### **Panasonic**<sup>®</sup>

**Operating Instructions** 42"/50" Class 720p Plasma HDTV (41.6/49.9 inches measured diagonally) Manual de instrucciones Televisión de alta definición de 720p y clase 42"/50" de Plasma (41,6/49,9 pulgadas medidas diagonalmente) Model No.

**TC-P42X1** Número de modelo **TC-P50X1** 



#### Customer's Record

The model number and serial number of this product can be found on its back cover. You should note this serial number in the space provided below and retain this book, plus your purchase receipt, as a permanent record of your purchase to aid in identification in the event of theft or loss, and for Warranty Service purposes.

Model Number

Serial Number

#### Anotación del cliente

El modelo y el número de serie de este producto se encuentran en su panel posterior. Deberá anotarlos en el espacio provisto a continuación y guardar este manual, más el recibo de su compra, como prueba permanente de su adquisición, para que le sirva de ayuda al identificarlo en el caso de que le sea sustraído o lo pierda, y también para disponer de los servicios que le ofrece la garantía.

Modelo

Número de serie

Panasonic Consumer Electronics Company. **Division of Panasonic Corporation of North America** One Panasonic Way. Secaucus New Jersey 07094 U.S.A.

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Panasonic Canada Inc. 5770 Ambler Drive Mississauga, Ontario L4W 2T3 ČANADA

> Printed in U.S.A. Impreso en EE.UU.

HOMI







#### English

Please read these instructions before operating your set and retain them for future reference. The images shown in this manual are for illustrative purposes only.

#### Español

Lea estas instrucciones antes de utilizar su televisor y guárdelas para consultarlas en el futuro. Las imágenes mostradas en este manual tienen solamente fines ilustrativos.



#### Turn your own living room into a movie theater! Experience an amazing level of multimedia excitement



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#### Enjoy your TV! **Basic Features**

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VIECA Link

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HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of

HDMI Licensing LLC.

HDAVI Control<sup>™</sup> is a trademark of Panasonic Corporation.

VIERA Link<sup>™</sup> is a trademark of Panasonic Corporation.

Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.



SDHC Logo is a trademark.



This product qualifies for ENERGY STAR in the "Home Use" setting and this is the setting in which energy savings will be achieved. Any modifications to the "Home Use" setting or other factory default settings could result in greater energy consumption beyond levels that meet ENERGY STAR qualifications.



FAQs, etc.

Advanced

### Safety Precautions





tell the user that important

operating and servicing

papers with the appliance.

instructions are in the

WARNING: To reduce the risk of electric shock, do not remove cover or back. No user-serviceable parts inside. Refer servicing to qualified service personnel.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. Do not place liquid containers (flower vase, cups, cosmetics, etc.) above the set (including on shelves above, etc.).

#### Important Safety Instructions

- 1) Read these instructions.
- Keep these instructions. 2)
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- Clean only with dry cloth. 6)
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, 8) heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet. consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

- 11) Only use attachments / accessories specified by the manufacturer. 12) Use only with the cart, stand, tripod,
  - bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart /



- apparatus combination to avoid injury from tip-over. 13) Unplug this apparatus during lightning storms or when
- unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 15) To prevent electric shock, ensure the grounding pin on the AC cord power plug is securely connected.

#### FCC STATEMENT

This equipment has been tested and found to comply with the limits for an Other Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- · Reorient or relocate the receiving antenna.
- · Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the Panasonic Service Center or an experienced radio/TV technician for help.

#### FCC Caution:

To assure continued compliance, follow the attached installation instructions and use only shielded interface cables when connecting to peripheral devices. Any changes or modifications not expressly approved by Panasonic Corp. of North America could void the user's authority to operate this device.

Responsible Party:	Panasonic Corporation of North America One Panasonic Way, Secaucus, NJ 07094
Contact Source:	Panasonic Consumer Electronics Company 1-877-95-VIERA (958-4372)
email:	consumerproducts@panasonic.com

#### **CANADIAN NOTICE:** For Model TC-P42X1, TC-P50X1 This Class B digital apparatus complies with Canadian ICES-003

#### 

Small parts can present choking hazard if accidentally swallowed.

Keep small parts away from young children. Discard unneeded small parts and other objects, including packaging materials and plastic bags/sheets to prevent them from being played with by young children, creating the potential risk of suffocation.

#### Set up

This Plasma TV may fall and can cause personal injury or even death if not installed correctly. To prevent personal injury or death. follow these warnings:

- Install the Plasma TV in accordance with the manufacturer's recommended pedestal or stand, corresponding hardware and installation instructions. This Plasma TV is for use only with the following optional accessories. Use with any other type of optional accessories may cause instability. The following accessories are manufactured by Panasonic Corporation. • Wall-hanging bracket (Angled) TY-WK4P1RW
- Be sure to ask a gualified technician to carry out the installation and set-up. Two or more people are required to install or remove the
- television. • Some wall mounts (wall-hanging brackets) are not designed to be mounted to walls with steel studs or old cinder block constructions.
- Ask your dealer or licensed contractor to properly secure the wall-hanging bracket.
- Do not place the Plasma TV or its stand on a sloped or unstable surface.
- The Plasma TV may fall or tip over.
- Do not support the Plasma TV on a non-specified pedestal.
- Do not place the Plasma TV on furniture that can easily be used as steps, such as a chest of drawers.
- Do not climb or allow children to climb on the Plasma TV
- Place or install the Plasma TV where it cannot be pushed. pulled over or knocked down.
- Route all cords and cables such that they cannot be tripped over or pulled by curious children.
- Do not place any objects on top of the Plasma TV. If water spills onto the Plasma TV or foreign objects get inside it, a short-circuit may occur which could result in fire or electric shock. If any foreign objects get inside the Plasma TV, please consult an Authorized Service Center.

#### ■ AC Power Supply Cord

To prevent fire or electric shock:

- The Plasma TV is designed to operate on a 120 V AC. 60 Hz service. Insert the power cord plug as far as it will go into the wall socket.
- If the plug is not fully inserted, heat may generate, which could cause a fire.
- The included power cord is for use with this unit only.
- Do not use any power cord other than that provided with this TV.
- Do not handle the power cord plug with wet hands.
- Do not do anything that might damage the power supply cord.

#### WARNING/CAUTION

- When disconnecting the power supply cord, hold the plug, not the cord.
- Do not use the power supply cord if the plug or cord is damaged.
- Replace the cord or contact your Authorized Service Center

#### Handling the power supply cord

- Insert the power plug fully into the socket outlet. (If the power plug is loose, it could generate heat and cause fire.)
- Ensure that the power plug is easily accessible.
- Ensure the earth pin on the power plug is securely connected to prevent electrical shock. · An apparatus with CLASS I construction shall be connected to
- a power socket outlet with a protective earthing connection.
- Do not touch the power plug with a wet hand. (This may cause electrical shock.)
- Do not use any power cord other than that provided with this TV. (This may cause fire or electrical shock.)
- Do not damage the power cord. (A damaged cord may cause fire or electrical shock.)
- · Do not move the TV with the cord plugged in the socket outlet. • Do not place a heavy object on the cord or place the cord
- near a high-temperature object.
- · Do not twist the cord, bend it excessively, or stretch it. • Do not pull on the cord. Hold onto the power plug body
- when disconnecting cord.
- · Do not use a damaged power plug or socket outlet.

#### If Problems Occur During Use

- If a problem occurs (such as no picture or no sound), or if smoke or an abnormal odor is detected from the Plasma TV, unplug the power supply cord immediately. Continued use of the TV under these conditions might cause a fire or permanent damage to the TV. Have the TV evaluated by an Authorized Service Center. Servicing of the TV by unauthorized personnel is strongly discouraged due to its high voltage.
- If water or an object gets inside the Plasma TV, if the Plasma TV is dropped, or if the enclosure becomes damaged, unplug the power supply cord immediately. A short-circuit may occur, which could cause a fire. Contact an Authorized Service Center for an evaluation.

- Do not cover the ventilation holes.
- Doing so may cause the Plasma TV to overheat, which can cause a fire or damage to the Plasma TV.
- Leave a space of 3 15/16" (10 cm) or more at the top, left and right, and 2 3/4" (7 cm) or more at the rear.
- When using the pedestal, keep the space between the bottom of the TV and the pedestal or stand surface clear from objects that may obstruct ventilation.
- When Moving the Plasma TV
- Be sure to disconnect all cables before moving the Plasma TV.
- Moving the TV with its cables attached might damage the cables which, in turn, can cause fire or electric shock
- To prevent an electric shock, disconnect the power plug from the wall outlet as a safety precaution before carrving out any cleaning.

### Safety Precautions (Continued)

- Transport only in upright position
- Transporting the unit with its display panel facing upright or downward may cause damage to the internal circuitry.

• Using a dry cloth, clean any dust from the power supply cord and plug regularly.

Build-up of dust on the power cord plug can increase humidity, which might damage the insulation and cause a fire. This Plasma TV radiates infrared rays;

therefore, it may affect other infrared communication equipment. Install your infrared sensor in a place away from direct or reflected light from your Plasma TV. The TV will still consume some power as long as the power supply cord is connected to the wall outlet.



or impact to the display panel.

This may cause damage resulting in injury.

• Display panel is made of glass. Do not apply strong force

• The TV is heavy. TV should be handled by 2 or more

people. Support as shown to avoid injury by the TV



#### **A**WARNING

CEA CHILD SAFETY NOTICES: Flat panel displays are not always supported on the proper stands or installed according to the manufacturer's recommendations. Flat panel displays that are inappropriately situated on dressers, bookcases, shelves, desks, speakers, chests or carts may fall over and may cause personal injury or even death.

The consumer electronics industry (of which Panasonic is a member) is committed to making home entertainment enjoyable and safe. To prevent personal injury or death, be sure to follow the following safety guidelines:

#### TUNE INTO SAFETY:

- One size does NOT fit all. Follow the manufacturer's recommendations for the safe installation and use
  of your flat panel display.
- · Carefully read and understand all enclosed instructions for proper use of this product.
- Don't allow children to climb on or play with furniture and television sets.
- Don't place flat panel displays on furniture that can easily be used as steps, such as a chest of drawers.
- Remember that children can become excited while watching a program, especially on "larger than life" flat panel displays. Care should be taken to install the display where it cannot be pushed, pulled over, or knocked down.
- Care should be taken to route all cords and cables connected to the flat panel display so that they cannot be pulled or grabbed by curious children.

WALL MOUNTING: IF YOU DECIDE TO WALL MOUNT YOUR FLAT PANEL DISPLAY, ALWAYS:

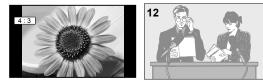
- Use a mount that has been recommended by the display manufacturer and/or listed by an independent laboratory (such as UL, CSA, ETL).
- Follow all instructions supplied by the display and wall mount manufacturers.
- If you have any doubts about your ability to safely install your flat panel display, contact your retailer about professional installation.
- Make sure the wall where you are mounting the display is appropriate. Some wall mounts are not designed to be mounted to walls with steel studs or old cinder block construction. If you are unsure, contact a professional installer.
- A minimum of two people are required for installation. Flat panel displays can be heavy.

Panasonic recommends that a qualified installer perform the wall-mount installation. See page 5.

### Notes

#### Do not display a still picture for a long time

This causes the image to remain on the plasma screen ("Image retention"). This is not considered a malfunction and is not covered by the warranty.



To prevent "Image retention", the screen saver is automatically activated after a few minutes if no signals are sent or no operations are performed. (p. 51)

#### **Typical still images**

Channel number and other logos

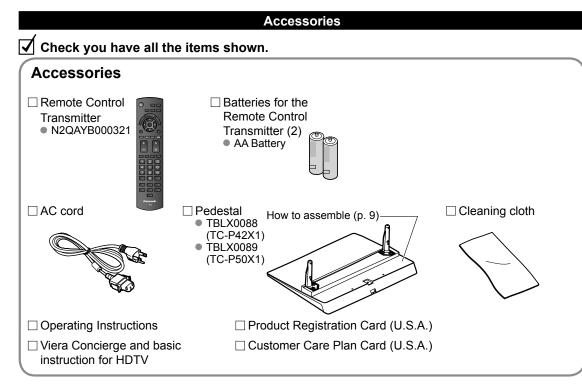
- Image displayed in 4:3 mode
- SD Card photo
   Video game
   Computer image

#### Set up

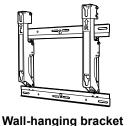
• Do not place the unit where it's exposed to sunlight or other bright light (including reflections).

Use of some types of fluorescent lighting may reduce the remote control's transmission range.

### **Accessories/Optional Accessory**



#### **Optional Accessory**



(angle) ● TY-WK4P1RW

#### Note

- In order to maintain the TV's performance and safety, be absolutely sure to ask your dealer or a licensed contractor to secure the wall-hanging brackets.
- Carefully read the instructions accompanying the plasma TV stand or pedestal, and be absolutely sure to take steps to prevent the TV from tipping over.
- Handle the TV carefully during installation since subjecting it to impact or other forces may cause its panel to crack.

 Installing the remote's batteries

 Image: Stalling the remote control

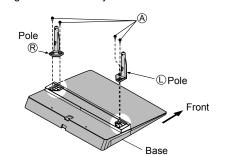
 Image: Stalling the remote control

(+ or -).

