

## **ATTACHMENT E.**

### **- USER'S MANUAL -**

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# Caution



**CAUTION**  
 RISK OF ELECTRIC SHOCK  
 DO NOT OPEN



**CAUTION:** TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

**CAUTION**



- TO PREVENT DAMAGE WHICH MAY RESULT IN FIRE OR SHOCK HAZARD.
- DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.
- SHOCK HAZARD DO NOT OPEN.

**CAUTION**

These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

**CAUTION**

The stand intended for use only with this TV. Use with other apparatus is capable of resulting in instability causing possible injury.

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**

- Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
- This is Class B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
- To reduce the risk of fire and electric shock, do not expose this product to rain or moisture.

**FCC NOTICE**

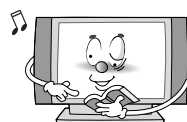
This device has been tested and found to comply with the limits for a Class B device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in home environment as well as in a commercial, industrial or business environment. This equipment can generate, use and radiate radio frequency energy and, if not installed and used in accordance with the instruction, 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 technician for help.

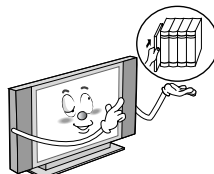
Changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Connecting of peripherals requires the use of grounded shielded signal cables.

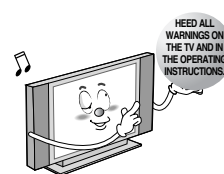
- **Always be careful when using your the TV. To reduce the risk of fire, electrical shock, and other injuries, keep these safety precautions in mind when installing, using, and maintaining your machine.**



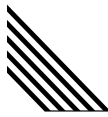
Read all safety and operating instructions before operating your the TV.



Keep the safety and operating instructions for future reference.



Heed all warnings on the TV and in the operating instructions.



## Important Safety Instructions

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Always be careful when using your the TV. To reduce the risk of fire, electrical shock, and other injuries, keep these safety precautions in mind when installing, using, and maintaining your machine.

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 a damp cloth.
7. Do not block any of the 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 aproduce 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 is provided for your safety. When 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 the attachments/accessories specified by the manufacturer.
12. Use only with a 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 spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. When installing the LCD TV, do not block the appliance coupler with any structure. User can easily have access to the coupler to disconnect it from AC main power.
16. The socket-outlet shall be installed near the equipment and shall be easily accessible.

# Precaution

**In case of the following cases, unplug the unit from the wall outlet and contact qualified service center.**

- when power supply cord or plug is damaged.
- If liquid has been spilled on the unit or if alien objects have fallen into the unit.
- If the TV has been exposed to rain or water.
- If the TV does not operate normally by following the operating instructions.
- If the TV dropped or the cabinet has been damaged.
- When the TV exhibits a distinct change in performance.

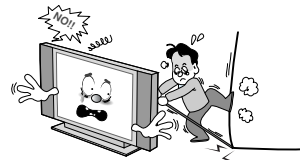
## Setting



Follow all operating and use instructions.

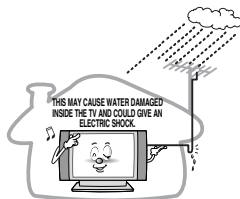


Do not use the TV where contact with or immersion in water is a possibility, such as near bath tubs, sinks, washing machines, swimming pools, etc.



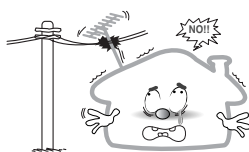
Avoid overhead power lines. An outside antenna system should not be placed in the vicinity of overhead power lines or other electric light or power circuits or where it can fall into such power lines or circuits. When installing an outside antenna system, be extremely careful to keep from touching the power lines or circuits. Contact with such lines can be fatal.

Ground outdoor antennas. If an outside antenna or cable system is connected to the TV, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No.70-1984, provides information about proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.



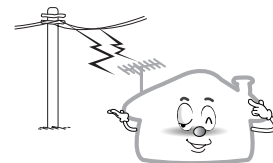
Bend antenna cable between inside and outside building to prevent rain from flowing in.

- This may cause water damaged inside the TV and could give an electric shock.



Do not place an outside antenna in the vicinity of overhead power lines, or other electric light or power circuits.

- This may cause an electric shock.



There should be enough distance between an outside antenna and power lines to keep the former from touching the latter even when the antenna falls.

- This may cause an electric shock.

## Precaution

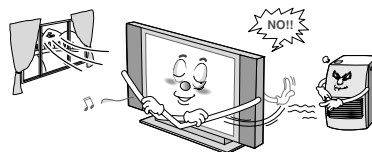
### Setting

### WARNING



When installing the TV on a table, be careful not to place it too close to the edge of the table.

- This may cause the TV to fall, causing serious injury to a child or adult, and serious damage to the TV.



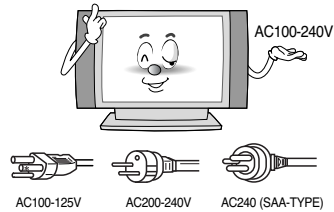
Provide ventilation for the TV. The unit is designed with slots in the cabinet for ventilation to protect it from overheating. Do not block these openings with any object, and do not place the TV on a bed, sofa, rug or other similar surface. Do not place it near a radiator or heat register. If you place the TV on a rack or bookcase, ensure that there is adequate ventilation and that you've followed the manufacturer's instructions for mounting.



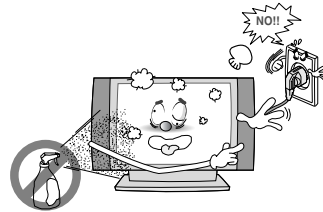
This TV is designed to be mounted horizontally (wide viewing). Any inquiry regarding its vertical position should be forwarded to the manufacture directly.

