Panasonic®

Operating Instructions
46"/50" Class 1080p Plasma HDTV
(46.0/49.9 inches measured diagonally)

Manual de instrucciones
Televisión de alta definición de 1080p y clase 46"/50" de Plasma
(46,0/49,9 pulgadas medidas diagonalmente)

Model No.
Número de modelo **TH-46PZ850U**

TH-50PZ850U

Quick Start Guide

(See page 6-15)

Guía de inicio rápido

(vea la página 6-15)

■ For assistance (U.S.A.), please call:
1-877-95-VIERA (958-4372)
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:
1-866-330-0014
or visit us at www.vieraconcierge.ca

■ Para solicitar ayuda (EE.UU.), llame al:
1-877-95-VIERA (958-4372)
ó visítenos en www.panasonic.com/contactinfo

■ Para solicitar ayuda (Puerto Rico), llame al:
787-750-4300
ó visítenos en www.panasonic.com

VIErA CAST™   VIErA LinK™

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE   HDTV   SDHC™   BBE®
High Definition Sound   BBE.ViVA
HD3D Sound

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

Español   Lea estas instrucciones antes de utilizar su televisor y guárdelas para consultarlas en el futuro.
Las imágenes mostradas en este manual tienen solamente fines ilustrativos.   TQB2AA0785-2

Turn your own living room into a movie theater!

Experience an amazing level of multimedia excitement

This device contains a digital television tuner, so it should receive digital over the air TV programming, with a suitable antenna, after the end of full-power analog TV broadcasting in the United States (as required by law) on February 17, 2009. Some older television receivers, if they rely on a TV antenna, will need a TV Converter to receive over the air digital programming, but should continue to work as before for other purposes (e.g., for watching low-power TV stations still broadcasting in analog, watching pre-recorded movies, or playing video games). When a Converter is used with an older television receiver, a signal splitter might be necessary to continue to receive low-power analog broadcasts via an antenna. For more information, please see www.DTV.gov. For information on the TV Converter program, and on government coupons that may be used toward the purchase of one, see www.dtv2009.gov, or call the NTIA at 1-888-DTV-2009. Please check with your cable or satellite service provider if you have questions about your cable or satellite set-top box.

Contents

Please read before using the unit

Quick Start Guide

Enjoy your TV!
Basic Features

Advanced Features

FAQs, etc.

Enjoy rich multimedia

SD memory card

Camcorder

Personal computer

VCR   Set Top Box

Amplifier
Home theater system

DVD recorder/
Blu-ray Disc recorder

DVD player/
Blu-ray Disc player

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

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

HDTV

ENERGY STAR

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

Safety Precautions

<table>
<tr>
<td>⚡</td>
<td>CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN</td>
<td>❗</td>
</tr>
</table>

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.

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

FCC Declaration of Conformity
Model No. TH-46PZ850U, TH-50PZ850U

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

CANADIAN NOTICE:
For Model TH-46PZ850U, TH-50PZ850U
This Class B digital apparatus complies with Canadian ICES-003.

⚠ WARNING

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-WK42PV4W
  • Wall-hanging bracket (Angled) TY-WK42PR4W
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 cord. When disconnecting the power cord, hold the plug, not the cord.
● Do not make any modifications to, place heavy objects on, place near hot objects, heat, bend, twist or forcefully pull the power cord. Doing so may cause damage to the power cord which can cause fire or electric shock. If damage to the cord 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.

⚠ 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.

Leave a space of 3 15/16" (10 cm) or more at the top, left and right, and 2 3/4" (7 cm) or more at the rear.
When using the pedestal, keep the space between the bottom of the TV and the floor surface.

■ 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 cord plug 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 photo   ● Video 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. 61)

■ Set up
● Do not place the unit where it's exposed to sunlight or other bright light (including reflections).
● Use of some types of fluorescent lighting may reduce the remote control's transmission range.
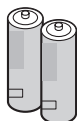
5

Accessories/Optional Accessory

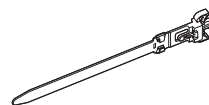☑ **Check you have all the items shown.**

Accessories

☐ Remote Control Transmitter
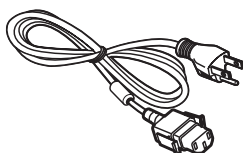 ● N2QAYB000217

☐ Batteries for the Remote Control Transmitter (2)
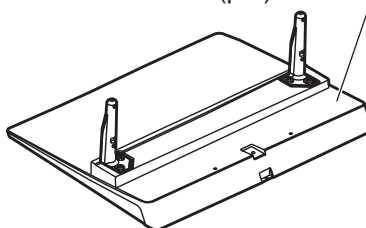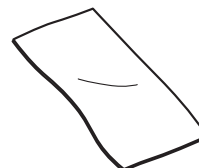 ● AA Battery

☐ Cable clamper

☐ AC cord

☐ Pedestal
  ● TBLX0032

How to assemble (p.7)

☐ Cleaning cloth

☐ Operating Instructions

☐ Quick Setup Guide (For viewing HD programming)
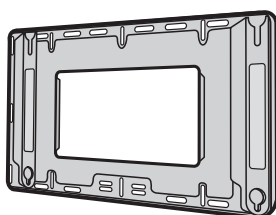
☐ Product Registration Card (U.S.A.)

☐ Customer Care Plan Card (U.S.A.)
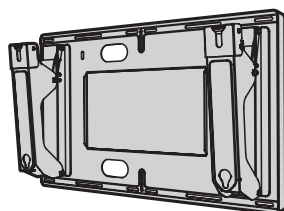
☐ RS232C terminal Specifications

Optional Accessory

Wall-hanging bracket
(vertical)
● TY-WK42PV4W

(angle)
● TY-WK42PR4W

Note

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

Installing the remote's batteries

1

Open

Hook

2

Close

Note the correct polarity (+ or -).
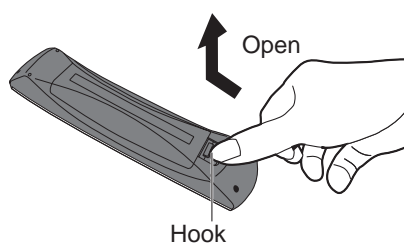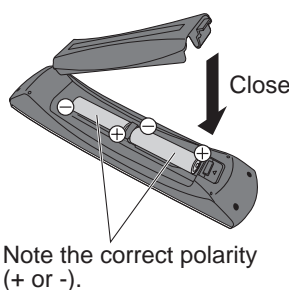
Caution

● 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. 47)
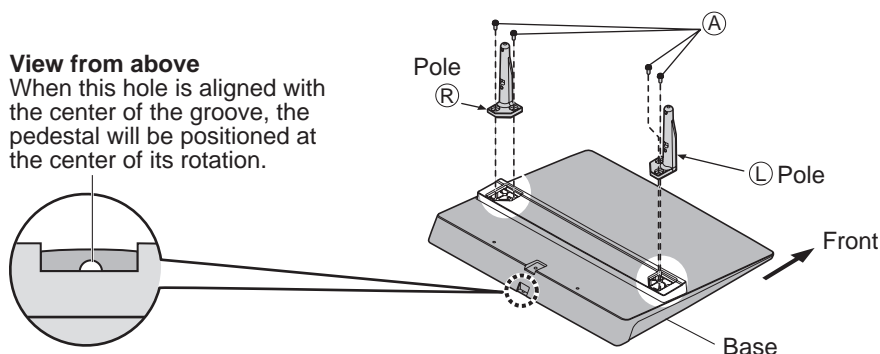
■Assembling the pedestal

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

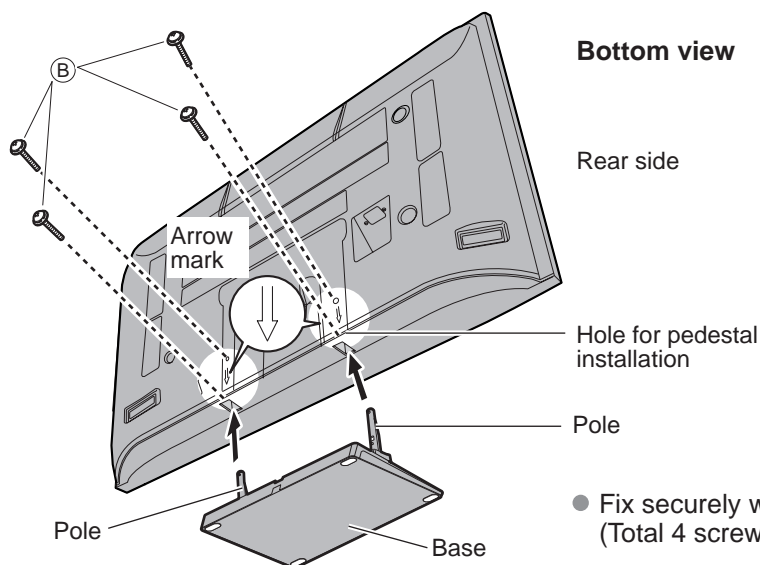**View from above**
When this hole is aligned with the center of the groove, the pedestal will be positioned at the center of its rotation.

