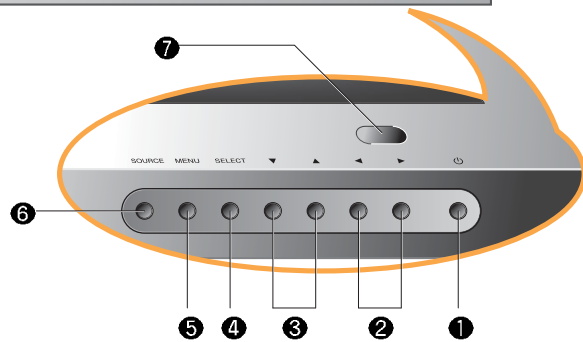# Parts Names and Functions - For A421S/A421H Model only

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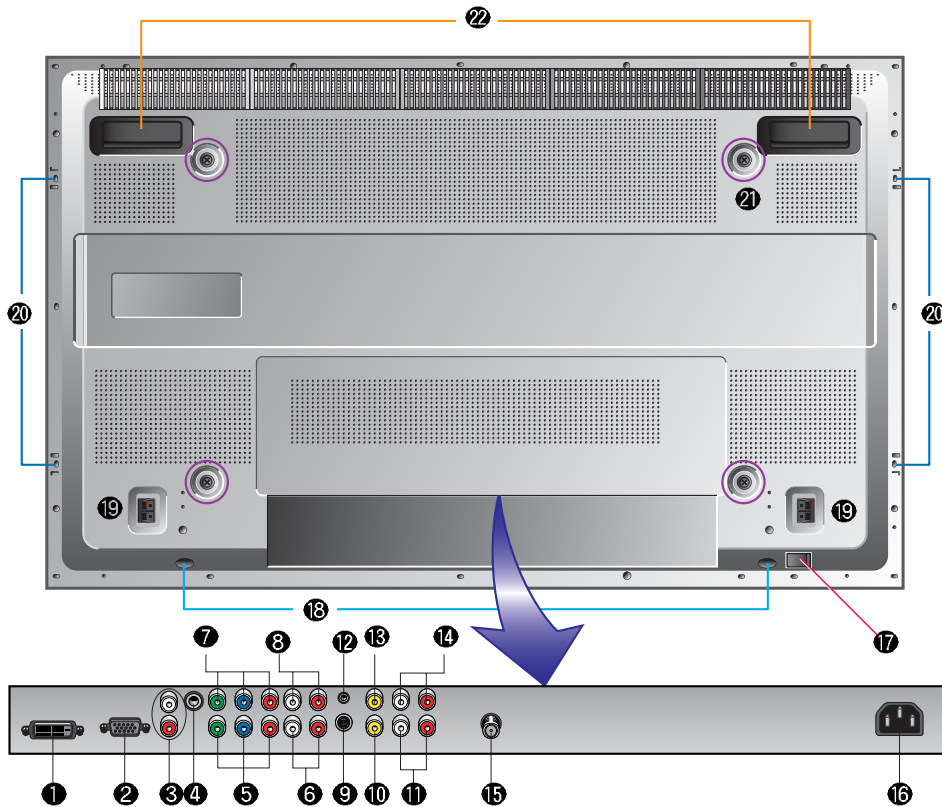Use this button to switch among inputs connected to the TV.

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
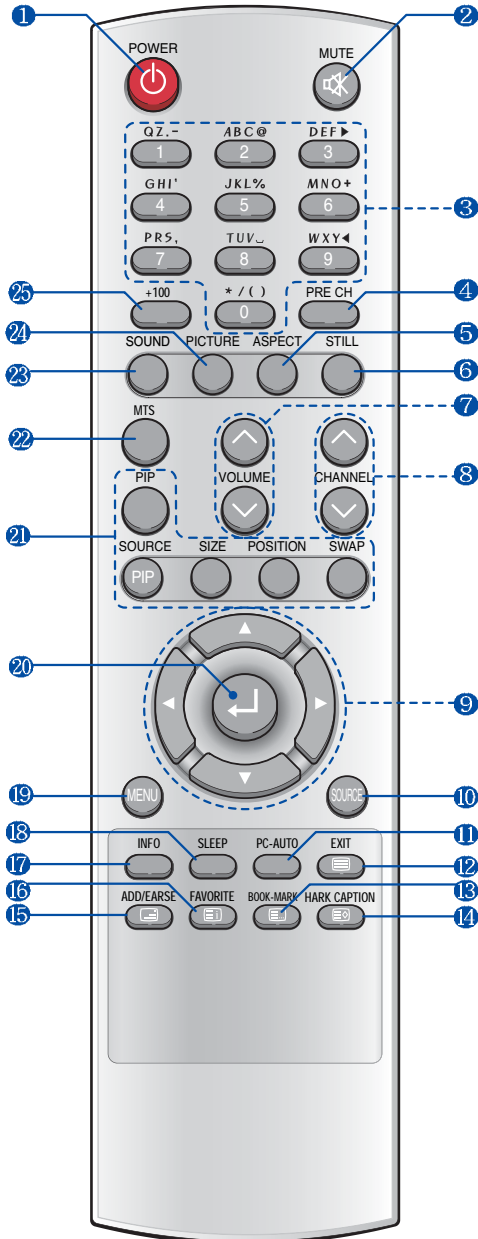

This product image may be a bit different from the actual product.

❶ **HDMI (or DVI) Video input terminal**

❷ **D-SUB input terminal**

❸ **HDMI (or DVI)/D-SUB Audio input terminal**

❹ **Subwoofer output terminal**
When producing bass, connect the cable to the woofer with *AMP.

❺ **Component 2 Video input terminal**

❻ **Component 2 Audio input termina**

❼ **Component 1 Video input terminal**

❽ **Component 1 Audio input termina**

❾ **S-Video input terminal**

❿ **Video input termina**

⓫ **S-Video/Video Audio input terminal**

⓬ **RS-232 input terminal**
Connect to the RS-232 terminal of a PC to check its service.

⓭ **Monitor Video output terminal**

⓮ **Monitor Audio output terminal**

⓯ **Antenna 1 (Analog/DTV) input terminal**

⓰ **Power (AC) input terminal**
Connect the power cord to this terminal.

⓱ **Power switch**
Use this switch to turn on/off powe

⓲ **Stand assembly**

⓳ **Speaker terminal**

⓴ **Speaker assembly**

㉑ **Screw hole for fixing on a wal**

㉒ **Carrying handles**

20

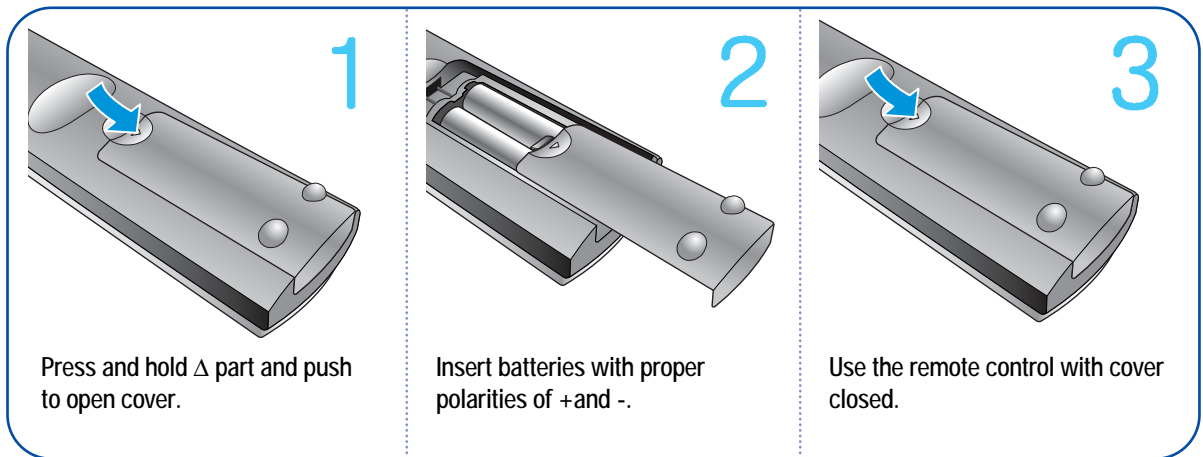# Remote Control

1. POWER/STANDBY   2. MUTE
3. NUMERIC KEYS   4. PREVIOUS PROGRAM
5. ASPECT RATIO   6. STILL
7. VOLUME   8. Channel Selection
9. LEFT/RIGHT MOVE/ADJUST
Use these buttons to move between menu items or adjust each item.
10. SOURCE
Use this button to select External Input.
11. Auto adjust in PC mode
12. EXIT
Use this button to end the OSD.
13. BOOK-MARK
14. HARK-CAPTION
15. ADD/ERASE
Use this button to add or erase channels.
16. FAVORITE
Use this button when watching your favorite channel.
17. INFOMATION
Use this button to display resolution or various program.
18. SLEEP
19. MENU
Use this button to call the OSD on the screen.
20. MENU SELECTION
21. 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.
- POSITION : Use this button to select the position of sub-picture.
- SWAP : Use this button to swap main and sub-picture.
22. MTS
- Use this button to display types of audio signals currently aired on TV.
Or you can use this button to switch to other Sound Mode available.
23. SOUND MODE
24. PICTURE MODE
25. +100
This button will help you to press the numbers over 100.
ex) For   channel number 120, press +100 then 2 and 0.
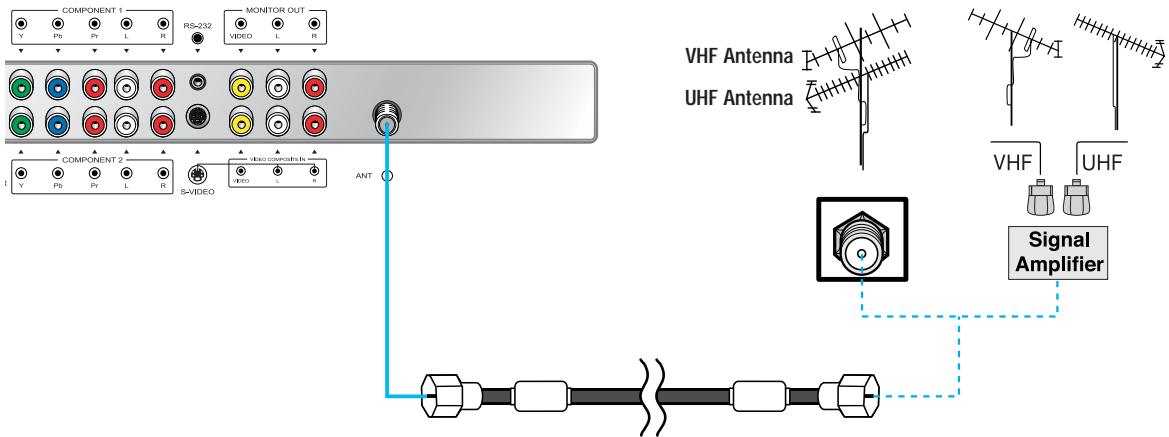
How to Insert Batteries in Remote Control

1

Press and hold △ part and push to open cover.