#### Attaching the pedestal to TV

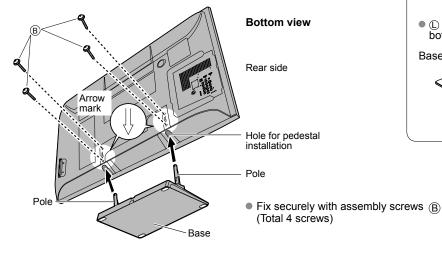
#### Assembling the pedestal

Fix securely with assembly screws (A). (Total 4 screws)
 Tighten screws firmly.



#### ∎Set-up

Carry out work on a horizontal and level surface.
Tighten screws firmly.



### 

Accessories

#### Warning

#### Do not disassemble or modify the pedestal.

• Otherwise the TV may fall over and become damaged, and personal injury may result.



#### Do not use any other TV and displays.

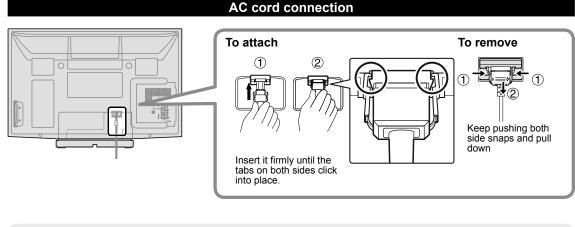
• Otherwise the TV may fall over and become damaged, and personal injury may result.

- Do not use the pedestal if it becomes warped or physically damaged.
- If you use the pedestal when it is physically damaged, personal injury may result. Contact your nearest Panasonic Dealer immediately.

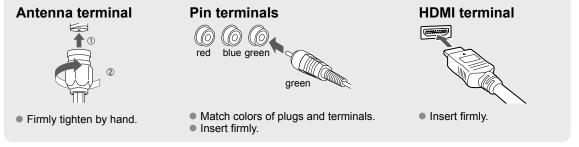
#### During set-up, make sure that all screws are securely tightened.

 If sufficient care is not taken to ensure screws are properly tightened during assembly, the pedestal will not be strong enough to support the TV, and it might fall over and become damaged, and personal injury may result.

### Accessories/Optional Accessory (Continued)



### **Reference of connection**



## **Basic Connection**

#### Example 1 Connecting Antenna (To watch TV)

~\*\*\*

Cable TV

# 

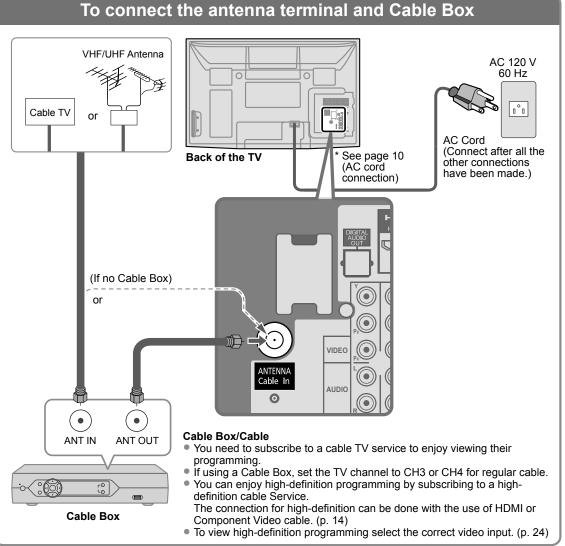
#### VHF/UHF Antenna

• NTSC (National Television System Committee):

Conventional broadcasting

ATSC (Advanced Television Systems Committee):

Digital TV Standards include digital high-definition television (HDTV), standard-definition television (SDTV), data broadcasting, multi-channel surround-sound audio and interactive television.



#### Note

• Not all cables and external equipment shown in this book are supplied with the TV.

For more details on the external equipment's connections, please refer to the operating manuals for the equipment.
 When disconnecting the power cord, be absolutely sure to disconnect the power cord plug from the wall outlet first.

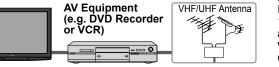
• For additional assistance, visit us at: www.panasonic.com

www.panasonic.ca

### **Basic Connection** (Continued)

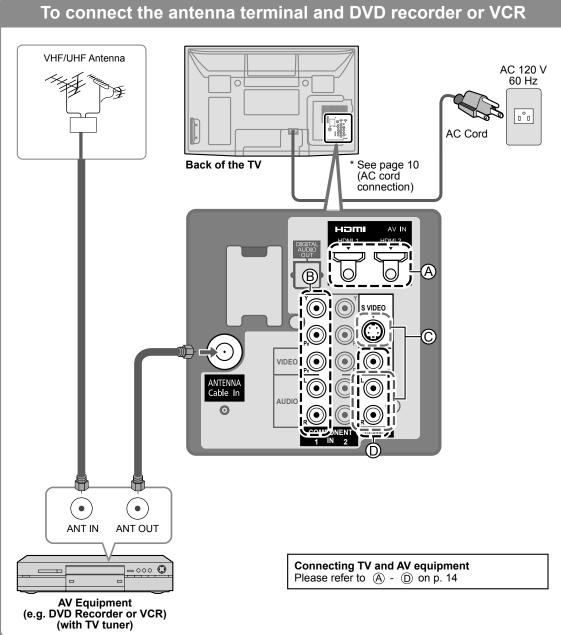


#### **DVD Recorder**

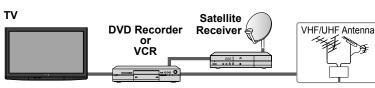


#### If the source has a higher resolution signal (480p/720p/ 1080i/1080p), connection can be made with the use of a Component Video or HDMI cable. (p. 14) VCR

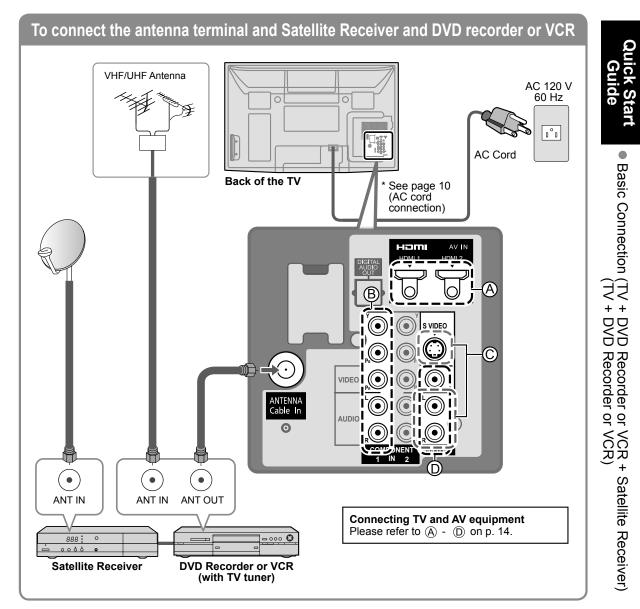
Connection can be made with the use of an RF cable and Composite Video/S Video cable. (p. 14)



#### Example 3 Connecting DVD recorder (VCR) and satellite receiver



You can enjoy high-definition programming by subscribing to high-definition satellite service. Connection can be done with the use of HDMI or Component Video cable. (p. 14)



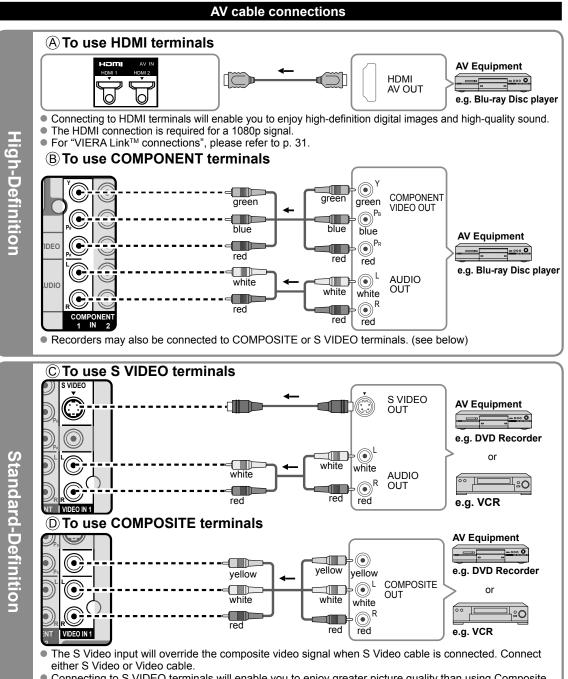
#### Note

• For details of external equipment connections, please refer to the operating manuals for the equipment.

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### Basic Connection (Continued)

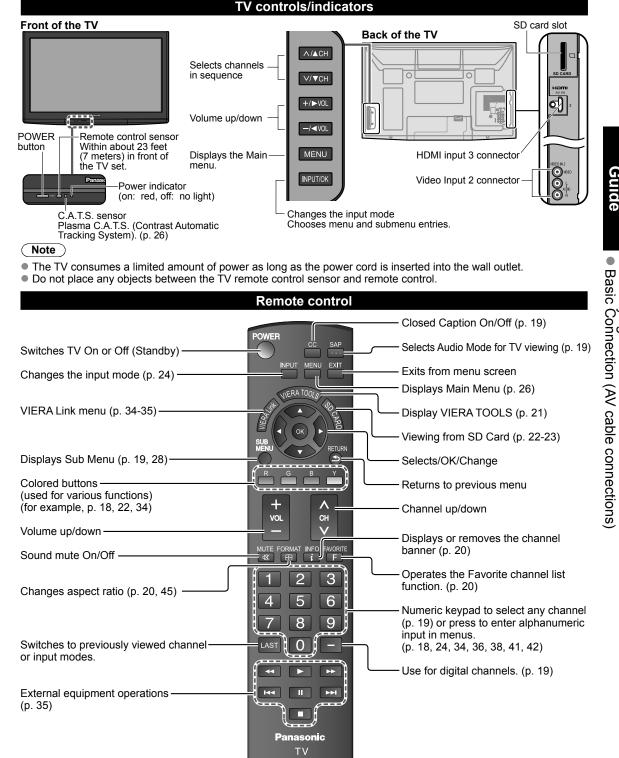


 Connecting to S VIDEO terminals will enable you to enjoy greater picture quality than using Composite terminals.

#### Note

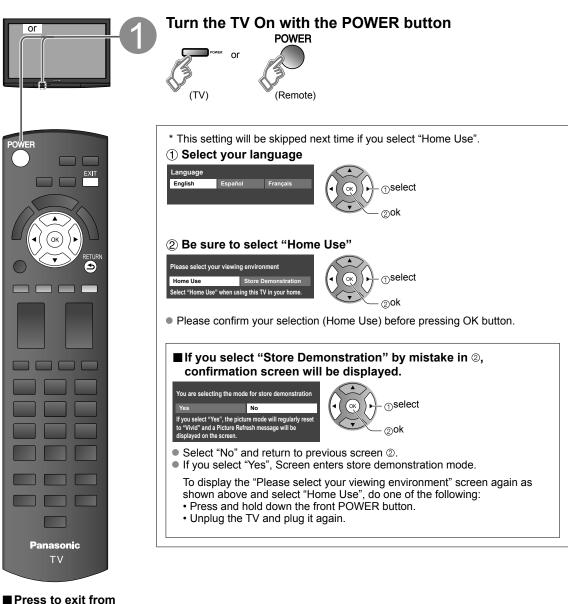
- Some programs contain a copyright protection signal to prevent recording.
- When the copyright protection program is displayed, do not connect the other TV monitor through a VCR. Video signals fed through VCRs may be affected by copyright protection systems and the picture will be distorted on the other TV monitor.
- For more details on the external equipment's connections, please refer to the operating manuals for the equipment.

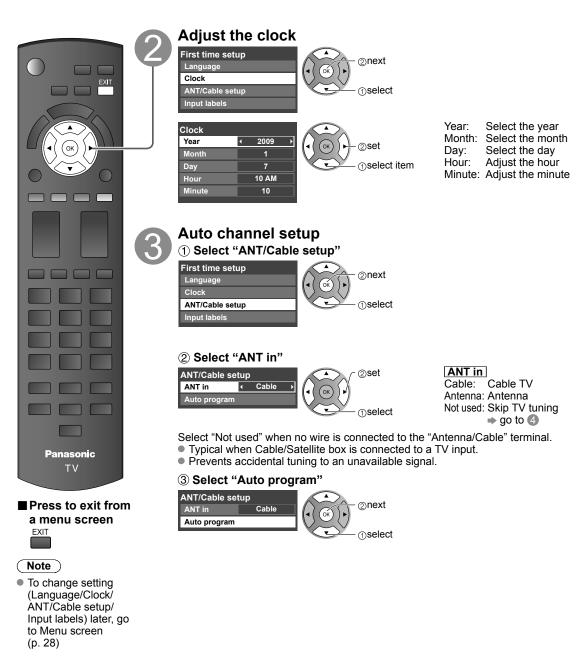
## **Identifying Controls**



### **First Time Setup**

"First time setup" is displayed only when the TV is turned on for the first time after the power cord is inserted into a wall outlet and when "Auto power on" (p. 28-29) is set to "No".





a menu screen

Press to return to the previous screen RETURN 

EXIT

POWER

### First Time Setup (Continued)

Cancel

Add

Yes

Yes

Yes

32%

Auto program

All channels

Analog only

Digital onl

Auto program

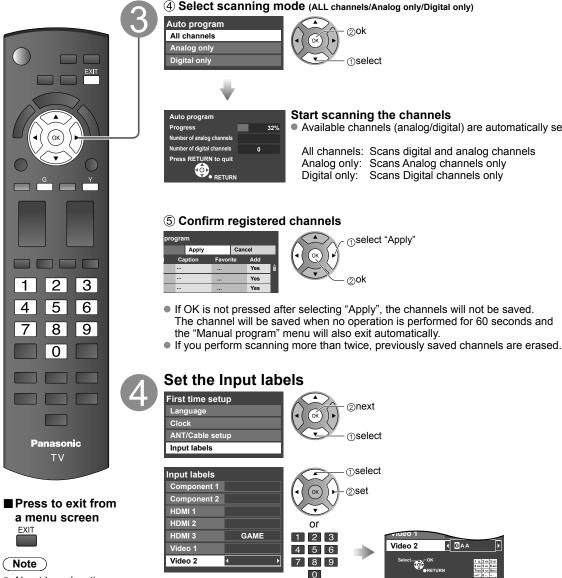
Number of analog channels

Number of digital channels

Press RETURN to quit

Apply

Progress



About broadcasting systems

Analog (NTSC): Conventional broadcasting Digital (ATSC): New programming that allows you to view more channels featuring high-quality video and sound

Set the Input labels First time setup next Language Clock ANT/Cable setup select Input labels Select Input labels **Component 1** Component 2 HDMI 1 HDMI 2 or HDMI 3 GAME 1 2 3 Video 2 Video 1 4 5 6 Video 2 789 0 Switches Input mode alphabet to numeric Label: [BLANK] SKIP/VCR/DVD/CABLE/SATELLITE/DVR/GAME/AUX/RECEIVER/ COMPUTER/Blu-ray/CAMERA/DVD REC/HOME THTR/MONITOR/MEDIA CTR/MEDIA EXT/OTHER

OOK

∩select

Start scanning the channels

Available channels (analog/digital) are automatically set.