Pole
Ⓡ

Ⓐ

Ⓛ Pole

Front

Base

■Set-up

● Carry out work on a horizontal and level surface.
● Align the pedestal with its center of rotation, referring to "Assembling the pedestal,"
● Tighten screws firmly.

Ⓑ

Bottom view

Rear side

Arrow mark

Hole for pedestal installation
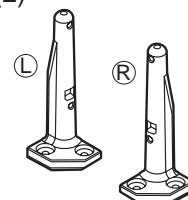
Pole

Pole

Base

● Fix securely with assembly screws Ⓑ. (Total 4 screws)

Accessories

Assembly screws
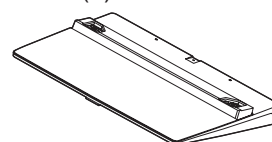(4 of each)

Ⓐ

M5 x 18 (Silver)

Ⓑ

M5 x 25 (Black)

Poles (2)

Ⓛ   Ⓡ

● Ⓛ or Ⓡ is printed at the bottom of the poles.

Base (1)

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 other TV and displays.
● Otherwise the TV may fall over and become damaged, and personal injury may result.
Do not use the pedestal if it becomes warped or damaged.
● If you use the pedestal when it is 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.

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Accessories/Optional Accessory (Continued)

Location

Adjust the plasma panel to your desired angle.

(View from above)
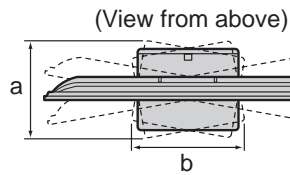
a: 17.9 " (453 mm)
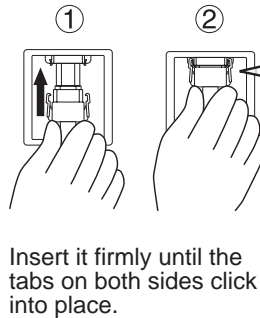b: 20.2 " (513 mm)
c: 10˚

Note
- Ensure that the pedestal does not hang over the edge of the base even if the TV swivels to the full rotation range.
- Do not place any objects or hands within the full rotation range.

AC cord connection

To attach

① ②

Insert it firmly until the tabs on both sides click into place.

To remove

① ② ①
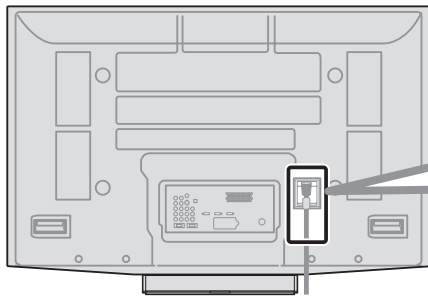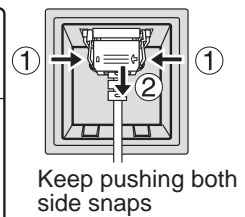
Keep pushing both side snaps

Cable Binding Instructions

- Do not bundle the RF cable and AC cord together (could cause distorted image).
- Fasten the cables with the Cable clamper as necessary.
- When using the options, follow the option's assembly manual to fix cables.

To attach

hole

Cable clamper

Insert

To remove

① ② Snaps
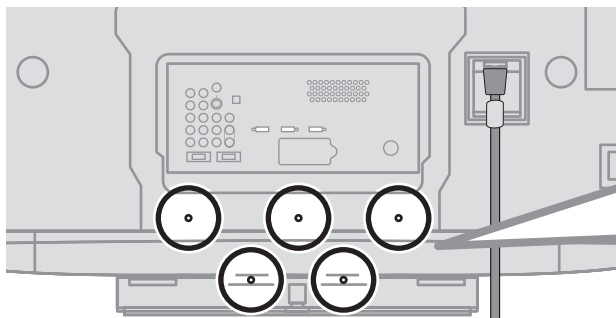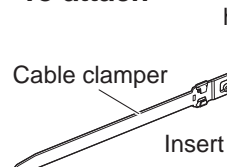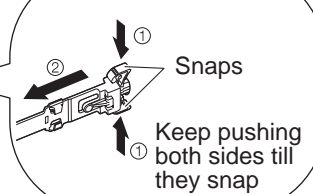
Keep pushing both sides till they snap

To bundle

① ②

hooks Set

To loosen

① ②

knob Keep pushing the knob

Reference of connection

Antenna terminal

①
②
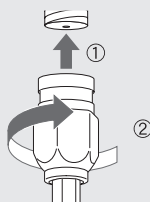
- Firmly tighten by hand.

Pin terminals

red blue green

green
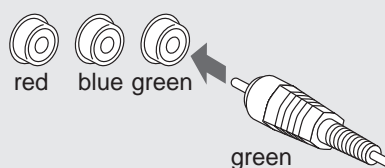
- Match colors of plugs and terminals.
- Insert firmly.

HDMI terminal

- Insert firmly.

8
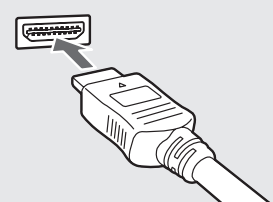
Basic Connection

Example 1   Connecting Antenna (To watch TV)

TV

VHF/UHF Antenna

Cable TV
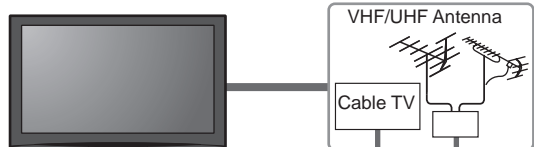
VHF/UHF Antenna
- NTSC (National Television System Committee):
  Conventional broadcasting
- ATSC (Advanced Television Systems Committee):
  Digital TV Standards include digital high-definition television (HDTV), standard-definition television (SDTV), data broadcasting, multi-channel surround-sound audio and interactive television.

To connect antenna terminal and Cable Box

VHF/UHF Antenna

Cable TV   or

Back of the TV

AC 120 V
60 Hz

AC Cord
(Connect after all the other connections.)

* See page 8
(AC cord connection)

VIErA CAST
LAN

ANTENNA
Cable In

(If no Cable Box)

or

ANT IN   ANT OUT
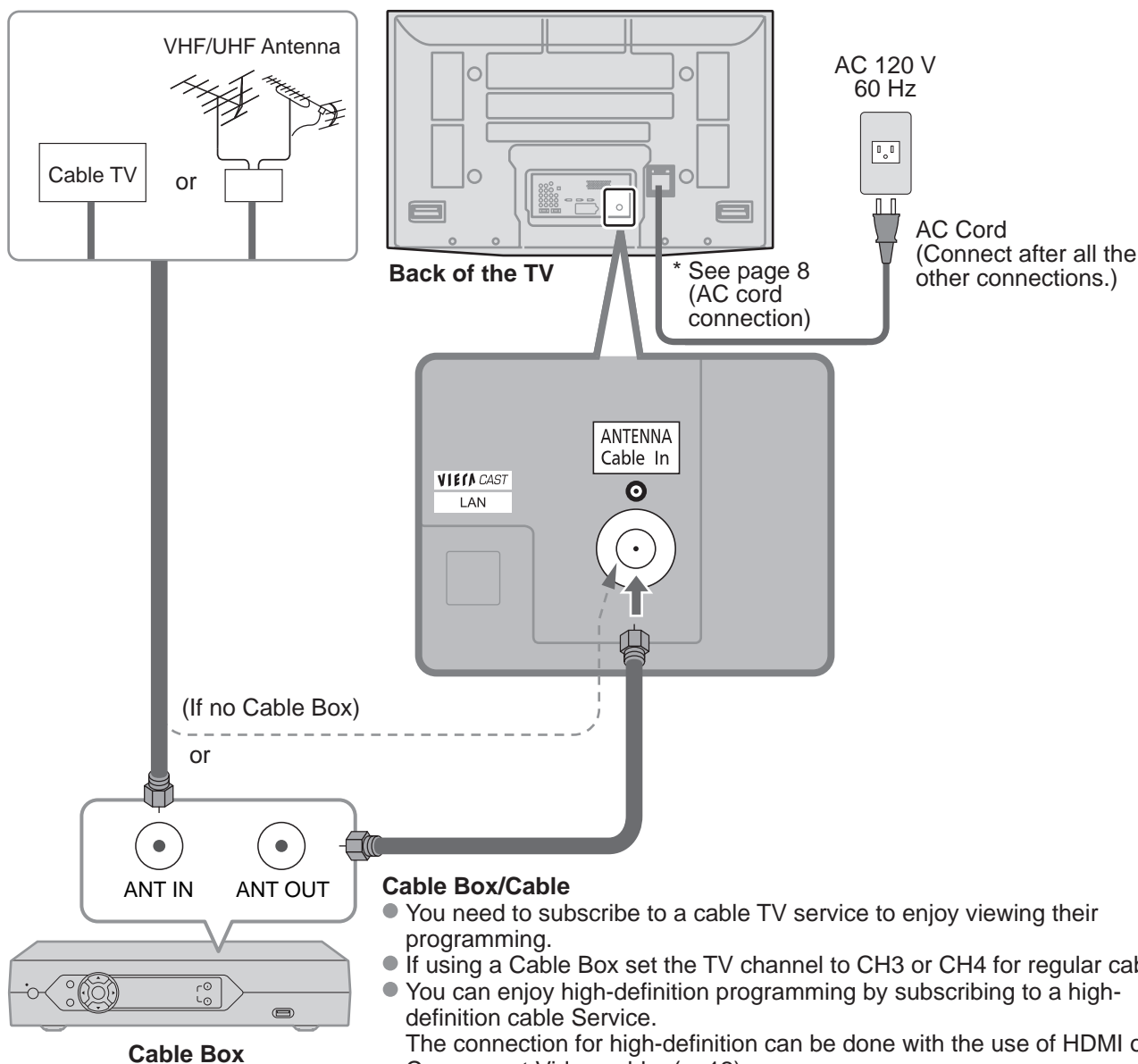
Cable Box

Cable Box/Cable
- You need to subscribe to a cable TV service to enjoy viewing their programming.
- If using a Cable Box set the TV channel to CH3 or CH4 for regular cable.
- You can enjoy high-definition programming by subscribing to a high-definition cable Service.
  The connection for high-definition can be done with the use of HDMI or Component Video cable. (p. 12)
- To view high-definition programming select the correct video input. (p. 22)