# Precaution

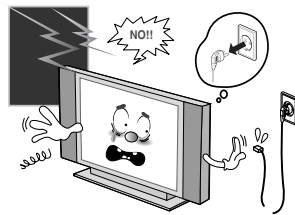
## Power



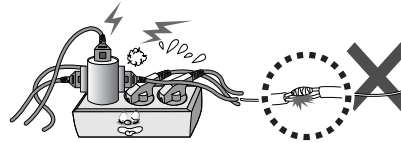
Use only the accessory cord designed for this product to prevent shock. The power supply voltage rating of this product is AC100-240V, the power cord attached conforms to the following power supply voltage. Use only the power cord designated by our dealer to ensure Safety and EMC. When it is used by other power supply voltage, power cable must be changed. Consult your product dealer.



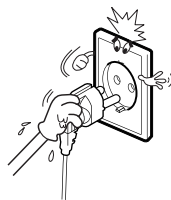
Unplug the TV from the wall outlet before cleaning. Use a damp cloth; do not use liquid or aerosol cleaners.



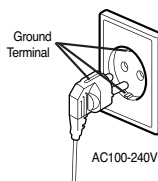
Unplug the TV from the wall outlet and disconnect the antenna or cable system during a lightning storm or when left unattended and unused for long periods of time. This will prevent damage to the unit due to lightning and power-line surges.



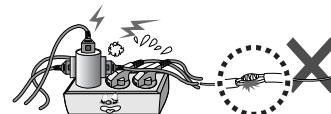
Protect the power cord. Power supply cords should be routed so that they won't be walked on or pinched by objects placed on or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.



Do not touch the plug with wet hand.  
- It can make an electric shock.



Use only a grounded or polarized outlet. For your safety, this TV is equipped with a polarized alternating current line plug having one blade wider than the other. This plug will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still does not fit, contact your electrician to replace your outlet.

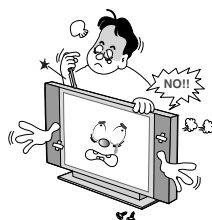


Protect the power cord. Power supply cords should be routed so that they won't be walked on or pinched by objects placed on or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.

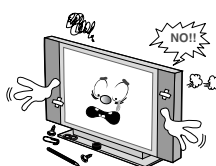


# Precaution

## Operation

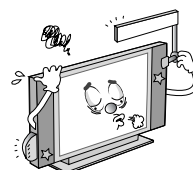


Upon completion of any service or repairs to this the TV, ask the service technician to perform safety checks to determine that the TV is in a safe operating condition.

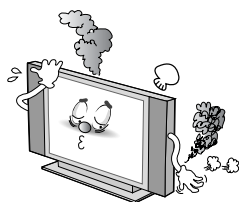


Do not place anything containing liquid on top of the TV.

- This may cause a fire or could give an electric shock.



Never add any attachments and/or equipment without approval of the manufacturer. Such additions can increase the risk of fire, electric shock, or other personal injury.



In case of smoke or strange smell from the TV, switch it off, unplug it from the wall outlet and contact your dealer or service center.

- This may cause a fire or could give an electric shock.

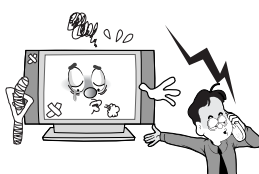


Do not insert anything through the openings in the unit, where they can touch dangerous voltage points or damage parts. Never spill liquid of any kind on the TV.

## Operation



When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or those that have the same characteristics as the original part. Unauthorized substitutions may result in additional damage to the unit.



If you make adjustments yourself, adjust only those controls that are covered by the operating instructions. Adjusting other controls may result in damage and will often require extensive work by a qualified technician to restore the TV to normal.

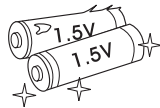


Do not let children hang on or ride on the TV.

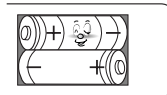
# Precaution

## Operation

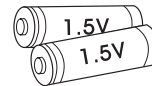
## WARNING



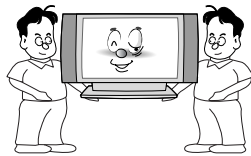
Do not use new battery with old one.  
- This can lead a fire or electric shock caused by leakage liquid from abused batteries.



Put the batteries in right direction (+/-).  
- Otherwise, it can make a fire, injury and pollution caused by bursting of batteries.



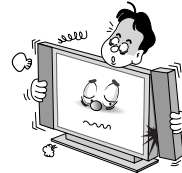
Only use the specified batteries.  
- This make cause damaged the TV or could give an electric shock.



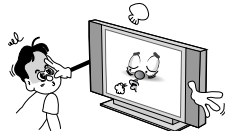
More than two people are necessary to move or take off the package due to the product's weightiness.  
- Otherwise, it can cause personal injury.



Keep the batteries out of reach of children when exchanged.  
- Seek urgent medical advice if child swallows a battery.



