

Color Plasma Television

Model Name

P42H01AU

P50H01AU



This is the image of the model P42H01AU. Desktop stand shown above is optional.



READ THE INSTRUCTIONS INSIDE CAREFULLY.
KEEP THIS USER MANUAL FOR FUTURE REFERENCE
For future reference, record the serial number of your television.
SERIAL NO. _____

This serial number is located on the rear of the television.

USER MANUAL

Thank you for purchasing the Hitachi Plasma Television.
Please read this user manual carefully before operating this product.

To ensure proper operation, please read and follow ALL the instructions, especially the "IMPORTANT SAFETY INSTRUCTIONS" and "SAFETY PRECAUTIONS".
Please keep this user manual for future reference.

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IMPORTANT SAFETY INSTRUCTIONS

- Read this instruction thoroughly.
- Retain this instruction for future reference.
- Heed all warnings and cautions to prevent possible danger.
- Follow all instructions. Improper handling could cause personal injury and/or serious damage to the unit that may shorten its service time.
- Do not block any ventilation openings.
- Install the product in accordance with the manufacturer's instructions.
- Before calling for the technical support or service technician, read "TROUBLESHOOTING" (50 ~ 52) to determine the symptoms when problems occur during installation or operation of the product.
- If serious problems happen (such as smoke or an abnormal odor from the unit), unplug the power cord, and then, contact your local dealer immediately.

INTRODUCTION

Thank you for purchasing the Hitachi Plasma Television. We hope that you will enjoy the great performance of this product.

This Plasma television has been designed to meet the international standards. However, it could cause personal injuries and property damage if improperly handled. In order to prevent potential danger and obtain maximum benefit from your set, please observe the following instructions when installing, operating, and cleaning the product. Keep this manual for future reference, and record the serial number of your set in the space provided on the front cover page of this manual.

About This Manual

- The information in this manual is subject to change without notice.
- This manual has been created with extra care. In case that you have any comments or questions regarding this manual, please contact your local dealer or our Customer Service Center.
- Before operating this set, please fully understand the prerequisite such as specifications or constraints of the hardware and software. We are not responsible and have no liability for any loss, damage or injury as a result of misuse.
- Reproduction, copying, use, modification, and/or transmission in whole or in part of this manual are prohibited without any prior written permission.
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- DVB is a registered trademark of the DVB Project.
- Manufactured under license from Dolby Laboratories.
"Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

Even if no special notation has been made of company or product trademarks, these trademarks have been fully respected.

About Software

You may not alter, decompile, disassemble, decrypt, or otherwise reverse-engineer the software installed in this product, which are prohibited by law.

Features



- Large-screen and high-definition plasma display.
- Enjoy high resolution display.
- Improved digital signal processor.
- High quality sound with deeper, richer and dynamic bass tones.
- Accept more digital input devices with 2 HDMI terminals.
- Great diversity of connecting terminals to cover wide range of audio-visual equipment.
- Enjoy the image from PC with large, high-definition plasma screen.
- Optical audio out installed.
- Easy-to-use On-Screen Display system operating with remote control.
- Low power consumption with power saving feature.




SAFETY PRECAUTIONS






For your safety, please read the following precautions carefully before using this product. Improper use would cause serious personal injuries and/or damage to your property or this product.

About the Symbols

The following are the symbols used in this manual and affixed on the unit itself. Please fully understand the meanings of the symbols before reading the instructions in this section.

 WARNING	Never ignore the instruction. There are risks of serious injuries or possible death to the user.
 CAUTION	Do not ignore the instruction. There are possibilities of personal injuries and/or property damage.

Other Symbols	
	The triangle with illustration is intended to alert the users that there are possibilities of fire, explosion, or high temperatures if the product is handled improperly. Each illustration within the triangle specifies the contents in detail. (The figure on the left is an example.)
	The circle with diagonal line and illustration indicates a prohibited action (the symbol to the left indicates that disassembly is prohibited).
	This symbol indicates a compulsory action. The contents will be clearly indicated in an illustration or nearby (the symbol to the left indicates that the power plug should be disconnected from the power outlet).

 WARNING	
There is a risk of fire, electric shock, or serious injury.	
<p>■ Unplug the power cord immediately when serious problems occur.</p> <p>Serious problems such as</p> <ul style="list-style-type: none"> • Smoke, abnormal odor or noise comes out from the product. • No picture, no sound or distorted picture on the display. • Foreign objects (such as water, metals etc.) get inside the unit. <p>Do not continue using the product under these abnormal conditions. Unplug the power cord, and contact your dealer immediately.</p> <p>For your safety, never try to repair the product by yourself.</p>	 Disconnect the plug from the power outlet.
<p>■ Do not insert liquids or any foreign objects (such as metals or flammable items) inside the unit.</p> <ul style="list-style-type: none"> • In case it happens, unplug the power cord, and contact your dealer immediately. • Use special caution when younger children are around the unit. 	
<p>■ Do not remove cover, or modify the product.</p> <ul style="list-style-type: none"> • High-voltage components are installed inside of the unit. Removing covers can expose you to high voltage, electrical shock, and other dangerous conditions. • Contact your local dealer to perform servicing such as inspection, adjustment, or repair work. 	  Do not disassemble

SAFETY PRECAUTIONS (continued)

WARNING

There is a risk of fire, electric shock, or serious injury.

■ **Install the unit at a proper area where it does not expose anyone to any danger.**

- If you hit against the edge of the unit, you may be injured.



■ **Do not place any objects on top of the unit.**

Objects such as

- Liquid containers (vase, fish tank, flowerpot, cosmetics or liquid medicine).
- If water or any liquid spill onto the unit, it may cause short-circuit and result in fire or electrical shock.
In case that it happens, unplug the power cord, and contact your dealer immediately.
- Do not place anything heavy on top of the unit.
- Do not climb on or hang from the unit.
- Do not let your pets get on top of the unit



■ **Do not install the unit in an unsuitable place.**

- It could cause a malfunction or in extreme cases danger of electric shock. Places where high moisture is likely such as bathrooms or shower rooms, close to windows, or outside where rain, snow or other inclement conditions could occur should be avoided. Please also avoid installing the unit in a position where fumes from a Hot Spring could come into contact with it.



■ **Unplug this unit during lightning storm.**

- To reduce the risk of electrical shock, do not touch the product when starts lightning.



Disconnect the plug from the power outlet.

■ **Do not do anything that may damage the power cord.**

- Do not damage, modify, twist, forcibly bend, heat, or pull excessively the power cord.
- Do not place heavy objects (including the unit itself) on top of the power cord.
- If the power cord is damaged, contact your dealer for repairs or exchange.



■ **Use only with designated power supply voltage.**

- To prevent the risk of fire and electrical shock, operate this product only with the power supply voltage indicated on the unit.



■ **Beware not to drop or have any impact on the unit.**

- Take extra care while moving the unit.
- The plasma display panel is made of glass. In case that it breaks, you may be injured by the broken pieces.
- In case that you drop the unit or the cabinet is damaged, unplug the power cord and contact your local dealer immediately.
- Continuing use of the product with above conditions may cause fire or electrical shock.



■ **Clean dust or metals on or around the blade of the power plug regularly.**

- Continuing use of the product with above condition may cause fire or electrical shock.
- Always unplug the power cord first, and clean the blades with a dry cloth.



■ **Do not place the unit on an unstable surface.**















Unstable places such as

- Tilted surface or shaky rack, table, stand or trolley.
- If the unit falls down, it could cause personal injury.



SAFETY PRECAUTIONS (continued)

CAUTION

<p>■ Do not place or use the unit at a dusty place.</p> <ul style="list-style-type: none"> It could cause malfunction by clogging dust into the motor fan, and so on. 	
<p>■ Do not cover or block any ventilation holes on the product.</p> <p>The unit would overheat, and it could cause fire or damage the product which may shorten its service life.</p> <ul style="list-style-type: none"> Install the product in accordance with the instructions in this manual. Do not place the unit with ventilation side down. Do not install the unit on the carpet or bedclothes. Do not cover the unit with table cloth etc. 	
<p>■ Be sure to ground the earth cable correctly.</p> <ul style="list-style-type: none"> Especially when you use power cord adapter, be sure to connect the earth cable to the ground terminal. Incorrect connection would cause fire or electrical shock. For your safety, always make sure to unplug the power cord before connect or disconnect the earth cable . 	 Supply connect the ground wire.
<p>■ Follow the Anti-tumble measures in this manual.</p> <ul style="list-style-type: none"> If the unit tumbles over, there is a risk of personal injury and possible death. Also, it would damage the product seriously. 	
<p>■ Do not install the unit near the medical devices.</p> <ul style="list-style-type: none"> To prevent malfunction of the medical devices, do not use this product and medical devices in the same room. 	
<p>■ Do not place a CRT-based television near the speakers of the plasma television.</p> <ul style="list-style-type: none"> It could cause the partial discoloration or blurring of the image on the CRT-based television. Please install it away from the speakers of the unit. 	
<p>■ Disconnect all of the external connection cables and detach the anti-tumble measures before moving the unit.</p> <ul style="list-style-type: none"> It may cause fire, electrical shock, or personal injuries. 	
<p>■ Connect the power plug securely.</p> <ul style="list-style-type: none"> Improper connection will cause overheating and may result in fire. Do not touch the blades of the plug while connecting it to the wall socket. It could cause electrical shock. If the plug is not fitted for the wall socket, contact your dealer for replacement. 	 
<p>■ Do not handle the power cord with wet hands.</p> <ul style="list-style-type: none"> It could result in electrical shock. 	
<p>■ Do not pull the cord when you unplug the power cord.</p> <ul style="list-style-type: none"> It may damage the cord and could result in fire or electrical shock. Hold the plug when disconnecting it. 	
<p>■ Unplug the power cord when you do not intend to use the product for long periods of time.</p>	
<p>■ Handle the batteries properly.</p> <ul style="list-style-type: none"> Improper or incorrect use of the batteries may cause corrosion or battery leakage, which could cause fire, personal injury or damage to the property. Use only the types of the batteries which are indicated in this manual. Do not install new batteries with used ones. Install the batteries correctly by following the polarity (+ and -) indications on the battery compartment. Do not dispose of the used batteries as domestic waste. Dispose of them in accordance with the local regulations. 	
<p>■ Adjust the headphone volume properly.</p> <ul style="list-style-type: none"> Excessive sound pressure from headphones might cause hearing loss. 	

SAFETY PRECAUTIONS (continued)

PRECAUTIONS

■ Do not install the unit at areas where it will be subjected to high temperatures.

It could damage the cabinet or parts of the product.

- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.
- Keep the unit out of direct sunlight. It could increase the temperature of the unit and cause malfunction.



■ Motor Fan

- The TV has motor fan to lower its temperature, and the fan may produce noise during its operation. This is not a malfunction.

■ Viewing Advice

- The lighting of the environment in which the product is used should be appropriate. Too bright / dark environments are not good for your eyes.
- Take time to relax your eyes occasionally.
- When you use this product, view from a distance equal to 3 to 7 times the height of the screen. This is the best viewing distance in order to protect your eyes against eyestrain.
- Adjust the volume to an appropriate level, especially during the night.

■ When transporting this product

- When the product needs to be transported due to moving or repair, use the carton box and buffer material that came with this product.
- Do not transport this product on its side. It could damage the panel glass or degrade the phosphors of the panel.



■ Keep radios away from the unit while in use.

This unit is designed to meet the international EMI standards due to prevent radio interference. However, the unit may generate noise in the radio.

- If the noise is heard on the radio, please try the following actions.
 - Adjust the direction of the radio antenna in order not to receive the interference from the unit.
 - Keep the radio away from the unit.
 - Use coaxial cable for the antenna.



■ About infrared communication devices

- The infrared communication devices such as cordless microphones or cordless headphones may not operate properly around the unit. It is because of communication failure. Please note that this is not malfunction.

■ When you dispose of this product at the end of its life, follow the regulations in your residential area.

- For more information, contact the local authority or the dealer where you purchased the product.

Cleaning and Maintenance

Please make sure to unplug the power cord before cleaning the unit.

■ How to clean the plasma screen panel of the unit.

- The panel surface is specially-coated to reduce the reflection and cut infrared radiation; thus, wipe the panel with a lint-free and dry cloth in order to prevent damage to the coating.
- Do not use a chemical cloth or cleaner. Depending on the ingredients, it may cause discoloration and damage on the coating.
- Do not wipe with a hard cloth or rub hard. It may hurt the coating.
- In case of the greasy dirt such as fingerprint, wipe with a lint-free cloth moistened by a diluted neutral detergent solution, and then wipe with a soft and dry cloth.
- Do not use a spray cleaner. It could remove the coating or cause malfunction by entering inside of the unit.

■ How to clean the cabinet of the unit.

- The following may cause crack, deformation, and paint peeling.
 - Do not wipe the cabinet with benzene, thinner, and other chemical products.
 - Do not spray volatile solutions such as insecticide over the cabinet.
 - Do not leave the cabinet in prolonged contact with plastic or rubber materials.
- Do not use a chemical cloth, cleaner or wax. Depending on the ingredients, it may cause crack and deformation.
- Use a lint-free cloth (e.g. cloth for cleaning glasses) to clean the cabinet and control panel of the unit. In case of the heavy dirt, wipe with a soft cloth moistened by a diluted neutral detergent solution, and then wipe with a soft and dry cloth.
- Never use the following detergents. It could cause crack, discoloration, and scratch.
 - Acid/ alkaline detergent, alcoholic detergent, abrasive cleaner, powder soap, OA cleaner, car wax, glass cleaner, etc.

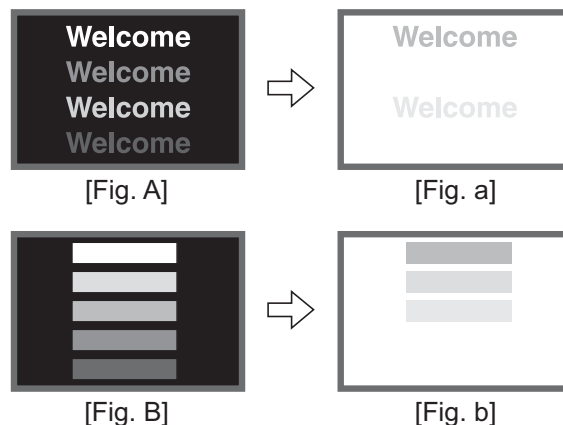
ABOUT PLASMA DISPLAY PANEL

Image Retention of Plasma Display

The plasma display has one of characteristics that results in panel image retention depending on how the plasma display is used. The following are the common reasons for and effective preventive measures against the image retention.

Characteristics of Image Retention

- Image retention is caused by partial degrading the phosphor due to the partial display of character and figure.
 - For example, when the characters as shown in Fig. A are displayed continuously for a long period of time, only the phosphors (Red/Green/Blue) displaying the characters are degraded. Consequently, when displaying an all white image on the entire screen as shown in Fig. a, the marks remaining by the characters will show color differences; therefore, note that it is not burnt remains of the phosphors.
- The degree of image retention is proportional to the Brightness and Display Time for the characters and/or figures.
 - The brighter the characters and figure, the more phosphor is degraded. As shown in Fig. B, in case of displaying images that have different brightness each for a long time, Fig. b shows that the brighter the image, the more it tends to remain.



* The illustrations are images to explain image retention. The actual manners on the image retention vary depending on such conditions as operation time and brightness.

Method to Reduce Image Retention

- Use the menu "Screen Saver" and "Screen Wipe" function which are available from "Function" Menu.

- Press button.
- Select "Function" menu and press button.
- Select the preferred menu and press button.

Function	
Screen Saver	Off
Screen Wipe	On 60Min.
Black Side Panel	Off
Video Power Save	Off
Freeze Mode	Split
Default Zoom	Panoramic 2
Eco Mode	On
Picture Size	1
Panel Mode	1
Reset	Reset
◆ Select	◀ Set Return

Selected Items		Setup hint
Screen Saver	Off	This helps to reduce image retention by shifting the whole picture (in small amounts) around the screen at set intervals. You can select the interval between each shift.
	5Min.	
	10Min.	
	20Min.	
	40Min.	
	60Min.	
Screen Wipe	On	This displays the white pattern to reduce the image retention. Select "On" or "60Min." to conduct this function as needed. • On : Continuous Operation • 60Min. : Limited Operation for 60 minutes. After 60 minutes, TV goes to standby mode.
	60Min.	

- Use in combination with moving images.
Since the entire screen has relatively even degradation of the phosphor in moving images, it can reduce the partial image retention. We recommend to use together with such moving images as DVD.
 - Some television broadcasts contain images of which cut the left/right or top/bottom, and in which broadcast station identity or a clock is displayed for a long time at the same position. Please be aware that it may cause image retention.

ABOUT PLASMA DISPLAY PANEL (Continued)

Other Common Characteristics of Plasma Display Panels

The following are the common characteristics of Plasma Display Panels due to structural reasons. Please note that they are not malfunctions.

- **Residual image**

When a still image or menu is displayed on the screen for a short time (about a minute) and then switches to another image, it may leave an “after-image” on the screen.

The residual image will disappear on its own.

- **Surface on Panel**

The plasma panel displays images by generating discharges internally. This could raise the temperature of the display surface. In addition, do not allow any forceful impact to the surface of panel because plasma panel is fine-processing glass even though the panel strengthens by the front filter made of tempered glass.

- **Defective Pixels on Panel**

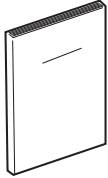
The plasma display panel is manufactured with high-precision technology. However, there might be some pixels that do not light, are brighter than the others, or in different colors, etc.

QUICK START GUIDE

For more information on connecting and using your TV, please be sure to read all instructions in this user manual.

1 Supplied Accessories (including option)

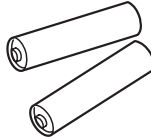
User Manual



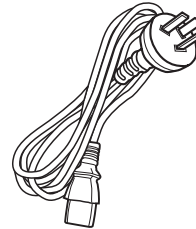
Remote Control



AA Size Battery
X2



Power Cord

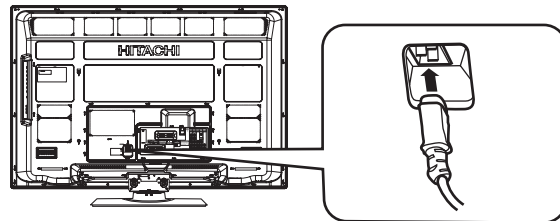


Option:
Desktop Stand
(50" model : TS01G50S)
(42" model : TS01G42S)

*See the user manual of desktop stand about the installation.

