### **Quick Start Guide**

(See page 6)

### Guía de inicio rápido

(vea la página 6)

#### **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 avuda 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 ČANADA

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





English 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.

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Please read these instructions before operating your set and retain them for future reference.

TQB2AA0761-1

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







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### 

HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC. BBE.VIVA HD3D Sound Manufactured under license from BBE Sound, Inc.



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Quick Start Guide

Viewing

Advanced

## **Safety Precautions**



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.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) 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.

11) Only use attachments / accessories specified by the manufacturer.

12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart / apparatus combination to avoid injury from tip-over.



The lightning flash with arrowhead within a triangle

persons

is intended to tell the user

that parts inside the product

are a risk of electric shock to

The exclamation point within

instructions are in the papers

a triangle is intended to

operating and servicing

with the appliance.

tell the user that important

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

#### **FCC STATEMENT**

This equipment has been tested and found to comply with the limits for a 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 dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

#### FCC Caution:

To assure continued compliance, use only shielded interface cables when connecting to computer or peripheral devices. Any changes or modifications not expressly approved by Panasonic Corporation of North America could cause harmful interference and would void the user's authority to operate this device.

#### FCC Declaration of Conformity Model No. TH-42PZ700U, TH-50PZ700U, TH-58PZ700U

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 Models TH-42PZ700U, TH-50PZ700U, TH-58PZ700U This Class B digital apparatus complies with Canadian ICES-003.

### 

SMALL PARTS CAN PRESENT CHOKING HAZARD IF ACCIDENTALLY SWALLOWED.

**KEEP SMALL PARTS AWAY FROM YOUNG CHILDREN** DISCARD UNNEEDED SMALL PARTS AND OTHER OBJECTS, INCLUDING PACKAGING MATERIALS AND PLASTIC BAGS/SHEETS TO PREVENT THEM FROM BEING PLAYED WITH BY YOUNG CHILDREN. CREATING THE POTENTIAL RISK OF SUFFOCATION.

#### Set up

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
- (TH-42PZ700U, TH-50PZ700U, TH-58PZ700U) Wall-hanging bracket (Angled) TY-WK42PR3U

### (TH-42PZ700U, TH-50PZ700U)

- 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.

This Plasma TV radiates infrared rays; therefore, it may • If the plug is not fully inserted, heat may be generated which affect other infrared communication equipment. could cause fire. If the plug is damaged or the wall socket Install your infrared sensor in a place away from direct or plate is loose, they should not be used. reflected light from your Plasma TV.

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.

### 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 photo
   Video game Computer image

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### WARNING/CAUTION

#### ■ 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.

### **CAUTION**

#### 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.
- 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.



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. 55)

#### 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.







Wall-hanging bracket (vertical) TY-WK42PV3U (TH-42PZ700U, TH-50PZ700U, TH-58PZ700U)



(angle) TY-WK42PR3U (TH-42PZ700U. TH-50PZ700U)

#### 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.



#### 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 these 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. 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. injury may result.

6

• If sufficient care is not taken to ensure screws are properly tightened during assembly, the pedestal will not be strong enough to

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

Quick Gui

Accessories/Optional Accessory

## **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.



18







699999999999

(1) Band (3) (2) Screw (3)

Accessories

(\*))))))))

Nominal diameter 4 mm x 12

③ Wood screw

(3)

### Securing to a wall

To Prevent TV from Falling Over

## **Before Connection**

### programming.

surround-sound audio and interactive television.

NTSC (National Television System Committee):

ATSC (Advanced Television Systems Committee):

 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.

Connected Equipment Introduction (Signal source)

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

Digital TV Standards include digital high-definition television (HDTV),

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

standard-definition television (SDTV), data broadcasting, multi-channel

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

VCR

Watching TV

VHF/UHF Antenna

Cable Box/Cable

Conventional broadcasting

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.



Home theater and DVD Recorder

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



• 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<sup>™</sup>).

• 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 for the equipment.



## **Basic Connection**





If using Cable Box	
<ul> <li>Set the TV channel</li> </ul>	to CH3 or CH4

#### Note

When disconnecting the power cord, be absolutely sure to disconnect the power cord plug from the wall outlet first. For additional assistance, visit us at: www.panasonic.com www.panasonic.ca





**Satellite Antenna** 

**Home Theater** 

888: 0

Satellite

Receiver

**DVD Recorder** 

### 10

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

### Example 2

Connecting DVD recorder (VCR) (To record/playback)





or VCR









other TV monitor.

• 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

### 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)



# **Identifying Controls** Display the Main menu.



VCR DBS/CRL DVD	<ul> <li>EZ Sync menu (p. 25, 32-33)</li> <li>Selects Audio Mode for TV viewing (p. 20)</li> <li>Displays Main Menu (p. 28)</li> <li>Exits menus</li> <li>Selects/OK/Change</li> <li>Returns to previous menu</li> </ul>
AVORITE RECALL MUTE	<ul> <li>Volume up/down</li> <li>Displays or removes the channel banner (p. 20)</li> <li>Sound mute On/Off</li> <li>Numeric keypad to select any channel (p. 20) or press to enter alphanumeric input in menus. (p. 24, 25, 34, 36, 41)</li> <li>Direct channel access for DTV and DBS (p. 20)</li> <li>External equipment operations (VCRs, DVDs, etc.) (p. 24)</li> </ul>

+

DVD Recorder)

## **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. 30-31) is set to "No".







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

#### Start scanning the channels

- Available channels (analog/digital) are automatically set.

• 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.

## Watching TV

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

1 2 3

4 5 6

7 8 9 0

or

When tuning to a digital

channel, press the button to

enter the minor number in a

compound channel number.



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





#### • To change the page

Pressing < changes the page backward.

## Viewing from SD Card

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





### 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.

# Viewing

## 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. 41)



### To return to TV

Note For details, see the manual of the equipment.



		(example)
	VCR MODE	DVD MODE
REC	VCR Record	Record
	Ι	Skip Reverse/Forward
SEARCH	Rewind/Fast Forward	Reverse/Forward
STOP	Stop	Stop
PAUSE Ⅱ/I►	Pause	Pause
PLAY	Play	Play
(For other operations, see p. 44)		



(For other operations, see p. 44)

### EZ Sync<sup>™</sup>

You can operate the selected equipment with the TV's remote

• For details, see the manual for the equipment or ask your local dealer.

## **Displaying PC Screen on TV**

The screen of the PC connected to the unit can be displayed on the TV. You can also listen to PC sound with the audio cable connected. To connect PC (p. 42)



**PC menu setting** (changed as desired) • Making settings • "How to Use Menu Functions" 1 to 4 (p. 28)

Menu	lte	em	A
		Normal	Resets PC adjust (Set/N
		Sync	●H & V: The H and V s ●On G: Uses a synchroi connector. (p. 5
		Dot clock	Alleviates the problem if blurred.
		H-position	Adjust the horizontal pos
Picture	PC adjust	V-position	Adjust the vertical positic
		Clock phase	Alleviates the problem if First adjust the Dot Clock Clock Phase so that a cle <b>Note</b> It may not be po
		Input resolution	Switches to wide display. Input signal switched fi Input signal switched fi
		H-frequency V-frequency	Displays the H (Horizonta ● Display range Horizontal: 15 - 110 kF Vertical: 48 - 120 Hz

Audio menu (p. 28)

• For PC input, only audio signals can be output from PROG OUT terminals.

