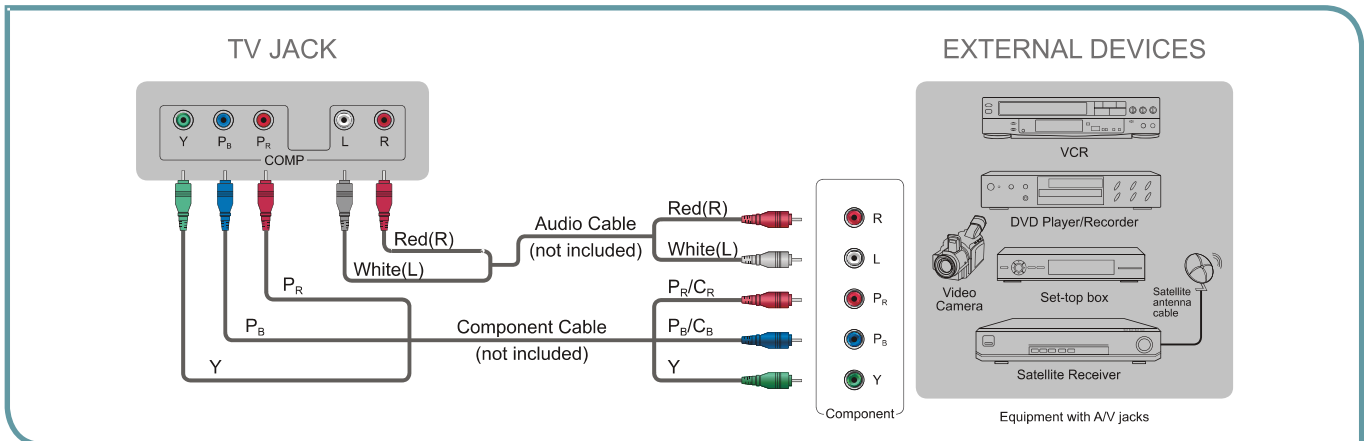## ▪ Connecting an A/V Device with Component (YP$_B$P$_R$) Cable

1. Use a component cable to connect the external A/V device's component output jacks to the TV's YP$_B$P$_R$ jacks. Use an audio cable to connect the external A/V device's component audio jacks to the TV's AUDIO (L/R) jacks.
2. Plug the connected devices into the mains socket before switching on the TV.
3. Select the corresponding source from the TV.

TV JACK

EXTERNAL DEVICES

Y   P$_B$ P$_R$ L   R
COMP

Red(R)
White(L)

Audio Cable
(not included)

Red(R)
White(L)

P$_R$

R
L
P$_R$/C$_R$
P$_B$/C$_B$
Y

P$_R$/C$_R$
P$_B$/C$_B$
Y
Component

P$_B$
Component Cable
(not included)

Y

VCR

DVD Player/Recorder

Video
Camera

Set-top box

Satellite
antenna
cable

Satellite Receiver

Equipment with A/V jacks

▪ Connecting an A/V Device with HDMI Cable

- Support digital connections between HDMI - enabled AV devices such as PVR, DVD, Blu-Ray, AV receiver and digital devices.
- Some devices such as PVR or DVD player require HDMI signal to be set to output in the device's settings.
- Please consult your device user manual for instructions.

1. Use an HDMI cable to connect the A/V device's HDMI output jack to the TV's HDMI jack.
2. Plug the connected devices into the mains socket before switching on the TV .
3. Select the corresponding source from the TV.

EXTERNAL DEVICES

TV JACK

HDMI

HDMI

DVD

Set-top Box
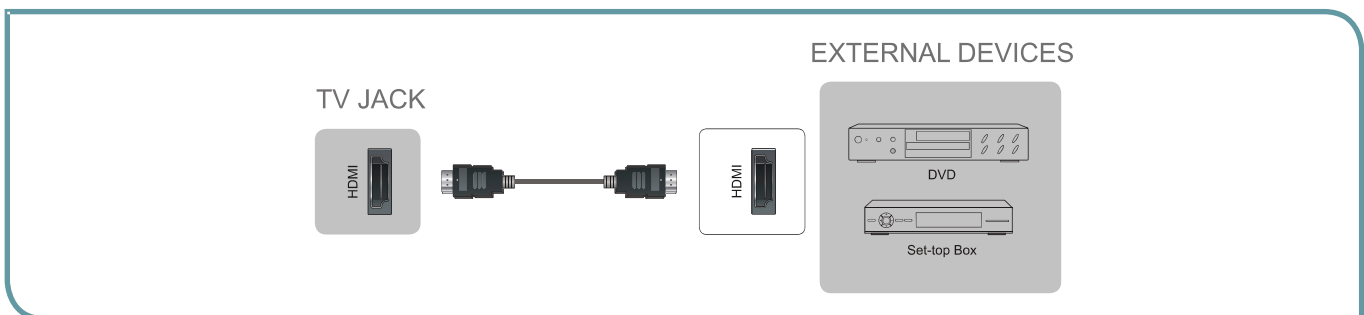
☑ NOTE

The HDMI connector provides both video and audio signals, it's not necessary to connect an audio cable.

▪ Connecting a headphone

Headphones or an analog sound bar can be connected to the HEADPHONE output on your set. (While the headphone is connected, the sound from the built-in speakers will be disabled.)