2

Insert batteries with proper polarities of +and -.

3

Use the remote control with cover closed.

* Battery type :1.5V/AAA

How to Watch Analog Broadcasts with a Single Antenna

Connection Method

➜ Make sure that the antenna cable is connected to ANT.
- Antenna or Cable service without a cable box connections
- For optimum picture quality, adjust antenna direction if need,

VHF Antenna

UHF Antenna

VHF   UHF

Signal Amplifier

COMPONENT 1   MONITOR OUT
Y   Pb   Pr   L   R   RS-232   VIDEO   L   R

COMPONENT 2   VIDEO COMPOSITE IN
Y   Pb   Pr   L   R   VIDEO   L   R   ANT
S-VIDEO

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 48) to memorize the available channels.

2 Press SOURCE INPUT on remote control.

3 Press ◄↵► to move to Analog TV and press ↵ to select.

4 Press button or CHANNEL button to select the desired channels.

ANALOG TV

ANALOG TV
VIDEO
S-VIDEO
COMP 1
COMP 2
PC
DVI

⬍ MOVE
↵ SELECT

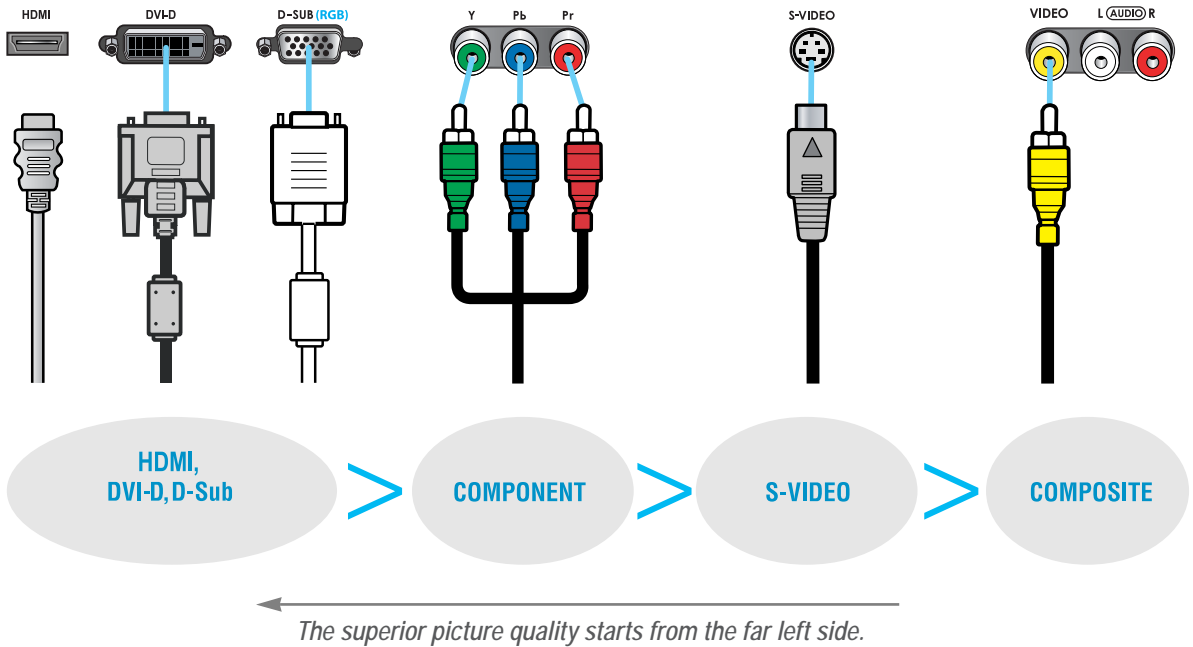# Before Connecting the Video/Audio Connections to External Devices...

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

Video/Audio connectors

Types of video/audio cable :

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

Best picture quality is displayed in the following order.

HDMI   DVI-D   D-SUB (RGB)   Y   Pb   Pr   S-VIDEO   VIDEO   L AUDIO R

| HDMI, DVI-D, D-Sub | > | COMPONENT | > | S-VIDEO | > | COMPOSITE |

The superior picture quality starts from the far left side.

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 **HDMI (or DVI)** connection to the output of DVD, cable receiver or satellite receiver. Connecting a **HDMI (or 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.)
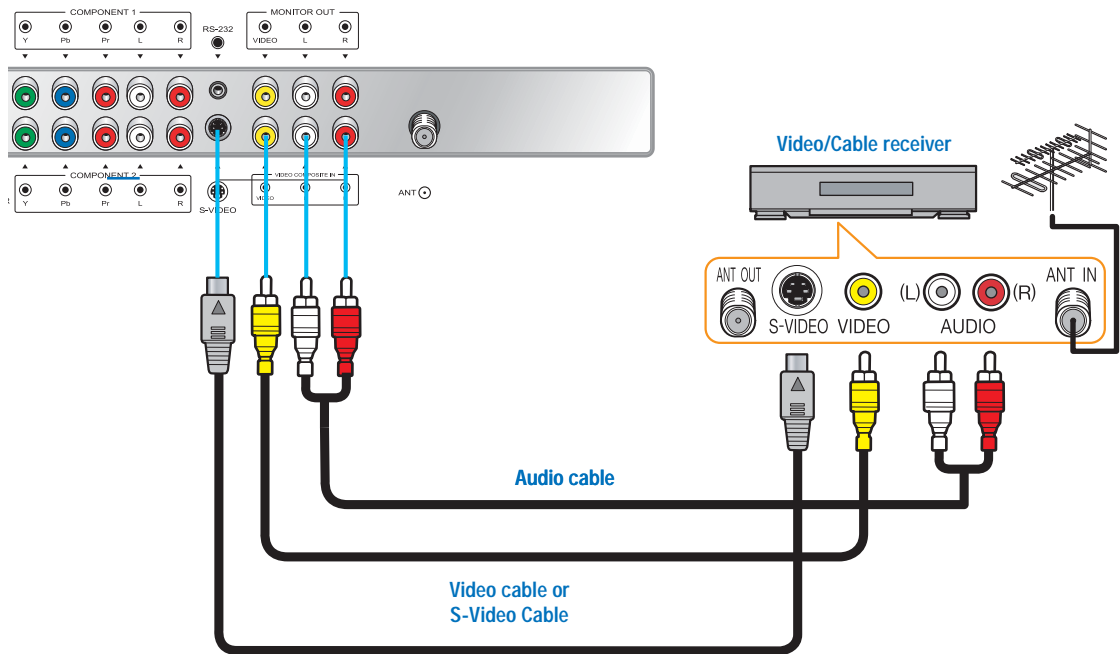
How to Watch

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
VIDEO
S-VIDEO
COMP 1
COMP 2
PC
DVI
♦ MOVE
↵ SELECT
```

TIP 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.)
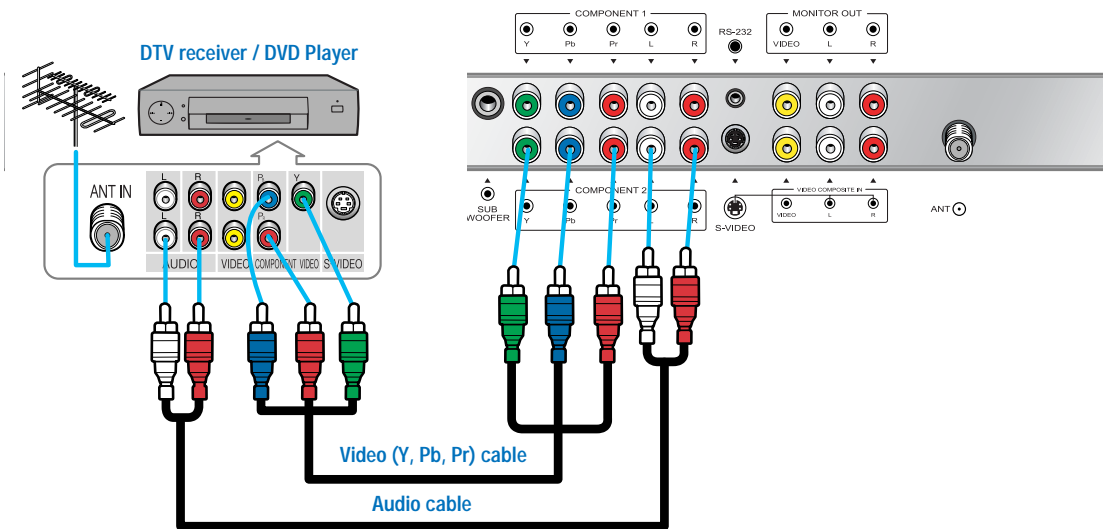
CONNECTIONS

DTV receiver / DVD Player

Video (Y, Pb, Pr) cable

Audio cable

How to Watch

1 Turn on TV and press ⬤ **SOURCE** on remote control.

2 Press ⬤ to move Component 1 or Component 2 and press ⬤ to select.

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

```
COMP 1

ANALOG T
VIDEO
S-VIDE
COMP 1
COMP 2
PC
DVI

◆ 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 **HDMI (or 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.)

