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Important Tip

Image Retention Effect (Image Sticking)

1. Cause :

- Image Retention Effect may come from displaying a still picture in a certain period of time with at a certain area continuously, as feature of PDP panel. This is caused due to brightness degradation. Many PDP 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 displayed for a long time. (Contrast 50/Brightness 50 - See 19 page)
Once Image retention occurs, change the mode into Video mode which displays more motion pictures. It will help reduce this matter, but cannot completely eliminate once it occurs.
It makes the screen's brightness worse as displaying a fixed pattern often.
- Use the fuction, Pixel Shift in still image, in our PDP products. (For more details, see the below page 31)

3. Solution

- The temporary image sticking would decrease with displaying Full-White pattern after 10 hours.
- The permanent image sticking couldn't take off under the latest technology even though being in its manufacturer.

4. Notice :

- It is very important to notify every buyer/customer this information and All Branches/Buyers /Customers should be fully aware of this.
- Image Sticking in PDP products couldn't get the support from a manufacturer, and does not come under the warranty.

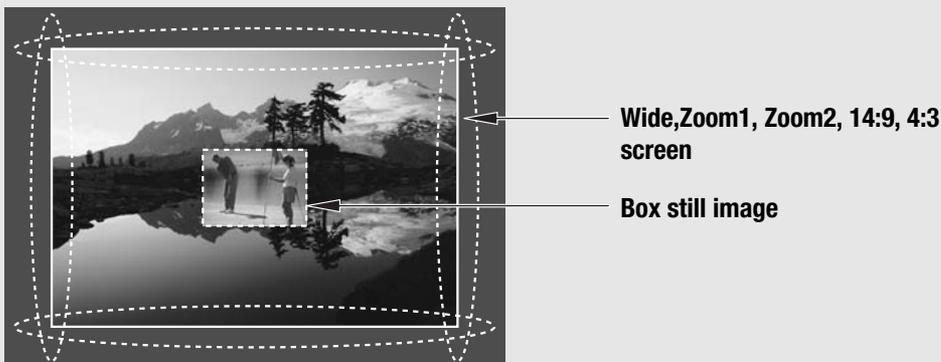
Second Tip -

• Pixel Defect :

Plasma Display Panel(PDP) is made of a group of refined pixels (cells). The Panel, in which 99.9% of pixels have approved, is a normal product. Therefore, only a few of abnormal pixels may appear, however, this has no influence upon PDP performance.

Image Sticking Precaution

When watching a still Image within motion pictures and Wide/Zoom1/Zoom2 /14:9/4:3 screen



• Precaution :

- Image Sticking could be come from Still Image and Boundary line for a long time display and Brightness gap in Boundary.
- This Matter(Image Sticking) is same thing under the other PDP's Company.
- Still Image/Letter in watching TV also will be effect to Image sticking.

*This matter(Image Sticking) is out of warranty.

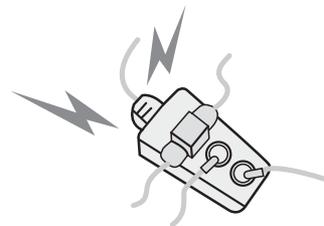
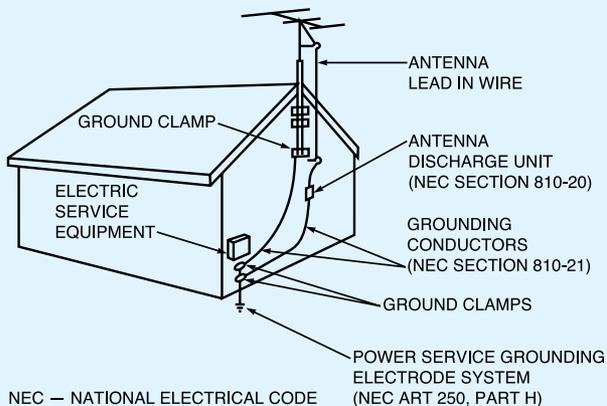
Safety Precaution

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

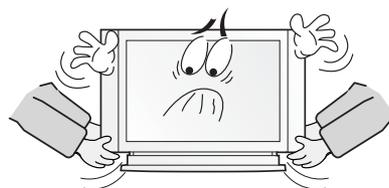
If an outside antenna or cable system is connected to the TV, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No.70-1984, provides information about proper grounding 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.

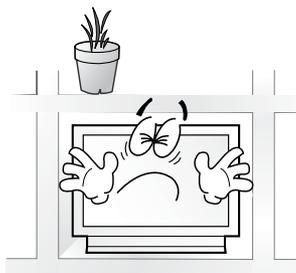
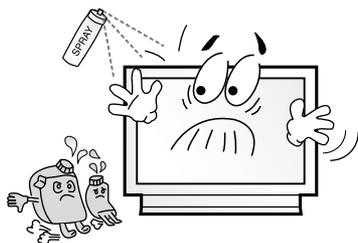


Make sure to remove the speakers before moving the TV with speakers mounted on it.

- 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 with 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 indoor.

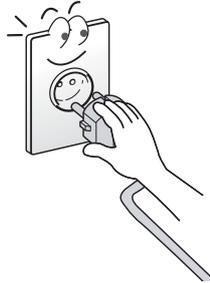
- If raindrop gets into the TV, it may cause a fire or an electric shock.

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.

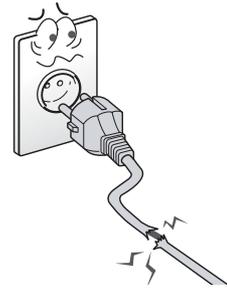
ENGLISH

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 repellent, 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.



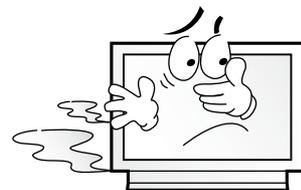
Do not install on an unstable place or small support.
- This may cause the TV to fall, resulting in serious injury especially to children.

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.



In connection with the selling of batteries or rechargeable batteries or with the supply of devices which contain batteries or rechargeable batteries, we are required, according to the recycling regulations, to inform you the procedures. Batteries may not be binned to the household waste. You are legally required, as final consumer, to return used batteries or rechargeable batteries. You can return used batteries or used rechargeable batteries free of charge to retailers or in your proximity (as local collecting points or in the trade). You may also send them back to us by mail. Batteries or rechargeable batteries, which contain pollutants, are marked by the symbol of a crossed waste bin. Beside the waste bin symbol are the chemical designations for pollutants; Cd stands for cadmium, Pb for lead and Hg for mercury.



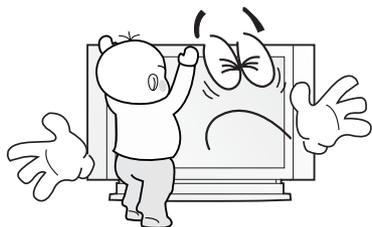
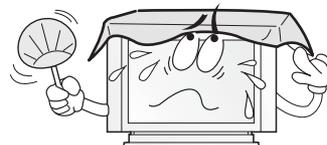
Please avoid touching the panel at the rear of TV as it is producing high temperature.
 - Direct contact with the hot surface may cause physical burns.



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

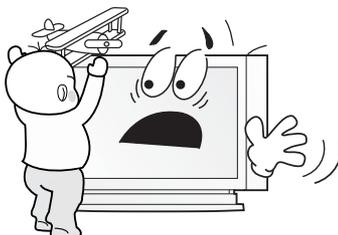
Do not block ventilating slits with a table cloth.

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



Do not allow children to climb or play on the TV.
 - This may cause the TV to fall resulting in serious injury.

Do not place toys and cookies, etc. on the TV, which may attract children's attention.
 - This may cause the TV to fall, resulting in serious injury.

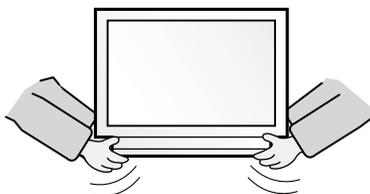


When cleaning the TV, make sure to disconnect the power plug and use a dry, soft cloth for a cleanup.

- 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.

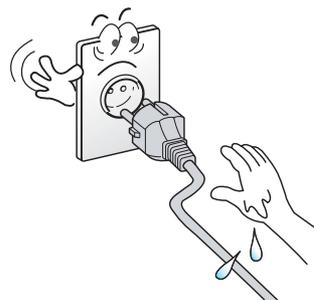
- If dust is stacked on the TV, electric shock or fire may be caused from heat, fire, or deterioration of insulation.



When moving the TV, two or more people are advised to carry it.
 - This may cause damage to the unit or personal injury.

Never touch the power plug or outlet with wet hands.

- This may cause electric shock.



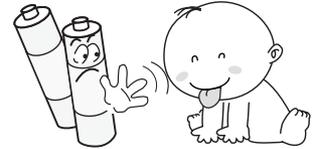
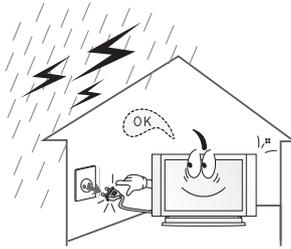
Safety PrecautionContinued from previous page

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



Do not install the product on the floor.
- This may cause the TV to fall resulting in serious injury.

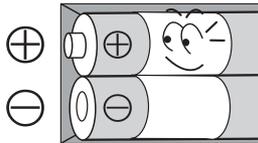
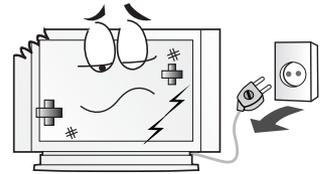
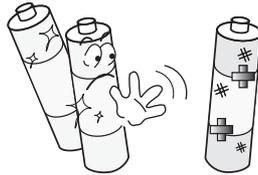
Unplug the product during lightning or thunderstorms and never touch the antenna cable.
- It may cause a fire or an electric shock.



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.

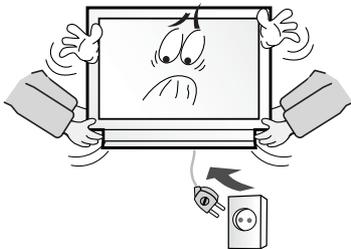


Always use the standard batteries and avoid using old batteries together with new ones.

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

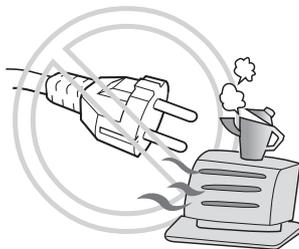
In the event of damaging or dropping the product, switch off the power and remove the plug.

- 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.

- Electrical cords may be damaged, resulting in a fire or an electrical shock.

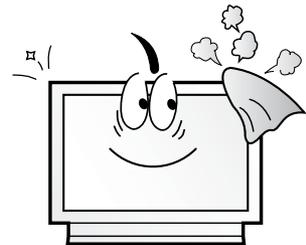


Ensure the power cord doesn't trail across any hot objects like a heater.

- This may cause a fire or an electric shock.

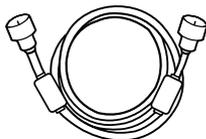
Consult a service center or customer service for inside cleaning about once a year.

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

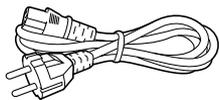


Contents of the Package

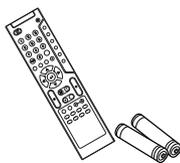
When opening the package, please ensure to check the following accessories.



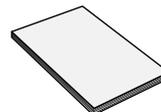
Antenna Cable
(coaxial cable)



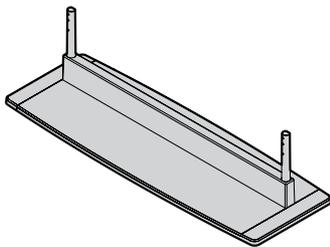
Power Cord



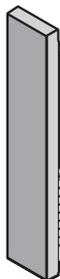
Remote Control &
2 batteries (1.5V AAA)



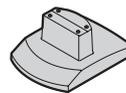
User's Guide



Desk type stand



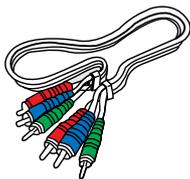
Desk type stand



Desk type speaker
stand

Products Sold Separately

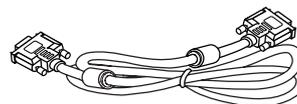
If you want to purchase the following accessories, consult a service center, electronics shops, or parts seller.