TV JACK   EXTERNAL DEVICES

HEADPHONE
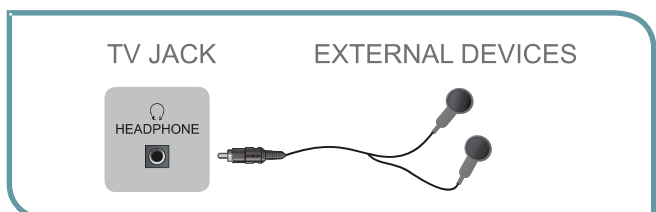
⊹ Connecting a PC with VGA Cable

1. Use a VGA cable to connect the PC's VGA output jack to the TV's VGA jack. Use an audio cable to connect the PC's audio output jack to TV's PC/DVI AUDIO IN jack.

2. Plug the connected devices into the mains socket before switching on the TV.

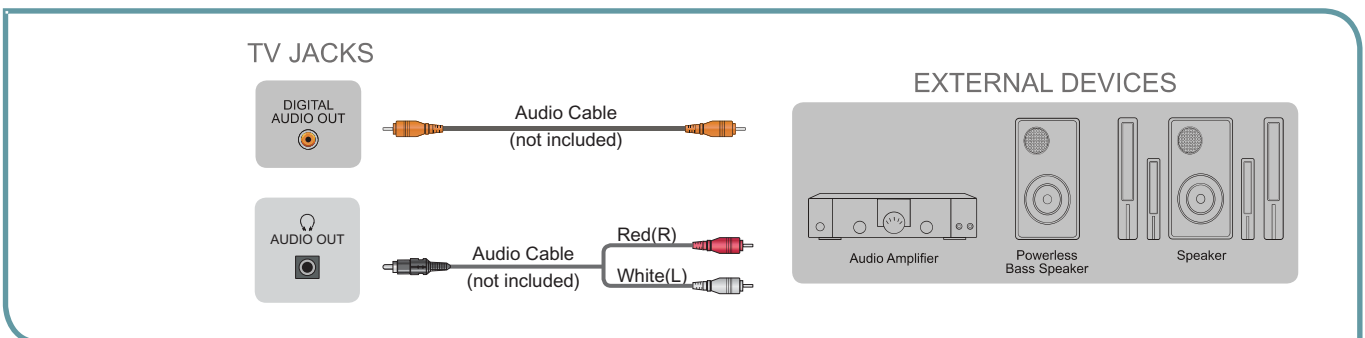3. Select the corresponding source from the TV.

TV JACK   EXTERNAL DEVICES

PC/DVI AUDIO IN
PC
VGA
Computer
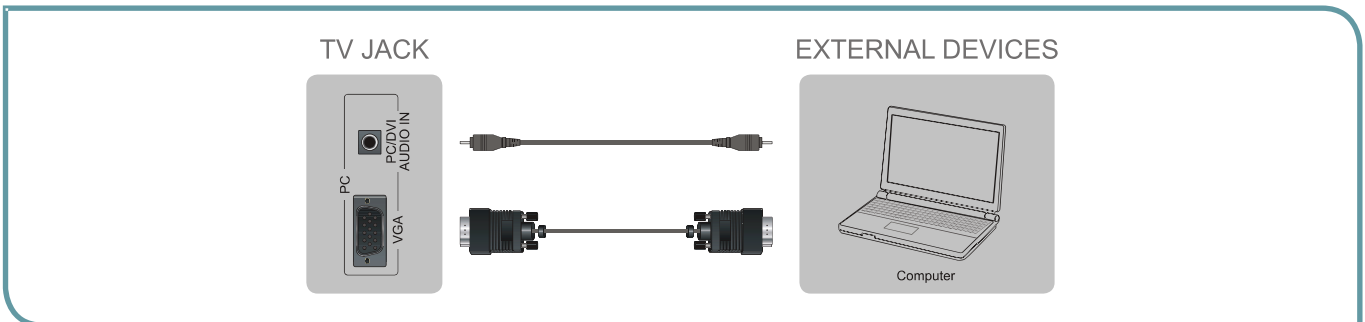
☑ NOTES

- Primarily this unit is intended for use as an LCD TV. If you want to use it as a monitor, please contact the manufacturer of the PC Video/Graphic's card for further support. Perfect compatibility is not guaranteed.
- The VGA cable will not supplied with the product.
- We strongly recommend to use VGA cable with 2 ferrite cores as shown in the figure.

⊹ Connecting an Audio Receiver with Digital Audio out cable

1. Use an audio cable to connect the A/V device's digital audio in jack to the TV's DIGITAL AUDIO OUT jack. Or use an RCA Y-cable (1/8"-stereo mini to L/R phono - not provided) to connect analog sound system to the TV's Ω/AUDIO OUT jack.

2. Plug the connected devices into the mains socket before switching on the TV.

3. Select the corresponding source from the TV.

TV JACKS
EXTERNAL DEVICES

DIGITAL AUDIO OUT
Audio Cable (not included)

Ω AUDIO OUT
Audio Cable (not included)
Red(R)
White(L)

Audio Amplifier   Powerless Bass Speaker   Speaker

☑ NOTES

- When a digital audio system is connected to the DIGITAL AUDIO OUT (COAXIAL) jack, decrease the volume of both the TV and the system.
- 5.1 CH (channel) audio is available when the TV is connected to an external device supporting 5.1 CH.
- When the receiver (home theater) is set to on, you can hear sound output from the TV's digital audio out jack. When the TV is receiving a DTV signal, the TV will send 5.1 CH sound to the home theater receiver. When the source is connected to the TV via HDMI, only 2 CH audio will be heard from the home theater receiver. If you want to hear 5.1 CH audio, connect the digital audio out jack from your DVD/Blu-ray player/cable box/STB satellite receiver directly to an amplifier or home theater.

