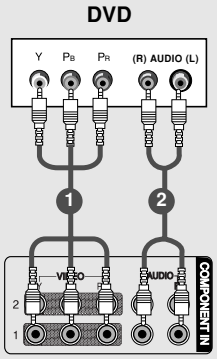
When connecting with a component cable



1. Connect the video outputs (Y, P_B, P_R) of the DVD to the **COMPONENT IN VIDEO** jacks on the set.
2. Connect the audio outputs of the DVD to the **COMPONENT IN AUDIO** jacks on the set.
3. Turn on the DVD player, insert a DVD.
4. Select **Component 1** input source with using the **INPUT** button on the remote control.
   - If connected to **COMPONENT 2**, select **Component 2** input source.
5. Refer to the DVD player's manual for operating instructions.

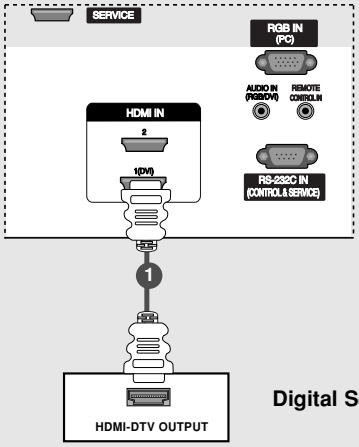
- **Component Input ports**
  To get better picture quality, connect a DVD player to the component input ports as shown below.

Component ports on the TV	Y	P_B	P_R
Video output ports on DVD player	Y	Pb	Pr
	Y	B-Y	R-Y
	Y	Cb	Cr
	Y	P_B	P_R

HDSTB Setup

- This TV can receive Digital Over-the-air/Cable signals without an external digital set-top box. However, if you do receive Digital signals from a digital set-top box or other digital external device, refer to the figure as shown below.

When connecting with a HDMI cable



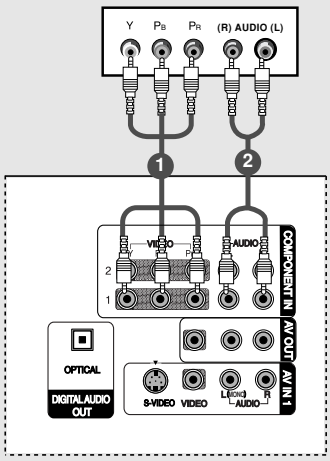
Digital Set-top Box

1. Connect the HDMI output of the digital set-top box to the **HDMI IN 1(DVI)** or **2** jack on the set.
2. Select **HDMI1**/**DVI** or **HDMI2** input source with using the **INPUT** button on the remote control.
3. Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)

- TV can receive the video and audio signal simultaneously using a HDMI cable.
- If the digital set-top box supports Auto HDMI function, output resolution of the digital set-top box will be automatically set to 1280x720p.
- If the digital set-top box does not support Auto HDMI, you need to set the output resolution appropriately. To get the best picture quality, adjust the output resolution of the digital set-top box to 1280x720p.

When connecting with a Component cable

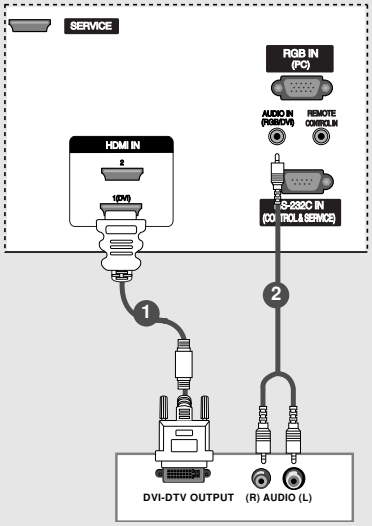
Digital Set-top Box



1. Connect the video outputs (Y, P_B, P_R) of the digital set-top box to the **COMPONENT IN VIDEO** jacks on the set.
2. Connect the audio output of the digital set-top box to the **COMPONENT IN AUDIO** jacks on the set.
3. Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
4. Select **Component 1** input source with using the **INPUT** button on the remote control.
   - If connected to **COMPONENT 2**, select **Component 2** input source.

