160° (U/D & L/R)
General	Power Supply	AC 100~240V / 50, 60Hz
	Power Consumption	Stand-by: 5W, Typical : 330W(MAX)
	Dimensions(WxHxD)	1,036mm X 691mm X 270mm(with stand)
	Weight	Net 32kgs
		Gross 35kgs

### 50" PDP(HD) TV

ITEM		SPECIFICATIONS
Display	Screen Size & Aspect ratio	50", 1106.5mm(H) X 622.1mm(V), 16:9
	Number of Pixels	1,366(H) X 768(V), WXGA
	Pixel Pitch	270 $\mu$ m X 810 $\mu$ m X RGB
	Displayable Colors	(R)1,024 X (G)1,024 X (B)1,024 colors
	Brightness	1,100 cd/m <sup>2</sup>
	Contrast Ratio	10,000 : 1
	Color Temp	9500K
	Viewing Angle	Over 160° (U/D & L/R)
General	Power Supply	AC 100~240V / 50, 60Hz
	Power Consumption	Stand-by: 5W, Typical: 380W(MAX)
	Dimensions(WxHxD)	1233 X 818 X 375(with stand)
	Weight	Net 42kgs
		Gross 45kgs

## FCC RF Interference statement

### NOTE :

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

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

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

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio, TV technical for help.
- Only shielded interface cable should be used.

Finally, any changes or modifications to the equipment by the user not expressly approved by the grantee or manufacturer could void the users authority to operate such equipment.

**MEMO**

# MEMO