⊹ Connecting an ethernet cable to access a network or the Internet

Connect an ethernet cable to access a network or the Internet. TV also features wireless connectivity. For more information, see "Network Connection".

Turning the TV on or off

IMPORTANT: At first, you have to match the remote control with TV.

To turn your TV on or off (standby mode):

1. Plug the power cord into an AC power outlet.
2. Press [POWER] button, Your TV turns on.
3. Press [POWER] button again to turn off your TV. When you turn off your TV, it goes into standby mode.

⚠ WARNING

When your TV is in standby mode, it is still receiving power. To completely disconnect power, unplug the power cord.

☑ NOTE

If your TV does not receive an input signal for several minutes, it automatically goes into standby mode.

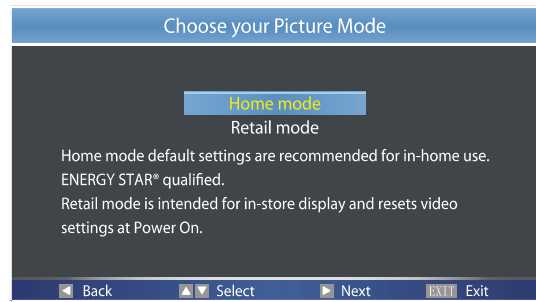## Turning the TV On for the First Time

The Setup Wizard menu appears the first time you turn on the TV. It will assist you to specify the menu language, Picture Mode, Tuner Mode and Channel Installation.

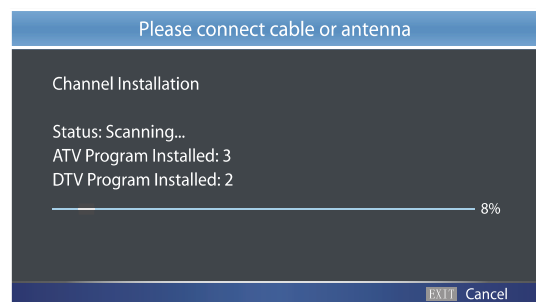IMPORTANT: Make sure that the antenna or cable is connected and a wired or wireless Internet connection is available.

1. Make sure that you have:
   ● Installed the remote control batteries.
   ● Connected an antenna or cable.
   ● Connected the power cord.
   ● Matched the remote control with TV.

2. Press [POWER ⏻] button to turn on your TV. The Setup Wizard menu displays.

3. Press [▲/▼/◄/►] to select your menu language: English, Spanish or French, press [ENTER] button to confirm.

Choose your menu Language
English
Español
Français
▲▼ Select   ► Next   EXIT Exit

4. Press [▲/▼] to select your Picture Mode: Home Mode or Retail Mode, press [ENTER] button to confirm.

   ● If you select Retail Mode, a message appears "Are you sure you want retail mode?" Select "Yes" to continue, or select "No" to change your selection.

Choose your Picture Mode
Home mode
Retail mode
Home mode default settings are recommended for in-home use. ENERGY STAR® qualified. Retail mode is intended for in-store display and resets video settings at Power On.
◄ Back   ▲▼ Select   ► Next   EXIT Exit

● If you selected Retail Mode, Energy Saving is not realized.

5. Press [▲/▼] to select your Tuner Mode: Antenna or Cable, press [ENTER] button to confirm.

Please connect cable or antenna
Channel Installation
Status: Scanning... ATV Program Installed: 3 DTV Program Installed: 2
8%
EXIT Cancel

6. Press [▲/▼] to set the Channel Installation: Scan or Skip Scan, press [ENTER] button to confirm.

   ● If you select "Scan", your TV automatically starts Channel Installation available in your viewing area.

   ● If you select "Skip Scan", your TV does not scan for channels.

   ● Depending on the reception condition, it may take up to 25 minutes or more to complete memorizing channels. Please allow the process to complete without interruption.

Selecting the Input Source

The first time you turn on your TV, you must select the TV signal source. Your TV stores this information, so you do not need to change the TV signal source unless it changes. For example, you change from an outside antenna to cable TV.

INPUT
TV
AV
Component
VGA
HDMI 1
HDMI 2
HDMI 3
HDMI 4
Hi-DMP
▲▼ Select
OK Enter
EXIT Exit

To select the video input source:

1. Turn on your TV, then press [INPUT] button on the remote or on the TV. The Input Source menu opens.

2. Press [▲/▼] button to highlight the input source, then press [ENTER] button.

3. Press [POWER] button again to turn off your TV. When you turn off your TV, it goes into standby mode.

Changing Channels / Volume

1. Press the [CH ∧/∨] (or [CH +/-]) on the TV/remote control to change the channel.
2. Press the [VOL ∧/∨] (or [VOL +/-]) on the TV/remote control to adjust the volume.
3. Press the numeric buttons on the remote control to display the corresponding channels.

☑ NOTE

Changing the channels can also be achieved by directly entering the channel number using the numeric keys on the remote control. If you are entering a two or three digit channel number, the time between key presses should be less than 3 seconds.

Shortcuts Instructions

Aspect - Select the screen aspect ratio from Normal, Wide, Zoom and Cinema.