All channels: Scans digital and analog channels

Analog only: Scans Analog channels only

Digital only: Scans Digital channels only

select "Apply'

The channel will be saved when no operation is performed for 60 seconds and

OK)

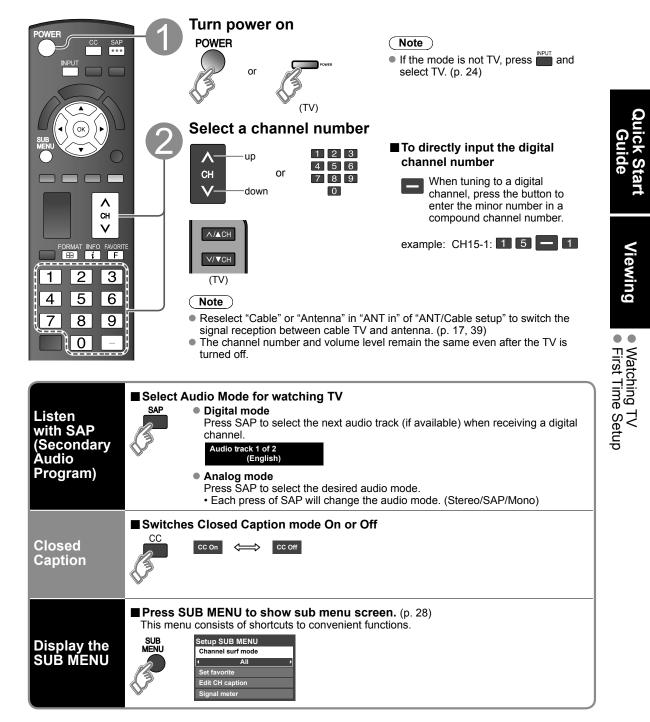
(ок

the "Manual program" menu will also exit automatically.

Watching TV

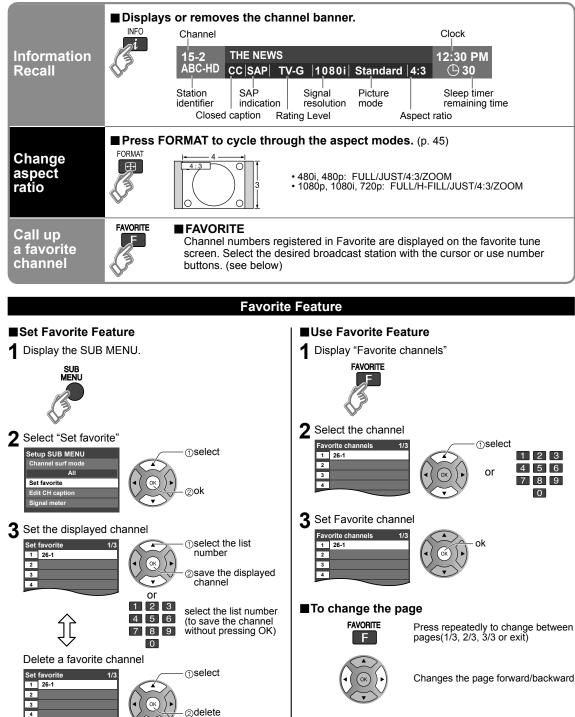
Connect the TV to a cable box/cable, set-top-box, satellite box or antenna cable (p. 11-14)

#### To watch TV and other functions



## Watching TV (Continued)

■ Other Useful Functions (Operate after (2))

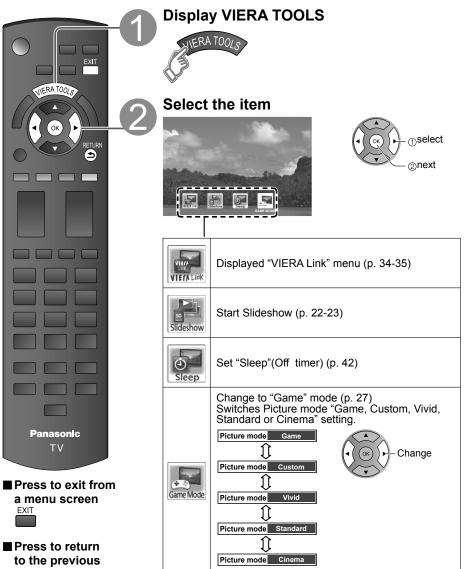


(with holding down)

## **Using VIERA TOOLS**

VIERA TOOLS are the easy way to access high use menu items. They are displayed as shortcut icons on the TV screen.

Unlike a conventional menu, you can enjoy using, playing or setting a function quickly.



Changes the page forward/backward

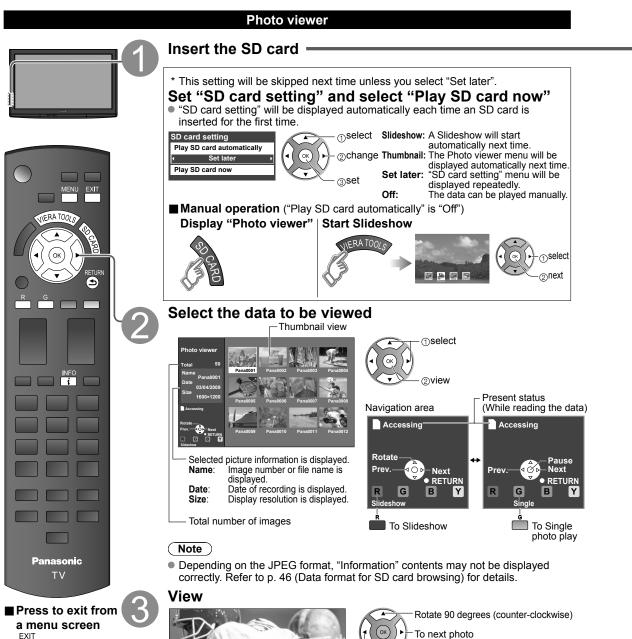
EXIT

screen

RETURN

## Viewing from an SD Card

You can view photos taken with a digital camera or digital video camera and saved on an SD card. (Media other than SD Cards may not be reproduced properly.)



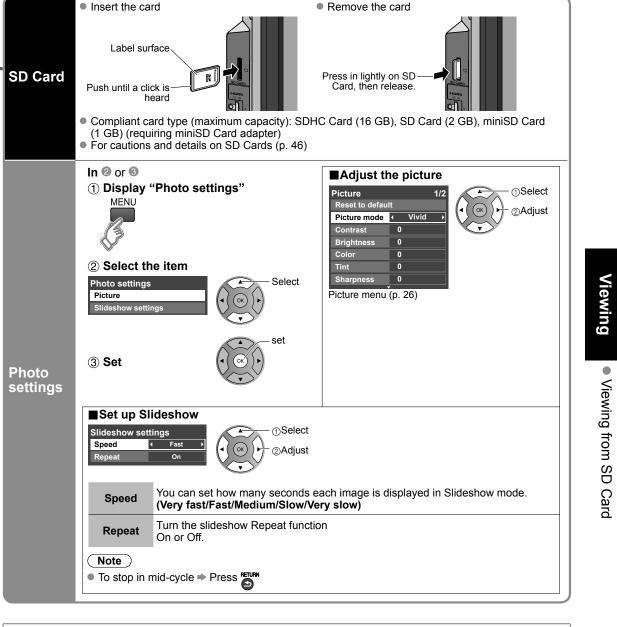
 $\overline{\mathbf{v}}$ -Rotate 90 degrees (clockwise)

To previous photo



To display/hide Navigation area => 100 million

Displays one at a time Navigation area



#### VIERA IMAGE VIEWER

The VIERA Image Viewer is a function that lets you easily view still and motion images on a VIERA television by simply inserting an SD card into the VIERA SD card slot.

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Viewing from SD Card

Press to return

screen RETURN ()

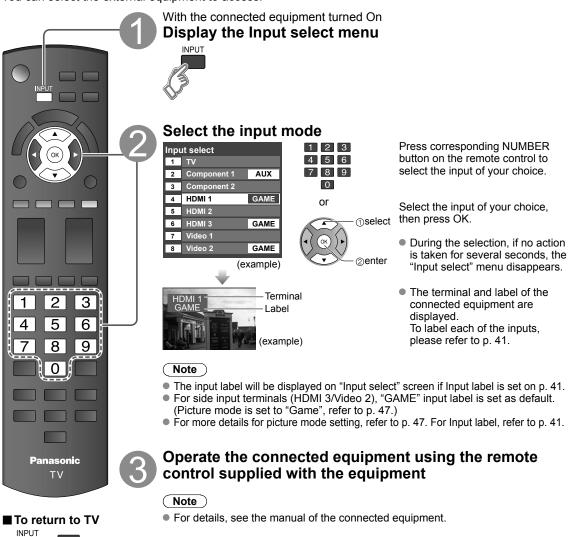
to the previous

## Watching Videos and DVDs

If you have applicable equipment connected to the TV, you can watch videos and DVDs on the TV's screen.

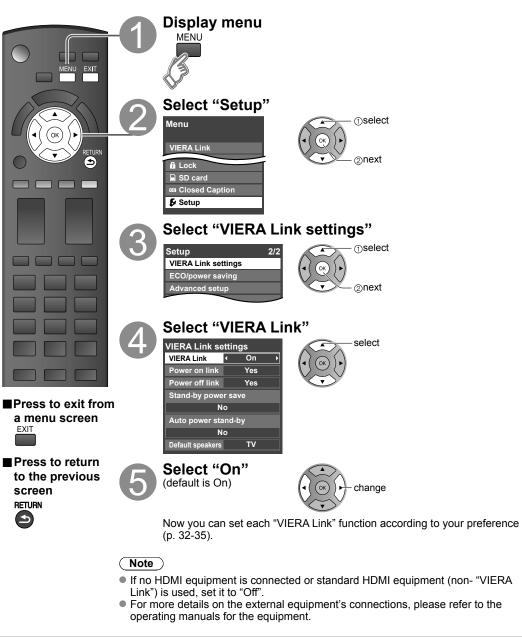
#### Input Select

You can select the external equipment to access.

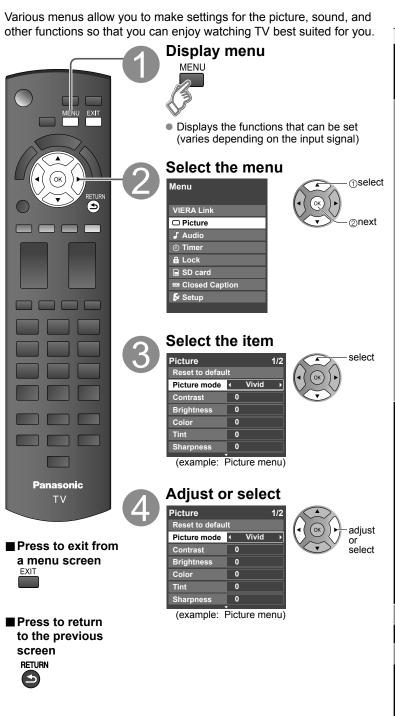


### VIERA Link<sup>™</sup> Setting

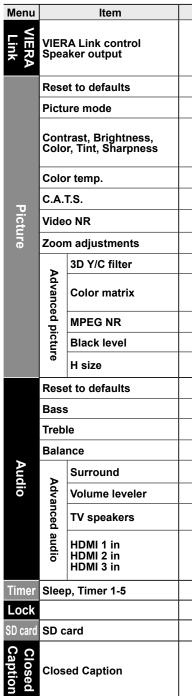
If you connect equipment that has the "HDAVI Control" function to a TV using an HDMI cable, you will find it easier to use. Please refer to p. 30-35. Before using these functions, you need to set "VIERA Link" setting to "On" as shown below.