#### Adjustments/Configurations (options)

#### No)

sync signals are input from the HD/VD connector. (p. 53) onized signal on the Video G signal, which is input from the G 53)

a picture appears to be vertically-striped, flickers partially or is



the whole picture appears to flicker or is blurred. ck to get the best possible picture, then adjust the clear picture appears. possible to display a clear picture due to poor input signals.

from VGA to WVGA from XGA to WXGA

ntal)/V (Vertical) frequencies.

κΗz

## **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.



■ Men	u lis	st	
Menu		Item	
EZ Sync	DVD recorder, Home theater, HD camcorder, Speaker output		
	Nor	rmal	
	Pic	ture mode	
	Pic Col	ture, Brightness, or, Tint, Sharpness	
	Col	or temp.	
	Col	or mgmt.	
	C.A	T.S.	
	Zoc	om adjust	
P	РС	adjust	
Picture		Video NR	
Ire		3D Y/C filter	
	ο	Color matrix	
	Other adjust	Block NR	
	r ac	Mosquito NR	
	ljus	Black level	
	Ŧ	3:2 pulldown	
		HD Size	
	Nor	rmal	
	Bas	S	
	Tre	ble	
	Bal	ance	
		Al sound	
Aud	•	BBE VIVA 3D	
ō	othe	BBE	
	r ac	Surround	
	Other adjust	Speaker output	
		HDMI 1 in HDMI 2 in	
		Audio leveler	
Timer	Sle	ep, Timer 1-5	
Lock			
Memory Card	Mei	mory card	

Adjustments/Config
[DVD recorder/Home theater/HD camcorder] Select equipment to access and operate. (p. 32) [Speaker output] [Speaker output]
 <ul> <li>Select audio output. (Home theater/TV) (p. 32)</li> <li>EZ Sync menu is accessible directly by pressing the EZ Sync b</li> </ul>
 Resets all picture adjustments to factory default settings except
 Basic picture mode (Vivid/Standard/Cinema/Custom) (p. 52)
Adjusts color, brightness, etc. for each picture mode to suit you
 Selects level of warm colors (red) and cool colors (blue) (Cool/
On: Enhances green and blue color reproduction, especially or
Adjusts the brightness and gradation accordingly, to optimize co
Adjusts vertical alignment and size when aspect setting is "ZOC
 Sets PC display (p. 27)
 Reduces noise, commonly called snow. Leave it off when receive
 Minimizes noise and cross-color in the picture. (On/Off)
 <ul> <li>Selects image resolution of component-connected devices (HD</li> <li>SD: Standard Definition</li> <li>HD: High Definition</li> <li>Only 480p signal accepted; regular TV (NTSC) is not availab</li> </ul>
 Reduces noise of specific digital signals of DVD, STB, etc. (On
 Reduces HDTV flicker noise in the contoured sections of an image
 Selects Dark or Light. Valid only for external input signals. (Dar
 Transfers film to video. (On/Off)
 <ul> <li>Selects between 95 % (Size 1) or 100 % (Size 2) for the scanni Select "Size 1" if noise is generated on the edges of the screen</li> <li>Size 1: Selected item for "HD size". Scanning 95%</li> <li>Size 2: Selected item for "HD size". Scanning 100%</li> </ul>
 Resets Bass, Treble and Balance adjustments to factory defaul
 Increases or decreases the bass response.
 Increases or decreases the treble response.
 Emphasizes the left / right speaker volume.
 Equalizes overall volume levels across all channels and externation
 BBE ViVA HD3D (High-Definition 3D) Sound provides musically sound. The clarity of the sound is improved by BBE while the w are expanded by BBE's proprietary 3D sound process. BBE ViV programs including news, music, dramas, movies, sports and e BBE High Definition Sound restores clarity and presence for be realism. ( <b>On/Off</b> )
 Enhances audio response when listening to stereo. (On/Off)
 Switches to "Off" when using external speakers (On/Off) <ul> <li>"Al sound", "Surround", and "Audio leveler" do not work if "Of</li> </ul>
Selects according to the signal when HDMI is connected (Auto • Auto: Automatically selects Analog / Digital signal
 Minimizes volume disparity after switching to external inputs
 The TV can automatically turn On/Off at the designated date an
 Locks the channels and programs (p. 34)
Displays SD card data (p. 22)

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

#### gurations (alternatives)

button on the remote	control. 🗭 📕	<sup>sync</sup> (p. 25)			
pt for "Other adjust" <b>(S</b>	et/No)		Normal	Set	
)			Picture mode	Vivid	
ur taste	Picture	+20	Tint	0	
	Brightness	0	Sharpness	0	
	Color	0			
l/Normal/Warm)			Color temp.	Cool	
outdoor scenes. (On/C	Off)		Color mgmt.	On	
contrast. (Off/On)			C.A.T.S.	Off	
DOM" (p. 50)			Zoom adjust		
			PC adjust		
eiving a strong signal.	(Off/On)		Video NR	Off	
			3D Y/C filter	Off	
D/SD)					
ıble.			Color matrix	SD	
n/Off)			Block NR	Off	
mage <b>(Off/On)</b>			Mosquito NR	Off	
ark/Light)			Black level	Light	
			3:2 pulldown	Off	
ning area when HDTV	(Size 1/ Siz	ze 2)			
n.			HD Size	size1	
ult settings. (Set/No)			Normal	Set	
			Bass	+ 4	
			Treble	0	
			Balance	0	
nal inputs. (On/Off)			Al sound	On	
Ily accurate natural 3D width, depth and heigh iVA HD3D Sound is co electronic games. <b>(Or</b>	nt of sound in mpatible wi	mage	BBE VIVA 3D	On	
better speech intelligibi		ical	BBE	On	
			Surround	Off	
Off" is selected			Speaker output	On	
o/Digital/Analog)			HDMI1 in Auto		
			HDMI2 in	Auto	
			Audio leveler	0	
and time (p. 40)			Sleep	60	

Advanced

Memory card

## **How to Use Menu Functions**

Menu list

ltem

Menu

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.

MENU

menu screen

EXIT

screen

RETURN

Surf mode **Display menu** Language Clock Program channel External devices Input labels Displays the functions that can be set (varies according to the input signal) Select "Setup" Monitor out ②next Menu (о́к) EZ Sync СС □ Picture 1) select J Audio EZ Sync EZ Sync ථ Timer Power off link 🖬 Lock setting Memory card Power on link 🗗 Setup Sei Default speakers tup Auto power on Select the item 3 Setup (2) next 1/2 Side bar Surf mode (о́к) ■ Press to exit from All (1) select Language Other adjust No signal shut-off Clock Program channel External devices ■ Press to return CC to the previous No action shut-off SD card LED **Display Sub Menu** SUB MENU About Reset