Normal: The original 4:3 aspect ratio (1.33:1 signal) is preserved, so black bars are added to the left and right of the image. Standard TV broadcasts are displayed with a 4:3 aspect ratio.
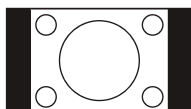
Wide: When watching a standard broadcast or full-frame movie in this mode, the display image is stretched proportionately to fill the TV screen. When watching a widescreen (1.78:1 signal) program or movie, the display image fills the TV screen.
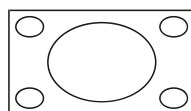
Zoom: Stretch the 4:3 aspect ratio image vertically and horizontally to fill the screen at 1:1.78 aspect ratio.
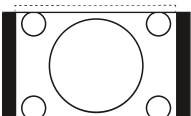
Cinema: Stretch the 4:3 aspect ratio image vertically and horizontally to fill the screen at 1:2.35 aspect ratio.
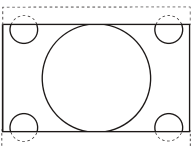
DISPLAY - Display the information banner. The information including channel number, channel name, current system time, tuner mode, audio stream, video format, audio language, closed caption mode, parental locks rated, program details, etc.

GUIDE - Open the DTV program guide. The program guide information is provided by the broadcasting company.

FAV - Display your Favorite List. You can add or delete channels to create your favorite list.

Cursor up/down: Press [▲/▼] button to select the option.

Add/Erase: Press [YELLOW] button to add or delete the channel from Favorite List.

Page up/down: Press [RED/GREEN] button to page up or down.

VUDU - VUDU^{TM} is an on-demand, pay-per-view, service that offers high-definition movies via the Web. You can access the VUDU service by pressing this button.

Hi-Smart - Press to open the Hi-Smart Hub. The Hi-Smart Hub provides convenient access to Services and Apps which let you watch movies, TV shows, listen to music, and much more.

NETFLIX - Press to open the Netflix interface. Netflix is an online DVD and Blu-ray Disc rental service, offering instant access to movies and TV shows to Netflix members. Netflix unlimited membership required (subscription not included).
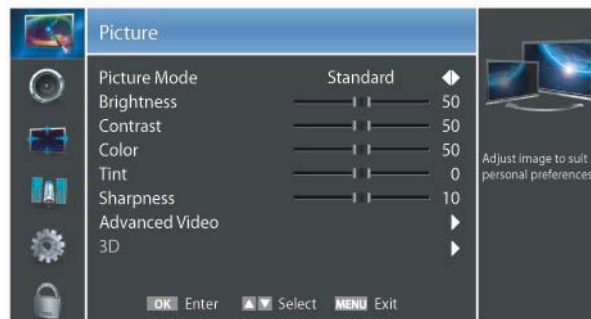
To Use the Menu

1 Press the [Menu] button to open the main menu.

2 Press [▲/▼] to select a menu option, then press [▶/ENTER] to enter the menu.

3 In each menu, you can:
- Press [▲/▼] to select an item,
- Press [◄/▶] to adjust the value, or
- Press [▶/ENTER] to enter the submenu,
- Press [RETURN] to exit the submenu.

4 Press [EXIT] button to exit the menu.

☑ NOTE

FOR ILLUSTRATION ONLY.

Using the Picture Menu

You can adjust:

Picture Mode - Adjust the Picture Mode. You can select Standard, Theater, Energy Saving, Game, Custom or Vivid.

Brightness - Increase or decrease the brightness of the picture. Increasing the brightness can add more light to dark areas of the picture, while decreasing the brightness can add more darkness to light areas of the picture.

Contrast - Increase or decrease the contrast of the picture. Increase the contrast to adjust the white areas of the picture or decrease the contrast to adjust the black areas of the picture.

Color - Adjust the level of color in the picture.

Tint - Adjust flesh tones so they appear natural.

Sharpness - You can increase the sharpness level for clearer images or decrease the sharpness level for smoother images.

Advanced Video - Access advanced video settings such as Color Temperature,Noise Reduction and Adaptive Contrast .

Color Temperature: Change the color temperature. You can select a preset color temperature: Cool, Standard and Warm.

Noise Reduction: Optimize the picture quality by filtering signal interference. You can select Off, Low, Medium or High.

Adaptive Contrast: Automatically adjusts the contrast level of the selected input source.

☑ NOTE

- When 3D video is watched under the fluorescent lamp (50~60 Hz) or tri-band fluorescent tube, there may be slight flicker, so please adjust the illumination downward or switch off the light.
- Certain functions, such as change aspect ratio, are not available when watching 3D movies and TV shows.
- Other brands 3D glasses may not be supported.
- Sit upright facing the TV when watching 3D movies and TV shows.
- This TV supports automatic identification of common 3D formats when connected to HDMI V1.4 compatible sources. Other 3D sources require manual setup.
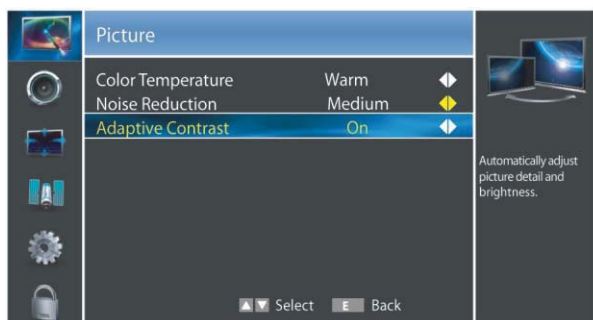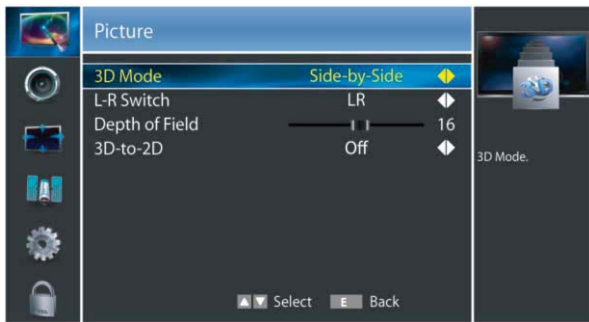
3D - Enables playback of 3D movies and TV shows (requires compatible 3D glasses).