### How to Use Menu Functions



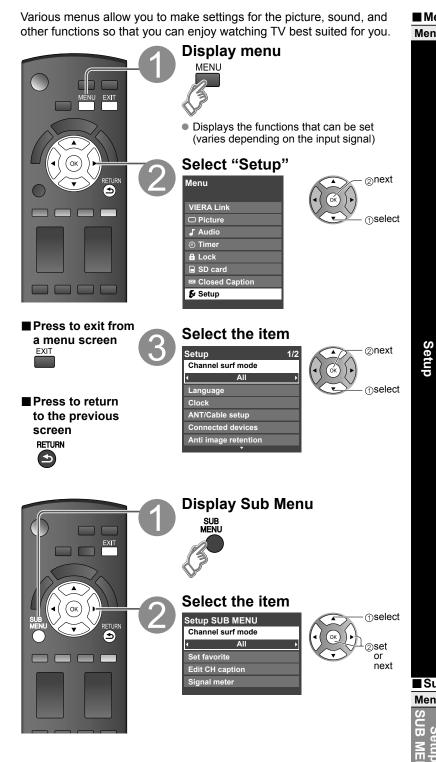
#### Menu list



Adjustments/Configurations (alternatives)	
[VIERA Link control] Selects an audio output. (Home theater/TV) (p. 34-35) Selects an audio output. (Home theater/TV) (p. 34-35) • VIERA Link menu is accessible directly by pressing the VIERA Link button on the remote control.	
Resets all picture adjustments to factory default settings except for "Advanced picture".	Reset to defaults
Basic picture mode (Vivid/Standard/Cinema/Game/Custom) (p. 47)	Picture mode Vivid
Adjusts color, brightness, etc. for each picture mode to suit your taste       Contrast         Display range       Contrast/Brightness/Color/Sharpness:       0 - 100         Tint:       -50 - +50       Color	
Selects a choice of Cool(blue), Normal, or Warm(red) color. (Cool/Normal/Warm)	Color temp. Cool
Adjusts the brightness and gradation according to the ambient lighting condition. (Off/On)	C.A.T.S. Off
Reduces noise, commonly called snow. Leave it off when receiving a strong signal. (Off/Or	I) Video NR Off
Adjusts vertical alignment and size when aspect setting is "ZOOM" (p. 45)	Zoom adjustments
Minimizes noise and cross-color in the picture. (On/Off)	3D Y/C filter On
Selects image resolution of component-connected devices (HD/SD) <ul> <li>SD: Standard Definition HD: High Definition</li> <li>Only 480p signal accepted; regular TV (NTSC) is not available.</li> </ul>	Color matrix SD
Reduces noise of specific digital signals of DVD, STB, etc. (On/Off)	MPEG NR Off
Selects Dark or Light. Valid only for external input signals. (Dark/Light)	Black level Light
Adjust horizontal display range to reduce noise of both side edges of an image. (Size 1/Siz Size 2: Adjust image size according to aspect mode for reducing noise. (p. 48)	e 2) H size Size 1
Resets Bass, Treble and Balance adjustments to factory default settings.	Reset to defaults
Increases or decreases the bass response.	Bass 0
Increases or decreases the treble response.	Treble 0
Emphasizes the left / right speaker volume.	Balance 0
Enhances audio response when listening to stereo. (On/Off)	Surround Off
Minimizes volume disparity after switching to external inputs.	Volume leveler 0
Switch to "Off" when using external speakers (On/Off) <ul> <li>"Surround" and "Volume leveler" do not work if "Off" is selected.</li> </ul>	TV speakers On
The default setting is "Digital" for HDMI connection. (Digital input signal) Select audio input terminal when DVI cable is connected. (Analog audio input signal) (Digital/Component 1/Component 2/Video 1/Video 2)	HDMI1 inDigitalHDMI2 inDigitalHDMI3 inDigital
The TV can automatically turn On/Off at the designated date and time (p. 42)	
Locks the channels and programs (p. 36)	
Displays SD card data (p. 22-23)	SD card
Displays subtitles (Closed Caption) (p. 40)	Closed Caption

• In AV mode, the Audio menu and Setup menu give fewer options.

### **How to Use Menu Functions**



#### Menu list Menu Item Channel surf mode Language Clock ANT/Cable setup Connected Anti Image retention devices Input labels Pixel orbiter Time (minutes) 4:3 side bars Scrolling bar **VIERA Link** VIERA Link settings Power on link Power off link Setup Stand-by power save Auto power stand-by **Default speakers** ECO/power saving No signal for 10 minutes No activity for 3 hours Advanced setup Auto power on Play SD card automatically About Reset to defaults Sub menu list Menu Item Channel surf mode Set favorite **Edit CH caption** Signal meter

### (Continued)

Adjustments/Configurations (alternatives)		
Sets the mode to select the channel with Channel up/down button (All/Favorite/Digital only/Analog only) Favorite: Only channels registered as FAVORITE (p. 20)	Channel surf mode	
Selects the screen menu language (p. 16)	Language	
Adjusts the clock (p. 17)	Clock	
Sets channels (p. 39)	ANT/Cable setup	

Selects the terminal and label of the external equipment (p. 41)

<ul> <li>Prevents "Image retention" with Wobbling. (Automatic/Periodic)</li> <li>Automatic: Shifts the display image automatically.</li> <li>Periodic: Shifts the display image every (1/2/3/4) minutes according to what was set in the "Time (minutes)" menu.</li> </ul>	Pixel orbiter Automatic
Sets the time for "Pixel orbiter-Periodic" setting. (1/2/3/4)	Time (minutes) 4
Change the brightness of the side bar ( <b>Off/Dark/Mid/Bright</b> ) (4:3 mode only) <ul> <li>The recommended setting is "Bright" to prevent panel "Image retention". (p. 48)</li> </ul>	4:3 side bars Bright
Press "OK" to start horizontal "Scrolling" on the screen (p. 48)	Scrolling bar
<ul> <li>Controls equipment connected to HDMI terminals (p. 32) (On/Off)</li> <li>"Power off link", "Power on link", "Stand-by power save", "Auto power stand-by" and "Default speakers" cannot be selected if "Off" is set.</li> </ul>	VIERA Link On
Sets "Power on link" of HDMI connection equipment (p. 32) (Yes/No)	Power on link Yes
Sets "Power off link" of HDMI connection equipment (p. 32) (Yes/No)	Power off link Yes
Set "Stand-by power save" of HDMI connection equipment. (p. 32) (No/Yes)	Stand-by power save ∢ No →
Set "Auto power stand-by" of HDMI connection equipment. (p. 32) (No/Yes (with reminder)/Yes (no reminder)	Auto power stand-by ∢ No →
Selects the default speakers (p. 32) (TV/Theater)	Default speakers TV
<ul> <li>To conserve energy, the TV automatically turns off when NO SIGNAL and NO OPERATION is performed for more than 10 minutes. (Enable/Disable)</li> <li>Note</li> <li>Not in use when setting "Auto power on", "On/Off Timer", "Lock", "SD mode" or Digital channel.</li> <li>"No signal for 10 minutes was activated" will be displayed for about 10 seconds when the TV is turned on for the first time after turning the power off by "No signal for 10 minutes".</li> <li>The on-screen display will flash 3, 2 and 1 to indicate the last three (3) remaining minutes prior to the shut-off.</li> </ul>	No signal for 10 minutes
To conserve energy, the TV automatically turns off when no operation of remote or side panel key continues for more than 3 hours. (Enable/Disable) Note	
<ul> <li>Note</li> <li>Not in use when setting "Auto power on" or "On/Off Timer".</li> <li>"No activity for 3 hours was activated" will be displayed for about 10 seconds when the TV is turned on for the first time after turning the power off by "No activity for 3 hours".</li> <li>The on-screen display will flash 3, 2 and 1 to indicate the last three (3) remaining minutes prior to the shut-off.</li> </ul>	No activity for 3 hours
Turns TV On automatically when the cable box or a connected device is turned On (No/Yes) TV AC cord must be plugged into this device. TV comes on every time the power is restored. ■ The "Sleep" timer, "On / Off timer", and "First time setup" will not function if "Auto power on" is set. (p. 42)	Auto power on No
Set "Thumbnail" or "Slideshow" to play back SD cards automatically. (Slideshow/Thumbnail/Set later/Off)	Play SD card automatically ∢ Set later →
Displays TV version and software license.	About
Performing Reset will clear all items set with Setup, such as channel settings. (p. 38)	Reset to defaults
Adjustments/Configurations (alternatives)	

Sets the mode to select the channel with Channel up/down button (All/Favorite/Digital only/Analog only)

Sets favorite channels. (p. 20)

Changes the station identifier. (p. 39)

Checks the signal strength if interference or freezing occurs on a digital image. (p. 39)

## VIERA Link<sup>™</sup> "HDAVI Control<sup>™</sup>"\*

Simultaneously control all Panasonic "HDAVI Control" equipped components using one button on the TV remote. Enjoy additional HDMI Inter-Operability with Panasonic products which have the "HDAVI Control" function. This TV supports "HDAVI Control 4" function.

Connections to the equipment (DVD recorder DIGA, HD Camcorder, Player theater, RAM theater, Amplifier, etc.) with HDMI cables allow you to interface with them automatically.

#### Equipment with the "HDAVI Control" function enables the following operations:

Version	Operations
HDAVI Control or later	<ul> <li>Automatic Input Switching (p. 33)</li> <li>Power on link (p. 33)</li> <li>Power off link (p. 33)</li> <li>Default speakers (p. 33)</li> <li>One-touch theater playback (p. 33)</li> <li>Speaker control (p. 35)</li> </ul>
HDAVI Control 2 or later	<ul> <li>VIERA Link control only with the TV's remote control(P. 35)</li> <li>Auto power stand-by (for available equipment only) (p. 33)</li> </ul>
HDAVI Control 3 or later	<ul> <li>Providing the setting information (p. 33)</li> <li>Automatic lip-sync function (p. 33)</li> </ul>
HDAVI Control 4	<ul> <li>Stand-by power save (with quick start mode) (p. 33)</li> </ul>

### ■ For the first time/When adding new equipment, reconnecting equipment or changing the setup after the connection, turn the equipment on and then switch the TV on. Set the input mode to HDMI1, HDMI2 or HDMI3 (p. 24), and make sure that the image is displayed correctly.

VIERA Link "HDAVI Control", based on the control functions provided by HDMI which is an industry standard known as HDMI CEC (Consumer Electronics Control), is a unique function that we have developed and added. As such, its operation with other manufacturers' equipment that supports HDMI CEC cannot be guaranteed. Please refer to the individual manuals for other manufacturers' equipment supporting the VIERA Link function.

#### ■ HDMI cable

This function needs an HDMI compliant (fully wired) cable. Non-HDMI-compliant cables cannot be utilized. It is recommended that you use Panasonic's HDMI cable. Recommended part number: RP-CDHF15 (4.9 ft/1.5 m), RP-CDHG15 (4.9 ft/1.5 m), RP-CDHF30 (9.8 ft/3.0 m),

RP-CDHG30 (9.8 ft/3.0 m), RP-CDHG50 (16.4 ft/5.0 m)

\* For more details on the external equipment's connections, please refer to the operating manuals for the equipment.

#### VIERA Link<sup>™</sup> Connections

Follow the connection diagrams below for HDAVI control
of a single piece of AV equipment such as a DVD recorder
(DIGA), RAM theater, or Player theater system.
Refer to page 32-35 for Setup Menu settings and additional
control information.
<ul> <li>Optional HDMI and/or optical cables are not included.</li> </ul>

If connection (or setting) of equipment compatible with HDAVI control is changed, switch the power of this unit Off and On again while the power of all equipment is On (so that the unit can correctly recognize the connected equipment) and check that the DVD recorder (DIGA), RAM theater, and Player theater playback operate.

#### Note

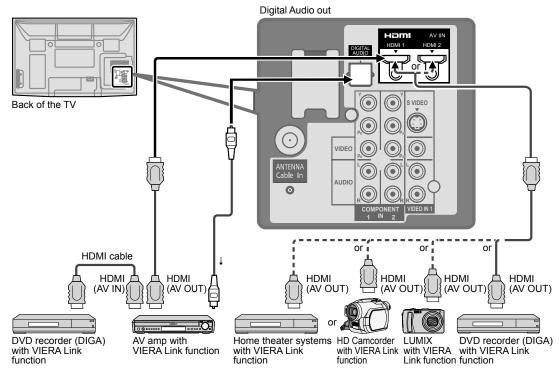
HDMI 1 is recommended.

When connecting to HDMI 2/HDMI 3, set the input mode to HDMI 2/HDMI 3 (p. 24) initially before connecting to HDMI 2/HDMI 3. After connection, confirm the HDMI control functions (p. 32-35).

- Connecting this unit to the DVD recorder (DIGA), RAM theater, or Player theater
- For DVD recorder (DIGA): Connect with HDMI cable
- For RAM theater and Player theater: Connect with the HDMI and audio cables.

If audio cable is not connected, you cannot listen to the TV program through the theater system.

Connecting this unit to a DVD recorder (DIGA) and AV amp When using a "VIERA Link" audiovideo amplifier and a compatible DVD recorder (DIGA) use a daisy chain connection as shown below.



One AV amp and one DVD recorder (DIGA) can be operated with this unit.
Be sure to connect the AV amp between this unit and the DVD recorder (DIGA).