Signal	Component1/2	HDMI1/DVI, HDMI2
480i	Yes	No
480p/720p/1080i	Yes	Yes

When connecting with a HDMI to DVI cable



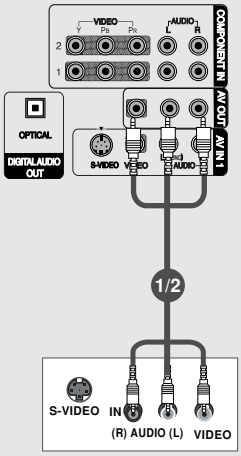
Digital Set-top Box

1. Connect the DVI output of the digital set-top box to the **HDMI IN 1(DVI)** jack on the set.
2. Connect the audio outputs of the set-top box to the **AUDIO IN(RGB/DVI)** jack on the set.
3. Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
4. Select **HDMI1/DVI** input source with using the **INPUT** button on the remote control.

- If the digital set-top box has a DVI output and no HDMI output, a separated audio connection is necessary.
- If the digital set-top box supports Auto DVI function, the output resolution of the digital set-top box will be automatically set to 1280x720p.
- If the digital set-top box does not support Auto DVI, you need to set the output resolution appropriately. To get the best picture quality, adjust the output resolution of the digital set-top box to 1280x720p.

AV Out Setup

- The TV has a special signal output capability which allows you to hook up a second TV or monitor.

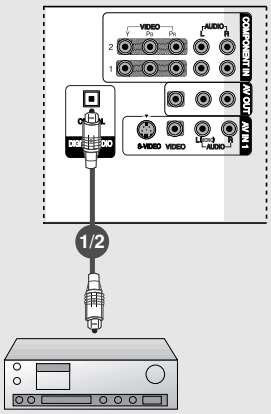


1. Connect the second TV or monitor to the TV's **AV OUTPUT** jacks.
2. See the Operating Manual of the second TV or monitor for further details regarding that device's input settings.

- Component 1-2, RGB-PC, HDMI1/DVI, HDMI2, DTV input sources cannot be used for Monitor out.
- We recommend to use the video and audio output jacks for VCR recording.

Digital Audio Output

- Send the TV's audio to external audio equipment (stereo system) via the Digital Audio Output Optical port.



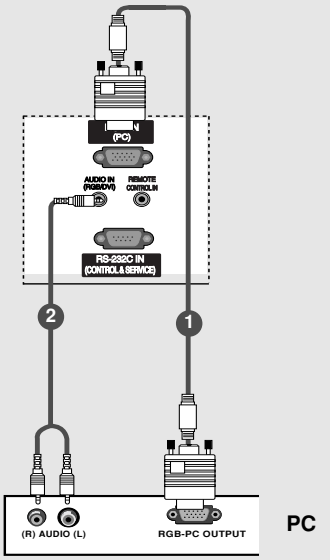
1. Connect one end of an optical cable to the TV Digital Audio Optical Output port.
2. Connect the other end of the optical cable to the digital audio optical input on the audio equipment.
3. See the external audio equipment instruction manual for operation.
   When connecting with external audio equipments, such as amplifiers or speakers, please turn the TV speakers off. (Refer to p.41)

CAUTION
Do not look into the optical output port. Looking at the laser beam may damage your vision.

PC Setup

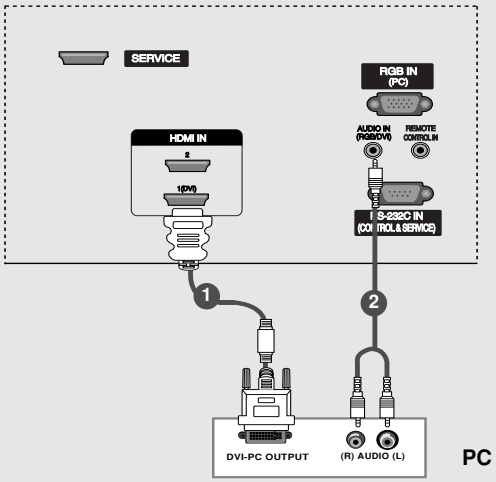
- This TV provides Plug and Play capability, meaning that the PC adjusts automatically to the TV's settings.