✓ NOTE

⦿ When 3D signal format is Frame Packing, the image will be displayed according to the resolution of the incoming signal.

For example: when the input signal is 1280×720, a 720p image will be displayed. A 1920×1080 input signal will be displayed in 1080p.

⦿ When 3D signal format is Side-by-Side, Top-and-Bottom, the image is displayed full screen in half resolution (960× 1080 or 1920×540 respectively).

3D Mode: Format may be set to: Off, 2D-to-3D, Side-by-Side or Top-and-Bottom.

L-R Switch: Flips the left and right frames in Side-by-Side format.

Depth of Field: Adjusts the range of distance (focus) that appears acceptably sharp in a 3D image.

3D-to-2D: Disables automatic identification of 3D format during playback; forces 2D playback using only the Left or Right frame.

Using the Audio Menu
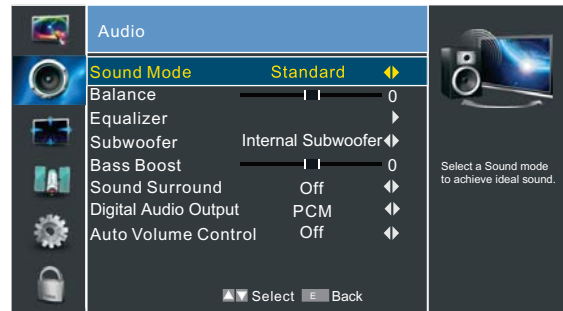
You can adjust:

Sound Mode - Select the Sound Mode: Standard, Speech, User or Music.

Balance - Adjust the volume of the left and right speakers.

Equalizer - Soften or enhance the sound at specific frequency points.

Subwoofer - Turn subwoofer Internal Subwoofer or Off.

Bass Boost - Adjusts the effect of bass.(Not available when Subwoofer is Off)

Sound Surround - Simulates surround sound and enhances bass response.

Digital Audio Output - Send digital audio to an external audio system. You can select PCM, RAW or Off.

PCM: PCM outputs two channel audio regardless of the input format.

RAW: Passes through (output = input) the incoming audio signal without decoding. E.g. incoming Dolby Digital, DTS or PCM data stream is simply output as it is without any processing.

Auto Volume Control - Automatically adjusts volume to a consistent level; attenuates loud passages.

Using the Screen Menu

☑ NOTE

Only available in VGA mode.

You can adjust:

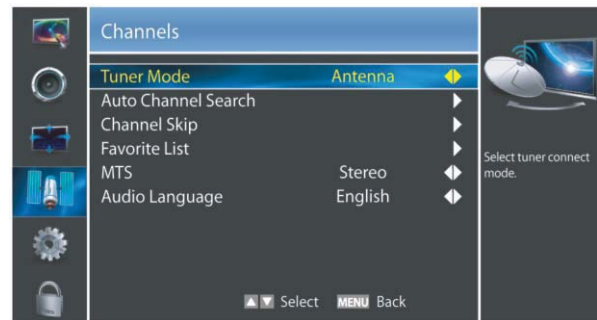H.Position - Move the image right or left.

V.Position - Move the image up or down.

Phase - Adjust the focus of stable images.

Clock - Adjust the sample frequency.

Auto Adjust - Detects input signal clock, phase and position and adjusts TV display accordingly.
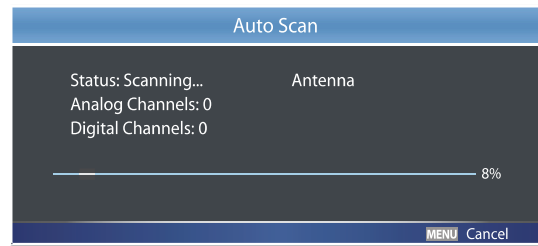
Using the Channels Menu

You can adjust:

Tuner Mode - Select TV source: Antenna or Cable.

Auto Channels Search - Scans for channels that have signals and stores the channels information in the channel list.

Channel Skip - You can cancel a channel stored in the channel list.

☑ NOTE

When you press [CH∧ / ∨] button, your TV skips the channel you cancelled. You can still tune to the channel using the number buttons on the remote control.

Favorite List - Add or delete channels to create a favorite list. You can press [FAV] button to display your Favorite List.

