## **Panasonic**®

**Operating Instructions** High Definition Plasma Television Manual de instrucciones Televisor de plasma de alta definición

Model No. TH-42PX77U **TH-50PX77U** 

## Quick Start Guide

(See page 6)

## Guía de inicio rápido

(vea la página 6)

- For assistance (U.S.A.), please call: 1-888-VIEW-PTV (843-9788)
  - or visit us at www.panasonic.com/contactinfo
- For assistance (Puerto Rico), please call: 787-750-4300
  - or visit us at www.panasonic.com
- For assistance (Canada), please call:
  - 1-800-561-5505
  - or visit us at www.panasonic.ca
- Para solicitar ayuda (EE.UU.), llame al: 1-888-VIEW-PTV (843-9788)
  - ó visítenos en www.panasonic.com/contactinfo
- Para solicitar ayuda (Puerto Rico), llame al:

787-750-4300

ó visítenos en www.panasonic.com











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





SDHC Logo is a trademark.



GalleryPlayer and the GalleryPlayer Logo are trademarks of GalleryPlayer, Inc.

## EZ Sync™

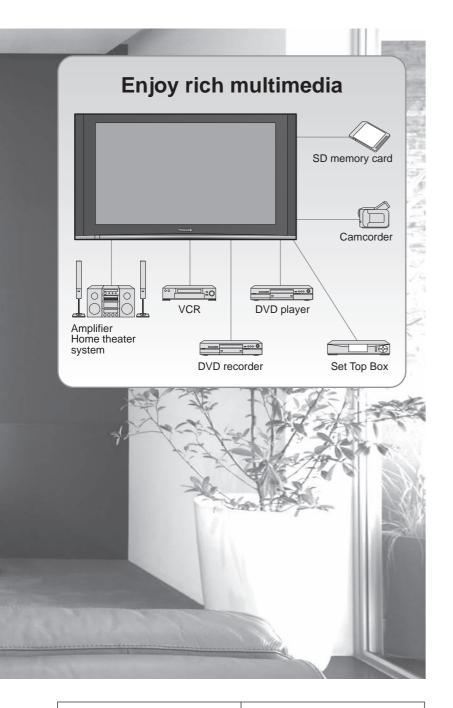
EZ Sync™ is a trademark of Matsushita Electric Industrial Co., Ltd.

## HIGH-DEFINITION MULTIMEDIA INTERFACE

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

### **HDAVI Control™**

HDAVI Control™ is a trademark of Matsushita Electric Industrial Co., Ltd.







Manufactured under license from Dolby Laboratories.

DOLBY and the double-D symbol are trademarks of Dolby Laboratories.

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# **Safety Precautions**



#### **CAUTION**

RISK OF ELECTRIC SHOCK DO NOT OPEN



A

The lightning flash with arrowhead within a triangle is intended to tell the user that parts inside the product are a risk of electric shock to persons.



The exclamation point within a triangle is intended to tell the user that important operating and servicing instructions are in the papers with the appliance.

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.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, 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.

- 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.



- 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:**

Any changes or modifications not expressly approved by responsible party may cause harmful interference and 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

1-888-VIEW-PTV (843-9788)

email: consumerproducts@panasonic.com

#### **CANADIAN NOTICE:**

For Model TH-42PX77U, TH-50PX77U

This Class B digital apparatus complies with Canadian ICES-003.

#### **WARNING/CAUTION**



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

Do not place the Plasma TV on sloped or unstable surfaces.

The Plasma TV may fall off or tip over.

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.

This Plasma TV is for use only with the following optional accessories. Use with any other type of optional accessories may cause instability which could result in the possibility of injury. (All of the following accessories are manufactured by Matsushita Electric Industrial Co., Ltd.)

- Wall-hanging bracket (Vertical) TY-WK42PV3U
- Wall-hanging bracket (Angled) TY-WK42PR2U TY-WK42PR3U

Always be sure to ask a qualified technician to carry out set-up.

 Two or more people are required to install and remove the television. If two people are not present, the television may be dropped, and personal injury may result.

Transport only in upright position!

 Transporting the unit with its display panel facing upright or downward may cause damage to the internal circuitry.

#### ■ AC Power Supply Cord

The Plasma TV is designed to operate on 120 V AC, 60 Hz. Securely insert the power cord plug as far as it will go.

 If the plug is not fully inserted, heat may be generated which could cause fire. If the plug is damaged or the wall socket plate is loose, they should not be used.

The included power cord is for use with this unit only.

Do not use any power cord other than that provided with this TV.

Doing so may cause fire or electric shocks.

Do not handle the power cord plug with wet hands.

Doing so may cause electric shocks.

Do not do anything that might damage the power cable. When disconnecting the power cable, hold the plug, not the cable.

Do not make any modifications to, place heavy objects on, place near hot objects, heat, bend, twist or forcefully pull the power cable. Doing so may cause damage to the power cable which can cause fire or electric shock. If damage to the cable is suspected, have it repaired at an Authorized Service Center.

#### ■ 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 cord immediately.

 Continued use of the TV under these conditions might cause fire or permanent damage to the unit. Have the TV evaluated at an Authorized Service Center. Servicing of the TV by any unauthorized personnel is strongly discouraged due to its high voltage dangerous nature.

If water or foreign objects get inside the Plasma TV, if the Plasma TV is dropped, or if the cabinet becomes damaged, disconnect the power cord plug immediately.

 A short may occur, which could cause fire. Contact an Authorized Service Center for any repairs that need to be made.



Do not cover the ventilation holes.

 Doing so may cause the Plasma TV to overheat, which can cause fire or damage to the Plasma TV.

If using the pedestal, leave a space of 3 15/16 " (10 cm) or more at the top, left and right, 1 49/64 " (4.5 cm) or more at the bottom, and 2 3/4 " (7 cm) or more at the rear.

#### ■ When using 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.

Disconnect the power plug from the wall outlet as a safety precaution before carrying out any cleaning.

Electric shocks can result if this is not done.

Clean the power cable regularly to prevent it from becoming dusty.

 Built-up dust on the power cord plug can increase humidity which might damage the insulation and cause fire. Unplug the cord from the wall outlet and clean it with a dry cloth.

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.

Do not climb up onto the television or use it as a step. (Young children should be made particularly aware of this caution.)

 If the unit falls over or becomes damaged through misuse, injury may result.

The TV will still consume some power as long as the power cord is inserted into the wall outlet.

## **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.

#### Typical still images

- Channel number and other logos
- Image displayed in 4:3 mode
- SD Card photoVideo game

Computer image





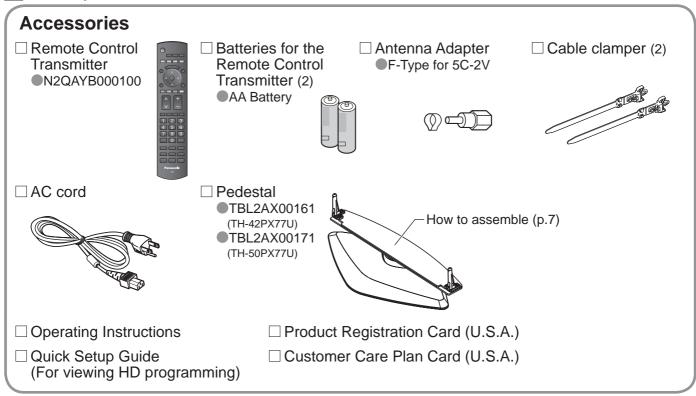
To prevent "Image retention", the screen saver is automatically activated after a few minutes if no signals are sent or no operations are performed. (p. 53)

#### ■ Setup

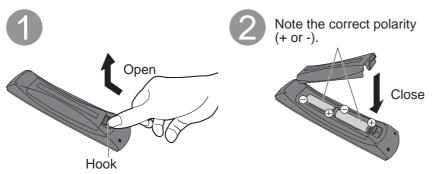
- Do not place the unit where it's exposed to sunlight or other bright light (including reflections).
- Use of some types of fluorescent lighting may reduce the remote control's transmission range.

# **Accessories/Optional Accessory**

Check you have all the items shown.



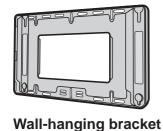
### Installing remote's batteries



#### Caution

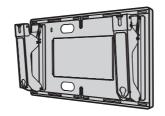
- Incorrect installation may cause battery leakage and corrosion, resulting in damage to the remote control.
  - Do not mix old and new batteries.
  - Do not mix different battery types (such as alkaline and manganese batteries).
  - Do not use rechargeable (Ni-Cd) batteries.
- Do not burn or break batteries.
- Make a note of the remote control codes before changing batteries in case the codes are reset. (p. 43-45)

### **Optional Accessory**



(vertical)

TY-WK42PV3U



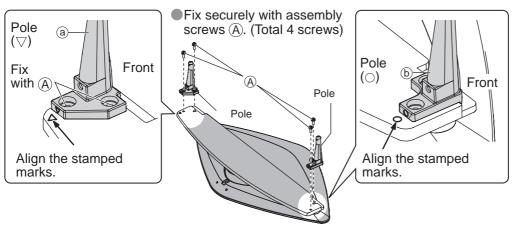
(angle) ●TY-WK42PR2U ●TY-WK42PR3U

#### 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 paneling to crack.

#### Attaching the pedestal to TV

#### Assembling the pedestal

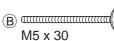


## **Accessories**

Assembly screw (4 of each)



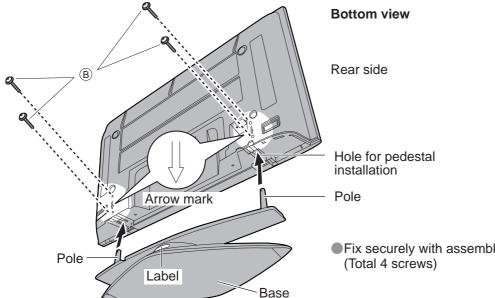
Base (1)





#### ■Set-up

Carry out work on a horizontal and level surface.



Fix securely with assembly screws B.

#### Warning

Do not disassemble or modify the pedestal.

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

#### Caution

Do not use any television or displays other than those given in this Operating Instructions.

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 while 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.

Use the accessory fall-prevention brackets to secure the TV.

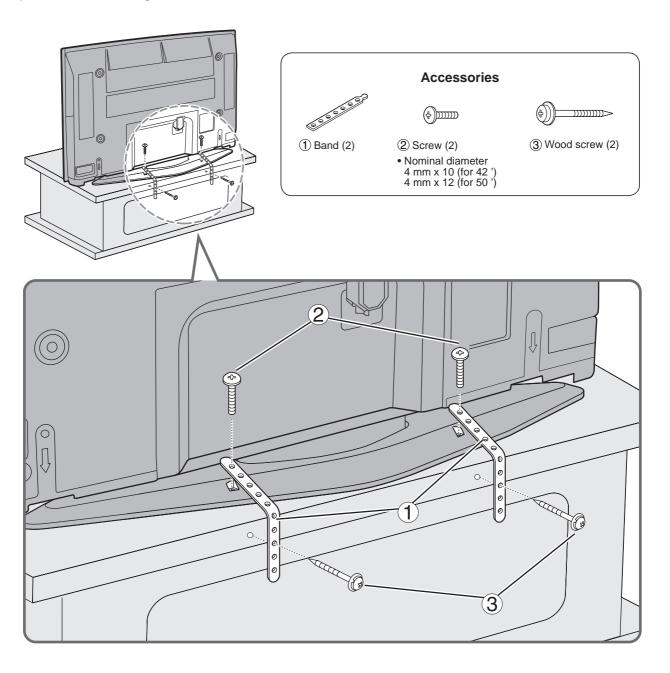
If the TV is knocked or children climb onto the pedestal with the TV installed, the TV may fall over and personal injury may result.

# To Prevent TV from Falling Over

The TV must be fastened to both a base and a wall.

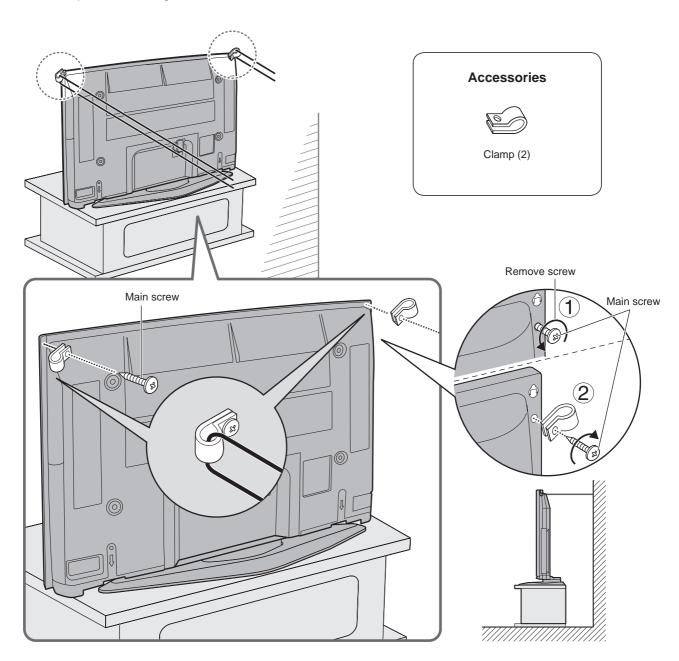
#### Securing to a base

Fix pedestal and base together with band.



## Securing to a wall

●Fix to wall or post with strong commercial wire or chain.



## **Before Connection**

#### **Connected Equipment Introduction (Signal source)**

#### Watching TV

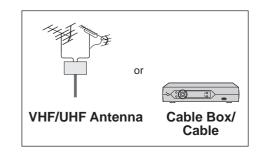
- VHF/UHF Antenna
  - •NTSC (National Television System Committee): Conventional broadcasting
  - •ATSC (Advanced Television Systems Committee): Digital TV Standards include digital high-definition television (HDTV),

standard-definition television (SDTV), data broadcasting, multi-channel surround-sound audio and interactive television.

Cable Box/Cable

You need to subscribe to a cable TV service to enjoy viewing their programming.

You can enjoy high-definition programming by subscribing to a high-definition cable box. The connection can be done with the use of HDMI or Component Video cable.



#### ■ Recording/playing back with DVD recorder or VCR

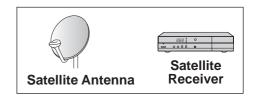
DVD Recorder

This source has higher resolution through interlace or progressive signal. Connection can be done with the use of Component Video or HDMI cable.

Connection can be done with the use of an RF cable and Composite Video/S Video cable.