Quick Start Guide

- Basic Connection (Antenna + TV)
- Accessories/Optional Accessory

> **Note**
- Not all cables and external equipment shown in this book are supplied with the TV.
- For the details of the external equipment's connections, please refer to the operating manuals for the equipment.
- When disconnecting the power cord, be absolutely sure to disconnect the power cord plug from the wall outlet first.
- For additional assistance, visit us at: www.panasonic.com
  www.panasonic.ca

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Basic Connection (Continued)

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

TV

**AV Equipment
(e.g. DVD Recorder
or VCR)**

VHF/UHF Antenna
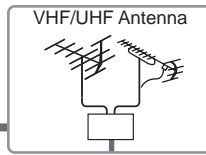
DVD Recorder
If this source has higher resolution through interlace
or progressive signal, connection can be done with
the use of Component Video or HDMI cable. (p. 12)
VCR
Connection can be done with the use of an RF
cable and Composite Video/S Video cable. (p. 12)

To connect antenna terminal and DVD recorder or VCR

VHF/UHF Antenna

AC 120 V
60 Hz

AC Cord

Back of the TV

* See page 8
(AC cord connection)

Ⓑ

AUDIO
IN

Y   Y

DIGITAL
AUDIO
OUT

S VIDEO

Ⓒ

PB

VIDEO

AUDIO

PR

HDMI   AV IN

HDMI1   HDMI2   HDMI3

Ⓐ

ANTENNA
Cable In

L

VIERA CAST
LAN

R

COMPONENT
1   IN   2

TO AUDIO AMP

PROG OUT

PC

RS232C

Ⓓ

ANT IN   ANT OUT

Connecting TV and AV equipment
Please refer to Ⓐ - Ⓓ on p. 12

**AV Equipment
(e.g. DVD Recorder or VCR)
(with TV tuner)**
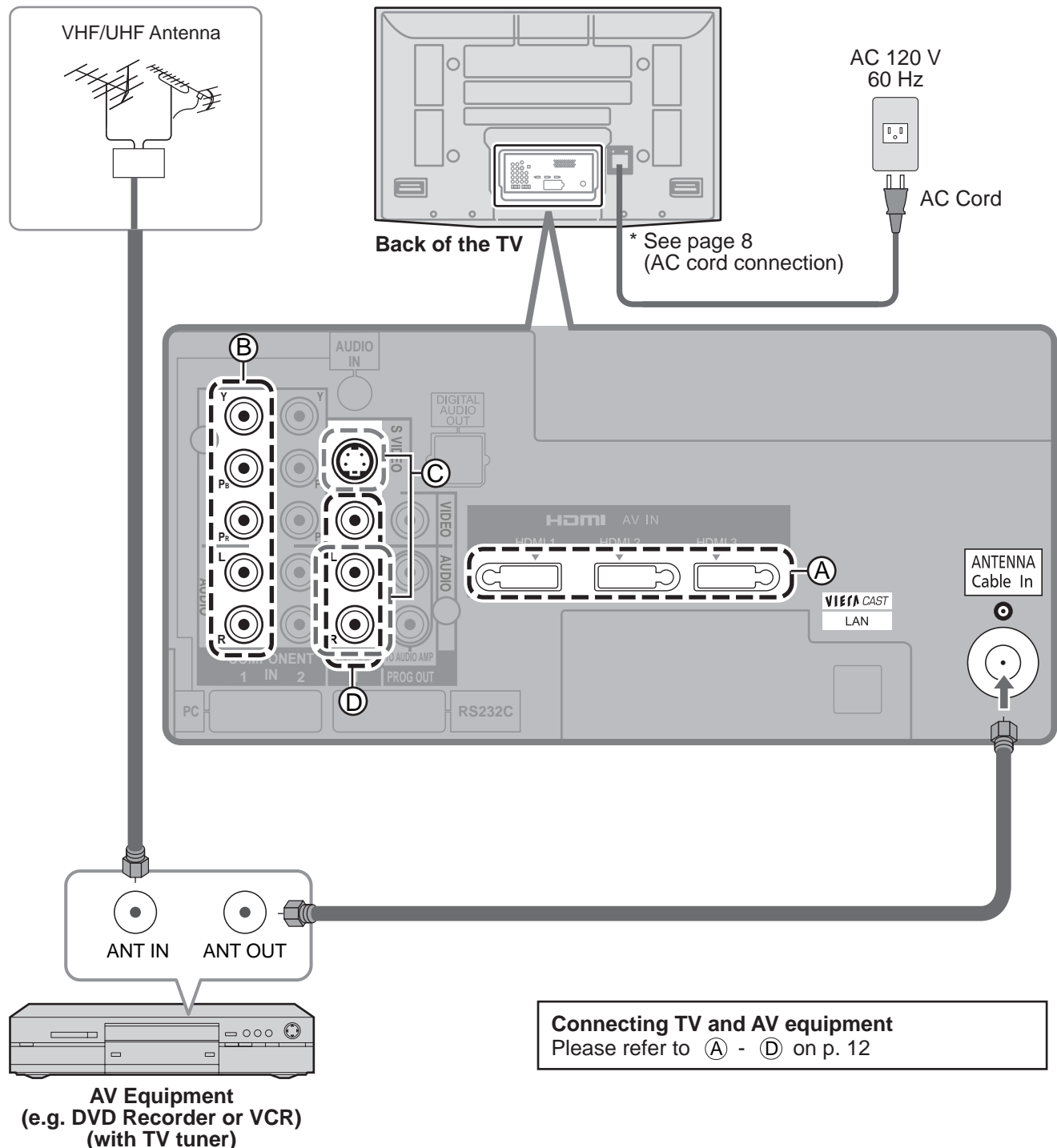
Example 3 — Connecting DVD recorder (VCR) and satellite receiver

TV

DVD Recorder or VCR

Satellite Receiver

VHF/UHF Antenna

You can enjoy high-definition programming by subscribing to high-definition satellite service. Connection can be done with the use of HDMI or Component Video cable. (p. 12)
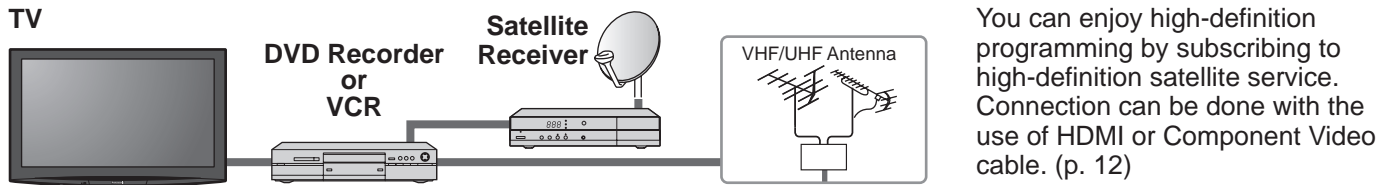
To connect antenna terminal and Satellite Receiver and DVD recorder or VCR

VHF/UHF Antenna

AC 120 V
60 Hz

Back of the TV

* See page 8
(AC cord connection)

AC Cord

Ⓑ

AUDIO IN

Y

DIGITAL AUDIO OUT

S VIDEO

Ⓒ

VIDEO

AUDIO

Ⓐ

ANTENNA
Cable In

VIErA CAST
LAN

Pᵦ

Pᵣ

L

R

COMPONENT
1   IN   2

AUDIO AMP
PROG OUT

Ⓓ

PC

RS232C

ANT IN

ANT IN

ANT OUT

Connecting TV and AV equipment
Please refer to Ⓐ - Ⓓ on p. 12.