When connecting with a D-sub 15 pin cable



1. Connect the RGB output of the PC to the **RGB IN (PC)** jack on the set.
2. Connect the PC audio outputs to the **AUDIO IN(RGB/DVI)** jack on the set.
3. Turn on the PC and the set.
4. Select **RGB-PC** input source with using the **INPUT** button on the remote control.

When connecting with a HDMI to DVI cable



1. Connect the DVI output of the PC to the **HDMI IN 1(DVI)** jack on the set.
2. Connect the audio outputs of the PC to the **AUDIO IN(RGB/DVI)** jack on the set.
3. Turn on the PC and the set.
4. Select **HDMI1/DVI** input source with using the **INPUT** button on the remote control.

- If the PC has a DVI output and no HDMI output, a separated audio connection is necessary.
- If the PC does not support Auto DVI, you need to set the output resolution appropriately. To get the best picture quality, adjust the output resolution of PC graphics card's output resolution to 1024x768, 60Hz.

1. Depending on the graphics card, DOS mode may not work if a HDMI to DVI Cable is in use.
2. When Source Devices connected with HDMI/DVI Input, output PC Resolution (VGA, SVGA, XGA, WXGA), Position and Size may not fit to Screen.Press the ADJUST button to adjust the screen Position of TV SET and contact an PC graphics card service center.
3. When Source Devices connected with HDMI/DVI Input, output TV SET Resolution (480p, 720p, 1080i. 1080p) and TV SET Display fit EIA/CEA-861-B Specification to Screen. If not, refer to the Manual of HDMI/DVI Source Devices or contact your service center.
4. In case HDMI/DVI Source Devices is not connected Cable or poor cable connection, "NO SIGNAL" OSD display in HDMI/DVI Input. In case that Video Resolution is not supported TV SET output in HDMI/DVI Source Devices, "INVALID FORMAT" OSD display. Refer to the Manual of HDMI/DVI Source Devices or contact your service center.
5. Check the image on your TV. There may be noise associated with the resolution, vertical pattern, contrast or brightness in PC, HDMI/DVI mode. If noise is present, change the PC or HDMI/DVI mode to another resolution, change the refresh rate to another rate or adjust the brightness and contrast on the menu until the picture is clear. If the refresh rate of the PC graphic card can not be changed, change the PC graphic card or consult the manufacturer of the PC graphic card.
6. Avoid keeping a fixed image on the TV's screen for a long period of time. The fixed image may become permanently imprinted on the screen.
7. The synchronization input form for Horizontal and Vertical frequencies is separate.

Supported Display Resolution
(RGB-PC, HDMI1/DVI, HDMI2 Mode)

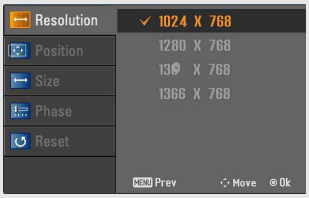
Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
640x350	31.468	70.08	* 720x480	31.469	59.94
720x400	31.469	70.08		31.500	60.00
640x480	31.469	59.94	*1280x720	44.96	59.94
800x600	37.879	60.31		45.00	60.00
1280x768	47.7	60	*1920x1080i	33.72	59.94
1360x768	47.7	60		33.75	60.00
1366x768	47.1	60	*1920x1080p	27.00	24.00
1024x768	48.363	60.00		33.75	30.00

* This format is only for HDMI-DTV input.