Select the item

Setup SUB MENU

All

Off

or

next

Surf mode

Set favorite

Caption select

Signal meter

CC

### (Continued)

	A diverse and Consti
	Adjustments/Config
	<ul> <li>Sets the mode to select the channel with Channel up/down bu</li> <li>Favorite: Only channels registered as FAVORITE (p. 37)</li> </ul>
_	Selects the screen menu language (p. 18)
	Adjusts the clock (p. 18)
	Sets channels (p. 36)
	Selects the terminal and label of the external equipment (p. 38
	[Comp. 1/Comp. 2/HDMI 1/HDMI 2/Video 1/Video 2/Video 3] To prevent howling and image oscillation, stops output of the p (p. 38) (On/Off)
-	Displays subtitles (Closed Caption) (p. 38)
_	Controls equipment connected to HDMI terminals (p. 32) (On/ • "Power off link", "Power on link", and "Default speakers" can
	Sets "Power off link" of HDMI connection equipment (p. 32) (S
_	Sets "Power on link" of HDMI connection equipment (p. 32) (S
	Selects the default speakers (p. 32) (TV/Theater)
	<ul> <li>Turns TV On automatically when the cable box or a connected</li> <li>The "Sleep" timer, "On / Off timer", and "First time setup" will (p. 40)</li> </ul>
	Change the brightness of the side bar (Bright/Off/Dark/Mid) ( The recommended setting is "Bright" to prevent panel "Image
	To conserve energy, the TV automatically turns off when NO S (Set/No) Note
	<ul> <li>Not in use when setting "Auto power on", "On/Off Timer", "Lo Digital channel.</li> </ul>
	<ul> <li>"No signal shut-off was activated" will be displayed for about the first time after turning the power off by "No signal shut-o"</li> <li>The on-screen display will flash 3, 2 and 1 to indicate the last thr</li> </ul>
	To conserve energy, the TV automatically turns off when no op continues more than 3 hours. (No/Set) Note
	<ul> <li>Not in use when setting "Auto power on", "On/Off Timer" or I</li> <li>"No action shut-off was activated" will be displayed for about the first time after turning the power off by "No action shut or</li> <li>The on-screen display will flash 3, 2 and 1 to indicate the last three states are straight or the states and the straight or the states are straight or the states are straight or the str</li></ul>
	Set to "On", if you light SD card LED while SD card is inserted
	Displays TV version and software license.
_	Performing Reset will clear all items set with Setup, such as ch

Menu	Item	Ad
Menu	item	Au
S	Surf mode	Sets the mode to select the channel with C
UE S	Set favorite	Sets favorite channels. (p. 21)
Set	cc	Displays Closed Caption. (p. 38) (Off/On)
Setup SUB MENU	Caption select	Changes the station identifier. (p. 37)
C	Signal meter	Checks the signal strength if interference o

igurations (alternatives)	
utton (Favorite/All)	Surf mode All
	Language
	Clock
	Program channel

38)

pictures and audio specified in this menu

	CC	<del>T</del>
/ <b>Off)</b> nnot be selected if "Off" is set.	EZ Sync On	ow to
Set/No)	Power off link Set	re, ∪
Set/No)	Power on link Set	se
	Default speakers TV	Unc
d device is turned On <b>(No/Set)</b> ill not function if "Auto power on" is set.	Auto power on No	How to Use Menu Functions (picture, sound quality, etc.)
(4:3 mode only) e retention". (p. 52)	Side bar Bright	incti ty, e
SIGNAL continues more than 10 minutes.		ons etc.)
_ock", "SD mode", PC input display or	No signal shut-off Set	
ut 10 seconds when the TV is turned on for off".		
nree (3) remaining minutes prior to the shut-off.		
peration of remote or front panel key		Δd
PC input display. ut 10 seconds when the TV is turned on for off".	No action shut-off No	Advanced
nree (3) remaining minutes prior to the shut-off.		Q
d. <b>(On/Off)</b>	SD card LED On	
	About	
channel settings. (p. 36)	Reset	

### Adjustments/Configurations (alternatives)

ne channel with Channel up/down button (Favorite/All)

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



Advanced

At the start of the DIGA, Player theater, or RAM theater playback, the TV's input automatically switches to the input If using the DIGA operation, the TV's input automatically switches to the DIGA and DIGA menu is displayed. **Home theater:** Adjustment for equipment + VOL Volume up / down \_\_\_\_ Mute The sound of the 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 HDMI connected Panasonic equipment and access it quickly. Continue using

### ■ Available TV's remote control buttons

	Move the cursor/Select
ОК	Set/Access
RETURN	Return to the previous menu
	Display the Functions menu on the equipment
	Available when the purpose of the keys is displayed on screen

When "Set" is selected (p. 31), TV is turned on automatically and switches to the appropriate HDMI input whenever

If the "ONE TOUCH PLAY" key is pressed on the remote control for Panasonic Home Theater system, the following

## Lock

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



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

program rating.

Channel lock

Channel 1

Channel 2

Mode

2 Select channel to lock.

Custom

■ To set a rating level

	① Select "Mode" and set to "On".         Program lock         Mode       On         Monitor out       On         MPAA       Off         U.S.TV       Off         C.E.L.R.       Off         C.F.L.R.       Off	Exa I F
Program lock	<section-header><section-header></section-header></section-header>	F
Change password	■ To change the password ① In ④, select "Change password" and press ② Input the new 4-digit password twice	s Ok
Note		



ystem" when available. (Available only in U.S.A.) When placing a block on a specific-age-based-rating level, the Off rating and any other more restrictive ratings will also be blocked.

Lock

Advanced

## **Editing and Setting Channels**

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





# Editing and Setting Channels

Advanced

## Input Labels/Monitor Out/

## **Closed Caption**

1) select

Dselect

1) select

⊕select

Se

2 set

୭set

୭ set



Devices connected to external input terminals can be labeled for easier identification during input selection. -Label Terminal Terminals: Comp. 1-2/HDMI 1-2/ Video 1-3/PC Label: SKIP\*/VCR/DVD/CABLE/ DBS/PVR/GAME/AUX/[BLANK] (for PC terminal, only SKIP and [BLANK] are available) [example] \* If "SKIP" is selected, the TV/VIDEO button press will skip its input.

To prevent howling and image oscillation, stops output of the pictures and audio specified in this menu. (p. 30)

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, COMPONENT or PC 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

Mode	Select "On" (when not using, select "Off").
Analog	(Choose the Closed Caption service of Analog broadcasting.)
C1-4:	Information related to pictures (Appears at bottom of screen)
1-4:	Textual information (Appears over entire screen)
Digital	(The Digital Closed Caption menu lets you configure the way you choose to view the digital captioning.)

Select the setting.

C

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

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 box Back opacity: Opacity of text box • Outline: Outline color of text

(Identify the setting options on the screen.)

## **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. 30) is set.



On time	The time to turn On
	-

```
Off time The time to turn Off
```

## **Operating Peripheral Equipment**

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



### To find a code not listed in the code list

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

①After step ③ above, change the code and test



control (p. 44)

Repeat until the code is found

 It may take many attempts before the correct code is found

Connect the external equipment to the TV and **Power Off the external equipment** 

### Press both buttons simultaneously for more than 3 seconds.

 Release the buttons when the equipment selection buttons start flashing.

### Select the equipment

with the equipment selection button
The selected button remains lit (other buttons are not lit).

### Input the equipment's 4-digit remote control code (p. 45-47)

### **Operate the equipment with the remote control** (p. 44)

The external equipment turns On.

### ■ If the equipment does not operate with the remote control

When your equipment has a single code
 Input the remote control code again

- When your equipment has multiple codes
- Change the code with a above and test age
- Change the code with ④ above and test again

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

2 When the correct code is found

OK > store

## **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 for each piece of equipment and the specifications (p. 56). For additional assistance, please visit our website at: www.panasonic.com





#### Note

- The picture and audio input signals connected to a terminal specified in "Monitor out" (p. 38) 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. 30, 38)
- When equipment (STB, DVD, etc.) is connected to HDMI, COMPONENT or PC, 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.