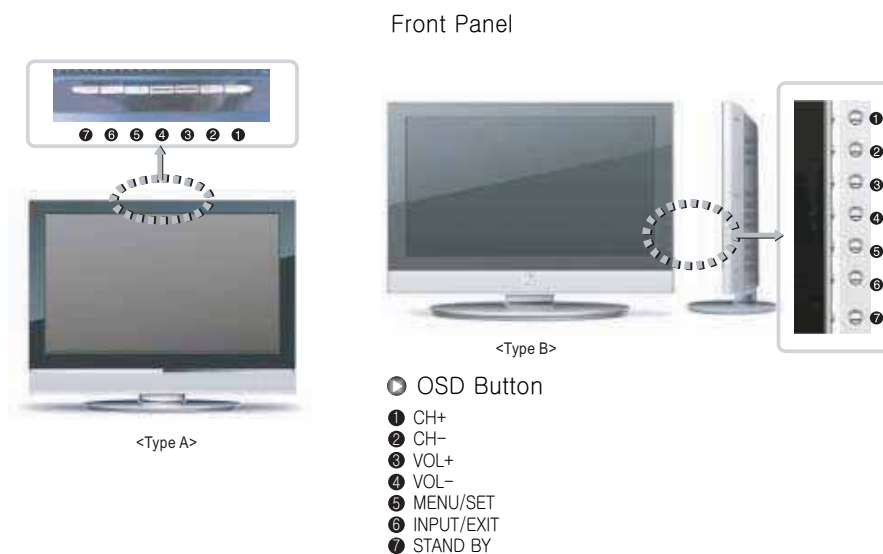
When moving the TV assembled with speakers do not carry holding the speakers.  
- This may cause the TV to fall, causing serious injury to a child or adult, and serious damage to the TV.



The distance between eyes and the screen should be about 5-7 times as long as diagonal length of the screen.  
- If not, eyes will strain.

## Viewing the Control Panel

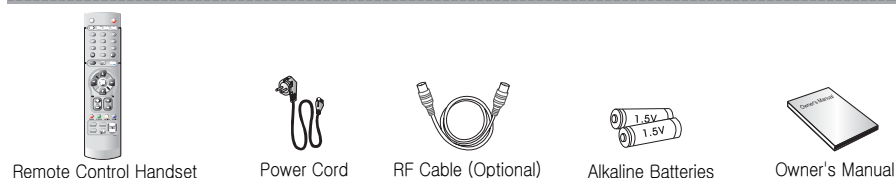
### OSD Button Position



### OSD Button Function

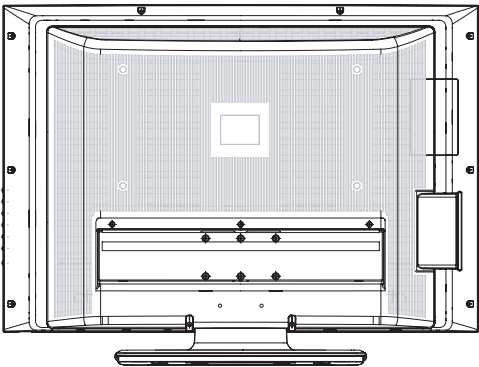
- INPUT SELECT  
Select the signal source from multiple input sources such as RF, AV1/AV2, S-Video, Component, PC-RGB, HDMI1/2, RS-232C
- VOL/CH▲/▼ OR VOL/CH -/+  
To change the CHANNEL, press ▼ button first and change the channel with ▲, ▼ buttons.  
To change the VOLUME, press ▲ button first and change the volume with ▲, ▼ buttons.  
To change the CHANNEL and VOLUME.
- ⏻ Stand By ON/OFF  
Turn the TV on and off.
- Menu  
Call the OSD Menu.