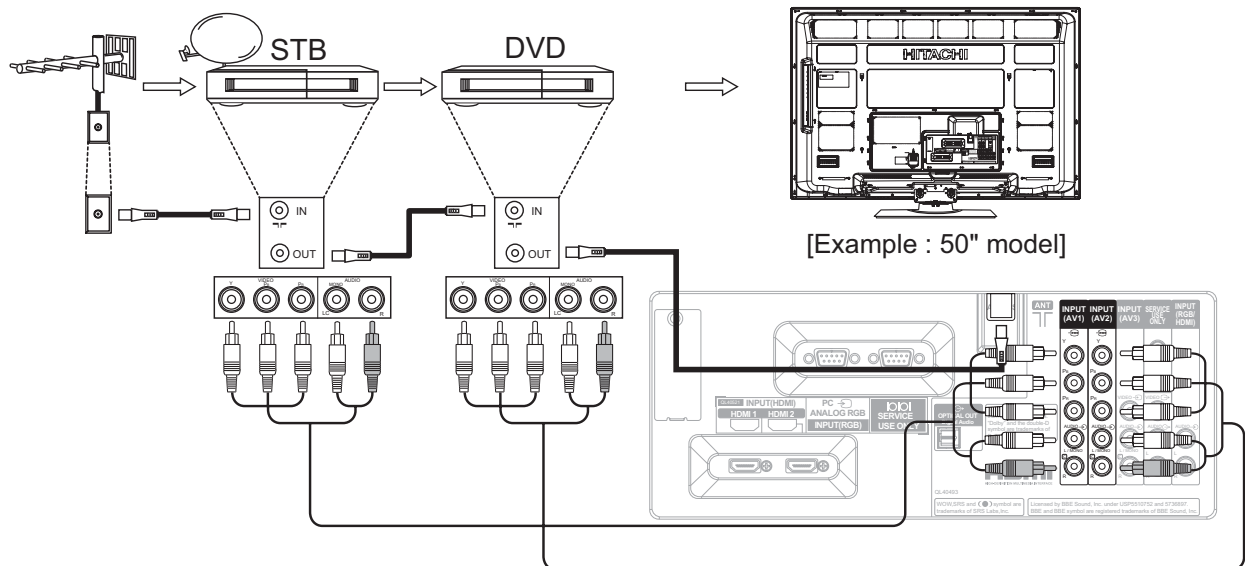
2 Connection 15~19

① Connect the power cord to the rear panel.



[Example : 50" model]

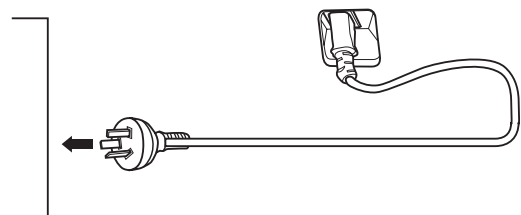
② Connect to the aerial lead and external equipment.
Example: Connecting aerial lead through DVD/STB.



③ Connect to the plug into the wall socket after all other connections are completed.

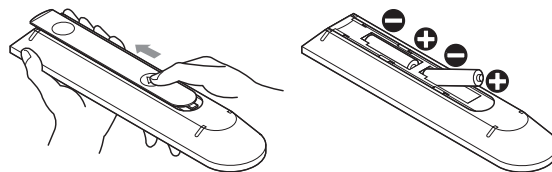
CAUTION

- Ensure that both ends of power cord are easily accessible.



QUICK START GUIDE (Continued)

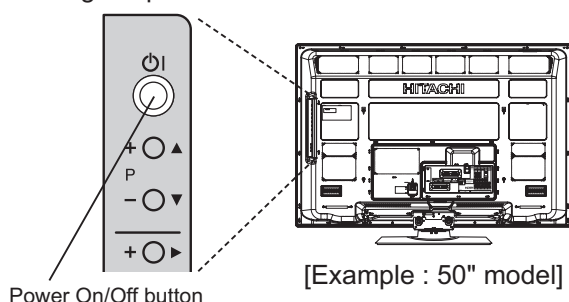
3 Insert the batteries into the remote control... 13



4 Switch On... 20

Press either **Power On/Off** button on the unit or **Power On/Off** button on the remote control.

- The color of the indicating lamp turns from Red to Green.





Power On/Off button



5 Auto Tuning... 25 and 38



DTT

When you turn ON the TV for the first time, a message shows up to lead to the DTT channel installation.

- ① The message “**Database is Empty Press MENU for installation**” appears.
- ② Press  button to access DTT main menu.
- ③ Select “**Installation**” from DTT main menu and press  button.
- ④ The password box will appear as “********”, and enter “0000” as your initial password.
- ⑤ Select one of the scanning method from “**Manual scan**”, “**Quick scan**”, or “**Auto scan**”.

TV

Then, go on with TV channel installation.

- ① Press  button to access TV main menu.
- ② Select “**Setup**” from TV main menu.
- ③ Select “**Auto Tuning**” from “**Setup**” menu and press  button.
- ④ Select “**Search**” to tune the local channels automatically.

Database is Empty
Press MENU for Installation

TV Setup Password ****
 Edit channels
 Parental guidance
 Installation
 General settings
 System

Press 0-9 to change.

<DTT Main Menu>

Picture
 Audio
 Function
 Setup
 Select OK Set

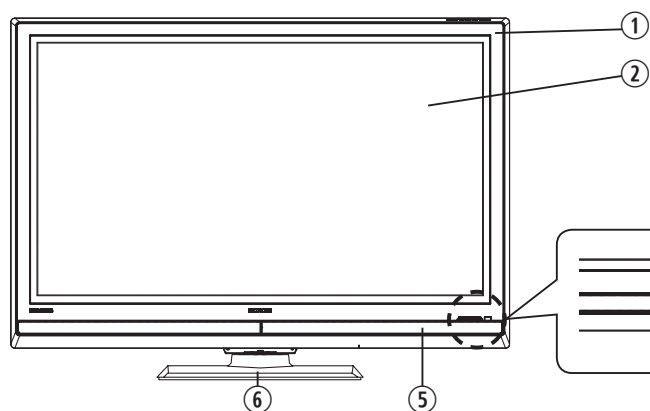
<TV Main Menu>

Setup
 Auto Tuning
 Manual Tuning
 Fine Tuning
 Sort
 Teletext Language
 Auto Off Off
 Select OK Set Return

COMPONENT NAMES

Main Unit

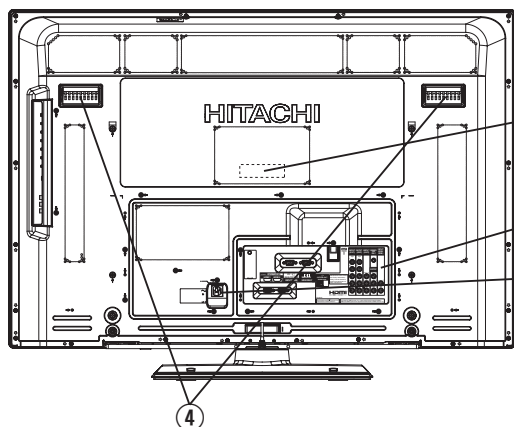
Front Panel



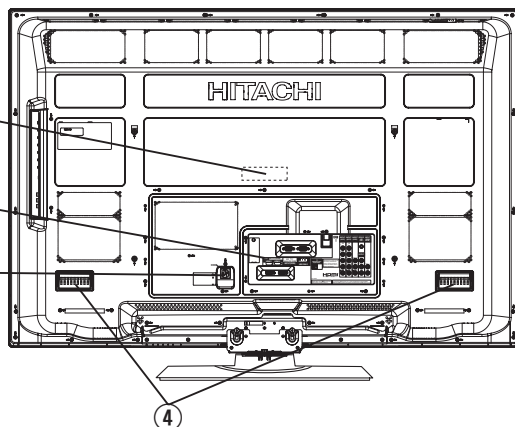
- ① Cabinet
- ② Panel
- ③ Remote Control Receiver
- ④ Indicating Lamp
- ⑤ Speaker
- ⑥ Desktop Stand (option)

Rear Panel

42" model

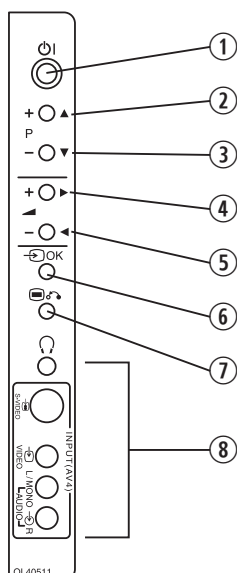


50" model



- ① Terminal Board (External Device Connection)
- ② Power Cord Socket
- ③ Motor Fan
- ④ Handgrips

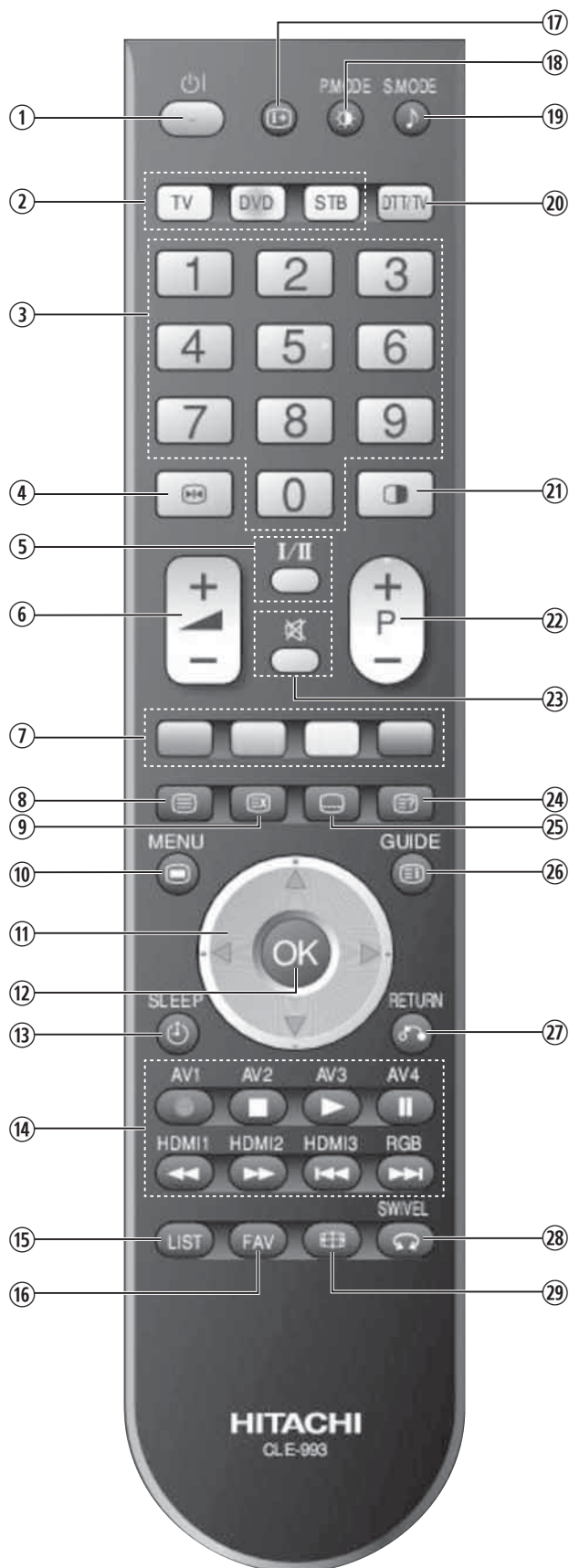
Control Panel (including Side Input)



- ① Power On/Off button
- ② Channel Up/▲ button
- ③ Channel Down/▼ button
- ④ Volume Up/► button
- ⑤ Volume Down/◄ button
- ⑥ Input Select/OK button
- ⑦ Menu/Return button
- ⑧ Side Input (AV4)/Headphone Output

COMPONENT NAMES (Continued)

Remote Control



- ① **Power On/Off**
Press this button to switch TV On or Off standby.
- ② **Device Select (TV/DVD/STB)**
Press these buttons to select the device (TV, DVD or STB) to be controlled by this remote control. The selected button will light up to display the selected mode.
Normally, select "TV".
- ③ **Program Select [Page Select]**
Press these buttons to select a TV program directly. For 2 or 3 digits channel selection, press button in advance. Refer to [26](#) for details.
- ④ **Freeze [Hold]**
Press this button to change the picture to freeze mode. Press it again to return to normal picture. (Also, it holds the page in teletext mode.)
- ⑤ **CH/II**
This is exclusively for TV audio A2/NICAM mode. Also, press this button to select Audio Language in DTT mode.
- ⑥ **Volume Up/Down**
- ⑦ **[Color]**
- ⑧ **TV/Text [TV ↔ Text]**
This switches between the TV mode and the Teletext mode.
- ⑨ **Time [Cancel]**
Press this button to display the time when receiving an analog TV program. The time is not displayed if the signal received does not have any time information.
- ⑩ **Menu [Contrast]**
- ⑪ **Cursor**
- ⑫ **OK**
- ⑬ **Off Timer**
This automatically sets the power to standby mode when the selected time period has elapsed. (0→30→60→90→120min.)
- ⑭ **Input Select/DVD Control**
Press these buttons to change input mode. In addition, you can use these buttons while operating the selected brand of DVD player. HDMI3 input is not available.
- ⑮ **Program List**
It displays program list in DTT mode.
- ⑯ **Favorite List**
It displays favorite list in DTT mode.
- ⑰ **Recall**
Press this button to show the input signal status.
- ⑱ **Picture Mode**
Picture mode can be changed each time pressed in the following sequence. Dynamic→Natural→Cinema
- ⑲ **Sound Mode**
Sound mode can be changed each time pressed in the following sequence. Movie→Music→Speech→Favorite
- ⑳ **DTT/TV**
This switches between the TV mode and DTT mode.
- ㉑ **Not Available**
- ㉒ **Channel Up/Down [Page Select]**
- ㉓ **Mute**
- ㉔ **[Reveal]**
- ㉕ **[Subtitle]**
- ㉖ **Guide [Index]**
It displays EPG screen in DTT mode.
- ㉗ **Return**
You can use this to return to the previous menu.
- ㉘ **Not Available**
- ㉙ **Zoom [Text ↔ TV+Text]**
Press this button to change picture size.

NOTE

- Some buttons are only for Teletext mode, and other buttons have different functions in Teletext mode from the use of TV mode. Those buttons are indicated by []. Refer to "Analog Teletext" on [34](#) and [35](#).

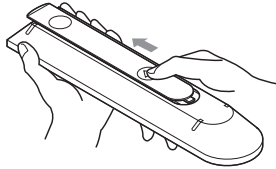
PREPARATION

Remote Control Batteries Installation

This remote control operates on 2 “AA” batteries.

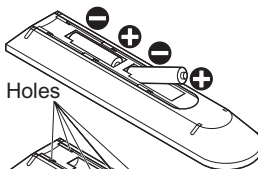
1. Open the battery compartment cover

- Slide open the battery compartment cover on the backside in the direction of an arrow, and remove the cover.



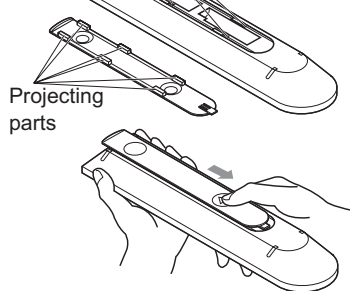
2. Install the batteries

- Install 2 “AA” batteries (included) making sure the polarities match the indication inside the compartment.



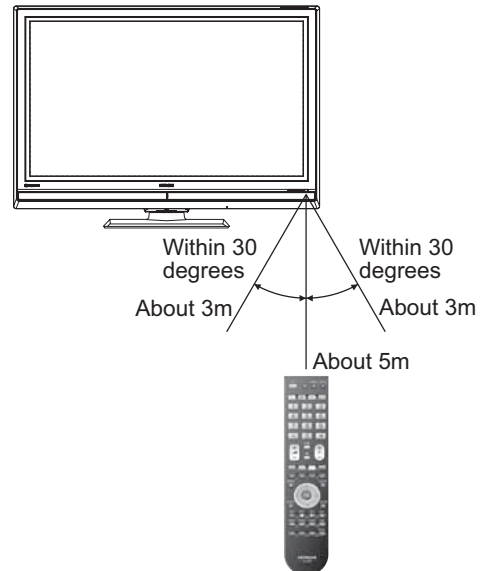
3. Close the battery compartment cover

- Make sure of the positions to fit the projecting parts in the holes, and slide the compartment cover in the direction of an arrow till it clicks shut.



Handling the Remote Control

Use the remote control within about 5m from front of the unit's remote-control sensor and within 30 degrees on both sides.



CAUTION

It could cause corrosion or battery leakage and may result in physical injury and/or property damage including fire.

- Never mix used and new batteries in the device.
- Replace all the batteries in a device at the same time.
- Remove the batteries if the remote control is not going to be used for an extended period of time.

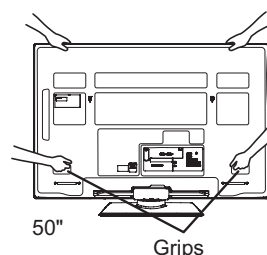
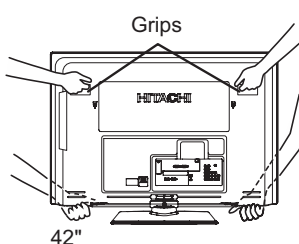
To avoid possible failure, read the following instructions and handle the remote control properly.

- Do not drop or cause impact to the remote control.
- Do not spill water or any liquid on the remote control.
- Do not place the remote control on a wet object.
- Do not place the remote control under the direct sunlight or near sources of excessive heat.

Caution When Moving the Main Unit

As this product is heavy, whenever it is moved, two people are required to transport it safely.

Whenever the unit is moved, it should be lifted forwards using the two handgrips at the back, and the unit should then be held at the top or bottom on both sides for stability.



PREPARATION (continued)

Safety Precaution on Main Unit Installation

Read SAFETY PRECAUTIONS (3 to 6) carefully besides this page.