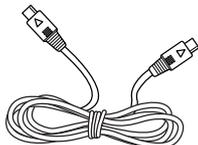
Component(Y, Pb, Pr) cable



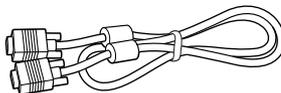
Composite(Video & Audio) cable



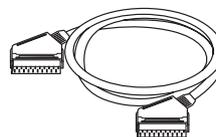
DVI PC video(digital) cable



S-video cable



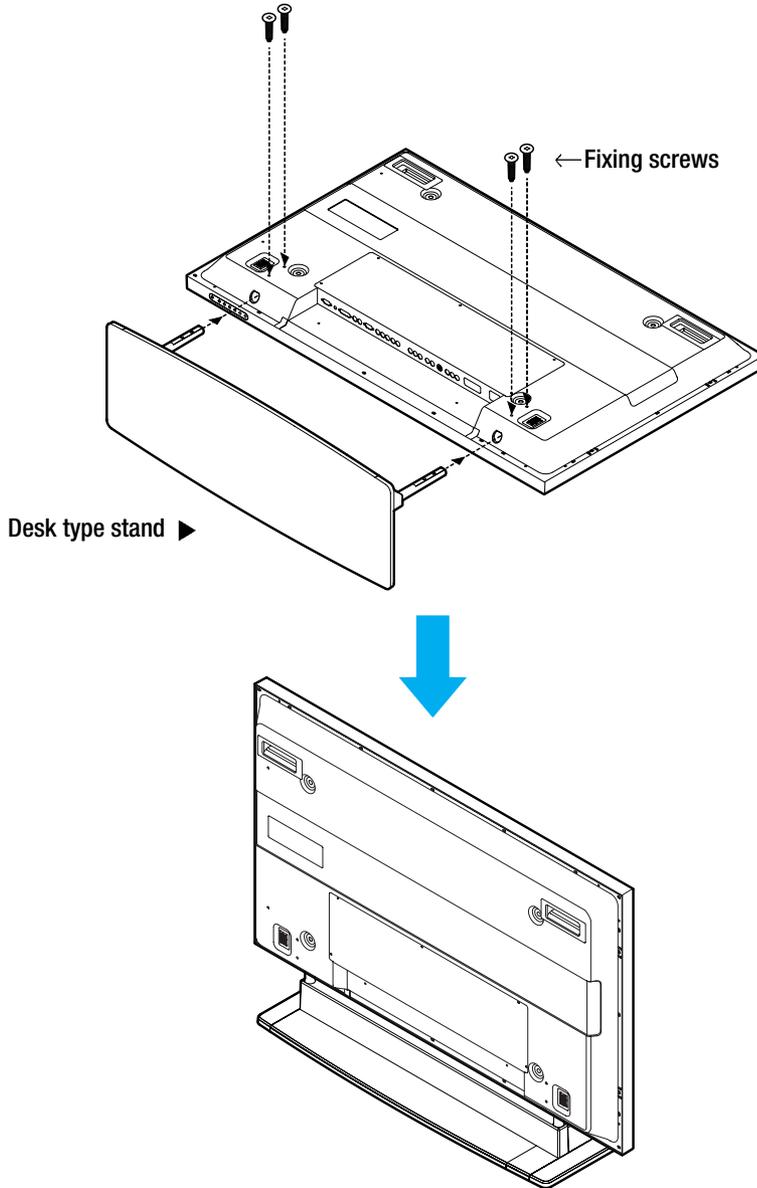
PC signal cable



Scart cable

How To Install Desktop Stand

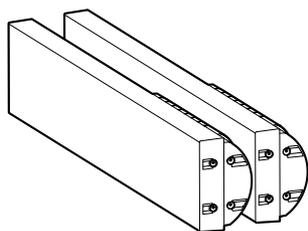
1. Place the TV body on a flat desk or a shelf. Clean the surface of the desk or the shelf in order to prevent scratch on the product.
2. Align the stand with TV body below and fasten the stand bars using 4 fixing screws.
3. After the assembly is over, stand the assembled product at a desired place.



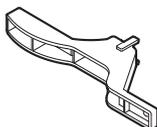
Warning : Do not install at an unstable place or on a small support.
(When a child plays around the product and touch it, TV may fall and injure the child.)

How To Use Speakers (Standing Type)

Parts configuration chart



2 Speakers (left and right)



4 brackets



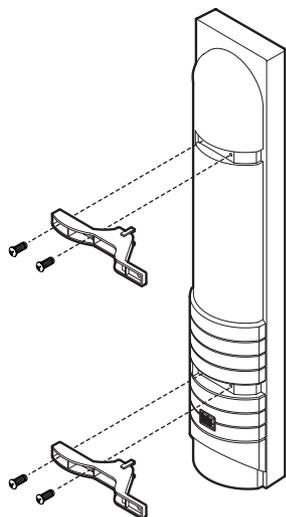
16 fixing screws

2 sets of speaker cables
(left and right)

Assembly and Connection Method

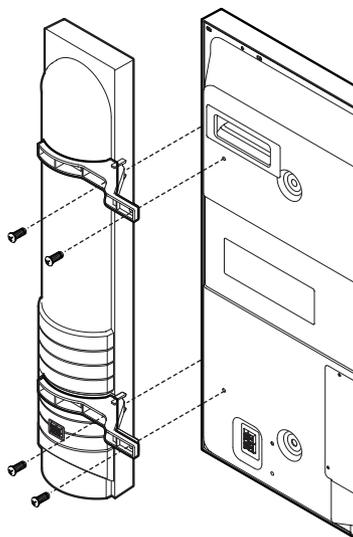
1

Insert brackets into the grooves on the rear of speakers and fasten them with fixing screws. (Left and right side each)



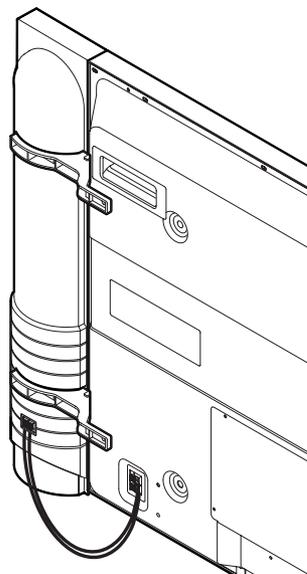
2

Fasten ① with TV body using fixing screws. (Left and right side each)



3

Connect speaker cables between terminals on the rear of speakers with speaker connection terminals on the rear of TV. (Connect cables and terminals in the same color)

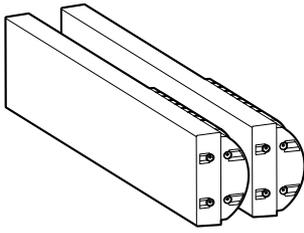


WARNING

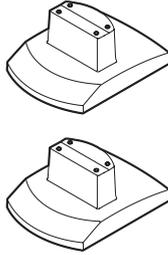
Do not move the product holding the speakers. Always use handles on the TV. (Brackets connecting TV and speakers may be damaged.)

How To Use Speakers (Desk Type)

Parts configuration chart



2 Speakers (left and right)



2 Speaker-stands (left and right)



8 fixing screws



2 sets of speaker cables (left and right)

Assembly and Connect method

1

Insert speaker-stands in the groove on the bottom of speakers and fasten them using fixing screws. (Left and right side each)



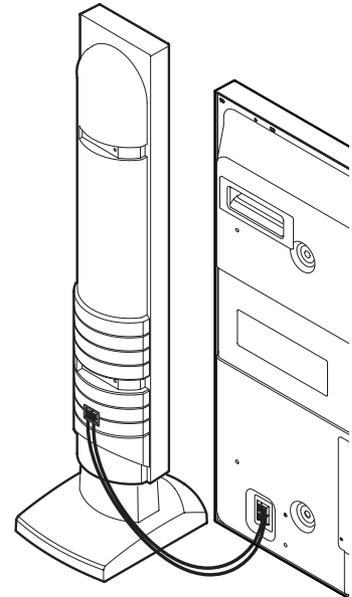
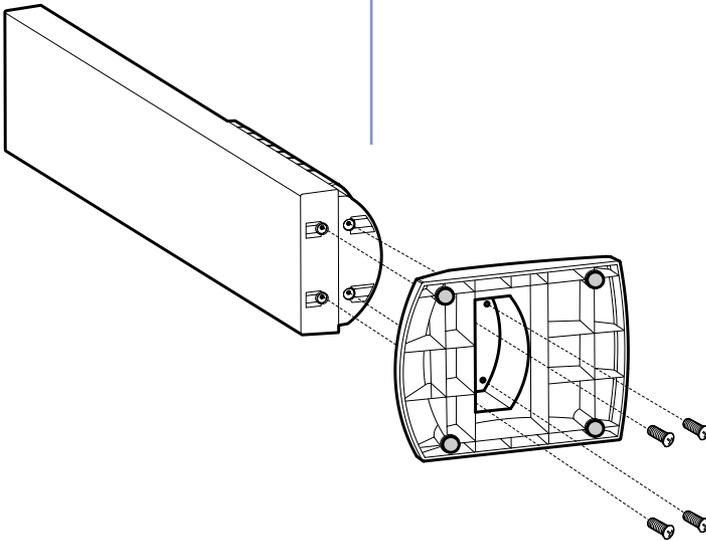
2

Upright 1 and place them on the desired place left and right of TV. (Left and right side each)



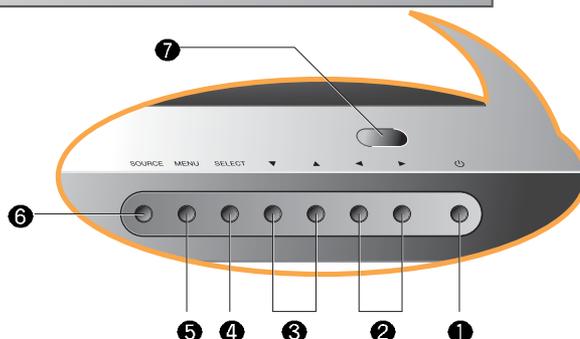
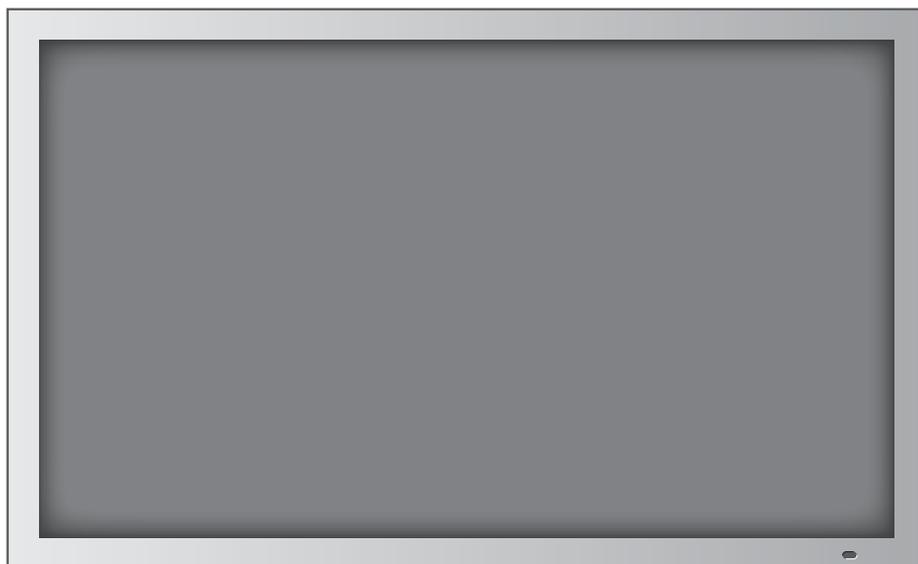
3

Connect speaker cables between terminals on the rear of speakers and speaker connection terminals on the rear of TV. (Connect cables and terminals with the same color)



Parts Names and Functions

Front View



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

❶ Power button

Use this button to turn on or off the TV.

❷ Volume buttons

Use these buttons to adjust sound levels. These buttons also serve as the cursors of Select/Adjust in Menu mode.

❸ Channel buttons

Use these buttons to change channels. These buttons also serve as the cursors of Down and Up buttons in Menu mode.

❹ Select button

Use this button to select each item from the menu mode.

❺ Menu button

Use this button to display or exit from the menu mode.

❻ Source button

Use this button to switch among inputs connected to the TV.