### ■Watching Satellite

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

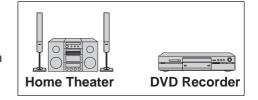


**VCR** 

**DVD** Recorder

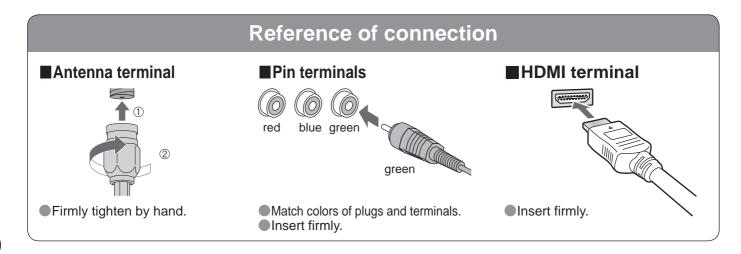
#### ■ Enjoying Home theater and DVD recorder with **HDMI** connection

Home theater and DVD Recorder HDMI connection enables you to enjoy higher quality audio and video with a single cable.



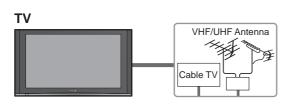
#### Note

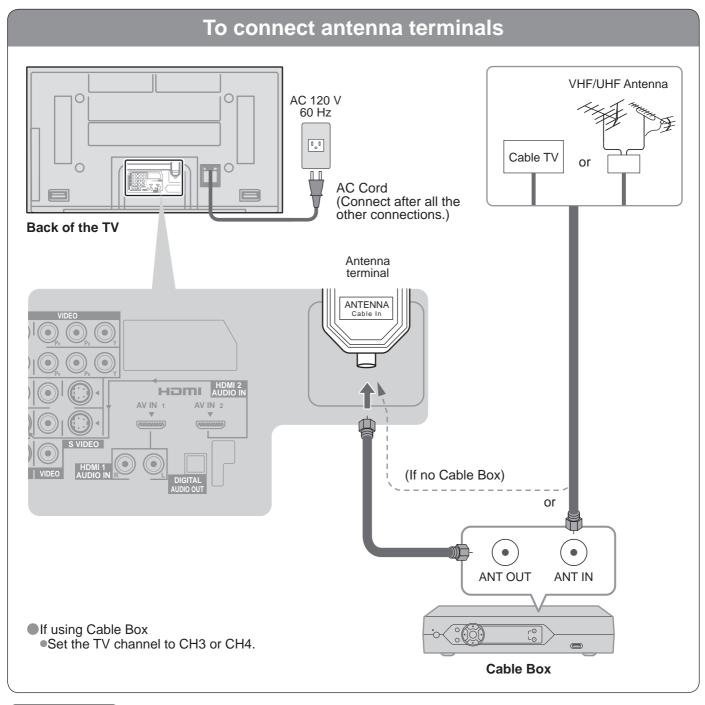
- If your Panasonic DVD Recorder is compatible with EZ Sync (HDAVI control 2), you can operate your Panasonic DVD Recorder with this TV's remote control (p. 25 EZ Sync™).
- All cables and external equipment shown in this book are not supplied with the TV.
- For the details of the external equipment's connections, please refer to the operating manuals of the equipment.



## **Basic Connection**

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





Note

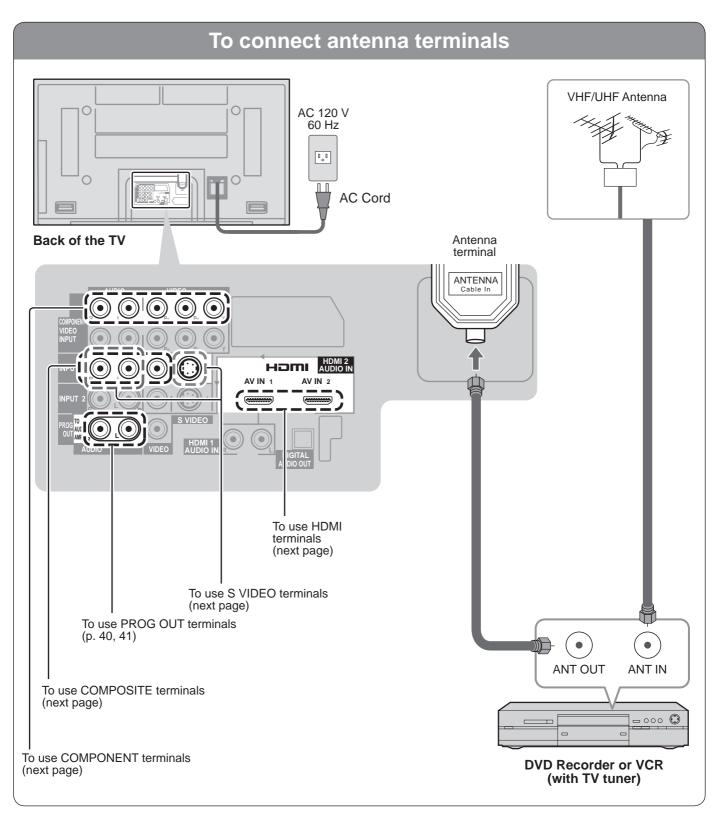
For additional assistance, visit us at: www.panasonic.com www.panasonic.ca

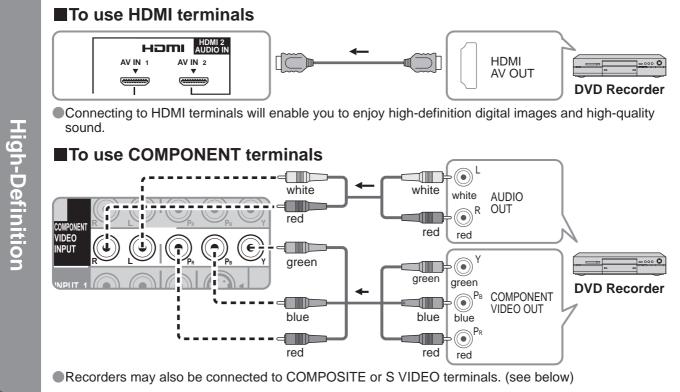
When disconnecting the power cord, be absolutely sure to disconnect the power cord plug at the wall outlet first.

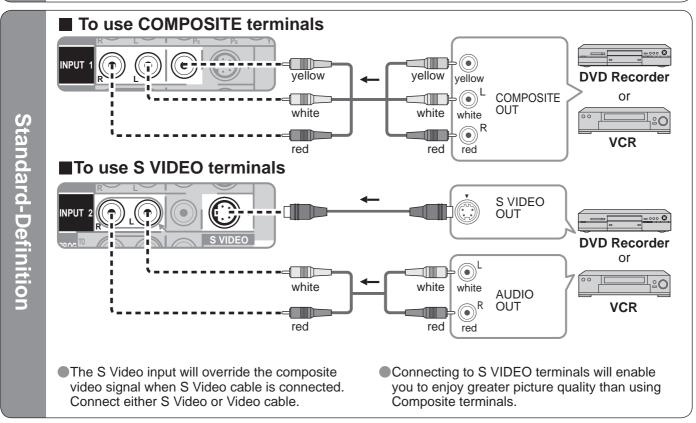
## Basic Connection (Continued)

### Example 2 Connecting DVD recorder (VCR) (To record/playback)









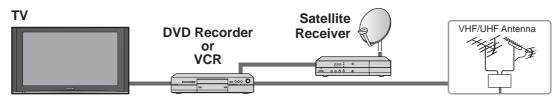
Note

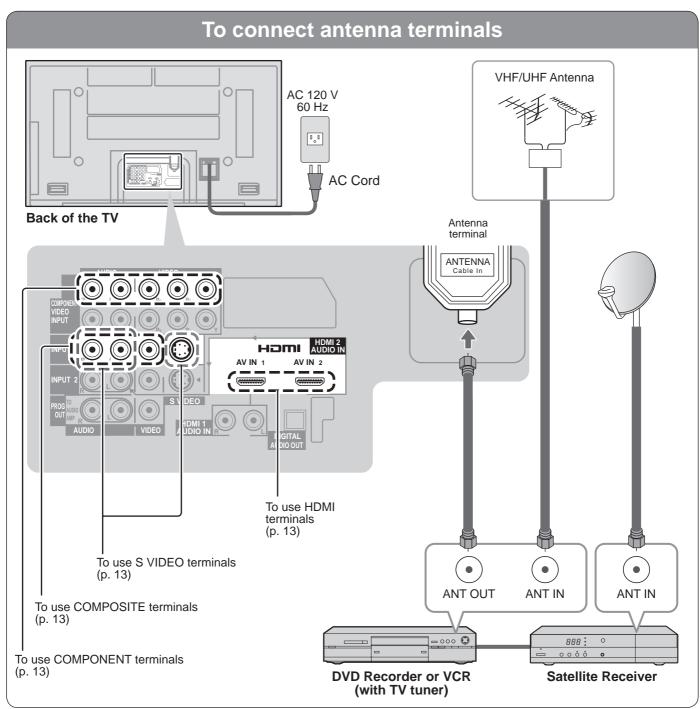
Some programs contain a copyright protection signal to prevent recording.

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.

## Basic Connection (Continued)

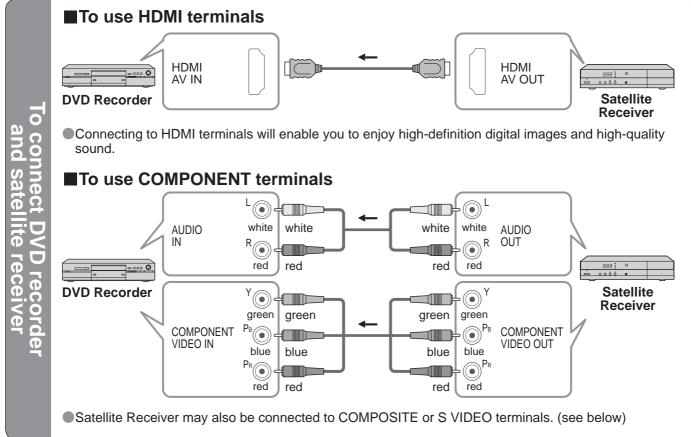
### **Example 3** Connecting DVD recorder (VCR) and satellite receiver

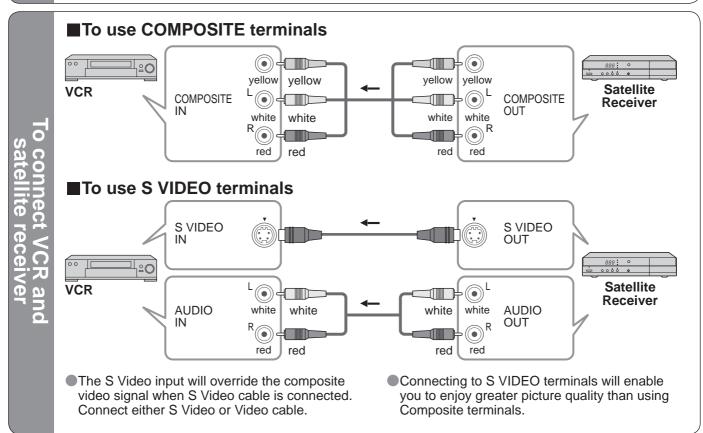




## Connecting TV and DVD recorder (VCR)

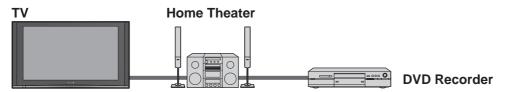
Connect in the same way as on p. 13.

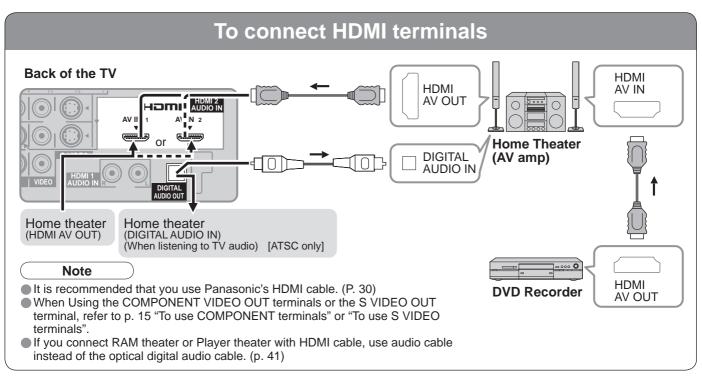




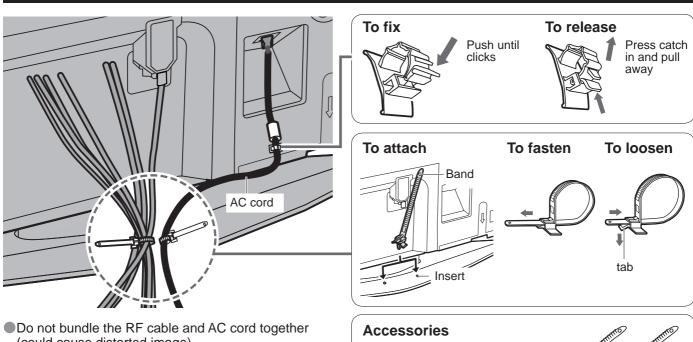
## Basic Connection (Continued)

#### **Connecting Home Theater and DVD recorder** Example 4



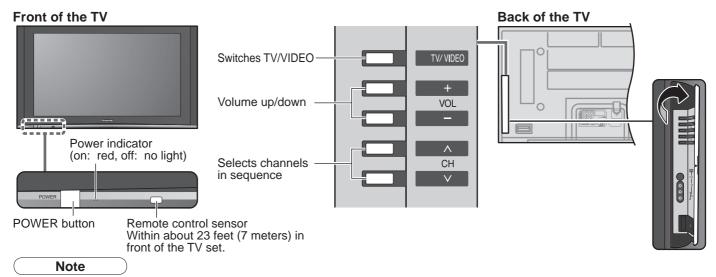


#### Cable Binding Instructions

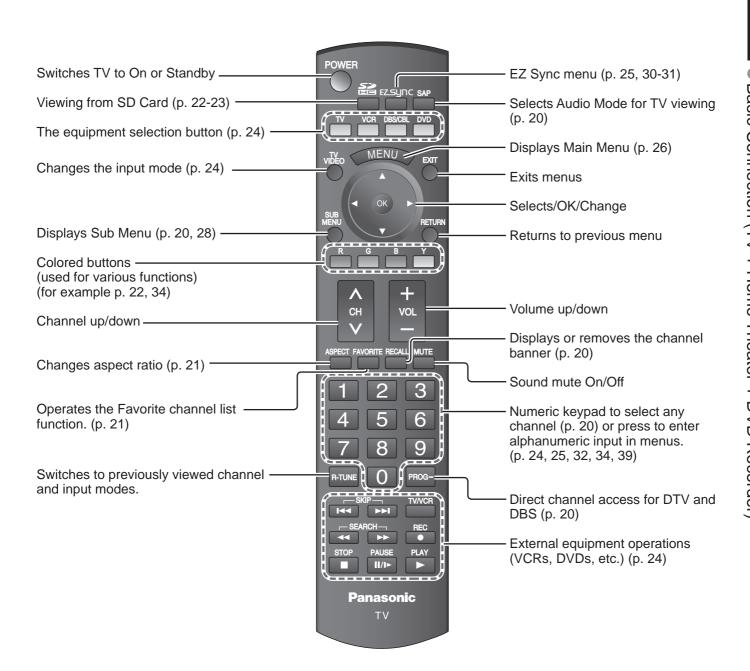


- (could cause distorted image).
- Fix cables with Band as necessary.
- When using the options, follow the option's assembly manual to fix cables.