*When installing the unit, use the optional Desktop Stand (TS01G50S for 50" model/TS01G42S for 42" model). Please refer to the user manual of the stand.

The Desktop Stand (Option) has been used for the illustration in this manual.

When installing the main unit, be sure to use the specified mount units in order to obtain maximum performance and maintain the safety.

We assume no responsibility or liability for personal injuries or property damages caused by use of other mount units or improper installation.

As for the installation instruction, please read each user manual of the mount units: for Desktop Setup, Wall Mounting, and Ceiling Mounting.

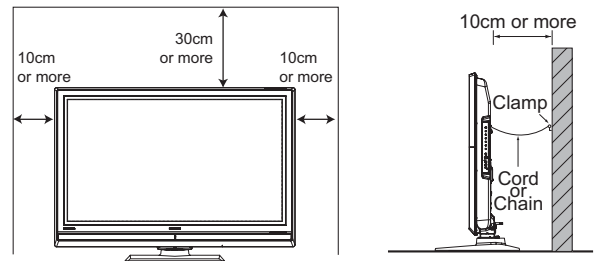
In case of using Wall or Ceiling Mounting unit, by contacting your local dealer, ask the specified installation specialist to set up. Never attempt to install it by yourself. It could cause injuries or damages.

Please leave adequate space around this unit in order to avoid increasing the internal temperature.

Make sure not to block any ventilation holes.

Do not install the unit in the small space such as inside the rack, closet or the box.

Leave more than 10cm of clearance from each side of unit and behind rear unit and 30cm from the top of unit to wall.

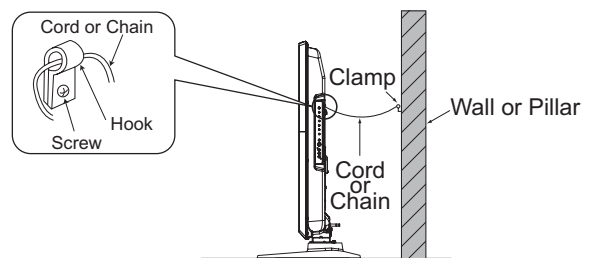


Anti-Tumble Measures

Install in a stable place and implement safety measure against overturning.

Securing to a wall or pillar

Using a commercially available cord, chain, and clamp, secure the set to a wall or pillar.



Securing to ceiling

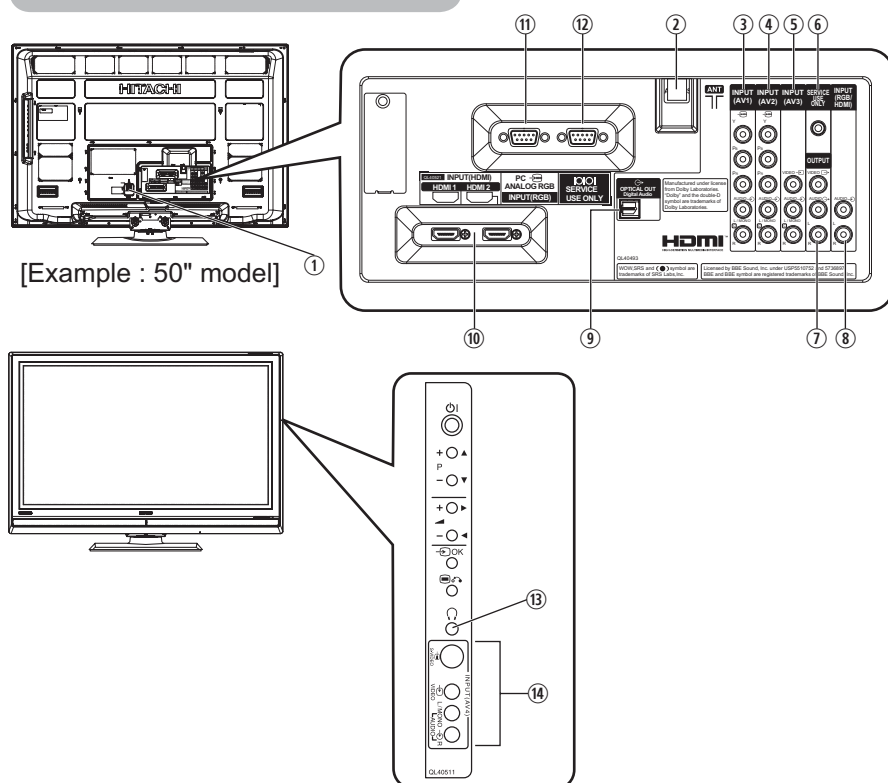
Using a commercially available cord, chain, and clamp, secure the set to a ceiling.

NOTE

- For more information regarding the mounting of the unit, please contact your dealer.
- Please install the unit at a proper area where it does not expose anyone to the danger of hitting themselves (for example their hands, head or face, etc) against the edge of the unit and cause personal injury.

CONNECTION

Terminal Positions



Rear

- ① Power Cord Socket
- ② Aerial Socket
- ③ AV1
- ④ AV2
- ⑤ AV3
- ⑥ Service Use only
- ⑦ Monitor Out
- ⑧ PC(RGB) /HDMI Analog Audio Input
- ⑨ Optical Out (Digital Audio)
- ⑩ HDMI1 and HDMI2
- ⑪ PC Connection Terminal (D-sub 15 Pin)
- ⑫ Service Use only

Side

- ⑬ Headphone Output
- ⑭ AV4

Connecting Procedure

This unit is ready for various kinds of connections. Make a connection in the following steps. Be sure to unplug the power cord from the wall socket first, when connecting external equipment.

1. Connect power cord to the rear panel.
2. Connect aerial lead.
3. Connect your external equipment (if any) to the unit.
4. Connect the power plug to the wall socket.

1. Connecting Power Cord to the Rear Panel

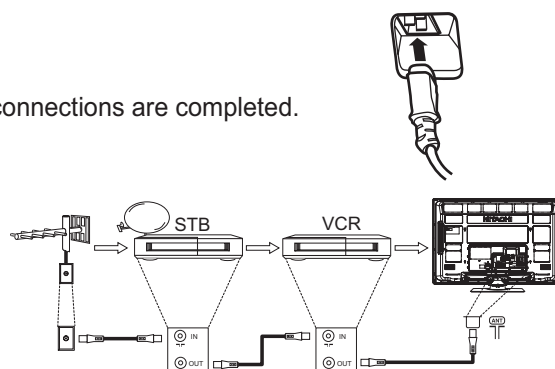
Connect power cord to the unit.

*Make sure not to connect the power plug to the wall socket until all connections are completed.

2. Connecting Aerial Lead

There are two ways to connect aerial lead.

- ① **When you do not have any other external equipment:**
Connect the aerial lead directly into the socket at rear panel.
- ② **When you have one or more external devices to connect:**
 1. Use RF cable to connect between each equipment and aerial.
 2. Connect the Aerial Lead to an equipment 'In' socket marked.
 3. Connect the RF cable from the equipment 'Out' to the other equipment 'In.'
 4. Then, connect from the equipment 'Out' to "ANT" on the plasma screen socket.



[Example: Connecting Aerial through STB and VCR]

Precautions when connecting the aerial

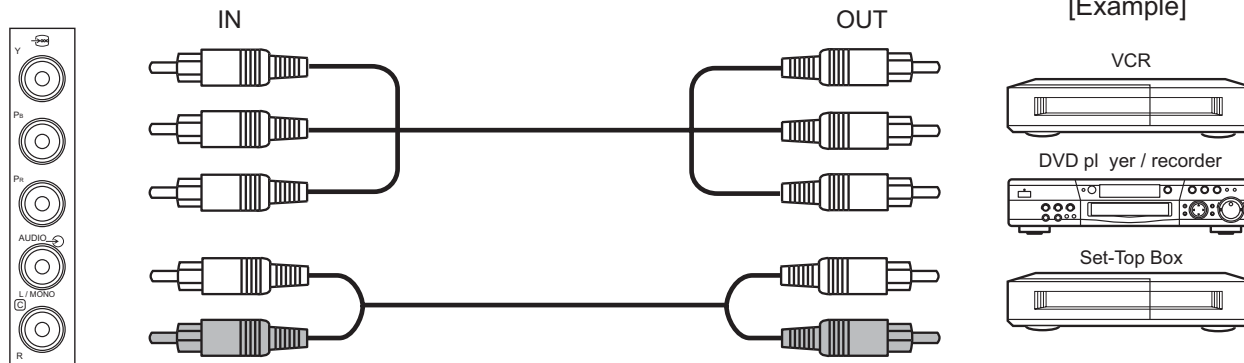
- Please use a coaxial cable which is free from interference to connect the aerial. Avoid using a parallel flat feeder wire as interference may occur, causing reception to be unstable and stripe noise to appear on the screen.
- Avoid using indoor aerial as this may be affected by interference. Please use CATV net or outdoor aerial.
- For safety, install an external aerial conforming to AS1417.1.
- If noise appears in the picture of VHF-Low band channel, please use a double-shielded cable (not provided) for RF LEADS to reduce the noise.

CONNECTION (continued)

Connecting Procedure (continued)

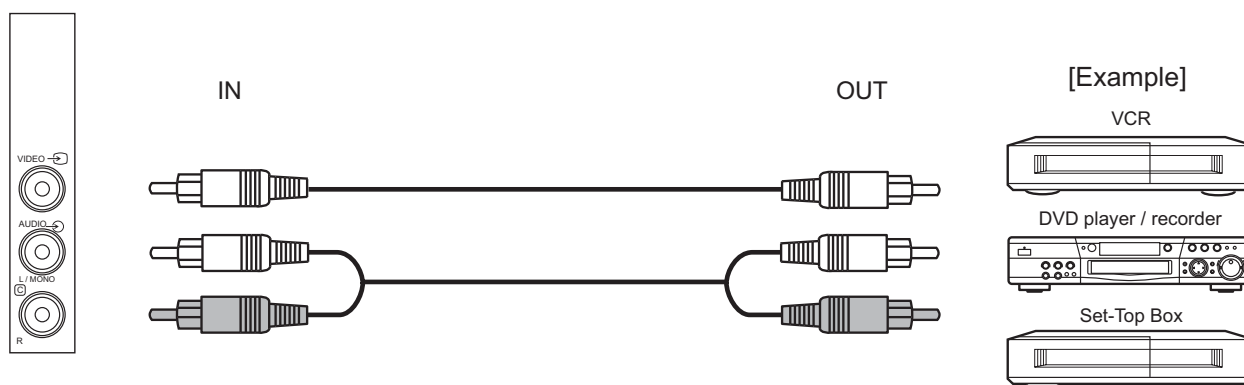
3. Connecting to External Equipment

AV1 and AV2 can be connected to the equipment with Component output.



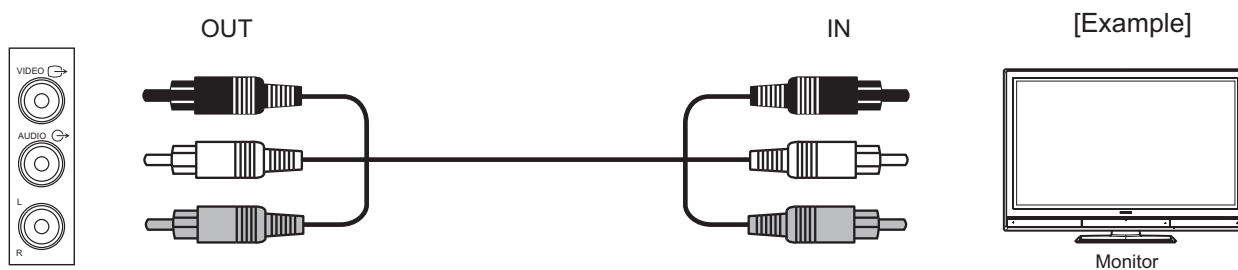
💡 If your external device has a Component terminal, COMPONENT connection is recommended for higher quality picture.

AV3 can be connected to the equipment with Composite output.



Monitor Out can be used to display same image as main unit on another monitor.

When this output terminal is connected to an external monitor with a 75 Ohm terminal, the same image from composite(AV3,4), S-Video(AV4), or RF (including DTT) signal can be displayed to the external monitor.



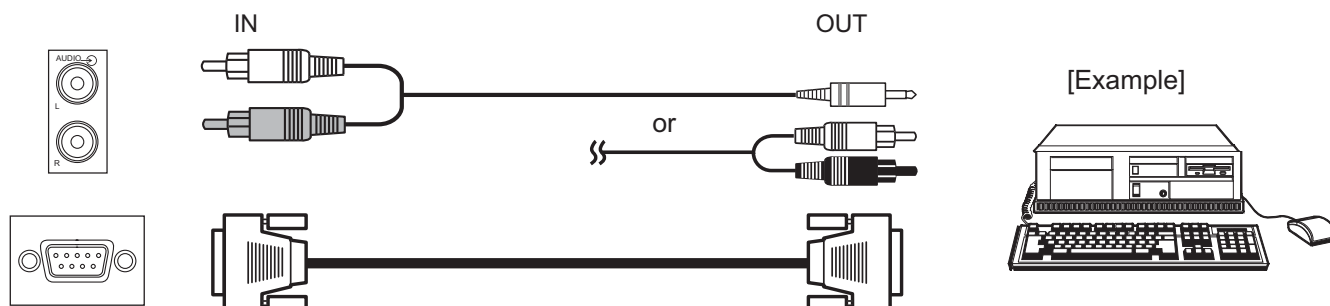
NOTE

- Video output is not available from component, RGB, or HDMI input.

CONNECTION (continued)

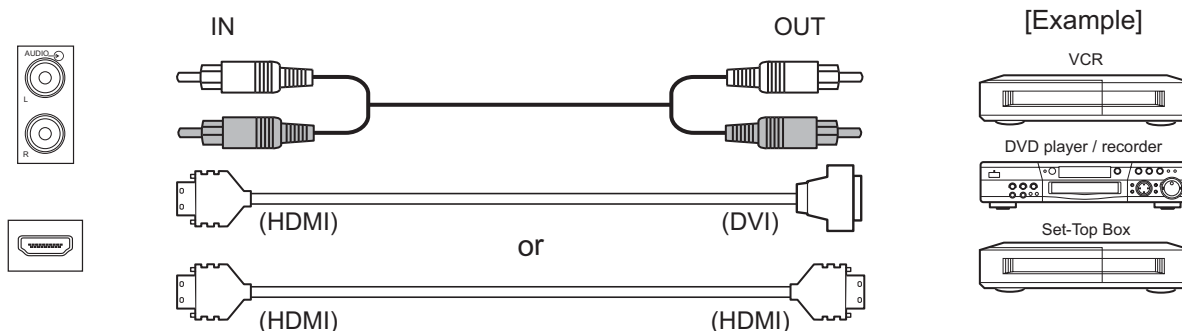
Connecting Procedure (continued)

PC connection terminal (D-sub 15 pin) + PC (RGB)/HDMI Analog Audio Input terminal are connected to PC, which allows Analog RGB signal.



HDMI 1~2 terminals can be connected to the devices with HDMI output.

If the external device has DVI output, this can be available with HDMI-DVI cable. In case of using the HDMI-DVI cable, connect analog audio signal to PC (RGB)/HDMI Analog Audio Input terminal.



Information

HDMI (High Definition Multimedia Interface) is next-generation multimedia I/O interface. Only one cable is used to transmit all video/audio/control signals, which creates easy connection.

Moreover, those digital signals can produce high quality data without any degradation.

You are provided with two HDMI terminals, one of the most remarkable features.

ⓘ If your external device has a HDMI terminal, HDMI connection is recommended for higher quality picture and sound.

NOTE

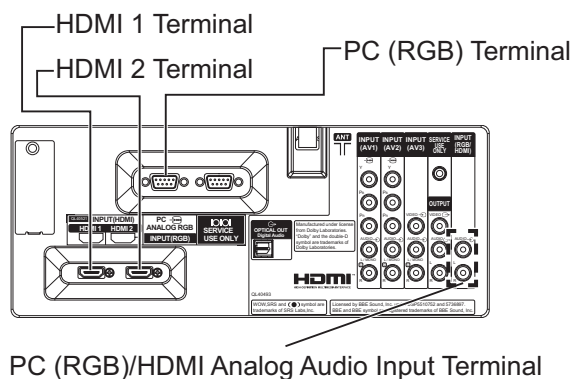
- About PC (RGB)/HDMI analog audio input terminal

This terminal can be used in one of the following cases only.

- ① The external device is connected to the PC (RGB) terminal of the TV.
- ② The DVI output of an external device is connected to the HDMI 1 terminal using the HDMI-DVI cable.
- ③ The DVI output of an external device is connected to the HDMI 2 terminal using the HDMI-DVI cable.

Make sure that the video and audio terminals are connected to the same external device.

About the output format of an external device, refer to "Recommended Signal List" on **59**.



CONNECTION (continued)

Connecting Procedure (continued)

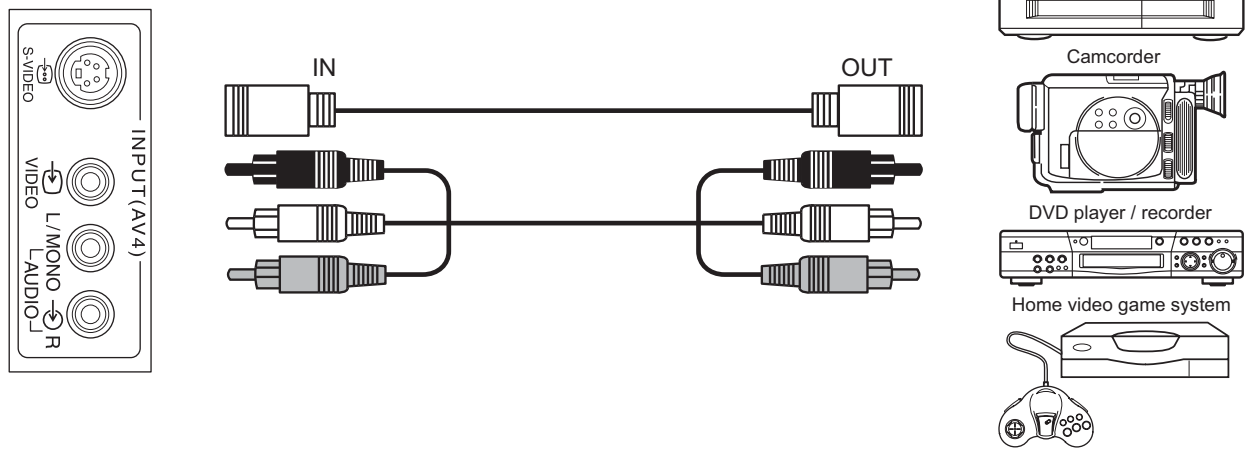
Optical Out (Digital Audio) terminal can be connected to an audio amplifier with Optical Audio input.



