
ATTACHMENT E.

- USER'S MANUAL -



User's Guide

Digital LCD TV



Important Tip

Image Retention Effect (Image Sticking)

1. Cause :

- Image Retention Effect may come from displaying a still picture in certain period of time with at a certain area continuously, as the feature of LCD panel. This is caused due to brightness degradation. Many LCD manufacturers are trying to overcome this limitation.

2. Prevention

- To avoid this matter, use the product after reducing brightness and contrast, especially when a still image is displaying for a long time. (Contrast 50/Brightness 50 - [See 30 page](#))
Once image retention occurs, use the mode that displays more motion pictures. It will help reduce this matter.

3. Solution

- The temporary image sticking would decrease with displaying Full-White pattern during 10 hours.
* The permanent image sticking could not take off under the latest technology.
This method may be used to eliminate a temporary retained image that occurs after displaying a still image for a certain period of time. Since it may take several minutes to several hours to remove image sticking, it is recommendable to display motion pictures during 2~3 minutes every hour when keeping displaying a still image. As image sticking is influenced by the brightness of a still image being displayed and its display time, it is recommended that you reduce the brightness of the screen when displaying a still image for a long time.

* Image Sticking does not come under the warranty.

FCC Information

User Instructions

The Federal Communications Commission Radio Frequency Interference Statement includes the following warning :

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 receptions, 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 assistance.

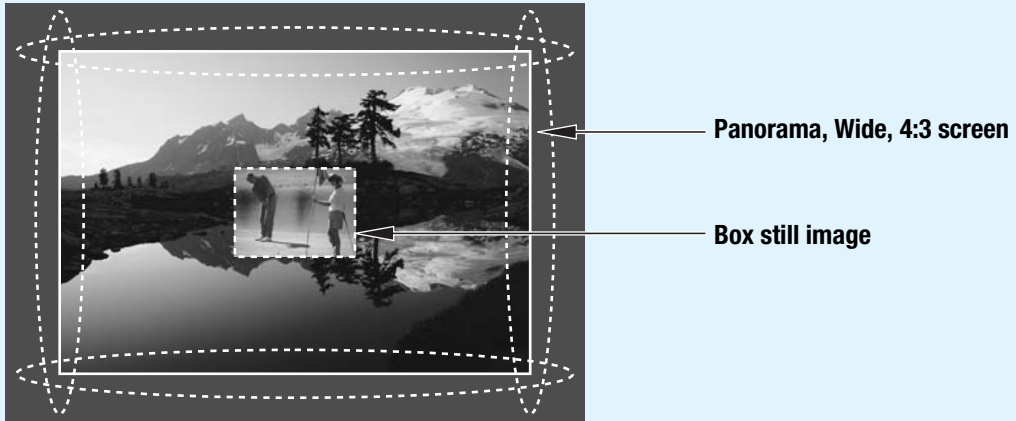
User Information

Changes or modifications 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.

Image Sticking Precaution

When watching a still Image within motion pictures and Panorama/Wide/4:3 screen



1. Note :

- When the central area of the screen and the screen edges are fixed, the different brightness level of the edges may cause image retention on the edges when watching for a long time
- This phenomenon is the same matter to other LCD manufacturers. Please do not watch a still image for a long time.
- If you watch a still image for a long time, this may damage your TV.

* This matter does not come under the warranty.



Features

Integrated HDTV

An HDTV has a built-in ATSC digital tuner. It does not need a separate set-top box to receive over-the-air DTV signal.

Dual Scan/Multi-Viewing

You can program analog TV broadcasting and digital TV broadcasting automatically at the same time for multi-viewing.

A Wide Array of Screen Settings

You can choose different screen settings depending on the type of program you are watching or the surrounding conditions (the outside weather conditions). You can switch among Standard, Dynamic, Movie, and Mild options or you can configure the screen settings for yourself.

A Wide Array of Sound Settings

You can choose an optimal sound setting for the type of program you are watching. You can switch among Standard, News, Music, and Sport options or you can configure the sound settings for yourself.

TV Program Reservation

If you reserve a digital TV program you are going to watch, the channel you are currently watching is automatically switched to the reserved channel.

Favorite Channel Memory

You can memorize the channels you are watching frequently.

SRS TrueSurround XT

You can enjoy dynamic and surround sound with ordinary speakers.

Dolby-Digital

When receiving digital broadcast signal, you can enjoy dynamic and surround sound with two ordinary speakers just like Dolby 5.1.

A Variety of Aspect Ratios

You can adjust the screen size at your preference.

Auto On/Off Function

This function allows you to turn on or off your TV at the preset time.

Game Prevention Function

This function is designed to prevent a VCR or game player from being connected to the TV.

Memory Card Support

You can enjoy photo images, music files and movies by inserting a variety of memory cards.

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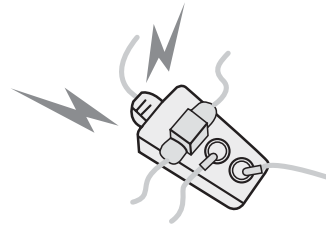
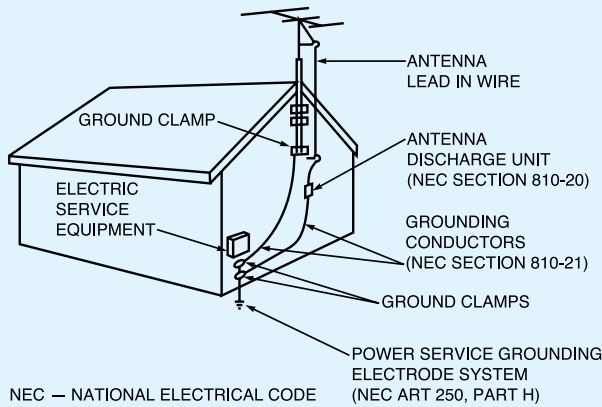
Safety Precaution

The contents of this section are provided for the safety of users and their property. Please read the instructions carefully before using.

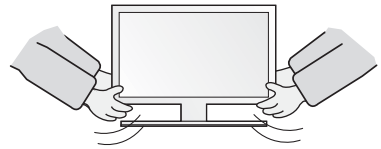
Outdoor Antenna Grounding

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.

Example of Grounding According to National Electrical Code Instruction



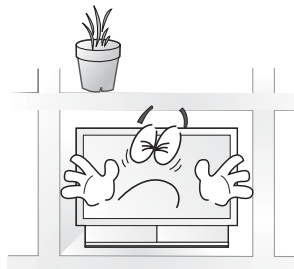
Do not connect multiple electrical appliances to a single outlet.
- It may cause a fire due to overheating from the outlet.



Make sure to remove the speakers before moving the TV with speakers mounted on it.
- When the speakers are detached from the unit while carrying it, this may cause damage to the unit or personal injury.

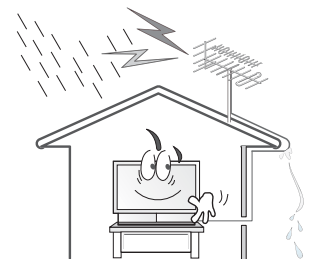
Do not use or store a flammable spray or inflammable things near the TV.

- They may cause explosion or fire.



Do not install the TV in a bookshelf, closet, or a place where there is poor air circulation.

- Fire may be caused due to the rise of internal temperature.

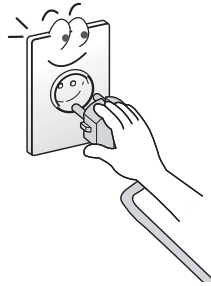


Any necessary action such as making the antenna cable loop at the entrance of the building should be taken to prevent rainwater on the outdoor antenna cable from possibly running into the indoor.

- If raindrop gets into the LCD TV, it may cause a fire or an electric shock.

If there is a persistent accumulation of dusts or water on the plug, please make sure to wipe it off using a dry cloth.

- It may cause a fire or an electric shock.

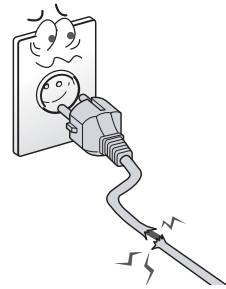


Firmly plug in the power cord so that it does not pull out.