# **Identifying Controls**

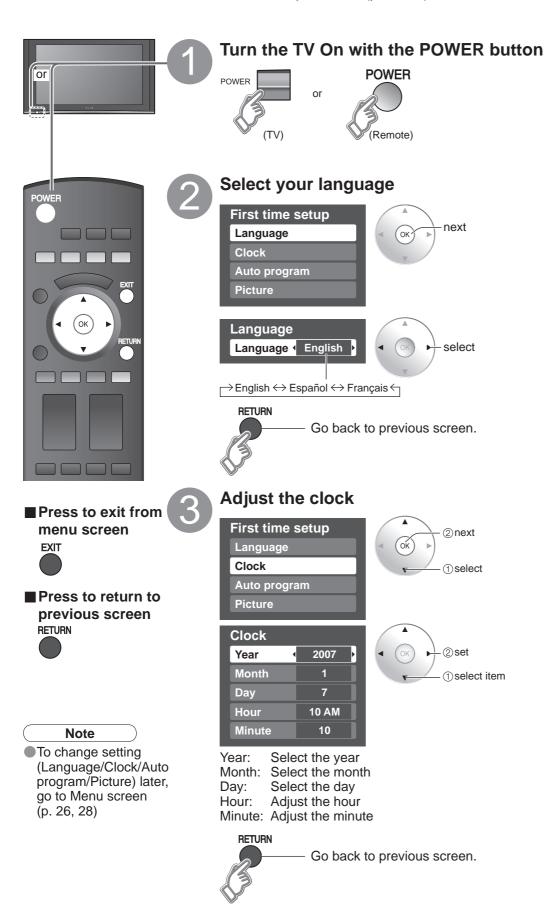


The TV consumes a limited amount of power as long as the power cord is inserted into the wall outlet.



# 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".



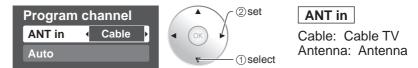


### **Auto channel setup**

**1) Select "Auto program"** 



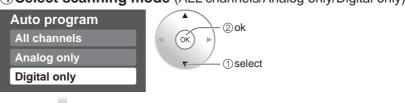
2 Select "ANT in"



③Select "Auto"



4 Select scanning mode (ALL channels/Analog only/Digital only)



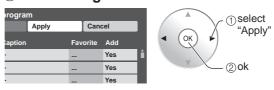


#### Start scanning the channels

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

#### **5** Confirm registered channels



- If OK is not pressed after selecting "Apply", the channels will not be saved.
  If you perform scanning more than twice, previously saved channels are erased.
- First time setup

  Language

  Clock

  Auto program

  Picture

(Refer to p. 26)

## ■ Press to exit from menu screen

**Panasonic** 

OK



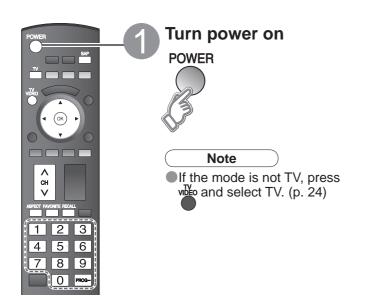


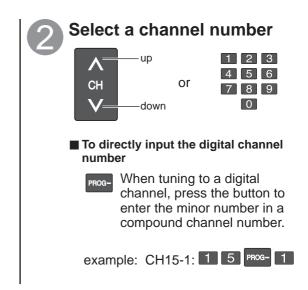
About broadcasting systems

Analog (NTSC): traditional TV programming Digital (ATSC): new programming that allows you to view more channels featuring high-quality video and sound

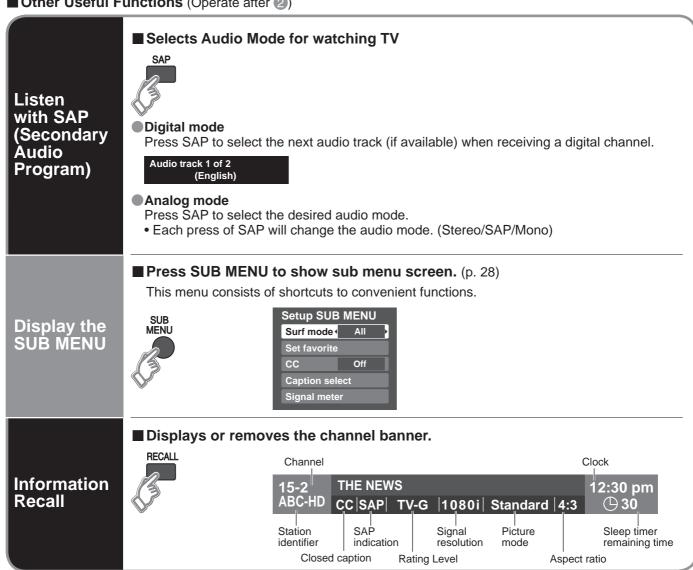
# Watching TV

Connect the TV to a cable box/cable, set-top-box, satellite box, or antenna cable (p. 10-15)





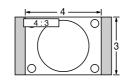
#### ■ Other Useful Functions (Operate after ②)



#### Change aspect ratio

#### ■ Press ASPECT to cycle through the aspect modes. (p. 47)





- 480i, 480p: FULL/JUST/4:3/ZOOM
- 1080p, 1080i, 720p: FULL/H-FILL/JUST/4:3/ZOOM

#### Call up a favorite channel



#### **■ FAVORITE**

Channel numbers registered in Favorite are displayed on the favorite tune screen. Select the desired broadcast station with the cursor or use number buttons. (see below)

#### Note

- ●Reselect "Cable" or "Antenna" in "ANT in" of "Program channel" to switch the signal reception between cable TV and antenna. (p. 19, 35)
- The channel number and volume level remain the same even after the TV is turned off.

#### **Set Favorite Feature**

Display the SUB MENU.

Setup SUB MENU

Surf mode

Set favorite

Caption select Signal meter

CC





Off

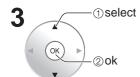




Setup SUB MENU Surf mode ∢ Set favorite Off Caption select Signal meter 1) select



 Press FAVORITE repeatedly to change between pages (1/3, 2/3, 3/3, or exit).





Press ▲ ▼to highlight a position on the list.

Then, press OK to save the displayed channel in that position.

• You can also use the NUMBER buttons (1-9 and 0) to select a list number (1-9 and 0). By doing so, the displayed channel will be saved on that list number without pressing OK.

#### To delete a favorite channel

A saved channel can be removed from the list by holding down OK while its position is highlighted.

To change the page Pressing **◄** changes the page backward.

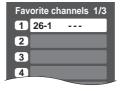
#### **Use Favorite Feature**

Press FAVORITE.

**FAVORITE** 



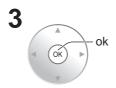
 Press FAVORITE repeatedly to change between pages (1/3, 2/3, 3/3, or exit).





Press ▲ ▼ or a Numbered key (1-9 and 0) to highlight a channel on the list.

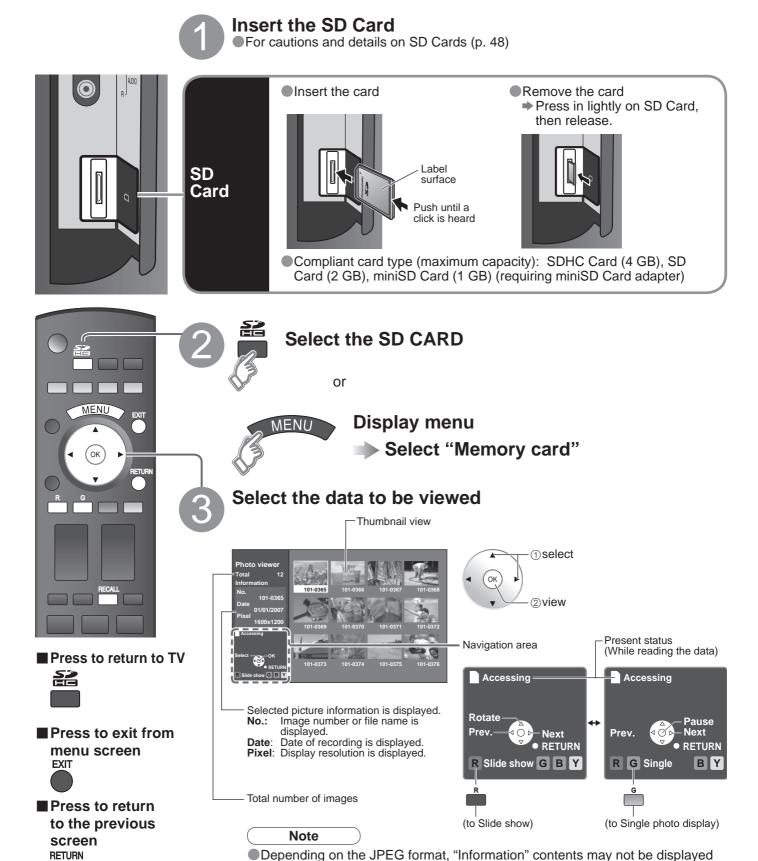
 Selecting a channel number from the list with the number button will display the channel directly.



Press OK to display the highlighted channel.

## Viewing from SD Card

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



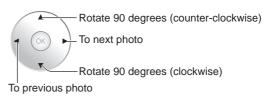
correctly. Refer to p. 48 (Data format for SD card browsing) for details.



#### **View**







■To display/hide Navigation area ⇒

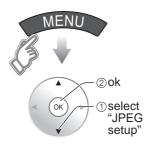
### To change the view (Slide show mode, adjusting images, etc.)

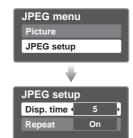
#### ■ To watch photos in Slide show mode

Navigation area









You can set how many seconds each image is displayed in Slide show mode. Disp. time (1-10/15/20/30/45/60/120 sec) Repeat Turn the slide show Repeat function On or Off.

Note

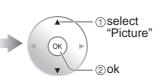
- For large image sizes, the display time will be longer than the number of seconds set. ■To stop in mid-cycle ⇒ Press
- To adjust picture

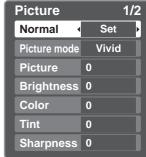
When MENU is pressed, the "JPEG menu" is displayed.











Picture menu (p. 26)

## Viewing from a GalleryPlayer SD Card

You can view high-definition art and photography purchased on or downloaded to an SD card. GalleryPlayer provides pre-loaded SD cards with copy-protected imagery and images for download to your computer that can be saved on an SD card for display on your television.

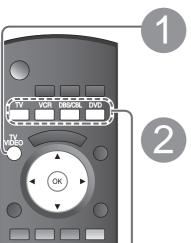
# Watching Videos and DVDs

If you have some equipment connected to the TV, you can easily watch videos and DVDs using the TV's remote control.

#### **Input Select**

You can select the external equipment to access.

To operate other manufacturers' equipment, you need to register the code of the equipment. (p. 39)



6

9

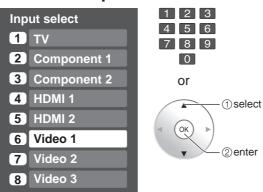
8

0

With the connected equipment turned On **Display the Input select menu** 



Select the input mode



Press corresponding NUMBER button on the remote control to select the input of your choice.

Select the input of your choice, then press OK.

- During the selection, if no action is taken for several seconds, the "Input select" menu disappears.
- The terminal and label of the connected equipment is indicated.
   To label each of the inputs please refer to p. 36-37.



### Select the remote control mode

Terminal

Label

(example)

(example)

Press the key to select

4

Operate the connected equipment, pointing remote control at the equipment.

(example)

	VCR MODE	DVD MODE
REC	VCR Record Record	
-SKIP-	- Skip Reverse/Forward	
	Rewind/Fast Forward	Reverse/Forward
STOP	Stop	Stop
PAUSE II/I>	Pause	Pause
PLAY	Play	Play

(For other operations, see p. 42)

#### ■ To return to TV

**Panasonic** 

4

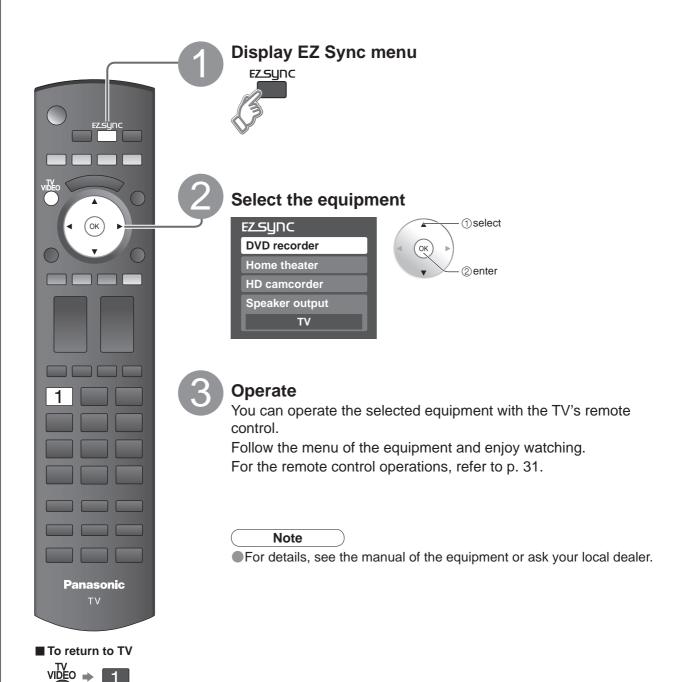


Note

For details, see the manual of the equipment.