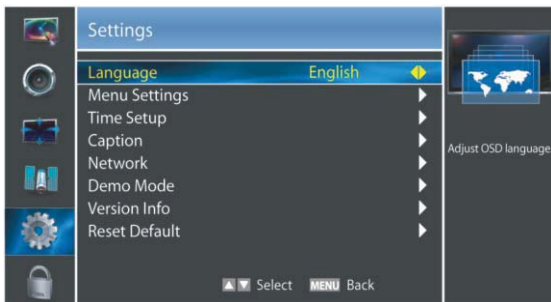MTS - Select the default audio stream: Mono, Stereo or SAP.

Audio Language - Select the audio language: English, Español or Français.

☑ NOTE

Only available in TV mode.

Using the Settings Menu

You can adjust:

Language - You can select the menu's language to English, Español or Français.

Menu Settings - You can set On-screen menu system.

Timeout: Select the display time of the menu: 10-20-...-60 seconds.

Time Setup - Set the time zone, daylight saving, time and sleep timer.

Time Zone: Select your local time zone: Eastern Time, Indiana, Central Time, Mountain Time, Arizona, Pacific Time, Alaska or Hawaii.

Daylight Saving: Set the Daylight Saving time for your area.

Time: You can set time manually or select automatic if the TV is connected to an antenna or cable source.
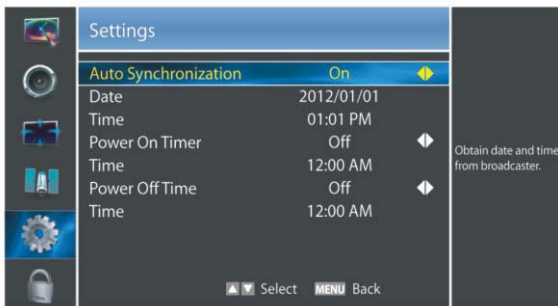
○ Auto Synchronization: Select "On" for automatic date and time setting using information from broadcast stations in your area.

○ Date/Time: Set the current year/month/day/time.

○ Power On Timer: When "On", you can set the time when the TV turns on automatically.

○ Time: Set the desired time for the TV to turn on automatically.

○ Power Off Timer: When "On", you can set the time when the TV turns off automatically.

○ Time: Set the desired time for the TV to turn off automatically.

Sleep Timer: Specify the amount of time before your TV automatically turns off: Off -10-...-120 minutes.

Caption - Adjust Closed Captioning settings.

Caption Control: Select the Closed Caption mode: CC Off, CC On or CC On When Mute.

Analog Closed Caption: Select an Analog Caption setting:

○ CC1~CC4: Closed captioning appears in a small banner across the bottom of the screen. CC1 is usually the "printed" version of the audio. CC2~CC4 display content are provided by the broadcaster.

○ Text1~Text4: Closed captioning that covers half or all of the screen. Text1~Text4 display content are provided by the broadcaster.

○ Off: To turn off the Analog Caption.

Digital Closed Caption: Select a Digital Caption setting: Service1~Service6 or Off.

Digital Caption Style: Customize the look of digital Closed Captioning.
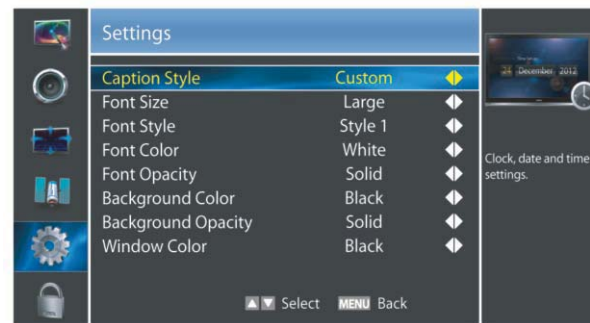
○ Caption Style: Set the look of Digital CC. "As Broadcaster" uses broadcaster's style.

○ Font Size/Style/Color/Opacity: Select the size/style/color/opacity level of font.

○ Background Color/Opacity: Select the color/opacity level of the background.

○ Window Color: Select the color of the window.

Network - You can setup the network configuration in this menu. For more information, see "Network Connection" and "Network Setup".

Demo Mode - Displays a banner at the bottom of the screen which describes the key features of the TV.

Version Info - Display the software version information. You may need to reference this information when contacting Customer Care or upgrading the firmware online.
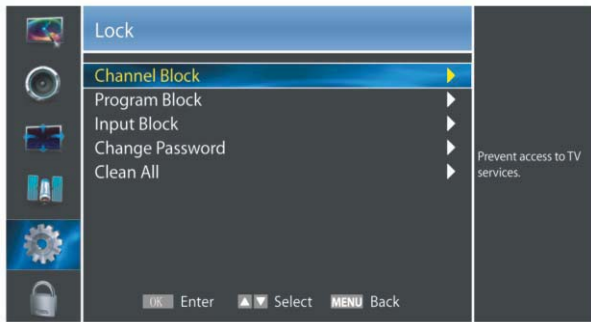
Reset Default - Restores the TV configuration to factory settings. You will need to complete the setup for such things as Tuner/Channel settings, Network connection, Date/Time and other user preferences.

Using the Lock Menu

When you first use this function, the default password is [0000]. Once you input this password, you can set options.

You can adjust:

Channel Block - Block selected Channels on the TV.

Program Block - Block selected Programs on the TV.

Rating Enable: Block or unblock TV ratings.

U.S. TV Ratings: Restrict TV programs by USA Ratings.

U.S. Movie Ratings: Restrict movie by USA Ratings.

Canadian English/French Ratings: Restrict movie and TV programs by Canadian Ratings.

Open V-Chip: Display an advanced V-Chip ratings table for digital channels (USA only).