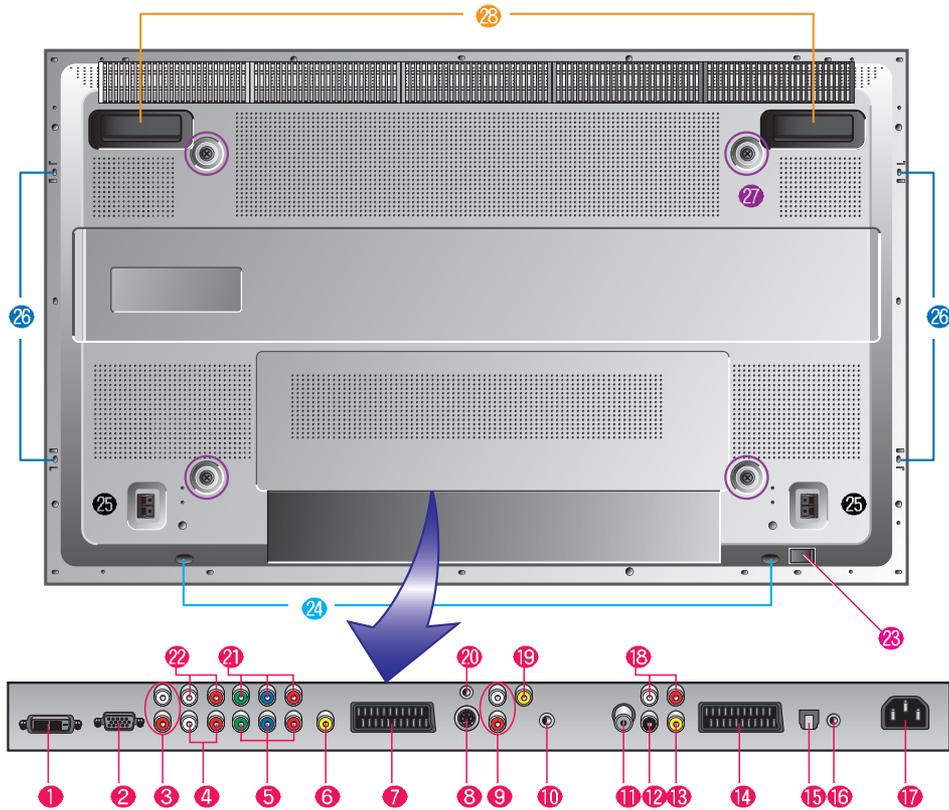
❼ Remote sensor and power LED.

- Point the remote control toward LED.
- It displays standby or operation status.

- Power Indicator Status -

Indicator	Status
Red	Standby
Green	Power on

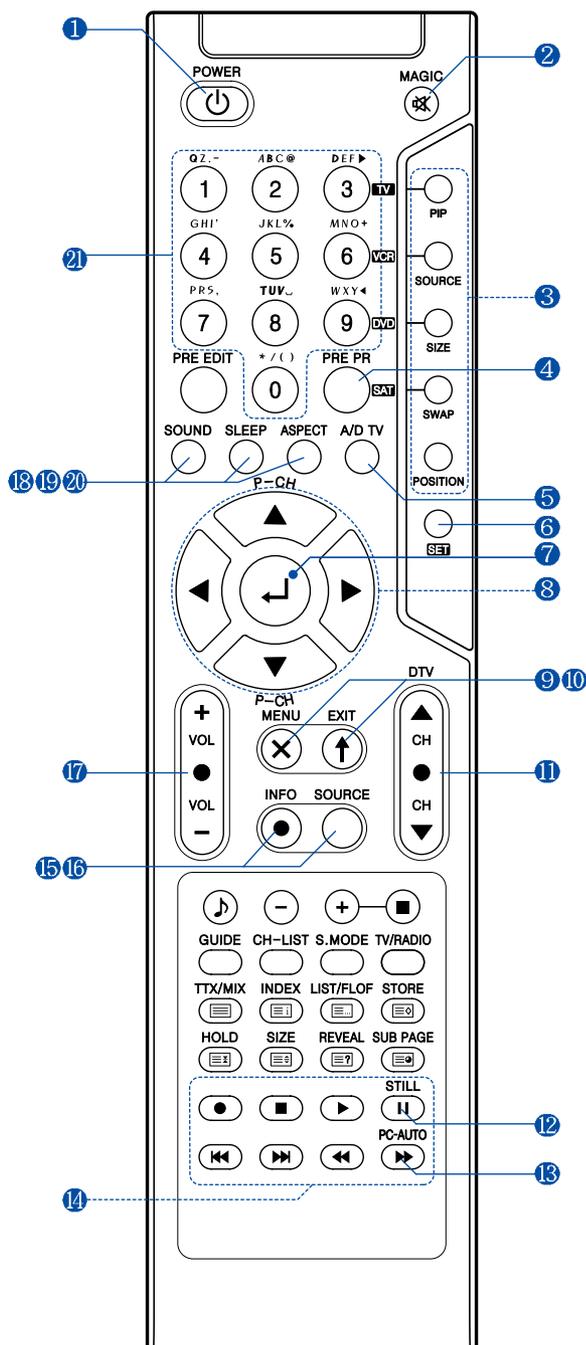
Rear View



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

- | | | |
|------------------------------------|---|------------------------------------|
| ① DVI Video input terminal | ⑫ Digital Audio output terminal for coaxial cable | ⑳ Component 1 Video input terminal |
| ② D-SUB input terminal | ⑬ Subwoofer output terminal | ㉑ Component 1 Audio input terminal |
| ③ DVI/D-SUB Audio input terminal | ⑭ Half Scart input terminal | ㉒ Power switch |
| ④ Component 2 Audio input terminal | ⑮ SPDIF Optical audio output terminal | ㉓ Stand assembly |
| ⑤ Component 2 Video input terminal | ⑯ Extend an RS-232 input for DTV communication | ㉔ Speaker terminal |
| ⑥ CVBS output terminal | ⑰ Power (AC) input terminal | ㉕ Speaker assembly |
| ⑦ Full Scart input terminal | ⑱ Video(CVBS) input terminal | ㉖ Screw hole for fixing on a wall |
| ⑧ S-Video input terminal | ㉑ Extend an RS-232 input for ATV communication | ㉗ Carrying handles |
| ⑨ Audio(CVBS) input terminal | | |
| ⑩ Headphone output terminal | | |
| ⑪ Antenna input terminal | | |

Remote Control



1. POWER/STANDBY

2. MUTE

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

3. PIP FUNCTIONS

- PIP

: Use this button for PIP On/Off.

- SOURCE

: 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. PREVIOUS PROGRAM

5. A/D TV

Use this button to switch the input source from analog to digital

6. Other external device selection (→44P)

7. MENU SELECTION

Use this button to select menu items.

8. LEFT/RIGHT MOVE/ADJUST

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

- Use UP/DOWN buttons to select Analog TV channels.

9. MENU

Use this button to call the OSD on the screen.

10. EXIT

Use this button to end the OSD.

11. DTV CHANNEL SELECTION

You can also use these buttons when changing pages in TTX mode.

12. STILL

13. PC-AUTO

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

15. INFORMATION

Use this button to display resolution or various program.

16. SOURCE

Use this button to select External Input.

17. VOLUME

18. SOUND MODE

19. SLEEP

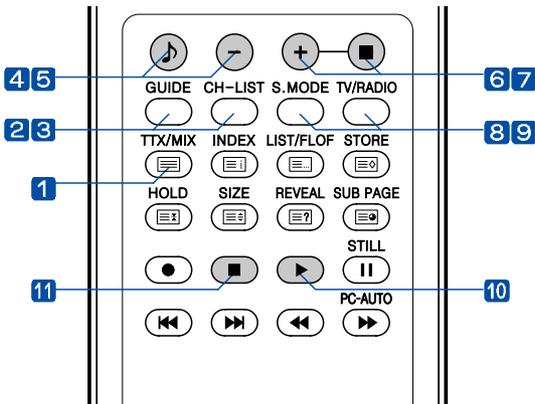
20. ASPECT RATIO

Use this button to change the picture size.

21. NUMERIC KEYS

Teletext & Fastext Function

(See pages 32~33 for more details.)



1. TTX/MIX

To see Teletext Service Data for Analog TV and Digital TV.

2. GUIDE (EPG-Electronic Program Guide)

To watch the program information. Press once more to return to normal mode.

3. CH. LIST

To watch the channel list for Digital TV. Press \downarrow key to confirm or press EXIT to return to previous channels.

4. RED rubber

- DTV : To setup favorite channel lists in the Channel List menu.
- ATV : To delete a channel in the Program Edit menu.

5. GREEN rubber

- DTV : To lock favorite channel lists in the channel list menu.
- ATV : To sort channels in the Program Edit menu.

6. YELLOW rubber

- DTV : To move favorite channel lists in the channel list menu.
- ATV : To edit channel names in the Program Edit menu.

7. BLUE rubber

DTV : To delete a channel from the channel List menu. To show extended program information in the EPG menu.

8. S.MODE

To adjust the subtitle and audio condition/status of the current channel for Digital TV

9. TV-RADIO

To switch between the TV channel and radio channel for Digital TV.

10. WHITE rubber

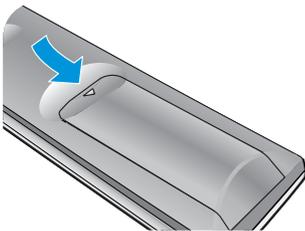
DTV : To add a new channel to the Channel List menu.

11. ORANGE rubber

DTV : To see variant channel lists for user's convenience in the Channel List menu.

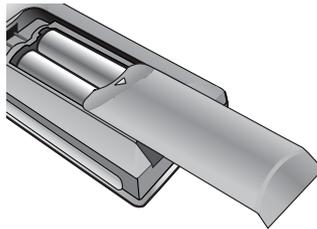
How to Insert Batteries in the Remote Controller

* Battery type :1.5V/AAA



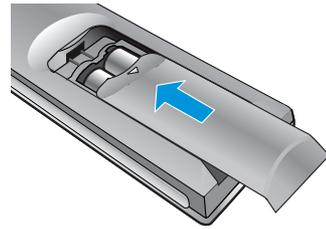
Press and hold Δ part and push to open cover.

1



Insert batteries with proper polarities of + and -.

2

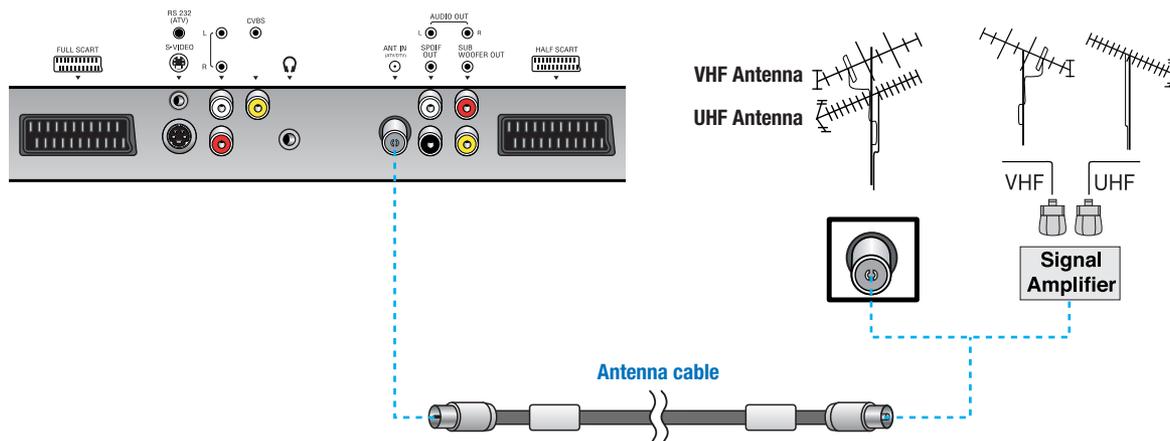


Use the remote control with cover closed.

3

Connecting Indoor/Outdoor TV Antenna(UHF/VHF)

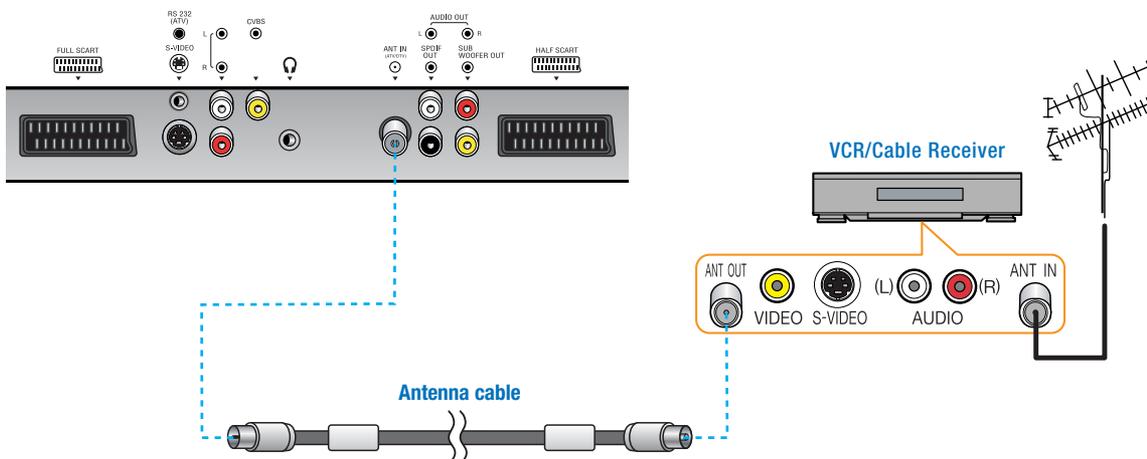
- Antenna or Cable service without cable box connections
- For on optimum picture quality, adjust the direction of antenna if needed.