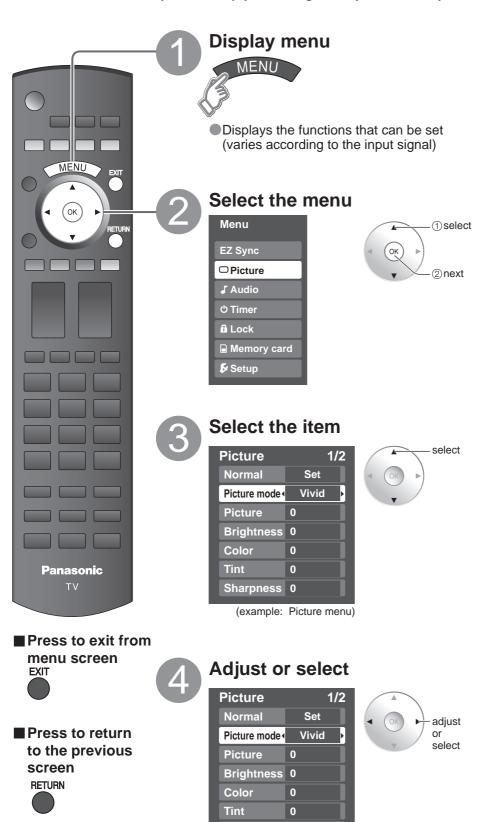
## EZ Sync™

If you connect equipment that has "HDAVI Control 2" function to a TV with HDMI cable, you can enjoy using more convenient functions. For details, "EZ Sync Control" on p. 30-31.



## **How to Use Menu Functions**

Various menus allow you to make settings for the picture, sound, and other functions so that you can enjoy watching TV in your own way.



Sharpness 0

(example: Picture menu)

#### ■ Menu list

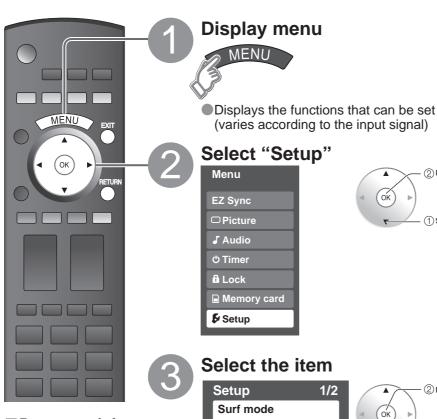
■ Men	u lis	<u>st</u>		
Menu		Item		
EZ Sync	Hor HD	DVD recorder, Home theater, HD camcorder, Speaker output		
	Normal			
	Pic	ture mode		
	Pic Col	ture, Brightness, or, Tint, Sharpness		
	Col	or temp.		
Pic	Col	or mgmt.		
Picture	Zoc	om adjust		
		Video NR		
	Ot	3D Y/C filter		
	Other adjust	Color matrix		
	ıst	MPEG NR		
		Black level		
	Nor	mal		
	Bas	ss		
	Tre	ble		
	Bal	ance		
Aud	Other adjust	Al sound		
io		Surround		
		Speaker output		
		HDMI 1 in HDMI 2 in		
		Audio leveler		
Timer	Sle	ep, Timer 1-5		
Lock				
Memory Card	Mei	mory card		

#### Adjustments/Configurations (alternatives) [DVD recorder/Home theater/HD camcorder] Select equipment to access and operate. (p. 30) [Speaker output] Select audio output. (Home theater/TV) (p. 30) EZ Sync menu is accessible directly by pressing the EZ Sync button on the remote control. ⇒ EZ-Sync (p. 25) Resets all picture adjustments to factory default settings except for "Other adjust" (Set/No) Normal Basic picture mode (Vivid/Standard/Cinema/Custom) (p. 49) Picture mode Vivid Adjusts color, brightness, etc. for each picture mode to suit your taste Picture **Brightness** 0 **Sharpness** Color Selects level of warm colors (red) and cool colors (blue) (Cool/Normal/Warm) Color temp. Cool On: Enhances green and blue color reproduction, especially outdoor scenes. (On/Off) Color mgmt. On Adjusts vertical alignment and size when aspect setting is "ZOOM" (p. 47) Zoom adjust Reduces noise, commonly called snow. Leave it off when receiving a strong signal. (Off/On) Video NR Off Minimizes noise and cross-color in the picture. (On/Off) 3D Y/C filter Off Selects image resolution of component-connected devices (HD/SD) SD: Standard Definition **HD:** High Definition SD Color matrix Only 480p signal accepted; regular TV (NTSC) is not available. 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 Resets Bass, Treble and Balance adjustments to factory default settings. (Set/No) Normal Increases or decreases the bass response. Bass Increases or decreases the treble response. Treble Emphasizes the left / right speaker volume. Balance Equalizes overall volume levels across all channels and external inputs. (On/Off) Al sound On Enhances audio response when listening to stereo. (On/Off) Surround Off Switches to "Off" when using external speakers (On/Off) Speaker output On "Al sound", "Surround", and "Audio leveler" do not work if "Off" is selected HDMI1 in Auto Selects according to the signal when HDMI is connected (Auto/Digital/Analog) Auto: Automatically selects Analog / Digital signal HDMI2 in Minimizes volume disparity after switching to external inputs Audio leveler The TV can automatically turn On/Off at the designated date and time (p. 38) Sleep Locks the channels and programs (p. 32) Displays SD card data (p. 22) Memory card

<sup>■</sup>In AV mode, the Audio menu and Setup menu give fewer options.

## **How to Use Menu Functions**

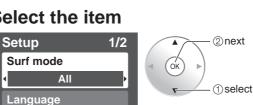
Various menus allow you to make settings for the picture, sound, and other functions so that you can enjoy watching TV in the way best suited for you.



■ Press to exit from menu screen



■ Press to return to the previous screen RETURN



②next

1) select

■ Men	u lis	st	
Menu		Item	
	Sur	f mode	
	Lan	nguage	
	Clo	ck	
	Pro	gram channel	
	Exter	Input labels	
	External devices	Monitor out	
	СС		
	EZ Sync setting	EZ Sync	
	ync	Power off link	
တ္ဆ	sett	Power on link	
Setup	ing	Default speakers	
		Auto power on	
		Side bar	
	Other adjust	No signal shut-off	
		No action shut-off	
	Abo	out	
	Res	set	

### **Display Sub Menu**

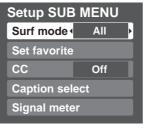
Clock

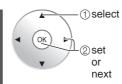
CC

Program channel External devices



Select the item





#### ■ Sub menu list

Menu	Item	
Setup SUB MENU	Surf mode	
	Set favorite	
	СС	
	Caption select	
	Signal meter	

## (Continued)

Adjustments/Configurations (alternatives)	
Sets the mode to select the channel with Channel up/down button (Favorite/All)  Favorite: Only channels registered as FAVORITE (p. 35)	Surf mode All
Selects the screen menu language (p. 18)	Language
Adjusts the clock (p. 18)	Clock
Sets channels (p. 34)	Program channel
Selects the terminal and label of the external equipment (p. 36)	
[Comp.1/Comp.2/HDMI 1/HDMI 2/Video 1/Video 3] To prevent howling and image oscillation, stops output of the pictures and audio specified in this menu. (p. 36) (On/Off)	
Displays subtitles (Closed Caption) (p. 36)	СС
Controls equipment connected to HDMI terminals (p. 30) (On/Off)  "Power off link", "Power on link", and "Default speakers" cannot be selected if "Off" is set.	EZ Sync On
Sets "Power off link" of HDMI connection equipment (p. 30) (Set/No)	Power off link Set
Sets "Power on link" of HDMI connection equipment (p. 30) (Set/No)	Power on link Set
Selects the default speakers (p. 30) (TV/Theater)	Default speakers TV
Turns TV On automatically when the cable box or a connected device is turned On (No/Set)  The "Sleep" timer, "On / Off timer", and "First time setup" will not function if "Auto power on" is set. (p. 38)	Auto power on No
Increases the brightness of the side bar (Bright/Off/Dark/Mid) (4:3 mode only) The recommended setting is "Bright" to prevent panel "Image retention". (p. 49)	Side bar Bright
To conserve energy, the TV automatically turns off when NO SIGNAL continues more than 10 minutes. (Set/No) Note  Not in use when setting "Auto power on", "On/Off Timer", "Lock", "SD Mode", or Digital channel.  "No signal shut-off 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 shut-off".  The on-screen display will flash 3, 2 and 1 to indicate the last three (3) remaining minutes prior to the shut-off.	No signal shut-off Set
To conserve energy, the TV automatically turns off when no operation of remote or front panel key continues for more than 3 hours. (No/Set)  Note  Not in use when setting "Auto power on" or "On/Off Timer".  "No action shut-off 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 action shut off".  The on-screen display will flash 3, 2 and 1 to indicate the last three (3) remaining minutes prior to the shut-off.	No action shut-off No
Displays TV version and software license.	About
Performing Reset will clear all items set with Setup, such as channel settings. (p. 34)	Reset

	Adjustments/Configurations (alternatives)
Se	ets the mode to select the channel with Channel up/down button (Favorite/All)
S	ets favorite channels. (p. 21)
Di	isplays Closed Caption. (p. 36) (Off/On)
C	hanges the station identifier. (p. 34)
C	hecks the signal strength if interference or freezing occurs on a digital image. (p. 34)

# EZ Sync<sup>TM</sup> "HDAVI Control<sup>TM</sup>"\*

\* Simultaneously control all Panasonic "HDAVI Control" equipped components using one button on one remote.

Enjoy additional HDMI Inter-Operability with Panasonic products which have "HDAVI Control" function. This TV supports "HDAVI Control 2" function.

Connections to some Panasonic equipment (DVD Recorder DIGA, HD Camcorder, RAM theater, Player theater, Amplifier, etc.) with HDMI cables allow you to interface automatically.

The equipment with "HDAVI Control" function enables the following operations:

Automatic Input Switching, Power on link, Power off link and Speaker control (p. 31).

In addition, the equipment with "HDAVI Control 2" function enables the following operation:

EZ Sync Control only with TV's remote control (for "HDAVI Control 2") (p. 31).

EZ Sync "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.

- ■For the first time / When adding new equipment, reconnecting the equipment or changing the setup. After the connection turn the equipment on and then switch the TV on. Select the input mode to HDMI 1 or HDMI 2 (p. 24), and make sure that an image is displayed correctly.
- This function needs an HDMI compliant (fully wired) cable. Non-HDMI-compliant cables cannot be utilized.

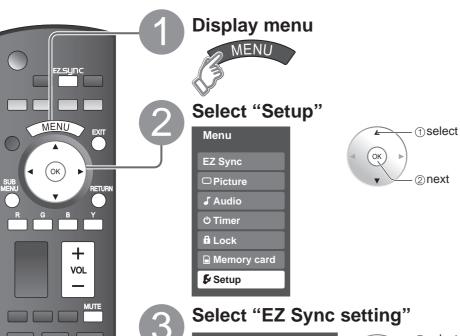
It is recommended that you use Panasonic's HDMI cable.

Recommended part number:

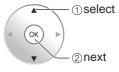
RP-CDHG15 (4.9 ft/1.5 m), RP-CDHG30 (9.8 ft/3.0 m), RP-CDHG50 (16.4 ft/5.0 m)

Automatic Input Switching

Speaker control







■ Press to exit from menu screen





■ Press to return to the previous screen

RETURN





If no HDMI equipment is connected or standard HDMI equipment (non- "EZ Sync") is used, set to "Off". EZ Sync Control only with TV's remote control

(for "HDAVI Control 2")

Power on link

Power off link

Default speakers

One-touch theater playback At the start of the DIGA, Player theater, or RAM theater playback, the TV's input automatically switches to the input based on the playback equipment.

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.

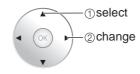
You can select Home theater, or TV speakers for audio output.

Control theater speakers with the TV's remote control.

This function is available only when Panasonic Amplifier or Player theater is connected.

- 1 Press EZSUNC
- 2 Select "Speaker output"
- Select "Home theater" or "TV"





■ Home theater: Adjustment for equipment

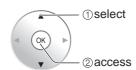


- The sound of TV is muted.
- When the equipment is turned off, TV speakers become active.
- Selecting "Home theater" turns the equipment on automatically if it is in standby mode.
- **TV**: The TV speakers are active.

In the EZ Sync menu, you can select an HDMI connected Panasonic equipment and access it quickly. Continue using your TV's remote control to operate the equipment, pointing it at the TV.

- 1 Press EXSUNC
- 2 Select the equipment you want to access.





You can select available items only.

- ③Operate the equipment with the TV's remote control, pointing it at the TV.
  - To operate the equipment, read the manual of the equipment.

#### ■ Available TV's remote control buttons

( i i	Move the cursor/Select
ОК	Set/Access
RETURN	Return to the previous menu
SUB MENU	Display the Functions menu on the equipment
R G B Y	Available when the purpose of the keys are displayed on screen

When "Set" is selected (p. 29), TV is turned on automatically and switches to the appropriate HDMI input whenever EZ Sync compatible equipment is initially turned on and Play mode is selected.

When "Set" is selected (p. 29) and the TV is turned off, all connected EZ Sync compatible equipment is also automatically turned off.

DIGA (Panasonic DVD Recorder) will not turn off if it is still in rec mode.

Caution: The TV remains on even if the EZ Sync compatible equipment is turned off.

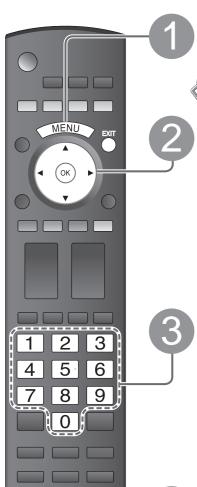
"TV" is the default setting. To set the Home Theater system as default speakers, change the default speakers setting from "TV" to "Theater". Sound will be output from the Home Theater whenever the TV is powered on.

If the "ONE TOUCH PLAY" key is pressed on the remote control for Panasonic Home Theater system, the following sequence of operations is performed automatically.

- 1) Home Theater power switches On, and playback begins.
- 2 TV power switches On, and the playback screen is displayed.
- 3 Audio is muted on the TV and switches to the theater system.

## Lock

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



#### Display menu



#### Select "Lock"





You will be asked to enter your password each time you display the Lock menu.



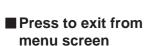
### Input your 4-digit password

A 4-digit code must be entered to view a blocked program or change rating settings.



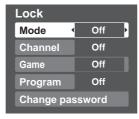


If it is the first time to enter the password, enter the code twice in order to register it.





### Select the Lock mode





- Off: Unlocks all the lock setting of "Channel", "Game" and "Program".
- All: Locks all the inputs regardless of the lock setting of "Channel", "Game" and "Program".
- Custom: Locks specified inputs of "Channel", "Game" and "Program".