- An unstable connection may cause fire.

Do not use a damaged power cord or plug, or loose outlet.

- It may cause electric shock or fire.

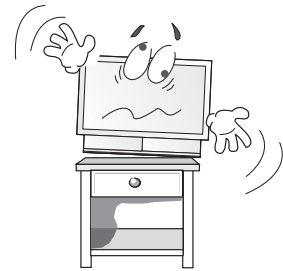


Do not put a water bowl, vase, candle, bug repellant, smoke, cigarette, plants, or heavy thing on the TV.

- It may cause electric shock or fire and also heavy things may cause injury when they fall.

Do not install in a place where there is oil, smoke, excessive humidity, or where water may be sprinkled on it.

- This may cause electric shock or fire.

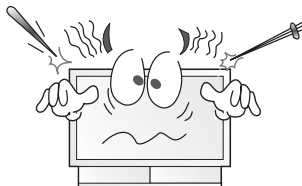
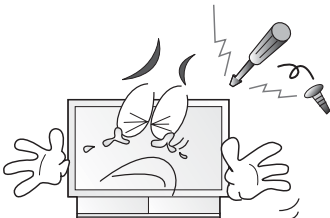


Do not install on an unstable place or small support.

- This may cause the TV to fall, resulting in serious injury to a child or adult.

Never attempt to open, fix, or modify your TV.

- When there is a need for fixing, call a service center. Fire or electric shock may be caused.



Do not put a metallic object like chopstick, wire, or puncher or inflammables like paper or a match in a vent, headphone jack, or AV jacks of the TV.

- Electric shock or fire may be caused.

When the TV produces abnormal noise, burning smell, or smoke, unplug the TV immediately and call a service center.

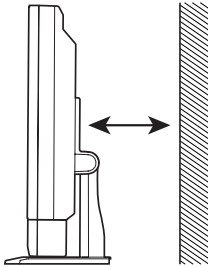
- Electric shock or fire may be caused.





Safety PrecautionContinued from previous page

The contents of this section are provided for the safety of users and their property. Please read the instructions carefully before using.



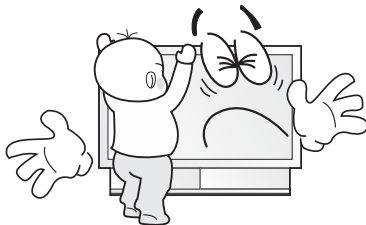
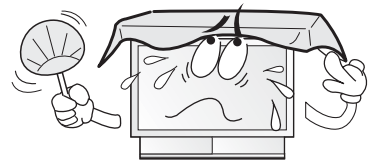
Keep the TV at least 10cm away from the wall for ventilation.
- Fire may be caused due to the rise of inner temperature.



Do not place any heat sources such as radiators and heat registers, etc. near the TV.
- It may cause a fire.

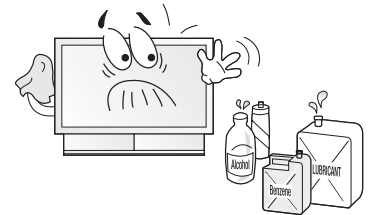
Do not block ventilating slits with a table cloth.

- Blocking the ventilation slits may produce inner heat increase, resulting in a fire.



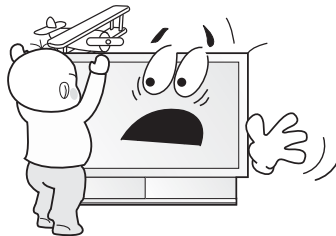
Do not allow children to climb or play on the TV.
- If it falls over on children, it may cause serious injury.

Do not place toys and cookies, etc. on the TV, which may attract children's attention.
- If it falls over on children, it may cause serious injury.



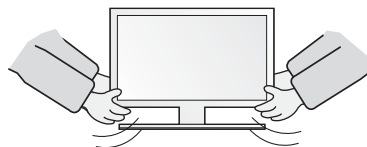
When cleaning the TV, make sure to disconnect the power plug and use a dry, soft cloth for a cleanup.

- Please avoid using chemicals such as wax, benzene, alcohol, thinner, mosquito spray, air freshener, lubricant or synthetic detergent.



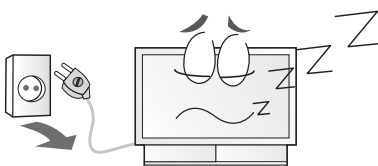
Unplug when you do not use your TV for a long time.

- If dust is stacked on the TV, electric shock or fire may be caused from heat, fire, or deterioration of insulation.



Consult a service center or customer service for inside cleaning about once a year.

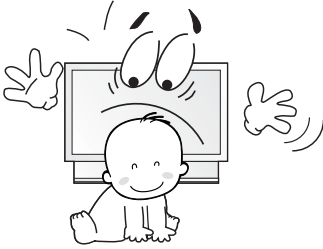
- When dust is piled inside the TV for long time, fire or malfunction may be caused.



When moving the TV, two or more people are advised to carry it.

- Injury or damage may be caused when the TV falls.

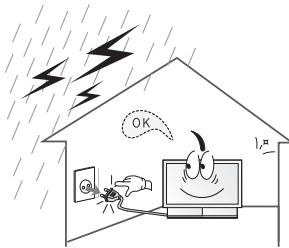




Do not install the product on the floor.
- If it falls over, your child may be injured.

Unplug the product during lightning or thunderstorms and never touch the antenna cable.

- It may cause a fire or an electric shock.

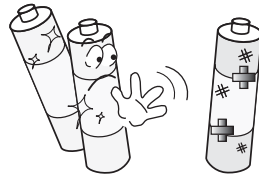
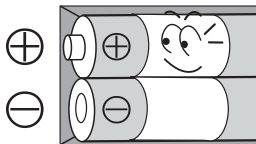


Keep the remote control batteries out of sight and out reach of children.

- If your child swallows a battery, see your doctor immediately.

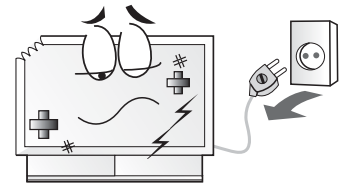
When replacing batteries, make sure to match the batteries to the (+) and (-) marks in the battery compartment.

- Mismatching of polarities may result in internal damage to batteries, fire due to leakage or contamination.



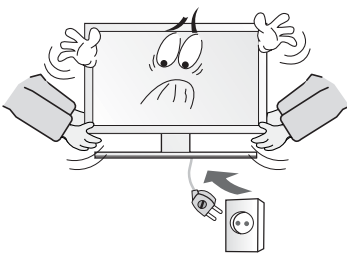
Always use the standard batteries and avoid using old batteries together with new ones.

- Otherwise it may result in internal damage to batteries, fire due to leakage or contamination.



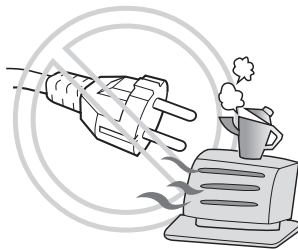
In the event of damaging or dropping the product, switch off the power and remove the plug.

- Using a damaged product may cause an electric shock or a fire.
- Contact your local service center.



Before moving the product, ensure to switch off the power and unplug all the electrical cords and the external connection cords such as an antenna cable and other source connections, etc.

- An electrical cord(s) may be damaged, resulting in a fire or an electrical shock.



Ensure the power cord doesn't trail across any hot objects like a heater.

- This may cause a fire or an electric shock.



Consult a service center or customer service for inside cleaning about once a year.

- When dust is piled inside the PDP for long time, fire or malfunction may be caused.



* This product image may be a bit different from the actual product.