- ✓ 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.

Connecting Antenna Input Connection to External Equipments

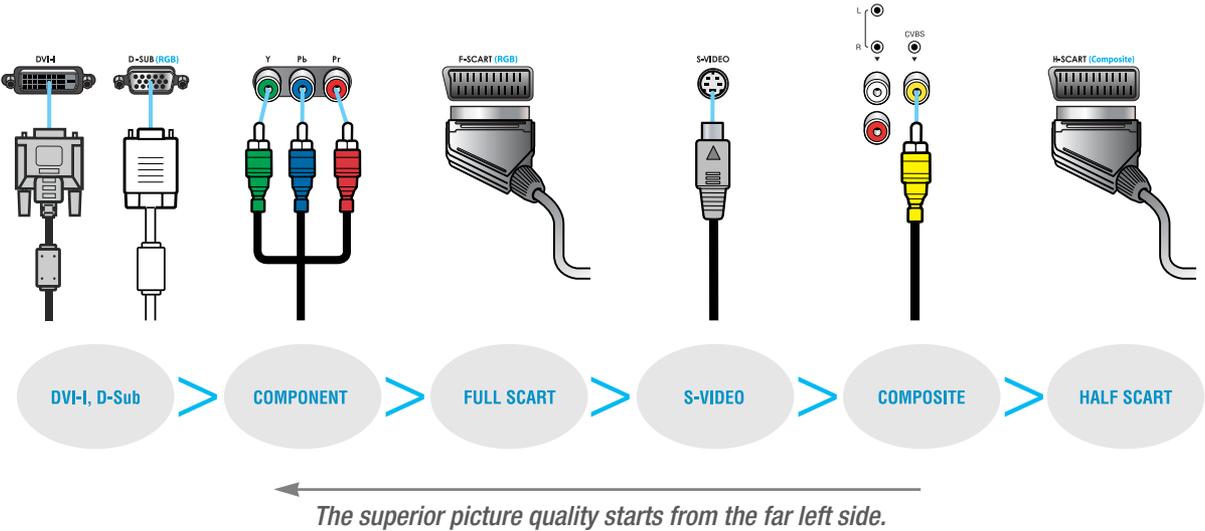
1. Connect an antenna cable to VCR/Cable/Satellite Receiver with the antenna input.
2. Use a coaxial cable to connect VCR/Cable/Satellite Receiver's antenna output to the antenna input on your TV.



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

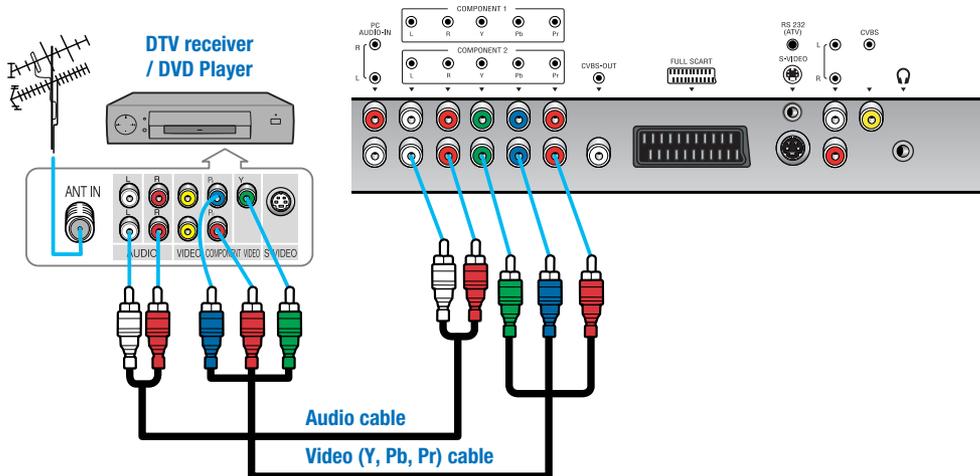
Please make sure to read the following instruction to enjoy the best picture quality.

Best picture quality is displayed in the following order.



How to Connect a DTV Receiver or DVD Player

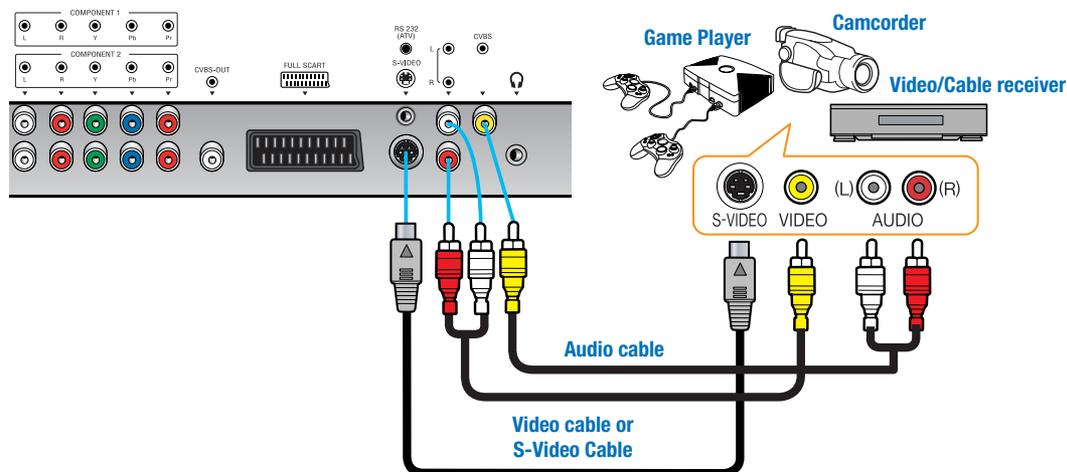
1. Connect the Video cable (Y, Pb, Pr) between output terminals (Y, Pb, Pr) of DTV receiver or DVD player and the input terminals (Y, Pb, Pr) of DTV/DVD (576i/576p/720p/1080i) on the rear of TV.
(Connect the jacks to terminals in the same color.)
2. Connect the Audio cable between Audio output terminals 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.)



- ✓ 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 "How to connect to a PC" (page 16). You can enjoy more clear picture quality.

How to Connect a VCR, Cable Receiver, Camcorder, Game Player

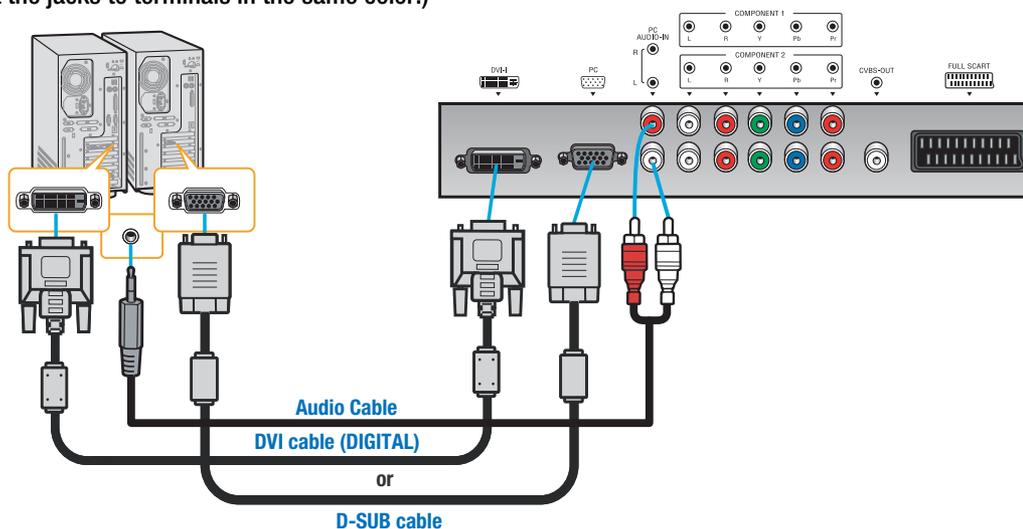
1. Connect the Video cable or S-Video cable between Video/S-Video output terminals of VCR or Cable receiver and Video/S-Video input terminal of TV. (Connect the jacks to terminals in the same color.)
2. Connect the Audio cable (Left: white, Right: red) between Audio output terminals of VCR or cable receiver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



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

How to Connect to a PC

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.)



- ✓ If you use 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 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

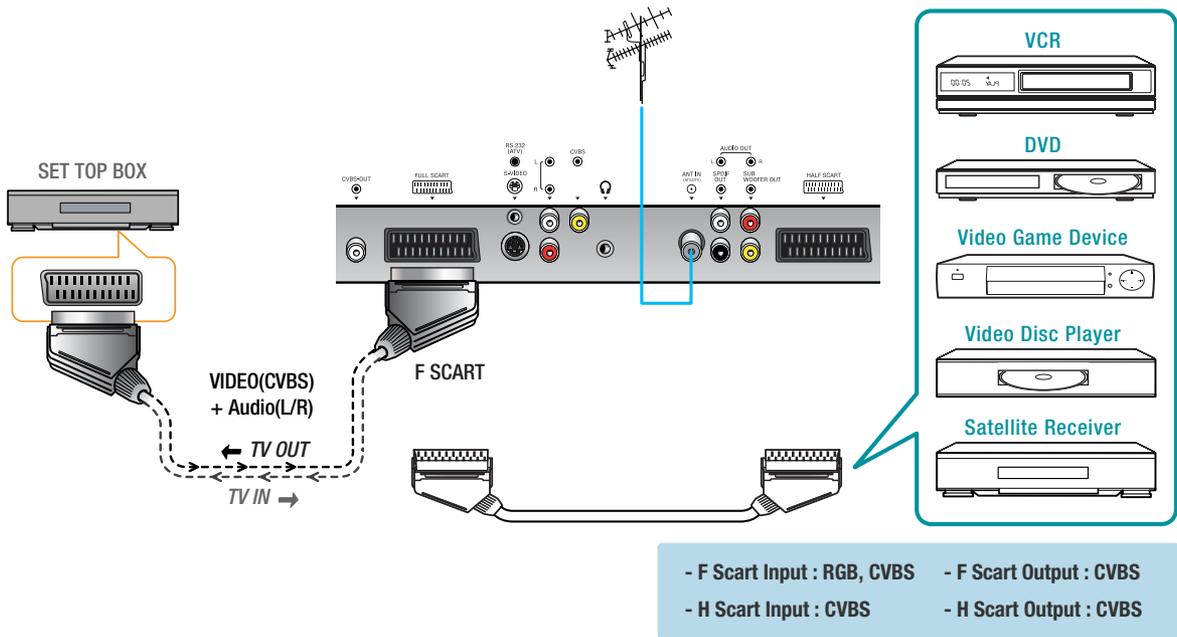
Resolution	Horizontal frequency	Vertical frequency
640 x 350	31.47	70.09
	37.86	85.08
640 x 480	31.47	59.94
	37.86	72.80
	37.50	75.00
	43.27	85.01
720 x 400	31.47	70.08
800 x 600	37.88	60.32
	48.08	72.18
	46.88	75.00
	53.67	85.06
832 x 624	49.72	74.55
1024 x 768	48.36	60.00
	60.02	75.03
	68.68	85.00

Scart Connection to the External Input/Output

If you have a second VCR and wish to copy cassettes tape. Connect the source VCR to “F Scart” and the target VCR to “H Scart” so that you can redirect the signal from “F Scart” to “H Scart”.

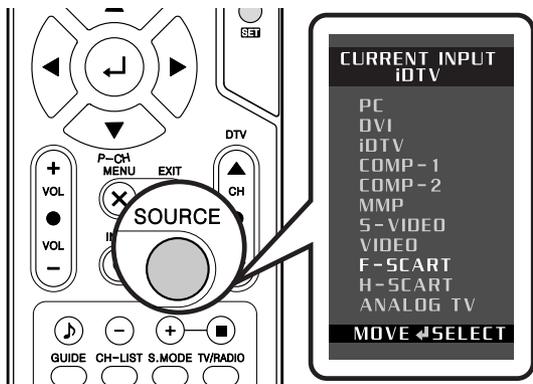
* “F Scart” sends the TV broadcast signal received through an antenna to a set-top box and receives the descrambled signal back, which allows you to view TV broadcasts in AV Mode.