Camcorder　　　　**Game Player**

S-VIDEO　VIDEO　(L)　(R)　AUDIO

Audio cable

Video cable or S-Video Cable
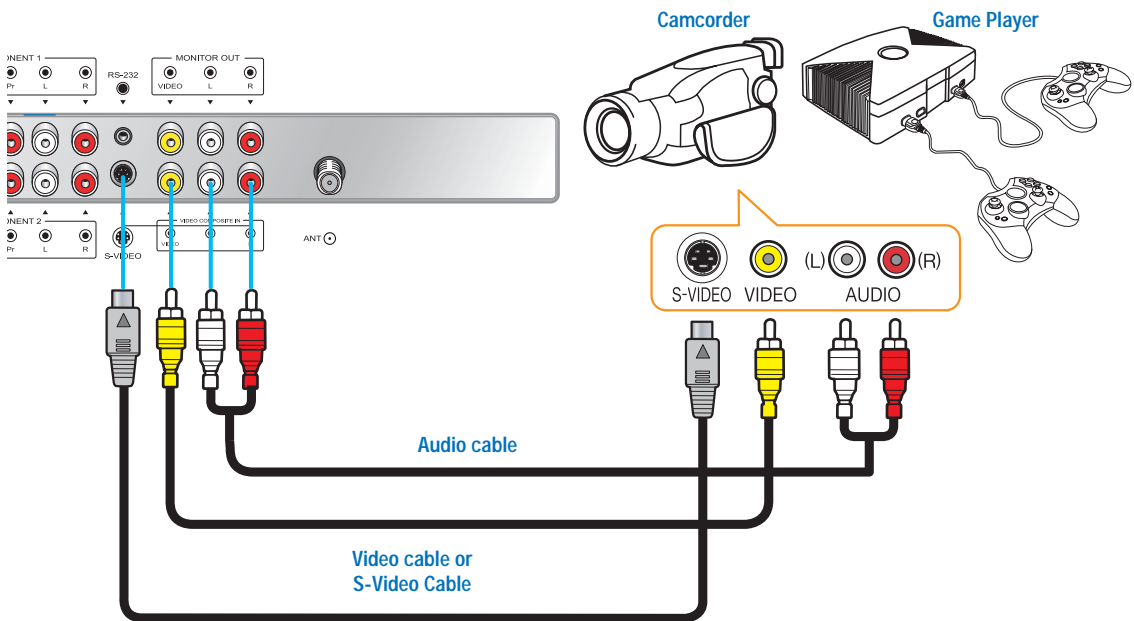
How to Watch

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
VIDEO
S-VIDEO
COMP 1
COMP 2
PC
DVI

  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.)

Audio Cable

HDMI (or DVI) Cable

or

D-SUB cable
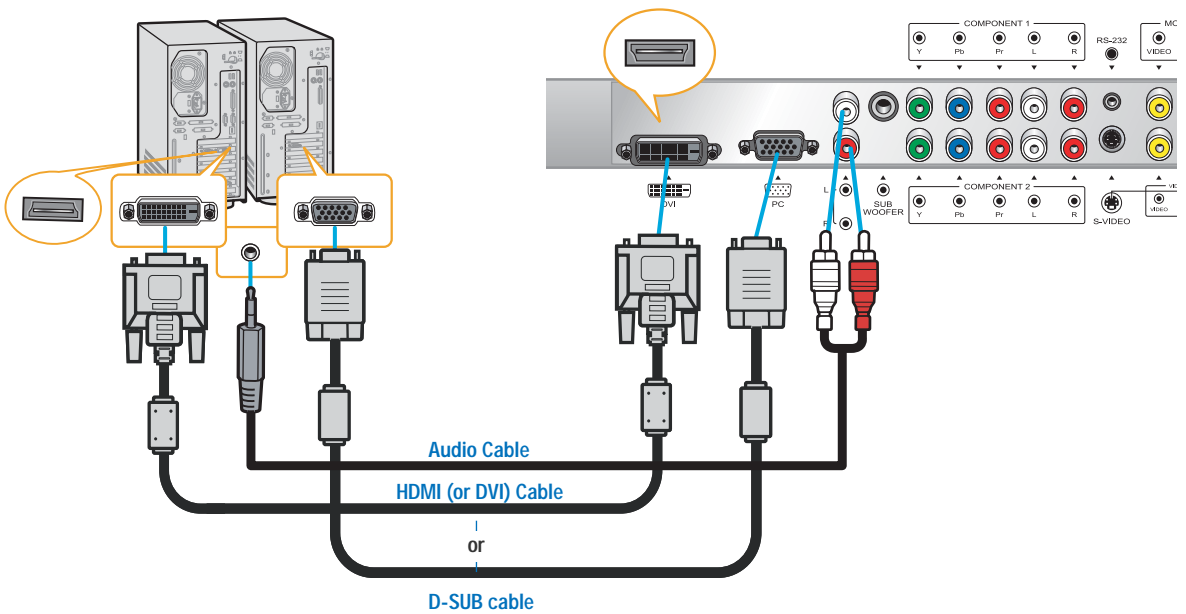
When Using as a PC Monitor

1 Turn on TV and press **SOURCE** on remote control.

2 Press to move to PC or **HDMI (or DVI)** and then press to select.

PC
ANALOG TV
VIDEO
S-VIDEO
COMP 1
COMP 2
PC
DVI

MOVE
SELECT
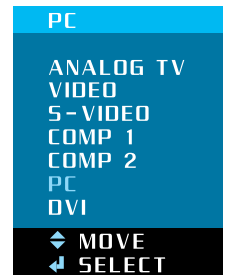
TIP

- If you use the **HDMI (or 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 **HDMI (or DVI)**/ D-Sub (15 pin) cable for the better picture quality.
- If you input an unsupported resolution in PC or **HDMI (or DVI)** mode, the screen won't be displayed properly.

CONNECTIONS

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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

HDMI Connection - For HDMI Model only

HDMI *1 (High Definition Multi media Interface) is the first all digital consumer electronics A/V interface that supportsuncompressed standard. The HDMI terminal supports both video and audio information.To the HDMI*1 input terminal, you can connect an EIA/CEA-861/861B*2 compliant consumer electronic device, such asa Set Top Box or DVD player with HDMI or DVI output terminal.Input a High-bandwidth Digital Content Protection (HDCP) high-definition picture source to this HDMI terminal, so youcan display the high-definition pictures on this TV in the digital form.

HDMI

DVD Player

Set Top Box

*If the external device has DVI output only, use a DVI to HDMI adapter *3 cable to connect to the HDMI terminal.*

HDMI Cable
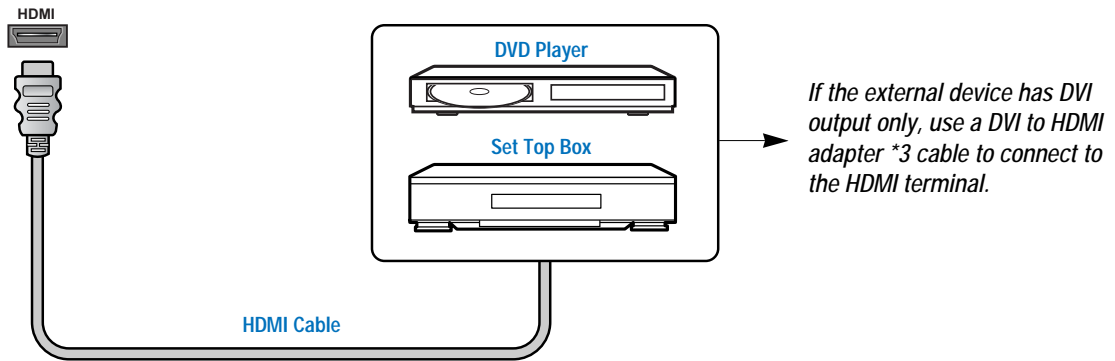
Compatible VIDEO Signal

Resolution	No. of dots(HXV)	Vertical scanning frequency(Hz)
1080i	1920 X 1080i	59.94/60
480p	720 X 480p	59.94/60
	640 X 480p	59.94/60
720p	1280 X 720p	59.94/60

This input terminal is not intended for use with computers.

CONNECTIONS

30

Compatible sampling freguency of AUDIO signal through HDMI (L.PCM) : 48kHz / 44.1kHz / 32 kHz

Notes:
*   **This HDMI connector is Type A.**
*   **If you connect an equipment without a digital output terminal, connect to the COMPONENT VIDEO, S VIDEO or VIDEO input terminal on the TV so you can enjoy an analog signal.**
*   **The DIGITAL IN terminal can only be used with 1080i, 480i or 480p picture signals. Set the Digital Set -Top - BoxDIGITAL OUT terminal Output setting to 1080i, 480i or 480p. For detailed information, refer to the Digital Set -Top -Box instruction manual. If you cannot display the picture because your Digital Set -Top -Box does not have aDIGITAL OUT terminal Output setting, use the component Video Input (or the S Video Input or Video Input). In thiscase the picture will be displayed as an analog signal.**

How to Watch

1   **Turn on TV and Press** SOURCE ⬤ **on remote control.**

2   **Press up/down button to move HDMI and press** ⬤ **to select .**

HDMI

ANALOG TV
VIDEO
S-VIDEO
COMP 1
COMP 2
PC
HDMI
⬍ MOVE
⏎ SELECT
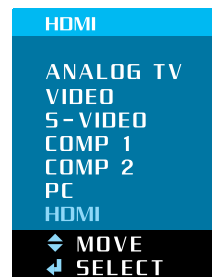
TIP
- *1 HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMILicensing LLC.
- *2 EIA/CEA-861/861B profiles compliance covers profiles for transmission of uncompressed digital video includinghigh bandwidth digital content protection.
- *3 HDMI-DVI conversion cable (TY-SCHO3DH): available on Panasonic Website (www.panasonic.com). Consult yourconsumer electronics dealer for availability details.