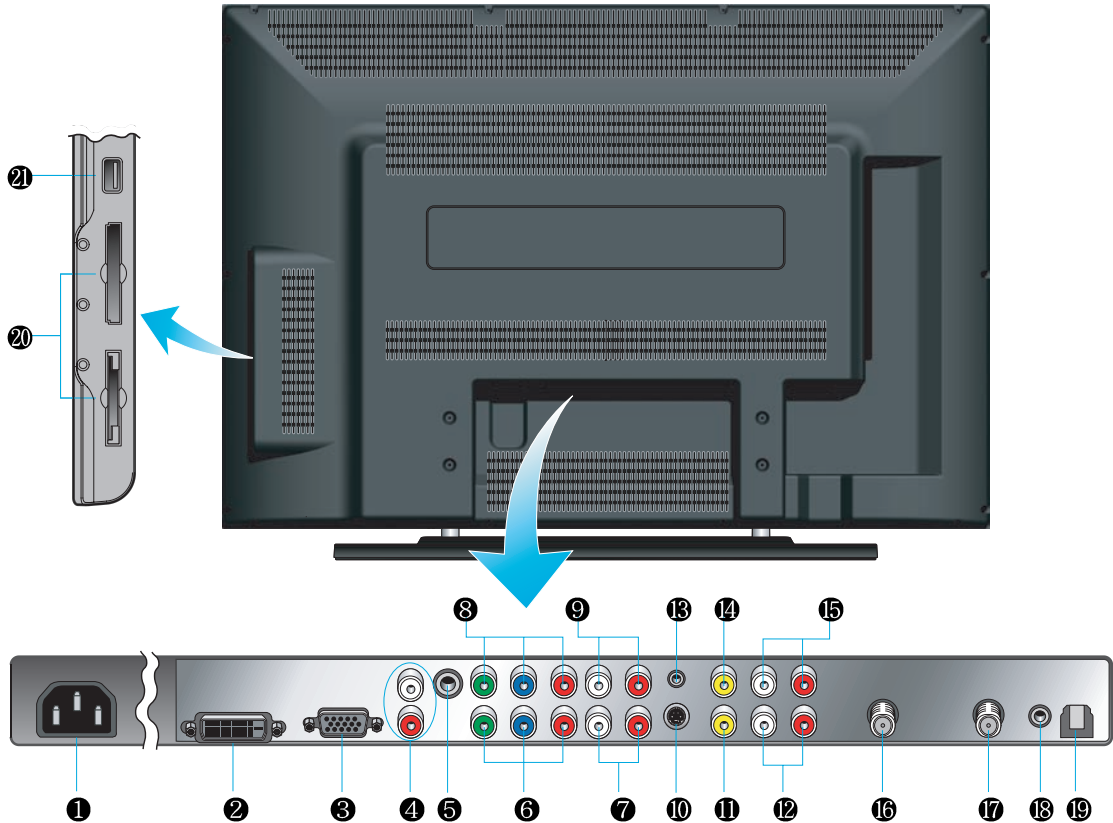
- ❶ **Speakers**
See page 8 for information on how to mount speakers.
- ❷ **Power button**
Use this button to turn on or off the TV.
- ❸ **Remote sensor and power LED.**
 - Point the remote control toward here.
 - It displays standby or operation status.

Indicator	Status
Red	Standby
Green	Power on

- ❹ **Power button**
Use this button to turn on or off the TV.
- ❺ **Source button**
Use this button to switch among inputs connected to the TV.

- ❻ **Menu button**
Use this button to display or exit from menus.
- ❼ **Select button**
Use this button to select each item of menu.
- ❽ **Channel buttons**
Use these buttons to change channels. These buttons also serve as the cursor of Down and Up buttons when in Menu mode.
- ❾ **Volume buttons**
Use these buttons for your desired sound level. These buttons also serve as the cursor of Select/Adjust when in Menu mode.

Rear View

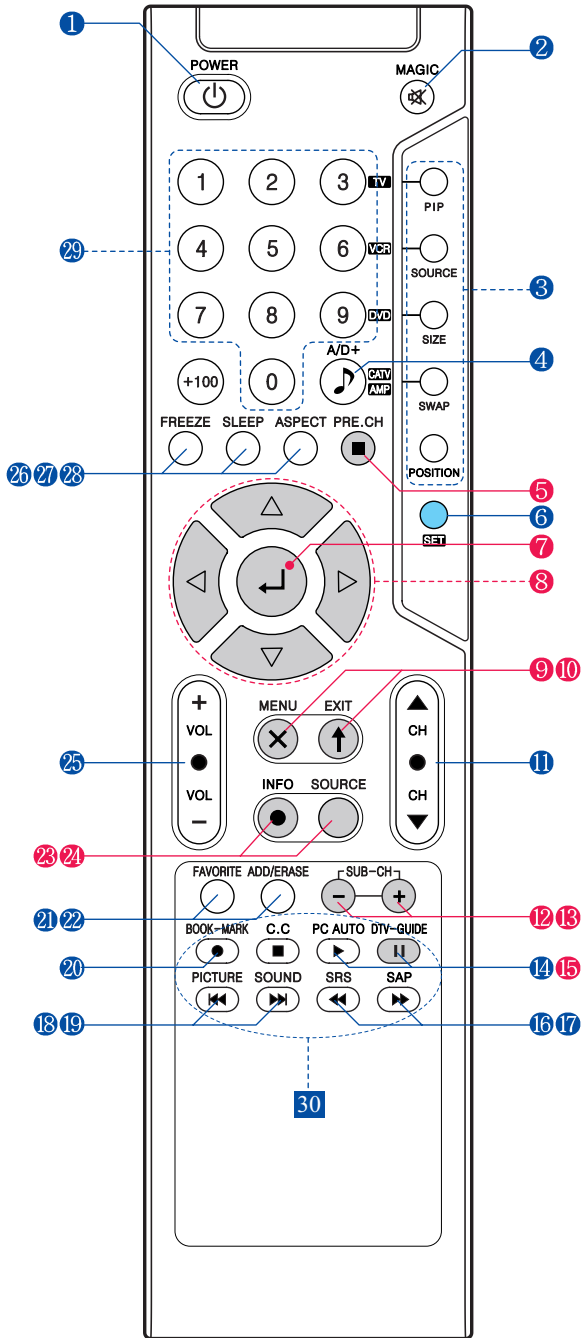


* This product image may be a bit different from the actual product.

- | | | |
|---|--|--|
| <p>❶ Power (AC) input terminal
Connect the power cord to this terminal.</p> <p>❷ DVI Video input terminal</p> <p>❸ D-SUB input terminal</p> <p>❹ DVI/D-SUB Audio input terminal</p> <p>❺ Subwoofer output terminal
When producing bass, connect the cable to the woofer with *AMP.</p> <p>❻ Component 2 Video input terminal</p> <p>❼ Component 2 Audio input terminal</p> | <p>❸ Component 1 Video input terminal</p> <p>❹ Component 1 Audio input terminal</p> <p>❺ S-Video input terminal</p> <p>❻ Video input terminal</p> <p>❼ S-Video/Video Audio input terminal</p> <p>❸ RS-232 input terminal
Connect to the RS-232 terminal of a PC to check its service.</p> <p>❹ Monitor Video output terminal</p> <p>❺ Monitor Audio output terminal</p> <p>❻ Antenna 1 (Analog/DTV) input terminal</p> <p>❼ Antenna 2 (DTV) input terminal</p> | <p>❸ Digital Audio output terminal for coaxial cable</p> <p>❹ SPDF optical digital audio output terminal</p> <p>❺ Memory Card Slot</p> <p>❻ USB Input Terminal</p> |
|---|--|--|



Remote Control



1. POWER/STANDBY

2. MUTE

This button is also used when setting up to use other external device.

3. PIP FUNCTIONS

- PIP

: Use this button for PIP On/Off.

- INPUT

: Use this button to select the input source of sub-picture.

- SIZE

: Use this button to select the size of sub-picture.

- SWAP

: Use this button to swap main and sub-picture.

- POSITION

: Use this button to select the position of sub-picture.

4. A/D+

Use this button to switch analog input signal to digital signal.

5. Previous Channel

Use this button to return to the previous channel.

6. Other external device selection (→ 73P)

7. MENU SELECTION

Use this button to select menu items.

8. LEFT/RIGHT MOVE/ADJUST

Use these buttons to move between menu items or to adjust each item.

9. MENU

Use this button to call the OSD to the screen.