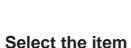
#### Caution

Make a note of your password in case you forget it. (If you have forgotten your password, consult your local dealer.)



### **Note**

When you select a locked channel, a message will be displayed that allows you to view the channel if you input your password.







"Channel", "Game" and "Program" will grey out unless "Custom" is selected in "Mode".



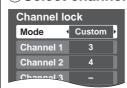
Set

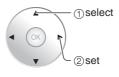


#### ■ To select the channel or the rating of the program to be locked

program rating.

- 1) Select "Mode" and set to "Custom"
- 2 Select channel to lock.





To lock/unlock all channels: Select "Mode" and set to "All" or "Off".

All: Locks all channels
Off: Unlocks all channels

#### **Game lock**

Channel

lock

Locks Channel 3, Channel 4 and external inputs.

Select "Game" in 5 and set to "On".



Select up to 7 (1-7) channels to be blocked. These channels will be blocked regardless of the

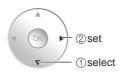
On: Locks Off: Unlocks

#### ■ To set a rating level

"V-chip" technology enables restricted shows to be locked according to TV ratings.

1) Select "Mode" and set to "On".





#### Program lock

Select the rating category you wish to follow





MPAA: U.S movie ratings
U.S.TV: U.S TV program ratings
C.E.L.R.: Canadian English ratings
C.F.L.R.: Canadian French ratings

3 Select the rating to be locked



...

Example of "MPAA" (U.S movie ratings)

ı	NR	No rating
	G	General Audience: All ages admitted
	PG	Parental Guidance Suggested
	PG-13	Parents Strongly Cautioned: Inappropriate for children under 13
	R	Restricted: Under 17 requires accompanying parent or adult guardian
	NC-17	No one 17 and under admitted
ı	X	Adults only

- To get other information (p. 46)
- To disable recording of the locked program
  - ⇒ Select "Monitor out" and set to "On".



- On: Turns on the monitor terminal output for programs that have been set to "Blocked."
- Off: Turns off the monitor terminal output for programs that have been set to "Blocked."

## Change password

#### ■ To change the password

- 1 In 4, select "Change password" and press OK
- 2 Input the new 4-digit password twice

Lock			
Mode	Off		
Channel	Off		
Game	Off		
Program	Off		
Change password			

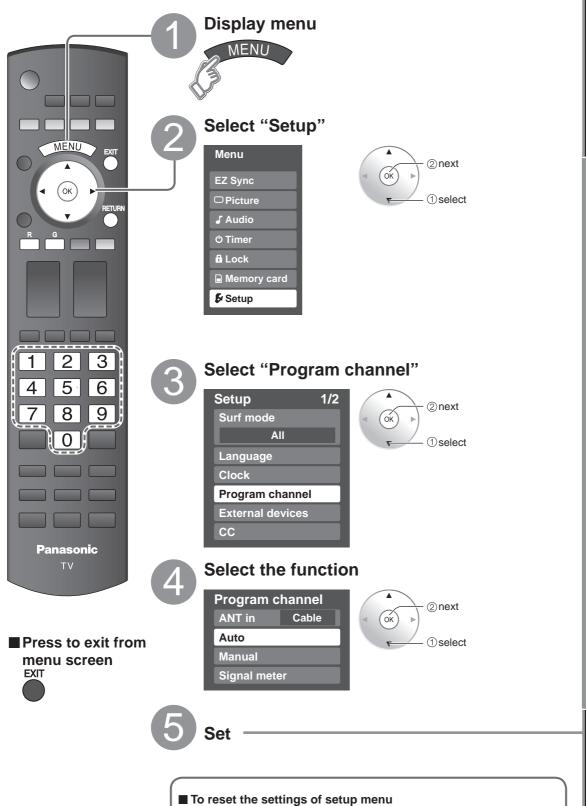


#### Note

- 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 block on a specific-age-based-rating level, the Off rating and any other more restrictive ratings will also be blocked.

# **Editing and Setting Channels**

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



① Select "Reset" in Setup menu (3) and press OK

2 Input your 4-digit password with number buttons

③ Select "YES" on the confirmation screen and press OK

Auto Set automatically

Manual Set manually

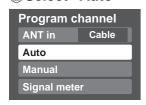
Signal meter

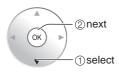
Check signal strength

Automatically searches and adds active channels to memory.

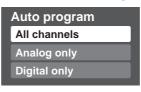
① Select "ANT in" → Select Cable or Antenna (p. 19)

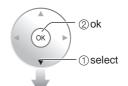
#### 2 Select "Auto"





#### **3 Select scanning mode** (p. 19)





Settings are made automatically

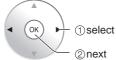
- After completing the setting, select "Apply". (see below ⑤).
- All previously saved channels are erased.

Use this procedure when changing setting of receiving channels or changing the channel display.

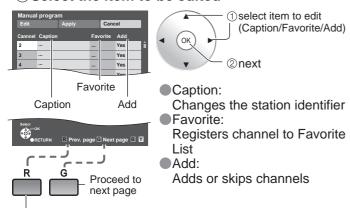
Also, use to add or skip channels from channel list manually.

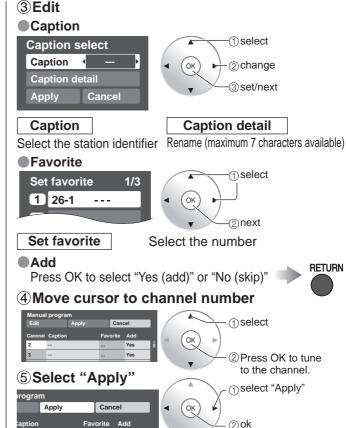
#### 1) Select "Edit"





#### 2 Select the item to be edited

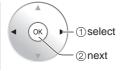




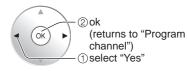


Go back to previous page

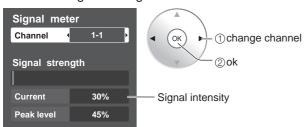








Check the signal strength if interference is found or freezing occurs on a digital image.



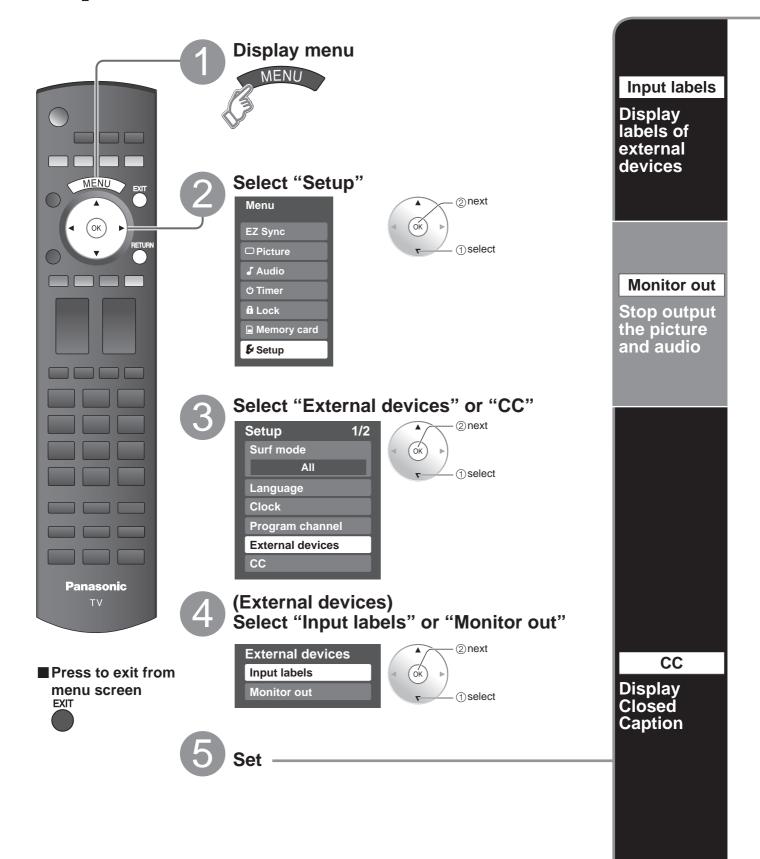
If the signal is weak, check the antenna. If no problem is found, consult your local dealer.

#### Note

- Not available if "Cable" is selected in "ANT in" (see above).
- Effective only for digital antenna channels.

If "Lock" (p. 32) is activated and "Program channel" is selected, "Enter password." will be displayed.

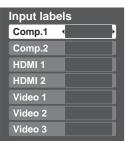
# Input Labels/Monitor Out/

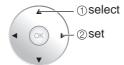


# **Closed Caption**

Devices connected to external input terminals can be labeled for easier identification during input selection. (In selecting input mode from p. 24 ②)

## ■ Select the terminal and label of the external equipment





- Terminals: Comp.1-2/HDMI 1-2/ Video1-3
- Label: SKIP\*/VCR/DVD/CABLE/ DBS/PVR/GAME/AUX/[BLANK]
- \* If "SKIP" is selected, the TV/VIDEO button press will skip its input.

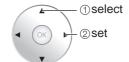


[example]

To prevent howling and image oscillation, stops output of the pictures and audio specified in this menu. (p. 28)

## ■ Select the terminal and set "Off"

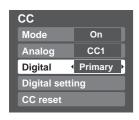


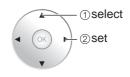


- Select "Off" to stop output of picture and audio. (Video 1/Video 2/Video 3)
- Comp.1/Comp.2/HDMI 1/HDMI 2 cannot output video signals regardless of "Monitor out" setting.
  When equipment (STB, DVD, etc.) is connected to HDMI or COMPONENT terminals, only audio signals can be obtained. From the output terminals, no video signals can be passed.

The television includes a built-in decoder that is capable of providing a text display of the audio. The program being viewed must be transmitting Closed Caption (CC) information. (p. 47)

#### ■ Select the item and set





The settings in "Analog" or "Digital" depend on the broadcaster. Mode Select "On" (when not using, select "Off").

Analog (Choose the Closed Caption service of Analog broadcasting.)

CC1-4: Information related to pictures

(Appears at bottom of screen)

T1-4: Textual information

(Appears over entire screen)

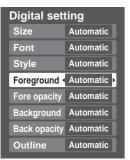
(The Digital Closed Caption menu lets you configure the way you choose to view the digital captioning.)

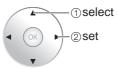
Select the setting.

"Primary", "Second.", "Service 3", "Service 4", "Service 5", "Service 6"

#### ■ To make more in-depth display settings in digital programs

- ① Select "Digital setting" and press OK
- 2 Select the item and set





- Size: Text size
  Font: Text font
- Style: Text style (Raised, Depressed, etc.)
- Foreground: Color of text
  Fore opacity: Opacity of text
- Background: Color of text boxBack opacity: Opacity of text box
- Outline: Outline color of text (Identify the setting options on the screen.)

## ■ To reset the settings

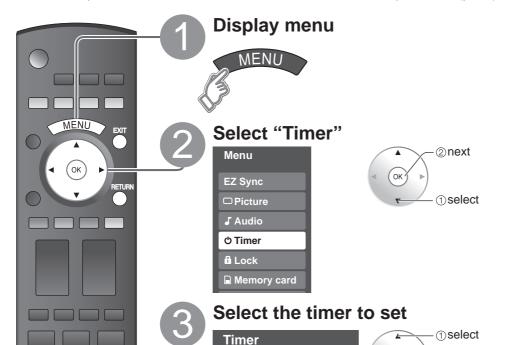
Select "CC reset" and press OK

# **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. 18)

The "Sleep" timer and "On / Off timer" will not function if "Auto power on" (p. 29) is set.



Sleep

Timer 1
Timer 2

Timer 3

Timer 4

Timer 5

■ Press to exit from menu screen



■ Press to return to the previous screen

RETURN



#### Note

The TV automatically turns Off after 90 minutes when turned On by the Timer. This operation will be cancelled if the Off time is selected or if a key is pressed.

# Set the timer

■ To set "Sleep" (Off Timer)

Set to shut the unit off after a pre-selected amount of time.

ΟK

Sleep

Timer 1

Timer 5

②next

Turns Off automatically

(5 timers can be set.)

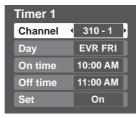
Turns On/Off automatically

0/30/60/90 (minutes)



■ To set "Timer 1-5" (On/Off Timer)

Select the item and set





Day

Channel | Select the channel

Select the day

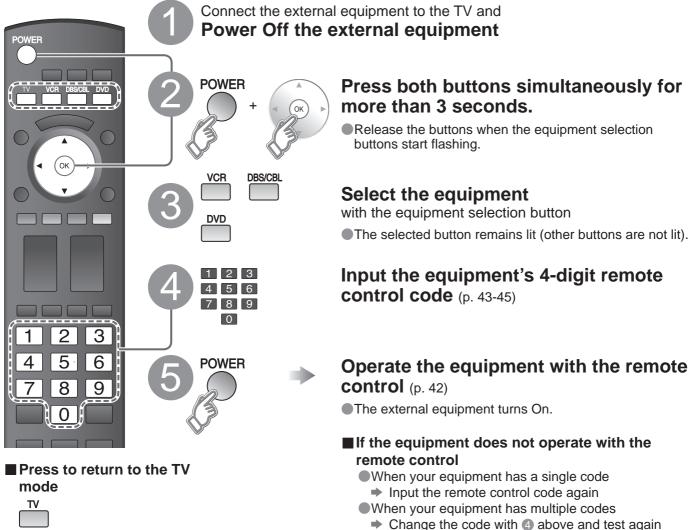
SUN/MON/TUE/WED/THU/FRI/SAT (displays the nearest future date) MON-FRI/SAT-SUN/DAILY/EVR SUN/EVR MON/ EVR TUE/EVR WED/EVR THU/EVR FRI/ EVR SAT

On time The time to turn On
Off time The time to turn Off
Set Timer setting (On/Off)



# **Operating Peripheral Equipment**

You can operate other manufacturers' equipment using this TV's remote control.





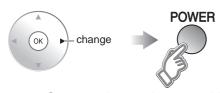
Caution

Registration will fail if the wrong code is input or it takes more than 30 seconds to register.

# To find a code not listed in the code list

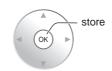
This procedure searches all codes and is called the "sequence method."