* “H Scart” you are capable to record live TV broadcasts on the TV screen. (Please make sure that your TV is “ON”.)



✓ When switching voltage comes into the Scart-Pin 8 during viewing a TV program, the current mode will be switched to Scart mode.

How to Set the OSD Screen



iDTV : Digital Terrestrial broadcasting for supporting DVB-T system.

COMP-1 / COMP-2 : For supporting greater color accuracy than composite video or S-VIDEO by splitting chrominance into one video signal.

S-VIDEO : For supporting better resolution than composite video, which carries the signals together.

VIDEO : For supporting the color shade(chrominance) and brightness(luminance) information into one video signal.

F-SCART - For supporting composite video and RGB video signals. SCART connectors is used with many European video equipments.

H-SCART - Basically the same as Full SCART in function but not supporting RGB Video signals.

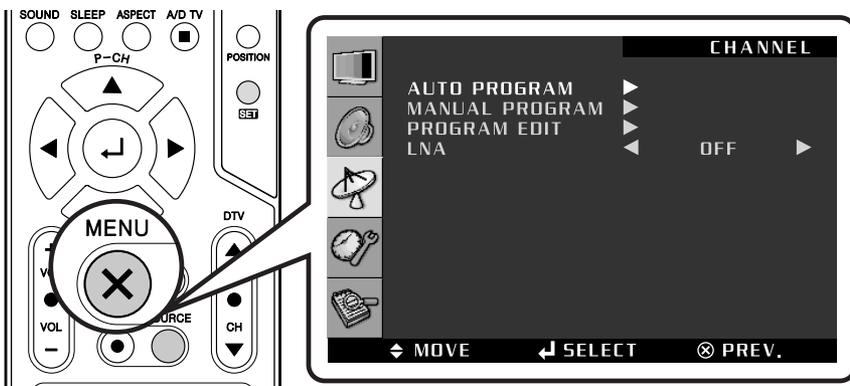
ANALOG TV - Terrestrial broadcasting for supporting analog PAL/SECAM system.

PC : For supporting Personal Computer connection.

DVI : Digital Visual Interface for using TMDS transmission reduces the loss of signal.

Different OSD Menu

You can confirm OSD menu of three different type.



✓ In case of the source in Analog TV, S-VIDEO, VIDEO, F-SCART, H-SCART



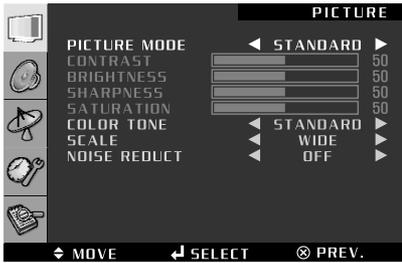
✓ In case of the source in iDTV



✓ In case of the source in PC, DVI, COMP-1, COMP-2

How to Select the Picture Mode

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



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press \downarrow button to select "Picture" Icon.
"PICTURE MODE" is highlighted.
- 3 Press \leftarrow / \rightarrow buttons, then the menu changes in the following order.
→ STANDARD → DYNAMIC → MOVIE → MILD → USER →
- 4 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

- ♦ STANDARD : Most video contents are appropriate to this mode.
- ♦ DYNAMIC : Clear display
- ♦ MOVIE : When watching a movie
- ♦ MILD : Soft display.
- ♦ USER : When the user wants to set the values directly.

✓ In the user's mode, the users can adjust their desired contrast, brightness, sharpness, hue, saturation.

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 \downarrow button to select "Picture" Icon.
"PICTURE MODE" is highlighted.
- 3 Press \leftarrow / \rightarrow buttons to select "USER".
- 4 Select required option by pressing the $\blacktriangle / \blacktriangledown$ button, then Press \leftarrow / \rightarrow button to adjust.
- 5 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

- ♦ CONTRAST : Adjust the brightness and darkness of the object and backgrounds.
- ♦ BRIGHTNESS : Adjust the brightness of the entire picture.
- ♦ SHARPNESS : Adjust the clarity of object outlines.
- ♦ SATURATION : Adjust colors into deeper or lighter colors.

How to Set the Desired Picture in PC, DVI Input Modes

Users can adjust Color as users want.



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press \downarrow button to select "Picture" Icon.
"CONTRAST" is highlighted.
- 3 Select required option by pressing the \blacktriangle / \blacktriangledown buttons, then Press \blacktriangleleft / \blacktriangleright buttons to adjust.

After selecting COLOR TEMP, then the menu changes in the following order.
→ NORMAL → WARM → COOL → sRGB → USER →
- 4 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

- ◆ NORMAL : For a general Color Tone.
- ◆ WARM : For warm colors with reddish tone.
- ◆ COOL : For cool colors with bluish tone.
- ◆ USER : When the user wants to set the degree of RGB directly.

How to Select a Color Temperature

Users can adjust Color as users want.

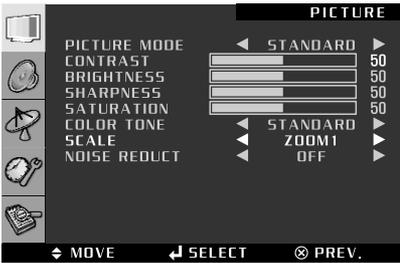


- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press \downarrow button to select "Picture" Icon.
"PICTURE MODE" is highlighted.
- 3 Press \blacktriangle / \blacktriangledown buttons to move to "COLOR TONE".
- 4 Press \blacktriangleleft / \blacktriangleright buttons, then the menu changes in the following order.
→ STANDARD → WARM → COOL →
- 5 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

- ◆ STANDARD : For a general Color Tone.
- ◆ WARM : For warm colors with reddish tone.
- ◆ COOL : For cool colors with bluish tone.

How to Set the Display Scale

Users can adjust the display scale as they want



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press \downarrow button to select "Picture" Icon.
"PICTURE MODE" is highlighted.
- 3 Press \blacktriangle / \blacktriangledown buttons to move to "SCALE".
- 4 Press \blacktriangleleft / \blacktriangleright buttons, then the mode change in the following order.
→ WIDE → ZOOM1 → ZOOM2 → 4:3 → 14:9 →
- 5 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

WIDE

General broadcast picture is adjusted to 16:9.



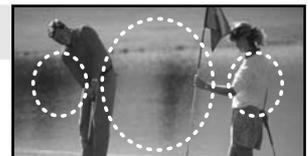
ZOOM 1

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



ZOOM 2

Zoom in 16:9 in vertical direction



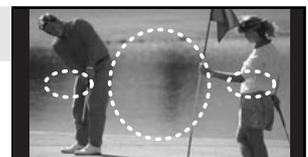
4 : 3

4:3 general picture size



14 : 9

14:9 picture size



How to Set Noise Reduction

User can eliminate noises on the screen in Video mode



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press **┐** button to select "Picture" Icon.
"PICTURE MODE" is highlighted.
- 3 Press **▲** / **▼** buttons to move to "NOISE REDUCT".
- 4 Press **◀** / **▶** buttons to set **ON/OFF**.
- 5 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

How to Set Image Adjust in PC Mode



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press **┐** button to select "PC" Icon.
"H-POSITION" is highlighted.
- 3 Select required option by pressing the **▲** / **▼** button, then Press **◀** / **▶** button to adjust.
- 4 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

- ◆ H-POSITION : To adjust the horizontal position of the picture.
- ◆ V-POSITION : To adjust the vertical position of the picture.
- ◆ CLOCK : To adjust the horizontal size of the entire screen image.
- ◆ PHASE : To eliminate the shake of the picture.
- ◆ Auto ADJUST : Horizontal/vertical positions are automatically adjusted.

➔ **How To Directly Select Auto Track : Press PC-AUTO button.**

How to Select the Audio Mode

Users can adjust sound mode automatically as they want.



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press ▲ / ▼ buttons to move to “SOUND” icon.
- 3 Press ◀ button to select “SOUND” icon.
“SOUND MODE” is highlighted.
- 4 Press ◀ / ▶ buttons, then the menu changes in the following order.
→ STANDARD → MUSIC → MOVIE → NEWS → USER →
- 5 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

- ♦ STANDARD : For the general sound. Most audio contents are appropriate to this mode.
- ♦ MUSIC : For enjoying original sound.
- ♦ MOVIE : Grandiose sound.
- ♦ NEWS : Clear sound.
- ♦ USER : When the user wants to set the values directly.

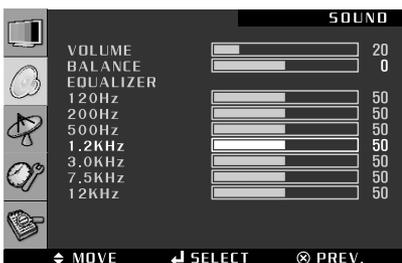
➔ **How To Directly Select Picture Mode : Press SOUND button.**
Users can select STANDARD → MUSIC → MOVIE → NEWS → USER in order.

How to Adjust the Desired Audio Mode

Users can adjust sound mode automatically as they want.



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press ▲ / ▼ buttons to move to “SOUND” icon.
- 3 Press ◀ button to select “SOUND” icon.
“SOUND MODE” is highlighted.
- 4 Press ◀ / ▶ buttons to select “USER”.
- 5 Press ▲ / ▼ buttons to move to “SOUND CUSTOM”.
- 6 Press ◀ button to select “SOUND CUSTOM”.
SOUND CUSTOME menu appears.
- 7 Select required option by pressing the ▲ / ▼ buttons, then Press ◀ / ▶ buttons to adjust.
- 8 Press EXIT button to TV viewing or press MENU button to return to the previous menu



- ♦ VOLUME : Adjusts the volume.
- ♦ BALANCE : Adjusts the balance of left and right speakers.
- ♦ EQUALIZER : Adjusts the audio output signal in the desired band.

How to Select AVL

This function will automatically give a similar volume size to each channel.



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press ▲ / ▼ buttons to move to "SOUND" icon.
- 3 Press ◀ button to select "SOUND" icon.
"SOUND MODE" is highlighted.
- 4 Press ▲ / ▼ buttons to move to "AVL".
- 5 Press ◀ / ▶ buttons to set to "ON/OFF".
- 6 Press EXIT button to TV viewing or press MENU button to return to the previous menu

How to Select S. Mode

Depending on the particular program being broadcast, you can select stereo or mono.



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press ◀ button to select "SOUND" Icon.
"SOUND MODE" is highlighted.
- 3 Press ▲ / ▼ buttons to move to "S.MODE".
- 4 Press ◀ / ▶ buttons to set to "MONO/STEREO".
- 5 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

➤ How To Directly Select S. MODE : Press S. MODE button.

To select "MONO" or "STEREO".

- ◆ Choose "STEREO" for channels that are broadcasting in STEREO.
- ◆ Choose "MONO" for channels that are broadcasting in MONO, or if you are having difficulty receiving a STEREO signal.

✓ *If the signal reception conditions deteriorate, setting to Mono will make sound conditions better.*

How to Select TruSurround XT

This function processes multi-channel surround sound through two speakers.



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press \downarrow button to select "SOUND" Icon.
"SOUND MODE" is highlighted.
- 3 Press \blacktriangle / \blacktriangledown buttons to move to "S.MODE".
- 4 Press \blacktriangleleft / \blacktriangleright buttons to set to "ON/OFF".
- 5 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

- ✓ If you want to connect a device with only one RCA audio output terminal (white-colored), connect it to the white audio input terminal (also white-colored!) and turn TruSurround XT "ON". If not, you will hear just one speaker.
- ✓ You can't adjust sound mode, AVL and S.mode after selecting TruSurround XT.



is a trademark of SRS Labs, Inc.

TruSurround XT technology is incorporated under license from SRS Labs, Inc.

How to Set the Output of Subwoofer

You can set this function when you wish to install your subwoofer speaker system.



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press \blacktriangle / \blacktriangledown buttons to move to "SOUND" icon.
- 3 Press \downarrow button to select "SOUND" icon.
"SOUND MODE" is highlighted.
- 4 Press \blacktriangle / \blacktriangledown buttons to move to "SUBWOOFER".
- 5 Press \downarrow buttons to select "SUBWOOFER".
SUBWOOFER menu appears.
- 6 Press \blacktriangleleft / \blacktriangleright button to set to "ON".
- 7 Select required option by pressing the \blacktriangle / \blacktriangledown buttons, then Press \blacktriangleleft / \blacktriangleright buttons to adjust.
- 8 Press EXIT button to TV viewing or press MENU button to return to the previous menu



- ✓ The frequencies in the entry are the subwoofer's frequency range.
- ✓ Make sure to use a subwoofer speaker system with built-in amplifier.