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 32-33 for Setup Menu settings and additional control information.

Optional HDMI and/or optical cables are not provided.

#### 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. 32-33).

#### Connecting this unit to the DIGA, RAM theater, or Player ■ Connecting this unit to a DVD recorder and AV amp 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.



 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. 32-33).

#### Note

Individual HDMI equipment may require additional menu settings specific to each model. Please refer to their respective operating instruction manuals. When audio from other equipment connected to this unit via HDMI is output using "DIGITAL AUDIO OUT" of this unit. the system switches to 2CH audio.

(When connecting to an AV amp via HDMI, you can enjoy higher sound quality.)

#### EZ Sync<sup>™</sup> Connections

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 Plaver theater plavback operate.

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

Advanced

## **Remote Control Operation/Code List**

The following explains how to operate external devices with the remote control. • Register the remote control codes (p. 41) if you want to operate an external device from another manufacturer. (p. 45-47)

#### 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.

	VCR MODE DBS/CBL MODE DVD MO					
	VCR 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		
	_	Select	Select	Enter		
	-	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		
сн 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		
) — 9	0-9	0-9	0-9	0-9		
R-TUNE	-	Last Channel	Last Channel	Drive Select		
PROG-	-	Sub Channel	Music	PROG (Sub Channel)		
	-	Page Down/Up	Page Down/Up	Skip Reverse/Forward		
TV/VCR	TV/VCR Switch	TV/DBS Switch	TV/CBL Switch	-		
	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	Pause	Pause	Pause	Pause		
PLAY	Play	Play	Play	Play		