1) After step 3 above, change the code and test



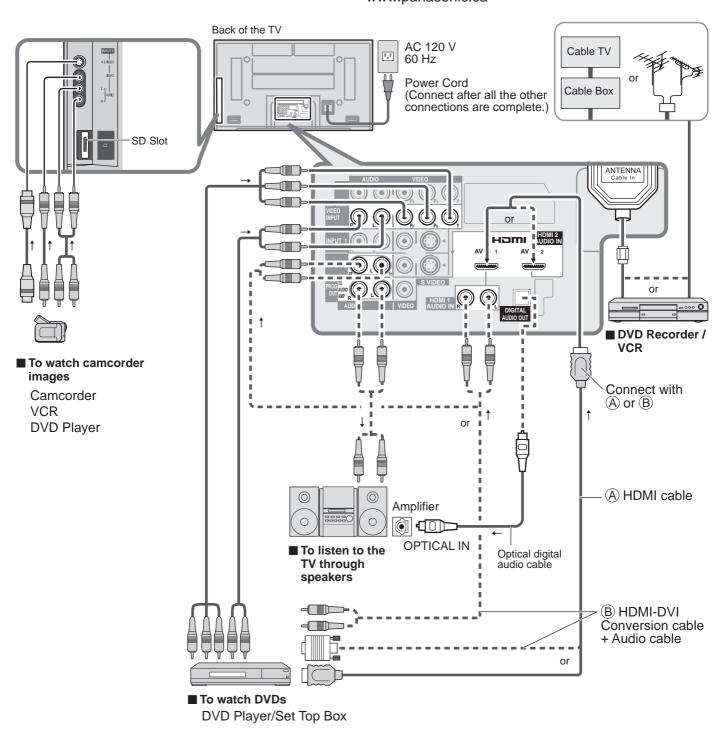
- Operate the equipment with the remote control (p. 42)
- Repeat until the code is found
- It may take many attempts before the correct code is found

2) When the correct code is found



# **Recommended AV Connections**

These diagrams show our recommendations for how to connect the TV unit to your various equipment. For other connections, consult the instructions and specifications for each piece of equipment (p. 51). For additional assistance, please visit our website at: www.panasonic.com www.panasonic.ca



#### Note

- The picture and audio input signals connected to a terminal specified in "Monitor out" (p. 36) cannot be output from "PROG OUT" terminals. However, audio output can be obtained from "DIGITAL AUDIO OUT" terminal.
- To prevent howling and image oscillation, set the "Monitor out" setting when connecting the VCR with loop-connection. (p. 28, 36)
- When equipment (STB, DVD, etc.) is connected to HDMI or COMPONENT terminals, only audio signals can be obtained. From the output terminals, no video signals can be passed.
- When receiving digital channel signals, all digital formats are down-converted to composite NTSC video to be output through the PROG OUT terminals.

# EZ Sync™ Connections

Follow the connection diagrams below for HDAVI control of a single AV piece of equipment such as a Panasonic DIGA-DVD recorder, RAM theater, or Player theater system. Refer to page 30-31 for Setup Menu settings and additional control information.

Optional HDMI and/or optical cables are not provided.

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

#### **Note**

HDMI 1 is recommended.

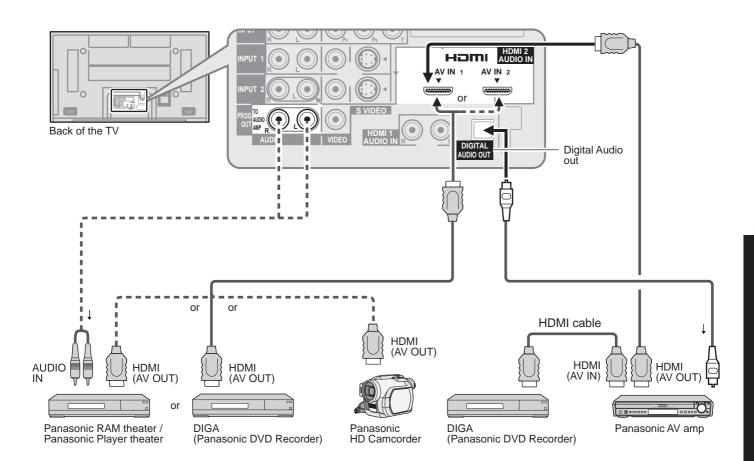
When connecting to HDMI 2, set the input mode to HDMI 2 (p. 24) initially before connecting to HDMI 2. After connection, confirm the HDMI control functions (p. 30-31).

## ■ Connecting this unit to the DIGA, RAM theater, or Player theater

- For 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 and AV amp

When using an "EZ Sync" audio-video amplifier and a compatible DIGA recorder, use a daisy chain connection as shown below.



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

## Setting of this unit after connection

After making connections as shown above, set "EZ Sync" (under "EZ Sync setting") to "On" using the Setup menu. (p. 30-31).

#### Note

- Individual components of 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.)

# Remote Control Operation/Code List

The following explains how to operate external devices with the remote control.

Register the remote control codes (p. 39) if you want to operate an external device of another manufacturer. (p. 43-45)

#### Note

Operation may not be possible depending on the available memory size of the remote control. This remote control is not designed to cover operation of all functions of all models.

#### ■ Remote Control Operation List

This chart defines which keys are operational after programming (if needed) while in the selected remote control mode, CABLE, DBS, VCR, or DVD.

KEY NAME	VCR MODE	DBS/CBL MODE		DVD MODE	
	VOR MODE	(DBS)	(CBL)	DVD MODE	
POWER	Power	Power	Power	Power	
SAP	_	LIST	LIST	DVD AUDIO	
VIDEO	TV Input Switch	TV Input Switch	TV Input Switch	TV Input Switch	
MENU	_	Menu	Menu	Functions	
EXIT	_	Exit	Exit	_	
	_	Up/Down/Left/Right	Up/Down/Right/Left	Up/Down/Right/Left	
OK •	_	Select	Select	Enter	
SUB MENU	_	Guide	Guide	Sub Menu	
RETURN	_	PPV/VOD	PPV/VOD	Return	
R	_	Red	A	Red	
G	_	Green	В	Green	
В	_	Blue	С	Blue	
Y	_	Yellow	D	Yellow	
А он V	Channel Up/Down	Channel Up/Down	Channel Up/Down	Channel Up/Down	
+ vol.	TV Volume Up/Down	TV Volume Up/Down	TV Volume Up/Down	TV Volume Up/Down	
ASPECT	_	Aspect	Aspect	_	
FAVORITE	_	Favorite	Favorite	Direct Navigator	
RECALL	Onscreen Display	Info	Info/Display/OSD	Onscreen Display	
MUTE	TV Mute	TV Mute	TV Mute	TV Mute	
0 - 9	0-9	0-9	0-9	0-9	
R-TUNE	_	Last Channel	Last Channel	Drive Select	
PROG-	_	Sub Channel	Music	PROG (Sub Channel)	
SKIP—	_	Page Down/Up	Page Down/Up	Skip Reverse/Forward	
TV/VCR	TV/VCR Switch	TV/DBS Switch	TV/CBL Switch	_	
- SEARCH-	Rewind/Fast Forward	Rewind/Fast Forward	Rewind/Fast Forward	Reverse/Forward	
REC	VCR Record	PVR Record *1	PVR Record *1	Record	
STOP	Stop	Stop	Stop	Stop	
PAUSE II/I>	Pause	Pause	Pause	Pause	
PLAY	Play	Play	Play	Play	
				*1: Combination type	

\*1: Combination type

# **■**Remote Control Code List

Cable Conve	rter (  )						
Brand	Code	Brand	Code	Brand	Code	Brand	Code
A-Mark	0008, 0144	Gibralter	0003	Penney	0000	Tocom	0012
ABC	0003, 0008, 0237	GMI	0883	Philips	0317, 1305	Torx	0003
Accuphase	0003	GoldStar	0144	Pioneer	0144, 0533, 0877,	Toshiba	0000
Acorn	0237	Hamlin	0009, 0273		1877	Tristar	0883
Action	0237	Hitachi	0003, 0008, 0009	Prism	0012	United Cable	0003, 0276
Active	0237	Insight	0476, 0810	Pulsar	0000	US Electronics	0003, 0008, 027
Americast	0899	Jerrold	0003, 0012, 0276,	Quasar	0000	V2	0883
Archer	0237		0476, 0810	RadioShack	0883	Videoway	0000
BCC	0276	Memorex	0000	RCA	1256	Viewmaster	0883
Bell South	0899	Mitsubishi	0003	Regal	0273, 0276, 0279	Vision	0883
British Telecom	0003	Motorola	0276, 0476, 0810,	Runco	0000	Vortex View	0883
Century	0008		1254, 1376	Samsung	0003, 0144	Zenith	0000, 0525, 089
Clearmaster	0883	Multitech	0883	Scientific Atlanta	0000, 0003, 0008,		
ClearMax	0883	Nova Vision	0008		0012, 0237, 0477,		
Cool Box	0883	Novaplex	0008		0877, 1877		
Coolmax	0883	NSC	0012	Sony	1006		
Director	0476	Pace	0008, 0237, 0877,	Sprucer	0144		
osgate	0276		1877	Starcom	0003		
SE .	0144	Panasonic	0000, 0008, 0107,	Supercable	0276		
General	0003, 0012, 0276,		0144	Supermax	0883		
nstrument	0476, 0810	Paragon	0000, 0008, 0525	Thomson	1256		
Cable/PVR C	ombination (	)					
Americast	0899	Motorola	0810, 1376	Scientific Atlanta	0877, 1877	Zenith	0899
General	0810	Pace	0237, 1877	Sony	1006	Loriur	10000
nstrument	0010	Pioneer	0877, 1877	Supercable	0276		
lerrold	0810	RCA	1256	Thomson	1256		
Satellite Rec	DBS/CBI	110/1	1200	momoon	1200		
		05	0000 0500	Maria	2050 2000	0	4400 4400 444
Bell ExpressVu	0775	GE	0392, 0566	Motorola	0856, 0869	Samsung	1108, 1109, 114; 1276, 1377, 144
Chaparral	0216	General Instrument	0869	Netsat	0099		1609
Crossdigital	1109		0775 4775	Next Level	0869	0107	
DirecTV	0099, 0247, 0392, 0566, 0639, 0724, 0749, 0819, 1076, 1108, 1109, 1142, 1377, 1392, 1414,	GOI	0775, 1775	Optimus	0724	SKY	0856, 0099
		Hitachi	0749, 0819, 1250	Panasonic	0247, 0701, 1786	Sony	0639, 1639, 164
		Houston	0775	Paysat	0724	Star Choice	0869
			0775, 1775	Philips	0099, 0722, 0724, 0749, 0775, 0819,	Star Trak	0869
	1442, 1609, 1639, 1640, 1749, 1856	Hughes Network Systems	0749, 1142, 1442, 1749		1076, 1142, 1442,	Thomson	0392, 0566
Dish Network			0099		1749	Tivo Toshiba	1142, 1442 0749, 0790, 081
System	0775, 1005, 1505, 1775	Innova	0869	Pioneer	11.40, 1.440	TOSTIIDa	1285, 1749
	0775, 1005, 1505,	Jerrold JVC	0775, 1775	Primestar	1142, 1442 0869	UltimateTV	1392, 1640
Dishpro	1775, 1005, 1505,	LG	1414		0392. 0566	Uniden	0724, 0722
Echostar	-	Magnavox		Proscan RadioShack	0566, 0775, 0869	Voom	0869
ECHOSIAI	0775, 1005, 1505, 1775		0722, 0724 0869	RCA	0392, 0566, 0775,	Zenith	0856, 1856
Everence	0775, 1775	McIntosh Memorex	0724	, KCA	1142, 1392, 1442	Zeriiuri	10000, 1000
Expressvu Funai	1377	Mitsubishi	0749		1112, 1002, 1112		
		BS/CBL ,	0749				
DBS/PVR Co	mbination (S) (	)					
DirecTV	0099, 0392, 0639,	Dishpro	0775, 1505	Motorola	0869	Sony	0639, 1640
	1076, 1142, 1377,	Echostar	0775, 1505	Philips	1142, 1442	Star Choice	0869
	1392, 1442, 1640	Expressvu	0775	Proscan	0392		
Dish Network	0775, 1505	Hughes Network	1142, 1442	RCA	1392		
System		Systems		Samsung	1442		
VCR ( VCR )							
A-Mark	0000, 0037, 0240,	Asha	0240	Carver	0035, 0081	Curtis Mathes	0000, 0035, 006
	0278	Astra	0035, 0240	CCE	0278		0162, 0240, 027
ABS	1972	Audiovox	0037, 0038, 0278	Cineral	0278		0432, 1035
dmiral	0039, 0047, 0048,	Avis	0000	Citizen	0000, 0035, 0037,	Cybernex	0240
	0060, 0209, 0479	Beaumark	0240		0209, 0240, 0278,	CyberPower	1972
Adventura	0000, 0037, 0240	Bell & Howell	0000, 0035, 0039,		0479, 1278	Daewoo	0037, 0045, 027
Aiko	0278		0048, 0479	Classic	0037		1278
Aiwa	0000, 0037	Broksonic	0002, 0121, 0209,	Colortyme	0035, 0045, 0060,	Daytron	0037, 0278
Alba	0209, 0278		0479, 1479	,	0278	Dell	1972
lienware	1972	Calix	0037	Colt	0000	Denon	0042, 0081
Allegro	0039	Candle	0037, 0038	Craig	0037, 0047, 0240	DirecTV	0739
America Action	0278	Canon	0035	Criterion	0000	Dual	0000
merican High	0035, 0081	Capehart	0002	Crosley	0000, 0035, 0081	Durabrand	0038, 0039
Amstrad	0000	Carrera	0240	Crown	0278	Dynatech	0000, 0240
ioti uu	0000	Juliola	J- 10	2101111	10-10	2,11410011	10000, 0270