Satellite Receiver

**DVD Recorder or VCR
(with TV tuner)**
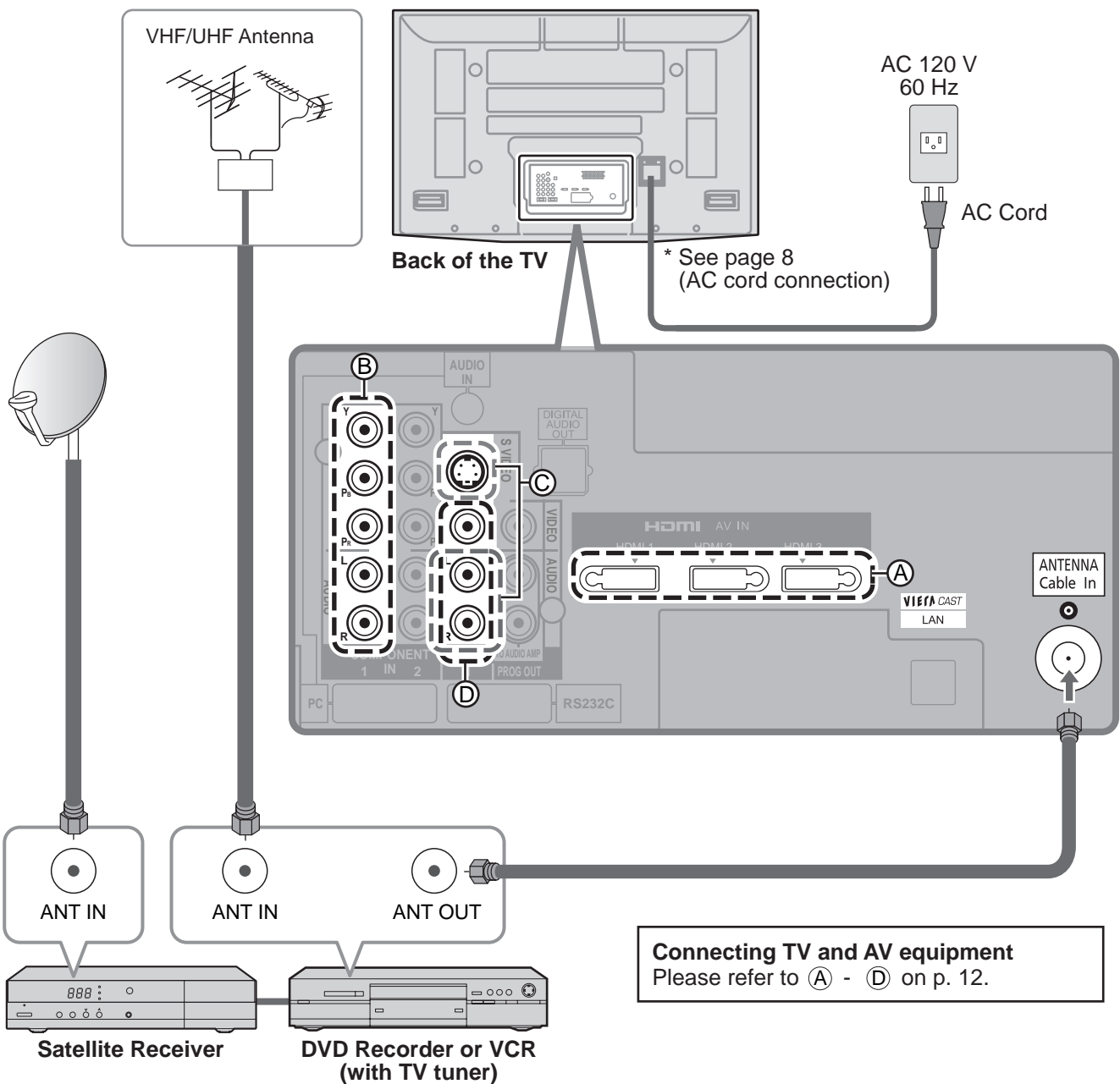
Note

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

11

Basic Connection (Continued)

AV cable connections

High-Definition

Ⓐ To use HDMI terminals

HDMI — AV IN
HDMI 1 HDMI 2 HDMI 3

HDMI AV OUT

AV Equipment

e.g. Blu-ray Disc player

- Connecting to HDMI terminals will enable you to enjoy high-definition digital images and high-quality sound.
- For "VIERA Link™ connections", please refer to p. 49.

Ⓑ To use COMPONENT terminals

Y
green
P_B
blue
P_R
red
L
white
R
red
AUDIO
COMPONENT IN 1 2

green — green — Y green
blue — blue — P_B blue
red — red — P_R red
COMPONENT VIDEO OUT

white — white — L white
red — red — R red
AUDIO OUT

AV Equipment

e.g. Blu-ray Disc player

- Recorders may also be connected to COMPOSITE or S VIDEO terminals. (see below)
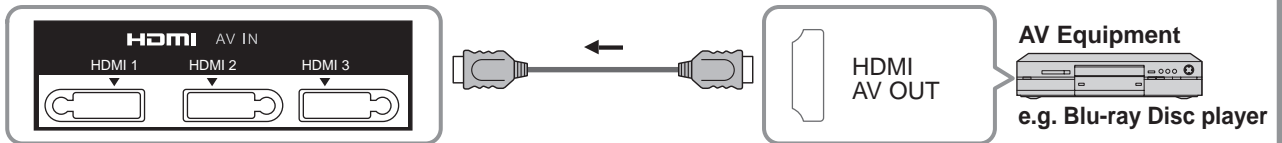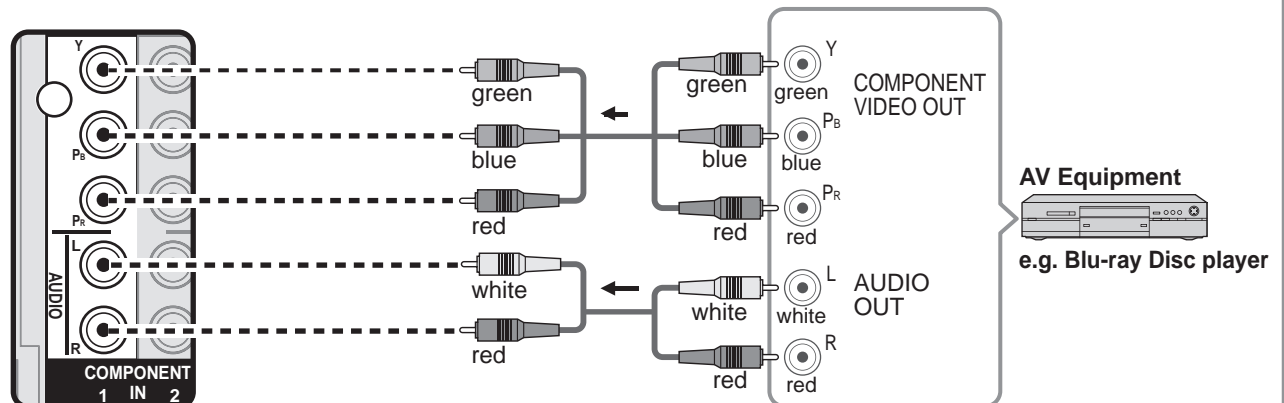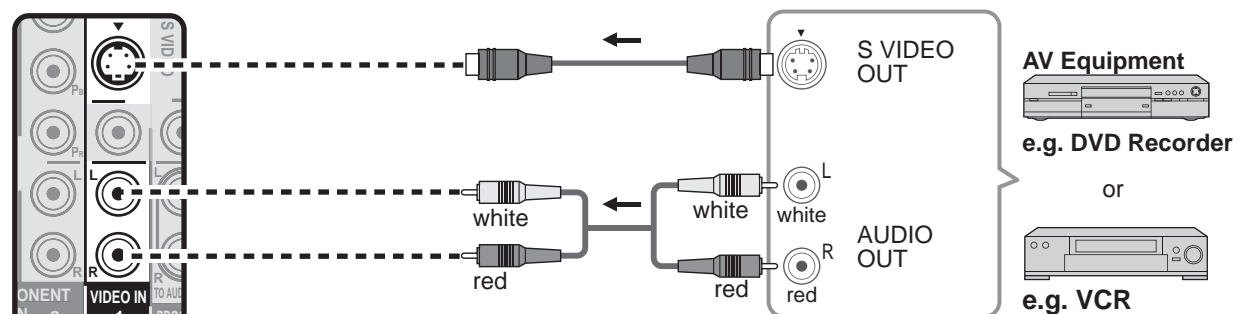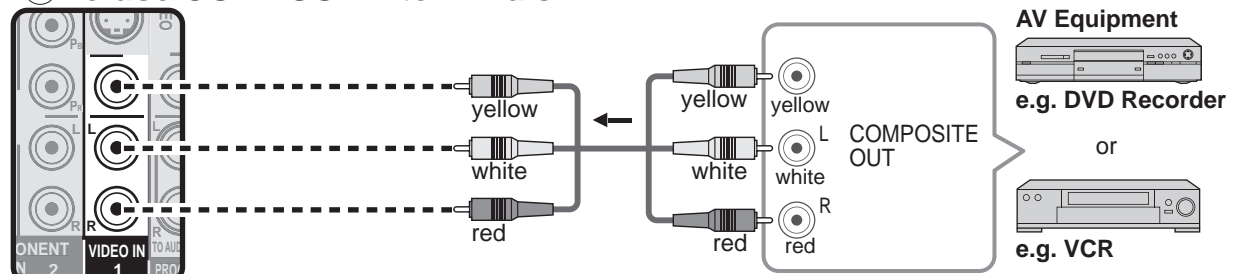
Standard-Definition

Ⓒ To use S VIDEO terminals

S VID
P_B
P_R
L
white
R
red
ONENT 2 VIDEO IN 1 TO AUD PRO

S VIDEO OUT

white — white — L white
red — red — R red
AUDIO OUT

AV Equipment

e.g. DVD Recorder

or

e.g. VCR

Ⓓ To use COMPOSITE terminals

P_B
P_R
L
R
ONENT 2 VIDEO IN 1 TO AUD PRO

yellow — yellow — yellow
white — white — L white
red — red — R red
COMPOSITE OUT

AV Equipment

e.g. DVD Recorder

or

e.g. VCR

- The S Video input will override the composite video signal when S Video cable is connected. Connect either S Video or Video cable.
- Connecting to S VIDEO terminals will enable you to enjoy greater picture quality than using Composite terminals.