10. EXIT

Use this button to end the OSD.

11. CHANNEL SELECTION

Use this button to select the channel.

12-13. SUB-PICTURE CHANNEL SELECTION

14. PC AUTO

Use this button to automatically adjust the screen in PC Mode.

15. DTV-GUIDE

Use this button to see digital broadcast information.

16. SRS

Use this button to select 3D surround sound.

17. SAP

Use this button to listen in a foreign language or in Stereo Mode.

18. PICTURE MODE

19. SOUND MODE

20. BOOK-MARK

Use this button to select/deselect your frequently-used channel.

21. FAVORITE

Use this button when watching your favorite channel.

22. ADD/ERASE

Use this button to add or erase channels.

23. INFORMATION

Use this button to display resolution or various program information.

24. SOURCE

Use this button to select External Input or Memory Mode.

25. VOLUME

26. STILL

27. SLEEP

28. ASPECT RATIO

Use this button to change the picture size.

29. NUMERIC KEYS

30. Use this buttons to use other manufacturer's DVD or VCR.

Using buttons when in Memory Mode

➔ The following buttons are used differently in each menu. (See pages 67~72 for more details.)

- ④ Power Saving Function when listening to music
- ⑤ Music Playback Setting (Repeat 1, Repeat All, Sequence)
- ⑦ Select, Start, Pause/Playback
- ⑧ Move between file listings, Previous Track/Next Track, Reverse/Fast Forward, Photo Rotation
- ⑨ Exit, Cancel
- ⑩ Eject Card
- ⑫ Slide Show
- ⑬ Zoom In
- ⑮ Check Version (Initial Screen), Check Running Time (Movie Mode)
- ⑳ Hide Menu
- ㉔ When Shifting into Memory Mode

➔ Other buttons available in Memory Mode

- ⑯ ⑰ ⑱ ㉑ ㉒ ㉓

How to Insert Batteries in Remote Control



* Battery type :1.5V/AAA

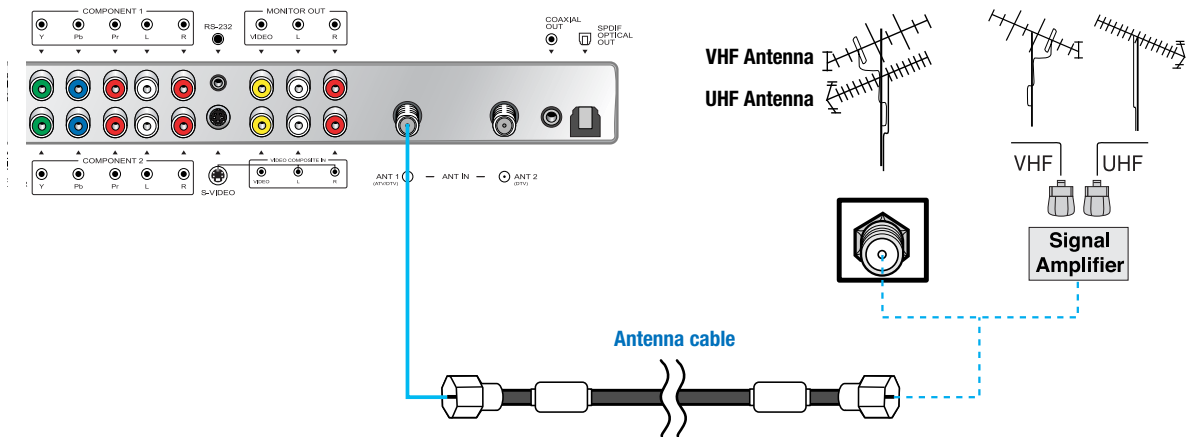


How to Watch Both Analog and Digital Broadcasts with a Single Antenna

You can watch both analog and digital broadcasts by connecting a single antenna.

Connection Method

- ➔ Make sure that the antenna cable is connected to ANT 1 (ATV/DTV).
- Antenna or Cable service without a cable box connections
- For optimum picture quality, adjust antenna direction if need,



TIP

- When inserting a 75 Ω ohm coaxial cable into the input connection, ensure the wire tip not to bend.
- If you experience poor signal reception, we recommend you purchase a signal amplifier for better picture quality.

How to Watch

- 1 Turn on TV to activate Auto Channel (See page 47) to memorize the available channels.
- 2 Press **SOURCE INPUT** on remote control.
- 3 Press **Navigation Pad** to move to Analog TV or Digital TV and press **Enter** to select.
- 4 Press **Number Pad** button or **CH** button to select the desired channels.

Ex.) When you want to watch cable channel number 120, press **+100** + **2** + **0** the digit buttons.

DTV
ANALOG TV
DTV
VIDEO
S-VIDEO
COMP 1
COMP 2
PC
DVI
MEMORY
↕ MOVE
↵ SELECT

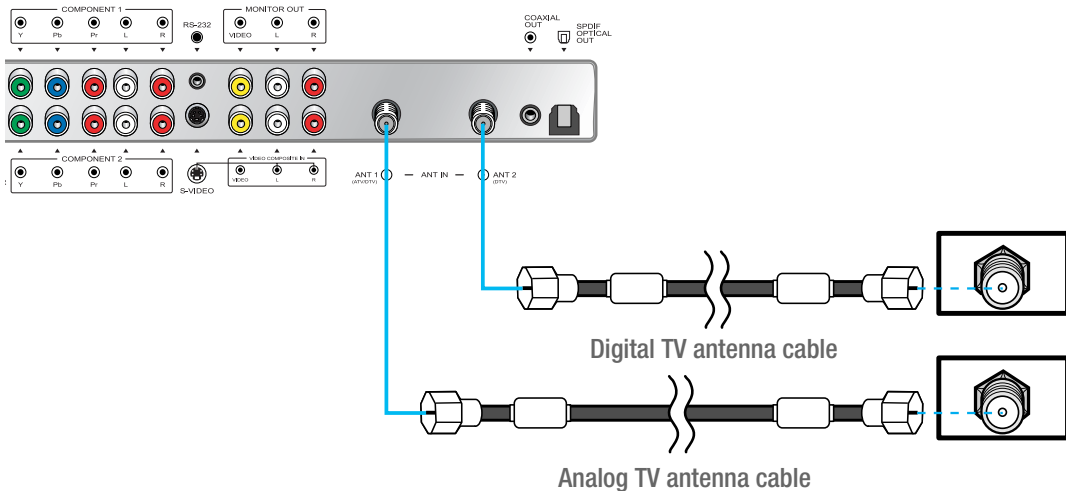
TIP

While watching digital broadcast, you can switch a digital signal to an analog signal by pressing the **A/D+** button.

How to Watch Both Analog and Digital Broadcasts with Two Antennas

Connection Method

Connect an analog antenna to ANT 1 terminal for analog source and a digital antenna to ANT 2 terminal for digital source. Please ensure to connect an antenna to a correct terminal. (If you connect an analog antenna cable to ANT 2, you cannot watch TV program.)



TIP - When inserting a 75 Ω ohm coaxial cable into the input connection, ensure the wire tip not to bend.
 - If you experience poor signal reception, we recommend you purchase a signal amplifier for better picture quality.

How to Watch

- 1 Turn on TV to activate Auto Channel (See page 47) to memorize the available channels.
- 2 Press **SOURCE INPUT** on remote control.
- 3 Press **Left/Right/Up/Down** to move to Analog TV or Digital TV and press **Enter** to select.
- 4 Press **1-0** button or **CH** button to select the desired channels.

DTV
ANALOG TV
DTV
VIDEO
S-VIDEO
COMP 1
COMP 2
PC
DVI
MEMORY
MOVE
SELECT

Ex.) When you want to watch cable channel number 120, press **+100** + **2** + **0** the digit buttons.

TIP While watching analog broadcast, you can switch an analog signal to a digital signal by pressing the **A/D+** button.



Before Connecting the Video/Audio Connections to External Devices...