### Accessories

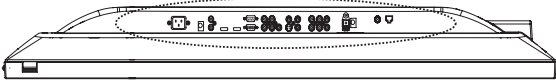


# Viewing the Connecting Panel

## Back Panel and Jacks

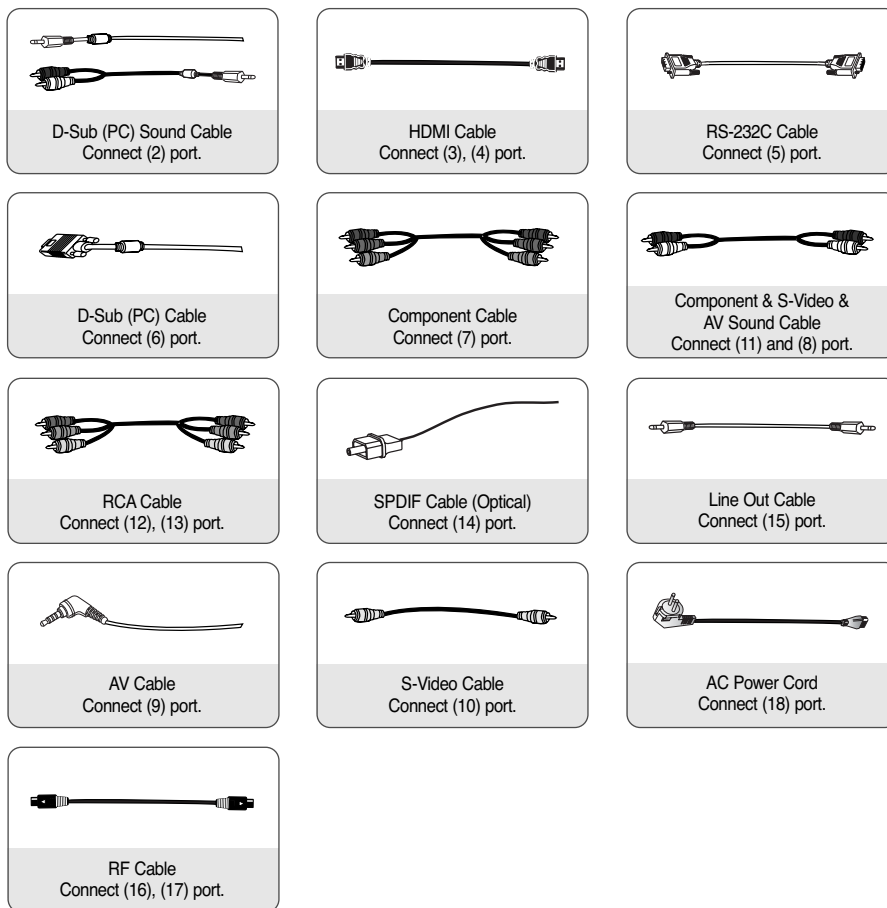


Back panel of the TV



①	DTV& SERVICE PORT	⑪	AV/S-VIDEO Sound
②	D-Sub(PC)Sound	⑫	VIDEO 1
③	HDMI1	⑬	VIDEO 2
④	HDMI2	⑭	SPDIF (Optical)
⑤	RS-232	⑮	Line Out
⑥	D-Sub(PC)	⑯	Antenna
⑦	COMPONENT	⑰	T-PORT
⑧	COMPONENT Sound	⑱	AC Power
⑨	AV INPUT		
⑩	S-VIDEO loutput		

## Viewing the Connecting Panel



Connectors	
Audio Input	RCA Pin Jack
Composite Video Input	RCA Pin Jack
Composite Video Output	RCA Pin Jack
S-VIDEO Input	Mini Din 4Pin
Component Video Input	RCA Pin Jack
Analog RGB Input	Mini D-Sub 15Pin
HDMI Input	HDMI Connect

\* Cables connecting the PC vary according to the type of machine, so consult your product dealer.

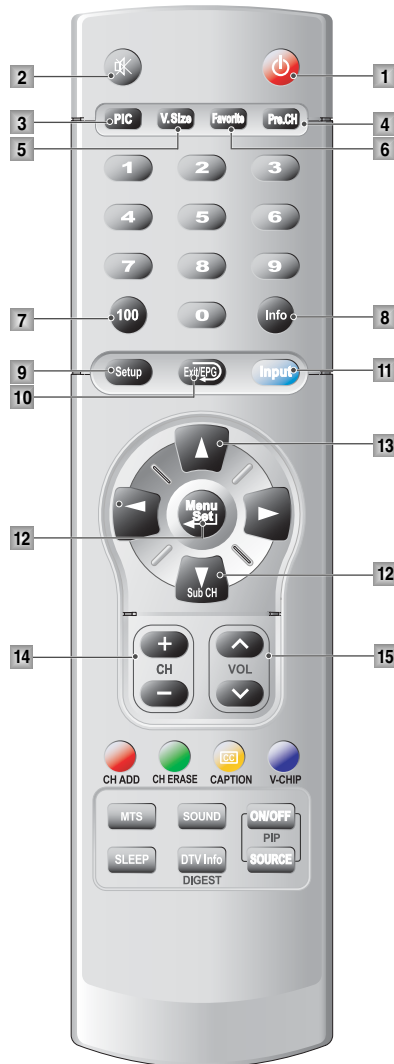
### RS-232C Configurations

#### 3-Wire (Non-standard)

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

# Viewing the Remote Control

## ► Button Description



- 1 POWER**  
Turn the LCD on and off.
- 2 MUTE**  
Temporarily cut the sound and restore it.
- 3 PICTURE**  
There are 4 picture modes.  
Standard → Vivid → Mild → User
- 4 Pre.CH**  
Turn to the previous program or exit OSD.
- 5 V.Size**  
Choose the Screen Form.  
16:9 → 4:3 → Panorama → Zoom1 → Zoom2
- 6 Favorite (Favourite)**  
Tune to your next favorite program.
- 7 100**  
Display to tune the channels over 100.
- 8 INFO**  
Display the current information.
- 9 Setup**  
Sets a hotel mode
- 10 Exit/EPG**  
Return to the previous OSD menu.
- 11 INPUT**  
Display the input source list.
- 12 Menu/Set**  
Display the main OSD menu.  
Activate your choice in the OSD menu.
- 13 Sub CH**  
Change channels of the sub window by pressing the Sub CH button and CH+/- button after pressing this button in PIP.
- 14 CH+/CH-**  
Move to the upper or lower channel.
- 15 VOL ^ / VOL v**  
Increase or decrease the volume level.

## Viewing the Remote Control



- 1 CH.ADD**  
Add the current channel to memory.
- 2 CH.ERASE**  
Erase the current channel to memory.
- 3 CC (CLOSED CAPTION)**  
Set the close caption.  
Off → Caption CC1 → Caption CC2 → Caption Text1 → Caption Text2
- 4 V-CHIP**  
Get into V-Chip menu.
- 5 MTS**  
Choose the MTS (Stereo) mode.  
Each time it is pressed, different mode is selected.  
Mono → Stereo → SAP  
• You can select only available modes depending on the source.
- 6 SOUND**  
Choose the sound equalizer settings.  
Standard → Movie → Music → News → User
- 7 PIP (ON/OFF)**  
Activate PIP function and change the PIP window size and PIP mode.  
Small → Large → Twin (Half) → OFF
- 8 SOURCE**  
Change the PIP window source.
- 9 DIGEST(DTV Info)**  
Display 16 TV programs at the same time.
- 10 SLEEP**  
Set the preset time interval for automatic turn - off.  
OFF (Not work) → 10 min. → 20 → 30 → 60 → 90 → 120 → 150 → 180