#### 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		
GE	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 (		,				
		Meterolo	0040 4070	Coloratific Atlanta	0077 4077	Zewith	0000
Americast	0899	Motorola	0810, 1376	Scientific Atlanta	0877, 1877	Zenith	0899
General nstrument	0810	Pace	0237, 1877	Sony	1006		
		Pioneer	0877, 1877	Supercable	0276		
lerrold	0810 Des/Cel	RCA	1256	Thomson	1256		
Satellite Reco	eiver ( 🚺 )						
Bell ExpressVu	0775	GE	0392, 0566	Motorola	0856, 0869	Samsung	1108, 1109, 114
Chaparral	0216	General	0869	Netsat	0099	-	1276, 1377, 144
Crossdigital	1109	Instrument		Next Level	0869		1609
DirecTV	0099, 0247, 0392,	GOI	0775, 1775	Optimus	0724	SKY	0856, 0099
	0566, 0639, 0724,	Hitachi	0749, 0819, 1250	Panasonic	0247, 0701, 1786	Sony	0639, 1639, 164
	0749, 0819, 1076,	Houston	0775	Paysat	0724	Star Choice	0869
	1108, 1109, 1142, 1377, 1392, 1414,	HTS	0775, 1775	Philips	0099, 0722, 0724,	Star Trak	0869
	1442, 1609, 1639,	Hughes Network	0749, 1142, 1442,		0749, 0775, 0819,	Thomson	0392, 0566
	1640, 1749, 1856	Systems	1749		1076, 1142, 1442,	Tivo	1142, 1442
Dish Network	0775, 1005, 1505,	Innova	0099	l	1749	Toshiba	0749, 0790, 081
System	1775	Jerrold	0869	Pioneer	1142, 1442		1285, 1749
Dishpro	0775, 1005, 1505,	JVC	0775, 1775	Primestar	0869	UltimateTV	1392, 1640
	1775	LG	1414	Proscan	0392, 0566	Uniden	0724, 0722
Echostar	0775, 1005, 1505,	Magnavox	0722, 0724	RadioShack	0566, 0775, 0869	Voom	0869
	1775	McIntosh	0869	RCA	0392, 0566, 0775,	Zenith	0856, 1856
Expressvu	0775, 1775	Memorex	0724	110/1	1142, 1392, 1442	Lonar	10000, 1000
Funai	1377	Mitsubishi	0749		, ,		
	mbination (S) (	BS/CBL	0140				
		)					
DirecTV	0099.0392.0639.	Dishpro	0775, 1505	Motorola	0869	Sony	0639, 1640
	10-0 1110 10	Echostar	0775, 1505	Philips	1142, 1442	Star Choice	0869
	1076, 1142, 1377,	Lonostar					
	1076, 1142, 1377, 1392, 1442, 1640	Expressvu	0775	Proscan	0392		
Dish Network		Expressvu Hughes Network		Proscan RCA	0392 1392		
System	1392, 1442, 1640	Expressvu	0775				
System	1392, 1442, 1640	Expressvu Hughes Network	0775	RCA	1392		
System	1392, 1442, 1640 0775, 1505	Expressvu Hughes Network Systems	0775 1142, 1442	RCA Samsung	1392 1442	Curtis Mathes	0000 0035 006
System	1392, 1442, 1640 0775, 1505 0000, 0037, 0240,	Expressvu Hughes Network Systems Asha	0775 1142, 1442 0240	RCA Samsung Carver	1392 1442 0035, 0081	Curtis Mathes	
System VCR ( <sup>VCR</sup> ) A-Mark	1392, 1442, 1640 0775, 1505 0000, 0037, 0240, 0278	Expressvu Hughes Network Systems Asha Astra	0775 1142, 1442 0240 0035, 0240	RCA Samsung Carver CCE	1392 1442 0035, 0081 0278	Curtis Mathes	
System VCR ( <sup>VCR</sup> ) A-Mark ABS	1392, 1442, 1640 0775, 1505 0000, 0037, 0240, 0278 1972	Expressvu Hughes Network Systems Asha Astra Audiovox	0775 1142, 1442 0240 0035, 0240 0037, 0038, 0278	RCA Samsung Carver CCE Cineral	1392 1442 0035, 0081 0278 0278		
System VCR ( VCR ) A-Mark ABS	1392, 1442, 1640 0775, 1505 0000, 0037, 0240, 0278 1972 0039, 0047, 0048,	Expressvu Hughes Network Systems Asha Astra Audiovox Avis	0775 1142, 1442 0240 0035, 0240 0037, 0038, 0278 0000	RCA Samsung Carver CCE	1392 1442 0035, 0081 0278 0278 0000, 0035, 0037,	Cybernex	0162, 0240, 027 0432, 1035 0240
System VCR ( VCR ) A-Mark ABS Admiral	1392, 1442, 1640 0775, 1505 0000, 0037, 0240, 0278 1972 0039, 0047, 0048, 0060, 0209, 0479	Expressvu Hughes Network Systems Asha Astra Audiovox Avis Beaumark	0775 1142, 1442 0240 0035, 0240 0037, 0038, 0278 0000 0240	RCA Samsung Carver CCE Cineral	1392 1442 0035, 0081 0278 0278	Cybernex CyberPower	0162, 0240, 027 0432, 1035 0240 1972
System VCR (VCR) A-Mark ABS Admiral Adventura	1392, 1442, 1640 0775, 1505 0000, 0037, 0240, 0278 1972 0039, 0047, 0048, 0060, 0209, 0479 0000, 0037, 0240	Expressvu Hughes Network Systems Asha Astra Audiovox Avis	0775 1142, 1442 0240 0035, 0240 0037, 0038, 0278 0000 0240 0000, 0035, 0039,	RCA Samsung Carver CCE Cineral Citizen	1392 1442 0035, 0081 0278 0278 0000, 0035, 0037, 0209, 0240, 0278, 0479, 1278	Cybernex	0162, 0240, 027 0432, 1035 0240 1972 0037, 0045, 027
System VCR (VCR) A-Mark ABS Admiral Adventura Aiko	1392, 1442, 1640 0775, 1505 0000, 0037, 0240, 0278 1972 0039, 0047, 0048, 0060, 0209, 0479 0000, 0037, 0240 0278	Expressvu Hughes Network Systems Asha Astra Audiovox Avis Beaumark Bell & Howell	0775 1142, 1442 0240 0035, 0240 0037, 0038, 0278 0000 0240 0000, 0035, 0039, 0048, 0479	RCA Samsung Carver CCE Cineral Citizen Classic	1392 1442 0035, 0081 0278 0278 0000, 0035, 0037, 0209, 0240, 0278, 0479, 1278 0037	Cybernex CyberPower Daewoo	0162, 0240, 027 0432, 1035 0240 1972 0037, 0045, 027 1278
System VCR (VCR) A-Mark ABS Admiral Adventura Aiko Aiwa	1392, 1442, 1640 0775, 1505 0000, 0037, 0240, 0278 1972 0039, 0047, 0048, 0060, 0209, 0479 0000, 0037, 0240 0278 0000, 0037	Expressvu Hughes Network Systems Asha Astra Audiovox Avis Beaumark	0775 1142, 1442 0240 0035, 0240 0037, 0038, 0278 0000 0240 0000, 0035, 0039, 0048, 0479 0002, 0121, 0209,	RCA Samsung Carver CCE Cineral Citizen	1392 1442 0035, 0081 0278 0278 0000, 0035, 0037, 0209, 0240, 0278, 0479, 1278 0037 0035, 0045, 0060,	Cybernex CyberPower Daewoo Daytron	0162, 0240, 027 0432, 1035 0240 1972 0037, 0045, 027 1278 0037, 0278
System VCR (VCR ) A-Mark ABS Admiral Adventura Aiko Aiwa Aiba	1392, 1442, 1640 0775, 1505 0000, 0037, 0240, 0278 1972 0039, 0047, 0048, 0060, 0209, 0479 0000, 0037, 0240 0278 0000, 0037 0209, 0278	Expressvu Hughes Network Systems Asha Astra Audiovox Avis Beaumark Bell & Howell Broksonic	0775 1142, 1442 0240 0035, 0240 0037, 0038, 0278 0000 0240 0000, 0035, 0039, 0048, 0479 0002, 0121, 0209, 0479, 1479	RCA         Samsung         Carver         CCE         Cineral         Citizen         Classic         Colortyme	1392 1442 0035, 0081 0278 0278 0000, 0035, 0037, 0209, 0240, 0278, 0479, 1278 0037 0035, 0045, 0060, 0278	Cybernex CyberPower Daewoo Daytron Dell	0162, 0240, 027 0432, 1035 0240 1972 0037, 0045, 027 1278 0037, 0278 1972
System VCR ( Vea ) A-Mark ABS Admiral Adventura Aiko Aiba Alba Alienware	1392, 1442, 1640 0775, 1505 0000, 0037, 0240, 0278 1972 0039, 0047, 0048, 0060, 0209, 0479 0000, 0037, 0240 0278 0000, 0037 0209, 0278 1972	Expressvu Hughes Network Systems Asha Astra Audiovox Avis Beaumark Bell & Howell Broksonic Calix	0775 1142, 1442 0240 0035, 0240 0037, 0038, 0278 0000 0240 0000, 0035, 0039, 0048, 0479 0002, 0121, 0209, 0479, 1479 0037	RCA         Samsung         Carver         CCE         Cineral         Citizen         Classic         Colortyme         Colt	1392 1442 0035, 0081 0278 0000, 0035, 0037, 0209, 0240, 0278, 0479, 1278 0037 0035, 0045, 0060, 0278 0000	Cybernex CyberPower Daewoo Daytron Dell Denon	0162, 0240, 027 0432, 1035 0240 1972 0037, 0045, 027 1278 0037, 0278 1972 0042, 0081
System VCR ( Vea ) A-Mark ABS Admiral Adventura Aiko Aiko Aiba Alienware Aliegro	1392, 1442, 1640         0775, 1505         0000, 0037, 0240, 0278         1972         0039, 0047, 0048, 0060, 0209, 0479         0000, 0037, 0240         0278         0000, 0037, 0240         0278         0000, 0037, 0240         0278         0000, 0037         0209, 0278         1972         0039	Expressvu Hughes Network Systems Asha Astra Audiovox Avis Beaumark Bell & Howell Broksonic Calix Candle	0775 1142, 1442 0240 0035, 0240 0037, 0038, 0278 0000 0240 0000, 0035, 0039, 0048, 0479 0002, 0121, 0209, 0479, 1479 0037 0037, 0038	RCA         Samsung         Carver         CCE         Cineral         Citizen         Classic         Colortyme         Colt         Craig	1392 1442 0035, 0081 0278 0000, 0035, 0037, 0209, 0240, 0278, 0479, 1278 0037 0035, 0045, 0060, 0278 0000 00037, 0047, 0240	Cybernex CyberPower Daewoo Daytron Dell Denon DirecTV	0162, 0240, 027 0432, 1035 0240 1972 0037, 0045, 027 1278 0037, 0278 1972 0042, 0081 0739
System VCR (VCR) A-Mark ABS Admiral Adventura Aiko Aiwa Aiba	1392, 1442, 1640 0775, 1505 0000, 0037, 0240, 0278 1972 0039, 0047, 0048, 0060, 0209, 0479 0000, 0037, 0240 0278 0000, 0037 0209, 0278 1972	Expressvu Hughes Network Systems Asha Astra Audiovox Avis Beaumark Bell & Howell Broksonic Calix	0775 1142, 1442 0240 0035, 0240 0037, 0038, 0278 0000 0240 0000, 0035, 0039, 0048, 0479 0002, 0121, 0209, 0479, 1479 0037	RCA         Samsung         Carver         CCE         Cineral         Citizen         Classic         Colortyme         Colt	1392 1442 0035, 0081 0278 0000, 0035, 0037, 0209, 0240, 0278, 0479, 1278 0037 0035, 0045, 0060, 0278 0000	Cybernex CyberPower Daewoo Daytron Dell Denon	0162, 0240, 027 0432, 1035 0240 1972 0037, 0045, 027 1278 0037, 0278 1972 0042, 0081

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## Remote Control Operation/Code List (Continued)