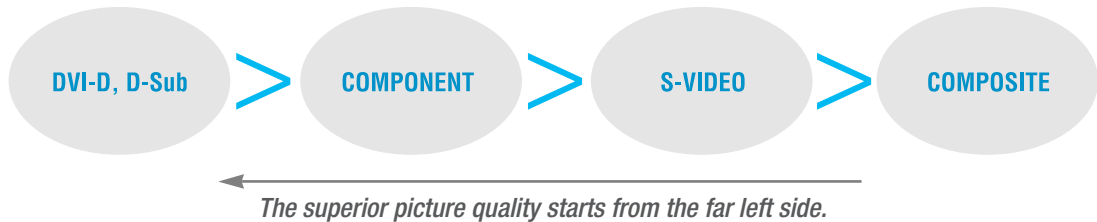
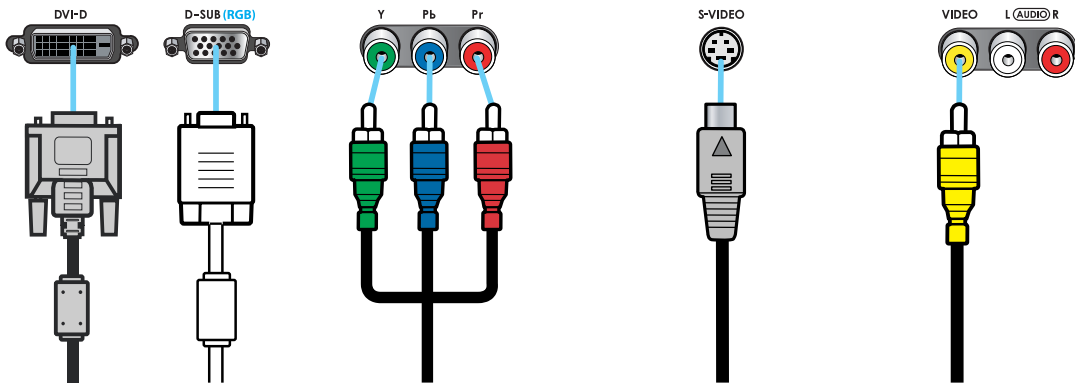
Please make sure to read the following information on connection to enjoy best picture quality.

Video/Audio connectors

Types of video/audio cable :

① DVI-D ② 15-Pin D-Sub ③ COMPONENT ④ S-VIDEO ⑤ COMPOSITE

Best picture quality is displayed in the following order.



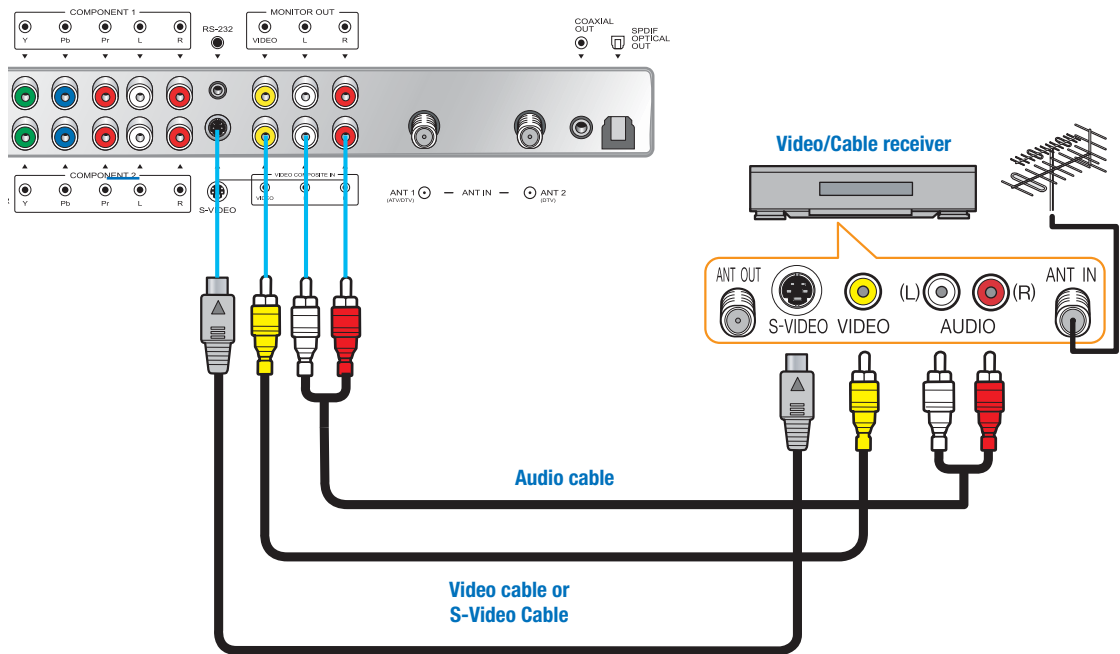
TIP

- When connecting an external device, ensure to read the connecting device's manual. The location or the number of the terminals on the external device may be different depending on its model.
- Connect a DVI connection to the output of DVD, cable receiver or satellite receiver. Connecting a DVI connection to a PC may result in a message, "Unknown Signal".
- Do not power on until all necessary connections are made. If power is given before connections completed, this may damage the product.
- Make sure to match the cable in color with the terminal.
- Make sure to check the type of terminals to be connected.

How to Connect a VCR/Cable Receiver

Connection Method

- 1 Connect the Video cable or S-Video cable between Video/S-Video output terminal of VCR or Cable receiver and Video/S-Video input terminal of TV. (Connect the jacks to terminals in the same color.)
- 2 Connect the Audio cable (Left: white, Right: red) between Audio output terminal of VCR or cable receiver and Audio input terminal of TV. (Connect the jacks to terminals in the same color.)



How to Watch

- 1 Turn on TV to press **SOURCE** on remote control.
- 2 Press **←** to move to Video or S-Video and press **↵** to select.
For more information, read the user's guide of VCR or cable receiver.

VIDEO
ANALOG TV
DTV
VIDEO
S-VIDEO
COMP 1
COMP 2
PC
DVI
MEMORY
↕ MOVE
↵ SELECT



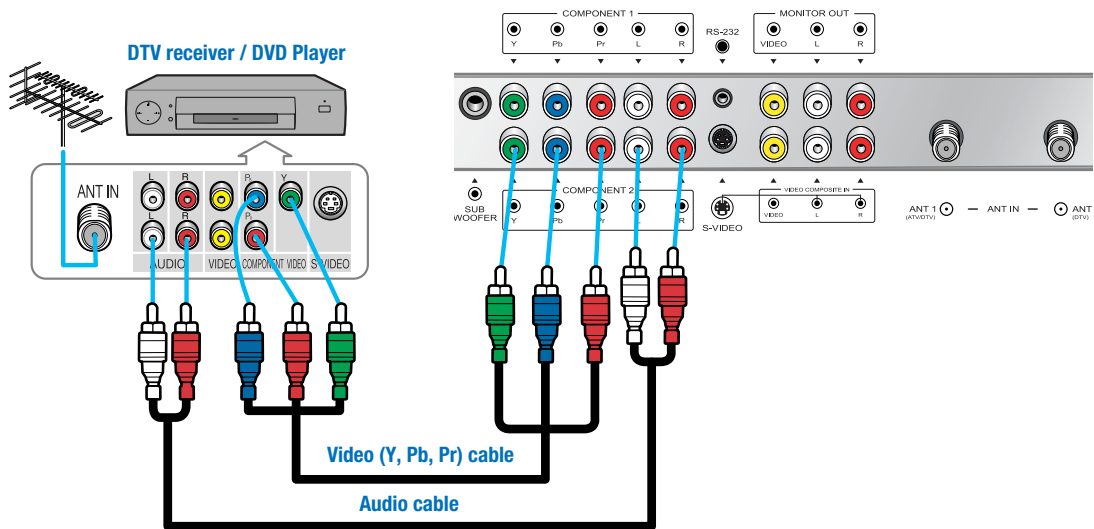
To enjoy better picture quality, use the S-Video cable rather than the composite cable.