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.

External Visual Device

MPONENT 1   MONITOR OUT
Pr   L   R   RS-232   VIDEO   L   R
MPONENT 2
Pr   L   R
S-VIDEO
ANT

(L)   (R)
VIDEO   AUDIO

Audio Cable

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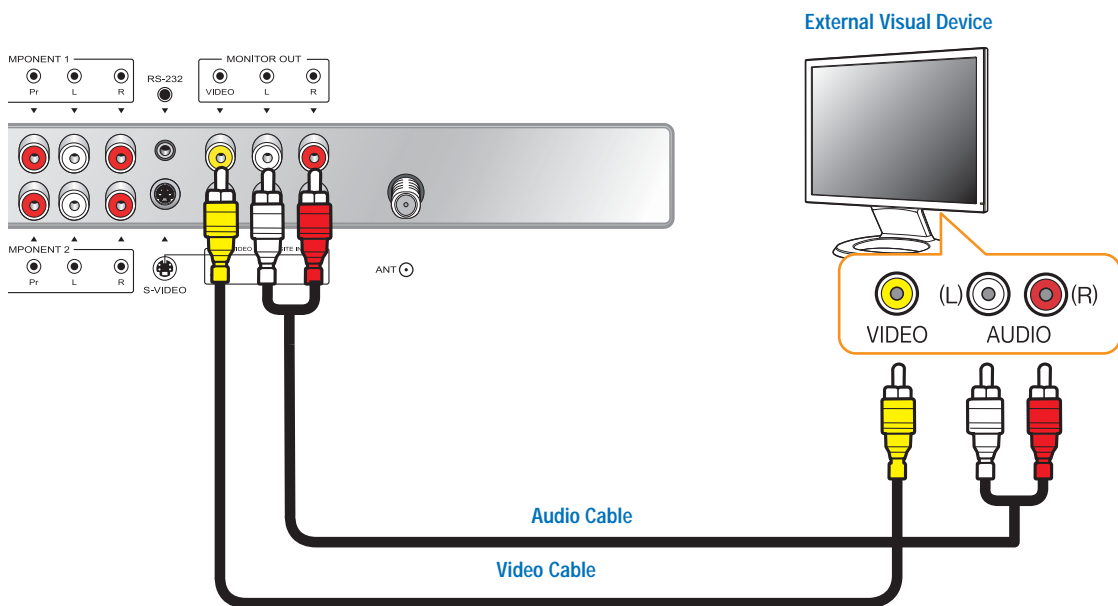
TIP Video and Audio outputs are available only when watching an Analog TV, or VCR. This is not supported in the Input Mode of Component, HDMI (or DVI) /D-SUB or S-Video.

How to Select the Picture Mode

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

MENU

Press Menu button.
Menu items appear on the screen.

PICTURE
MODE   ◀ STANDARD ▶
CUSTOM   ◀ ▶
COLOR TEMP   ◀ STANDARD ▶
ASPECT RATIO   ◀   WIDE   ▶
PIP   ◀ ▶
NOISE REDUCT   ◀   OFF   ▶

⬍ MOVE   ◀▶ SELECT   ⊞ EXIT

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
⇨User 1 ⇨User 2

PICTURE
MODE   ◀ STANDARD ▶
CUSTOM   ◀ ▶
COLOR TEMP   ◀ STANDARD ▶
ASPECT RATIO   ◀   WIDE   ▶
PIP   ◀ ▶
NOISE REDUCT   ◀   OFF   ▶

⬍ MOVE   ◀▶ SELECT   ⊞ EXIT

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.

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 directly set the values ➧ See the next page

How to Directly Select Picture Mode :   PICTURE ◯   **Press MODE. button.**

- When the input mode is Analog TV, Video, S-Video, Component 1 & 2, users can select ⇨Standard ⇨ Dynamic ⇨
  Movie ⇨Mild ⇨User 1/2 .
- When the input mode is PC, HDMI (or DVI), users can select ⇨Standard ⇨Low (Character Mode) ⇨High (Movie) ⇨
  User1/2 .

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.

MENU

Press Menu button.
Menu items appear on the screen.

1
Press ↵ button to select ⬜ **.**

Press Left or Right button to choose "User 1/2".

2
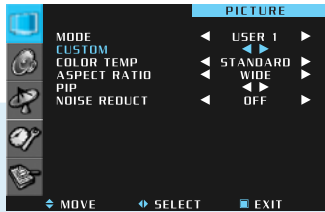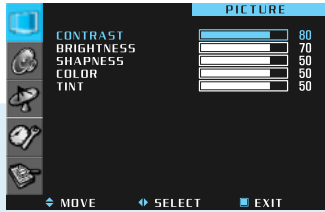**Press Left and Right buttons to move to "Custom".**

3
Press button to select "Custom".
Picture Adjust menu items appear.

4
Press Up and Down buttons to move.
Press Left and Right buttons to adjust.

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 HDMI (or DVI) modes.

PICTURE

How to Adjust the Color Temperature of the Screen

Users can manually adjust their desired color temperature.

MENU

Press Menu button.
Menu items appear on the screen.

PICTURE
MODE ◄ STANDARD ►
CUSTOM ◄ ►
COLOR TEMP ◄ STANDARD ►
ASPECT RATIO ◄ WIDE ►
PIP ◄ ►
NOISE REDUCT ◄ OFF ►

◆ MOVE ◆ SELECT ■ EXIT

1

Press ↵ button to select [ ] **.**

2

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

PICTURE
MODE ◄ STANDARD ►
CUSTOM ◄ ►
COLOR TEMP ◄ STANDARD ►
ASPECT RATIO ◄ WIDE ►
PIP ◄ ►
NOISE REDUCT ◄ OFF ►

◆ MOVE ◆ SELECT ■ EXIT

3

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

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 ↵ 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 ⇨Normal ⇨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.

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 PC inputs : Users can select ⇨Wide ⇨Normal.
- Under HDMI (or DVI), Component 1.2 inputs : Users can select ⇨Wide ⇨Normal ⇨Zoom 1 ⇨Zoom 2.
- Under other inputs : Users can select ⇨Wide ⇨Normal ⇨Panorama ⇨Zoom 1 ⇨Zoom 2.
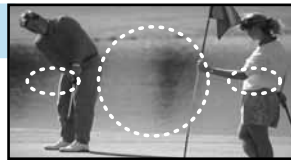
WIDE

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

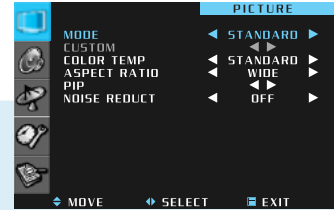Zoom in 16:9 in vertical direction

How to Watch the PIP

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

MENU

Press Menu button.
Menu items appear on the screen.

PICTURE
MODE ◄ STANDARD ►
CUSTOM ◄ ►
COLOR TEMP ◄ STANDARD ►
ASPECT RATIO ◄ WIDE ►
PIP ◄ ►
NOISE REDUCT ◄ OFF ►
↕ MOVE ◆ SELECT ▤ EXIT

1 **Press ↵ button to select [ ].**

2 **Press Up and Down buttons to move to PIP.**

PICTURE
MODE ◄ STANDARD ►
CUSTOM ◄ ►
COLOR TEMP ◄ STANDARD ►
ASPECT RATIO ◄ WIDE ►
PIP ◄ ►
NOISE REDUCT ◄ OFF ►
↕ MOVE ◆ SELECT ▤ EXIT

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 SMALL ⇨ PIP MIDDLE ⇨ PIP LARGE
⇨ DW 1 ⇨ DW 2 ⇨ OFF ⇨

PICTURE
MODE ◄ OFF ►
SOURCE ◄ ►
↕ MOVE ◆ SELECT ▤ EXIT

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

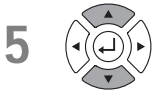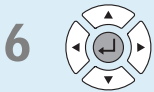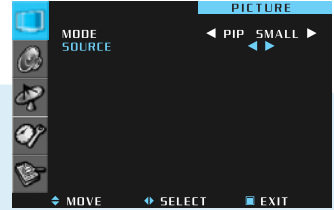<PIP 1>   <PIP 2>   <PIP 3>

<DW 1 >   <DW 2 >
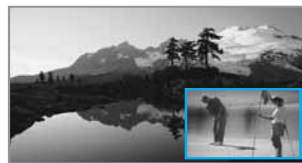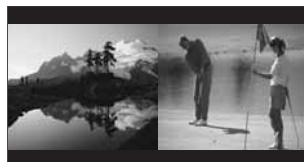
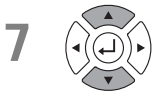# How to Set the INPUT for the Sub-Picture

This function is available only in the PIP mode.

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

```
                                         PICTURE
MODE                              ◄ PIP  SMALL ►
SOURCE                               ◄ ►

      ‡ MOVE        ◆ SELECT      ■ EXIT
```

6 Press ↵ Left and Right 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.

```
                                         PICTURE
MODE                              ◄ PIP  SMALL ►
SOURCE                               ANALOG TV
                                     VIDEO
                                     S-VIDEO
                                     COMP 1
                                     COMP 2
                                     PC
                                     DVI
      ‡ MOVE        ◆ SELECT      ■ EXIT
```
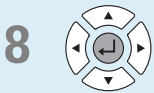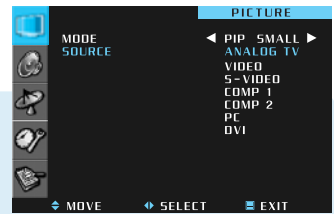
8 Press ↵ Press button to select source.