### ■Remote Control Code List

VCR ( ) Brand	Code	Brand	Code	Brand	Code	Brand	Code
Electrohome	0000, 0037, 0043, 0060, 0209, 0240	Magnin Marantz	0240	Quasar	0002, 0035, 0162, 1035	Thomson Tisonic	0060
Electrophonia			, ,	PadiaShaak		Tivo	
Electrophonic Emerald	0037	Marta Matsui	0037 0037, 0209	RadioShack	0000, 0035, 0037, 0047, 0048, 0162,	TIVO	0618, 0636, 073 1996
	0032	Matsushita	0035, 0162, 0081		0240	ТМК	0000, 0240
Emerex Emerson	0000, 0002, 0037,	Media Center PC	1972	Radix	0037	TNIX	0000, 0240
LINEISON	0043, 0121, 0184,	MEI	0035	Randex	0037	Tocom	0240
	0209, 0240, 0278,	Memorex	0000, 0035, 0037,	RCA	0000, 0035, 0042,	Toshiba	0000, 0043, 004
	0479, 1278, 1479	Memorex	0039, 0162, 0047,	NOA	0045, 0048, 0060,	1031104	0209, 0240, 084
Fisher	0000, 0039, 0047		0048, 0209, 0240,		0240, 0807, 0880,		1008, 1145, 197
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	liteanetic	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,	Mind	1972	Runco	0039	Unitech	0240
	1035, 1060	Minolta	0042	Samsung	0000, 0038, 0045,	Vector	0045
Gemini	0060	Mitsubishi	0000, 0042, 0043,		0060, 0240, 0432,	Vector Research	0038, 0184
Genexxa	0000, 0037, 0278		0047, 0048, 0060,		0739, 1014	Victor	0067
Go Video	0240, 0432, 0614		0067, 0807	Samtron	0240	Video Concepts	0045
GoldStar	0000, 0035, 0037,	Motorola	0035.0048	Sanky	0039,0048	Videomagic	0037
Ooluotai	0038, 0039, 0278,	MTC	0000, 0240	Sansui	0000, 0002, 0067,	Videosonic	0000, 0240
	1237	MTC	0000, 0240	Sansu	0209, 0240, 0479,	Viewsonic	1972
Goodmans	0000 0037 0081	Multitech	0000,0039		1479	Villain	0000
Guumans	0000, 0037, 0081, 0278	NAD	0240	Sanyo	0000, 0047, 0240,	Voodoo	1972
Gradiente	0000	NEC	0240	Sanyo	0479	Wards	0000, 0060, 003
Granada	0042,0081	Nikko	0037, 0278	Scott	0043, 0045, 0184,	Walus	0035, 0037, 003
	0042,0081			30011	0121		0042, 0043, 004
Grundig		Nikkodo Nishi	0037, 0278	Seere	-		0047, 0048, 008
Harley Davidson	0000		0240	Sears	0000, 0033, 0035, 0037, 0039, 0042,		0240, 0479
Harman/Kardon	0038,0081	Niveus Media	1972		0043, 0045, 0047,	White	0000, 0209, 027
Hewlett Packard	1972	Noblex	0240		0048, 0060, 0067,	Westinghouse	0479
HI-Q	0000, 0035, 0047	Northgate	1972		0162, 0209, 1237	World	0002, 0209, 047
Hitachi	0000, 0035, 0037, 0042, 0045, 0089	Olympus	0035, 0162	0	0040 0047 0000	XR-1000	0002, 0209, 047
		Optimus	0000, 0035, 0037, 0047, 0048, 0162,	Sharp	0048, 0047, 0032, 0000, 0807	Yamaha	0038
Howard Computers	1972		0240, 0432, 1062			Zenith	
•	4070	<u> </u>		Shintom	0000, 0039, 0240	Zeniun	0000, 0033, 003
HP	1972	Orion	0000, 0002, 0121, 0184, 0209, 0240,	Shogun	0240		0479, 1479
Hughes Network Systems	0042, 0739		0278, 0479, 1479	Siemens	0037	ZT Group	1972
,	0700	Demonstra		Signature	0000, 0035, 0037, 0048, 0060, 0479	ZT Group	1972
Humax	0739	Panama	0035	0			
Hush	1972	Panasonic	0000, 0035, 0162,	Singer	0037, 0240		
Hytek	0000, 0047	1	0225, 0614, 0616, 1035, 1062, 1244	Sonic Blue	0614,0616		
IBUYPOWER	1972	<b></b>		Sony	0000, 0032, 0033,		
ITT Nokia	0240	Penney	0000, 0035, 0037,		0035, 0047, 0067, 0636, 1232, 1972		
Janeil	0240		0038, 0042, 0047, 0067, 0081, 0162,	<b>a</b>			
Jensen	0067		0240, 1035, 1237	Soundmaster	0000		
JVC	0067			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, 0209, 0616, 0618,		0081, 1781		
Linksys	1972		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	Теас	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,	Pulser	0240	Tevion	0479		
	0240, 0618, 1781	Pulser	10240	revion			

	mbination (V) (	Brand	Cada	Brand		Brond	Codo
Brand	Code	Brand	Code	Brand	Code	Brand	Code
Hughes Network	0739	Philips	0739				
Systems		Samsung	0739				
PVR (V) (	)						
ABS	1972	Hughes Network	0739	Northgate	1972	Tagar Systems	1972
Alienware	1972	Systems		Panasonic	0616	Tivo	0618, 0636, 073
CyberPower	1972	Humax	0739	Philips	0618, 0739	Toshiba	1008, 1972, 1990
Dell	1972	Hush	1972	RCA	0880	Touch	1972
DirecTV	0739	IBUYPOWER	1972	ReplayTV	0614, 0616	Viewsonic	1972
Gateway	1972	Linksys	1972	Samsung	0739	Voodoo	1972
Hewlett Packard	1972	Media Center PC	1972	Sonic Blue	0614, 0616	ZT Group	1972
Howard	1972	Microsoft	1972	Sony	0636, 1972	-	
Computers		Mind	1972	Stack 9	1972		
HP	1972	Niveus Media	1972	Systemax	1972		
3D LAB	0503, 0539	Funai	0675, 1268	Minato	0752	Samsung	0490, 0573, 074
Aiwa	0641	GE	0522, 0815	Mintek	0839	cumoung	0820, 0899, 104
Akai	0695, 0899	Go Video	0573, 0741, 0744,	Mitsubishi	1521.0521		1075
Alba	0672		0869, 1044, 1075	NAD	0591, 0741	Sansui	0695
Alco	0790	GoldStar	0741.0869	NEC	0785, 0869	Sanyo	0675.0695
Allegro	0869	Goodmans	0790	Onkyo	0503, 0627, 0792	Schwaiger	0752
Apex Digital	0533, 0672, 1020,	Gradiente	0490, 0651	Optimus	0571	Sharp	0630, 0675, 075
riport Digital	1056, 1061	Grundig	0539	Oritron	0651	onarp	1256
Arrgo	1023	Harman/Kardon	0582	Palsonic	0672	Shinsonic	0533, 0839
Audiovox	0790	Hitachi	0573,0664	Panasonic	0503, 0490, 0571,	Slim Art	0784
Blue 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
Labs			1164	Pioneer	0525, 0571, 0631	Теас	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, 0573
CyberHome	0816, 0874, 1023,	Lasonic	0627	Qwestar	0651		0695, 1045, 1154
	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	-	0822, 1022, 1132	Venturer	0790
Disney	0675	Magnasonic	0651, 0675	Realistic	0571	Xbox	0522
Dual	0675	Magnavox	0503, 0539, 0646,	Reoc	0752	Yamaha	0490, 0539, 054
DVD2000	0521		0675, 1268	Rio	0869	Zenith	0503, 0591, 074
Emerson	0591, 0675, 1268	Marantz	0503, 0539, 0675	Rotel	0623		0869
Enterprise	0591	McIntosh	1533	Saba	0651	Zeus	0784
Entivo	0503, 0539	Medion	0651	Sampo	0752		
ESA	1268	Memorex	0695				
Firstline	0651	Microsoft	0522				
DVD-Recorde	er (Y) (						
Apex Digital	1056	LG	0741	Pioneer	0631	Sylvania	0675
CyberHome	1129	Magnavox	0646, 0675	RCA	0522	Zenith	0741
Funai	0675	Panasonic	0490, 2006, 2016,	Samsung	0490	Lonia	
Go Video	0741		2026	Sharp	0675		
JVC	1164	Philips	0646	Sony	1033, 1431		

## **Ratings List for Lock**

"V-chip" technology enables you to lock channels or shows according to standard ratings set by the entertainment industry. (p. 35)

#### 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.
Х	ADULTS ONLY.
	G PG PG-13 R NC-17

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

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

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

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

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

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

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

Caution

• 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 Section 15.120(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

### Maintenance

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

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.