Note

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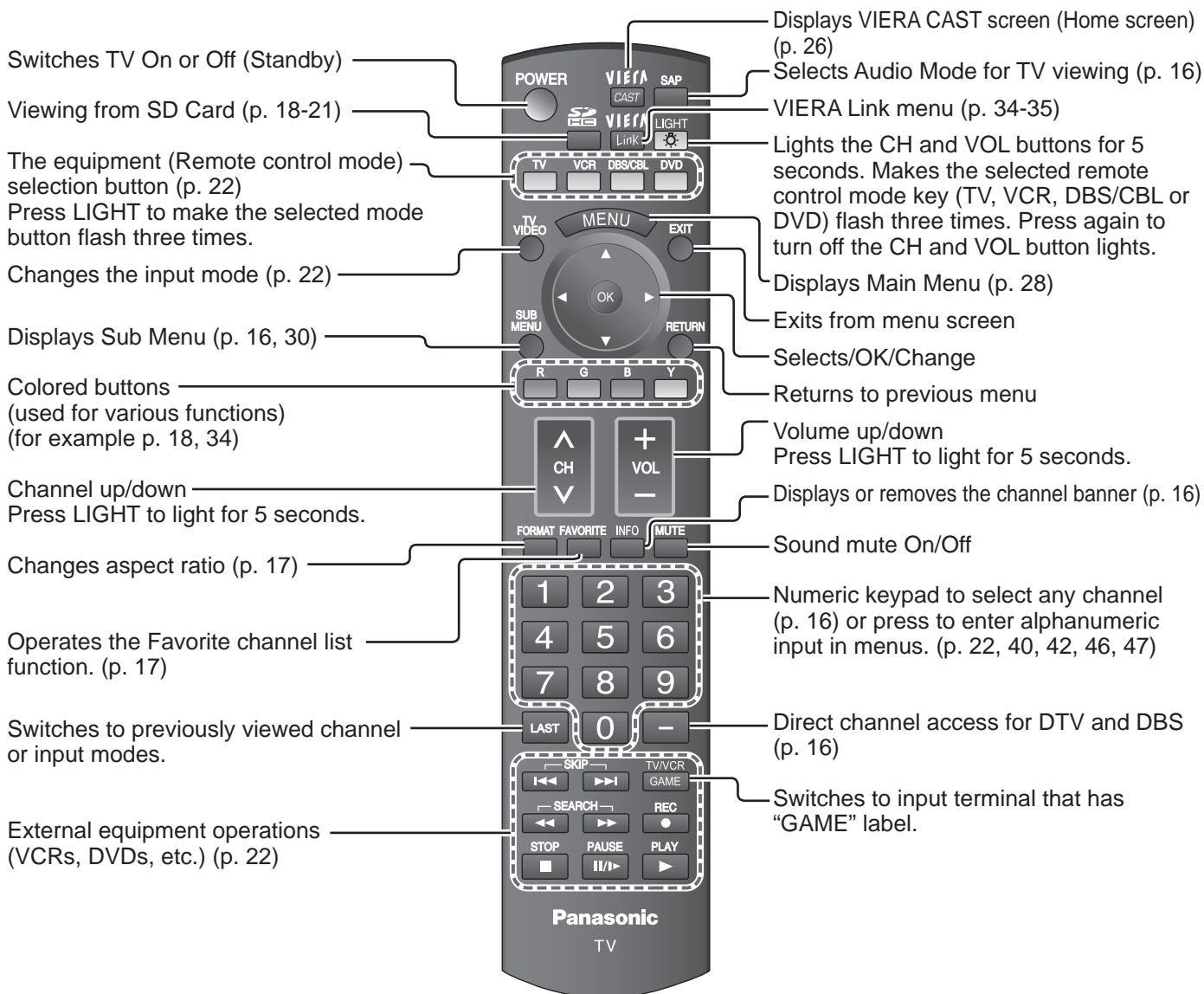
Identifying Controls

TV controls/indicators

Front of the TV

Displays the Main menu.

Chooses menu and submenu entries.

HDMI input 4 connector

Changes the input mode

Selects channels in sequence

SD card slot

Volume up/down

Video Input 2 connector

Swing up the door at "▲" .

POWER button

C.A.T.S. sensor
Plasma C.A.T.S. (Contrast Automatic Tracking System). (p. 28)

Remote control sensor
Within about 23 feet (7 meters) in front of the TV set.

Power indicator
(on: red, off: no light)

Note

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

Remote control

Switches TV On or Off (Standby)

Displays VIERA CAST screen (Home screen) (p. 26)

Selects Audio Mode for TV viewing (p. 16)

Viewing from SD Card (p. 18-21)

VIERA Link menu (p. 34-35)

Lights the CH and VOL buttons for 5 seconds. Makes the selected remote control mode key (TV, VCR, DBS/CBL or DVD) flash three times. Press again to turn off the CH and VOL button lights.

The equipment (Remote control mode) selection button (p. 22)
Press LIGHT to make the selected mode button flash three times.

Changes the input mode (p. 22)

Displays Main Menu (p. 28)

Exits from menu screen

Displays Sub Menu (p. 16, 30)

Selects/OK/Change

Colored buttons
(used for various functions)
(for example p. 18, 34)

Returns to previous menu

Volume up/down
Press LIGHT to light for 5 seconds.

Channel up/down
Press LIGHT to light for 5 seconds.

Displays or removes the channel banner (p. 16)

Changes aspect ratio (p. 17)

Sound mute On/Off

Numeric keypad to select any channel (p. 16) or press to enter alphanumeric input in menus. (p. 22, 40, 42, 46, 47)

Operates the Favorite channel list function. (p. 17)

Switches to previously viewed channel or input modes.

Direct channel access for DTV and DBS (p. 16)

Switches to input terminal that has "GAME" label.

External equipment operations (VCRs, DVDs, etc.) (p. 22)
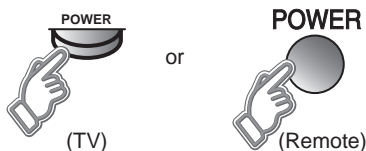
Panasonic
TV

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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".
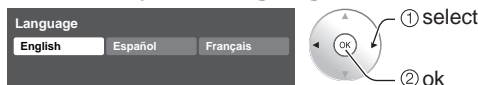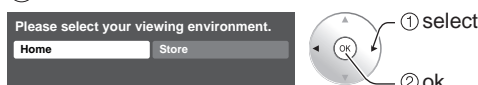
or
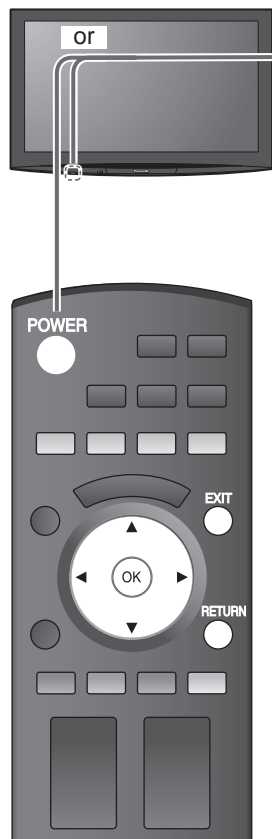
1 Turn the TV On with the POWER button

POWER

POWER

or

(TV)   (Remote)

* This setting will be skipped next time if you select "Home".

① Select your language

Language

English   Español   Français

① select
OK
② ok

② Be sure to select "Home"

Please select your viewing environment.
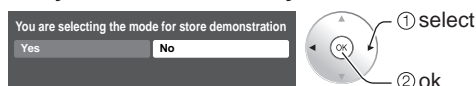
Home   Store

① select
OK
② ok

● Please confirm your selection (Home) before pressing OK button.

■ **If you select "Store" by mistake in ②, confirmation screen will be displayed.**

You are selecting the mode for store demonstration

Yes   No

① select
OK
② ok

● Select "No" and return to previous screen ②.
● If you select "Yes", Screen enters store demonstration mode. Displays "Please select your viewing environment" screen once again as shown below. Reselect "Home".
   • Unplug the TV and plug it again.
   • Press and hold down the front POWER button.