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.

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

How to Select the PIP : Press the ◯ **button.**

PIP

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

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

SIZE

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

```
VIDEO

ANALOG TV
VIDEO
S-VIDEO
COMP 1
COMP 2
PC
DVI

‡ MOVE
↵ SELECT
```

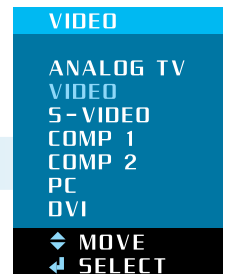**How to Select the INPUT : Press the** ◯ **button.**

SOURCE

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

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

SWAP

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 CHANNEL **button.**

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

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

⇨Bottom Right Corner ⇨Bottom Left Corner ⇨Left Top Corner ⇨Right Top Corner ⇨

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

Supported PIP Table

PIP : O → Supported, X → Not Supported

Main \ Sub	PC	HDMI(or DVI)	Component 1	Component 2	Analog TV	Video	S-Video
PC	X	X	X	X	O	O	O
HDMI(or DVI)	X	X	X	X	O	O	O
Component 1	X	X	X	X	O	O	O
Component 2	X	X	X	X	O	O	O
Analog TV	O	O	O	O	X	O	O
Video	O	O	O	O	O	X	O
S-Video	O	O	O	O	O	O	X

How to Noise Reduct

MENU

Press Menu button.
Menu items appear on the screen.

PICTURE
MODE ◀ STANDARD ▶
CUSTOM ◀ ▶
COLOR TEMP ◀ STANDARD ▶
ASPECT RATIO ◀ WIDE ▶
PIP ◀ ▶
NOISE REDUCT ◀ OFF ▶

MOVE SELECT EXIT

1 Press ↵ button to select [ ].

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

PICTURE
MODE ◀ STANDARD ▶
CUSTOM ◀ ▶
COLOR TEMP ◀ STANDARD ▶
ASPECT RATIO ◀ WIDE ▶
PIP ◀ ▶
NOISE REDUCT ◀ OFF ▶

MOVE SELECT EXIT

3 Whenever you press Left or Right button,
the mode changes in following order.
LOW HIGH Off

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.

TIP 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

Press Menu button.
Menu items appear on the screen.

```
                                    SOUND
  MODE              ◄  STANDARD  ►
  CUSTOM               ◄ ►
  AVL               ◄     OFF     ►
  MTS               ◄   STEREO    ►
  SURROUND          ◄     OFF     ►
  SUB WOOFER           ◄ ►
  SPEAKER OUT       ◄     ON      ►

  ↕ MOVE    ◆ SELECT    ▣ EXIT
```

1

Press Up and Down buttons to move to ⬡ **.**

2

Press ↵ button to select ⬡ **.**

MODE is selected.

```
                                    SOUND
  MODE              ◄  STANDARD  ►
  CUSTOM               ◄ ►
  AVL               ◄     OFF     ►
  MTS               ◄   STEREO    ►
  SURROUND          ◄     OFF     ►
  SUB WOOFER           ◄ ►
  SPEAKER OUT       ◄     ON      ►

  ↕ MOVE    ◆ SELECT    ▣ EXIT
```

3

Whenever you press Left or Right button,
the mode changes in following order.
⟿Standard ⟿News ⟿Music ⟿Sports ⟿User

SOUND

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.

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

NEWS : For enjoying clear sound.

MUSIC : For enjoying original sound.

SPORTS : For enjoying vivid sound.

USER : 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 ⟿Sports ⟿User .

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.

| SOUND |
| MODE ◀ STANDARD ▶ |
| CUSTOM ◀ ▶ |
| AVL ◀ OFF ▶ |
| MTS ◀ STEREO ▶ |
| SURROUND ◀ OFF ▶ |
| SUB WOOFER ◀ ▶ |
| SPEAKER OUT ◀ ON ▶ |
| ✦ MOVE ◆ SELECT ■ EXIT |

1 **Press Up and Down buttons to move to** [ ] .

2 Press ⏎ button to select [ ] .

Press Left and Right buttons to select "USER".

| SOUND |
| MODE ◀ USER ▶ |
| CUSTOM ◀ ▶ |
| AVL ◀ OFF ▶ |
| MTS ◀ STEREO ▶ |
| SURROUND ◀ OFF ▶ |
| SUB WOOFER ◀ ▶ |
| SPEAKER OUT ◀ ON ▶ |
| ✦ MOVE ◆ SELECT ■ EXIT |

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

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

| SOUND |
| VOLUME 21 |
| BASS 50 |
| TREBLE 50 |
| BALANCE 50 |
| ✦ MOVE ◆ SELECT ■ EXIT |
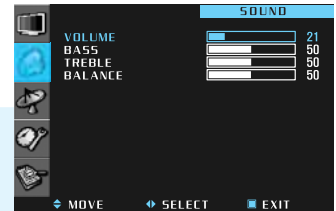
5 Move between the items listed using UP or Down button.
Adjust the level of the item selected using Left or Right button.

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.

BASS: Adjusts the range size of low sound.

TREBLE: Adjusts the range size of high sound.

BALANCE : Adjusts the balance of left and right speakers.

How to Use the Automatic Volume Control

With this Automatic Volume Level Control, everything you watch will always maintain the volume level that you decide.

MENU

Press Menu button.
Menu items appear on the screen.

1 **Press Up and Down buttons to move to** [ ].

2 **Press ⏎ button to select** [ ].

3 **Press Left and Right buttons to set to** ⌈ON/OFF⌋.

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

How to Select MTS(Multi-Channel Sound)

Depending on the particaular program being brodcast, you can select stereo, mono, or a Separate Audio Program. (SAP audio is usually a foreign-language translation. Somtimes SAP has unrelated information like news or weathter.)

MENU

Press Menu button.
Menu items appear on the screen.

```
                        SOUND
MODE              ◀ STANDARD ▶
CUSTOM                ◀ ▶
AVL               ◀    OFF    ▶
MTS               ◀  STEREO   ▶
SURROUND          ◀    OFF    ▶
SUB WOOFER            ◀ ▶
SPEAKER OUT       ◀    ON     ▶

  ⬍ MOVE    ◆ SELECT    ■ EXIT
```

1   **Press Up and Down buttons to move to   .**

2   **Press ↵ button to select   .**

```
                        SOUND
MODE              ◀ STANDARD ▶
CUSTOM                ◀ ▶
AVL               ◀    OFF    ▶
MTS               ◀  STEREO   ▶
SURROUND          ◀    OFF    ▶
SUB WOOFER            ◀ ▶
SPEAKER OUT       ◀    ON     ▶

  ⬍ MOVE    ◆ SELECT    ■ EXIT
```

3   **Press Up and Down buttons to move to "MTS".**

4   Press Left and Right buttons,
Repeatedly to select "MONO", "STEREO" or "SAP".

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.

MTS

How to Directly Select MTS : Press the   button

Repeatedly to select "MONO", "Stereo" or "SAP".

- Choose "Stereo" for channels that are broadcasting in STEREO.
- Choose "MONO" for channels that are broadcasting in MONO, or if you are having difficultly receiving a STEREO signal.
- Choose "SAP" to listen to the seperate audio program, which is usually a foreign-language translation.

TIP   If you also press the MTS button on remote control unit under other mode than TV mode, the current setting information is displayed. If you press the MTS button twice, the mode shifts ⇆MONO ⇆STEREO in order.

How to Listen to SRS TruSurround XT (Surround)

Users can enjoy spectacular 3D sound.

MENU

Press Menu button.
Menu items appear on the screen.

1 Press Up and Down buttons to move to   .

2 Press ↵ button to select   .

3 Press Up and Down buttons to move to "SURROUND".

4 Press Left and Right buttons to set to ⌐ON/OFF⌐.

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.

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

SOUND

TIP The SRS TruSurround XT function is activated only when the audio input signal is Stereo.

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How to Set the Output of Subwoofer

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

MENU

Press Menu button.
Menu items appear on the screen.
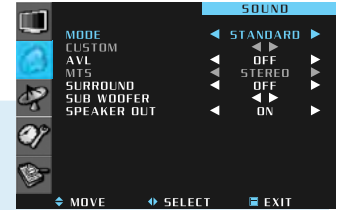
1 **Press Up and Down buttons to move to** .

2 **Press ⏎ button to select** .

3 **Press Up and Down buttons to move to "SUB WOOFER".**

4 **Press Left and Right buttons to select "SUB WOOFER".**
SUB WOOFER menu items appear.

5 Choose one of the items listed. Press Left and
Right buttons to adjust.

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.

TIP

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

47

How to Set the Speaker Out

If you wish to use an external audio system, you can turn off the TV speakers.

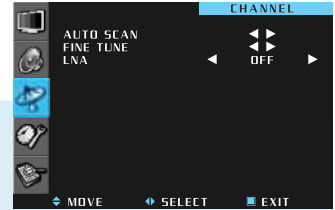**MENU**

Press Menu button.
Menu items appear on the screen.

1 **Press Up and Down buttons to move to** .

2 **Press ⏎ button to select** .

3 **Press Up and Down buttons to move to** 「SPEAKER OUTPUT」.

4 **Press Left and Right buttons to select** 「ON/OFF」.

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

How to Store Channels Automatically

- **Your TV can memorize and store all of the available analog broadcast signals for both "off-air" (antenna) and cable channels.**
- **Before your television can begin memorizing the available channels, make sure to specify the type of the signal source (antenna or cable) connected to your TV.**

MENU

Press Menu button.
Menu items appear on the screen.

1 **Press Up and Down buttons to move to** ⬛ .

2 **Press ⏎ button to select** ⬛ .

AUTO SCAN is highlighted.

3 **Press ⏎ button to select "AUTO SCAN".**
AUTO SCAN menu items appear.