Block Unrated: Block unrated TV programs.

Input Block - Block selected Input source on the TV.

Change Password - If you want to change the default password, first enter the new password then enter the same password again.

Clean All - You can reset all locks to factory mode.

Following is the description of these ratings

U.S. Movie Ratings

Age	Defined as
G	General audience
PG	Parental Guidance suggested
PG-13	Parents strongly cautioned
R	Restricted
NC-17	No one 17 and under admitted
X	Adult audience only

U.S. TV Ratings

Age	Defined as
TV-Y	All children
TV-Y7	Directed to older children
TV-G	General audience
TV-PG	Parental Guidance suggested
TV-14	Parents Strongly cautioned
TV-MA	Mature Audience only

Contenes	Defined as
A	All of the ratings below that rating set blocked automatically
D	Suggestive dialogue
L	Strong language
S	Sexual situations
V	Violence
FV	Fantasy Violence

Canadian English Ratings

Ratings	Description
C	Children
C8+	Children 8 years and older
G	General Programming, suitable for all audiences
PG	Parents Guidance
14+	Viewers 14 years and older
18+	Adult Programming

Canadian French Ratings

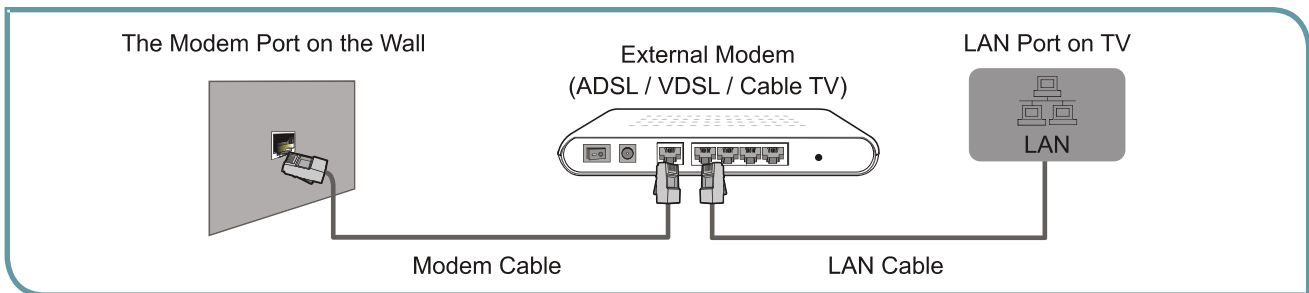| Rating	Description
G	General
8 ans+	8+General; Not recommended for young children
13 ans+	Programming may not be suitable for children under the age of 13
16 ans+	Programming is not be suitable for children under the age of 16
18 ans+	Programming restricted to adults

Advanced Features

Network Connection

You can set up your TV so that it can access the Internet through your local area network (LAN) with a Ethernet or wireless connection.
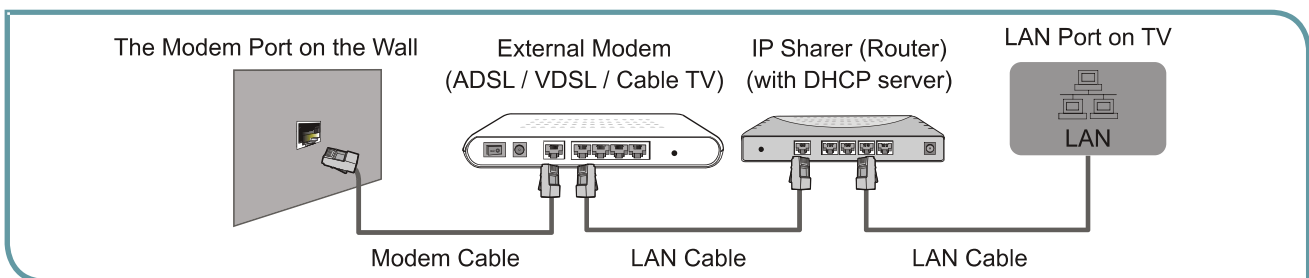
⚐ Connecting to a Wired Network

You can attach your TV to your LAN by one of the three following ways:

- You can attach your TV to your LAN by connecting the LAN port on the back of your TV to an external modem using a Cat 5 LAN cable. See the diagram below.

The Modem Port on the Wall   External Modem   LAN Port on TV
(ADSL / VDSL / Cable TV)

LAN

Modem Cable   LAN Cable

- You can attach your TV to your LAN by connecting the LAN port on the back of your TV to an IP Sharer which is connected to an external modem. Use LAN cable for the connection. See the diagram below.

The Modem Port on the Wall   External Modem   IP Sharer (Router)   LAN Port on TV
(ADSL / VDSL / Cable TV)   (with DHCP server)

LAN

Modem Cable   LAN Cable   LAN Cable

- Depending on how your network is configured, you may be able to attach your TV to your LAN by connecting the LAN port on the back of your TV directly to a network wall outlet with a Cat 5 cable. See the diagram below. Note that the wall outlet is attached to a modem or router elsewhere in your house.