How to Connect a DTV Receiver or DVD Player

Connection Method

- 1 Connect the Video cable (Y, Pb, Pr) between output terminals (Y, Pb, Pr) of DTV receiver or DVD player and the input terminals (Y, Pb, Pr) of DTV/DVD (480i/480p/720p/1080i) on the rear of TV. (Connect the jacks to terminal in the same color.)
- 2 Connect the Audio cable between Audio output terminal of DTV receiver or DVD player and Audio input terminal for DTV/DVD Audio on the rear of TV. (Connect the jacks to terminals in the same color.)



How to Watch

- 1 Turn on TV and press **SOURCE** on remote control.
- 2 Press **COMP 1** to move Component 1 or Component 2 and press **SELECT** to select.

For more information, read the user's guide of DTV receiver or DVD player.

COMP 1
ANALOG TV
DTV
VIDEO
S-VIDEO
COMP 1
COMP 2
PC
DVI
MEMORY
↔ MOVE
⏏ SELECT

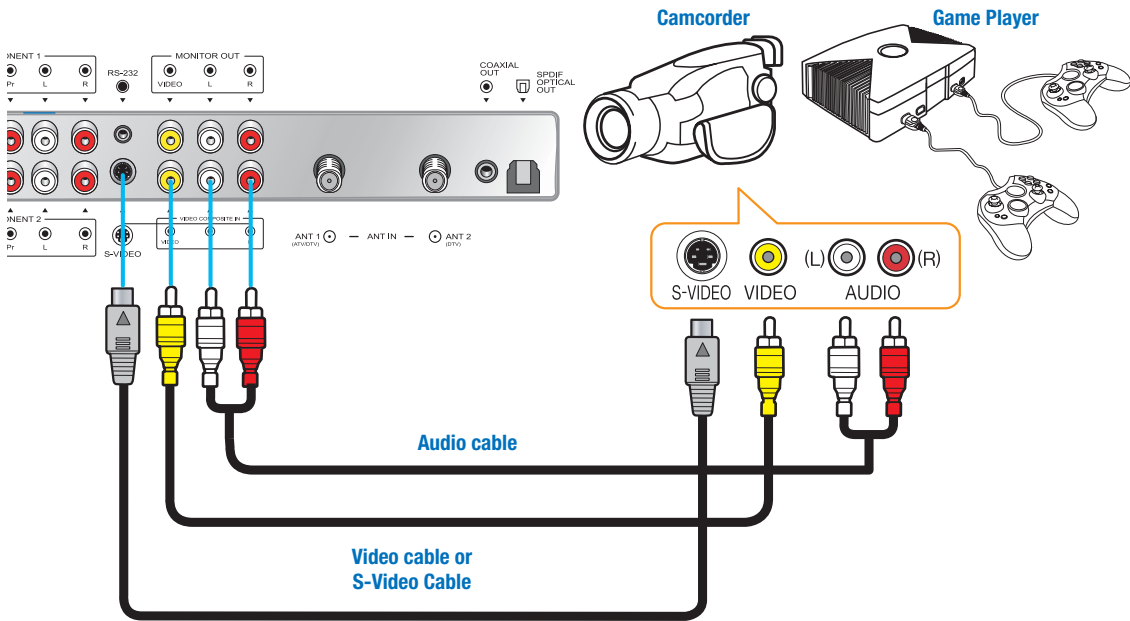
TIP

- Output terminal mark (Y, Pb, and Pr) of DVD player may be indicated as Y, B-Y, R-Y/Y-Cb-Cr /Y-Pb-Pr according to the type of DVD player models.
- If your DVD player or Set Top Box supports DVI/D-SUB, see Connecting to a PC (page 25) for connection. You can enjoy more clear picture quality.

How to Connect a Camcorder/Game Player

Connection Method

- 1 Connect the Video/S-Video cable between Video/S-Video output terminal of Camcorder/Game player and Video/S-Video input terminal of TV. (Connect cables and terminal in the same colors.)
- 2 Connect the Audio cable (Left-white, Right-red) between Audio output terminal of Camcorder/Game player and Audio input terminal of TV. (Connect the jacks to terminals in the same color.)



How to Watch

- 1 Turn on TV and press **SOURCE** on remote control.
- 2 Press **←** to move Video or S-Video and press **↵** to select.

For more information, read the user's guide of Game player or Camcorder.

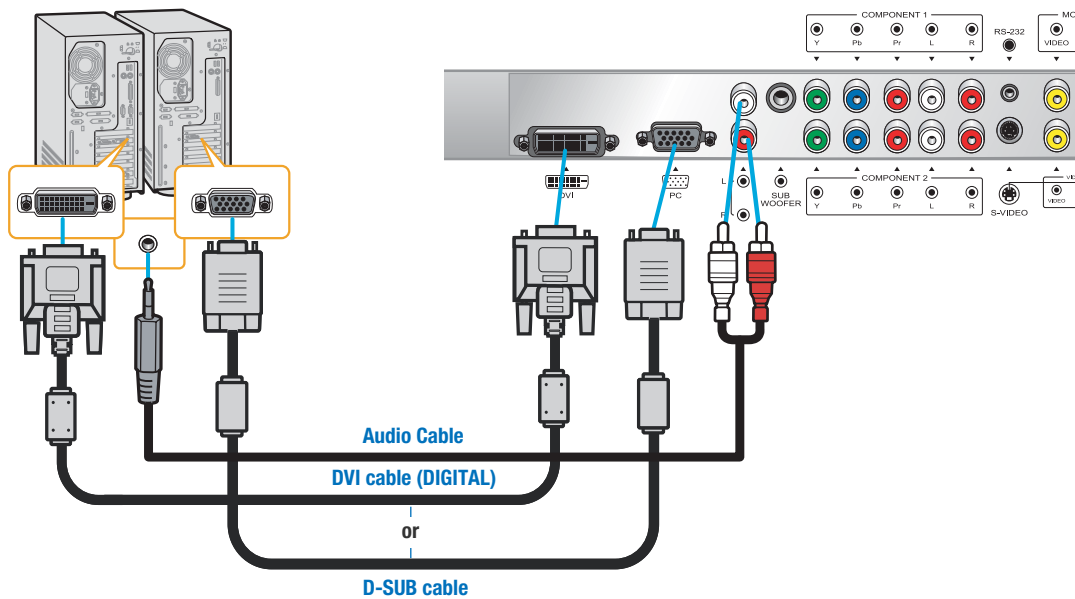
VIDEO
ANALOG TV
DTV
VIDEO
S-VIDEO
COMP 1
COMP 2
PC
DVI
MEMORY
↕ MOVE
↵ SELECT



How to Connect to a PC

Connection Method

- 1 Connect the PC signal cable (15-pin D-sub) between the output terminal of PC and the D-sub input terminal of TV.
- 2 Connect the Audio cable between Audio output terminal of PC and Audio input terminal for PC on the rear of TV. (Connect the jacks to terminals in the same color.)



When Using as a PC Monitor

- 1 Turn on TV and press **SOURCE** on remote control.
- 2 Press **←** to move to PC or DVI and then press **↙** to select.

PC
ANALOG TV
DTV
VIDEO
S-VIDEO
COMP 1
COMP 2
PC
DVI
MEMORY
↕ MOVE
↙ SELECT



- If you use the DVI connection, you can enjoy better picture quality.
- This product supports Plug-and-Play function.
- We recommend the above method if the DVD player or set top box supports DTV signal with DVI/D-sub (15 pin) cable for the better picture quality.
- If you input an unsupported resolution in PC or DVI mode, the screen won't be displayed properly.