4 **Press up and down buttons to move to air only or cable only.**

- AIR ONLY : Watching the analog over-the-air
  over-the-air signals via ANT1 input port.
- CABLE ONLY : Watching the Cable signals via ANT1 input port.

5 **Press Left and Right buttons to set up** *CABLE BAND.*
CABLE BAND NOTE : STD (Standard), HRC (HRC band), IRC (IRC band)
(For further band information, contact your cable service provider.)

**6** **Press ⏎ button.**
AUTO SCAN is activated.

TIP

- In the middle of AUTO SCAN, if you press ⏎ button once, analog AUTO SCAN is interrupted. Press the Menu button to exit. Then the original channel is returned.
- If you have changed the connection of an antenna or cable, perform AUTO SCAN again.

SOUND

How to Add/Erase Channels Manually

Users can add or erase the desired channels.

1 CHANNEL | Press ▲\▼channel buttons or the number buttons on remote control to view all channels that will be added or erased.

2 ADD/ERASE | Add or erase channels by pressing the ADD/ERASE button.

3 | Press Left and Right buttons to set 「ADD/ERASE」.

4 | Press Up and Down buttons to move to 「YES/NO」.

5 | Press ↵ button to set.

◄ ADD ►
  YES
  NO

MOVE
SELECT

How to Set Favorite Channels

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

- How to store the channel you are currently watching as a favorite channel

BOOK-MARK

Press "BOOK-MARK" button.
Then the channel will be stored while Favorite Channel
Selected is displayed on the screen.

FAVORITE SET

- How to access the stored favorite channel

FAVORITE

Press FAVORITE button.
You can access the favorite channel by pressing
this button repeatedly.

- How to deselect a favorite channel

BOOK-MARK

Display the channel to be deleted on the screen and
then press the BOOK-MARK button twice.
The stored channel is deleted while 「Favorite Channel 」
Deselected is displayed on the screen.

NORMAL SET

TIP

The Favorite function is available only with remote control.

How to Fine Tune Channel Reception

If the reception is clear, you do not have to fine tune channels, as this is done automatically during the search and store operation. If the signal is weak or distorted, you may have to fine tune the channel manually.

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

1 **Press Up and Down buttons to move to ___ .**

2 **Press ↵ button to select ___ .**

3 **Press Up and Down buttons to move to "FINE TUNE".**

4 **Press ↵ button to select "FINE TUNE".**
FINE TUNE menu items appear.

5 **Press Left and Right buttons to adjust the screen.**
The displayed channel digit is the channel
that is currently viewed.

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.

CHANNEL

TIP   The selected OSD for fine tuned channels is highlighted in orange.

How to the LNA (Low-Noise-Amplifier) Feature

If the reception is clear, you don't have to use this feature.
If the signal is weak or distorted, perform the following steps.
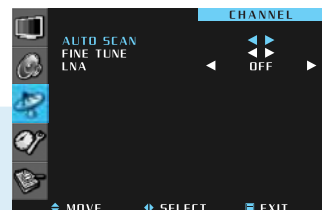
MENU

Press Menu button.
Menu items appear on the screen.

1

Press Up and Down buttons to move to   .

2

Press ↲ button to select   .

3

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

4

Press Left and Right buttons to set to ⌐ON/OFF⌐.

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.

CHANNEL

How to Choose Your Language

Users can select their language preference in order to display main menus and sub menus, etc.

MENU

Press Menu button.
Menu items appear on the screen.

1

Press Up and Down buttons to move to [icon].

2

Press ↵ button to select [icon].

LANGUAGE is highlighted.

3

Whenever you press Left or Right button,
the mode shifts in following order.
ENGLISH FRANÇAIS ESPAÑOL

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.

SETUP

54

How to Set Clock, On/Off Time, Sleep Time

- You can automatically turn on or off the TV at a preset time. To do this, you must set the clock if you wish to use the automatic on or off timers.
- No Signal Timeout allows you to automatically turn off the TV if there is no broadcast signal for a certain period of time.

MENU

Press Menu button.
Menu items appear on the screen.

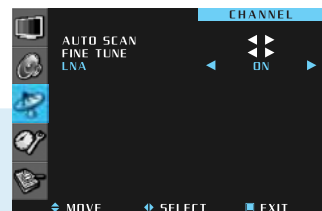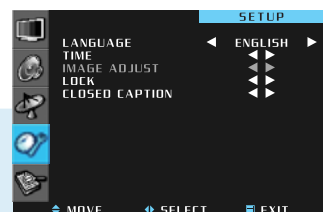**1** Press Up and Down buttons to move to 🕐.

2 Press ⏎ button to select 🕐.

3 Press Up and Down buttons to move to "TIME".

4 Press ⏎ button to select "TIME".
The CLOCK items appear.
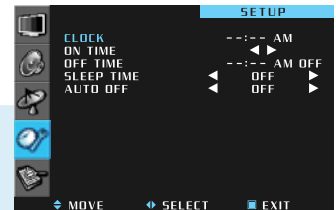
- To set the Current Time :

5 Press Left and Right buttons to move between Hour,
Minute and AM/PM and Press Up and Down buttons to
set Hour, Minute and AM/PM.
After the setting is done, you can set WAKE UP and OFF TIMER.

- To set the WAKE UP :

6 Press Left button to exit the item and
press down arrow button to move to WAKE UP.

7 Press ⏎ button to select and press Left/Right and
Up/Down buttons to move between items or set each item.
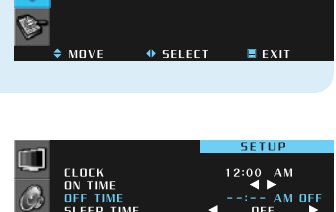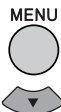
MENU

- To set the OFF TIME :

8 Press Menu button to exit and
press the down arrow button to move to OFF TIME.

9 Pres Left and Right buttons to move to the items and
Press Up and Down buttons to set each item *(See step 5)*

SETUP

55

Continued from previous page..... **(Set the SLEEP TIMER and NO SIGNAL TIMEOUT)**

10

- To set SLEEP TIMER :
**Press Left button to exit and press the down
arrow button to move to "SLEEP TIME".**

```
                                    SETUP
[icons]  CLOCK              12:00  AM
         ON TIME            ◄ ►
         OFF TIME           12:00  PM OFF
         SLEEP TIME       ◄     ON      ►
         AUTO OFF         ◄     OFF     ►

         ◆ MOVE    ◆ SELECT    ▣ EXIT
```

11

Whenever the Left or Right button,
the mode shifts in following order.
↪30 ↪60 ↪90 ↪120 ↪240 ↪OFF

12

- To set NO SIGNAL TIMEOUT :
Press Up and Down button to move to "AUTO OFF".

```
                                    SETUP
[icons]  CLOCK              12:00  AM
         ON TIME            ◄ ►
         OFF TIME           12:00  PM OFF
         SLEEP TIME       ◄     ON
         AUTO OFF         ◄     ON      ►

         ◆ MOVE    ◆ SELECT    ▣ EXIT
```

13

Press Left and Right button to select ⌈ON/OFF⌋.

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.

SLEEP

How to Directly Set the SLEEP TIMER : Press ( ) button.

Whenever this button, the mode shifts ↪ 30 ↪ 60 ↪ 90 ↪ 120 ↪ 240 ↪ OFF ↪ in order.

How to Set the Geometry in PC Mode

This function is only available in PC mode.

MENU

Press Menu button.
Menu items appear on the screen.

1 **Press Up and Down buttons to move to** [ ].

2 **Press ↵ button to select** [ ].

3 **Press Up and Down buttons to move to "IMAGE ADJUST".**

4 **Press ↵ button to select "IMAGE ADJUST".**
Then the IMAGE ADJUST items appear.

5 **Press Up and Down buttons to move to items you want.**
Press Left and Right buttons to adjust.

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.

H. POSITION : To adjust the horizontal position of the picture.

V. POSITION : To adjust the vertical position of the picture.

FREQUENCY : To eliminate the picture noise.

PHASE : To eliminate the shake of picture.

How to Directly Adjust the Picture : Press the (**PC AUTO**) **button.**

The picture will be automatically optimized for viewing.

TIP   If the display input signal (resolution) has been changed, the picture will be automatically optimized.

SETUP

How to Set Key Lock

This function is used to prevent from using the control buttons on the front top of the TV or from connecting external devices to the TV. You make sure to set a PIN number to use this function.

MENU

Press Menu button.
Menu items appear on the screen.

```
                                    SETUP
LANGUAGE            ◄   ENGLISH   ►
TIME                              ◄ ►
IMAGE ADJUST                      ◄ ►
LOCK                              ◄ ►
CLOSED CAPTION                    ◄ ►

   ↕ MOVE        ◆ SELECT      ■ EXIT
```

1 Press Up and Down buttons to move to [icon].

2 Press ↵ button to select [icon].

```
                                    SETUP
LANGUAGE            ◄   ENGLISH   ►
TIME                              ◄ ►
IMAGE ADJUST                      ◄ ►
LOCK                              ◄ ►
CLOSED CAPTION                    ◄ ►

   ↕ MOVE        ◆ SELECT      ■ EXIT
```
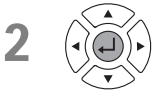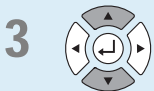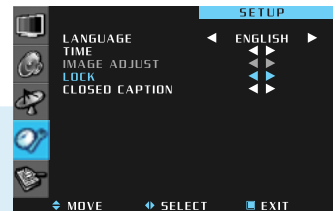
3 Press Up and Down buttons to move to "LOCK".