#### ■ Setting of this unit after connection

After making connections as shown above, set "VIERA Link" (under "VIERA Link settings") to "On" using the Setup menu. (p. 25, 32-33).

#### Note

- Individual HDMI equipment may require additional menu settings specific to each model. Please refer to their
  respective operating instruction manuals.
- When audio from other equipment connected to this unit via HDMI is output using "DIGITAL AUDIO OUT" of this unit, the system switches to 2CH audio.
- (When connecting to an AV amp via HDMI, you can enjoy higher sound quality.)
- About HDMI cable for connecting Panasonic HD camcorder, read the manual of the equipment.

VIERA Link<sup>™</sup> "HDAVI Control<sup>™</sup>"

### VIERA Link<sup>™</sup> "HDAVI Control<sup>™</sup>"\*

①select

②next

select

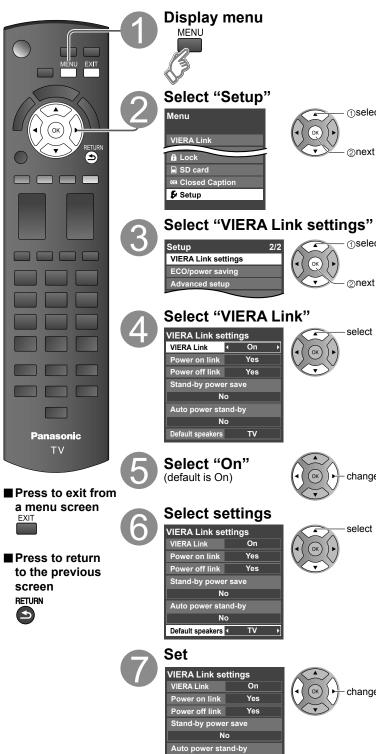
select

change

select

change

Control 3 or later"



Automatic Input Switching	At the start of the DIGA, Player the based on the playback equipment. For the RAM theater, the speake If using the DIGA operation, the
Power on link	When "Yes" is selected (p. 29), TV VIERA Link compatible equipment
Power off link	When "Yes" is selected (p. 29) and automatically turned off. DIGA (Panasonic DVD Recorder <b>Caution:</b> The TV remains on ever
Stand-by power save (for "HDAVI Control 4" (with quick start mode))	<ul> <li>Condition Power off link: Yes, Stand-by po The equipment has "HDAVI Con When TV is turned off, all connecte automatically under above conditio * Minimum power consumption of</li> </ul>
Auto power stand-by (for "HDAVI Control 2 or later")	<ul> <li>Condition Auto power stand-by: Yes, The equipment has "HDAVI Con [ Examples of timing for operatio • When the input is switched fror</li> <li>When the "Speaker output" is of</li> </ul>
	The connected VIERA Link compa
Default speakers	"TV" is the default setting. To set the setting from "TV" to "Theater". Sou
One-touch theater playback	If the "ONE TOUCH PLAY" key is p sequence of operations is perform ① Home Theater power switches ( ② TV power switches On, and the ③ Audio is muted on the TV and s
	The following information about the theater/Player) that has "HDAVI Co
	Transmittable data
	① On Screen Display Language s (English/Español/Français)
Providing	② Panel Aspect Ratio (16:9 fixed)
the setting information	③ Closed caption information (Mode/CC type/Digital setting)
(for "HDAVI Control 3 or	Channel information     (Input signal/Channel list/Caption
later")	Note
	<ul> <li>There is a possibility that all the function connected to TV with HI of equipment the setting may or</li> <li>For more details on the external</li> </ul>
	<ul> <li>[For Recorder]</li> <li>You cannot operate other functions When you turn off this unit, the trai</li> </ul>
Automatic lip- sync function (for "HDAVI	Minimizes lip-sync delays between Amplifier.

### (Continued)

At the start of the DIGA, Player theater, or RAM the			
<ul> <li>At the start of the DIGA, Player theater, or RAM theater playback, the TV's input automatically switches to the in based on the playback equipment.</li> <li>For the RAM theater, the speakers automatically switch to the theater system. If using the DIGA operation, the TV's input automatically switches to the DIGA and DIGA menu is displayed.</li> </ul>			
When "Yes" is selected (p. 29), TV is turned on automatically and switches to the appropriate HDMI input when VIERA Link compatible equipment is initially turned on and Play mode is selected.			
<ul> <li>automatically turned off.</li> <li>DIGA (Panasonic DVD Recorder) will not turn of</li> </ul>	When "Yes" is selected (p. 29) and the TV is turned off, all connected VIERA Link compatible equipment is also automatically turned off. <ul> <li>DIGA (Panasonic DVD Recorder) will not turn off if it is still in rec mode.</li> </ul> <li>Caution: The TV remains on even if the VIERA Link compatible equipment is turned off.</li>		
<ul> <li>Condition         Power off link: Yes, Stand-by power save: Yes             The equipment has "HDAVI Control 4 (with quick             When TV is turned off, all connected VIERA Link c             automatically under above conditions.      </li> <li>* Minimum power consumption of standby condition     </li> </ul>	compatible equipmer	it is moved to ECO stan	ndby mode*
<ul> <li>Condition         Auto power stand-by: Yes,         The equipment has "HDAVI Control 2 or later" (for             [Examples of timing for operation ]         When the input is switched from HDMI.         When the "Speaker output" is changed from "H     </li> </ul>			1 HDMI cable.
The connected VIERA Link compatible equipment			use.
setting from "TV" to "Theater". Sound will be outpu If the "ONE TOUCH PLAY" key is pressed on the r			•
sequence of operations is performed automatically ① Home Theater power switches On, and playbac	/. ck begins. n is displayed.	anasonic Home Theater	system, the fol
sequence of operations is performed automatically ① Home Theater power switches On, and playbac ② TV power switches On, and the playback screen ③ Audio is muted on the TV and switches to the the The following information about the TV settings cal	/. k begins. n is displayed. neater system. n be transmitted to e	each piece of equipmen	t (Recorder/Ho
sequence of operations is performed automatically ① Home Theater power switches On, and playbac ② TV power switches On, and the playback screen	/. k begins. n is displayed. neater system. n be transmitted to e	each piece of equipmen	t (Recorder/Ho
sequence of operations is performed automatically ① Home Theater power switches On, and playbac ② TV power switches On, and the playback screer ③ Audio is muted on the TV and switches to the the The following information about the TV settings can theater/Player) that has "HDAVI Control 3 or later"	/. k begins. n is displayed. neater system. n be transmitted to e function connected	each piece of equipmen to a TV with HDMI cable	t (Recorder/Ho e.
sequence of operations is performed automatically ① Home Theater power switches On, and playback ② TV power switches On, and the playback screer ③ Audio is muted on the TV and switches to the th The following information about the TV settings can theater/Player) that has "HDAVI Control 3 or later" Transmittable data ① On Screen Display Language setting	/. ck begins. n is displayed. neater system. n be transmitted to e function connected Recorder	each piece of equipmen to a TV with HDMI cable Home theater	t (Recorder/Ho e. <b>Player</b>
sequence of operations is performed automatically ① Home Theater power switches On, and playbac ② TV power switches On, and the playback screer ③ Audio is muted on the TV and switches to the th The following information about the TV settings can theater/Player) that has "HDAVI Control 3 or later" Transmittable data ① On Screen Display Language setting (English/Español/Français) ② Panel Aspect Ratio	/. k begins. n is displayed. heater system. n be transmitted to e function connected Recorder	each piece of equipmen to a TV with HDMI cable Home theater	t (Recorder/Hore. Player
sequence of operations is performed automatically ① Home Theater power switches On, and playbac ② TV power switches On, and the playback screer ③ Audio is muted on the TV and switches to the th The following information about the TV settings can theater/Player) that has "HDAVI Control 3 or later" Transmittable data ① On Screen Display Language setting (English/Español/Français) ② Panel Aspect Ratio (16:9 fixed) ③ Closed caption information	/. sk begins. n is displayed. neater system. n be transmitted to e function connected Recorder O	each piece of equipmen to a TV with HDMI cable Home theater	t (Recorder/Hore. Player
sequence of operations is performed automatically ① Home Theater power switches On, and playback ② TV power switches On, and the playback screer ③ Audio is muted on the TV and switches to the th The following information about the TV settings can theater/Player) that has "HDAVI Control 3 or later" <b>Transmittable data</b> ① On Screen Display Language setting (English/Español/Français) ② Panel Aspect Ratio (16:9 fixed) ③ Closed caption information (Mode/CC type/Digital setting) ④ Channel information	/. sk begins. n is displayed. neater system. n be transmitted to e function connected Recorder 0 0	each piece of equipmen to a TV with HDMI cable Home theater	t (Recorder/Hore. Player
sequence of operations is performed automatically ① Home Theater power switches On, and playback ② TV power switches On, and the playback screer ③ Audio is muted on the TV and switches to the th The following information about the TV settings can theater/Player) that has "HDAVI Control 3 or later" <b>Transmittable data</b> ① On Screen Display Language setting (English/Español/Français) ② Panel Aspect Ratio (16:9 fixed) ③ Closed caption information (Mode/CC type/Digital setting) ④ Channel information (Input signal/Channel list/Caption information)	/. k begins. n is displayed. heater system. n be transmitted to e function connected Recorder 0 0 0 0 0 0 0 0 0 0 0 0 0	each piece of equipmen to a TV with HDMI cable Home theater O O   set from equipment that conditions or the specif	t (Recorder/Hore. Player  O   t has HDMI CErication for each

n the picture and audio when you connect to a Panasonic theater system or Ampliner

32

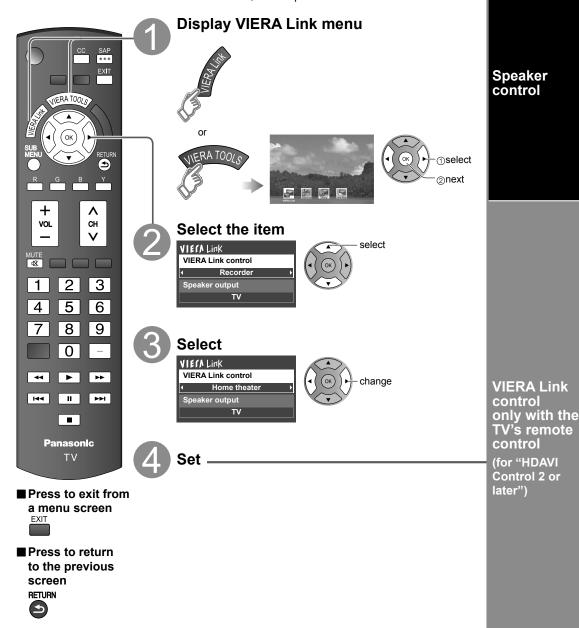
No

Default speakers 

Theater

### VIERA Link<sup>™</sup> "HDAVI Control<sup>™</sup>"

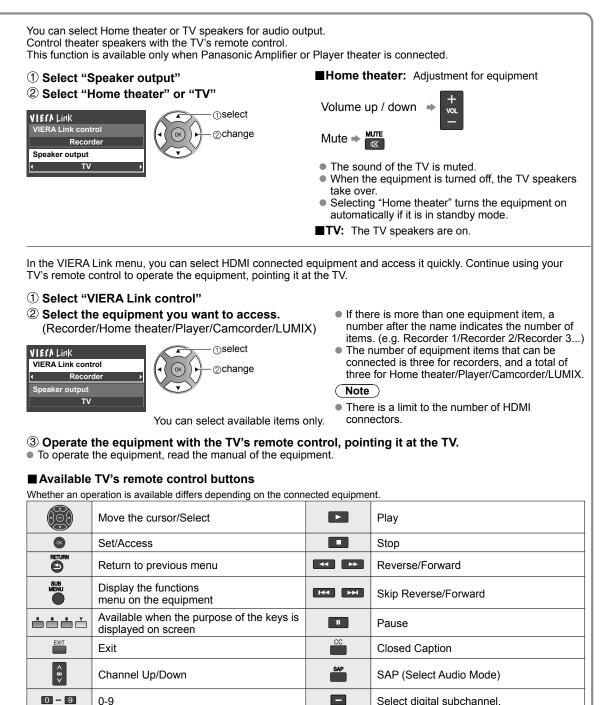
You can enjoy more convenient operation with the "HDAVI Control" function in the "VIERA Link" menu. For more details on the "HDAVI Control" function, refer to p. 30



### (Continued)

0 - 9

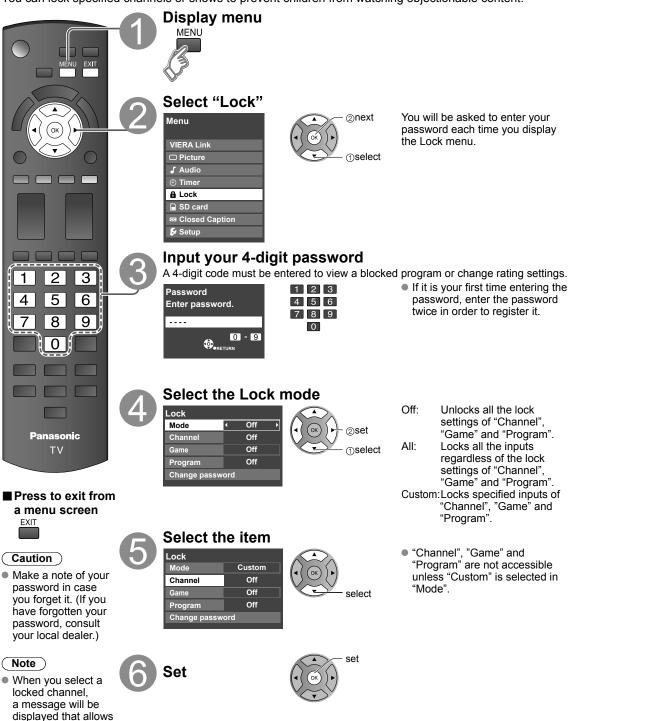
0-9



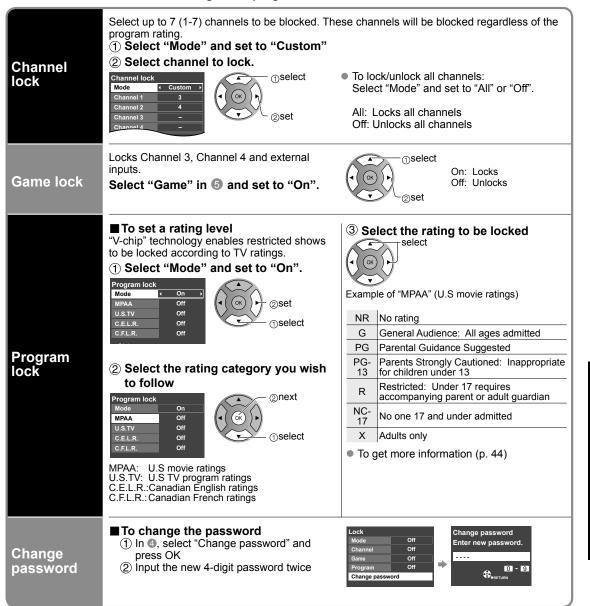
Select digital subchannel.