How to Select Earphone

User can adjust earphone volume.



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press ▲ / ▼ buttons to move to “SOUND” icon.
- 3 Press ⏏ button to select “SOUND” icon.
“SOUND MODE” is highlighted.
- 4 Press ▲ / ▼ buttons to move to “EARPHONE”.
- 5 Press ◀ / ▶ buttons to adjust volume.
- 6 Press EXIT button to TV viewing or press MENU button to return to the previous menu

✓ Check the audio cable when the sound outputs in just one speaker only.

Automatic Program Searching

Automatic program searching enables to search/store channels of countries where the user is located automatically.



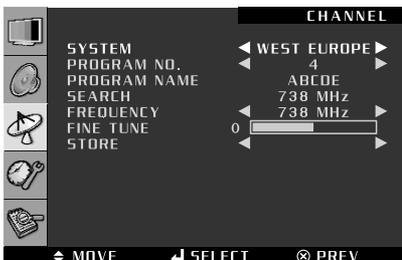
- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press ▲ / ▼ Buttons to move to “CHANNEL” icon.
- 3 Press ◀ button to select “CHANNEL” Icon.
“AUTO PROGRAM” is highlighted.
- 4 Press ◀ buttons to select “AUTO PROGRAM”.
Auto program menu appears, then “COUNTRY” is highlighted.
- 5 Press ◀ / ▶ buttons to select your country.
- 6 Press ▲ / ▼ Buttons to move to “PAL/SECAM” or “SECAM L”.
- 7 Press ◀ / ▶ Buttons to select “PAL/SECAM” or “SECAM L”, then store the selected channels.
- 8 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

♦ PAL/SECAM : Phase Alternation by Line system.

♦ SECAM L : System Electronique Avec Memoire.

Manual Program Searching

Manual Program searching enables to searching channels which the user want manually.



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press ▲ / ▼ Buttons to move to “CHANNEL” icon.
- 3 Press ◀ button to select “CHANNEL” Icon.
“AUTO PROGRAM” is highlighted.
- 4 Press ▲ / ▼ Buttons to move to “MANUAL PROGRAM”.
- 5 Press ◀ button to select “MANUAL PROGRAM”.
Manual program menu appears, then “SYSTEM” is highlighted.
- 6 Press ◀ / ▶ buttons to select your country.
- 7 Select required option by pressing the ▲ / ▼ button, then Press ◀ / ▶ button to set or adjust.
- 8 To store the setting, press ▲ / ▼ buttons, move to STORE and press ◀ / ▶ buttons to store and finish.

✓ In order to display the channel name in the MANUAL PROGRAM, you have to set “COUNTRY” sub menu in AUTO PROGRAM previously.

How to Set the Program Edit

Program edit enables users to edit the searched programs.



PROGRAM EDIT				
PR.	NAME	FREQ	TO	SORT DEL.
1	ARTE	198 MHz	NO	NO
2	ZDF	482 MHz	NO	NO
3	VOX	578 MHz	NO	NO
4	N24	738 MHz	NO	NO
5	BA---	762 MHz	1	NO NO

● NAME EDIT ◀ ▶ MENU SELECT

PROGRAM EDIT				
PR.	NAME	FREQ	TO	SORT DEL.
1	ARTE	198 MHz	NO	NO
2	ZDF	482 MHz	NO	NO
3	BAYER	762 MHz	NO	NO
4	VOX	738 MHz	NO	NO
5	N24	578 MHz	3	OK NO

● SORT ◀ ▶ MENU SELECT

PROGRAM EDIT				
PR.	NAME	FREQ	TO	SORT DEL.
1	ARTE	198 MHz	NO	NO
2	ZDF	482 MHz	NO	NO
3	BAYER	762 MHz	NO	NO
4	VOX	738 MHz	NO	NO
5	-----	818 MHz	3	NO OK

● SORT ◀ ▶ MENU SELECT

- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press ▲ / ▼ Buttons to move to “CHANNEL” icon.
- 3 Press ⏏ button to select “CHANNEL” Icon.
“AUTO PROGRAM” is highlighted.
- 4 Press ▲ / ▼ Buttons to move to PROGRAM EDIT”.
- 5 Press ⏏ button to select “PROGRAM EDIT”.
The program table appears on the screen. One program table contains five programmes.
- 6 Press ▲ / ▼ Buttons to move the program list, and press ◀ / ▶ buttons to move the menu list.

✎ Assigning Names to Channel

- a. Place the cursor on NAME blank and press the Yellow button.
Select a letter (A~Z), a number (0~9) or blank space. If you need to erase, press ◀ button, which is the same feature as back space.
- b. To store the setting, press the Yellow button once again.

✎ Sorting the Stored Channels

- a. Place the cursor on TO, press ▲ / ▼ the buttons to choose the swapping PR number.
- b. Place the cursor on SORT, press the Green button. An “OK” message will appear and sort the stored channels.

✎ Skipping Unwanted Channels

Place the cursor on DEL, press the RED button and delete the selected channel. An “OK” message will appear and delete the selected channels.

Using the LNA(Low-Noise-Amplifier) Feature

If the reception is clear, users don't have to use this feature.
If the signal is weak or distorted, try the followings.



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press **↵** button to select "CHANNEL" Icon.
"AUTO PROGRAM" is highlighted.
- 3 Press **▲** / **▼** buttons to move to "LNA".
- 4 Press **◀** / **▶** buttons to set to **ON/OFF**.
- 5 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

How to Set PIP/TWIN

This is to set PIP(Picture In Picture) or Twin Picture mode.
You can watch two programs or source at the same time.

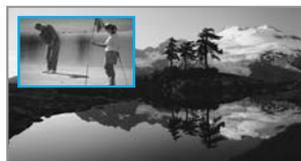


- 1 Press Menu button.
Menu items appear on the screen.
- 2 Press Up and Down buttons to move to "Function" icon.
- 3 Press **↵** button to select "Function".
"PIP/TWIN" is highlighted.
- 4 Press **↵** button to select "PIP/TWIN".
New Menu items appears, then "MODE" is highlighted.
- 5 Press **↵** button, then the menu changes in the following order.
→ PIP → TWIN → OFF →

➔ How to Directly Turn PIP FUNCTION ON/OFF : Press PIP button.

◆ TWIN : To watch two screens in half and half.

◆ PIP : To watch the Sub screen in the main screen at once.

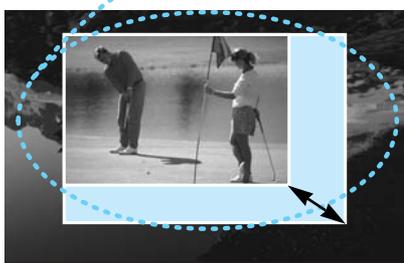
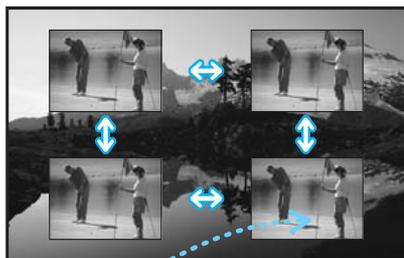
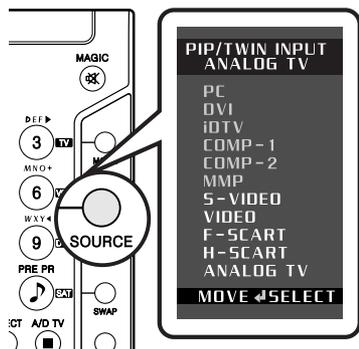


<PIP>



<TWIN >

After setting this, go to step 6 to set the SOURCE.



▲ Adjust the size in PIP

- 6 Press ▲ / ▼ buttons to move to "SOURCE".
- 7 Press ◀ / ▶ button, then source changes.
→ see the refer supported PIP table.

➔ **How To Directly Change Sub Source : Press SOURCE button.**

➔ **How To Directly Set the SWAP : Press SWAP button.**

*In case of PIP mode, go to step 8
if you need to set the "SIZE" of Sub picture.*

- 8 Press ▲ / ▼ buttons to move to "Size"
- 9 Press ◀ / ▶ button, then mode will changes in order below.
→ SMALL → MEDIUM → LARGE →

➔ **How To Directly Adjust PIP SIZE : Press SIZE button.**

*In case of PIP mode, go to step 10
if you need to set the "POSITION" of Sub picture.*

- 10 Press ▲ / ▼ buttons to move to "Positon".
- 11 Press ◀ / ▶ button, then the mode will changes the following order.
→ LEFT TOP → RIGHT TOP → RIGHT BOTTOM → LEFT BOTTOM →

➔ **How To Directly Set the POSITION : Press POSITION button.**

*In case the Input source in Sub picture is TV,
go to step 15 when you wish to change the channels of Sub picture.*

- 12 Press ▲ / ▼ buttons to move to "CHANNEL", then press ◀ / ▶ buttons to select channel number.
- 13 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

Supported PIP Table

PIP : 0 → Supported, X → Not Supported

Main \ Sub	PC	DVI	iDTV	COMP-1	COMP-2	S-Video	Video	FSCRT	HSCRT	Analog TV
PC	X	X	X	X	X	0	0	0	0	0
DVI	X	X	X	X	X	0	0	0	0	0
iDTV	X	X	X	X	X	0	0	0	0	0
COMP-1	X	X	X	X	X	0	0	0	0	0
COMP-2	X	X	X	X	X	0	0	0	0	0
S-Video	0	0	0	0	0	X	0	0	0	0
Video	0	0	0	0	0	0	X	0	0	0
FSCRT	0	0	0	0	0	0	0	X	0	0
HSCRT	0	0	0	0	0	0	0	0	X	0
Analog TV	0	0	0	0	0	0	0	0	0	X

How to Set Key-Lock

User can lock the control buttons on the front bottom of the TV.



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press **┐** button to select “Function” Icon.
“PIP/TWIN” is highlighted.
- 3 Press **▲** / **▼** buttons to move to “KEY LOCK”.
- 4 Press **◀** / **▶** buttons to set to **OFF**.
- 5 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

✓ If you want to deselct “Key-Lock” without the remote controller, press the front keys in the following order. **◆** SOURCE → MENU → LEFT → RIGHT

Using the Pixel Shift / Full White

This feature is designed to reduce image sticking effects during displaying a static picture.
(Brightness degradation is caused by the scale effects of a panel, which is characteristic of a TV.)



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press **┐** button to select “Function” Icon.
“PIP/TWIN” is highlighted.
- 3 Press **▲** / **▼** buttons to move to “PIXEL SHIFT or FULL WHITE”.
- 4 Press **◀** / **▶** buttons to set to **OFF**.
- 5 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

Choosing the Your Languages

Using the TV for the first time, users must select their preferred language preference in order to display main menus and sub menus, etc.



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press \downarrow button to select "OSD" Icon.
"LANGUAGE" is highlighted.
- 3 Press \leftarrow / \rightarrow buttons, then the menu changes in the following order.
→ ENGLISH → DEUTSCH → FRANÇAIS → NEDERLAND → ITALIANO → ESPAÑOL → SUOMI →
- 4 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

How to Set Teletext in ATV

You can use Teletext service in analog TV mode.
If it is included in your receiving channels.



- 1 Press "TTX/MIX" button and wait.
If the "*" sign pops up left upside of the screen as the following picture, wait until the teletext service menu is displayed "*" means it provides teletext service. So wait a moment.
- 2 Select your interesting item with numeric keys.

Selecting Teletext Display Options in ATV Mode

When users have displayed a teletext page, they can have various options to suit their requirements.