NOTE

- This output is DTT output but not monitor output.

AV4 can be connected to the equipment with S-Video output and composite output.

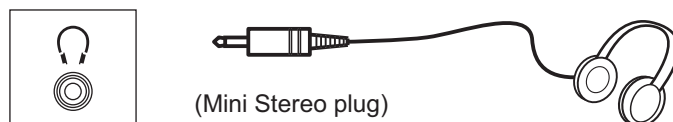


If your external device has S-video terminal, S-VIDEO connection is recommended for higher quality picture.

NOTE

- If both S-video and video input terminals of AV4 are connected at the same time, S-video will have its priority.

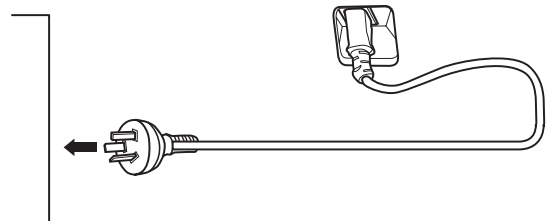
Headphone



The audio from the speaker will be muted when connecting the headphone to this terminal.

4. Connecting the plug into the wall socket

Connect the power cord after completing all other connections.



CAUTION

- Use only the power cord provided.
- Do not use a power supply voltage other than that indicated (AC240V, 50Hz). It may cause fire or electric shock.
- For the plasma television, a three-core power cord with a ground terminal is used for efficiency protection. Always be sure to connect the power cord to a three-pronged grounded outlet and make sure that the cord is properly grounded. If you use a power source converter plug, use an outlet with a ground terminal and screw down the ground line.
- Ensure that both ends of power cord are easily accessible.
- If you have to change the power cord, please use the certified power cord that meets your region's safety standard.

CONNECTION (continued)

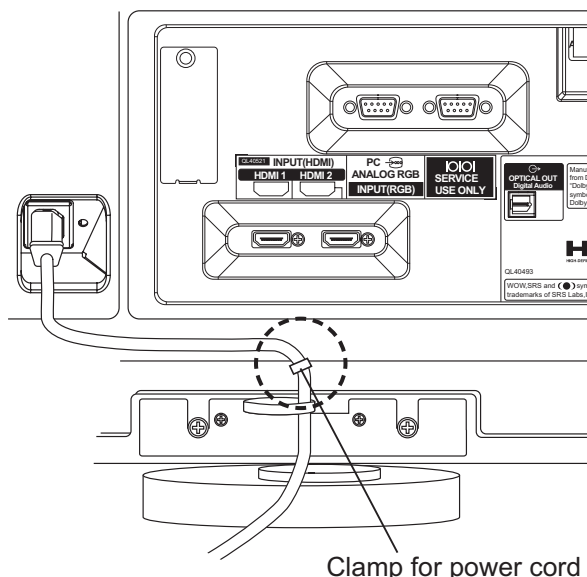
Connecting Procedure (continued)

Information

• How to secure the power cord and cables

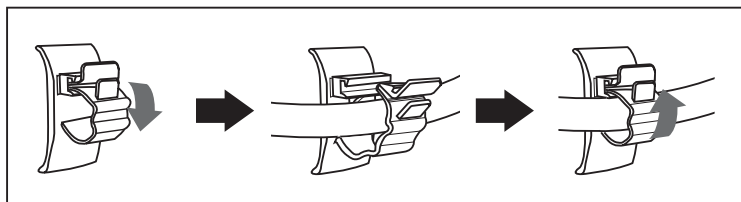
Step 1. Secure the power cord

After connecting power cord to the rear panel, secure the power cord with the clamp.



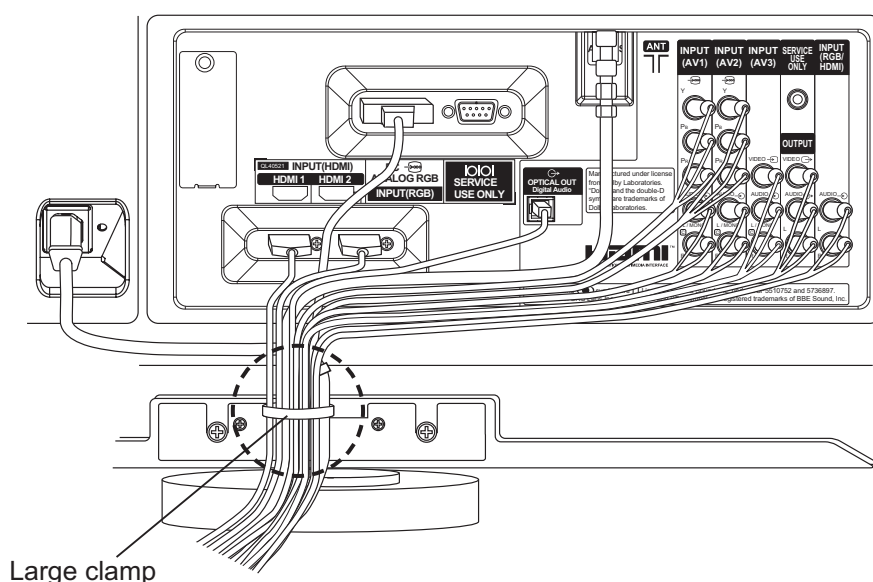
Clamp for power cord

[Example : 50" model]



Step 2. Secure all cables

Secure all cables together with power cord by using large clamp.

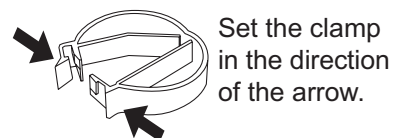


Large clamp

[Example : 50" model]

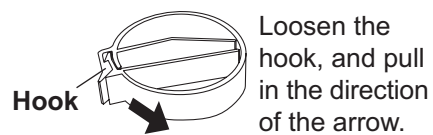
How to secure the large clamp [50" model]

• To set



Set the clamp in the direction of the arrow.

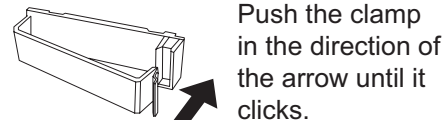
• To unfasten



Loosen the hook, and pull in the direction of the arrow.

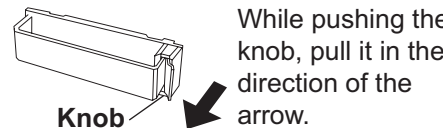
[42" model]

• To set



Push the clamp in the direction of the arrow until it clicks.

• To unfasten



While pushing the knob, pull it in the direction of the arrow.

NOTE

- The type of the large clamp depends on model.
- When you secure the cables, please be careful not to tighten too much.

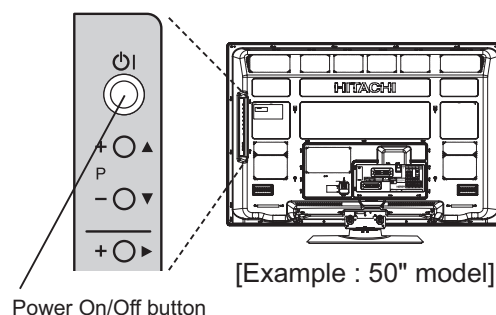
BASIC OPERATION

Power On/Off

Now, turn On the power of the unit.

• To turn On the power of the unit

1. Make sure that the power cord has plugged into the wall socket.
 - The Indicating Lamp will illuminates in **Red** (Standby mode).
2. Press either **Power On/Off** button on the unit or **Power On/Off** button on the remote control.
 - The color of the Indicating Lamp turns into **Green**, and the image will display on the screen.



• To turn Off the power of the unit

1. Press either **Power On/Off** button on the unit or **Power On/Off** button on the remote control.
 - The image disappears from the screen and the Indicating Lamp turns into **Red** (Standby mode).
2. Unplug the power cord in case that you want to turn Off the power of the unit completely.



The Indicating Lamp Status

Indicating Lamp Status	Power Status	Remark
Off	Off	Power Cord → Unplugged
Red	Standby mode	—
Green	On	—
Orange	Power Save mode	Refer to 48 and 50 about the condition.

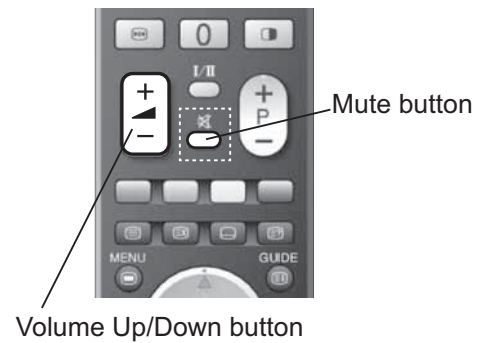
NOTE

- If the image does not appear on the screen at all, or have any problem, see TROUBLESHOOTING on [54~56](#). It may help you to solve the problems.
- After turning On, it takes about 10 seconds until TV is started up. Please note that buttons on the remote control and the unit (such as Power On/Off button) do not work during the time.
- Do not switch the power On/Off repeatedly in a short period of time. It could cause malfunction.
- To avoid sudden surges of electricity when the power comes back on, unplug the power cord before you leave if there is a power cut during use of the unit.

BASIC OPERATION (continued)

Volume UP/DOWN

1. To increase the sound volume, press **+** button on the remote control, or **Volume Up** button on the control panel.
 - The Volume Indicator value on the screen will shift right.
2. To decrease the sound volume, press **-** button on the remote control or **Volume Down** button on the control panel.
 - The Volume Indicator value on the screen will shift left.

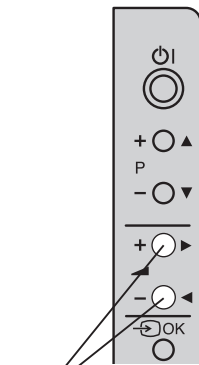


Mute

1. To mute the sound, press **X** button on the remote control.
 - The sound of the unit is temporarily turned Off.
 - The color of the Volume Indicator will turn into **magenta** while muting the volume.
2. To turn the sound back, press **X** button again, or Volume Up button on either remote control or the control panel.
 - The color of the Volume Indicator will turn back to **green**.

NOTE

- You can decrease the volume by pressing **-** button while the sound is muted.



Volume Up/Down button



The Volume Indicator

BASIC OPERATION (continued)

Input Switching to DTT, TV, AV1~4, HDMI1~2, and RGB

By pressing **Input Select** button, you can switch the input.

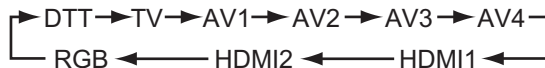
- To watch actual broadcast, press **Input Select** button on the control panel, the numeric buttons or **Channel Up/Down** button on the remote control.
- To display the image outputting from the external equipment connected to each terminal (DTT, TV, AV1~4, HDMI 1~2, and RGB), select corresponding mode.

1. Press **Input Select** buttons on the remote control.

(Use  button to switch between DTT and TV mode.)

2. The Input modes can be also switched by using **Input Select** button on the control panel.

Each time this button is pressed, the screen displays corresponding mode by following order.



3. To directly go back to TV mode, pressing **Channel Up/Down** buttons on either remote control or the control panel.

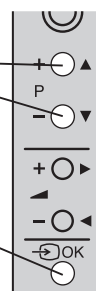
Also, you can use the numeric buttons on the remote control.

Channel Up/Down button

Input Select buttons

Channel Up/Down button

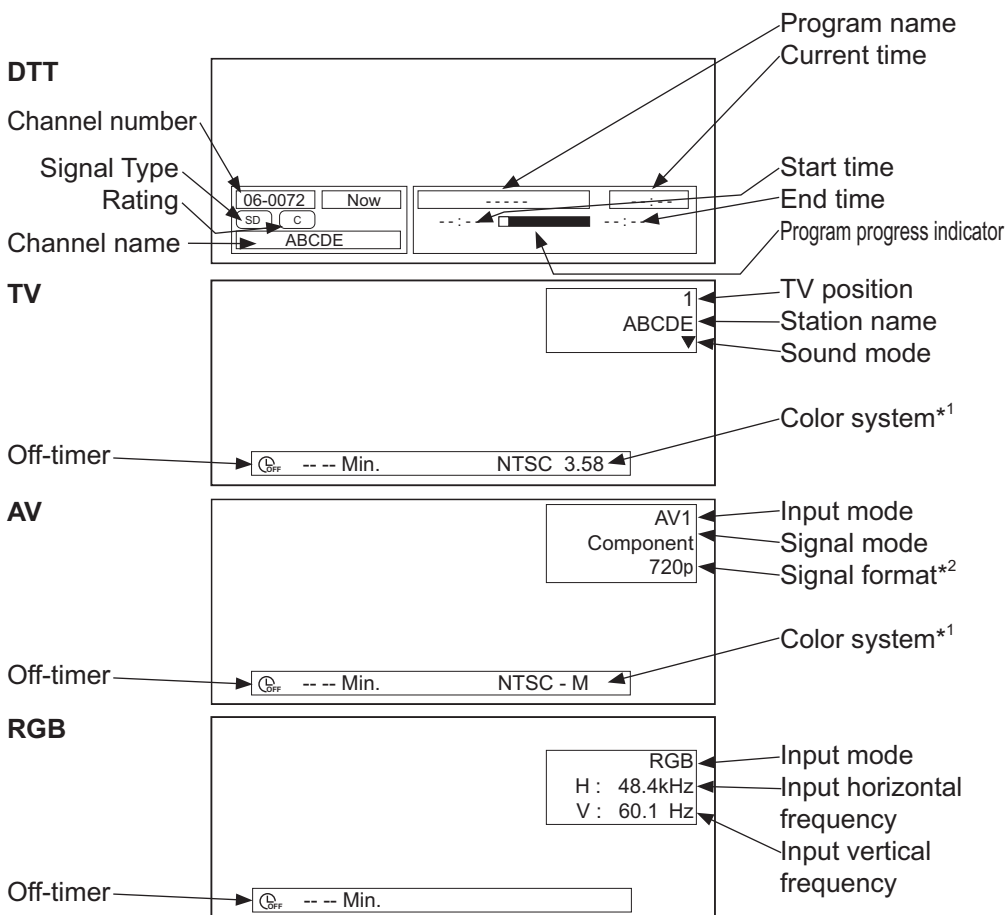
Input Select



Input Signal Screen Display

The input signal status can be displayed on the screen by pressing the  button of the remote control.

- The display in DTT mode will appear as changing the channels and go out in set time. (Refer to [41](#).)
- The display in TV/AV/RGB mode will go out in approximately 6 seconds.



Recall button



*1 : This displays color system in TV, AV3 and AV4 mode if the setting of "Color System" is except "Auto". See [25](#) and [31](#).









*2 : Component/HDMI only.

TV SETUP OPERATION

How to use the On-Screen Display (OSD) system

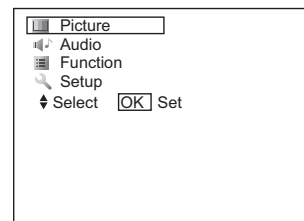
With the On-Screen Display system, you can access the various kinds of the features and functions in this product.

• Basic Operation

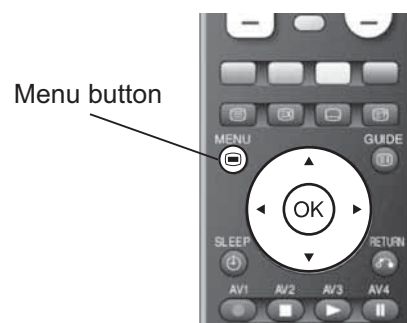
1. Press  button on the remote control or **Menu** button on the control panel of the unit. The **Main Menu** is displayed on the screen as shown on the right.
2. To select the item, press  button.
The selected item will be highlighted in Yellow.
3. Press  button to set your selection.
The selected menu page will be displayed on the screen.
4. Use  button to choose the item on the MENU page.
Press  button to set your selection.
5. Use  button to adjust the item values or choose options.
Press  button to set your selection.
6. To exit from the menu, press  button.

NOTE

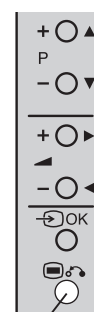
- The OSD menu screen will be closed automatically when no operation has been made for about one minute.
- If the item in menu is shown in gray, it means that it cannot be selected or adjusted.



<TV Main Menu>



Menu button



Menu button

TV SETUP OPERATION (continued)




TV/AV/RGB Main Menu List

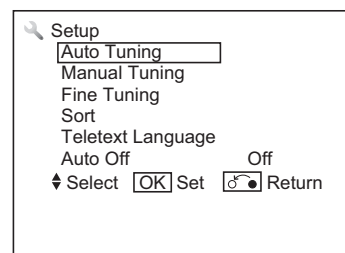
Menu		Page	Menu		Page		
Picture(TV/AV)	Picture Mode	27	Function	Screen Saver	7		
	Contrast	27		Screen Wipe	7		
	Brightness	27		Black Side Panel	36		
	Color	27		Video Power Save	48		
	Sharpness	27		Freeze Mode	47		
	Tint	27		Default Zoom	45		
	Color Temperature	27		Eco Mode	48		
	Contrast Mode	27		Picture Size	45		
	Reset	28		Panel Mode	36		
	3D Color Management	28		Reset	-		
	Black Enhancement	28	Setup(TV)	Auto Tuning	Mode	25	
	DNR	28			Search	25	
	MPEG NR	28		Manual Tuning	Position	25	
	Film Mode	28			Frequency	25	
	3D Comb Filter	28			Name	25	
Reset	28	Sound System			25		
Color Temp. Adjust	28	Color System			25		
Picture(RGB)	Contrast	33			Skip	25	
	Brightness	33			NR	25	
	Color	33			Luminance Level	26	
	Tint	33		Antenna Att.	26		
	Color Temperature	33		Fine Tuning	26		
	Color Temp. Adjust	33		Sort	26		
	Reset	33		Teletext Language	34		
Audio	Audio Mode	29		Auto Off	51	Setup(AV)	System
	Treble	29	Color System	31			
	Bass	29	Setup(RGB)	Auto Adjust	32		
	Balance	29		Horizontal Position	32		
	SRS	29		Vertical Position	32		
	TruBass	29		Horizontal Clock	32		
	Focus	29		Clock Phase	32		
	BBE	29		Reset	32		
	Perfect Volume	29		Frequency Display	32		
	TV Speakers	29		WXGA Mode	32		
	Reset	29					






TV SETUP OPERATION (continued)

Installing and Setting Channels

You can install channels and make the various settings related channels.