Resolutions Supported in PC

Resolution	Horizontal frequency	Vertical frequency
640 x 350	31.47	70.09
	37.86	85.08
640 x 480	31.47	59.94
	37.86	72.80
	37.50	75.00
	43.27	85.01
720 x 400	31.47	70.08
800 x 600	37.88	60.32
	48.08	72.18
	46.88	75.00
	53.67	85.06
832 x 624	49.72	74.55
1024 x 768	48.36	60.00
	60.02	75.03
	68.68	85.00

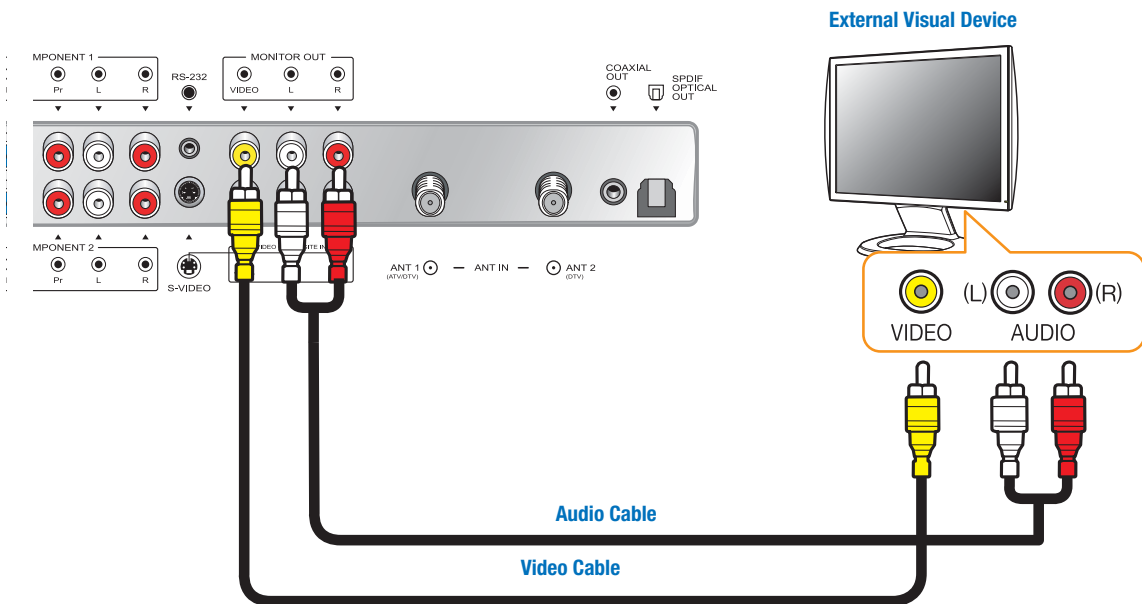


How to Connect an External Visual Device

You can connect your TV to other visual device to watch two TV programs at the same time.

Connection Method

- 1 Connect the Composite Video cable between Video input terminals of an external device and the Video output terminals for Video on the rear of TV.
(Connect the jacks to terminals in the same color.)
- 2 Connect the Audio cable between Audio input terminal (Left-white, Right-red) of an external device and Audio output terminal for Video on the rear of TV. (Connect the jacks and terminals in the same color.)
- 3 For more information, read the user's guide of an external device.



Video and Audio outputs are available only when watching an Analog TV, Digital TV or VCR. This is not supported in the Input Mode of Component, DVI/D-SUB or S-Video.

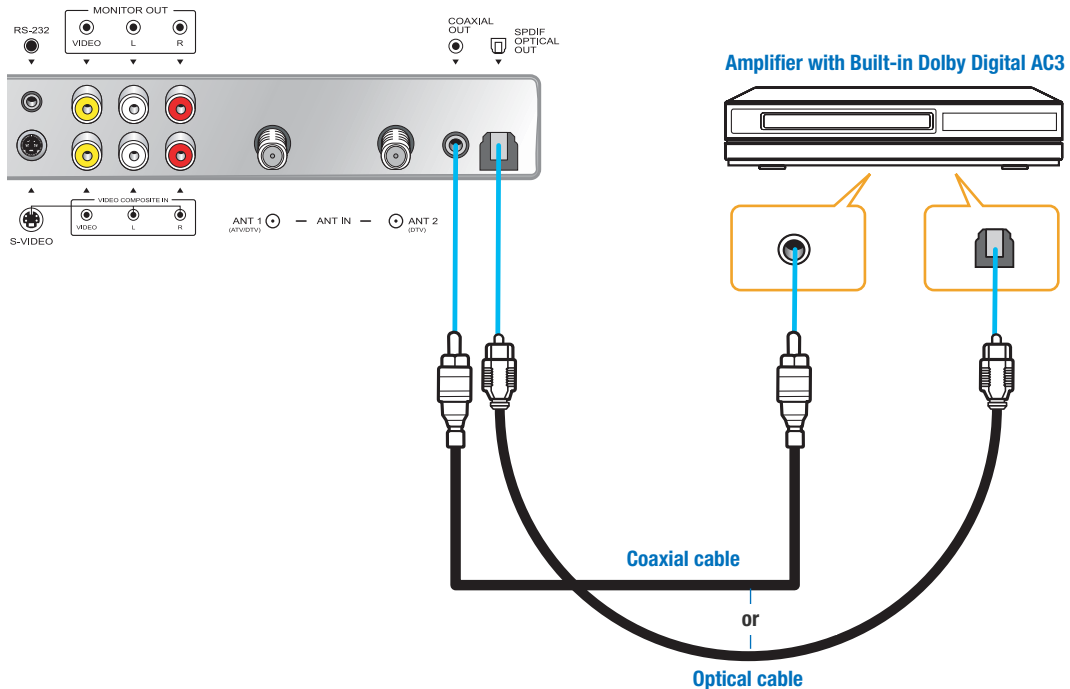
How to Use Digital Sound

Connection Method

- 1** Connect the coaxial cable or optical cable to the digital audio output terminal for coaxial cable or SPDIF optical digital audio output terminal on the rear of TV.
- 2** Deselect Speaker Output from the Sound Menu and select Digital Sound Output. (See page 44~45)
- 3** For more information, read the user's guide of the external sound device.



Do not look into directly the beam with the optical port. Doing so may damage your eyesight.



Digital Audio Output is available when watching a digital TV program.



How to Select the Picture Mode

Users can automatically adjust the picture mode according to the input mode.



Press Menu button.
Menu items appear on the screen.

1



Press button to select

“MODE” is selected.



2



Whenever you press Left or Right button, the mode changes in following order.

⇒ Standard ⇒ Dynamic ⇒ Movie ⇒ Mild
⇒ Custom 1 ⇒ Custom 2



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

STANDARD : Most video contents are appropriate to this mode.

SPORT : Clear display

MOVIE : When watching a movie

MILD : Soft display.

CUSTOM : When the user wants to directly set the values ➔ [See the next page](#)

PICTURE

How to Directly Select Picture Mode : Press MODE. button.


- When the input mode is Analog TV, Digital TV, Video, S-Video, Component 1 & 2, users can select ⇒ Standard ⇒ Dynamic ⇒ Movie ⇒ Mild ⇒ Custom 1/2 .
- When the input mode is PC, DVI, users can select ⇒ Standard ⇒ Low (Character Mode) ⇒ High (Movie) ⇒ Custom 1/2 .
- When the input mode is Memory, users can select ⇒ Standard ⇒ Dynamic ⇒ Movie ⇒ Mild.






TIP




- The adjustment menu may be different depending on the input mode.
- The adjustment of Contrast, Brightness, Sharpness, Color and Tint is allowed only in the Custom mode.



How to Set the Desired Picture

Users can manually adjust their desired picture.

- 1**  Press Menu button.
Menu items appear on the screen.


- 2**  Press  button to select  .
Press Left or Right button to choose "Custom 1/2".
- 3**  Press Left and Right buttons to move to "Custom".


- 4**  Press  button to select "Custom".
Picture Adjust menu items appear.


- EXIT**  Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

CONTRAST : Adjust the brightness and darkness of object and background.
BRIGHTNESS : Adjust the brightness of the entire picture.
SHARPNESS : Adjust clarity of outline of objects.
COLOR : Adjust colors into deeper or lighter colors.
TINT : Adjust colors naturally.

TIP SHARPNESS, COLOR, TINT are not applied to PC and DVI modes.



How to Adjust the Color Temperature of the Screen

Users can manually adjust their desired color temperature.



Press Menu button.
Menu items appear on the screen.



1



Press button to select

2



Press Up and Down buttons to move to "COLOR TEMP".



3



Whenever you press Left or Right button,
the mode changes in following order.
⇒ Standard ⇒ Warm 1 ⇒ Warm 2 ⇒ Cool 1 ⇒ Cool 2




Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears



STANDARD : General color of the picture
COOL 1, 2 : Cool color in the background with a bluish tint
WARM 1, 2 : Warm color in the background with a reddish tint


How to Select the Aspect Ratio


Users can manually adjust the size of the screen.