## Viewing the Remote Control



**ON/OFF button:** Change the PIP window mode.  
OFF → Small → Large → Twin



Small



Large



Twin

**SOURCE button:** Change the source of the PIP window. The available sources are shown as below.

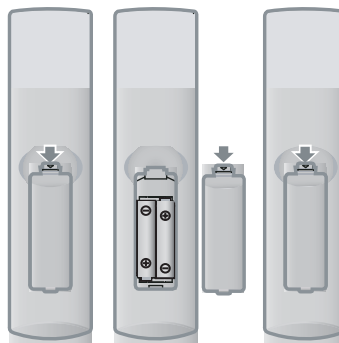
PIP Main	TV	HDTV	VIDEO1	VIDEO2	S-VIDEO/AV	COMPONENT	PC	HDMI1	HDMI2
TV	-	-	-	-	-	-	✓	✓	✓
HDTV	✓	-	✓	✓	✓	✓	✓	✓	✓
VIDEO1	-	-	-	-	-	-	✓	✓	✓
VIDEO2	-	-	-	-	-	-	✓	✓	✓
S-VIDEO/AV	-	-	-	-	-	-	✓	✓	✓
COMPONENT	✓	-	✓	✓	✓	-	✓	✓	✓
PC	✓	✓	✓	✓	✓	✓	-	-	-
HDMI1	✓	✓	✓	✓	✓	✓	✓	-	-
HDMI2	✓	✓	✓	✓	✓	✓	✓	-	-



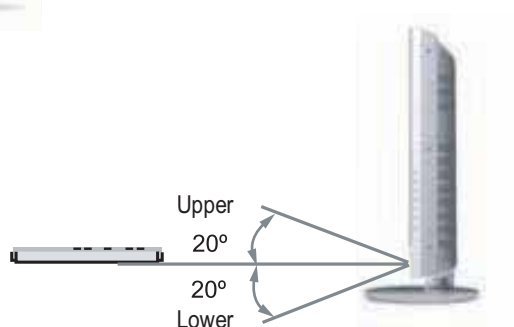
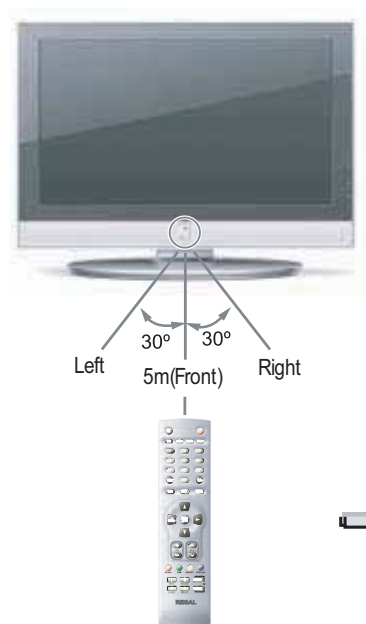
## Viewing the Remote Control

### Loading the Batteries

- 1 Press on the cover and slide in the direction of the arrow.
- 2 Load two AAA batteries, taking care that the + and - ends face the correct direction.
- 3 Close the cover until it clicks.



### Reception Range of Remote Control



# Installation

## Table Stand Installation (Optional)

### Table Stand Installation



< The TV can be installed on the desk as shown above. >

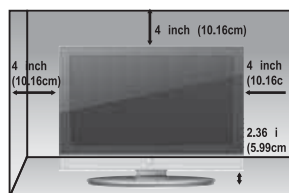


Table stand mount minimum allowable clearances for adequate ventilation.

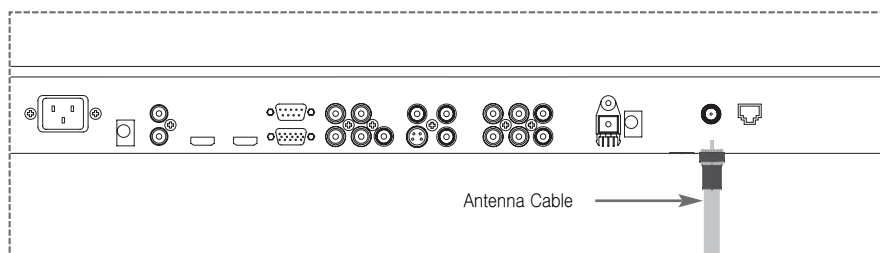
### Wall Mount Installation(optional)



< The TV can be installed on the wall as the picture above. >

Install this TV a only in a location where adequate ventilation is available.

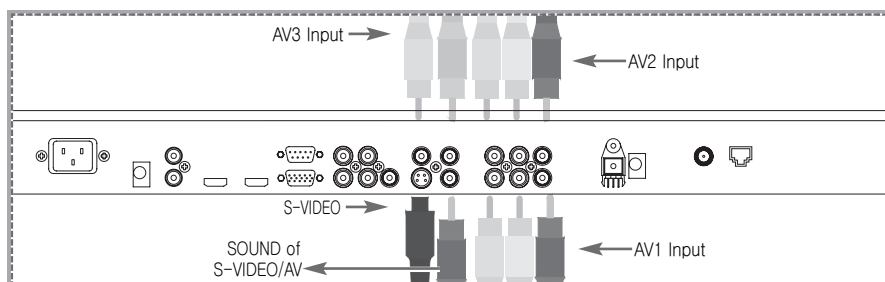
## Connecting the TV Cable



### Connection the TV Cable

- 1 Connect the TV Antenna cable to the TV input jack. Press INPUT button on the remote control and select TV or HDTV on OSD.
  - 2 Use CH+, CH- button or numeric button to change TV program for your program selection.
  - 3 Press Pre.CH button on the remote control to tune the previous program.
- Also, you can tune to cable service provided programs using the cable box. For further information regarding cable TV service, contact cable TV service provider(s).

## Connecting the VCR



### Connecting the VCR

With S-VIDEO

Connect a S-Video cable to the S-Video jacks of the VCR and the TV.