# Remote Control Operation/Code List (Continued)

# **■**Remote Control Code List

Brand	Code	Brand	Code	Brand	Code	Brand	Code
Electrohome	0000, 0037, 0043,	Magnin	0240	Quasar	0002, 0035, 0162,	Thomson	0060
Liectionome	0060, 0037, 0043,	Marantz	0035, 0038, 0081	Quasai	1035	Tisonic	0278
Electrophonic	0037	Marta	0037	RadioShack	0000, 0035, 0037,	Tivo	0618, 0636, 0739
Emerald	0121, 0184	Matsui	0037, 0209	Radioonack	0047, 0048, 0162,	1100	1996
Emerex	0032	Matsushita	0035, 0162, 0081		0240	TMK	0000, 0240
Emerson	0000, 0002, 0037,	Media Center PC	1972	Radix	0037	TNIX	0037
2111010011	0043, 0121, 0184,	MEI	0035	Randex	0037	Tocom	0240
	0209, 0240, 0278,	Memorex	0000, 0035, 0037,	RCA	0000, 0035, 0042,	Toshiba	0000, 0043, 0045
	0479, 1278, 1479		0039, 0162, 0047,		0045, 0048, 0060,		0209, 0240, 0845
Fisher	0000, 0039, 0047		0048, 0209, 0240,		0240, 0807, 0880,		1008, 1145, 1972
Fuji	0033, 0035		0278, 0479, 1237		1035, 1060		1996
Fujitsu	0000	Metz	0037	Realistic	0000, 0035, 0037,	Tosonic	0278
Funai	0000, 0037, 0278	MGA	0043, 0060, 0240		0047, 0048, 0121,	Totevision	0037, 0240
Garrard	0000	MGN Technology	0240		0162, 0240, 0278	Touch	1972
Gateway	1972	Microsoft	1972	ReplayTV	0614, 0616	Trix	0037
GE	0000, 0035, 0048,	Midland	0240	Ricavision	1972	Ultra	0045, 0278
	0060, 0240, 0807, 1035, 1060	Mind	1972	Runco	0039	Unitech	0240
	1033, 1000	Minolta	0042	Samsung	0000, 0038, 0045,	Vector	0045
Gemini	0060	Mitsubishi	0000, 0042, 0043,		0060, 0240, 0432, 0739, 1014	Vector Research	0038, 0184
Genexxa	0000, 0037, 0278		0047, 0048, 0060, 0067, 0807		•	Victor	0067
Go Video	0240, 0432, 0614			Samtron	0240	Video Concepts	0045
GoldStar	0000, 0035, 0037,	Motorola	0035, 0048	Sanky	0039, 0048	Videomagic	0037
	0038, 0039, 0278, 1237	MTC	0000, 0240	Sansui	0000, 0002, 0067,	Videosonic	0000, 0240
		MTX	0000		0209, 0240, 0479, 1479	Viewsonic	1972
Goodmans	0000, 0037, 0081, 0278	Multitech	0000, 0039			Villain	0000
0 " 1		NAD	0240	Sanyo	0000, 0047, 0240, 0479	Voodoo	1972
Gradiente	0000	NEC	0038, 0067	0		Wards	0000, 0060, 0033 0035, 0037, 0038
Granada	0042, 0081	Nikko	0037, 0278	Scott	0043, 0045, 0184, 0121		0042, 0043, 0045
Grundig	0081	Nikkodo	0037, 0278	C			0047, 0048, 008
Harley Davidson	0000	Nishi	0240	Sears	0000, 0033, 0035, 0037, 0039, 0042,		0240, 0479
Harman/Kardon	0038, 0081	Niveus Media	1972		0043, 0045, 0047,	White	0000, 0209, 0278
Hewlett Packard HI-Q	1972	Noblex	0240	I	0048, 0060, 0067,	Westinghouse	0479
пі-Q Hitachi	0000, 0035, 0047	Northgate Olympus	1972 0035, 0162		0162, 0209, 1237	World	0002, 0209, 0479
i iilaciii	0042, 0045, 0089	Optimus	0000, 0035, 0037,	Sharp	0048, 0047, 0032,	XR-1000	0000, 0035, 0240
Howard	1972	Optimus	0000, 0033, 0037, 0047, 0048, 0162,	Sharp	0000, 0807	Yamaha	0038
Computers	1972		0240, 0432, 1062	Shintom	0000, 0039, 0240	Zenith	0000, 0033, 0037
HP	1972	Orion	0000, 0002, 0121,	Shogun	0240		0039, 0209, 0278
Hughes Network	0042, 0739	011011	0184, 0209, 0240,	Siemens	0037		0479, 1479
Systems	00 .2, 0.00		0278, 0479, 1479	Signature	0000, 0035, 0037,	ZT Group	1972
Humax	0739	Panama	0035	_ O.g. ratur o	0048, 0060, 0479	·	
Hush	1972	Panasonic	0000, 0035, 0162,	Singer	0037, 0240		
Hytek	0000, 0047		0225, 0614, 0616,	Sonic Blue	0614, 0616		
iBUYPOWER	1972		1035, 1062, 1244	Sony	0000, 0032, 0033,		
ITT Nokia	0240	Penney	0000, 0035, 0037,	]	0035, 0047, 0067,		
Janeil	0240		0038, 0042, 0047,		0636, 1232, 1972		
Jensen	0067		0067, 0081, 0162,	Soundmaster	0000		
JVC	0067		0240, 1035, 1237	Stack 9	1972	•	
KEC	0037, 0278	Pentax	0042	STS	0042		
Kenwood	0038, 0067	Philco	0000, 0035, 0081,	SV2000	0000		
Kodak	0035, 0037		0209, 0479	SVA	0000		
KTV	0000	Philips	0000, 0035, 0048,	Sylvania	0000, 0035, 0043,		
LG	0037, 0038, 0240		0045, 0081, 0162,		0081, 1781	•	
Linksys	1972		0209, 0616, 0618, 0739	Symphonic	0000, 0002, 0240		
Lloyd's	0000, 0038, 0240			Systemax	1972		
Loewe	0081	Pilot	0037	Tagar Systems	1972		
Logik	0000, 0240	Pioneer	0042, 0067, 0081,	Tandy	0000		
Lumatron	0278		0162	Tatung	0000, 0048, 0067,		
LXI	0000, 0037, 0042,	Polk Audio	0081		0081		
	0067	Portland	0278	Teac	0000, 0067		
M Electronic	0240	Profitronic	0240	Technics	0000, 0035, 0037,		
Magnasonic	0000, 0037, 0240,	Proscan	0060, 1060		0162		
	0278, 1278	Protec	0000	Teknika	0000, 0035, 0037	,	
Magnavox	0000, 0035, 0037,	Pulsar	0039, 0240, 0278	Telecorder	0240		
	0039, 0048, 0081, 0240, 0618, 1781	Pulser	0240	Tevion	0479	•	
		Quartz	0035, 0047	Thomas	0000, 0002		

	nbination (V) (						
Brand	Code	Brand	Code	Brand	Code	Brand	Code
lughes Network	0739	Philips	0739				
ystems		Samsung	0739				
VR (V) ( BBS/CBL	)						
BS	1972	Hughes Network	0739	Northgate	1972	Tagar Systems	1972
lienware	1972	Systems	0.00	Panasonic	0616	Tivo	0618, 0636, 073
yberPower	1972	Humax	0739	Philips	0618, 0739	Toshiba	1008, 1972, 199
ell	1972	Hush	1972	RCA	0880	Touch	1972
rirecTV	0739	iBUYPOWER	1972	ReplayTV	0614, 0616	Viewsonic	1972
Sateway	1972	Linksys	1972	Samsung	0739	Voodoo	1972
lewlett Packard	1972	Media Center PC	1972	Sonic Blue	0614, 0616	ZT Group	1972
loward	1972	Microsoft	1972	Sony	0636, 1972	21 Gloup	1372
computers	1972	Mind	1972	Stack 9	1972		
P	1972	Niveus Media	1972	Systemax	1972		
DVD	1972	Niveus ivieula	1972	Systemax	1972		
D LAB	0503, 0539	Funai	0675, 1268	Minato	0752	Samsung	0490, 0573, 074
iwa	0641	GE	0522, 0815	Mintek	0839		0820, 0899, 104 1075
kai	0695, 0899	Go Video	0573, 0741, 0744,	Mitsubishi	1521, 0521		
lba	0672		0869, 1044, 1075	NAD	0591, 0741	Sansui	0695
lco	0790	GoldStar	0741, 0869	NEC	0785, 0869	Sanyo	0675, 0695
llegro	0869	Goodmans	0790	Onkyo	0503, 0627, 0792	Schwaiger	0752
pex Digital	0533, 0672, 1020,	Gradiente	0490, 0651	Optimus	0571	Sharp	0630, 0675, 075
-	1056, 1061	Grundig	0539	Oritron	0651		1256
rrgo	1023	Harman/Kardon	0582	Palsonic	0672	Shinsonic	0533, 0839
udiovox	0790	Hitachi	0573, 0664	Panasonic	0503, 0490, 0571,	Slim Art	0784
lue Parade	0571	Hiteker	0672		0703, 1362, 1462,	Sonic Blue	0573, 0869
Blue Sky	0695	Insignia	1268		1490, 1762, 2006,	Sony	0533, 0864, 103
Brandt	0651	Integra	0571, 0627	•	2016, 2026, 1779	,	1431, 1533
Broksonic	0695	JMB	0695	Philips	0503, 0539, 0646,	Sylvania	0675, 1268
California Audio	0490	JVC	0558, 0623, 0867,		0675, 1267, 1354	Symphonic	0675, 1268
abs			1164	Pioneer	0525, 0571, 0631	Teac	0571, 0790
Celestial	1020	Kawasaki	0790	Polaroid	1020, 1061	Technics	0490, 0703
Centrex	0672	Kenwood	0490, 0534	Polk Audio	0539	Tevion	0651
CineVision	0869	KLH	0790, 1020	Presidian	0675	Theta Digital	0571
Clairtone	0571	Kloss	0533	Proceed	0672	Thomson	0522
Creative	0503, 0539	Koss	0651, 1061	Proscan	0522	Toshiba	0503, 0539, 057
CyberHome	0816, 0874, 1023,	Lasonic	0627	Qwestar	0651	TOSTIIDA	0695, 1045, 115
ybon lonio	1129	Lecson	1533	Radionette	0741	Universum	0591
Daewoo	0784, 0869, 1172	LG	0591, 0741, 0869	RadioShack	0571	Urban Concepts	0503, 0539
Denon	0490, 0634	LiteOn	1058	RCA	0522, 0571, 0790,	US Logic	0839
Digitrex	0672	Loewe	0741	INOA	0822, 1022, 1132	Venturer	0790
	0675	Magnasonic	0651, 0675	Realistic	0571	Xbox	0522
Disney	0675		0503, 0539, 0646,		0752		
Dual DVD2000	0521	Magnavox	0675, 1268	Reoc Rio	0869	Yamaha Zanith	0490, 0539, 054
		Maranta	· ·			Zenith	0503, 0591, 074 0869
merson	0591, 0675, 1268	Marantz	0503, 0539, 0675	Rotel	0623	7	
nterprise	0591	McIntosh	1533	Saba	0651	Zeus	0784
ntivo	0503, 0539	Medion	0651	Sampo	0752		
SA	1268	Memorex	0695	i			
irstline	0651	Microsoft	0522				
OVD-Recorde	er (Y) ( 🛗 )						
pex Digital	1056	LG	0741	Pioneer	0631	Sylvania	0675
yberHome	1129	Magnavox	0646, 0675	RCA	0522	Zenith	0741
unai	0675	Panasonic	0490, 2006, 2016,	Samsung	0490		
o Video	0741		2026	Sharp	0675		
VIUUU	10171			Juliup	10010		

# Ratings List for Lock

"V-chip" technology enables you to lock channels or shows according to standard ratings set by the entertainment industry. (p. 33)

## **■** U.S. MOVIE RATINGS (MPAA)

NR	NO RATING (NOT RATED) AND NA (NOT APPLICABLE) PROGRAMS. Movie has not been rated or 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.			
X ADULTS 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.)

Е	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

- ■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 Closed Caption of digital broadcasting, set the aspect ratio to FULL. (If viewing with H-FILL, JUST, ZOOM or 4:3, characters will be cut off.)
- The Closed Caption is not displayed when you use HDMI connection.
- If analog connected equipment is used for displaying or recording, Closed Caption (CC) should be set On/Off on the connected equipment.

The CC mode setting of the TV will not affect the analog input.

If a digital program is being output in analog format, the CC data will also be output in analog format.

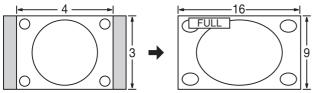
If digital connected equipment is used for input, CC should be set On on either the connected equipment or the TV.

If CC is set On on both the connected equipment and the TV, captions from each unit will overlap.

# **Aspect Ratio**

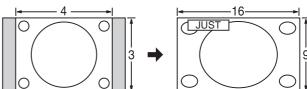
Lets you choose the aspect depending on the format of the received signal and your preference. (p. 21) (e.g.: in case of 4:3 image)





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

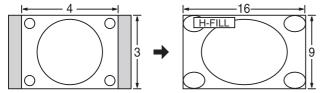
#### JUST



Stretches to justify the 4:3 image to the four corners of the screen.

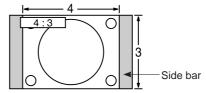
(Recommended for normal TV broadcast)

#### H-FILL



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

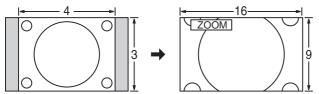
**4:3** 



Standard

(Note that "Image retention" of the side bar may occur from displaying it for a long time.)

#### ■ZOOM



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

#### 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

When the signal is 720p/1080i/1080p, the aspect mode automatically defaults to Full after turning off the TV, after changing input mode, or after changed signal resolution other than 720p/1080i/1080p.

#### Zoom adjust

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

- ①Select "Zoom adjust" on the "Picture" menu. (p. 26-27)
- ②V-position: Vertical position adjustment

③ V-size: Vertical size adjustment













To reset the aspect ratio



# Technical Information (Continued)

## 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

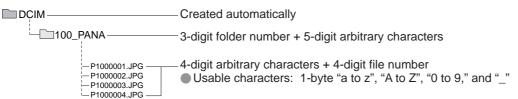
\*\* EXIF (Exchangeable Image File Format)

#### Caution

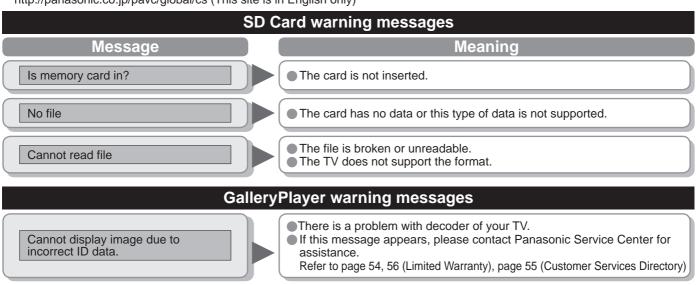
- A JPEG image modified with a PC may not be displayed.
- Partly degraded files might be displayed at a reduced resolution.

#### Note

Folder structure viewed in PC



- 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.co.jp/pavc/global/cs (This site is in English only)



# **Cautions in handling SD Card:**

There is a probrem with the data.

Check the data inside the 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.

Cannot display image on SD card.

- Do not subject the card to a 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.)