DISPLAY(ACTION)	BUTTON
<ul style="list-style-type: none"> • Hidden Text (Answers to Quiz Games, for Example) • The Normal Screen 	 <p>REVEAL REVEAL AGAIN</p>
<ul style="list-style-type: none"> • A Second Page • Normal screen 	 <p>SUB PAGE SUB PAGE AGAIN</p>
<ul style="list-style-type: none"> • Double-Size Letters in the : <ul style="list-style-type: none"> - Upper half of the screen - Lower half of the screen • Normal Screen : 	 <p>SIZE - ONCE - TWICE - THREE TIMES</p>
<p>Stops the automatic page change which will occur if teletext page consists of 2 or more sub pages. The stop symbol is displayed at the top left-hand corner of the screen.</p>	 <p>HOLD HOLD AGAIN</p>
<ul style="list-style-type: none"> • FLOF → INDEX (Full Level One Facilities) • TOP → INFO. (Table of Page) 	 <p>INDEX</p>
<ul style="list-style-type: none"> • To Store Page 	 <p>STORE</p>
<ul style="list-style-type: none"> • Return to List or FLOF mode 	 <p>LIST/FLOF</p>

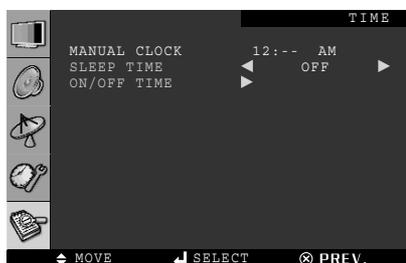
How to Set Clock, Sleep Time, ON/OFF Time



- 1 Press Menu button.
Menu items appear on the screen.
- 2 Press \downarrow button to select "OSD" Icon.
"LANGUAGE" is highlighted.
- 3 Press \uparrow / \downarrow buttons to move to "TIME".
- 4 Press \downarrow buttons to select "TIME".
Time menu appears, then "MANUAL CLOCK" is highlighted.
- 5 Press \leftarrow / \rightarrow buttons to move between Hour, Minute and AM/PM and Press \uparrow / \downarrow buttons to set Hour, Minute and AM/PM.

✓ When the power supply(AC main power) is cut off, the clock is reset to the value before the Time set.

Go to step 6 if you need to set the "SLEEP TIME".



- 6 Press \uparrow / \downarrow buttons to move to "SLEEP TIME".
- 7 Press \leftarrow / \rightarrow buttons, then the menu changes in the following order.
→ 30 → 60 → 90 → 120 → 240 →

➔ How To Directly Start Sleep : Press SLEEP button.

✓ One minute before the preset Sleep Time, "TURN OFF AFTER 1 MIN" message will appear.

Go to step 8 if you need to set the "ON/OFF TIME".



- 8 Press \uparrow / \downarrow buttons to move to "ON/OFF TIME".
- 9 Press \downarrow buttons to select "ON/OFF TIME".
On/Off time menu appears, then "PROGRAM" is highlighted.
- 10 Press \leftarrow / \rightarrow buttons to select program number.
- 11 Press \uparrow / \downarrow buttons to move to "ON TIME or OFF TIME".
- 12 Press \leftarrow / \rightarrow buttons to move between Hour, Minute and AM/PM and Press \uparrow / \downarrow buttons to set Hour, Minute and AM/PM.
- 13 Press \uparrow / \downarrow buttons to move to "VOLUME".
- 14 Press \leftarrow / \rightarrow buttons to adjust volume.

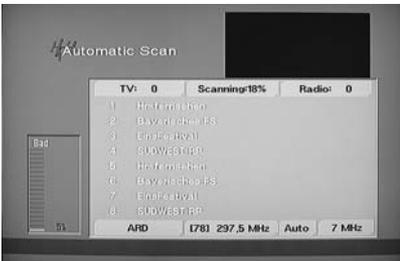


How to Search Automatically

This function can be used to get the latest program data while the receiver is still in use. Through this function, the receiver searches for all the available program and saves them in the memory.



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press ▲ / ▼ Buttons to move to “DTV CHANNEL” icon.
- 3 Press ◀ button to select “DTV CHANNEL” Icon.
“AUTO SCAN” is highlighted.
- 4 Press ◀ buttons to select “AUTO SCAN”
Automatic Scan menu appears, then auto scan activates.
While searching, you can see the following menu on the screen.



When scanning is finished, you can see the following information on the screen. After the scanning process, the first program of the last scanned channel will be displayed on the back screen

- 5 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

✓ Now you have completed all steps needed for watching programs. If you could not see the program after finishing these procedures, please contact your engineer or representative.
✓ If you press the MENU or EXIT button in the middle of AUTO SCAN, the first stored channel will be displayed, and the AUTO SCAN stops.

How to Search Manually

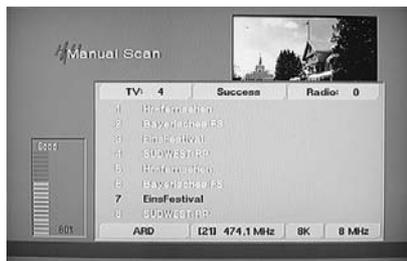
You can edit parameters of certain channels and scan them.



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press ▲ / ▼ Buttons to move to “DTV CHANNEL” icon.
- 3 Press ◀ button to select “DTV CHANNEL” Icon.
“AUTO SCAN” is highlighted.
- 4 Press ▲ / ▼ Buttons to move to “MANUAL SCAN”.
- 5 Press ◀ buttons to select “MANUAL SCAN”
MANUAL Scan menu appears.
- 6 Press ▲ / ▼ buttons to move to “Channel”.
- 7 Press ◀ / ▶ buttons to select a channel or press button and choose them directly with using the numeric keys.
- 8 Press ▲ / ▼ buttons to move to “Tx Mode”.
- 9 Press ◀ / ▶ buttons, then mode changes in order below.
→ Auto → 8K → 2K →



Press ▲ / ▼ buttons to move to “Bandwidth”.



- 10 Press ◀/ ▶ buttons to select “Bandwidth”, and set the proper value for the selected Channel.
- 11 Press Up and Down buttons to move to “Scan”.
- 12 Press ⏎ buttons to store all the entered channel data. Then you can get the following menu showing the scanning process. After scanning process, the first channel of scanned channel will be displayed.
- 13 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

✓ If the scan fails, please check whether your entered values are correct or not and the signal reception sensitivity is good or bad.

How to Check Tuner State

Users can check parameters of certain channels and scan them.



- 1 Press MENU button. Menu items appear on the screen.
- 2 Press ▲/ ▼ Buttons to move to “DTV CHANNEL” icon.
- 3 Press ⏎ button to select “DTV CHANNEL” Icon. “AUTO SCAN” is highlighted.
- 4 Press ▲/ ▼ Buttons to move to “CHANNEL STATE” icon.
- 5 Press ⏎ buttons to select “CHANNEL STATE” Tuner State menu appears.
- 6 Press ▲/ ▼ buttons to select the channel you want.
- 7 Press EXIT button to TV viewing or press MENU button to retune to the previous menu.



- ◆ Level : Indicating selected network signal strength level.
- ◆ Quality : Indicating signal to noise ratio.

✓ When the channel is selected, you can check the reception status of the signal. If the reception signal status is bad, adjust antenna to get the following result.

- ◆ Tuner : Lock
- ◆ FEC : 1/2, 2/3, 3/4, 5/6 or 7/8
- ◆ Level : over 30%
- ◆ Quality : over 40%

How to Use the Guide (EPG : Electronic Program Guide)

Users can check the channel information on the channels of the transponder they are watching.



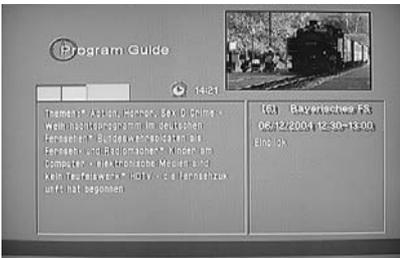
- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press ▲ / ▼ Buttons to move to “DTV CHANNEL” icon.
Press ◀ button to select “DTV CHANNEL” Icon.
“AUTO SCAN” is highlighted.
- 3 Press ▲ / ▼ Buttons to move to “GUIDE”.
- 4 Press ◀ buttons to select “GUIDE”
Program Guide menu appears.



- 6 Press ▲ / ▼ buttons to select Channel, you can see the current or next program information of the selected channel.
➔ Press “GREEN” button. The current or next program information would be converted to the next or current program information respectively.
➔ Press “YELLOW” button. You can see the program schedule list of the selected channel.



- 7 If you want to see the program information of a program in the schedule list, Press ▲ / ▼ buttons to select the program. You will see the information in the right window.
➔ Press “BLUE” button. You will see extended information of the selected program.



- 8 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

How to Select Channel List

Users can change the current channel to any other channel they want.



1 Press MENU button.
Channel List is also available by direct button - Page 13.
Menu items appear on the screen.

2 Press ▲ / ▼ buttons to move to "DTV CHANNEL" icon.

3 Press ⏴ button to select "DTV CHANNEL" icon.
"AUTO SCAN" is highlighted.

4 Press ▲ / ▼ buttons to move to "CHANNEL LIST".

5 Press ⏴ buttons to select "CHANNEL LIST"
Channel List menu will appear, detailed information of the selected channel will be displayed in the right section (Name of network, frequency, bandwidth, etc).

6 Press ◀ / ▶ (page up/down) or ▲ / ▼ buttons (scroll up/down) buttons to select the channel you want

7 Press ⏴ buttons, The selected channel appears on the screen.

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



How to Set Favorite Channel

Users can store frequently watched channels to quickly access a preferred channel.



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

2 Press ▲ / ▼ buttons to move to "DTV CHANNEL" icon.

3 Press ⏴ button to select "DTV CHANNEL" icon.
"AUTO SCAN" is highlighted.

4 Press ▲ / ▼ buttons to move to "CHANNEL LIST".

5 Press ⏴ button to select "CHANNEL LIST"

6 Press ◀ / ▶ (page up/down) or ▲ / ▼ buttons (scroll up/down) buttons to select the channel you want

7 ➔ Press RED button, then Favorite State menu appears.

8 Press ▲ / ▼ buttons to move to favorite state list of 1~5.

9 ➔ Press WHITE button. You can rename them for their convenience.

10 Press ⏴ button. You favorite state list will be stored. An apple symbol will occur on the ALL LIST MENU.

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



How to Use Channel List Mode

Users can see variant channel lists which may enable them to edit and select channels more conveniently.



- 1 Press CH. LIST button.
Channel list appears on the screen.
- 2 Press "ORANGE" button, then you can see "Channel List Mode" window.
- 3 Select required option by pressing the ▲/ ▼ buttons, then Press ◀/ ▶ buttons to select you want.
- 4 Press ↵ buttons.
You will see the following mode.



- ♦ Favorite Mode : You can see favorite 1 ~ 5 channel list.
 - ♦ Alphabet Mode : You can see the channel alphabetical listed.
 - ♦ Network Mode : You can see the channel list in network style.
- 5 Press EXIT button to TV viewing or press MENU button to return to the previous menu.

How to Lock Channel

This menu enables users to prevent children from viewing programs unsuitable for their age.



- 1 Press CH. LIST button.
Channel list menu appears on the screen.
- 2 Press ▲/ ▼ or ◀/ ▶ buttons to select the channel you want to lock.
- 3 Press "GREEN" button.
Then the selected channel is locked.
- 4 Press MENU, EXIT or ↵ button to finish the process.
- 5 Without entering you password, you cannot watch a locked channel's program.
The original password is programmed to 0-0-0-0. Please refer to 41 page "How to Factory Set" for changing the password.



✓ If you want to cancel the channel lock, go to the channel list and select the channel and press GREEN.

How to Set the Channel Order

Users can organize the number or sequence of the channels.

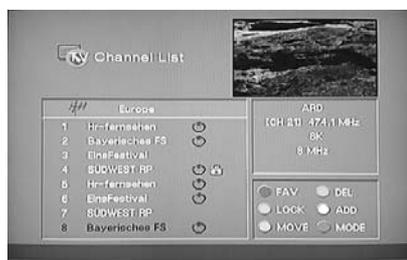


- 1 Press CH. LIST button.
Channel list menu appears on the screen.
- 2 Press ▲ / ▼ or ◀ / ▶ buttons to select the channel you want to move.
- 3 Press "YELLOW" buttons.
- 4 Press ▲ / ▼ or ◀ / ▶ buttons to move to the position you want to move.
- 5 Press ↵ buttons, the channels will move automatically to the programmed position.
- 6 Press MENU, EXIT or ↵ button to finish the process.



How to Delete Channel

Users can delete channels from the channel list.



- 1 Press CH. LIST button.
Channel list menu appears on the screen.
- 2 Press ▲ / ▼ or ◀ / ▶ buttons to select the channel you want to remove.
- 3 Press BLUE buttons.
Then, you need to confirm the deletion.
If you definitely want to delete, press ↵ buttons. If not, press EXIT.
You can find the deleted list in left window.
- 4 Press MENU, EXIT or ↵ button to finish the process.



How to Add Channel

Users add channels they want.



- 1 Press CH. LIST button.
Channel list menu appears on the screen.
- 2 Press WHITE buttons.
The Add Digital Channel window will appear.
- 3 Select the channels with ◀ / ▶ buttons or numeric keys.
- 4 Select required option by pressing the ▲ / ▼ buttons, then Press numeric keys to enter the proper value.
- 5 Press MENU, EXIT or ↵ button to finish the process.