Connect L (White), R (Red) sound cable (Composite) to the sound jacks of the VCR and the TV.

With AV Input

Connect a composite cable to the AV video jacks of the VCR and the TV.

Connect L (White), R (Red) sound cable (Composite) to the sound jacks of the VCR and the TV.

### Watching VCR

- 1 Press INPUT button on the remote control and select video sources.
- 2 Insert a video tape into the VCR and press the PLAY button on the VCR.



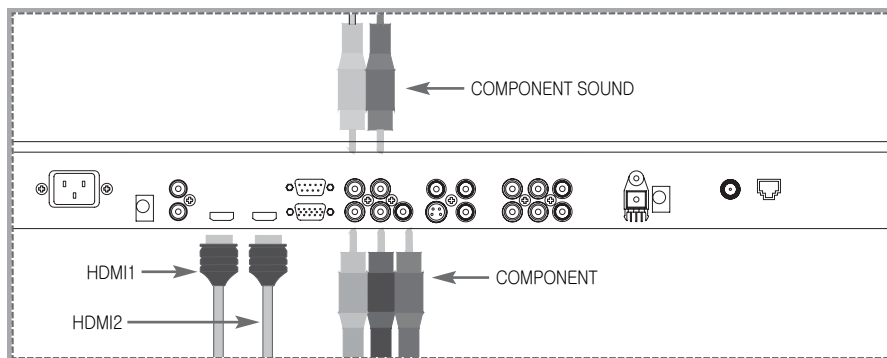
### Notes

- **To avoid picture noise** (interference), leave an adequate distance (over 3m) between the VCR and TV.
- When connecting the TV with external equipment, match the colour of connecting ports (e.g. Video -Yellow, Audio(L) - White, Audio(R) - Red).
- If you have a mono VCR, connect the audio cable from the VCR to the AUDIO (L/Mono) input of the TV.
- If you connect an S-VHS VCR to the S-VIDEO input socket, you can get a better picture quality than normal video input (AV).
- **Avoid having a fixed image remain on the screen for a long period of time.**  
Typically a frozen still picture from a VCR 4:3 picture format or if a program information is present.

## Connecting the DVD

### Connecting the DVD

- ? Connect the three separate component video cables to the DVD player's Y, Pb and Pr jacks and to the component jacks on the TV.
- ? Connect the audio cable to the DVD player's audio L (White) and R (Red) jacks and to the L and R audio jacks beside the component jacks on the TV.
- ? Connect the HDMI cables to the DVD player's and to the HDMI cables on the TV.



# Connecting the DVD

## How to Use

- 1 Turn on the DVD player.
- 2 Press INPUT button on the remote control of the TV and select HDMI, COMPONENT.

### Component Input Ports

You can get better picture quality if you connect DVD player with component input sockets as below.



### Notice

- Normal DVD source is based on 480i, which should be through normal Y Pb Pr of component signal. It may occur screen noise, blank screen in case of using HDMI Cable unauthorized by ATC.
- It may easily occur as specially HD signal (720p or 1080i) input. Suggest HDMI Cable only authorized by ATC.

	Supported Signals		
	COMPONENT	PC	HDMI
480i/60Hz	✓	—	—
480p/60Hz	✓	✓	✓
576i/50Hz	✓	—	—
576p/50Hz	✓	✓	✓
720p/50Hz	✓	✓	✓
720p/60Hz	✓	✓	✓
1080i/50Hz	✓	✓	✓
1080i/60Hz	✓	✓	✓

Component ports of the TV	Y	P <sub>B</sub>	P <sub>R</sub>
Video output ports of DVD player	Y Y Y Y	P <sub>b</sub> B-Y Cb P <sub>B</sub>	Pr R-Y Cr P <sub>R</sub>

## What is HDMI?



- HDMI, or high-definition multimedia interface, is a next-generation interface that enables the transmission of digital audio and video signals using a single cable without compression.

- "Multimedia interface" is a more accurate name for it especially because it allows Not Only Digital video but also digital audio. The difference between HDMI and DVI is that the HDMI device is smaller in size, has the HDCP (High Bandwidth Digital Copy Protection) coding feature installed, and supports multi-channel digital audio.
- Use the HDMI/DVI terminal for DVI connection to an extended device. You should use the DVI-to-HDMI cable or DVI-HDMI Adapter for the connection.
- HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

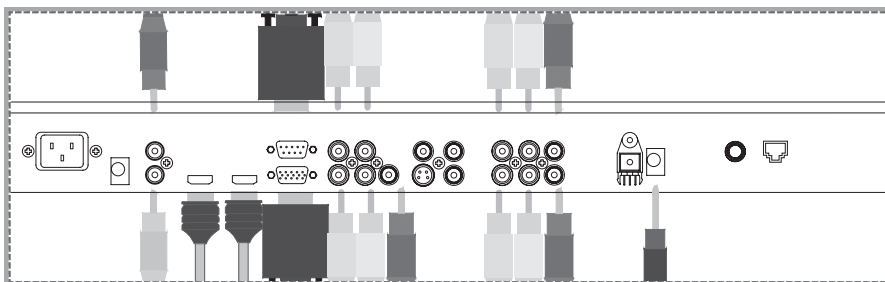
### Connecting HDMI/DVI

- Supports connections between HDMI-connection-enabled AV devices (set top boxes, DVD players, AV receivers and digital TVs).
- No sound connection is needed for an HDMI to HDMI connection.

# Connecting the Set Top Box

## How to Connect

Connect set top box video inputs to AV, COMPONENT, HDMI or PC port on the TV.  
Audio inputs to Audio sockets beside the L (White) and R (Red) audio jacks which you connect video inputs.