# **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.
- External speakers cannot be connected directly to PROG OUT terminals.
- 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.

# EZ Sync™ "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), EZ Sync™ is available for the terminal with the smaller number.
- If you connect the equipment that has "HDAVI Control 2" function to the TV with HDMI cable, the sound from DIGITAL AUDIO OUT terminal can be output as multi channel surround.

## **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" or "HDMI 2 in" menu screen. (p. 26) Applicable audio signal sampling frequencies (L.PCM): 48 kHz, 44.1 kHz, 32 kHz

#### Caution

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

- 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".
- This HDMI connector is "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 below.

# Input signals that can be displayed

\* Mark: Applicable input signal for Component (Y, Рв, Рк) 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		*

#### Note

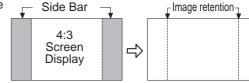
- Signals other than those shown above may not be displayed properly.
- The above signals are reformatted for optimal viewing on your display.

## Side Bar

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.

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



## Picture mode

- Vivid (default): 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.
- Custom (Photo): Customizes each item according to your taste.

Photo is displayed in JPEG menu.

# **Maintenance**

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 neutral detergent (1 part detergent 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 detergent solution 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 detergent 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.

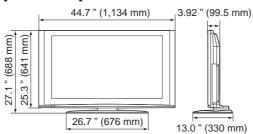
# **Pedestal**

- 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 neutral detergent 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.)

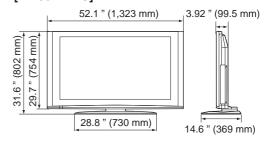
# **Specifications**

		TH-42PX77U	TH-50PX77U			
	er Source	AC 120 V, 60 Hz	'			
Powe Cons	Maximum	387 W	499 W			
Power Consumption	Standby condition	0.2 W	0.2 W			
pa ₽	Drive method	AC type				
Plasma panel	Aspect Ratio	16:9				
	Visible screen size	106 cm	127 cm			
Display	(W x H x Diagonal) (No. of pixels)	36.3 " × 20.3 " × 41.6 " (922 mm × 518 mm × 1,057 mm)	43.5 " × 24.4 " × 49.9 " (1,106 mm × 622 mm × 1,269 mm)			
	(cor or passes)	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 )				
Channel Capability (Digital/Analog)  Operating Conditions		VHF/ UHF: 2 - 69, CATV: 1 - 135				
		Temperature: 32 °F - 104 °F (0 °C - 40 °C) Humidity: 20 % - 80 % RH (non-condensing)				
•	INPUT 1-3	VIDEO: RCA PIN Type × 1 1.0 V [p-p] (75 $\Omega$ ) S-VIDEO: Mini DIN 4-pin Y: 1.0 V [p-p] (75 $\Omega$ ) C: 0.286 V [p-p] (75 $\Omega$ ) AUDIO L-R: RCA PIN Type × 2 0.5 V [rms]				
Connection Terminals	COMPONENT VIDEO INPUT 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]				
ion Ter	HDMI 1-2 AUDIO IN	TYPE A Connector × 2  This TV supports "HDAVI Control 2" function.  AUDIO L-R: RCA PIN Type × 2 0.5 V [rms]				
min.	Card slot	SD CARD slot x 1				
als	AV PROG. OUT	VIDEO: RCA PIN Type x 1 1.0 V [p- AUDIO L-R: RCA PIN Type x 2 0.5 V [m	p] (75 Ω) ns]			
	DIGITAL AUDIO OUT	PCM / Dolby Digital, Fiber Optic				
FEATURES		3D Y/C FILTER CLOSED CAPTION V-Chip Photo Viewer HDAVI Control 2				
Dimensions (W×H×D)	Including pedestal	44.7 " × 27.1 " × 13.0 " (1,134 mm × 688 mm × 330 mm)	52.1 " × 31.6 " ×14.6 " (1,323 mm × 802 mm × 369 mm)			
sions 1 × D)	TV Set only	44.7 " × 25.3 " × 3.92 " (1,134 mm × 641 mm × 99.5 mm)	52.1 " × 29.7 " × 3.92 " (1,323 mm × 754 mm × 99.5 mm)			
Mass	Including pedestal	77.2 lb. (35 kg)	103.7 lb. (47 kg)			
SS	TV Set only	61.8 lb. (28 kg)	88.2 lb. (40 kg)			

# [TH-42PX77U]



## [TH-50PX77U]



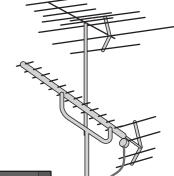
Note

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

# **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. 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 aerial.

# Interference or frozen digital channels (intermittent sound)



- Change the direction of antenna for digital channels.
- Check "Signal meter" (p. 35). If the signal is weak, check the antenna and consult your local dealer.





# Pictures from external equipment are distorted when the unit is connected via HDMI

- ■Is the HDMI cable connected properly? (p. 40-41)
- Turn Off the TV unit and equipment, then turn them On again.
- Check an input signal from the equipment.
   (p. 49)
- Use equipment compliant with EIA/CEA-861/861B.

# The remote control does not work

- Are the batteries installed correctly? (p. 6)
- Has the battery run down?
- To operate external equipment of other manufacturers, register the remote control codes. (p. 39)

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).

# **Problem Actions** The function to prevent "Image retention" is activated. (Not a faulty symptom) "Press any key to return" • The screen saver is activated if the TV unit is not operated for moves on the screen a certain time in SD mode. "Image retention" (p. 5) A pixel or luminescent spot can occasionally One spot remains dark be missing in plasma displays. (Not a faulty symptom) Check nearby electrical products Chaotic image, noisy (car, motorcycle, fluorescent lamp). Screen No image can be Check Picture menu (p. 26) displayed Only spots are displayed Check the channel settings. (p. 34) instead of images Check the antenna cables. Is the AC power cord plugged into the outlet? Neither image nor Is the TV unit turned On? Check Picture menu (p. 26) and volume. sound is produced Are the remote control codes correct? (p. 43-45) **Black Box appears** Change settings of Closed Caption (CC). (p. 36) Are the speakers' cables connected correctly? (p. 40) Is "Sound Mute" active? (p. 17) Is the volume set to the minimum? No sound is produced Is "Speaker output" set to "Off"? (p. 26) Change "SAP" settings. (p. 20) Check "HDMI 1 in" or "HDMI 2 in" settings. (p. 26) Set "SAP" setting to "Stereo" or "Mono." Check the HDMI device connected to the unit. Set the audio setting of the HDMI device to Sound is unusual "Linear PCM." If digital sound connection has a problem. select analog sound connection.

# Limited Warranty (for U.S.A.)

PANASONIC CONSUMER ELECTRONICS COMPANY, DIVISION OF PANASONIC CORPORATION OF NORTH AMERICA One Panasonic Way Secaucus, New Jersey 07094 PANASONIC SALES COMPANY, DIVISION OF PANASONIC PUERTO RICO, INC. Ave. 65 de Infanteria, Km. 9.5 San Gabriel Industrial Park Carolina, Puerto Rico 00985

# Panasonic Color 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 or Panasonic Puerto Rico, Inc. (collectively 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.

CATEGORIES	ALL PARTS EXCEPT GLASS PANEL OR CRT	LABOR	GLASS PANEL OR CRT	GLASS PANEL OR CRT LABOR	SERVICE
PLASMA DISPLAY	1 (ONE) YEAR	1 (ONE) YEAR	GLASS PANEL - 2 (TWO) YEARS	1 (ONE) YEAR	IN-HOME OR CARRY-IN

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 in-home 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.

#### In-Home or Carry-in Service

For In-Home or Carry-In Service in the United States call 1-888-VIEW-PTV(1-888-843-9788). For assistance in Puerto Rico call Panasonic Puerto Rico, Inc. (787)-750-4300 or fax (787)-768-2910.

In-Home service 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 in-home repairs will not be completed in-home, but will require that the product, or parts of the product, 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 picture tube resulting from viewing fixed images (including, among other things, letterbox pictures on standard 4:3 screen TV's, or 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 IN-HOME SERVICE CALL, WHERE APPLICABLE) WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY ARE YOUR RESPONSIBILITY.

# Customer Services Directory (for U.S.A.)

## **Customer Services Directory**

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/consumersupport

or, contact us via the web at:

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

You may also contact us directly at:

1-888-VIEW-PTV (843-9788)

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**

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 8 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

## **Service in Puerto Rico**

Panasonic Puerto Rico, Inc. Ave. 65 de Infantería, Km. 9.5, San Gabriel Industrial Park, Carolina, Puerto Rico 00985 Phone (787)750-4300, Fax (787)768-2910

# 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.

Plasma TV / Monitor	In-home service	One (1) year, parts (including Plasma Panel) and labour.
LCD TV (26 in & over)	In-home service	One (1) year, parts (including LCD Panel) and labour.
LCD TV (25 in & under)	Carry-in service only	One (1) year, parts (including LCD 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: Telephone #: (905) 624-5505

1-800 #: 1-800-561-5505 Fax #: (905) 238-2360

Email link: "Customer support" on www.panasonic.ca

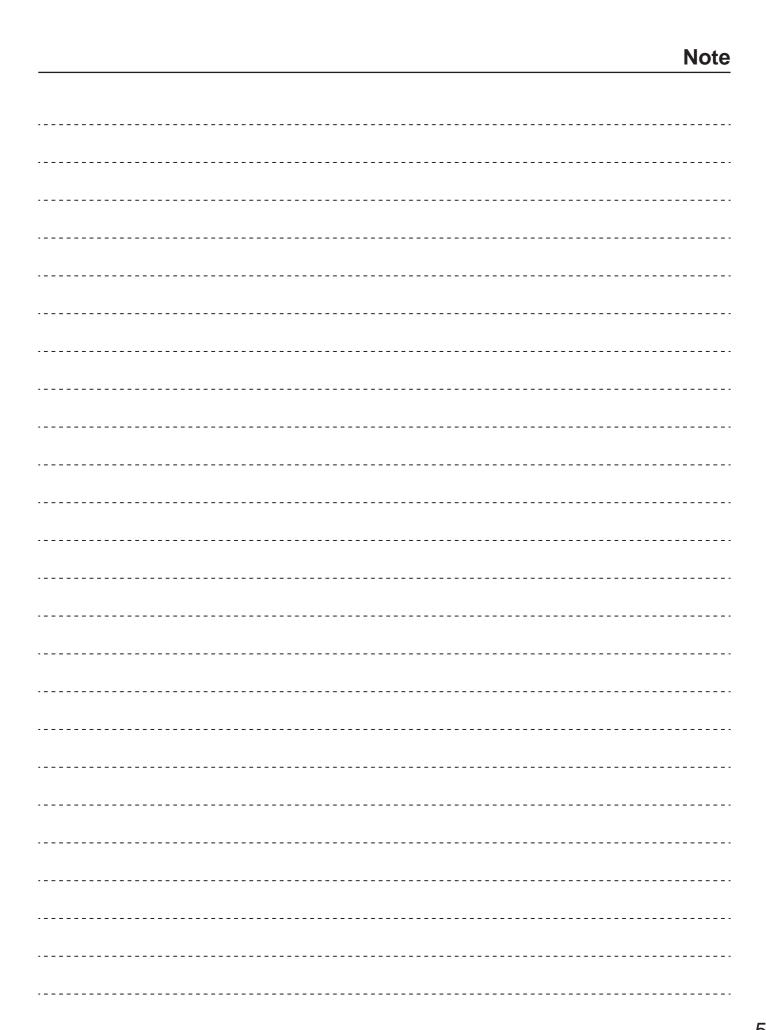
FOR PRODUCT REPAIRS, please locate your nearest Authorized Servicentre at <a href="www.panasonic.ca">www.panasonic.ca</a>:
Link: "Servicentres™ locator" under "Customer support"

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

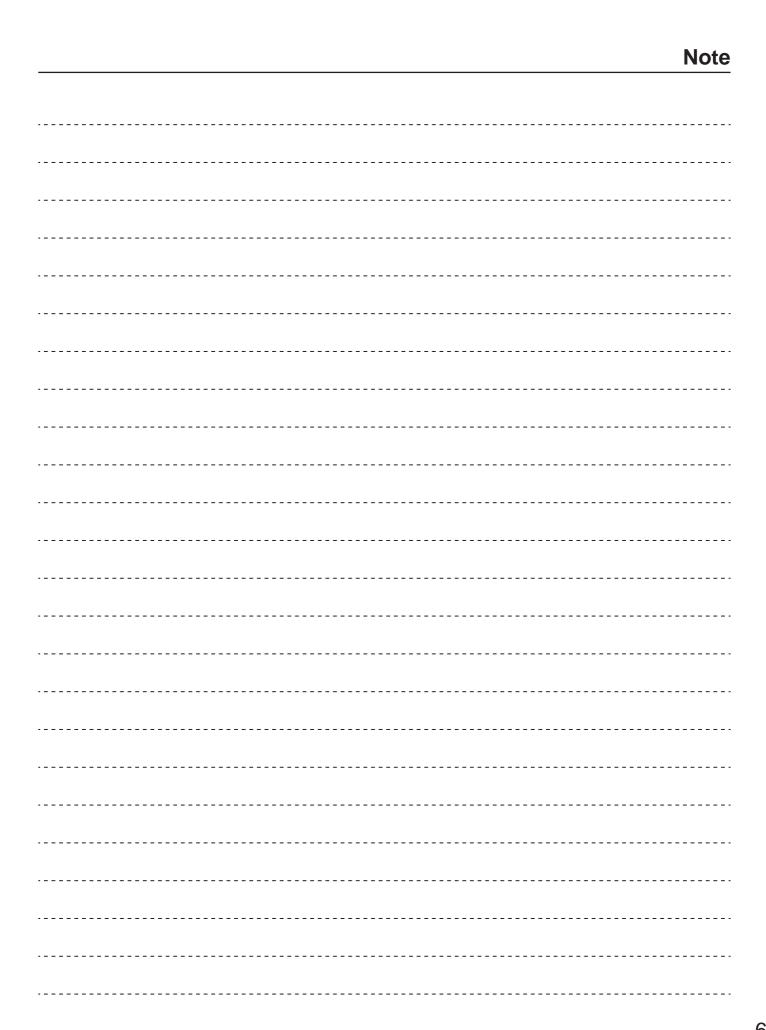
Carefully pack and send prepaid, adequately insured and preferably in the original carton. Include details of the defect claimed, and proof of date of original purchase.

MOLE

Note	



Note	



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.

Panasonic Puerto Rico, Inc. Ave. 65 de Infanteria, Km. 9.5 San Gabriel Industrial Park Carolina, Puerto Rico 00985

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