MENU 

Press Menu button.
Menu items appear on the screen.



1  **Press \swarrow button to select .**

2  **Press Up and Down buttons to move to "ASPECT RATIO".**

3  **Whenever you press Left or Right button, the mode changes in following order.**
⇒ Wide ⇒ General ⇒ Panorama ⇒ Zoom 1 ⇒ Zoom 2 ⇒

EXIT 

Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

PICTURE

ASPECT

How to Directly Select the Screen Size : Press  button.

The current screen size is displayed on the OSD menu.

If you press the ASPECT button repeatedly, the screen size changes in following order

- Under Digital TV input : Users can select ⇒ Wide ⇒ Normal ⇒ Zoom 1 ⇒ Zoom 2 ⇒ Auto.
- Under PC inputs : Users can select ⇒ Wide ⇒ Normal.
- Under DVI inputs : Users can select ⇒ Wide ⇒ Normal ⇒ Zoom 1 ⇒ Zoom 2.
- Under other inputs : Users can select ⇒ Wide ⇒ Normal ⇒ Panorama ⇒ Zoom 1 ⇒ Zoom 2.



AUTO (This is applied in digital broadcasting input mode only.)

The screen size automatically changes according to a signal source received
(General broadcast → 4:3, Wide broadcast → 16:9)

WIDE

General broadcast picture is adjusted to 16:9.



Normal

4:3 general picture size



Panorama

Picture size for panorama video



ZOOM 1

Picture enlarged to 16:9 format, letter box format.



ZOOM 2

Zoom in 16:9 in vertical direction



How to Watch the PIP

This function allows you to watch the PIP or TWIN mode.



Press Menu button.
Menu items appear on the screen.



1



Press button to select .

2



Press Up and Down buttons to move to PIP.



3



Press Left and Right buttons to select PIP.
The PIP Menu appears.

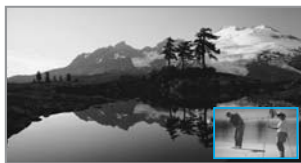


4

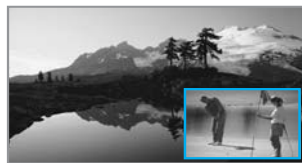


Whenever you press Left or Right button,
the mode changes in following order.
⇒ PIP 1 ⇒ PIP 2 ⇒ PIP 3
⇒ TWIN 1 ⇒ TWIN 2 ⇒ OFF ⇒

After setting Mode, go to STEP 5 if you need to set the SOURCE for Sub-picture.



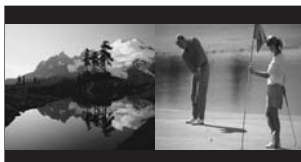
<PIP 1>



<PIP 2>



<PIP 3>



<TWIN 1>



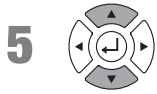
<TWIN 2>

Continued on the next page

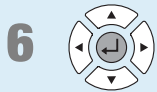
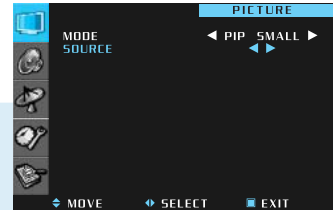


How to Set the INPUT for the Sub-Picture

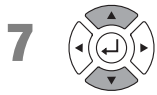
This function is available only in the PIP mode.



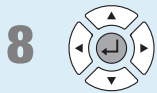
5 Press Up and Down buttons to move to "SOURCE".



6 Press ← Right and Left buttons to select "SOURCE". The list of sub-picture sources appears.



7 Press Up and Down buttons to move to the sub-picture source you want.



8 Press ↵ Press button to select source.



Press MENU button after the setting is done, and Menu goes to the previous menu. If the EXIT button is pressed, the menu disappears.

You can set the PIP mode quickly using the remote control.

How to Select the PIP : Press the  button.

Whenever you press this button, the PIP mode is selected or deselected.

How to Select the Size of Sub-picture : Press the  button.

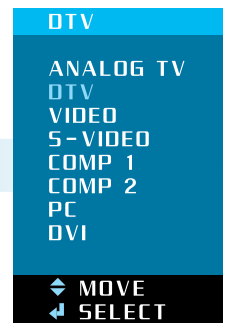
Whenever you press this button, the size of the Sub-picture changes.

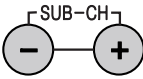
How to Select the INPUT : Press the  button.

Press the ▲ ▼ buttons to select the INPUT and then select ↵.

How to Switch the PIP to Sub-picture : Press the  button.

Whenever you press this button, the Main picture and Sub-picture are switched each other.



How to Set the channel of the Sub-picture Channel : Press the  button.

This is applied only when the sub-picture is displayed.

How to Change the Position of the Sub-picture : Press the  button.

⇒ Bottom Right Corner ⇒ Bottom Left Corner ⇒ Left Top Corner ⇒ Right Top Corner ⇒



The same input mode cannot be selected for the main picture and sub-picture.

Supported PIP Table

PIP : 0 → Supported, X → Not Supported

Main \ Sub	PC	DVI	DTV	Component 1	Component 2	Analog TV	Video	S-Video
PC	X	X	X	X	X	0	0	0
DVI	X	X	X	X	X	0	0	0
DTV	X	X	X	X	X	0	0	0
Component 1	X	X	X	X	X	0	0	0
Component 2	X	X	X	X	X	0	0	0
Analog TV	0	0	0	0	0	X	0	0
Video	0	0	0	0	0	0	X	0
S-Video	0	0	0	0	0	0	0	X
Memory	X	X	X	X	X	X	X	X



How to Reduce Noise



Press Menu button.
Menu items appear on the screen.



1



Press button to select .

2



Press Up and Down buttons to move to "NOISE REDUCT".



3



Whenever you press Left or Right button,
the mode changes in following order.
⇒ Weak ⇒ Strong ⇒ Off ⇒




Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.






In the Noise Reduction, the more you reduce the screen noise, the more the sharpness level of the pictures may become degraded.




How to Select the Audio Mode

Users can adjust sound mode automatically as they want.


MENU 

1  Press Menu button.
Menu items appear on the screen.

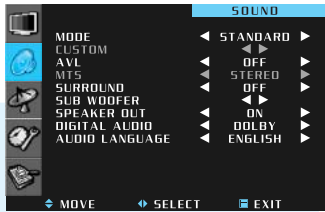

2  Press Up and Down buttons to move to  .

3  Press  button to select  .
MODE is selected.

Whenever you press Left or Right button, the mode changes in following order.
⇒ Standard ⇒ News ⇒ Music ⇒ Sport ⇒ Custom ⇒

EXIT 

Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

SOUND

STANDARD : General sound mode. This fits most audio contents.

NEWS : For enjoying clear sound.

MUSIC : For enjoying original sound.

SPORT : For enjoying vivid sound.

CUSOTM : When the user wants to set the value. ➔ See the next page

SOUND

How to Directly Select Sound Mode : Press MODE. button.

Users can select ⇒ Standard ⇒ News ⇒ Music ⇒ Sport ⇒ Custom .



How to Adjust the Desired Audio Mode

Users can adjust sound mode automatically as they want.

MENU



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to .

2



Press  button to select .

Press Left and Right buttons to select "CUSTOM".



3

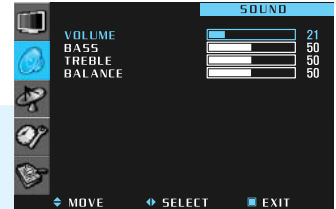


Press Up and Down buttons to move to "CUSTOM".

4



Press Left and Right buttons to select "CUSTOM".
SOUND CUSTOM menu appears.



5



Move between the items listed using UP or Down button.
Adjust the level of the item selected using Left or Right button.

EXIT



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

VOLUME : Adjusts the volume.

LOW SOUND: Adjusts the range size of low sound.

HIGH SOUND: Adjusts the range size of high sound.

BALANCE : Adjusts the balance of left and right speakers.