### Lock

You can lock specified channels or shows to prevent children from watching objectionable content.



#### ■ To select the channel or the rating of the program to be locked



#### Note

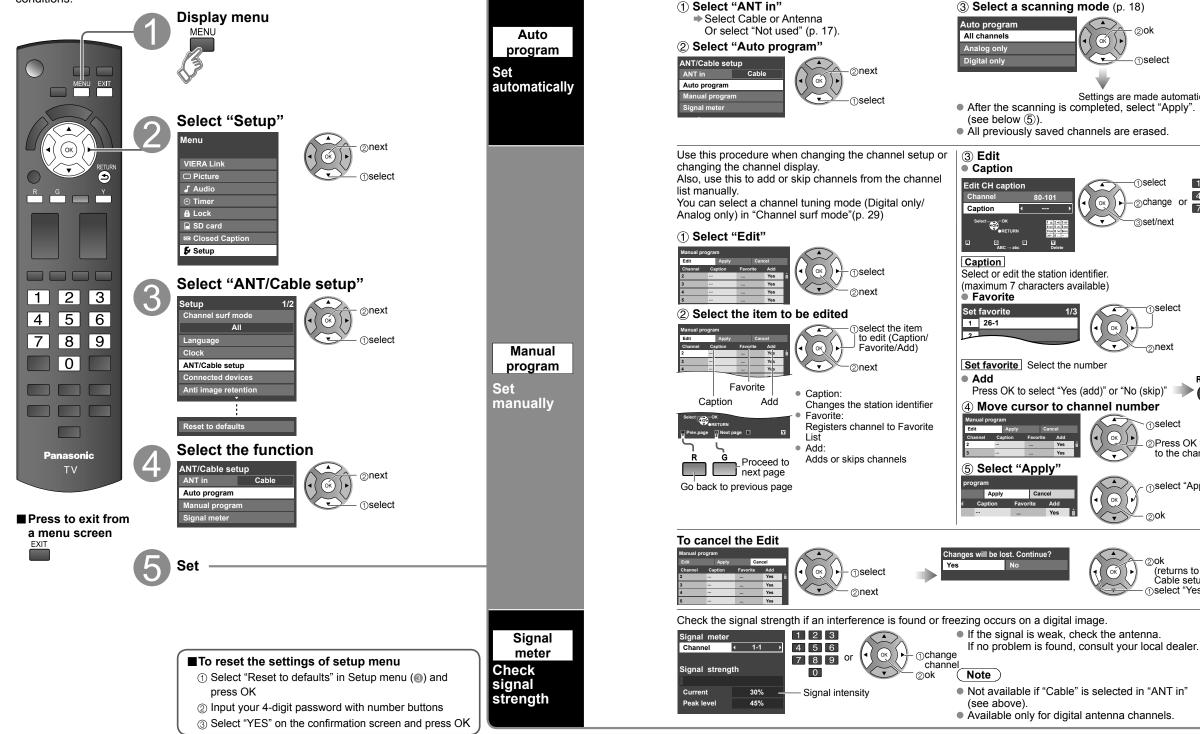
- This television is designed to support the "Downloadable U.S. Region Rating System" when available. (Available only in U.S.A.)
- The Off rating is independent of other ratings.
- When placing a lock on a specific-age-based-rating level, the Off rating and any other more restrictive ratings will also be blocked.

Advanced

you to view the

### **Editing and Setting Channels**

The current channel settings can be changed according to your needs and reception conditions.



0

RETURN

 $( \mathbf{S} )$ 

2 Press OK to tune

(returns to "ANT/

Cable setup")

- mselect "Yes

to the channel.

nselect

Settings are made automatically

⊕select

Ochange or

nselect

next

⊕select

ာok

ിok

OK )

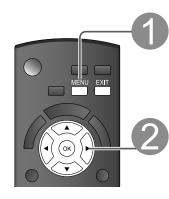
Yes

@set/next

Advanced

Automatically searches and adds available channels to the memory.

### **Closed Caption**



Press to exit from a menu screen EXIT

Select "Closed Caption" Menu

②next

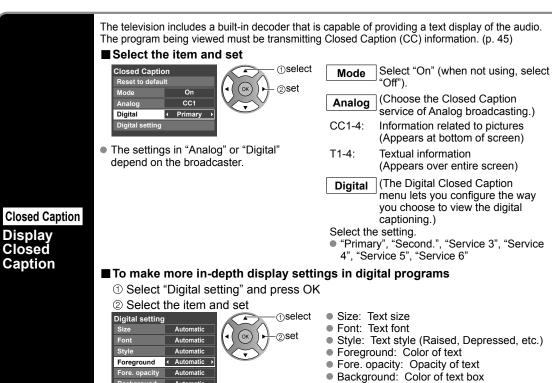
(1)select

VIERA Link Picture J Audio ① Timer

A Lock SD card Closed Caption Setup

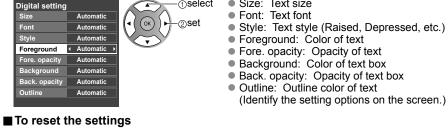
**Display menu** 

MENU



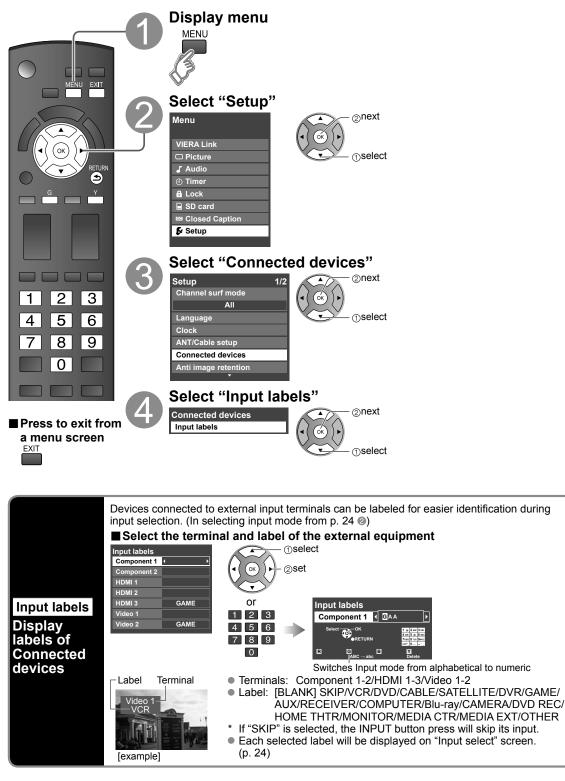
service of Analog broadcasting.)

menu lets you configure the way



Select "Reset to default" and press OK

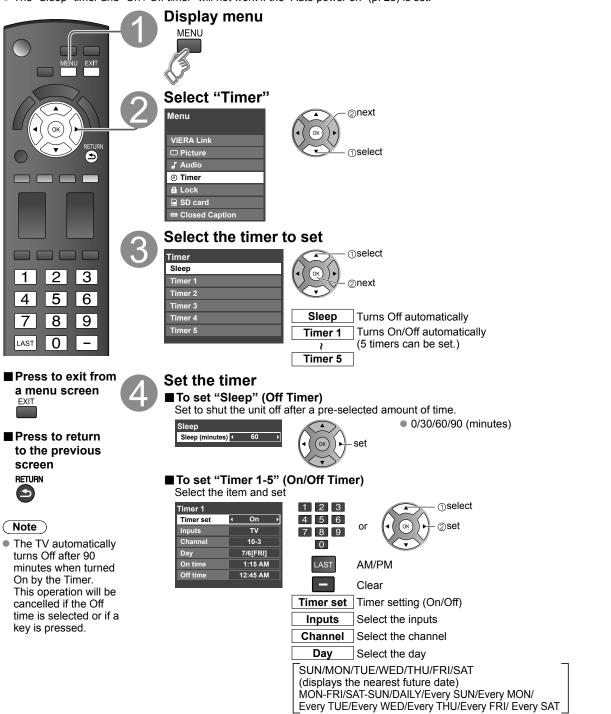
## **Input Labels**



Advanced

## **Using Timer**

The TV can automatically turn On/Off at the designated date and time.
The Clock must be set before On time/Off time settings. (p. 17)
The "Sleep" timer and "On / Off timer" will not work if the "Auto power on" (p. 28) is set.

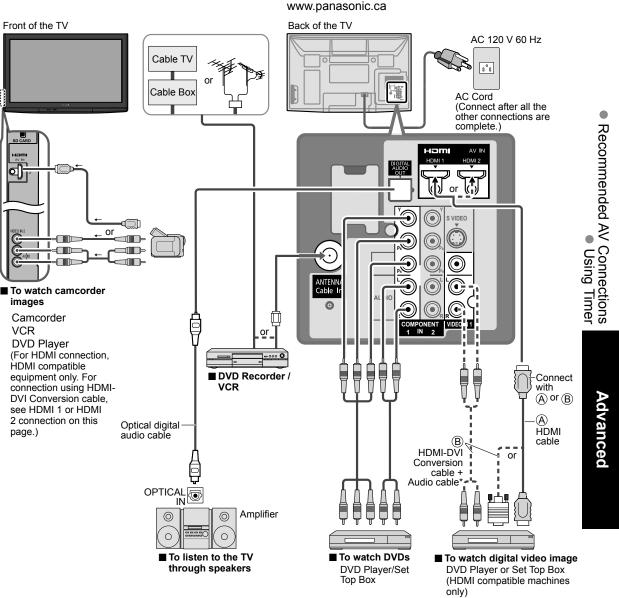


On time | The time to turn On

Off time The time to turn Off

### **Recommended AV Connections**

These diagrams show our recommendations or how to connect the TV unit to your various equipment. For other connections, consult the instructions for each piece of equipment and its specifications. For additional assistance, please visit our website at: www.panasonic.com



\* Please see p. 26-27 for setup when using an external analog audio cable with an HDMI to DVI cable.

## **Ratings List for Lock**

"V-chip" technology enables you to lock channels or shows according to standard ratings set by the entertainment industry. (p. 37)

#### ■ U.S. MOVIE RATINGS (MPAA)

NR	NO RATING (NOT RATED) AND NA (NOT APPLICABLE) PROGRAMS. Movie which has not been rated or where rating does not apply.
G	GENERAL AUDIENCES. All ages admitted.
PG	PARENTAL GUIDANCE SUGGESTED. Some material may not be suitable for children.
PG-13	PARENTS STRONGLY CAUTIONED. Some material may be inappropriate for children under 13.
R	RESTRICTED. Under 17 requires accompanying parent or adult guardian.
NC-17	NO ONE 17 AND UNDER ADMITTED.
Х	ADULTS ONLY

#### A ADULIS ONLY.

#### ■ U.S. TV PROGRAMS RATINGS (U.S. TV)

Age-based Group	Age-based Ratings	Possible Content Selections	Description	
NR (Not Rated)	TV-NR	<ul><li>Viewable</li><li>Blocked</li></ul>	Not Rated.	
	TV-Y	<ul><li>Viewable</li><li>Blocked</li></ul>	All children. The themes and elements in this program are specifically designed for a very young audience, including children from ages 2-6.	
Youth	TV-Y7	<ul><li>FV Blocked</li><li>Viewable</li><li>Blocked</li></ul>	Directed to older children. Themes and elements in this program may include mild physical or comedic violence, or may frighten children under the age of 7.	
	TV-G	<ul><li>Viewable</li><li>Blocked</li></ul>	General audience. It contains little or no violence, no strong language, and little or no sexual dialogue or situations.	
	TV-PG	<ul> <li>D,L,S,V (all selected)</li> <li>Any combination of D, L, S, V</li> </ul>	Parental guidance suggested. The program may contain infrequent coarse language, limited violence, some suggestive sexual dialogue and situations.	
Guidance	TV-14	<ul> <li>D,L,S,V (all selected)</li> <li>Any combination of D, L, S, V</li> </ul>	Parents strongly cautioned. This program may contain sophisticated themes, sexual content, strong language and more intense violence.	
	TV-MA	<ul> <li>L,S,V (all selected)</li> <li>Any combination of L, S, V</li> </ul>	Mature audiences only. This program may contain mature themes, profane language, graphic violence, and explicit sexual content.	