1. Press  button.
2. Select “Setup” menu and press  button.
3. Select the preferred menu item and press  button.



Selected Items			Setup hint
Auto Tuning	Mode	Position	Searches every channel. Store the channels in order of tuning. (1~125, AV00)
		Direct	Searches available channel. Store the channels in fixed number according to broadcasting standard. The channel number 1~12 and 21~69 are displayed as C* *, and the channel number 101~146 are displayed as S* *.
	Search		Tune the local channels automatically. Press  button to start searching.
Manual Tuning	Position		Press channel up (+) down (-) buttons to input position number (1~125, AV00) or channel number (C* * or S* *).
	Frequency		Search the frequency by using  button when Auto Tuning Mode is set to [position]. When Auto Tuning Mode is set to [Direct], this function is not available (grayed out).
	Name		1. Move the cursor to the first digit and select the letters with  button. 2. Move to the next digit with  button. 3. Press  button again when you finish inputting all the letters. • The selectable letters are as follows: “0”~”9”, “A”~”Z”, “+”, “ ” (blank), “-”, and “.” (period).
	Sound System	Auto	Select [Auto] normally. In case that sound is not output correctly, select the other modes depending on the received signal.
		M	
		BG	
		I	
		DK	
	Color System	Auto	Select [Auto] normally. In case that color is not displayed correctly, select the other modes depending on the received signal.
		PAL	
		SECAM	
		NTSC 4.43	
		NTSC 3.58	
	Skip	Off	It allows you to skip unregistered channels automatically when you use channel up (+) down (-) buttons to select channels. This function will automatically skip unavailable channels when set to on.
		On	
	NR	Off	The noise on the screen or interference could be reduced, especially at the area of weak electric field.
		On	

TV SETUP OPERATION (continued)

Installing and Setting Channels (continued)

Selected Items			Setup hint
Manual Tuning	Luminance Level	Normal	This helps to reduce saturation by lowering contrast.
		Att.	
	Antenna Att.	Off	The noise on the screen or interference could be reduced in case that the receiving field strength is too strong. • The selection on this item is applied to all the channels.
		On	
Fine Tuning	-56~+56		▶ : Increase the frequency data for the analog tuner. ◀ : Decrease the frequency data for the analog tuner.
Sort			You can change the order of channels as follows. 1. Move the cursor to the channel row you want to change order and then, press OK button. 2. The color of the letters on the designated line will be turned into yellow bracket and with []. 3. Move the designated row by using Up/Down button. 4. Press OK button to fix the position. • This function is not available (grayed out) when the Auto Tuning Mode is set to [Direct].

Information

- Use AV00 when connecting equipment such as a VCR via an RF (aerial type) cable.
(In order to select "AV00", press Channel Up/Down button.)

Channel Selections

There are 2 ways to select the channels: stepping through the channel, and selecting by number.

Stepping through the Channel

Press **Channel Up/Down** button to switch the next or previous channel on the list.

Selecting by Number

Enter the number of acquired channel by using numeric buttons on the remote control.
The selectable channel number and method differ depending on the modes ("Position" or "Direct") of **Auto-tuning**. See **25** for the details.

• If you have tuned channels with "Position" mode:

The position number of 0~125, of which you have tuned with "Position" mode, can be selected by using numeric buttons on the remote control. In case that the number is 2 or 3 digits, set up the digit number in advance with the following method.

1. Press **(i+)** button on the remote control.

Input signal screen display will appear. (See **22**.)

2. Press **(i+)** button again during the display.

The setup screen for digit number shows up.

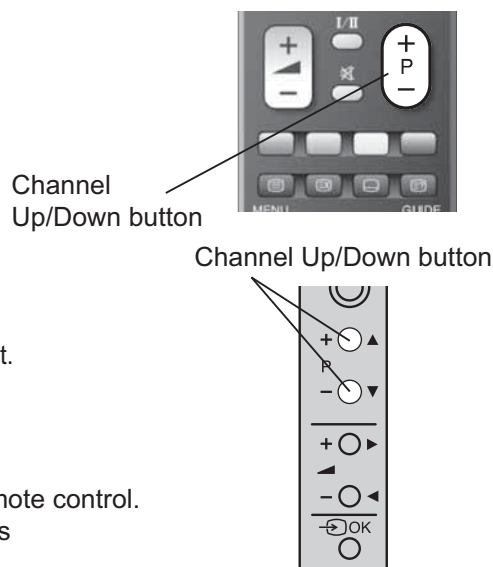
3. Each time **(i+)** button is pressed, it changes in the following sequence.



4. Select "--" or "----" when you want to select 2 or 3 digits channel.

• If you have tuned channels with "Direct" mode:




Input the number "001~012 (displayed as C1~C12) or 021~069 (displayed as C21~C69) or 101~146 (displayed as S1~S46)" by using numeric button on the remote control.



TV SETUP OPERATION (continued)

Picture Setting

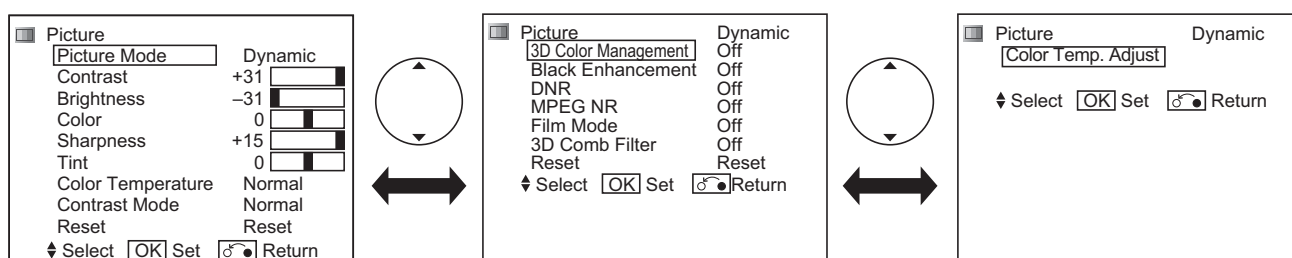
You can make specific adjustments for the picture based on your preference.










1. Press  button.
2. Select "Picture" menu and press  button.
3. Select the preferred menu item and press  button.

(By pressing  button at the bottom of each menu page, the next Picture menu will appear on the screen.)

NOTE



- Please see [34](#) about picture setting of PC.



Selected Items		Setup hint
Picture Mode	Dynamic	You can make the best selection from 3 modes depending on the lighting condition and intended use. Dynamic: Suitable for the brighter condition. Natural : Suitable for the normal lighting condition. Cinema : Suitable for watching movie.
	Natural	
	Cinema	
Contrast	-31~+31 (+32~+40)	This adjusts the contrast to meet the lighting environment by using  button. • The maximum value can be extended to [+40] by pressing and holding  button at [+31], which changes the color between those numbers from yellow to magenta. This is the special feature prepared for the dark scenes. At the normal condition, it is recommended to set the value less than [+31].
Brightness	-31~+31	With this function, black color is adjusted to change the overall brightness by using  button.
Color	-31~+31	It can adjust color density based on your preference by using  button.
Sharpness	-15~+15	Preferred sharpness can be adjusted by pressing  button for softer image or  button for sharper image.
Tint	-31~+31	Pressing  button enhances red and weakens green, while pressing  button weakens red and enhances green. The setup hint is adjusting for the realistic skin color.
Color Temperature	Cool	You can select from 3 settings (default) depending on the color condition with  button.
	Normal	
	Warm	
Contrast Mode	Dynamic	It allows you to choose from 3 modes. Dynamic: Sharpen the gradation to improve the contrast feeling. Normal: Improve the contrast feeling to reproduce a faithful gradation. Linear: Reproduce as faithful gradation as possible.
	Normal	
	Linear	

TV SETUP OPERATION (continued)




Picture Setting (continued)

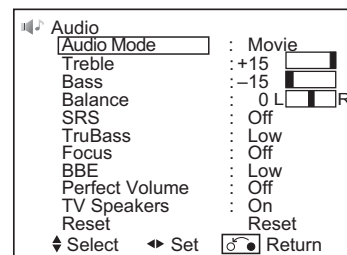
Selected Items			Setup hint
Reset			Each item on this menu screen can be restored to the original factory settings by pressing  button.
3D Color Management	Off		On : It automatically adjusts the suitable tint, color density, and brightness on images. Off : Set it off if the image does not look natural.
	On		
Black Enhancement	Off		Adjusts the black level compensation.
	Low		
	Middle		
	High		
DNR	Off		This is a noise reduction system for picture signal.
	Low		
	Middle		
	High		
MPEG NR	Off		This is a noise reduction system for MPEG picture signal. (ex. against mosquito noise and block noise.)
	Low		
	High		
Film Mode	Off		On: Automatically identify if it is the movie film and faithfully reproduces the original film images. Off: Set to Off if the images does not look natural.
	On		
3D Comb Filter	Off		This is available only when receiving NTSC/PAL composite signal. This reduces the dot and color blurring in minute scales so that it can reproduce purer color. This is not available for NTSC4.43, PAL60, PAL-N, and PAL-M system.
	Low		
	Middle		
	High		
Reset			Each item on this menu screen can be restored to the original factory settings by pressing  button.
Color Temp. Adjust	On	Amplitude	On: When you want to set specific adjustments in each of the 3 Color Temperature modes. You can adjust on the amplitude and cut off. The settings reflect on the Color Temperature. Amplitude: subdue the colors (Red/Green/Blue) on the brighter parts (-63~0). Cut off : subdue the colors (Red/Green/Blue) on the darker parts (-31~+31).
		Red	
		Green	
		Blue	
		Cut off	
		Red	
		Green	
		Blue	
	Off		Off: Remains as default setting.

TV SETUP OPERATION (continued)

Audio Setting

You can adjust and customize the audio condition as you like.

1. Press  button.
2. Select "Audio" menu and press  button.
3. Select the preferred menu item and press  button.



Selected Items		Setup hint
Audio Mode	Movie	You can select the most suitable sound condition from 4 alternatives according to the contents. If you want to adjust each item value based on your preference, select "Favorite".
	Music	
	Speech	
	Favorite	
Treble	-15~+15	Adjust the Treble.
Bass	-15~+15	Adjust the Bass.
Balance	-10~+10	Adjust the balance of the sound from bottom right and left speakers.
SRS	Off	This system gives you the dynamic 3D sound.
	Normal	
	Wide	
TruBass	Off	TruBass gives you the enhanced bass sound. Select it depending on your preference.
	Low	
	High	
Focus	Off	This gives you more natural and realistic sound by shifting up audio image (sound image). By making clear outline of sound, it gets easier to hear speaking voice such as news.
	Low	
	High	
BBE	Off	BBE High Definition Sound restores clarity and presence for better speech intelligibility and musical realism. Select it depending on your preference.
	Low	
	High	
Perfect Volume	Off	It will automatically adjust the volume to its average level each time you change the channel.
	On	
TV Speakers	Off	This needs to be switched to Off when you want to listen to audio from external equipment. It is normally set to On when you operate the set using the built in speakers.
	On	
Reset		Reset all the set values on this Menu Page to the original factory settings.

TV SETUP OPERATION (continued)

Audio Switching (TV)

NICAM / Sound Multiplex(including A2) (TV mode)

You can make optimum use of available audio by pressing I/II button of remote control. Audio can be switched only if receiving NICAM and sound multiplex signals; otherwise, pressing this button will have no effect, such as when only mono sound is received.

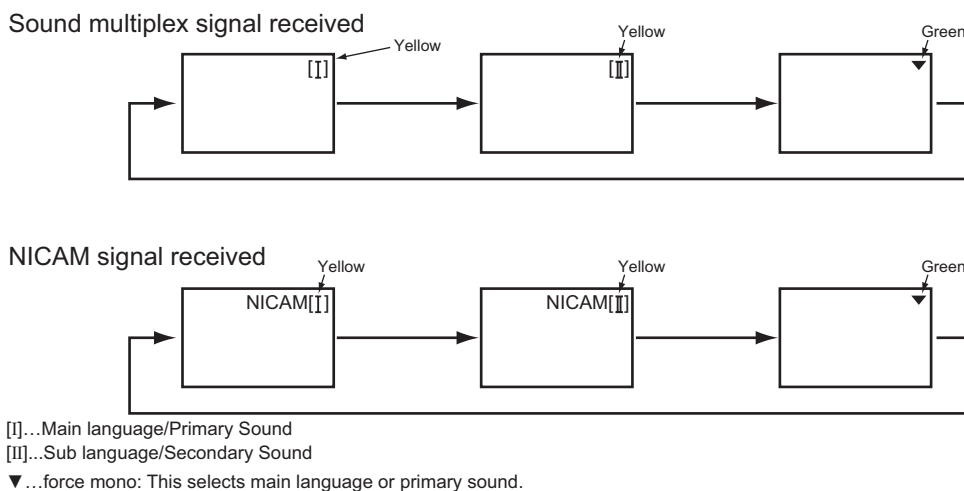
These can be divided into two main categories: Bilingual/Dual Sound broadcast and Stereo broadcast.

Bilingual/Dual Sound Broadcast

Bilingual broadcast is the broadcast available on the main and sub languages, while dual sound broadcast is available on the primary and secondary sounds; for example, some sports programs contain broadcast commentary on a game as primary sound, and a commentary about a team as the secondary.

When bilingual program is received, sound mode display appears in yellow as shown. Also, when receiving NICAM signals, NICAM display will appear.

Each time I/II button is pressed, the display is switched in the sequence of following.



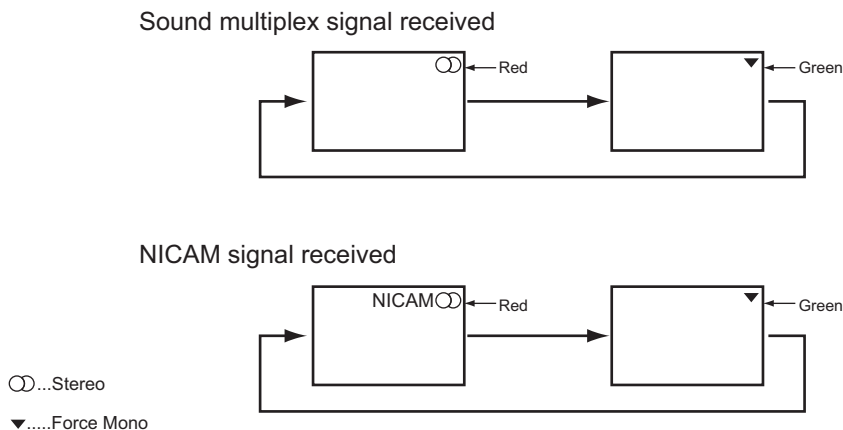
Stereo Broadcast

With stereo broadcast, you can enjoy different sound from either side.

When a stereo program is received, sound mode display will appear in red as shown.

Also, when receiving NICAM signals, NICAM display will appear.

Press I/II button to switch between stereo and mono sound.






NOTE

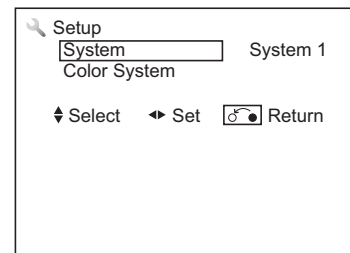
- Please select ▼ (force mono) in case of poor reception, noise, poor stereo sound due to signal condition so that you can receive a clear mono sound.
- ▽ represents the Mono broadcast.

TV SETUP OPERATION (continued)

AV Broadcast Signal Setting

You can select broadcast system depending on the area you live.

1. Press  button during AV mode.
2. Select “Setup” menu and press  button.
3. Select the preferred menu item and press  button.



Selected Items				Setup hint
System	System 1			Do not change the original setting because this differs depending on the area. (System1: Europe/Asia, System2: South America) • Composite and S-video input only.
	System 2			
Color system	AV3, AV4	System 1	Auto	Select the color system depending on the input signal. • Generally, select [Auto] to receive all signals for both System1 and System2. • In case that the input signal has too much noise, the signal level is too low, or the operation is unstable in [Auto], select the system according to the color system of the input signal. • Composite and S-video input only.
			PAL	
			SECAM	
			NTSC 4.43	
			NTSC 3.58	
		System 2	PAL60	
			Auto	
			NTSC-M	
			PAL-M	
			PAL-N	




TV SETUP OPERATION (continued)

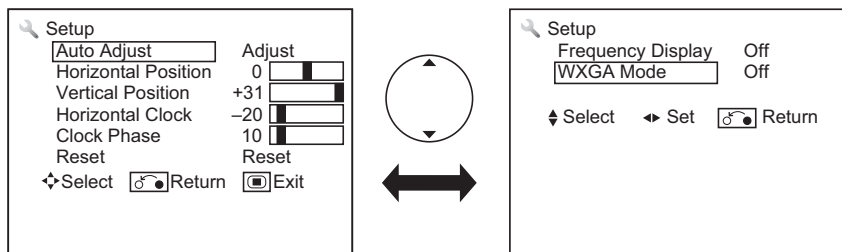
PC Adjustment Setting

You can adjust the display condition such as position adjustment and color setting while connecting to the PC and being RGB mode.


See [17](#) for the PC connection.

From Setup Menu (RGB)

1. Press  button.
2. Select "Setup" menu and press  button.
3. Select the preferred menu item and press  button.



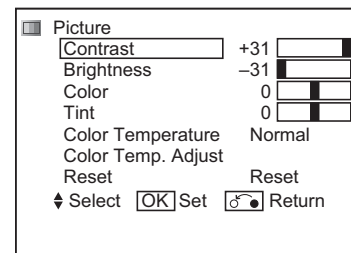
(By pressing  button at the bottom of the 1st page, the 2nd page will appear on the screen.)