4 Press ↵ button to select "LOCK".
Then the Enter PIN number window appears.
The default is 4 digits (0-0-0-0).

```
                                    SETUP
ENTER PIN      :  -  -  -  -

   ↕ MOVE        ◆ SELECT      ■ EXIT
```
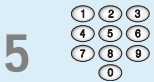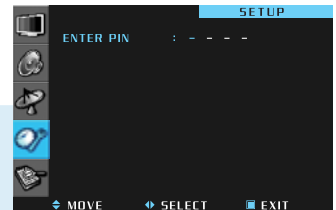
5 Press the numeric keys to enter your PIN number.
The LOCK items appear.
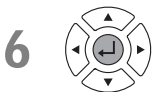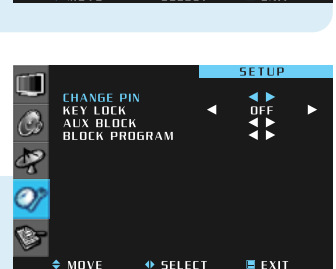
6 Press ↵ button to select "CHANGE PIN".
Then the Enter PIN number window appears.

```
                                    SETUP
CHANGE PIN                        ◄ ►
KEY LOCK           ◄      OFF     ►
AUX BLOCK                         ◄ ►
BLOCK PROGRAM                     ◄ ►

   ↕ MOVE        ◆ SELECT      ■ EXIT
```
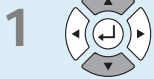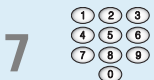
7 Enter a 4-digit PIN number.
When the Confirm PIN number window appears,
enter the PIN number again.

8 *- To set Key Lock :*
Press Up and Down buttons to move to "KEY LOCK".

```
                                    SETUP
CHANGE PIN                        ◄ ►
KEY LOCK           ◄      ON      ►
AUX BLOCK                         ◄ ►
BLOCK PROGRAM                     ◄ ►

   ↕ MOVE        ◆ SELECT      ■ EXIT
```
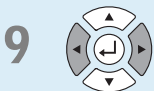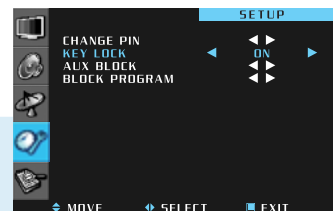
9 Press Left and Right buttons to set to ⌈ON/OFF⌋.
When setting to ON, the control buttons on the
front top of the TV will be engaged.

SETUP

58

Continued from previous page..... **(Set the Lock External Signal function.)**

10   *- To set Aux Block :*
Press Up and Down buttons to move to
"AUX BLOCK".

```
                                    SETUP
CHANGE PIN                          ◄ ►
KEY LOCK            ◄    OFF    ►
AUX BLOCK                           ◄ ►
BLOCK PROGRAM                       ◄ ►




  ⬍ MOVE      ◈ SELECT      ▣ EXIT
```
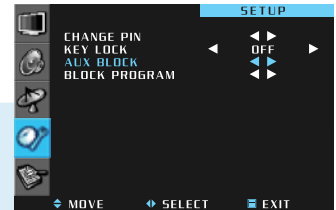
11   **Press ⏎ button to select "AUX BLOCK".**
Then the AUX BLOCK items appear.

12   **Press Up and Down buttons to move to the item you want.**
Press Left and Right buttons to set to ⌐ON/OFF ⌐.
If the item is set to ON, such item is disabled.

```
                                    SETUP
VIDEO/S-VIDEO       ◄    OFF    ►
COMPONENT 1/2       ◄    OFF    ►
RGB/DVI             ◄    OFF    ►




  ⬍ MOVE      ◈ SELECT      ▣ EXIT
```

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.

SETUP

TIP   - The Lock External SIGNAL function is designed to prevent a VCR or game player from being connected to the TV.
- If you forgot your PIN number, press the MENU + MTS + SLEEP + INFO buttons on the remote control in
  sequence to restore the default number, 0-0-0-0.
- The Key Lock function will be disengaged when you turn off and then on AC power or when a power failure
  happens.

Using the Pixel Shift / Full White - For A421S, A421H Model only

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.)

MENU

Press Menu button.
Menu items appear on the screen.

SETUP

LANGUAGE ◄ ENGLISH ►
TIME ◄ ►
IMAGE ADJUST ◄ ►
LOCK ◄ ►
CLOSED CAPTION ◄ ►
PIXEL SHIFT ◄ ON ►
FULL WHITE ◄ OFF ►

1
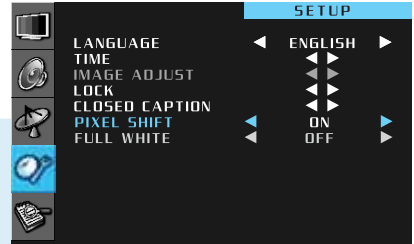
Press ⏎ button to select "Function" Icon.
"PIP/TWIN" is highlighted.

2

Press ▲ / ▼ buttons to move to "PIXEL SHIFT or FULL WHITE".

3

Press ◄ / ► buttons to set to ⌜ON/OFF⌟.

EXIT

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

SETUP

How To Set Block Program

This(V-Chip) is used to block program viewing based on the ratings sent by the broadcasting station.
The default setting is to allow all programs to be viewed. Viewing can be blocked by the type of program and by the categories chosen to be blocked.

V-Chip rating and categories
Rating guidelines are provided by broadcasting stations. Most television programs and television movies can be blocked by TV Rating and/or Individual Categories. Movies that have been shown at the theaters or direct-to-video movies use the Movie Rating System (MPAA) only.

Ratings for Movies previously shown in theaters :

Movie Ratings :	- Blocking Off	(Permits all programs)
	- G	(General audience)
	- PG	(Parental guidance suggested)
	- PG-13	(Parents strongly cautioned)
	- R	(Restricted)
	- NC-17	(No one 17 and under admitted)
	- X	(Adult only)

If you set PG-13 : G and PG movies will be available , PG-13, R, NC-17 and X will be blocked.

Ratings for Television programs including made-for-TV movies :
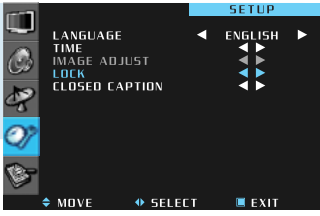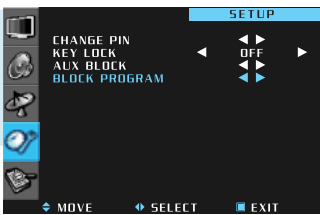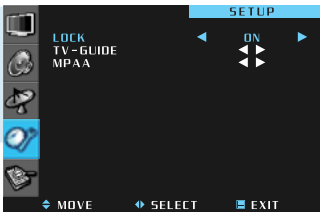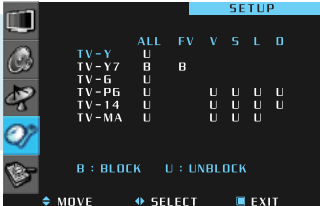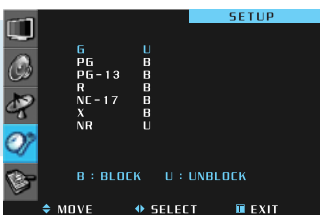
- TV-G	(General audience)
- TV-PG	(Parental guidance suggested)
- TV-14	(Parents strongly cautioned)
- TV-MA	(Mature audience only)
- TV-Y	(All children)
- TV-Y7	(Children 7 years older)

TV Rating Children :	- Age	(applies to TV-Y, TV-Y7)
	- Fantasy Violence	(applies to TV-Y7)

TV Rating General :	- Age	(applies to TV-G, TV-PG, TV-14, TV-MA)
	- Dialogue-sexual dialogue	(applies to TV-PG, TV-14)
	- U Language-adult language	(applies to TV-PG, TV-14, TV-MA)
	- Sex-sexual situations	(applies to TV-PG, TV-14, TV-MA)
	- Violence	(applies to TV-PG, TV-14, TV-MA)

SETUP

...... Continued from previous page.

1 MENU

Press Menu button.
Menu items appear on the screen.

```
                              SETUP
  LANGUAGE          ◄    ENGLISH    ►
  TIME                     ◄ ►
  IMAGE ADJUST             ◄ ►
  LOCK                     ◄ ►
  CLOSED CAPTION           ◄ ►

  ⇕ MOVE      ◆ SELECT      ■ EXIT
```

2

Press Up and Down buttons to move to [icon] **icon**
and press ⏎ buttons to select.
The message "Enter PIN" will appear.

3

Enter your 4-digit PIN number.
The new screen will appear.

```
                              SETUP
  CHANGE PIN                ◄ ►
  KEY LOCK          ◄       OFF      ►
  AUX BLOCK                 ◄ ►
  BLOCK PROGRAM             ◄ ►




  ⇕ MOVE      ◆ SELECT      ■ EXIT
```

4

Press Up and Down buttons to move to
"BLOCK PROGRAM" and press ⏎ buttons to select.
The new screen will appear.

5

Press Left and Right buttons to "ON".

```
                              SETUP
  LOCK              ◄       ON       ►
  TV-GUIDE                 ◄ ►
  MPAA                     ◄ ►




  ⇕ MOVE      ◆ SELECT      ■ EXIT
```

6

Press Up and Down buttons to move to
"TV-Guide" or "MAPP".

7

Press ⏎ button to select
"TV-Guide" or "MAPP"
The new screen will appear.

```
                              SETUP
                ALL  FV  V  S  L  O
     TV-Y        U
     TV-Y7       B      B
     TV-G        U
     TV-PG       U          U  U  U  U
     TV-14       U          U  U  U  U
     TV-MA       U          U  U  U

     B : BLOCK    U : UNBLOCK

  ⇕ MOVE      ◆ SELECT      ■ EXIT
```
TV-guide menu screen

8

Press Up and Down or Left and Right buttons to
choose items.

9

Press Up and Down buttons to select
"U" or "B"
(U=Unblock, B=Block)

```
                              SETUP
     G          U
     PG         B
     PG-13      B
     R          B
     NC-17      B
     X          B
     NR         U

     B : BLOCK    U : UNBLOCK

  ⇕ MOVE      ◆ SELECT      ■ EXIT
```
MAPP menu screen

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.