FV: Fantasy/Cartoon Violence. V: Violence S: Sex L: Offensive Language D: Dialogue with sexual content.

#### ■ CANADIAN ENGLISH RATINGS (C. E. L. R.)

E	Exempt - Exempt programming includes: news, sports, documentaries and other information programming, talk shows, music videos, and variety programming.
С	Programming intended for children under age 8. No offensive language, nudity or sexual content.
C8+	Programming generally considered acceptable for children 8 years and over. No profanity, nudity or sexual content.
G	General programming, suitable for all audiences.
PG	Parental Guidance suggested. Some material may not be suitable for children.
14+	Programming contains themes or content which may not be suitable for viewers under the age of 14. Parents are strongly cautioned to exercise discretion in permitting viewing by pre-teens and early teens.
18+	18+ years old. Programming restricted to adults. Contains constant violence or scenes of extreme violence.

#### CANADIAN FRENCH RATINGS (C. F. L. R.)

E	Exempt - Exempt programming.
G	General - Programming intended for audience of all ages. Contains no violence, or the violence content is minimal or is depicted appropriately.
8 ans+	8+ General - Not recommended for young children. Programming intended for a broad audience but contains light or occasional violence. Adult supervision recommended.
13 ans+	Programming may not be suitable for children under the age of 13 - Contains either a few violent scenes or one or more sufficiently violent scenes to affect them. Adult supervision strongly suggested.
16 ans+	Programming may not be suitable for children under the age of 16 - Contains frequent scenes of violence or intense violence.
18 ans+	Programming restricted to adults. Contains constant violence or scenes of extreme violence

Caution

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- The V-Chip system that is used in this set is capable of blocking "NR" programs (non rated, not applicable and none) as per FCC Rules Section15.120(e)(2). If the option of blocking "NR" programs is chosen "unexpected and possibly confusing results may occur, and you may not receive emergency bulletins or any of the following types of programming:"
- Emergency Bulletins (Such as EAS messages, weather warnings and others)
- Locally originated programming News Political Public Service Announcements Religious Sports Weather

## **Technical Information**

#### **Closed Caption (CC)**

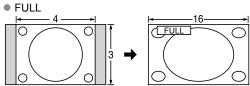
- For viewing the CC of digital broadcasting, set the aspect to FULL (If viewing with H-FILL, JUST, ZOOM or 4:3; characters might be cut off).
- The CC can be displayed on the TV if the receiver (such as a set-top box or satellite receiver) has the CC set On using the Component or HDMI connection to the TV.
- If the CC is set to On on both the receiver and TV when the signal is 480i (except for the HDMI connection), the CC may overlap on the TV.
- If a digital program is being output in analog format, the CC data will also be output in analog format.
- If the recorder or output monitor is connected to the TV, the CC needs to be set up on the recorder or output monitor.

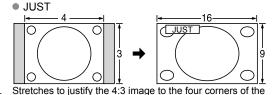
#### Aspect Ratio (FORMAT)

screen.

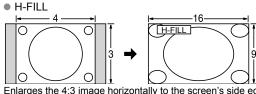
Press the FORMAT button to cycle through the aspect modes. This lets you choose the aspect depending on the format of the received signal and your preference. (p. 20)

(e.g.: in case of 4:3 image)

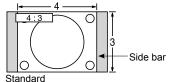




Enlarges the 4:3 image horizontally to the screen's side edges. (Recommended for anamorphic picture)

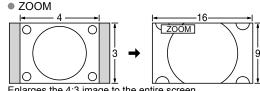


• 4:3



(Recommended for normal TV broadcast)

Enlarges the 4:3 image horizontally to the screen's side edges. The side edges of the image are cut off.



Note 480i (4:3), 480i (16:9), 480p (4:3), 480p (16:9):

FULL, JUST, 4:3 or ZOOM 1080p / 1080i / 720p: FULL, H-FILL, JUST, 4:3 or ZOOM

Enlarges the 4:3 image to the entire screen. (Recommended for Letter Box)

Zoom adjustments

Vertical image position and size can be adjusted in "ZOOM".

① Select "Zoom adjustments" on the "Picture" menu. (p. 26-27)

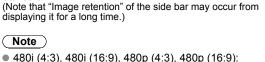
2 V-position: Vertical position adjustment ③ V-size: Vertical size adjustment





 To reset the aspect ratio (OK)

Technical Information
 Ratings List for Lock



### **Technical Information**

#### Data format for SD Card browsing

Photo:	Still images recorded with digital still cameras compatible with JPEG files of DCF* and EXIF** standards
Data format:	Baseline JPEG (Sub-sampling: 4:4:4, 4:2:2 or 4:2:0)
Max. number of files:	9,999
Image resolution:	160 x 120 to 10,000,000
* DCF (Design rule for	camera file system): A Japan Electronics and Information Technology Industries Association's standard ** EXIF (Exchangeable Image File Format)
Caution	

A JPEG image modified with a PC may not be displayed.

Partly degraded files might be displayed at a reduced resolution.

Note

Folder structure viewed in PC

Created automatically

-P100001,JPG - 4-digit arbitrary characters + 4-digit file number

Usable characters: 1-byte "a to z", "A to Z", "0 to 9," and "\_"

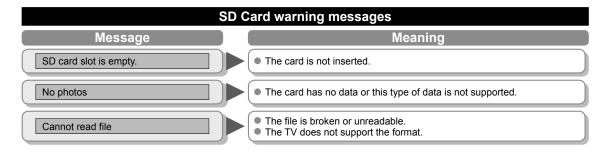
• The folder and file names may be different depending on the digital camera used.

 For the suitable SD Memory Cards, please confirm the latest information on the following website. http://panasonic.jp/support/global/cs (This site is in English only)

#### Cautions in handling SD Card:

• Do not remove the card while the unit is accessing data (this can damage card or unit).

- Do not touch the terminals on the back of the card.
- Do not subject the card to high pressure or impact.
- Insert the card in the correct direction (otherwise, card may be damaged).
- Electrical interference, static electricity or erroneous operation may damage the data or card.
- Back up the recorded data at regular intervals in case of deteriorated or damaged data or erratic operation of the unit. (Panasonic is not liable for any deterioration or damage of recorded data.)



### (Continued)

#### VIERA Link™ "HDAVI Control™"

- HDMI connections to some Panasonic equipment allow you to interface automatically. (p. 30)
- This function may not work normally depending on the equipment condition.
- The equipment can be operated by other remote controls with this function on even if TV is in Standby mode.
- Image or sound may not be available for the first few seconds when the playback starts.
- Image or sound may not be available for the first few seconds when Input mode is switched.
- Volume function will be displayed when adjusting the volume of the equipment.
- If you connect the same kind of equipment at once (for example: one DIGA to HDMI 1 / another DIGA to HDMI 2), VIERA Link™ is available for the terminal with the smaller number.
- If you connect equipment that has "HDAVI Control 2 or later" function to the TV with HDMI cable, the sound from DIGITAL AUDIO OUT terminal can be output as multi channel surround.
- "HDAVI Control 4" is the newest standard (current as of December, 2008) for the HDAVI Control compatible equipment. This standard is compatible with the conventional HDAVI equipment.

#### HDMI connection

HDMI (high-definition multimedia interface) allows you to enjoy high-definition digital images and high-quality sound by connecting the TV unit and the devices.

HDMI-compatible equipment (\*1) with an HDMI or DVI output terminal, such as a set-top box or a DVD player, can be connected to the HDMI connector using an HDMI compliant (fully wired) cable.

- HDMI is the world's first complete digital consumer AV interface complying with a non-compression standard.
- If the external equipment has only a DVI output, connect to the HDMI terminal via a DVI to HDMI adapter cable (\*2).
- When the DVI to HDMI adapter cable is used, connect the audio cable to the audio input terminal.
- Audio settings can be made on the "HDMI 1 in", "HDMI 2 in" or "HDMI 3 in" menu screen. (p. 26) Applicable audio signal sampling frequencies (L.PCM): 48 kHz, 44.1 kHz, 32 kHz

(\*1): The HDMI logo is displayed on an HDMI-compliant device. (\*2): Enquire at your local digital equipment retailer shop.

Caution

- Use with a PC is not assumed.
- All signals are reformatted before being displayed on the screen.
- If the connected device has an aspect adjustment function, set the aspect ratio to "16:9".
- These HDMI connectors are "type A".
- These HDMI connectors are compatible with HDCP (High-Bandwidth Digital Content Protection) copyright protection.
- A device having no digital output terminal may be connected to the input terminal of either "COMPONENT", "S VIDEO", or "VIDEO" to receive analog signals.
- The HDMI input terminal can be used with only the following image signals: 480i, 480p, 720p, 1080i and 1080p. Match the output setting of the digital device.
- For details of the applicable HDMI signals, see p. 48.

#### **DIGITAL AUDIO OUT terminals**

You can enjoy your home theater by connecting a Dolby Digital (5.1 channel) decoder and "Multi Channel" amplifier to the DIGITAL AUDIO OUT terminals.

#### Caution

Depending on your DVD player and DVD-Audio software the copyright protection function may operate and disable optical output.
 When an ATSC channel is selected, the output from the DIGITAL AUDIO OUT jack will be Dolby Digital. When an NTSC channel is selected, the output will be PCM.

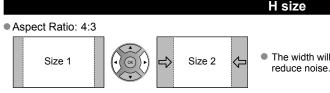
#### Picture mode

- Vivid: Provides enhanced picture contrast and sharpness for viewing in a well-lit room.
- Standard: Recommended for normal viewing conditions with subdued room lighting.
- Cinema: For watching movies in a darkened room. It provides a soft, film-like picture.
- Game: For playing video game. This mode will be set automatically if "GAME" is selected from Input label setting (p. 41)
   Custom (Photo): Customizes each item according to your taste.
  - Photo is displayed in JPEG menu.

#### Note

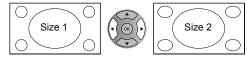
Picture mode will be automatically set to "Standard" if you change the Input label from "GAME" to other labels.
 Picture mode will be automatically set to "Game" if you change from an Input label other than "GAME" to "GAME" label.

### Technical Information (Continued)



 The width will be decreased on both sides to reduce noise.

#### Aspect Ratio: FULL/JUST(H-FILL/ZOOM)



 The width will be increased on both sides to reduce noise.

Side Bar

4:3

Screen

Display

⇒

#### See pages 26-27 for more information



Do not display a picture in 4:3 mode for an extended period, as this can cause "Image retention" to remain on either or both sides of the display field. To reduce the risk of such "Image retention", change the brightness of the side bars.

See pages 28-29 for more information

 The side bar may flash (alternate black/white) depending on the picture. Using Cinema mode will reduce such flashing (See below).

#### Scrolling bar

- Scrolling bar: To prevent "Image retention", scrolls white vertical bar from left to right on a black screen. Press any key except the POWER key to return to previous screen.
- You will return to the previous screen if no key operation has been performed for 15 minutes.
   See pages 28-29 for more information



Image retention-

#### Input signals that can be displayed

#### \* Mark: Applicable input signal for Component (Y, PB, PR) and HDMI

	horizontal frequency (kHz)	vertical frequency (Hz)	COMPONENT	HDMI
525 (480) / 60i	15.73	59.94	*	*
525 (480) /60p	31.47	59.94	*	*
750 (720) /60p	45.00	59.94	*	*
1,125 (1,080) /60i	33.75	59.94	*	*
1,125 (1,080)/60p	67.43	59.94		*
1,125 (1,080)/60p	67.50	60.00		*
1,125(1,080)/24p	26.97	23.98		*
1,125(1,080)/24p	27.00	24.00		*

#### Note

• Signals other than those shown above may not be displayed properly.

• The above signals are reformatted for optimal viewing on your display.

## **Care and Cleaning**

First, unplug the Power cord plug from the wall outlet.

#### Display panel

The front of the display panel has been specially treated. Wipe the panel surface gently using only a cleaning cloth or a soft, lint-free cloth.

- If the surface is particularly dirty, soak a soft, lint-free cloth in diluted mild liquid dish soap (1 part mild liquid dish soap diluted by 100 times the amount of water) and then wring the cloth to remove excess liquid. Use this cloth to wipe the surface of the display panel, then wipe it evenly with a dry cloth of the same type until the surface is dry.
- Do not scratch or hit the surface of the panel with fingernails or other hard objects. Furthermore, avoid contact with volatile substances such as insect sprays, solvents, and thinner; otherwise, the quality of the surface may be adversely affected.

#### Cabinet

If the cabinet becomes dirty, wipe it with a soft, dry cloth.