- Do not scratch or hit the surface of the panel with fingernails or other hard objects. Furthermore, avoid contact adversely affected.

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

- 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.
- in contact with articles made from rubber or PVC.

- Cleaning
- which a small amount of neutral detergent has been added and then wipe with a dry cloth. coating. (If using a chemically-treated cloth, follow the instructions supplied with the cloth.)
- contact with rubber, vinyl products, or the like. (Doing so will cause deterioration.)

#### Display panel

• 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 liguid. 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.

with volatile substances such as insect sprays, solvents, and thinner; otherwise, the quality of the surface may be

#### Cabinet

• If the cabinet is particularly dirty, soak the cloth in a weak detergent solution and then wring the cloth dry.

• 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

#### Pedestal

Wipe the surfaces with a soft, dry cloth. If the unit is particularly dirty, clean it using a cloth soaked with water to

Do not use products such as solvents, thinner, or household wax for cleaning, as they can damage the surface

• Do not attach sticky tape or labels, as they can make the surface of the pedestal dirty. Do not allow long-term

 Maintenance
 Ratings List for Lock FAQs, etc.

## **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)

#### ● H-FILL



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

#### ZOOM



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

#### Zoom adjust

Vertical image position and size can be adjusted in "ZOOM". ①Select "Zoom adjust" on the "Picture" menu. (p. 28-29) 2V-position: Vertical position adjustment





(OK)

To reset the aspect ratio ОК



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

(Recommended for normal TV broadcast)





(Note that "Image retention" of the side bar may occur from

#### 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.

③ V-size: Vertical size adjustment





Photo: Data format: Max. number of files: Image resolution:

Baseline JPEG (Sub-sampling: 4:4:4, 4:2:2 or 4:2:0) 9.999 160 x 120 to 10,000,000

#### Caution

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

Partly degraded files might be displayed at a reduced resolution.



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)



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

- Do not touch the terminals on the back of the card.
- Do not subject the card to 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.)

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

- External speakers cannot be connected directly to PROG OUT terminals.
  - channel is selected, the output will be PCM.

displaying it for a long time.)

#### Data format for SD Card browsing

Still images recorded with digital still cameras compatible with JPEG files of DCF\* and EXIF\*\* standards

\* DCF (Design rule for camera file system): A Japan Electronics and Information Technology Industries Association's standard \*\* EXIF (Exchangeable Image File Format)

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

#### Meaning

The card is not inserted.

• The card has no data or this type of data is not supported.

The file is broken or unreadable. The TV does not support the format.

#### GalleryPlayer warning messages

There is a problem with your TV decoder. • If this message appears, please contact Panasonic Service Center for Refer to page 57, 59 (Limited Warranty), page 58 (Customer Services Directory)

• There is a problem with the data. Check the data inside the SD card.

#### Cautions in handling SD Card:

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

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

## **Technical Information** (Continued)

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

- HDMI connections to some Panasonic equipment allow you to interface automatically. (p. 32)
- 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.
- "HDAVI Control 2" is the newest standard (current as of February, 2007) for Panasonic's HDAVI Control compatible equipment. This standard is compatible with Panasonic's conventional HDAVI equipment.

#### HDMI connection

HDMI (high-definition multimedia interface) allows you to enjoy high-definition digital images and high-guality 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. 28)
- Applicable audio signal sampling frequencies (L.PCM): 48 kHz, 44.1 kHz, 32 kHz (\*1): The HDMI logo is displayed on an HDMI-compliant device.

#### Caution

Use with a PC is not assumed.

- All signals are reformatted before being displayed on the screen.
- If the connected device has an aspect adjustment function, set the aspect ratio to "16:9".
- These HDMI connectors are "type A".
- These HDMI connectors are compatible with HDCP (High-Bandwidth Digital Content Protection) copyright protection.
- A device having no digital output terminal may be connected to the input terminal of either "COMPONENT", "S VIDEO", or "VIDEO" to receive analog signals.
- The HDMI input terminal can be used with only the following image signals: 480i, 480p, 720p, 1080i and 1080p. Match the output setting of the digital device.
- For details of the applicable HDMI signals, see p. 53.

#### 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.



(\*2): Enquire at your local digital equipment retailer shop.

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. For watching movies in a darkened room. It provides a soft, film-like picture. Cinema:
- Custom (Photo): Customizes each item according to your taste.

Photo is displayed in JPEG menu.

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

	horizontal frequency (kHz)	vertical frequency (Hz)	COMPONENT	HDMI	PC
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		*	
640 × 400 @70	31.47	70.08			*
640 × 480 @60	31.47	59.94			*
Macintosh13" (640 × 480)	35.00	66.67			*
640 × 480 @75	37.50	75.00			*
852 × 480 @60	31.47	59.94			*
800 × 600 @60	37.88	60.32			*
800 × 600 @75	46.88	75.00			*
800 × 600 @85	53.67	85.08			*
Macintosh16" (832 × 624)	49.73	74.55			*
1,024 × 768 @60	48.36	60.00			*
1,024 × 768 @70	56.48	70.07			*
1,024 × 768 @75	60.02	75.03			*
1,024 × 768 @85	68.68	85.00			*
Macintosh 21" (1,152 × 870)	68.68	75.06			*
1,280 × 1,024 @60	63.98	60.02			*
1,366 × 768 @60	48.36	60.00			*

#### Note

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

- lines.)
- Some PC models cannot be connected to the set.
- There is no need to use an adapter for computers with IBM PC/AT compatible D-sub 15P terminal.
- The maximum resolution: 1,280 × 1,024
- Signal Names for D-sub 15P Connector

$ \begin{array}{c} (1) (2) (3) (4) (5) \\ (6) (7) (8) (9) (0) \\ (1) (2) (3) (4) (5) \end{array} $
--

Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
1	R	6	GND (Ground)	1	NC (not connected)
2	G	$\bigcirc$	GND (Ground)	12	NC
3	В	8	GND (Ground)	13	HD/SYNC
4	NC (not connected)	9	NC (not connected)	14	VD
5	GND (Ground)	10	GND (Ground)	15	NC

Terminal

Pin Layout for PC Input

### Input signal that can be displayed

#### **PC Input Terminals Connection**

• Computer signals which can be input are those with a horizontal scanning frequency of 15 to 110 kHz and vertical scanning frequency of 48 to 120 Hz. (However, the image will not be displayed properly if the signals exceed 1,200

If the display resolution exceeds these maximums, it may not be possible to show fine detail with sufficient clarity.