Selected Items		Setup hint
Auto Adjust		Adjust Horizontal Position, Vertical Position, Horizontal Clock, and Clock Phase automatically. <ul style="list-style-type: none"> • Press  button to start auto adjustment as needed. The message "Auto Adjusting" is displayed. • Depending on the type of the signal, there is a possibility that the display may not be adjusted in its optimum condition with this function. In that case, please adjust each item manually.
Horizontal Position	-63~+63	Adjust the display position horizontally. <ul style="list-style-type: none"> • When the position exceeds the possible range, the display color will turn into Magenta.
Vertical Position	-31~+31	Adjust the display position vertically. <ul style="list-style-type: none"> • When the position exceeds the possible range, the display color will turn into Magenta.
Horizontal Clock	-31~+31	Minimize the vertical stripes on the screen.
Clock Phase	0~+63	Minimize the blurring of the letters and stripes on horizontal row. <ul style="list-style-type: none"> • Make sure to adjust <u>Horizontal Clock</u> first before adjusting Clock Phase. • When the position exceeds the possible range, the display color will turn into Magenta.
Reset		Reset all the set values on this Menu page to original factory settings.
Frequency Display	Off	Select whether indicating the PC signal frequency information on Input Signal Screen Display or not.
	On	
WXGA Mode	Off	<ul style="list-style-type: none"> • This function is available only for WXGA signal. • Refer to "Recommended Signal List" on 55.
	1280x768	
	1360x768	

TV SETUP OPERATION (continued)

PC Adjustment Setting (continued)

From Picture Menu (RGB)



1. Press button.
2. Select "Picture" menu and press button.
3. Select the preferred menu item and press button.

Selected Items			Setup hint
Contrast	-31~+31 (+32~+40)		This adjusts the contrast to meet the lighting environment by using ◀▶ button. • The maximum value can be extended to [+40] by pressing and holding ▶ button at [+31], which changes the color between those numbers from yellow to magenta. This is the special feature prepared for the dark scene. At normal condition, it is recommended to set the value less than [+31].
Brightness	-31~+31		Adjust according to personal preference by using ◀▶ button.
Color	-31~+31		Adjust according to personal preference by using ◀▶ button.
Tint	-31~+31		Pressing ◀ button enhances red and weakens green, while pressing ▶ button weakens red and enhances green. The setup hint is adjusting for the realistic skin color.
Color Temperature	Cool		You can select from 3 settings (default) depending on the lighting condition with ◀▶ button.
	Normal		
	Warm		
Color Temp. Adjust	On	Amplitude	On: When you want to set specific adjustments in each of the 3 Color Temperature modes. You can adjust on the amplitude and cut off. The settings reflect on the Color Temperature. Amplitude: Subdue the colors (Red, Green, Blue) on the brighter parts (-63~0). Cut off : Subdue the colors (Red, Green, Blue) on the darker parts (-31~+31).
		Red	
		Green	
		Blue	
		Cut off	
		Red	
		Green	
		Blue	
	Off		Off: Remains as default setting.
Reset	Each item on this menu screen can be restored to the original factory settings by pressing Ⓞ button.		

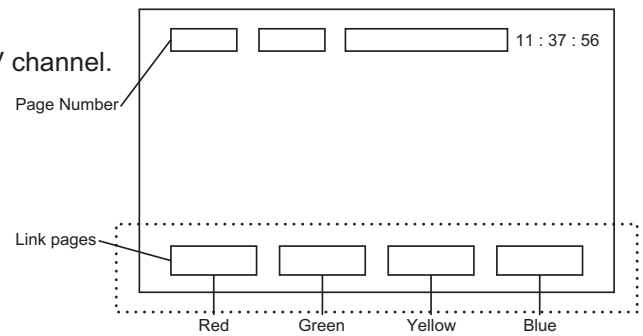
TV SETUP OPERATION (continued)

Analog Teletext

What is "Teletext"

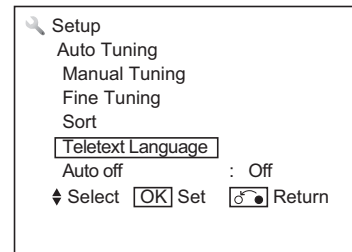
Teletext is the written information services provided by each TV channel. Most TV channels provide information via Teletext such as:

- TV program schedule
- Weather forecasts
- Sports results
- Newsflash



Select Teletext Language

1. Press button.
2. Select "Setup" menu and press button.
3. Select "Teletext Language" and press button.














Selected Items	Setup hint
Teletext Language	<p>Select Teletext Language from 5 different categories (West Europe, East Europe, Russian, Arabic and Farsi) according to the area.</p> <p>West Europe : Asian countries where the Teletext is broadcasting in English such as Singapore, Australia, and Malaysia.</p> <p>East Europe : Poland, Sweden, Hungary</p> <p>Russian : Russia</p> <p>Arabic : Arab countries</p> <p>Farsi : Iran</p>

TV SETUP OPERATION (continued)

Analog Teletext (continued)

How to Operate the Teletext



You can display the Teletext simply by pressing the remote control buttons.

Operation	Press
To activate Teletext mode.* To exit from the Teletext mode.	 [TV⇔Text]
To move to the next or previous page.	 [Page Select]
To jump to the indicated page. (Enter 3 digits.)	 [Page Select]
To split the screen into two and watch both Teletext information and actual broadcast at the same time. Press again to watch Teletext on a single screen.	 [Text⇔TV+Text]
To display index page.	 [Index]
To adjust contrast of the image.	 [Contrast]
To access subtitle service directly (if the channel has the Subtitle service broadcasting).*	 [Subtitle]
To display hidden text. ex. The answers of the quiz or the game page. Press again to close the revealed answer.	 [Reveal]
To return to actual broadcast temporarily while searching for the Teletext page you request. When the search is done, the designated page # will be displayed on the upper left of the screen. Press again to return to Teletext page.	 [Cancel]
To access the link pages which are displayed at the bottom of the page. (Select the buttons corresponding to the colors of the letters on screen.)	 [Color]
To hold the text picture.	 [Hold]

★ This is not available in the following conditions.

- Color system : NTSC 3.58, NTSC 4.43, PAL60, PAL-M
- No input signal

Information

- Each time the  button is pressed, the screen will be switched from double screen to single screen.
- Some Teletext pages do not display Link Pages at the bottom of the screen. Press  button to display them.

NOTE

- Teletext function is different between Analog and Digital. Refer to [42](#) about Digital Teletext.







TV SETUP OPERATION (continued)

Other

Black Side Panel, Panel Mode

You can have the following optional setting.

1. Press  button.
2. Select “Function” menu and press  button.
3. Select the preferred menu item and press  button.

Function	Off
Screen Saver	Off
Screen Wipe	On 60Min.
Black Side Panel	Off
Video Power Save	Off
Freeze Mode	Split
Default Zoom	Panoramic 2
Eco Mode	On
Picture Size	1
Panel Mode	1
Reset	Reset
◀ Select	▶ On/Off
	 Return









Selected Items		Setup hint
Black Side Panel	Off	This can change the color of sidebars showing up in normal mode. (Off: gray, On: black)
	On	It is recommended to set Off to reduce image retention. This cannot be stored. (The default setting is off.)
Panel Mode	1	This function switches the driving method of the PDP panel at 50Hz input signal.
	2	This does not operate at 60Hz and 24Hz input signal. 1: Reduce the flicker of the screen. 2: Improve the blur of the moving image.

DIGITAL TERRESTRIAL TELEVISION (DTT) OPERATION


How to use the On-Screen Display (OSD) system

With the On-Screen Display system, you can access the various kinds of the features and functions.

• Basic Operation

1. Press  button on the remote control or **Menu** button on the control panel of the unit. The **DTT Main Menu** is displayed on the screen as shown on the right.
2. To select the item, press  button.
The selected item will be highlighted.
3. Press  button to set your selection.
The selected menu page will be displayed on the screen.
4. Use  button to choose the item on the MENU page.
Press  button to set your selection.
5. Use  button to adjust the item values or choose options.
Press  button to set your selection.
6. To exit from the menu, press  button.

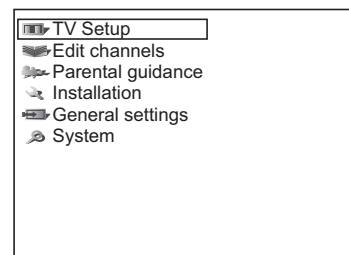
NOTE

- The OSD menu screen will be closed automatically when no operation has been made for about one minute.
- During DTT input, the part of OSD might not be displayed in 4:3 zoom mode.
To display fully, select the other display size with  button. (Refer to [46](#).)

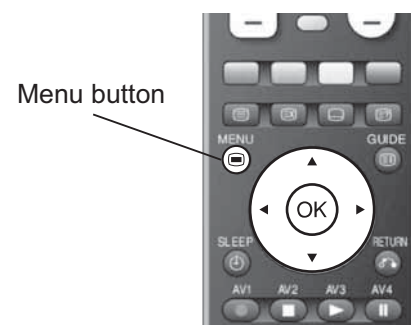
DTT Main Menu List

Check the reference page for the details.

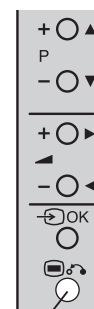
Menu	Function	Page
TV Setup	This jumps to the TV main menu containing Analog TV function, such as Picture menu and Audio menu.	43
Edit channels	You can set a list of favorite channels.	40
Parental guidance	This blocks programs with the selected rating.	42
Installation	This searches the available channels.	-
Manual scan	Search by its channel number, frequency, bandwidth, or priority.	38
Quick scan	Search by the resident area.	38
Auto scan	Automatically search one by one.	38
Restore default	Restore the channel setting.	38
General settings		-
Option setup	Set up the display time of information banner.	40
Change pin	Change the Password.	43
Local time	Set up the local time.	43
Subtitle setting	Enable or disable the subtitle.	42
Audio setting	Select optical digital audio output between PCM and Dolby® Digital.	42
System	This displays the current DTT system information.	43



<DTT Main Menu>



Menu button







Menu button

DIGITAL TERRESTRIAL TELEVISION (DTT) OPERATION (continued)




Installing Channels


You can search available channels in any of the following 3 methods.

1. Press  button on the remote control in DTT mode.
2. Select “Installation” on the DTT main menu with  button and press  button.
3. The password is required to enter the Installation menu. The initial password is 0000.
4. You can select either of the followings by pressing  button.



- **Manual scan:** Searches by individual settings manually.

The box shown on the right appears. Fill out the following 4 items as needed.

Channel num	Use  button or numeric button to enter the number. (Ch2-Ch69) *In case of tuning Ch9A, select Ch2 (frequency: 205.5MHz.).
Frequency	Use numeric button to enter the frequency.
Bandwidth	Select either 7MHz or 8MHz by using  button. Set to 7MHz normally.
Priority	Select High or Low by using  button. Set to High normally.

Then, press  button on “Start scan” of “Manual scan” column. If it finds a channel, “Success” shows up. If not, “Timeout error” is displayed.

- **Quick scan:** Searches channels of the selected area.

The list of the area shows up. Select one of those with  button and press  button.

NOTE

- If you are uncertain about the area, please select “Auto scan” method or contact the local dealer in your area.


- **Auto scan:** Searches every channels.

The message “Auto scan will take more than 10 minutes. Do you want to continue?”

Select “Yes” and press  button to proceed it.

Installation	Channel num 6
Manual scan	Frequency 177500KHz
Quick scan	Bandwidth 7 MHz
Auto scan	Priority High
Restore default	Manual scan Start scan






Installation	Adelaide
Manual scan	Brisbane
Quick scan	Melbourne
Auto scan	Perth
Restore default	Sydney
	Batchelor
	Canberra
	Darwin

Press  to select city.

Installation	Auto scan will take more than 10 minutes.
Manual scan	Do you want to continue?
Quick scan	<input type="checkbox"/> Yes <input type="checkbox"/> Exit
Auto scan	
Restore default	

Restoring Channels

This restores the all channel settings.

1. Press  button on the remote control in DTT mode.
2. Select “Installation” on the DTT main menu with  button and press  button.
3. The password is required to enter the Installation menu. The initial password is 0000.
4. Select “Restore default” and press  button. The message “All setting would be lost” appears. Select “Yes” and press  button.

NOTE

- The password will return to the default setting when activating “Restore default”.

Installation	All setting would be lost.
Manual scan	<input type="checkbox"/> Yes <input type="checkbox"/> Exit
Quick scan	
Auto scan	
Restore default	

DIGITAL TERRESTRIAL TELEVISION (DTT) OPERATION (continued)

Channel Selections

There are 4 ways to select the channels: stepping through the channel, selecting by number, selecting from the program/favorite list, and using the Electronic Program Guide (EPG).

Stepping through the Channel

Press CHANNEL UP/DOWN button to switch the next or previous channel on the list. Information banner is displayed every time channel is switched.

Refer to [40](#) about the information banner.

Selecting from the Program / Favorite List

• Program List

All tuned channel is selectable from Program List.

1. Press **LIST** button on the remote control to show up the Program List.
2. Use **↑** button to select and press **OK** button. Then it jumps to the selected channel.

Program list	
06-0007	7 Channel 1
06-0070	7 Channel 2
06-0071	7 Channel 3
06-0072	7 Channel A
06-0073	7 Channel B
06-0077	7 Channel Digital

• Favorite List

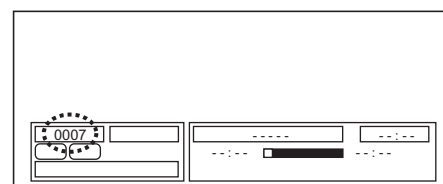
Your favorite channels can be selected from Favorite List.

1. Press **FAV** button on the remote control to show up the Favorite list.
Each time pressed, it switches to Favorite list 1, Favorite list 2 and off.
2. Use **↑** button to select and press **OK** button. Then it jumps to the selected channel.
About how to set the channel in Favorite list, please refer to [40](#).

Favorite list 1	
06-0007	7 Channel 1

Selecting by Number

Enter the number (the last 4 digits) based on the list by using numeric buttons on the remote control. An empty information banner shows up with the entered number. Channel is switched if the number is valid. If the entered number is not valid or completed for one of the setup channels, it automatically selects the closest channel.



Using the Electronic Program Guide (EPG)

The EPG screen displays a list of the stored channel along with the program information. You can select a channel from the EPG channel List.

1. Press **GUIDE** button to access EPG screen.
2. Use **←** button to select channel.
3. Press **GUIDE** button or **GUIDE** button again to return to normal screen (the selected channel).







Refer to [41](#) about Electronic Program Guide for details.

Electronic Program Guide	
Page 1/1	09 : 34 Monday 19 March 2007
◀ 06-0070 Seven HD Digital ▶	
22:00 - 23:00	Movie News
23:00 - 00:00	Sports News ★
◀ Prev Day ○ Next Day ○ Prev Page ○ Next Page [OK] Reserve	
Sports News 23:00 - 00:00 Highlights and features on today's sports in the world.	

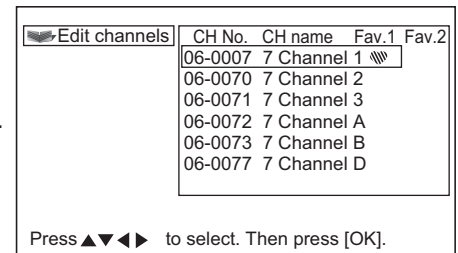
DIGITAL TERRESTRIAL TELEVISION (DTT) OPERATION (continued)

Making Favorite List

The “**Edit channels**” menu allows you to select your favorite channels and make a Favorite List in order to access easily to the channel you watch most often.

1. Press  button on the remote control and select “**Edit channels**” and press  button.
2. Use  button to select the channel, and  button to select **Fav.1** or **Fav. 2**.
3. Press  button to set up as **Fav. List**. The ♥ mark will show up, which means as favorite channel. Pressing  button again on the mark will cancel the setting.

You can display favorite list by pressing  button. (Refer to [39](#).)



Information Banner

• Display information by changing channel

Whenever a channel is switched, the TV displays the banner containing the brief channel information (name of channel and program, etc.).

• Display information by pressing button





The TV displays not only brief information but also program description.

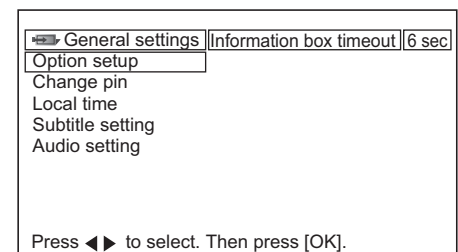
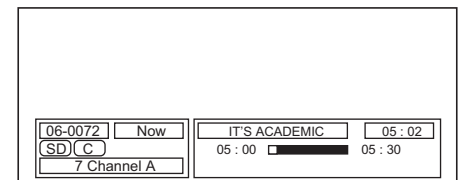
Each time  button is pressed, it displays information by following order.

Brief Channel Information → Current Program Description →
Next Program Description → Normal Screen

• Set up the display time

The display time of information banner can be set up from 0 to 20 sec.

1. Press  button on the remote control.
2. Select “**General settings**” and press  button.
3. Select “**Option setup**” and press  button.
4. The box shows up, and select the display time by using  button.




NOTE





- When you select “**0 sec**” for “**Information box timeout**”, the information banner will not show up.

DIGITAL TERRESTRIAL TELEVISION (DTT) OPERATION (continued)

Digital Teletext

Teletext can provide various information with text on the screen.

Press  button to access. Press it again to return to the normal screen.

Operation	Press
To activate Teletext mode. To exit from the Teletext mode.	 [TV⇄Text]
To move to the next or previous page.	 [Page Select]
To jump to the indicated page.	 [Page Select]
To access Subtitle service directly (if the channel has the Subtitle service broadcasting).	 [Subtitle]

P100 Austext 100 Tue 14 Mar 16:04:58	
AUSTEXT MAIN INDEX	
COPYRIGHT INFORMATION ON 104	
INDEX	INFORMATION
MAIN INDEX . . .100	GENERAL INDEX. . . .600
BUSINESS. . . .113	HOROSCOPES. . . .606
NEWS. . . .119	SCI/TECH NEWS. . . .677
SPORT. . . .160	SHOWBIZ NEWS. . . .683
WEATHER. . . .300	TEST PAGES. . . .690
TAB SERVICE. .500	
GENERAL INFO 600	
TV PROGRAMS.650	
CAPTIONS. . . .801	
MAKE AUSTEXT YOUR FIRST CHOICE FOR LOCAL NEWS NATIONAL NEWS INDEX PAGE 120	









NOTE


- See [34](#) and [35](#) how to operate at Analog teletext.
- The service of digital broadcasting signal varies depending on the area.
- When you press the color buttons along with the direction on the screen, you can access the linked pages.