## How to Use

- 1 Turn on the set top box.
- 2 Press INPUT button on the remote control of the TV and select COMPONENT HDMI, or PC.

	Supported Signals		
	COMPONENT	PC	HDMI
480i/60Hz	✓	?	?
480p/60Hz	✓	✓	✓
576i/50Hz	✓	?	?
576p/50Hz	✓	✓	✓
720p/50Hz	✓	✓	✓
720p/60Hz	✓	✓	✓
1080i/50Hz	✓	✓	✓
1080i/60Hz	✓	✓	✓

## How to Connect

With AV

Connect a AV cable to the AV jacks of the STB (set top box) and the TV.

With COMPONENT

Connect a three separate component cables to the component jacks of the STB and the TV.

Connect L (White) and R (Red) sound cables (Composite) to the sound jacks of the STB and the TV.

With HDMI

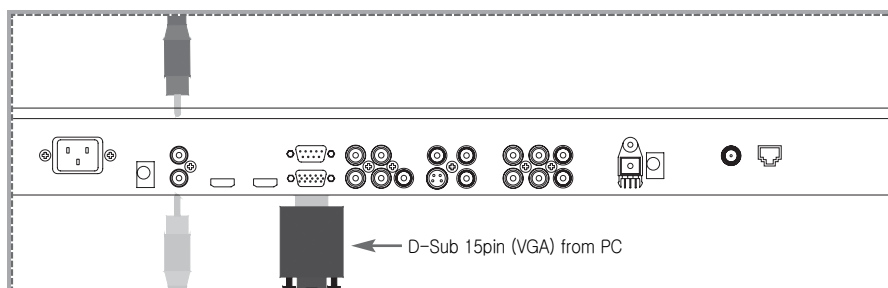
Connect a HDMI cable to the HDMI jacks of the STB and the TV.

With RGB

Connect a D-Sub cable to the AV video jacks of the STB and the TV.

Connect L (White) and R (Red) sound cables (Composite) to the sound jacks of the STB and the TV.

## Connecting the PC ( D-Sub )



### ▶ Connecting a PC to the TV

Connect a PC (15pin) video cable between the video output port on the PC and the PC port on the TV.

### ▶ Pin Configuration

15pin signal cable (based on protruded pin).

### ▶ To watch the PC screen

- 1 Turn on the TV and press INPUT button to select the PC mode.
- 2 Turn on the PC and check for the PC requirement.
- 3 Adjust the PC screen in Position menu.  
(See 36 page.)



Pin No.	Description
1	Red (R)
2	Green (G)
3	Blue (B)
4	Grounding
5	Grounding (DDC)
6	Red (R) Grounding
7	Green (G) Grounding
8	Blue (B) Grounding
9	Reserved
10	Sync Grounding
11	Grounding
12	Data (DDC)
13	Horizontal sync.
14	Vertical sync.
15	Clock (DDC)





## Displayable TV Specification

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
720 x 400	31.469 37.927	70.08 85.03
640 x 480	31.469 35.000 37.861 37.500 43.269 45.913 53.011	59.94 66.66 72.80 75.00 85.00 90.03 100.04
800 x 600	35.156 37.879 48.077 46.875 53.674 56.000 64.016	56.25 60.31 72.18 75.00 85.06 90.00 100.00
832 x 624	49.725	74.55
1024 x 768	48.363 56.476 60.023 68.677	60.00 70.06 75.029 84.997
1152 x 864	67.50	75.00
1280 x 1024	64.00	60.00



### Notes

- **Synchronization input form: separate**
- The TV recognizes 640 x 480 @60Hz signal as 480p DTV signal.  
So the signal is expanded, please try other signals like 640 x 480 @75Hz.
- The TV operates abnormally if a non-standard video format is selected.
- Depending on the manufacturer, your PC screen might appear differently (and depending on your particular version of Windows).  
Check your PC instruction book for information about connecting your PC to a the TV.
- The TV may operate abnormally if a non-standard video signal inputs.
- **"Not Support"** message box will appear when an over-spec video signal is inputted.  
Change the video settings of PC when the message is displayed.

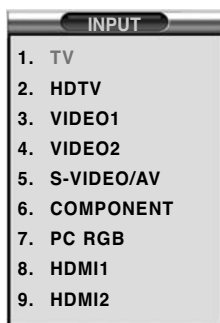
# Basic Operation

## Turning the TV ON/OFF



Press the 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 button on the front panel.

## Select Source

Press INPUT button on the remote control. Then you can see the source list menu shown as below.



Source list menu

Select the source to watch with  /  button on the remote control and press the Menu/Set button.

## TV Program Selection

- 1 Connect the signal source (TV antenna) to TV input. Press INPUT button on the remote control and select TV on the source list.
- 2 Use CH+/CH- button or numeric button to change TV program you want.
- 3 Press Pre.CH button on the remote control to watch the previous program.
- 4 Also, you can tune the cable service, provided programs while using the cable box.  
For further information regarding cable TV service, contact your TV service provider(s).

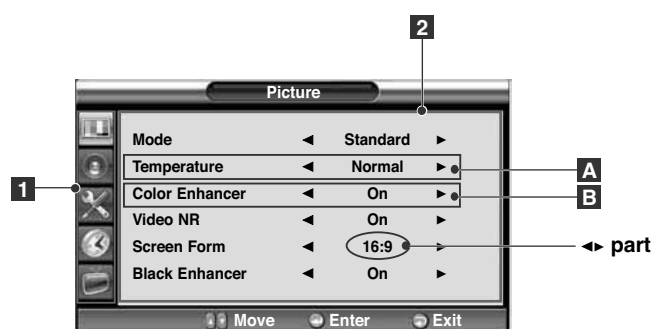
## Volume Control

Use VOL ^ /VOL v 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.