## 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. 58, 59) 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. Pictures from external Interference or equipment are distorted frozen digital when the unit is channels connected via HDMI (intermittent sound) • Is the HDMI cable connected properly? (p. 42-43) ● Turn Off the TV unit and equipment, then ۸ СН turn them On again. • Check an input signal from the equipment. (p. 53) • Üse equipment compliant with Change the direction of antenna 1 2 3 EIA/CEA-861/861B. for digital channels. 4 5 6 • Check "Signal meter" (p. 37). 7 8 9 If the signal is weak, check the antenna and consult your local The remote control does R-TUNE O PROGdealer. not work SEARCH REC • Are the batteries installed correctly? (p. 6) STOP PAUSE PLAY • Has the battery run down? • To operate external equipment of other manufacturers, register the remote control Panasonic codes. (p. 41)

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).



Actions
<ul> <li>The function to prevent "Image retention" is activated. (Not a faulty symptom)</li> <li>The screen saver is activated if the TV unit is not operated for a certain time in SD mode.</li> <li>"Image retention" (p. 5)</li> </ul>
<ul> <li>A pixel or luminescent spot can occasionally be missing in plasma displays. (Not a faulty symptom)</li> </ul>
Check nearby electrical products (car, motorcycle, fluorescent lamp).
Check Picture menu (p. 28)
<ul> <li>Check the channel settings. (p. 36)</li> <li>Check the antenna cables.</li> </ul>
<ul> <li>Is the AC power cord plugged into the outlet?</li> <li>Is the TV unit turned On?</li> <li>Check Picture menu (p. 28) and volume.</li> <li>Are the remote control codes correct? (p. 45-47)</li> </ul>
Change settings of Closed Caption (CC). (p. 38)
<ul> <li>Are the speakers' cables connected correctly? (p. 42)</li> <li>Is "Sound Mute" active? (p. 17)</li> <li>Is the volume set to the minimum?</li> <li>Is "Speaker output" set to "Off"? (p. 28)</li> <li>Change "SAP" settings. (p. 20)</li> <li>Check "HDMI 1 in" or "HDMI 2 in" settings. (p. 28)</li> </ul>
<ul> <li>Set "SAP" setting to "Stereo" or "Mono."</li> <li>Check the HDMI device connected to the unit.</li> <li>Set the audio setting of the HDMI device to "Linear PCM."</li> <li>If digital sound connection has a problem, select analog sound connection.</li> </ul>
<ul> <li>The sound is from built-in cooling fan (not a sign of faulty operation).</li> </ul>

## Specifications

		TH-42PZ700U	TH-50PZ700U	TH-58PZ700U			
Pow	er Source	AC 120 V, 60 Hz					
Power Consumption	Maximum	580 W	695 W	735 W			
Imption	Standby condition	0.2 W	0.2 W	0.2 W			
	Drive method	AC type	I	<u> </u>			
Plasma	Aspect Ratio	16:9					
ma	Visible screen size	42 " (Diagonal)	50 " (Diagonal)	58 " (Diagonal)			
2	(W × H × Diagonal)	36.2 " × 20.4 " × 41.6 "	43.5 " × 24.4 " × 49.9 "	50.5 " × 28.4 " × 58.0 "			
	(No. of pixels)	2,073,600 (1,920 (W) × 1,080 (F [5,760 × 1,080 dots]		(1,284 mm × 723 mm × 1,474 mm)			
Sound	Audio Output	Super Slim SP (2.5 W) × 2 Woofer (13 W) × 2					
PC s	ignals	VGA, SVGA, XGA, WXGA, SXG Horizontal scanning frequency 3 Vertical scanning frequency 59 -	31 - 69 kHz				
Char Digi	nnel Capability tal/Analog)	VHF/ UHF: 2 - 69, CATV: 1 - 13					
Oper	rating Conditions	Humidity: 20 % – 80 % I	<sup>=</sup> (0 °C – 40 °C) RH (non-condensing)				
	INPUT 1-3	VIDEO:         RCA PIN Type × 1         1.0 V [p-p] (75 Ω)           S-VIDEO:         Mini DIN 4-pin         Y: 1.0 V [p-p] (75 Ω)         C: 0.286 V [p-p] (75 Ω)           AUDIO L-R:         RCA PIN Type × 2         0.5 V [rms]					
<b>Connection Terminals</b>	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]					
ect	HDMI 1-2	TYPE A Connector × 2					
ion		This TV supports "HDAVI Cor	ntrol 2" function.				
Ч			e × 2 0.5 V [rms] [n-n] (75 O)				
rmina	PC	HD, VD / 1.0 - 5.0 V [p-p] (high impedance) AUDIO L-R: Stereo Mini Jack (Φ3.5 mm) × 1					
S	Card slot	SD CARD slot × 1					
	AV PROG. OUT	VIDEO: RCA PIN Type AUDIO L-R: RCA PIN Type	e × 1 1.0 V [p-p] (75 Ω) e × 2 0.5 V [rms]				
	DIGITAL AUDIO OUT	PCM / Dolby Digital, Fiber Optic					
EA	<b>TURES</b>	3D Y/C FILTER CLOSED CAF V-Chip BBE VIVA 3D Photo viewer HDAVI Contro					
Dimensions (W×H×D)	Including pedestal	42.5 " × 29.8 " × 14.6 " (1,077 mm × 755 mm × 369 mm)	49.9 " × 33.5 " × 14.6 " (1,266 mm × 850 mm × 369 mm)	57.3 " × 38.2 " × 16.5 " (1,454 mm × 970 mm × 418 mm)			
isions	TV Set only	42.5 " × 27.2 " × 5.5 " (1,077 mm × 689 mm × 138 mm)	49.9 " × 31.6 " × 5.5 " (1,266 mm × 802 mm × 138 mm)	57.3 " × 36.2 " × 5.7 " (1,454 mm × 918 mm × 144 mm)			
	Including pedestal	99.3 lb. (45 kg)	123.5 lb. (56 kg)	165.4 lb. (75 kg)			
Mass	TV Set only	83.8 lb. (38 kg)	105.9 lb. (48 kg)	141.1 lb. (64 kg)			
	[TH-42PZ700U]	[TH-50PZ7	200U]	[TH-58PZ700U]			
27.2 " (689 mm)	42.5 " (1,077 mm) 5.5 27.2 " (689 mm)	" (138 mm) 49.9 " (1,266 49.9 " (1,266	38.2 " (970 mm) 36.2 " (970 mm) 36.2 " (918 mm)	57.3 " (1,454 mm) 5.7 " (144 mm) 5.7 " (144 mm)			

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 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.

С	CATEGORIES	ALL PARTS EXCEPT GLASS PANEL OR CRT	LABOR	GLASS PANEL OR CRT	GLASS PANEL OR CRT LABOR	SERVICE
PLASMA	A 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 nonrechargeable 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.

Note

PANASONIC SALES COMPANY, DIVISION OF PANASONIC PUERTO RICO, INC. Ave. 65 de Infanteria, Km. 9.5 San Gabriel Industrial Park Carolina, Puerto Rico 00985

## **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 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	C
LCD TV (26 in & over)	In-home service	C
LCD TV (25 in & under)	Carry-in service only	C

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 www.panasonic.ca: 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.

#### Panasonic Canada Inc.

### One (1) year, parts (including Plasma Panel) and labour. One (1) year, parts (including LCD Panel) and labour. One (1) year, parts (including LCD Panel) and labour.