Electronic Program Guide (EPG)

The EPG screen displays a list of the stored channels along with program information. This provides the information for 7 days.

1. Press  button to display EPG screen.
2. You can adjust the EPG screen with the following remote control keys.

Button	Select a channel/program, Display information
	Select a program from the list. • The picture of selected program is displayed at lower right screen. • The detailed information of selected program is displayed at lower left screen.
	Select a channel. • The picture of selected program is displayed at lower right screen. • The detailed information of selected program is displayed at lower left screen.
Red/Green	Select date. (up to 7days)
Yellow/Blue	Move to the next or previous page if more than one page.
Button	Reserve a program
	Set the view timer by pressing  button on the selected item. • ☆ mark will be displayed. • Up to 5 items can be selected. • A message appears when the desired program is about to start. • Press  button to cancel the reservation.

Electronic Program Guide	
Page 1/1	09 : 34 Monday 19 March 2007
◀ 06-0070 Seven HD Digital ▶	
22:00 - 23:00	Movie News
23:00 - 00:00	Sports News ☆
◀ Prev Day ◀ Next Day ◀ Prev Page ◀ Next Page [OK] Reserve ▶	
Sports News 23:00 - 00:00	
Highlights and features on today's sports in the world.	

NOTE

- The message appears only during DTT mode. (Please note that this does not appear in TV, AV, RGB, and HDMI mode.)
- This setting will be canceled once turns Off the TV.

3. Press  button or  button to return to the normal screen.






NOTE


Not all channels broadcast all program information data. Some channels do not provide program name and details. In that case, only channel name are displayed.

DIGITAL TERRESTRIAL TELEVISION (DTT) OPERATION (continued)

Subtitle

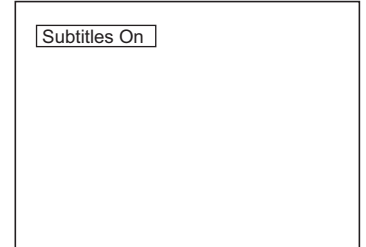
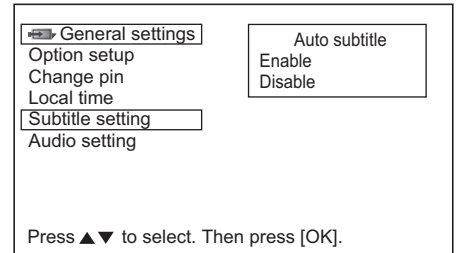
This enables (/ disable) the subtitle if available as your useful tool.

1. Press  button to display DTT main menu.
2. Select “General settings” and press  button.
3. Select “Subtitle setting” and press  button.
4. With  button, select “Enable” and press  button.

You can also activate the subtitle by pressing  button on the remote control. “Subtitles On” or “Subtitles Off” will appears on the upper left corner.





NOTE

- Once turing TV off, “Auto subtitle” returns to “Disable”.

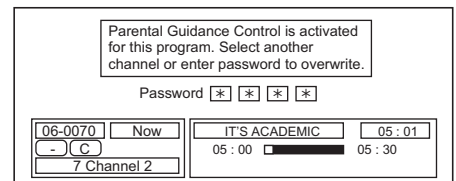
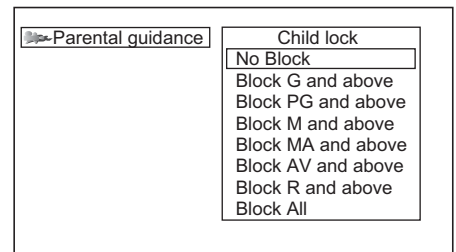


Parental Guidance

Any channel can be locked so that it cannot be selected for viewing without 4 digits pin code.



1. Press  button on the remote control.
2. Select “Parental guidance” and press  button.
3. The password is required to enter. (The initial password is 0000.)
4. With  button, select the rating and press  button.

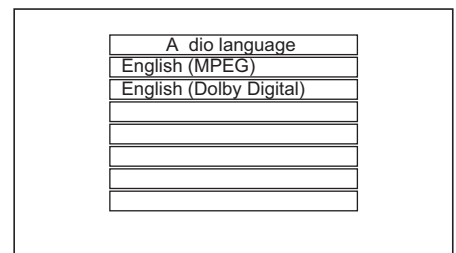
After this protection, when encounter the channel blocked, the message shows up and the password is required to view the channel.



Audio Language (MPEG/Dolby® Digital)






The available Audio language (MPEG/Dolby® Digital) can be selected.

1. Press I/II button on the remote control in DTT mode.
2. The available audio language (MPEG/Dolby® Digital) appears.
3. With  button, select one from the list and press  button.



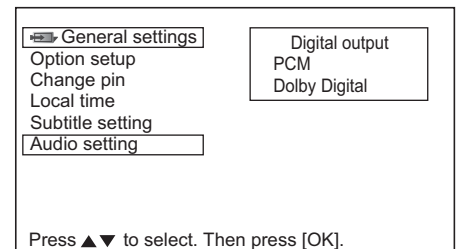
Digital Audio Output

This enables you to select the optical digital audio output between PCM and Dolby® digital.

1. Press  button to display DTT main menu.
2. Select “General settings” and press  button.
3. Select “Audio setting” and press  button.
4. With  button, select either “PCM” or “Dolby Digital” and press  button.

NOTE




- In case that MPEG audio is selected by using I/II button, or the broadcasting program has only MPEG audio, it outputs only PCM audio even if “Dolby Digital” is selected in “Audio setting” menu.
- If Dolby® Digital audio is selected by using I/II button, you can select either “Dolby Digital” or “PCM” from “Audio setting” menu.



DIGITAL TERRESTRIAL TELEVISION (DTT) OPERATION (continued)

Change Pin

To use the locks effectively, do change the pin number from the default setting, which should be known and remembered only by you. The default setting is 0000.

1. Press  button on the remote control.
2. Select “General setting” and press  button.
3. Select “Change pin” and press  button.
4. The box appears to fill out the old and new password, and the confirmation of the new password.
5. Use the numeric number to enter.






General settings	Old password	* * * *
Option setup	New password	* * * *
Change pin	Confirm new password	* * * *
Local time		
Subtitle setting		
Audio setting		

NOTE


In case that you forget your password, please refer to Troubleshooting on [52](#).

Local Time

Make sure to select your resident area to set up the correct local time.




1. Press  button on the remote control.
2. Select “General setting” and press  button.
3. Select “Local time” and press  button.
4. Use  button, select the area and press  button.

General settings	Current time zone
Option setup	Greenwich mean time
Change pin	Adelaide, Aust.
Local time	Brisbane, Aust.
Subtitle setting	Canberra, Aust.
Audio setting	Darwin, Aust.
	Melbourne, Aust.
	Perth, Aust.
	Sydney, Aust.
	Tasmania, Aust.

Press  to select. Then press [OK].

Checking DTT System Information

This can display current DTT system information.

1. Press  button on the remote control.
2. Select “System” and press  button.
3. Pressing  button on “Status” shows up System information. (H/W version, S/W version, and Release time)

System	System information
Status	H/W Version : H2-DT640HD
	S/W Version : 0.8
	Release time : Aug 21 2006 11:29:49

System information. Press [Return] to return.


*The above is an example.

Jump to TV Setup Menu

“TV Setup” menu can be accessed from the DTT main menu.


It jumps to the TV main menu containing Analog TV function, such as Picture menu and Audio menu.

Refer to [24](#) about TV main menu.

Picture
Audio
Function
Setup
Select  Set

FUNCTION

Size Switching

Each time  button of the remote control is pressed, the screen display size is switched in sequence, and the status will be displayed at the bottom of the screen.

DTT/TV/AV signal input

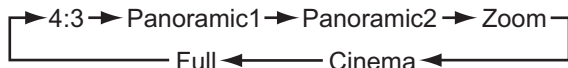
ZOOM button



• Display Size

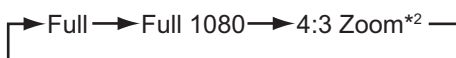
Watching Standard Definition Pictures (480i, 480p, 576i, 576p)

TV/AV1/AV2/AV3/AV4/HDMI1/HDMI2



Watching High Definition Pictures (720p, 1080i, 1080p (HDMI only))


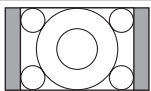

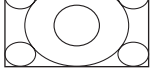
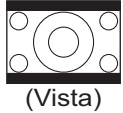

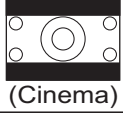
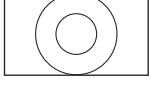
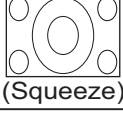
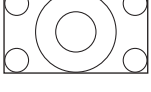




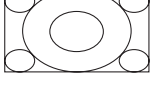
DTT*1/AV1/AV2/HDMI1/HDMI2



*1 All DTT broadcasting signal is converted into 1080i.

*2 During DTT input, the part of OSD might not be displayed in 4:3 Zoom mode.

You can display the image at optimum condition by selecting display size depending on the current output image as shown below.

Input Signal	Display Screen	Display Size	To display suitable screen as follows.
When Watching Standard Definition Pictures:			
 (4:3 Signal)		4:3	Play a 4:3 image on screen faithfully. Blanking occurs on both sides.
		Panoramic1	Play a 4:3 image which enlarges horizontal and vertical size of the middle in equal scales, and displays both sides appearing much wider.
		Panoramic2	The vertical size of Panoramic1 is reduced so that you can see the whole image, including any subtitles, that might otherwise not be fully visible on the screen.
 (Vista)		Zoom	Play a 16:9 image in 4:3 frame (Vista size) faithfully. *In some case, slight blanking may remain at the top and bottom.
 (Cinema)		Cinema	Play a 21:9 image in 4:3 frame (Cinema size) expanding vertically. *In some case, slight blanking may remain at the top and bottom.
 (Squeeze)		Full	Play a 4:3 image faithfully in the standard vertical size and horizontally squeezed.
When Watching High Definition Pictures:			
 (16:9 Signal)		Full	Play a 16:9 image faithfully showing 95% of the size.
		Full 1080	Play a 16:9 image faithfully showing 100% of the size. *In some case, the screen display has unnecessary blanking or noise at the edges.
 (4:3 Image in 16:9 Frame)		4:3 Zoom	Play a 4:3 image in 16:9 frame by enlarging a 4:3 image to fill the 16:9 screen.

Information

- Aspect ratio represents horizontal : vertical ratio on screen.
For example, vista image is 16:9 in 4:3 image.



FUNCTION (continued)

Size Switching (continued)

DTT/TV/AV signal input (continued)

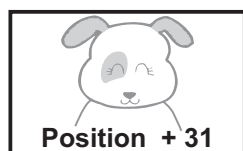
● Position Adjustment

Vertical picture position can be adjusted for **Panoramic1**, **Zoom**, **Cinema**, and **Full 1080** mode as follows.

1. Press  button while operating the picture size display.
2. "Position" display will appear.
3. Adjust the position by  button.

Adjustment range of each picture size are as shown below.

Display Size	Adjustable Range	Condition/Remark
Panoramic1	-12~+12	
Zoom, Cinema	-31~+31	
Full 1080	±1	Component signal only





Press ▲







Press ▼

● Default Setting in TV mode

You can set the display size for TV input screen appearing first just after connecting power cord.

1. Press  button.
2. Select "Function" menu and press  button.
3. Select "Default Zoom".

Default Zoom	Panoramic1
	Panoramic2
	4:3
	Full



	Function	
	Screen Saver	Off
	Screen Wipe	On 60Min.
	Black Side Panel	Off
	Video Power Save	Off
	Freeze Mode	Split
	Default Zoom	Panoramic 2
	Eco Mode	On
	Picture Size	1
	Panel Mode	1
	Reset	Reset
	Select	
	Set	
	Return	

● Panoramic Mode Adjustment in TV mode





In case that the image from TV signal (especially CATV) has a blackened gap in either or both side during Panoramic mode, select [2] so that it can make up for the gap.

This is not available when displaying "Cinema" size.

This is not available except RF, composite, and component (576i,480i) input. (gray out)

1. Press  button.
2. Select "Function" menu and press  button.
3. Select "Picture Size".

Picture Size	1
	2

	Function	
	Screen Saver	Off
	Screen Wipe	On 60Min.
	Black Side Panel	Off
	Video Power Save	Off
	Freeze Mode	Split
	Default Zoom	Panoramic 2
	Eco Mode	On
	Picture Size	1
	Panel Mode	1
	Reset	Reset
	Select	
	Set	
	Return	

FUNCTION (continued)

Size Switching (continued)

⚠ CAUTION

Using a wide-screen television

- This television has a screen mode selection feature. If an incompatible screen mode is selected to play certain software, such as a TV program, the image would appear different from the original. Take this into consideration when making screen mode choices.
- Use of the wide feature displaying enlarged pictures in coffee shops, hotel and other establishments for commercial or public viewing purposes could infringe on the copyright holder's right protected by Copyright Law.
- When a normal 4:3 image (not wide screen) is displayed over the entire screen in the Panoramic mode, the peripheral image may disappear partly and/or appear distorted in some cases. Use 4:3 mode to view the image reflecting original intention.

RGB signal input

• Display Size

You can select suitable size depending on the resolution.




Display Area Selection Diagram

Resolution	Input signal	Full display	Circular display	
Display		Full	Normal	Zoom
640 X 480 (VGA) 800 X 600 (SVGA) 1024 X 768 (XGA) 1280 X 1024 (SXGA)				
640 X 400 (VGA) 1280 X 768 (WXGA) 1360 X 768 (WXGA)				

In the signal display chart shown above, some compression or stretching has taken place. Flicker may be noticeable in Zoom mode depending on content.

FUNCTION (continued)




Picture Freezing

By pressing  button, you can change to freeze mode easily anytime you like. Press it again to return to normal picture.

Freeze button



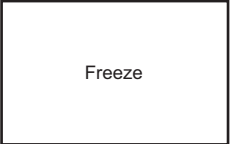
There are two types of freeze mode. You can select these in the “**Freeze Mode**” from “**Function**” menu.

- 1. Press  button.
- 2. Select “**Function**” and press  button.
- 3. Select “**Freeze Mode**” and press  button.

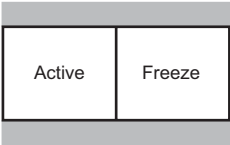
Function	
Screen Saver	Off
Screen Wipe	On 60Min.
Black Side Panel	Off
Video Power Save	Off
Freeze Mode	Split
Default Zoom	Panoramic 2
Eco Mode	On
Picture Size	1
Panel Mode	1
Reset	Reset
Select	Set
	Return

Selected Items		Setup hint
Freeze Mode	Single	Single: It freezes a picture on a single frame.
	Split	Split: It displays 2 pictures from the same source. One is active (left), while the other is still picture (right). This is very useful in order to avoid missing something or to make a note of something, such as a recipe.

[Single]



[Split]



NOTE

- This function is not available in RGB input.



* The size of the pictures differs depending on the signal format received.

FUNCTION (continued)


Power Save Mode

When TV input is selected

When no airwave has been received and no operation has been made for 10 minutes in TV mode, it turns to standby mode automatically.



1. Press  button during TV mode.
2. Select “Setup” menu and press  button.
3. Select “Auto Off”.

Auto Off	Off
	On


Setup	
Auto Tuning	
Manual Tuning	
Fine Tuning	
Sort	
Teletext Language	
Auto Off	Off
◆ Select	◀ On/Off ▶ 

When AV input is selected

You are provided the function to save power consumption when no signal is detected in AV input. Set to On in “Video Power Save” from Function Menu, which leads to the power save mode in AV1 /AV2 /HDMI1 /HDMI2 and the Standby mode in other AV input. Please see the table below for details.

1. Press  button during AV and HDMI mode.
2. Select “Function” menu and press  button.
3. Select “Video Power Save”.

Video Power Save	Off
	On

Function	
Screen Saver	Off
Screen Wipe	On 60Min.
Black Side Panel	Off
Video Power Save	Off
Freeze Mode	Split
Default Zoom	Panoramic 2
Eco Mode	On
Picture Size	1
Panel Mode	1
Reset	Reset
◆ Select	◀ On/Off ▶ 

	When no signal is detected		When signal is input during On in “Video Power Save”
	Condition	Indicating Lamp	
AV1, AV2, HDMI1~2	Power Save	Orange	Turns On automatically.
AV3, AV4	Standby	Red	Remains as Standby mode.

When RGB input is selected



When this unit is connected to a VESA DPMS computer, the Power Save mode (Operation mode : Off) can be set to be activated automatically when the computer is not being used to reduce power consumption by this unit.

RGB sync signal	Horizontal	Yes	No	Yes	No
	Vertical	Yes	Yes	No	No
PC signal		Active (normal display)		Blank (no display)	
Operation mode		On		Off	
Indicating lamp		Lights green		Lights orange	


- To return to operating status, operate the personal computer, or press either the INPUT SELECT button of the control panel or the RGB button of the remote control.

Others

Eco Mode function can reduce the power consumption (for TV/AV/HDMI/RGB mode).

1. Press  button.
2. Press “Function” menu and press  button.
3. Select “Eco Mode”.

Eco Mode	Off
	On

Function	
Screen Saver	Off
Screen Wipe	On 60Min.
Black Side Panel	Off
Video Power Save	Off
Freeze Mode	Split
Default Zoom	Panoramic 2
Eco Mode	On
Picture Size	1
Panel Mode	1
Reset	Reset
◆ Select	◀ On/Off ▶ 

FUNCTION (continued)

DVD Player/STB Selection

You can use this remote control to operate DVD Player and Set Top Box of other manufacturer as well as this set. After pressing **[DVD]** or **[STB]** button, press (or hold) the required buttons to select the manufacturer and type as shown below.

Set up

Example: HITACHI DVD **[2]**

1. Set up the manufacturer.

Press **[DVD]** button so that the button light. While the button is lighting (Approx. 30 seconds), press **[DVD]** and **[1]** buttons.