Screen Setup for PC mode

- *When RGB connect to PC input and select the RGB-PC, this function is used.*
- *When HDMI/DVI connect to PC input and select HDMI/DVI input, this function is used.*
- *After connecting RGB-PC or HDMI/DVI to PC input and checking the screen quality.*

*** Adjustment for screen Resolution, Position, Size, and Phase**



Mini Glossary

Position	This function is to adjust picture to left/right and up/down as you prefer.
Size	This function is to minimize any vertical bars or stripes visible on the screen background. And the horizontal screen size will also change.
Phase	This function allows you to remove any horizontal noise and clear or sharpen the image of characters.
Resolution	This function allows you select Resolution of XGA/WXGA.

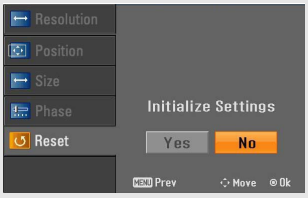
1 Press the **ADJUST** button and then use ▲ / ▼ button to select **Resolution**, **POSITION**, **SIZE**, or **PHASE**.

2 Press **ENTER** button and then use ▲ / ▼ / ◄ / ► buttons to make appropriate adjustments.
- The **PHASE** adjustment range is -16 ~ +16.
  (In HDMI/DVI-PC mode, **PHASE** is not available.)
- The **SIZE** adjustment range is -30 ~ +30.
  (In HDMI/DVI-PC mode, **SIZE** is not available.)

3 Press **ENTER** button.

*** When you change the resolution, select the proper resolution in present input to see the best picture appearance.**

*** Initializing (Reset to original factory values)**



- *To initialize the adjusted values*

1 Press the **ADJUST** button and then use ▲ / ▼ button to select the **RESET** option.

2 Press **ENTER** button and then use ◄ / ► button to select **Yes**.

3 Press **ENTER** button.

Operation

Basic operation

Turning on the TV

1. First, connect power cord correctly. At this moment, the TV switches to standby mode.

   In standby mode to turn TV on, press the ⏻/I , **INPUT**, **CH** ▲ / ▼ button on the TV or press the **POWER**, **TV INPUT**, **INPUT**, **CH** ▲ / ▼, Number (0 ~ 9) button on the remote control .

2. Select the viewing source by using **TV INPUT**, **INPUT** button on the remote control.
   This TV is programmed to remember which power state it was last set to, even if the power cord is out.

3. When finished using the TV, press the **POWER** button on the remote control. The TV reverts to standby mode.

Volume Adjustment

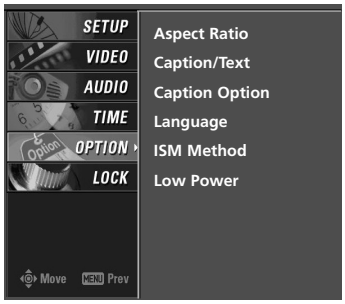
1. Press the **VOL** ▲ / ▼ button to adjust the volume.
2. If you want to switch the sound off, press the **MUTE** button.
3. You can cancel this function by pressing the **MUTE** or **VOL** ▲ / ▼ button.

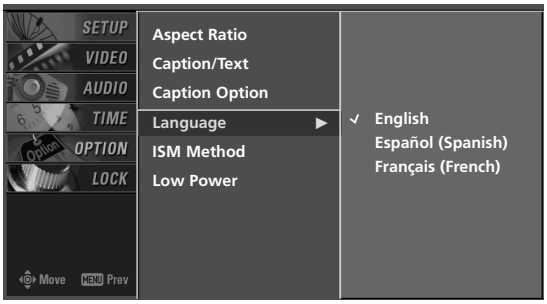
Channel Selection

Press the **CH** ▲ / ▼ or NUMBER buttons to select a channel number.

• If you intend to be away on vacation, disconnect the power plug from the wall power outlet.