The LAN Port on the Wall   LAN Port on TV

LAN

LAN Cable
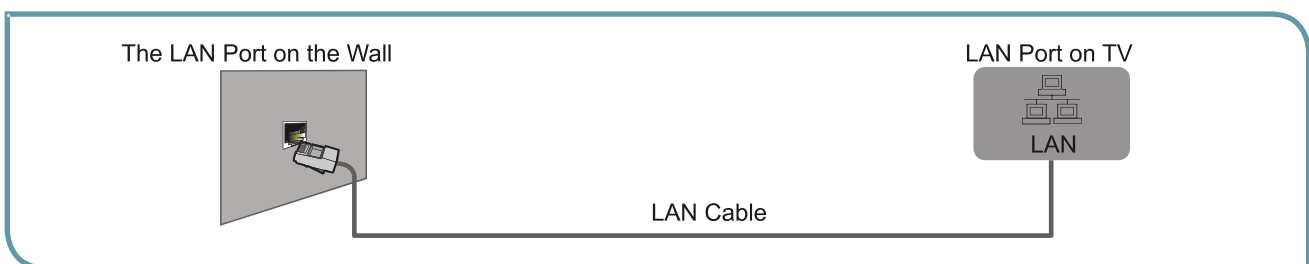
If you have a Dynamic Network, you should use an ADSL modem or router that supports Dynamic Host Configuration Protocol (DHCP). Modems and routers that support DHCP automatically provide the IP address, subnet mask, gateway, and DNS, so you don't have to enter them manually. Most home networks are Dynamic Networks.
Some networks require a Static IP address. If your network requires a Static IP address, you must enter the IP address, subnet mask, gateway, and DNS values manually on your TV's Cable Setup Screen when you set up the network connection. To get the IP address, subnet mask, gateway, and DNS values, contact your Internet Service Provider (ISP). If you have a Windows computer, you can also get these values through your computer.

☑ NOTE

You can use ADSL modems that support DHCP if your network requires a Static IP address. ADSL modems that support DHCP also let you use Static IP addresses.

Network Setup (Auto)

Use the Automatic Network Setup while your connecting the TV to a network that supports DHCP. To set up your TV's cable network connection automatically, follow these steps:

● How to set up automatically

1. Connect your TV to your LAN as described in the previous section.

2. Turn on your TV, operate according to the description in the Settings menu until the Network screen appears.

3. On the Network screen, select Configuration and press [ENTER] button to enter the submenu.
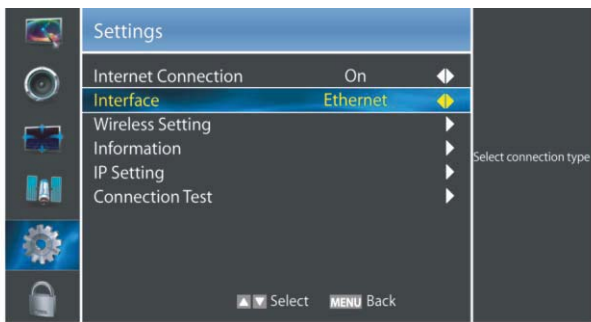
4. Set Internet Connection to On and Interface to Ethernet.

5. Select IP Setting and press [ENTER] button to enter it.
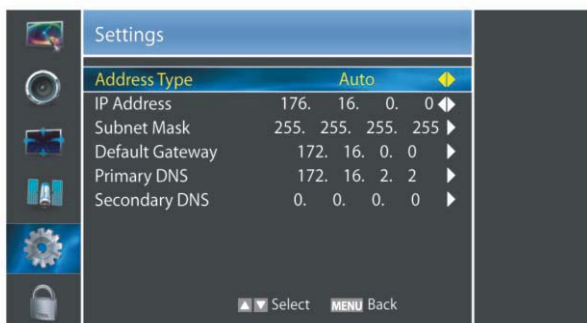
6. Set Address Type to Auto.

7. Auto acquires and enters the necessary connection values automatically.

8. If the connection values are not automatically entered, please check your modem and router manuals for

directions to enable automatic IP addressing by DHCP. Or, follow the steps listed to the follow to manually configure the network connection.

Network Setup (Manual)

Use the Automatic Network Setup when connecting your TV to a network that requires a Static IP address.

● Getting the Network Connection Values

To get the network connection values on most windows computers, follow these steps:

1. Right click the Network icon on the bottom right of the screen.

2. In the pop-up menu that appears, click Status.

3. On the dialog that appears, click the Support tab.

4. On the Support tab, click the Details button. The network connection values are displayed.

● How to set up manually

To set up your TV's network connection manually, follow these steps:

1. Follow Steps 1 through 5 in the "How to set up automatically" procedure.

2. Set Address Type to Manual.
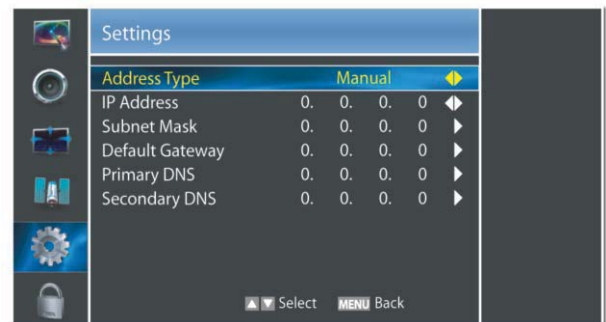
3. Press [▲/▼] button to select IP Address and press [◄/►] button to move the cursor to the entry field. Then press 0~9 buttons to enter the numbers.

4. Press [MENU] button to exit IP Address and press [▲/▼] button to select the next options to enter the numbers.

5 When done, press [MENU] button to return to the previous menu.

6. Select Connection Test to check the internet connectivity.