POWER

■ **Press to exit from a menu screen**
EXIT

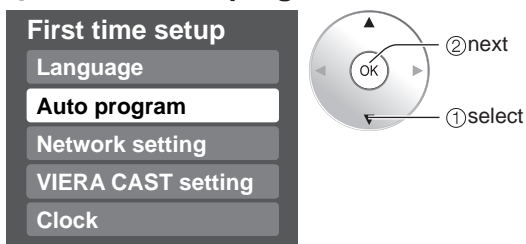■ **Press to return to the previous screen**
RETURN

Note

● To change setting (Language/ Auto program/ Network setting/ VIERA CAST setting/ Clock) later, go to Menu screen (p. 30)

2 Auto channel setup
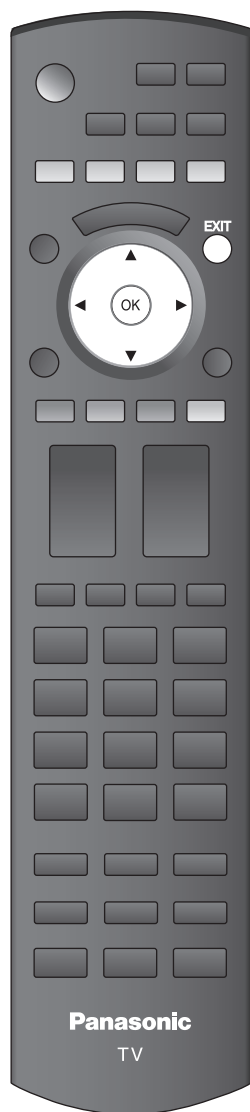
① Select "Auto program"

First time setup

Language

Auto program

Network setting

VIERA CAST setting

Clock

OK
② next
① select

② Select "ANT in"

Program channel

ANT in   ◄ Cable ►

Auto

OK
② next
① select

ANT in
Cable: Cable TV
Antenna: Antenna

③ Select "Auto"

Program channel

ANT in   Cable

Auto

OK
② next
① select

② **④ Select scanning mode (ALL channels/Analog only/Digital only)**

Auto program

| All channels |
| Analog only |
| Digital only |

②ok
①select

↓

Auto program

Progress	▓▓	8%
Number of analog channels	10
Number of digital channels	0

Press RETURN to quit.
● RETURN

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

rogram		
Apply	Cancel
aption	Favorite	Add
.	...	Yes
.	...	Yes
.	...	Yes

①select "Apply"
②ok

● If OK is not pressed after selecting "Apply", the channels will not be saved.
The channel will be saved when no operation is performed for 60 seconds and
the "Manual program" menu will also exit automatically.
● If you perform scanning more than twice, previously saved channels are erased.

③ **Network setting/VIERA CAST setting**

First time setup

| Language |
| Auto program |
| Network setting |
| VIERA CAST setting |
| Clock |

①select
②ok
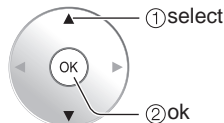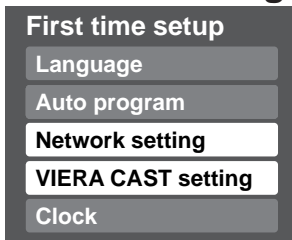
Network setting (p. 36-37)
VIERA CAST setting (p. 38-39)

④ **Adjust the clock**

First time setup

| Language |
| Auto program |
| Network setting |
| VIERA CAST setting |
| Clock |

②next
①select

① Manual setting

Clock

Mode	◄ Manual ►
Year	2008
Month	1
Day	7
Hour	10 AM
Minute	10

②set
①select item

② Auto setting

Clock 2008/ 6/11 8:07AM

| Mode | ◄ Auto ► |
| ⋮ |
| Timezone | Est |
| DST | On |
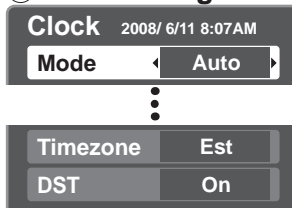
Mode

Manual: Adjust the clock manually
(Year/Month/Day/Hour/Minute)
Auto: The clock is adjusted
automatically via Internet
service.
Only available when the TV
is on a network.
➡ Set "Network setting" and
"VIERA CAST setting" first.
(Time zone/DST)

Year Select the year

Month Select the month

Day Select the day

Hour Adjust the hour

Minute Adjust the minute

Time zone

Select your time zone.
**(EST/CST/MST/PST/AKST/
HST/NST/AST)**

DST Set DST (Daylight Saving
Time) setting. **(On/Off)**

On: Advances the clock one
hour from the time is set
according to the time zone.

■**Press to exit from
a menu screen**
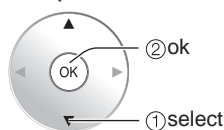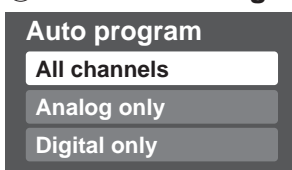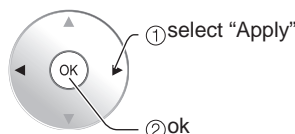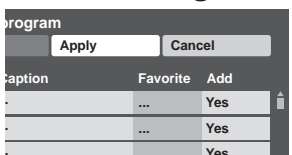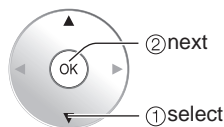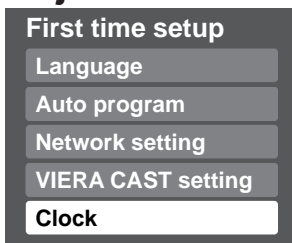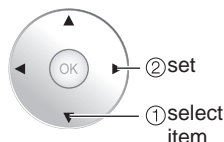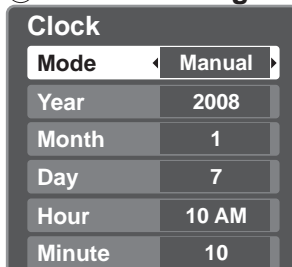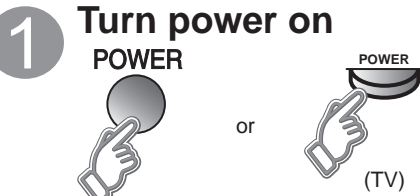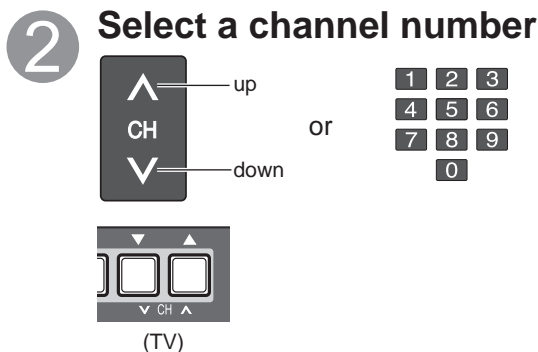EXIT

Note

● About broadcasting
systems

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

Panasonic
TV

15

Watching TV

Connect the TV to a cable box/cable, set-top-box, satellite box, or antenna cable (p. 9-12)

To watch TV and other functions

1 Turn power on
POWER

or

POWER

(TV)

Note
- If the mode is not TV, press TV/VIDEO and select TV. (p. 22)

2 Select a channel number

∧ CH ∨ — up / down

or

1	2	3
4	5	6
7	8	9
	0	

▼ ▲
∨ CH ∧
(TV)

■ **To directly input the digital channel number**

When tuning to a digital channel, press the button to enter the minor number in a compound channel number.

example: CH15-1: 1 5 — 1

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

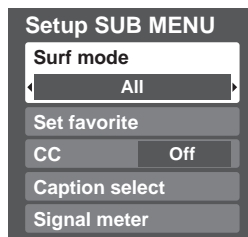|	
Listen with SAP (Secondary Audio Program)	■ **Select Audio Mode for watching TV** **SAP** ● **Digital mode** Press SAP to select the next audio track (if available) when receiving a digital channel. Audio track 1 of 2 (English) ● **Analog mode** Press SAP to select the desired audio mode. • Each press of SAP will change the audio mode. (Stereo/SAP/Mono)
Display the SUB MENU	■ **Press SUB MENU to show sub menu screen.** (p. 30) This menu consists of shortcuts to convenient functions. **SUB MENU** **Setup SUB MENU** Surf mode — All Set favorite CC — Off Caption select Signal meter
Information Recall	■ **Displays or removes the channel banner.** INFO Channel — Clock 15-2 THE NEWS — 12:30 PM ABC-HD — CC SAP TV-G 1080i Standard 4:3 — ⏱ 30 Station identifier — SAP indication — Signal resolution — Picture mode — Sleep timer remaining time Closed caption — Rating Level — Aspect ratio
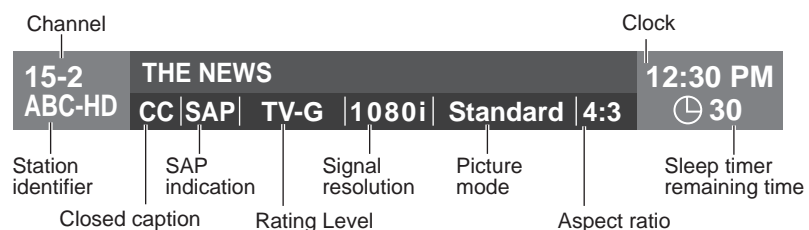
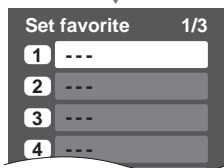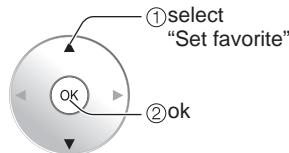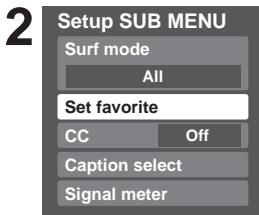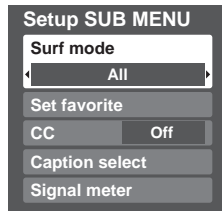|	
Change aspect ratio	■**Press FORMAT to cycle through the aspect modes.** (p. 54) FORMAT 4 4 : 3 3 • 480i, 480p: FULL/JUST/4:3/ZOOM • 1080p, 1080i, 720p: FULL/H-FILL/JUST/4:3/ZOOM
Call up a favorite channel	FAVORITE ■**FAVORITE** Channel numbers registered in Favorite are displayed on the favorite tune screen. Select the desired broadcast station with the cursor or use number buttons. (see below)
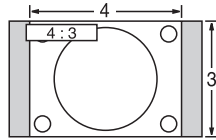
Note