SETUP

How to View Closed Captions

Choices in the closed caption menu are : CC Mode.

1. CC MODE :

ON : Captioning information is always shown, when available.

OFF : No captioning information is displayed.

On mute : Captioning information is only when the TV's sound is mute, when available.
(To mute the sound, press the mute button on the remote control and captioning information will appear on the screen, if available)

TIP If you turned off the speakers in the Audio menu, closed captioning won't appear when you press the mute button on the remote.

2 ANALOG (CAPTION) : You can select a closed caption mode, which is the mode, or source, used for displaying captioning information for analog channels if available.

> **• CAPTION :**
> The form for the words that scroll across the bottom of the TV screen : usually the audio portion of the program provided for the hearing impaired.
>
> **CC 1** : For video related information that can be displayed. Script can be in any language.
> **CC 2/3/4** : Other modes used for video related information.
>
> **• TEXT :**
> The term for the words that appear in a large black frame and almost cover the entire screen :
> Usually message provided by the broad caster.
>
> **T 1** : Blanks out a large portion of the picture on the television screen, and display program guide or any other information currently being transmitted.
> **T 2/3/4** : other modes that display information and blank out a large portion of the picture of the TV screen.

MENU	**Press Menu button.** Menu items appear on the screen.	SETUP menu screen
1	**Press Up and Down buttons to move to** 🔧 **icon** **and press** ↵ **buttons to select.**	
2	**Press Up and Down buttons to move to** **"CLOSED CAPTION" and press** ↵ **buttons to select.** Closed Caption menu appear.	SETUP menu screen
3	CC MODE is highlighted. **Press Left and Right buttons to select "ON" or ON MUTE".** Sub menu items are activated.	
4	**Press Up and Down buttons move between the items** **Press Left and Right buttons to select the item.**	

Glossary 1

Component video Component video is sent through three cables: two color shade (chrominance) signals and one brightness (luminance) signal. Component video achieves greater color accuracy than composite video or S-VIDEO by splitting chrominance into two separate portions.

Composite video Composite video is sent through a single cable. Composite video combines the color shade (chrominance) and brightness (luminance) information into one video signal.

S-VIDEO S-VIDEO requires a single cable, which carries the brightness (luminance) and color (chrominance) signals of the picture separately. S-VIDEO provides better resolution than composite video, which carries the signals together.

480i Provides 480 lines of resolution. Displays images using interlaced scanning, which first transmits all the odd lines on the TV screen and then the even lines.

480p Provides 480 lines of resolution. Displays images using progressive scanning, which transmits each line from top to bottom.

720p Provides 720 lines of resolution. Displays images using progressive scanning, which transmits each line from top to bottom.

1080i Provides 1080 lines of resolution. Displays images using interlaced scanning, which first transmits all the odd lines on the TV screen and then the even lines. 1080i is one of the formats used by HDTV (High Definition TV).

Cable Broadcast Receiver (Converter) A device that receives cable broadcasting. Connecting it to your TV set allows you to watch a various channels.

Satellite Broadcasting Provides crisp picture and clear audio quality throughout the country via a satellite.

VHF/UHF VHF (Very High Frequency) is the part of the frequency spectrum from 30 to 300 megahertz. UHF (Ultra High Frequency) is the part of the frequency spectrum from 300 to 3,000 megahertz.

DVD DVD (Digital Versatile Disc) is an optical disc that can store a huge volume of multimedia such as video, game, and audio application, etc.

APPENDIX

Glossary 2

LNA (Low-Noise-Amplifier)   Satellite applied technology. It is capable of amplifying weak signals so that any area experiencing a signal interruption may enjoy a clearer picture quality.

Aspect ratio   Refers to the ratio between the width and height of the screen. This TV has a 16:9 (widescreen) aspect ratio, as opposed to a 4:3 aspect ratio.

PIP (Simultaneous Screen)   PIP allows you to view two images at the same time in a single screen.

SWAP   PIP function provides a main picture (larger image) and sub-picture (smaller image). The SWAP is designed to swap the sub-picture for the main picture. For example, while you are watching a main picture on TV and watching a sub-picture on VCR, you can instantly switch the two pictures by using the SWAP function.

Picture Mode   Picture Mode features the optimal picture quality. There are Standard-Dynamic-Movie-Mild- Custom features in order. "CUSTOM" allows you to adjust Contrast, Brightness, Sharpness, Color and Tint.

Sound Mode   Sound Mode features the optimal sound quality. There are Standard-News-Music-Sports- Custom features in order. "CUSTOM" allows you to adjust high frequency sound, middle frequency sound and low frequency sound.

Analog Broadcasting   ATSC-based Video and Audio signals transmitted by broadcasting companies.

SRS TruSurround TX   A well-recognized 3D sound technology developed by US SRS Labs, Inc.
This technology delivers the ultimate audio experience only with two speakers as if through multi-channel speakers.

Subwoofer   Designed to improve ultra low frequency with about 150Hz. There are active type that is built with a built-in amplifier and passive type that is required to connect an additional amplifier to it.

Mono   Audio signals are produced through a single channel. It is difficult to experience a spectacular sound since audio signals are reproduced with a single speaker.

Stereo   Audio signals are produced through two channels. A spectacular sound is reproduced with two separated speakers.

Widescreen   Term given to picture displays with a wider aspect ratio than NTSC 4:3. Digital HDTV is 16:9 widescreen. Most motion pictures also have a widescreen aspect ratio, some even wider than 16:9.

Panorama screen   Refers to a screen whose distortion due to the screen size has been calibrated.

Glossary 3

External source Refers source signals that come from other external devices such as a VCR, camcorder and DVD player, etc. than a TV set.

MTS A bilingual service provided when an overseas film, foreign drama or overseas news, etc. is aired. You can select one of two choices: mother tongue and foreign language. Or you can listen to both languages at the same time.

DVI Digital Visual Interface is a specification for digital signals. This interface using TMDS transmission reduces the loss of signal, allowing to enjoy a clear and crisp image.

HDMI HDMI (High-Definition Multimedia Interface) is the first and only industry-supported, uncompressed, all-digital audio/video interface.
HDMI provides an interface between any audio/video source, such as a set-top box, DVD player, or A/V receiver and an audio and/or video monitor, such as a digital television (DTV), over a single cable.

Troubleshooting

Installation Problems

Symptom	Possible solution
How can I install an antenna?	Refer to pages 23.
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 power cord is properly connected. Try to plug another product's power cord to the outlet the PDP is plugged into.
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 power is on. However, if the picture does not appear more than 5 minutes after power is on, call a service center.
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 the area where experiences poor reception or is located far away from a TV broadcasting station.
No sound while viewing a cable channel	Make sure an audio or audio/video component is 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 43) 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 TV. Make sure your TV is Power On. (In case of normal, LED on the front panel is in Red.) Check whether batteries are inserted with proper polarities(+, -). When the batteries are worn out, replace with new ones.
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 noise during or after watching is caused by the change of ambient environment such as humidity and temperature, which is characterized by plastic products. Strange ticking noise occurs because a signal is suddenly transmitted to the PDP panel. So, this 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 supported hardware. Try upgrading the video card's driver.

APPENDIX

Care and Cleaning

Cabinet Cleaning

Wipe a soft dry cloth.

Do not use inflammables like Benzene or Thinner, or wet clothes.
Do not scratch the panel of LCD or PDP with a fingernail or pointed object.
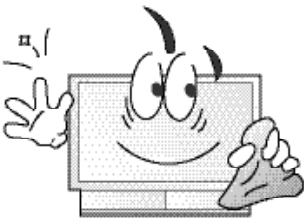
Screen Cleaning

Clean the screen with a soft cloth moistened in mild glass detergent and dry with a soft cloth.

Never use any solvent on the screen such as Acetone, Benzene, or Thinner, etc.

Cleaning Inside

When the inside needs to be cleaned, contact a service center or distribution agent where the item is purchased.

It is recommended cleaning is complete before the rainy season.

Product Specifications

Model		A261	A321	A421S/A421H
Input	S-Video	1EA (A/V audio common)	1EA (A/V audio common)	1EA (A/V audio common)
	Video (RCA)	1EA (Audio included)	1EA (Audio included)	1EA (Audio included)
	Component(Y/Cb/Cr)	2EA (Audio included)	2EA (Audio included)	2EA (Audio included)
	Antenna	1EA (ANT)	1EA (ANT)	1EA (ANT)
	PC Connection jack	D-SUB	D-SUB	D-SUB
	Max. resolution	1024 X 768 @ 85 Hz	1024 X 768 @ 85 Hz	1024 X 768 @ 85 Hz
	Audio	L/R	L/R	L/R
	HDMI-HDCP(or DVI-HDCP)	1EA	1EA	1EA
Output	Subwoofer	1EA	1EA	1EA
	Video	1EA (Audio included)	1EA (Audio included)	1EA (Audio included)
TV/Video	Color system	NTSC M	NTSC M	NTSC M
	Sound system	FM	FM	FM
	Video system	Component, S-Video, Composite, PC, HDMI(or DVI)	Component, S-Video, Composite, PC, HDMI(or DVI)	Component, S-Video, Composite, PC, HDMI(or DVI)
Power	Supply	AC 100 - 240 V, 50/60 Hz	AC 100 - 240 V, 50/60 Hz	AC 100 - 240 V, 50/60 Hz
	Consumption power	Typical 120W	Typical 150W	Typical 380W
	Stand-by power	Typical 2W	Typical 2W	Typical 3.5W
Dimension (W x D x H mm - Stand included)		640 x 230 x 485	772 x 230 x 563	1030 x 279 x 716
Weigh (Stand included)		17.5 Kg	19.3 Kg	32.0 Kg
Control type		Remote control, Key control	Remote control, Key control	Remote control, Key control

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

APPENDIX