✓ The above mentioned VIDEO PID, AUDIO PID, PCR PID are very important for optimal terrestrial signal reception. We recommend you to get professional advices where available. You can't setup "VIDEO PID" for RADIO channels.

How to Factory Set

The status of the Digital-TV will return to factory default parameters by using this function.



- 1 Press MENU button.
Menu items appear on the screen.
- 2 Press ▲ / ▼ Buttons to move to "DTV CHANNEL" icon.
- 3 Press ↵ button to select "DTV CHANNEL" Icon.
"AUTO SCAN" is highlighted.
- 4 Press ▲ / ▼ Buttons to move to "FACTORY SET".
- 5 Press ↵ buttons to select "FACTORY SET"
"Factory Set" is highlighted.
- 6 Press ↵ button to select "Factory Set".
A window will appear, asking you to confirm.
- 7 When the menu asks you to confirm the reset, press ↵ if you want to reset or press EXIT key if you want to void the reset.

✓ When you forgot your new password, please consult the shop where you bought the TV or the nearest dealer.

✓ After choosing Factory Set, reset the power.

How to TV/RADIO switching

Users can use this menu when they want to change a TV channel to a Radio channel or vice versa.



➔ Press “TV/RADIO” button.



Avoid listening to the radio for a long time, without changing the screen image. It can cause “Image Sticking”.

Check “Image Retention Effect (Image Sticking)” at the beginning of the manual.

How to Subtitle / Audio

Users can adjust the subtitle and audio condition/status of the current channel.



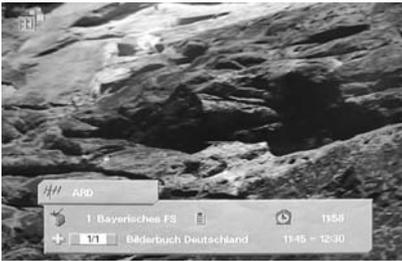
- 1 Press “S.MODE” button.
Subtitle and audio related window will be displayed on the screen.
- 2 Select required option by pressing the ▲ / ▼ buttons, then Press ◀ / ▶ buttons to select you want.

If Dig. Output is supported, you can select MPEG Stereo or Dolby Digital/AC3.

✓ These subtitle and audio parameters are workable only when the receiving channel supports these functions

How to Select Channel / Information

Brief information is displayed, such as current channel type, name, local start/end time, guide information, current time, fav/normal mode, Audio mode and Audio ID.



- ➔ Press “INFO” button.
The information bar will pop-up.

✓ If you have no information : Check if your local time settings are correct or information is not sent by the channel provider.

How to Set Teletext in DTV

You can use Teletext service in iDTV mode.

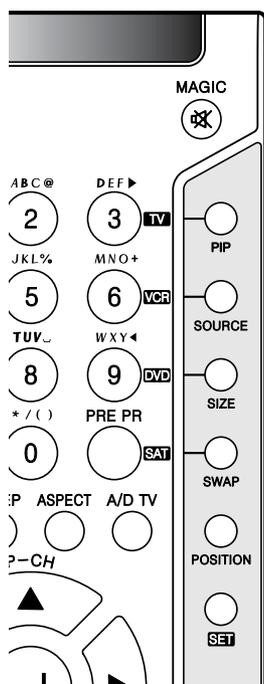
The  icon on the screen means your TV is receiving Teletext service.



- 1 Press “TTX/MIX” button and wait.
If the “*” sign pops up left upside of the screen as the following picture, wait until the teletext service menu is displayed “*” means it provides teletext service. So wait a moment.
- 2 Select your interesting item with numeric keys.

How to Use an External Device Using the Remote Control

When setting other manufacturer's product using the remote control, some of the buttons on the remote control may not operate or different functions may be activated, or some of other manufacturer's products may not work. Some of DVD/VCR combos are allowed only either in DVD mode or VCR mode.



1. Turn on the external device you want to set.
2. By pressing "SET" button together with "TV, VCR, DVD or SAT" you select the device you wish to onfigureate.
3. If the external device has been chosen, press the  button and  button at the same time for two seconds.
4. Enter an appropriate 3-digit number of the manufacturer from the DVD Setting Number Table. (If the product brand you want to set has multiple setting numbers, attempt to enter the setting numbers repeatedly until the product is turned off.)
5. When the product has turned off, press the  button again.

(The appropriate button associated with the product will flash 3 times to show the product operates properly.)
6. Check that the Power button works normally and then check that other function buttons work normally.
 - ➔ If the Power button works normally but other function buttons do not, repeat the above steps from the beginning.
 - ➔ Depending on product brands or setting numbers, the power button may work normally but other function buttons do not work.

VCR Setting Number Table

MAKER	Setting Number	MAKER	Setting Number
AIWA	001, 002, 014, 044, 052, 064, 066	NORDMENDE	014, 024, 039, 054, 055, 067, 073, 074, 076
AKAI	007, 014, 021, 031, 047, 053, 066	PANASONIC	035, 045, 046
DAEWOO	007, 017, 044, 048, 066	PHILCO	012, 025
DAYTRON	048	PHILIPS	033, 068
EMERSON	017, 025	PIONEER	015, 024
FERGUSON	002, 014, 021, 032, 048, 054, 055, 073	PORTLAND	007, 048
FISHER	007, 012, 018, 019, 029	SALORA	018, 016, 029, 031
FUNAI	002	SAMSUNG	011, 047
GRUNDIG	004, 041, 045, 054, 064, 068	SANYO	018, 019, 020, 024, 029
HITACHI	002, 014, 015, 029, 036, 047, 068, 070	SHARP	001, 020, 023
JVC	005, 014, 024, 042, 067	SONY	006, 008, 009, 010, 022, 027, 030, 031, 034, 037
KENWOOD	012, 014	SYMPHONIC	002, 025
LG	001, 002, 003, 048	TASHIKO	001, 002, 020, 047
MANGAVOX	068	TATUNG	002, 014, 016, 020, 021, 044, 064, 066
MARANTZ	012, 023, 033, 044, 051	TEAC	001, 002, 014, 048, 052
MATSUI	001, 002, 028, 040, 043, 044, 047, 051, 058, 064, 066, 070	TOSHIBA	014, 016, 017, 067, 068
MEMOREX	001, 002, 018, 019, 020, 029	UNITECH	047
MITSUBISHI	016, 024, 026, 038	VICTOR	005, 024
MULTITECH	002, 007, 025, 029, 056		
NEC	001, 012, 013, 014, 024, 029		

DVD Setting Number Table

MAKER	Setting Number	MAKER	Setting Number
APEX DIGITAL	022	ORION	026
DAEWOO	001, 029, 032	PANASONIC	042, 055
DAEWOO INTERNATIONAL	028	PHILIPS	002, 056
DENON	015, 042	PIONEER	051
ELTA	001, 025, 046, 047	PROSCAN	003
FERGUSON	018	RCA	003, 018
GE	034	SAMSUNG	009, 042
GOODMANS	018, 025, 045, 047, 049, 050	SANYO	021, 026, 047
GRUNDIG	018, 021, 026, 029, 031, 047	SCHNEIDER	018, 029, 045, 046, 047
HANSEATIC	039	SEG	020, 031
JVC	002, 011, 057	SHARP	013, 026
LG	010, 039, 054	SONY	004, 009, 053
MAGNAVOX	002, 049	THOMSON	003, 007
MATSUI	018, 026	TOSHIBA	002
MITSUBISHI	031	YAMADA	050
MUSTEK	037	YAMAHA	042
NAD	039	ZENITH	002, 010, 039
ONKYO	002, 012		

Satellite Receiver Setting Number Table

MAKER	Setting Number	MAKER	Setting Number
HANSEATIC	090	PHILIPS	020, 024, 025, 064, 084, 087, 092, 101, 102, 109, 117, 123, 126, 147
HITACHI	064	PROSAT	034, 096
HOUSTON	025, 066, 088, 102	QUADRAL	034, 054, 077, 087, 096, 102, 109
KATHREIN	004, 020, 039, 049, 057, 063, 067, 073, 092, 102, 111, 126, 147	SAMSUNG	033, 062
LG	042	SEG	006, 040, 054, 062, 076, 077, 082, 090, 116
LUXOR	046, 071, 140	SMART	011
MATSUI	020, 045, 084, 109	SONY	064, 108
NEXTWAVE	114	TECHNISAT	031, 065, 071, 076, 083
PACE	026, 027, 043, 064, 069, 112, 119, 122, 146	TELESTAR	071
PANASAT	094, 141	TOSHIBA	015, 064
PANASONIC	064	UNIDEN	022, 120, 130

Troubleshooting

Installation Problems

Symptom	Possible solution
How can I install an antenna?	Refer to page 14.
TV screen is not clear after installing an indoors antenna.	Indoors antenna may experience poor reception due to surrounding buildings. Please install an outdoors antenna or wireless antenna.
How can I view cable broadcasting?	Please install a cable broadcasting receiver (Converter).

Picture Problems

Symptom	Possible solution
Neither picture nor sound comes up.	Check whether power is on. Check whether the power is cut or whether the power cord is properly connected. Try to plug another product's power cord to the same outlet to check the outlet itself.
Picture turns on slowly after power is on.	This symptom is not a malfunction. This delay is designed to prevent the distorted and noisy picture when the power is on. However, if the picture does not appear more than 5 minutes after the power is on, call a service center.
Picture is distorted or frozen while watching digital broadcasting.	This symptom may be caused by weak reception. Contact your local station or cable company.
Input Source information only appears on black screen.	Check whether your TV is properly connected to external devices.
Poor reception on some channels.	Check whether you selected proper channels. Try re-orienting your antenna. Ensure LNA is activated.
Black and white on some channels.	Check other channels for black and white screen. Adjust colour.
TV won't turn on.	Ensure the power cord is plugged.
Screen is too bright or too dark.	Adjust brightness.
Auto On does not work.	Ensure to use the remote control or power button on the product to turn off your TV. If you unplug the power cord, the stand-by consumption power becomes 0 (zero), which causes the programmed time to be erased.

After setting the time, I turned TV off and turn it on. The programmed information has been erased.

Ensure to use the remote control or power button on the product to turn off your TV. If you unplug the power cord, the stand-by consumption power becomes 0 (zero), which causes the programmed time to be erased.

Sound Problems

Symptom

Possible solution

Too much noise occurs.

Check whether the audio setting is in the Stereo mode. In the Stereo mode, the sound may be distorted in areas with poor reception or located far away from a TV broadcasting station.

No sound while viewing a cable channel

Make sure audio or audio/video components are securely inserted into the appropriate jacks. Check other channels for sound. Check the volume settings on the cable broadcasting receiver.

Picture is OK but sound does not come out.

Try to press volume up/volume down buttons of your remote control.

One of the speakers does not produce sound.

Select sound balance and make proper adjustment. (Page 23)
Check the speaker connection cables.

General

Symptom

Possible solution

Remote control won't work.

Check whether there is a blocking object between the remote control and PDP. Make sure your PDP is Power On. (Normally, the LED on the front panel is red.) Check whether batteries are inserted with proper polarities(+, -). When the batteries are worn out, replace them.

Where does the S-Video cable plug in for audio output?

Connect the two Audio jacks from the S-Video cable to the left and right ports on the Composite.

Strange noises are heard.

Ticking noises during or after watching are caused by the change of ambient environment such as humidity and temperature, which is characterized by plastic products. Strange ticking noises occur because a signal is suddenly transmitted to the PDP panel. So, It is not a malfunction.

I tried to use the TV screen as a PC monitor but it doesn't work.

Adjust the resolution referring to the standard signal mode table. Check the specification of your video card installed in your PC. If your video card does not work in the supported hardware, try upgrading the video card's driver.

Product Specifications

Model		PD4201E
Input	Full-Scart	1 (A/V)
	Half-Scart	1 (A/V)
	S-Video	1 (A/V audio common)
	Video (RCA)	1 (Audio included)
	Component(Y/Cb/Cr)	2 (Audio included)
	Antenna	1
	PC Connection jack	D-SUB
	Max. resolution	1024 X 768 @ 85 Hz
Audio	L/R	
DVI-HDCP	1	
Video Output		1 (Audio included)
Audio Output	Digital SPDIF Optical	1
	Digital SPDIF Coaxial	1
	Subwoofer	1
TV/Video	Color system	PAL/SECAM L
	Sound system	FM, NTCAM B/B
	Video system	Component, S-Video, Composite, PC, DVI
Power	Supply	AC 100 - 240 V, 50/60 Hz
	Consumption power	Typical 380W
	Stand-by power	Typical 3.5W
Dimension (W x D x H mm - Stand included)		1030 x 79 x 716
Weight (Stand included)		32 Kg
Control type		Remote control, Key control

- The above specifications may be subject to change without prior notice.