## OSD Menu Structure

- OSD (On Screen Display) allows users to control or adjust various features and settings in accordance with his/her preferences.
- Press the Menu/Set button on the remote control to see the main OSD menu.

### Example of OSD Menu



#### 1 Main Menu

Press Menu/Set button on the remote control to enter the main OSD menu.  
First, select main menu item you need with button.  
To select a main menu items, just press Menu/Set button on the remote control.

#### 2 Sub Menu

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

#### 3 Sub Menu Items

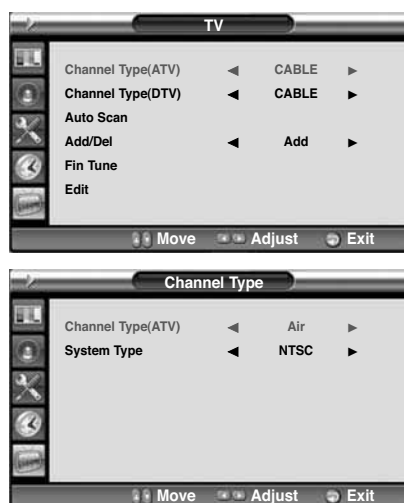
- A: If there is no ◀▶ part, the item has an sub menu.  
You can enter the sub menu and adjust an item you need.  
Select sub-menu item with button on the remote control and press Menu/Set button to enter the sub menu.
- B: If there is a ◀▶ part, you can set the item by selecting ◀▶. Ex) ◀ ON ▶ or ◀ OFF ▶.  
Press Menu/Set button to set a ◀▶ part, and adjust it with button.

# Setting the Channel ( ATV )

## Choosing the Channel Type

Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the TV. (i.e., an antenna, a standard cable system).

- 1 Press Menu/Set button to display the main OSD menu.
- 2 Select the TV main menu.
- 3 Press Menu/Set button to enter the sub menu.
- 4 Select **Channel Type(ATV)** or **Channel Type(DTV)**.
- 5 Select the **Channel Type(ATV)** Menu/Set button and press Exit button. You can select Channel Type(Air/Cable) and System Type(NTSC/PAL-M) in Sub Menu "Channel Type".
- 6 Select the **Channel Type(DTV)** with ☐ / ☐ button and press Exit button. You can select directly Air / CABLE / HRC / IRC.



## Storing Channels Automatically

- 1 Press Menu/Set button to display the main OSD menu.
- 2 Select the TV main menu.
- 3 Press Menu/Set button to enter the sub menu.
- 4 Select **Auto Scan** with ☐ / ☐ buttons and press Menu/Set button on the remote control. Then the tuning bar will appear and scanning will start.



(HDTV Scan)



(ATV Scan)

## Setting the Channel ( TV )



### Notes

Analog Scan precedes Digital Scan on Auto Scan mode.

- You can enter the TV menu and HDTV menu in TV mode only. (When you watch a TV program.)
- ATV: Analog TV
- DTV: Digital TV (ATSC)

### Adding or Deleting the Channels

You can add or erase the current channel.

- 1 Press Menu/Set button on the remote control to display the main OSD menu.
- 2 Select the TV main menu with / button on the remote control.
- 3 Press Menu/Set button to enter the sub menu.
- 4 Select **Add/Del** menu.
- 5 Select the **Add/Del** with / button and press Exit button. You can select Add/Del.



### Notes

- Only scanned programs can be stored as Favorite programs.

### Fine Tuning the Channel Reception

The fine tuning function lets you manually adjust the TV's tuner if you have difficulty tuning analog channels.

- 1 Press Menu/Set button to display the main OSD menu.
- 2 Select the TV main menu.
- 3 Press Menu/Set button to enter the sub menu.
- 4 Select **Fine Tune** with / button and press Menu/Set button. Then you can see the adjust bar.
- 5 Adjust the Fine Tune with / button.

**Fine Tune only operates on TV mode.**





# Setting the Channel ( TV )

## Editing the Channels

### ● Edit Favorite Program list

You can store of your favorite channels for each available input source. Then, when you press the Favorite button on the remote control, the TV display only the favorite channels you previously stored, allowing you to quickly and easily find frequently wanted channels.

- 1 Press Menu/Set button to display the main OSD menu.
- 2 Select the TV main menu.
- 3 Press Menu/Set button to enter the sub menu.
- 4 Select **Edit** and press the Menu/Set button.
- 5 Select the channel to skip or set as the favorite channels.
- 6 Select CH and set the values with  /  button on the remote control.



DTV		ATV	
CH	Skip	Fav	
8	Yes	No	
9	Yes	No	
10	Yes	No	
11	Yes	No	
12	Yes	No	
13	Yes	No	
14	Yes	No	
15	Yes	No	
16	Yes	No	
17	Yes	No	

You can add or erase the current channel by the remote control.



#### CH ADD

Add the current channel into the scanned channel list.

#### CH ERASE

Remove the current channel from the scanned channel list.



### Notes

Only scanned channels can be set as favorite channels.

## Setting the Channel ( TV )

### ● Digest Function

With the Digest function, you can select a TV program watching 16 program at once. This function works in TV mode only.

- 1 Press the DIGEST button on the remote control.
- 2 You can make off the Digest Function by pressing DIGEST button again.



16 side windows are renewed clockwise.  
Next memorized program appear in the renewed windows.

To choose the program, press the channel number with the numeric buttons on the remote control.