● Reselect "Cable" or "Antenna" in "ANT in" of "Program channel" to switch the signal reception between cable TV and antenna. (p. 15, 43)
● The channel number and volume level remain the same even after the TV is turned off.

Favorite Feature

■Set Favorite Feature

1 Display the SUB MENU.

SUB MENU

Setup SUB MENU
Surf mode	
	All
Set favorite	
CC	Off
Caption select	
Signal meter	

2
Setup SUB MENU
Surf mode	
	All
Set favorite	
CC	Off
Caption select	
Signal meter	

① select "Set favorite"

OK ② ok

Set favorite 1/3
1	- - -
2	- - -
3	- - -
4	- - -

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

3 ① select

OK ② ok
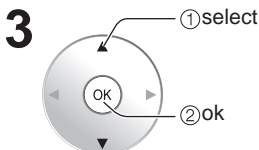
Press ▲▼ to highlight a position on the list.
Then, press OK to save the displayed channel in that position.

Set favorite 1/3
1	26-1 - - -
2	
3	
4	

• 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.   Pressing ► changes the page forward.

■Use Favorite Feature

1 FAVORITE

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

Favorite channels 1/3
1	26-1 - - -
2	
3	
4	

2 select

OK
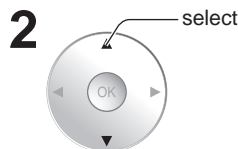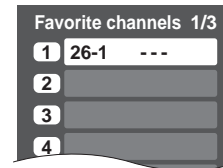
Press ▲▼ or a Numbered key (1-9 and 0) to highlight a channel on the list.
• Selecting a channel number from the list with the number button will display the channel directly.

3 ok

OK
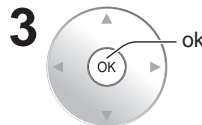
Press OK to display the highlighted channel.

Viewing from SD Card

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

Movie player

SD Card

- Insert the card
- Remove the card
  ➡ Press in lightly on SD Card, then release.

Label surface

Push until a click is heard

- Compliant card type (maximum capacity): SDHC Card (16 GB), SD Card (2 GB), miniSD Card (1 GB) (requiring miniSD Card adapter)
- For cautions and details on SD Cards (p. 55)
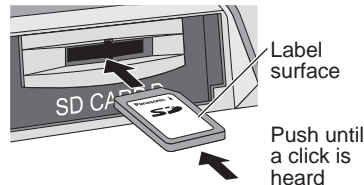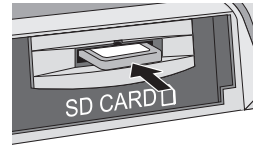- Blue LED lights while SD Card is inserted if set "SD card LED" to "On" in Setup Menu (p. 30).

1 Insert the SD card and select "Play SD card now"
- "SD card setting" will be displayed automatically each time an SD card is inserted for the first time.

SD card setting
Play SD card automatically
◄ **Movie** ►
Play SD card now

Play SD card automatically: Set it to playback the data when SD card is inserted.
Movie: The video data plays automatically from next time. ➡ Go to P. 19 ❷
Photo: The photo data plays automatically from next time. ➡ Go to P. 20 ❷
Select later: "SD card" menu will be displayed from next time. ➡ Go to ②
Off: The data can be played manually.

① Press the SD key or select "SD card" on the Menu.
- You can skip this step when "Play SD card now" is selected or other than "off" (Movie/Photo/Select later) is set in "Play SD card automatically" setting.

or

MENU

Menu
VIERA Link
🔒 Lock
📇 SD card

② Select the item.

SD card
Photo viewer
Movie player

①select
②ok
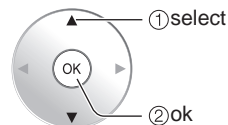
Photo viewer ➡ Go to P. 20 ❷

■ **Press to return to TV**

■ **Press to exit from a menu screen**
EXIT

■ **Press to return to the previous screen**
RETURN

Note
- No video signals can be output from PROG OUT terminal when playing the movie.

This product is licensed under the AVC patent portfolio license for the personal and non-commercial use of a consumer to (i) encode video in compliance with the AVC Standard ("AVC Video") and/or (ii) decode AVC Video that was encoded by a consumer engaged in a personal and non-commercial activity and/or was obtained from a video provider licensed to provide AVC Video. No license is granted or shall be implied for any other use. Additional information may be obtained from MPEG LA, LLC. See http://www.mpegla.com.

2 Select the movie to be listed

Recording format (MPEG2/AVCHD)

Movie Viewer

AVCHD

No.	Date and Time		Duration
1	12/20/2007	10:26	00h16m35s
2	01/17/2008	14:25	01h45m35s
3	03/07/2008	07:25	00h05m35s
4	04/24/2008	09:25	01h10m35s
5	06/10/2008	11:34	00h05m27s
6	08/19/2008	10:25	00h35m35s
7	10/02/2008	12:25	00h12m35s
8	10/13/2008	14:25	00h53m35s
9	12/01/2008	16:25	01h24m35s

Select — OK
●RETURN

① select

② ok

Movie information

Date and Time:
Date and time of recording are displayed.

Duration:
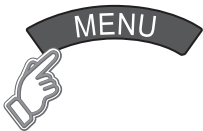Recording time is displayed.

3 View

Navigation area

Date & Time 06/10/2007 11:34 AVCHD PLAY ►
Duration 00h05m27s 00:00.14

Pause
II/►
► **Play**
◄◄ ►► **Search**
● **RETURN**
Stop

R **Skip** G **Skip** B Y
I◄◄ ►►I

Pause
II/►
►Play
►Search
RETURN
Stop
R Skip G Skip B Y
I◄◄ ►►I

Movie Banner

Date and Time 06/10/2007	11:34	AVCHD	PLAY ►
Duration 00h05m27s			00:00.14

Elapsed time of current movie

● To display Navigation area
➡ R G B Y / (OK)

● To hide Navigation area ➡ RETURN

● To previous movie ➡ R
● To next movie ➡ G

● To display/hide banner ➡ INFO

Other settings

■ **To adjust picture and audio/ To use VIERA Link function**
In ② or ③

1 Display "Movie menu"

MENU

2 Select the item

Movie menu
VIERA Link
Picture
Audio

① select
② ok

3 Adjust or set

Picture 1/2
Reset
Picture mode ◄ **Vivid** ►
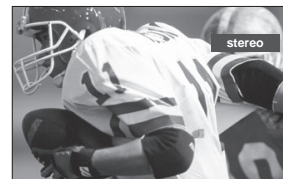**Picture** 0
Brightness 0

example: Picture menu
Picture menu/Audio menu
VIERA Link (p. 28)

■ **To confirm or change the current audio status**
In ② or ③

1 Display "current audio status"

SAP

2 Each press of SAP will change the audio mode.
(If the movie has multiple audio signals.)

stereo

(Current audio status)

● It may take several seconds to change the sound.
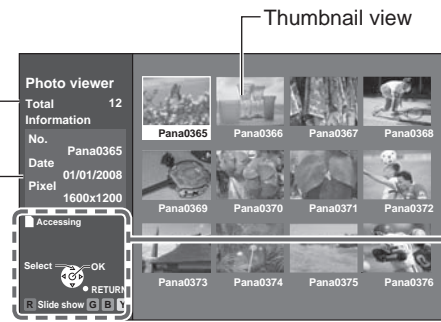
Viewing from SD Card (Continued)
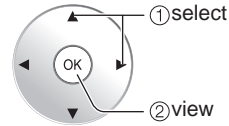
1 Follow direction ① in Movie player (P. 18)
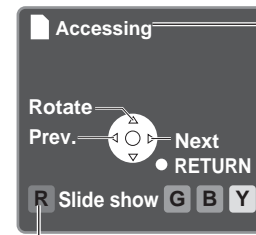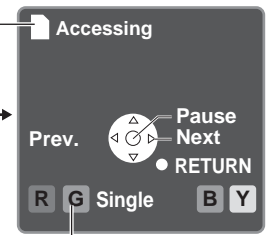
2 Select the data to be viewed

Thumbnail view

Photo viewer
Total　　　12
Information
No.
　　Pana0365
Date
　　01/01/2008
Pixel
　　1600x1200

Accessing

Select ◄○► OK
● RETURN
R Slide show G B Y

Pana0365　Pana0366　Pana0367　Pana0368
Pana0369　Pana0370　Pana0371　Pana0372
Pana0373　Pana0374　Pana0375　Pana0376

①select
②view

Selected picture information is displayed.
No.: Image number or file name is displayed.
Date: Date of recording is displayed.
Pixel: Display resolution is displayed.