On Screen Menus Language Selection





- *The menus can be shown on the screen in the selected language. First select your language.*

1 Press the **MENU** button and then use ▲ / ▼ button to select the **OPTION** menu.

2 Press the ► button and then use ▲ / ▼ button to select **Language**.

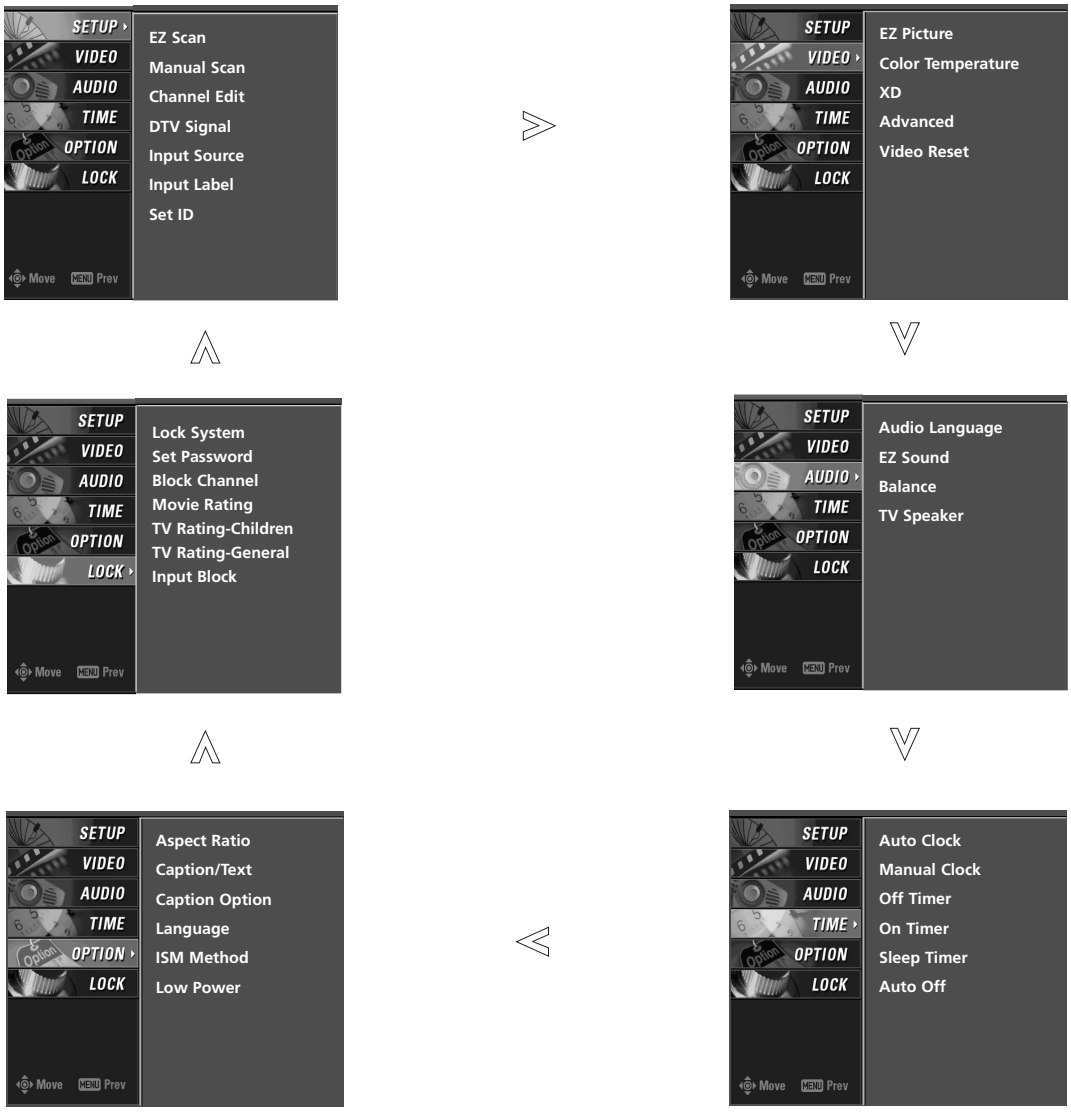
3 Press the ► button and then use ▲ / ▼ button to select your desired language. From this point on, the on-screen menus will be shown in the selected language.