- If the cabinet is particularly dirty, soak the cloth in a weak mild liquid dish soap and then wring the cloth dry. Use this cloth to wipe the cabinet and then wipe it dry with a dry cloth.
- Do not allow any mild liquid dish soap to come into direct contact with the surface of the Plasma TV. If water droplets get inside the unit, operating problems may result.
- Avoid contact with volatile substances such as insect sprays, solvents, and thinner; otherwise, the quality of the cabinet surface may be adversely affected or the coating may peel off. Furthermore, do not leave it for long periods in contact with articles made from rubber or PVC.

#### Pedestal

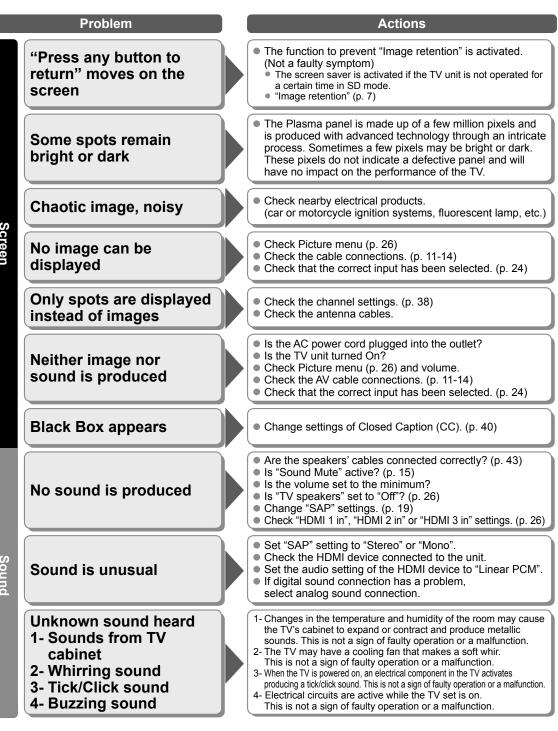
#### Cleaning

- Wipe the surfaces with a soft, dry cloth. If the unit is particularly dirty, clean it using a cloth soaked with water to which a small amount of mild liquid dish soap has been added and then wipe with a dry cloth.
- Do not use products such as solvents, thinner, or household wax for cleaning, as they can damage the surface coating. (If using a chemically-treated cloth, follow the instructions supplied with the cloth.)
- Do not attach sticky tape or labels, as they can make the surface of the pedestal dirty. Do not allow long-term contact with rubber, vinyl products, or the like. (Doing so will cause deterioration.)

### FAQ

Before requesting service or assistance, please follow these simple guides to resolve the problem. If the problem still persists, please contact your local Panasonic dealer or Panasonic Service Center for assistance. For details (p. 54, 55) For additional assistance, please contact us via the website at: www.panasonic.com/contactinfo www.panasonic.ca White spots or shadow images (noise) Check the position. direction. and connection of the antenna. Pictures from external Interference or equipment are distorted frozen digital when the unit is channels connected via HDMI (intermittent sound) Is the HDMI cable connected properly? (p. 31, 43) Turn Off the TV unit and equipment, then Λ turn them On again. Check an input signal from the equipment. (p. 48) Use equipment compliant with EIA/CEA-861/861B. Change the direction of antenna for digital channels. 1 2 3 When the channel is changed on Check "Signal meter" (p. 39). If the signal is weak, check the 4 5 6 an STB that is connected with antenna and consult your local 7 8 9 HDMI, "HDMI" may be displayed dealer. LAST 0 on the top left of the screen **\***  This is not a malfunction. The remote control I44 II >>I **Recording does not** does not work start immediately • Are the batteries installed correctly? Panasonic (p. 8) • Check the settings of the recorder. For Are the batteries new? details, read the manual of the recorder.

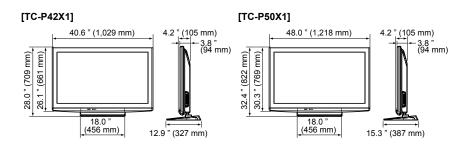
If there is a problem with your TV, please refer to the table below to determine the symptoms, then carry out the suggested check. If this does not solve the problem, please contact your local Panasonic dealer, quoting the model number and serial number (both found on the rear of the TV).



FAQs, etc

## **Specifications**

		TC-P42X1	TC-P50X1	
	er Source	AC 120 V, 60 Hz		
Pow	Maximum	286 W	399 W	
Power	Standby condition 0.3 W		0.3 W	
		AC type		
Plasma	Aspect Ratio	16:9		
	Visible screen size	42 " class (41.6 inches measured diagonally)	50 " class (49.9 inches measured diagonally)	
Display	(W × H × Diagonal) (No. of pixels)	36.2 " × 20.4 " × 41.6 " (921 mm × 518 mm × 1,057 mm)	43.5 " × 24.4 " × 49.9 " (1,106 mm × 622 mm × 1,269 mm)	
`	(No. of pixels)	786,432 (1,024 (W) × 768 (H)) [3,072 × 768 dots]	1,049,088 (1,366 (W) × 768 (H)) [4,098 × 768 dots]	
Sound	Audio Output	20 W [ 10 W + 10 W ] ( 10 % THD )		
	nnel Capability ital/Analog)	VHF/ UHF: 2 - 69, CATV: 1 - 135		
Ope	rating Conditions	onditions         Temperature:         32 °F – 104 °F (0 °C – 40 °C)           Humidity:         20 % – 80 % RH (non-condensing)		
VIDEO IN 1         VIDEO: S-VIDEO: AUDIO L-R:         RCA PIN Type × 1         1.0 V [p-p] (75 Mini DIN 4-pin         Y: 1.0 V [p-p] (75 Y: 1.0 V [p-p] (75 Mini DIN 4-pin         Y: 1.0 V [p-p] (75 Y: 1.0 V [p-p] (75 Y: 1.0 V [p-p] (75)		' [p-p] (75 Ω) C: 0.286 V [p-p] (75 Ω)		
onnec	VIDEO IN 2	VIDEO:RCA PIN Type × 11.0 V [p-AUDIO L-R:RCA PIN Type × 20.5 V [rm]	p] (75 Ω) ns]	
<b>Connection Terminals</b>	COMPONENT IN 1-2	Y:       1.0 V [p-p] (including synchronization)         PB, PR:       ±0.35 V [p-p]         AUDIO L-R:       RCA PIN Type × 2       0.5 V [rms]         TYPE A Connector × 3       • This TV supports "HDAVI Control 4" function.		
rminal	HDMI 1-3			
S	Card slot	SD CARD slot × 1		
	DIGITAL AUDIO OUT	PCM / Dolby Digital, Fiber Optic		
FEA	TURES	3D Y/C FILTER CLOSED CAPTION V-Chip Photo Viewer HDAVI Control 4		
Dimensions (W×H×D)	Including pedestal	40.6 " × 28.0 " × 12.9 " (1,029 mm × 709 mm × 327 mm)	48.0 " × 32.4 " × 15.3 " (1,218 mm × 822 mm × 387 mm)	
	TV Set only	40.6 " × 26.1 " × 3.8 " (4.2 ") (1,029 mm × 661 mm × 94 mm (105 mm))	48.0 " × 30.3 " × 3.8 " (4.2 ") (1,218 mm × 769 mm × 94 mm (105 mm))	
Mass	Including pedestal	59.6 lb. (27.0 kg)	79.4 lb. (36.0 kg)	
TV Set only 57.4		57.4 lb. (26.0 kg)	75.0 lb. (34.0 kg)	



#### Note

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Design and Specifications are subject to change without notice. Mass and Dimensions shown are approximate

### Limited Warranty (for U.S.A. and Puerto Rico only)

PANASONIC CONSUMER ELECTRONICS COMPANY, DIVISION OF PANASONIC CORPORATION OF NORTH AMERICA One Panasonic Way Secaucus, New Jersey 07094

#### Panasonic Plasma Television Limited Warranty

#### Limited Warranty Coverage

If your product does not work properly because of a defect in materials or workmanship, Panasonic Consumer Electronics Company (referred to as "the warrantor") will, for the length of the period indicated on the chart below, which starts with the date of original purchase ("Limited Warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

PLASMA TV CATEGORIES	PARTS	LABOR	SERVICE
Up to 37' (diagonal)	1 (ONE) YEAR	1 (ONE) YEAR	Carry-In
42" (diagonal) and larger	T (ONE) FEAR	I (ONE) FEAR	On-Site

During the "Labor" Limited Warranty period there will be no charge for labor. During the "Parts" Limited Warranty period, there will be no charge for parts.

You must carry-in your product or arrange for on-site service during the Limited Warranty period. If non-rechargeable batteries are included, they are not warranted. This Limited Warranty only applies to products purchased and serviced in the United States or Puerto Rico. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of the original purchase date is required for Limited Warranty service.

#### **On-Site or Carry-in Service**

For On-Site or Carry-In Service in the United States and Puerto Rico call 1-877-95-VIERA (1-877-958-4372).

On-site service where applicable requires clear, complete and easy access to the product by the authorized servicer and does not include removal or re-installation of an installed product. It is possible that certain on-site repairs will not be completed on-site, but will require that the product or parts of the product, at the servicer's discretion be removed for shop diagnosis and/or repair and then returned.

#### Limited Warranty Limits And Exclusions

This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage, nor does it cover markings or retained images on the glass panel resulting from viewing fixed images (including, among other things, non-expanded standard 4:3 pictures on wide screen TV's, or onscreen data in a stationary and fixed location). The Limited Warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, bug infestation, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or commercial use (such as in a hotel, office, restaurant, or other business), rental use of the product, service by anyone other than a Factory Service Center or other Authorized Servicer, or damage that is attributable to acts of God.

THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY. (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, or travel to and from the servicer. The items listed are not exclusive, but are for illustration only.) ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE LIMITED WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied Limited Warranty lasts, so the exclusions may not apply to you.

This Limited Warranty gives you specific legal rights and you may also have others rights which vary from state to state. If a problem with this product develops during or after the Limited Warranty period, you may contact your dealer or Service Center. If the problem is not handled to your satisfaction, then write to the warrantor's Consumer Affairs Department at the addresses listed for the warrantor.

PARTS AND SERVICE (INCLUDING COST OF AN ON-SITE SERVICE CALL, WHERE APPLICABLE) WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY ARE YOUR RESPONSIBILITY.

### Customer Services Directory (for U.S.A. and Puerto Rico)

#### **Customer Services Directory (United States and Puerto Rico)**

Obtain Product Information and Operating Assistance; locate your nearest Dealer or Service Center; purchase Parts and Accessories; or make Customer Service and Literature requests by visiting our Web Site at:

#### http://www.panasonic.com/help

or, contact us via the web at:

#### http://www.panasonic.com/contactinfo

You may also contact us directly at: 1-877-95-VIERA (958-4372) Monday-Friday 9 am-9 pm; Saturday-Sunday 10 am-7 pm, EST.

■For hearing or speech impaired TTY users, TTY: 1-877-833-8855

#### Accessory Purchases (United States and Puerto Rico)

Purchase Parts, Accessories and Instruction Books on line for all Panasonic Products by visiting our Web Site at:

#### http://www.pstc.panasonic.com

or, send your request by E-mail to:

#### npcparts@us.panasonic.com

You may also contact us directly at:

1-800-332-5368 (Phone) 1-800-237-9080 (Fax Only) (Monday - Friday 9 am to 9 pm, EST.)

Panasonic Service and Technology Company

20421 84th Avenue South,

Kent, WA 98032

(We Accept Visa, MasterCard, Discover Card, American Express, and Personal Checks)

■For hearing or speech impaired TTY users, TTY: 1-866-605-1277

### Limited Warranty (for Canada)

#### Panasonic Canada Inc.

#### PANASONIC PRODUCT - LIMITED WARRANTY

Panasonic Canada Inc. warrants this product to be free from defects in material and workmanship and agrees to remedy any such defect for a period as stated below from the date of original purchase.

Viera TV (42" & over)	In-home service	One (1) year, parts (including panel) and labour.
Viera TV (under 42")	Carry-in service	One (1) year, parts (including panel) and labour.

In-home Service will be carried out only to locations accessible by roads and within 50 km of an authorized Panasonic service facility.

#### LIMITATIONS AND EXCLUSIONS

This warranty does not apply to products purchased outside Canada or to any product which has been improperly installed, subjected to usage for which the product was not designed, misused or abused, damaged during shipping, or which has been altered or repaired in any way that affects the reliability or detracts from the performance, nor does it cover any product which is used commercially. Dry cell batteries are also excluded from coverage under this warranty.

This warranty is extended to the original end user purchaser only. A purchase receipt or other proof of date of original purchase is required before warranty service is performed.

THIS EXPRESS, LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL PANASONIC CANADA INC. BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES.

In certain instances, some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, or the exclusion of implied warranties, so the above limitations and exclusions may not be applicable.

In-home service requires clear, complete and easy access to the product by the Authorized Servicentre and does not include removal or re-installation of an installed product. If removal is required to service the product, it will be at the discretion of the Servicentre and in no event will Panasonic Canada Inc. or the Servicentre be liable for any special, indirect or consequential damages.

#### WARRANTY SERVICE

#### For product operation and information assistance, please contact: Our Customer Care Centre: 1-800 #: 1-866-330-0014

re: 1-800 #: 1-866-330-0014 Email link: <u>www.vieraconcierge.ca</u>

FOR PRODUCT REPAIRS, please contact Viera Customer Care Agent using the above contact info.

#### IF YOU SHIP THE PRODUCT TO A SERVICENTRE

Carefully pack and send prepaid, adequately insured and preferably in the original carton. Include details of the defect claimed, and proof of date of original purchase.