2. Set up the manufacturer type.

Release the **[1]** button while keeping **[DVD]** button depressed. Then press **[2]** button.

3. Confirm the setting.

After setting the manufacturer and type, press the Power On/Off button on the remote control. If the DVD does not switch ON, repeat step 1 and 2 using other manufacturer types as listed.



<“DVD” Selection>

Manufacturer of DVD Player	Set Manufacturer	Set type	Manufacturer of DVD Player	Set Manufacturer	Set type
HITACHI	[DVD] [1]	[1] ~ [3]	RCA	[DVD] [0]	[1]
FUNAI	[DVD] [2]	[1]	Mitsubishi	[DVD] [D]	[1]
Pioneer	[DVD] [3]	[1] ~ [6]	ONKYO	[DVD] RED	[1] ~ [3]
Panasonic	[DVD] [4]	[1] ~ [4]	ZENITH	[DVD] GREEN	[1]
TOSHIBA	[DVD] [5]	[1] ~ [4]	THOMSON	[DVD] YELLOW	[1]
Philips	[DVD] [6]	[1] ~ [2]	SHINCO	[DVD] BLUE	[1]
JVC	[DVD] [7]	[1]	SKYWORTH	[DVD] [E]	[1]
SAMSUNG	[DVD] [8]	[1]	BUBUKO	[DVD] [B]	[1]
Sony	[DVD] [9]	[1] ~ [4]	DENON	[DVD] [C]	[1] ~ [2]
Sharp	[DVD] [H]	[1] ~ [2]	YAMAHA	[DVD] [Y]	[1] ~ [2]

<“STB” Selection>

Manufacturer of STB Player	Set Manufacturer	Set type
HITACHI	[STB] [1]	[1] ~ [2]
TOSHIBA	[STB] [2]	[1]
DGTEC	[STB] [3]	[1]
Panasonic	[STB] [4]	[1]
Zinwell	[STB] [5]	[1]
PX	[STB] [6]	[1]



NOTE

- Please note that not all models of the listed manufacturer can be operated using this remote control.

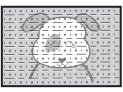

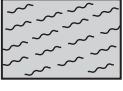

TROUBLESHOOTING

Before calling service technician, check the following tables first. If the problem is not be solved with the suggested procedures, contact your local dealer. For your safety, NEVER try to repair the product by yourself.

When Following Messages Appear on the Screen



Message	Condition / Action	Page
Power Save	This indicates it is in Power Save mode. (in AV/RGB mode) The indicating lamp lights in orange.	48
No Sync. Signal	The unit cannot detect any signals from any input terminals. • Check if the cable is connected correctly and firmly. • Check if the power of any external equipment is ON. • Check if the input selection matches the connection terminal. • Check if the PC is in Power Save mode or not.	16 ~ 18
Invalid Scan Freq.	The unit receives unsupported signals. • Check if the cable is connected correctly and firmly. • Check if the input signal is compatible with the specification of the television.	53, 55
Not Available	This shows when the selected operation is not available.	
Please Push [Return] Button	This message appears when you select other than  button while Screen Wipe is ON. Press  button when this message appears.	7
Check Antenna	Check the connection status when this message appears.	15
Auto Adjusting	This indicates that it is in the process of auto adjusting. (in RGB mode)	33
Weak Signal	• Check aerial lead if it is disconnected/damaged/misaligned. (in DTT mode) • Check with your dealer if it is out of signal area or not. (in DTT mode)	
Bad or No signal		
Database is Empty		

Symptom and Check List

Symptoms		Check list	Page
• No picture - no sound		<ul style="list-style-type: none"> • Check the Indicating lamp status (Off, Red, Green, or Orange). • Check the connection of the power cord and/or other cables. • Check if the power of the unit or external equipment is ON. • Check if the TV mode is selected. • Check if the TV is in "Standby mode" or "Power Save mode". • Adjust the values in "Picture menu" and "Audio menu". 	15 ~ 20 22, 48
• Snowy picture-poor sound		<ul style="list-style-type: none"> • Check the antenna connection and direction. • The TV station may have broadcast difficulties. Try another channel. 	15
• Multiple images-normal sound		<ul style="list-style-type: none"> • Check the antenna connection and direction. • Fine tuning the TV. • Check the connection of the external equipment. • The TV station may have broadcast difficulties. Try another channel. 	15, 26
• Intermittent interference		<ul style="list-style-type: none"> • Check if the source of interference is shielded well. • Remove those kinds of electrical devices away from the TV. 	
• Normal picture, but no sound		<ul style="list-style-type: none"> • Check the volume level. • Check if the  button has been pressed or not. • Make sure that the headphone is NOT connected. • Check the connection of the external equipment. 	21
• No picture - normal sound		• Check the value level of "Brightness" and "Contrast" in "Picture Menu".	27, 33
• The remote control does not work.		<ul style="list-style-type: none"> • Check if the batteries are installed correctly. • The batteries might be exhausted. Replace them with new ones. • Remove all the obstructions in front of the sensor window on the unit. • Check if you select the correct device by Device Select (TV, DVD, STB) buttons on the remote control. • Check if the buttons of the control panel can work. 	12, 13

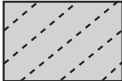





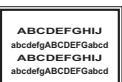





TROUBLESHOOTING (continued)

Symptom and Check List (continued)

Symptoms	Check list	Page
• Normal picture but no color-normal sound	<ul style="list-style-type: none"> • Check the connection of the external equipment. • Check the "Color System" in "Setup Menu". 	16 ~ 18 25, 31
• Image is paused.	<ul style="list-style-type: none"> • Check if the TV is in freeze mode by pressing  button. 	47
• No picture The Indicating lamp → Off	<ul style="list-style-type: none"> • Check if the power cord is plugged into the socket firmly. 	19, 20
• No picture The Indicating lamp → Orange It means that the unit is in "Power Save mode".	<ul style="list-style-type: none"> • Check if all the cables of the external equipment are connected correctly and firmly. • Check if the power of the external equipment is ON. • Check if the TV/AV mode has been selected correctly. • Check if the PC is in Power Save mode or not. • Refer to "Power Save mode" and "When following messages appears on the screen". 	48
• No picture The indicating lamp → Green	<ul style="list-style-type: none"> • Check if the signal cable is connected correctly and firmly. • Adjust the level of Brightness and Contrast lower. 	16 ~ 18
• The rear of the TV makes a buzzing sound.	<ul style="list-style-type: none"> • This could be the sound produced by the motor fan when it rotates. This is not a malfunction. 	
• The top of the unit and surface of the panel heat up.	<ul style="list-style-type: none"> • It may happen when you use the unit for a long time. Unplug the power cord for a while. Please note that this is not malfunction. 	53, 55
• The image contrast reduces while displaying still images.	<ul style="list-style-type: none"> • If still images are left on the screen for more than 2.5 minutes, protection function will work automatically so that contrast reduces to minimize image retention on plasma display panel. Please note that this is not malfunction but it helps to minimize image retention. The original contrast will restore after moving images are displayed for about 6 minutes. Original contrast can be restored quickly by turning the power On/Off with remote control or power switch on unit. 	
• When the VCR is in special playback features (Fast Forward or Rewind), the screen gets dark and cannot see the image at all.	<ul style="list-style-type: none"> • It could happen when the VCR is connected to Component output, such as 480i. This is not malfunction. • Try Composite output or S-video output and check the picture again. 	
• Some screen display size cannot be switched.	<ul style="list-style-type: none"> • Check the signal status by pressing the  button on the remote control. The available screen display size is different depending on the current signal status. 	22, 44 ~ 46
• Cannot be displayed the image from HDMI 1 ~ 2.	<ul style="list-style-type: none"> • Check if the cables are connected correctly. • Check the output format of the equipment. • (Please refer to "Connecting Procedure" and "Recommended Signal List".) 	53 ~ 55
• The image and audio are mismatched when in RGB or HDMI 1 ~ 2 mode.	<ul style="list-style-type: none"> • Check if the PC (RGB)/HDMI analog audio input terminal is connected to the same external device. 	16, 17

TROUBLESHOOTING (continued)

Symptom and Check List (continued)

Symptoms		Check list	Page
<ul style="list-style-type: none"> The image on the screen is moving in an oblique direction. (PC input mode only) 		<ul style="list-style-type: none"> Adjust "Horizontal Clock" and "Clock Phase". 	32
<ul style="list-style-type: none"> The coarse horizontal stripes could be seen in full-display mode. (PC input mode only) 		<ul style="list-style-type: none"> Adjust "Horizontal Clock". 	32
<ul style="list-style-type: none"> The part of the image is lacking. (PC input mode only) 		<ul style="list-style-type: none"> Check if the "Screen Saver" is OFF. Try "Auto Adjust". 	7 , 32
<ul style="list-style-type: none"> The horizontal stripes are moving vertically with flickering screen. (PC input mode only) 		<ul style="list-style-type: none"> Check the Signal status of the PC by pressing  button on the remote control. 	
<ul style="list-style-type: none"> When the characters are displayed on the whole screen, the vertical stripes appear and some of the characters are blurred. (PC input mode only) 		<ul style="list-style-type: none"> Try "Auto Adjust". If the display condition is not improved with Auto Adjust, adjust "Horizontal Clock". 	32
<ul style="list-style-type: none"> When the letter string is displayed in full-screen, all of the characters on the screen are blurred. (PC input mode only) 		<ul style="list-style-type: none"> Try "Auto Adjust". If the condition is not improved with Auto Adjust, adjust "Clock Phase" till you get clearest image. 	32
<ul style="list-style-type: none"> When the small patterns are displayed on the screen, the entire screen is flickering. (PC input mode only) 		<ul style="list-style-type: none"> Try "Auto Adjust". If the condition is not improved with Auto Adjust, adjust "Clock Phase" till you get flicker-free display. 	32
<ul style="list-style-type: none"> The thickness of the letters, lines, etc is not displayed evenly. (PC input mode only) 		<ul style="list-style-type: none"> It could happen when the image with more than 540 lines of vertical resolution is displayed. Please note this is not malfunction. 	55
<ul style="list-style-type: none"> Image cannot be displayed in the correct position. (PC input mode only) 		<ul style="list-style-type: none"> Press  button to check if the input signal of the displayed image is compatible with the specification of the television. 	32 , 53 , 55
<ul style="list-style-type: none"> No Picture or sound is output. (DTT mode only) 		<ul style="list-style-type: none"> It might occur because it is tuned to digital teletext channel. Return to another channel. 	41
<ul style="list-style-type: none"> Forgotten password. (DTT mode only) 		<ul style="list-style-type: none"> Press and hold down  [Yellow],  [Blue], and  buttons on the remote control simultaneously for over 3 seconds so that the password returns to the default setting (0000). 	42
<ul style="list-style-type: none"> Due to the bad reception, block noise interferes during DTT mode. (DTT mode only) 		<ul style="list-style-type: none"> Check the aerial system to improve signal quality. 	15
<ul style="list-style-type: none"> Local time displays incorrectly. (DTT mode only) 		<ul style="list-style-type: none"> Check if you select correct area in "Local time" from "General setting". 	43

PRODUCT SPECIFICATIONS

SPECIFICATION			
Panel	Display dimensions	Approx. 42 inches (931 (H) x 524 (V) mm, diagonal 1060mm)	Approx. 50 inches (1106 (H) x 626 (V) mm, diagonal 1270mm)
	Resolution	1024 (H) x 1080 (V) pixels	1280 (H) x 1080 (V) pixels
Net dimensions		including Optional Stand: 1067 (W) x 781 (H) x 366 (D) mm excluding Optional Stand: 1067 (W) x 713 (H) x 113 (D) mm	including Optional Stand: 1240 (W) x 885 (H) x 423 (D) mm excluding Optional Stand: 1240 (W) x 821 (H) x 129 (D) mm
Net weight		including Optional Stand: 35.1kg excluding Optional Stand: 28.3kg	including Optional Stand: 46.3kg excluding Optional Stand: 40.4kg
Ambient conditions	Temperature	Operating : 5°C to 35°C, Storage : 0°C to 40°C	
	Relative humidity	Operating : 20% to 80%, Storage : 20% to 90% (non-condensing)	
Power supply		AC240V, 50Hz	
Power consumption/ at standby		348W/<0.8W	449W/<0.8W
Audio output		speaker 10W + 10W	
(VIDEO input)			
Input terminals		AV1•2: component video input terminal (RCA) L/R audio input terminal (RCA) AV3: composite video input terminal (RCA) L/R audio input terminal (RCA) AV4: composite video input terminal (RCA) S video input terminal L/R audio input terminal (RCA) HDMI 1~2 : HDMI input terminal Audio input terminal (L/R audio input terminal (RCA))*	
Input signals		Composite video: PAL, SECAM, NTSC3.58, NTSC4.43, PAL60, PAL-M, PAL-N Component video: 480i, 576i, 480p, 576p, 720p/50, 720p/60, 1080i/50, 1080i/60 HDMI: VGA/60, 480i, 576i, 480p, 576p, 720p/50, 720p/60, 1080i/50, 1080i/60, 1080p/50, 1080p/60, 1080p/24	
Output signal		OUTPUT (MONITOR): composite video monitor-output terminal (RCA) OUTPUT (MONITOR): L/R audio monitor- output terminal (RCA) OUTPUT (HEADPHONE): L/R audio monitor- output terminal (Mini-pin) OPTICAL OUT (Digital Audio) : PCM, Dolby® Digital	
(RF input)			
Input terminal / Receiving range		ANT : 75Ω Unbalanced / 44~870MHz	
RF Video System		PAL B, G, H / I / D, K SECAM B, G / D, K / K1 NTSC-M DVB-T	
(RGB input)			
Input terminals		Analog RGB input terminal (D-sub 15-pin) Audio input terminal (L/R audio input terminal (RCA))*	
Input signals		0.7 Vp-p, analog RGB (Recommended Signal)	
Sync signals		H/V separate, TTL level [2KΩ]	

• The unit takes at least 30 minutes to attain the status of optimal picture quality.

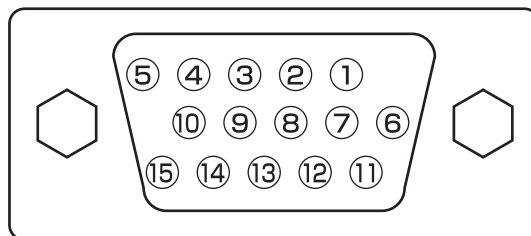
* This analog audio input terminal can be used for PC (RGB) or HDMI 1~2 only.

PRODUCT SPECIFICATIONS (continued)

Signal Input

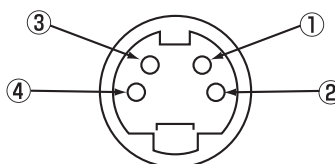
RGB terminal (D-sub 15-pin connector)

Pin	Input signal
1	R
2	G
3	B
4	No connection
5	No connection
6	R.GND
7	G.GND
8	B.GND
9	No connection
10	GND
11	No connection
12	[SDA]
13	H. sync
14	V.sync.
15	[SCL]



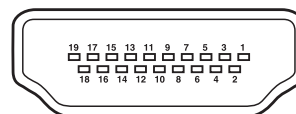
S-input connector pin specifications

Pin	Input signal
1	Y
2	Y-GND
3	C
4	C-GND
Frame	GND



HDMI connector pin specifications

Pin	Input signal	Pin	Input signal
1	TMDS Data2+	11	TMDS Clock Shield
2	TMDS Data2 Shield	12	TMDS Clock-
3	TMDS Data2-	13	CEC
4	TMDS Data 1+	14	Reserved(N.C. on device)
5	TMDS Data1 Shield	15	SCL
6	TMDS Data1-	16	SDA
7	TMDS Data0+	17	DDC/CEC Ground
8	TMDS Data0 Shield	18	+5V Power
9	TMDS Data0-	19	Hot Plug Detect
10	TMDS Clock+		



PRODUCT SPECIFICATIONS (continued)

Recommended Signal List

With HDMI input

No.	Signal mode			Horizontal frequency (kHz)	Dot clock frequency (MHz)	Remarks
	Signal Name	Resolution	Vertical frequency (Hz)			
1	VGA	640 X 480	59.94	31.47	25.18	CEA-861D
2	576i	720(1440) X 576	50.00	15.63	27.00	CEA-861D
3	480i	720(1440) X 480	59.94	15.73	27.00	CEA-861D
4	576p	720 X 576	50.00	31.25	27.00	CEA-861D
5	480p	720 X 480	59.94	31.47	27.00	CEA-861D
6	1080i/50	1920 X 1080	50.00	28.13	74.25	CEA-861D
7	1080i/60	1920 X 1080	60.00	33.75	74.25	CEA-861D
8	720p/50	1280 X 720	50.00	37.50	74.25	CEA-861D
9	720p/60	1280 X 720	60.00	45.00	74.25	CEA-861D
10	1080p/50	1920 X 1080	50.00	56.25	148.50	CEA-861D
11	1080p/60	1920 X 1080	60.00	67.50	148.50	CEA-861D
12	1080p/24	1920 X 1080	24.00	27.00	74.25	CEA-861D

With RGB input

Timing Name	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Frequency (MHz)	Sync Polarity (H/V)	Remarks
640 x 400 @ 70Hz	31.469	70.086	25.175	- / +	VGA
640 x 480 @ 60Hz	31.469	59.940	25.175	- / -	VGA
800 x 600 @ 60Hz	37.879	60.317	40.000	+ / +	VESA
1024 x 768 @ 60Hz	48.363	60.004	65.000	- / -	VESA
1280 x 768 @ 60Hz	47.776	59.870	79.500	- / +	VESA / WXGA Mode : 1280x768
1280 x 1024 @ 60Hz	63.981	60.020	108.000	+ / +	VESA
1360 x 768 @ 60Hz	47.712	60.015	85.500	+ / +	VESA / WXGA Mode : 1360x768

- The type of video board or connecting cable used may not allow for correct displays adjustment of Horizontal Position, Vertical Position, Horizontal Clock and Clock Phase.
- The unit differentiates the signal modes according to the horizontal and vertical frequencies and the horizontal and vertical sync signal polarities. Note that different signals having all these elements alike may be handled as the same signal.
- Displaying images with more than 540 lines of vertical resolution at Full display (compressed display) can result in the interpolation of stripes.