4 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

On Screen Menus Selection and Adjustment

How to adjust the OSD screen

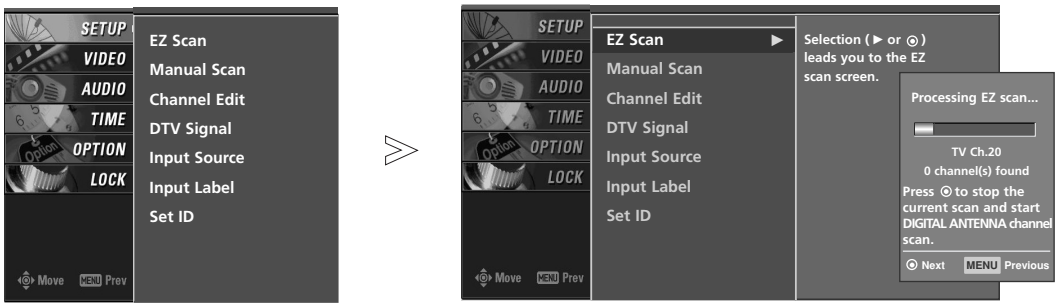
1. Press the **MENU** button and then ▲ / ▼ button to select each menu.
2. Press the ► button and then use ▲ / ▼ / ◄ / ► button to display the available menus.



• Your TV's OSD (On Screen Display) may differ slightly from what is shown in this manual.

Setup Menu Options

EZ Scan (Channel Search)



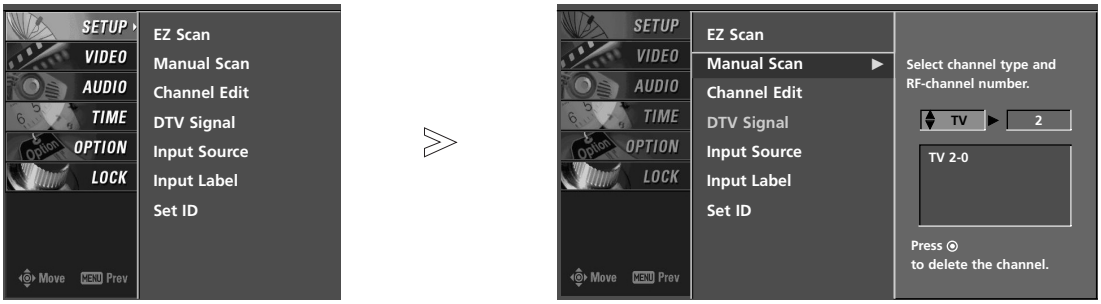
- *Automatically finds all channels available through antenna or cable inputs, and stores them in memory on the channel list.*
- *Run EZ Scan again after any Antenna/Cable connection changes.*
- *A password is required to gain access to EZ Scan menu if the Lock System is turned on.*

1 Press the **MENU** button and then use ▲ / ▼ button to select the **SETUP** menu.

2 Press the ► button and then use ▲ / ▼ button to select **EZ Scan**.

3 Press the **ENTER** button to begin the channel search.
Allow EZ Scan to complete the channel search cycle for ANTENNA, and CABLE.

Manual Scan



- *A password is required to gain access to Manual Scan menu if the Lock System is turned on.*

1 Press the **MENU** button and then use ▲ / ▼ button to select the **SETUP** menu.

2 Press the ► button and then use ▲ / ▼ button to select **Manual Scan**.

3 Press the ► button and then use ▲ / ▼ button to select TV, DTV, CATV, and CADTV.

4 Press the ► button and then use ▲ / ▼ button to select channel number you want to add or delete.

5 Press the **ENTER** button to add or delete for the channel number.

6 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.