Total number of images

Navigation area

Present status (While reading the data)

Accessing

Rotate
Prev. ◄○► Next
● RETURN
R Slide show G B Y

Accessing

Prev. ◄○► Pause Next
● RETURN
R G Single B Y

R
(to Slide show)

G
(to Single photo display)

Note
● Depending on the JPEG format, "Information" contents may not be displayed correctly. Refer to p. 55 (Data format for SD card browsing) for details.

3 View

Rotate ◄○► Next
● RETURN
R Slide show G B Y

Navigation area

Displays one at a time

Rotate 90 degrees (counter-clockwise)

To next photo

Rotate 90 degrees (clockwise)
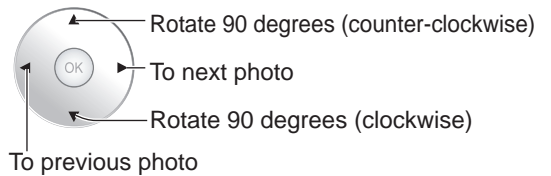
To previous photo

● To display/hide Navigation area ➡ INFO

■ **Press to return to TV**

■ **Press to exit from a menu screen**
EXIT

■ **Press to return to the previous screen**
RETURN

MENU
EXIT
OK
RETURN
R　G
INFO

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

■To set up the slide show mode
In ❷ or ❸

1 Display "Photo menu"

MENU

2 Select "Setup slide show"

Photo menu
Picture
Setup slide show

①select "Setup slide show"

②ok

3 Select the item and adjust

Setup slide show	
Disp. time ◄	5 ►
Repeat	On
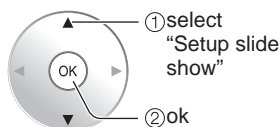
①Select

②Adjust
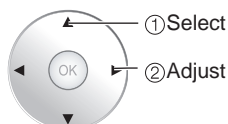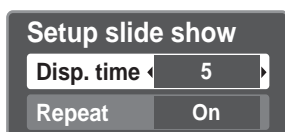
Disp. time	You can set how many seconds each image is displayed in Slide show mode. (1-10/15/20/30/45/60/120 sec)
Repeat	Turn the slide show Repeat function On or Off.

Note

● For large image sizes, the display time will be longer than the number of seconds set.
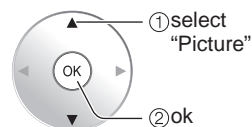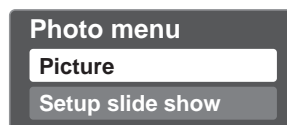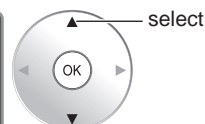● To stop in mid-cycle ➡ Press RETURN

■To adjust picture
In ❷ or ❸

1 Display "Photo menu"

MENU

2 Select "picture"

Photo menu
Picture
Setup slide show

①select "Picture"

②ok

3 Select the item

Picture	1/2
Reset	
Picture mode ◄	Vivid ►
Picture	0
Brightness	0

Picture menu (p. 28)

select

4 Adjust or select

Picture	1/2
Reset	
Picture mode ◄	Vivid ►
Picture	0
Brightness	0
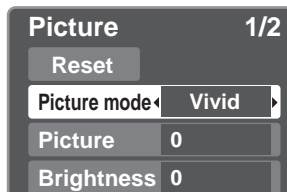
Adjust or Select
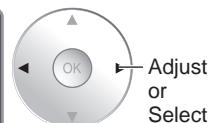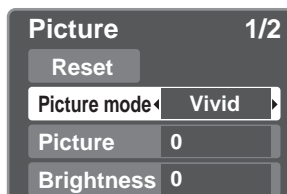
Viewing from a GalleryPlayer SD Card

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.

GalleryPlayer images are available for a fee from GalleryPlayer, Inc.

Viewing

● Viewing from SD Card

21

Watching Videos and DVDs

If you have applicable 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. 47)

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

TV
VIDEO

2 **Select the input mode**

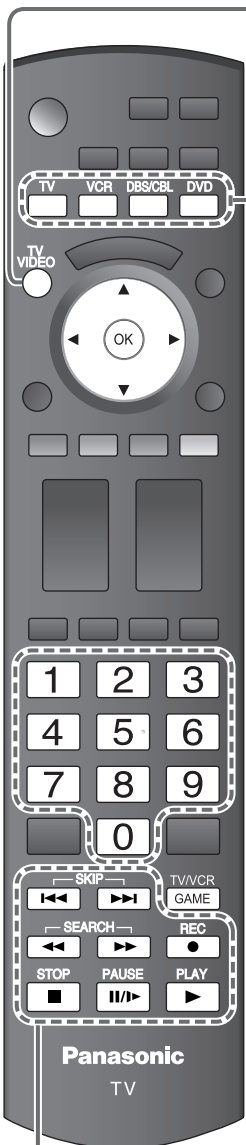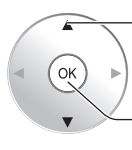| Input select		
1	TV	
2	Component 1	AUX
3	Component 2	
4	HDMI 1	GAME
5	HDMI 2	
6	HDMI 3	
7	HDMI 4	GAME
8	Video 1	
9	Video 2	GAME
0	PC	

(example)

HDMI 1 —— Terminal
GAME —— Label

(example)

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

or

①select
②enter

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 are displayed.
To label each of the inputs, please refer to p. 45.
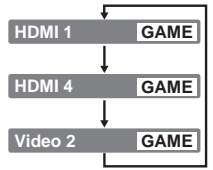
Note

● The input label will be displayed on "Input select" screen if Input label is set on p. 45.
● For front input terminals (HDMI 4/Video 2), "GAME" input label is set as default. (Picture mode is set to "Game", refer to p. 56.)
● For more details for picture mode setting, refer to p.56. For Input label, refer to p. 45.

■ **Press Game to switch to the game screen**
Switches to Input terminal that has "GAME" label.

TV/VCR
GAME

● Cycle through the input terminals if there are multiple Input terminals that have "GAME" label. (p. 45)
● If there is no Input terminal with "GAME" label, you cannot switch the input terminal to any other input terminal than the one currently selected.

HDMI 1	GAME
HDMI 4	GAME
Video 2	GAME

3 **Select the remote control mode**
Press the key to select

4 **Operate the connected equipment, pointing TV's remote control at the equipment.**
(example)

	VCR MODE	DVD MODE		VCR MODE	DVD MODE
REC ●	VCR Record	Record	STOP ■	Stop	Stop
SKIP ⏮⏭	—	Skip Reverse/ Forward	PAUSE ❚❚/I▶	Pause	Pause
SEARCH ◀◀ ▶▶	Rewind/Fast Forward	Reverse/Forward	PLAY ▶	Play	Play

(For other operations, see p. 50)

■ **To return to TV**

TV
VIDEO ➡ 1

Note

● For details, see the manual of the connected equipment.

VIERA Link™ Setting

If you connect equipment that has "HDAVI Control" function to a TV with HDMI cable, you can use more convenient functions. Please refer to p. 32-35. Before using these functions, you need to set "VIERA Link" setting to "On" as shown below.

1 **Display menu**

MENU

2 **Select "Setup"**

Menu
VIERA Link
🔒 Lock
▤ SD card
㏄ CC
⚙ Setup

①select
②next

3 **Select "VIERA Link setting"**

Setup	2/2
VIERA Link setting	
Network setting	

①select
②next

4 **Select "VIERA Link"**

VIERA Link setting	
VIERA Link ◄	On ►
Power off link	Set
Power on link	Set
Default speakers	TV

select

Panasonic
TV

■**Press to exit from a menu screen**
EXIT

5 **Select "On"**
(default is On)

change

Now you can set each "VIERA Link" function according to your preference (p. 32-35)

■**Press to return to the previous screen**
RETURN

Note
- If no HDMI equipment is connected or standard HDMI equipment (non- "VIERA Link") is used, set it to "Off".
- For the details on the external equipment's connections, please refer to the operating manuals for the equipment.

Viewing

● Watching Videos and DVDs

23

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. 48)

① Display the Input select menu

TV
VIDEO

Input select	
1	**TV**
2	**Component 1** AUX
3	**Component 2**
4	**HDMI 1** GAME
5	**HDMI 2**
6	**HDMI 3**
7	**HDMI 4** GAME
8	**Video 1**
9	**Video 2** GAME
0	**PC**

② Select "PC"

0

PC

● Corresponding signals
  (p. 57)

Displays
PC screen

■ **To return to TV** TV VIDEO ➡ 1 / ∧ CH ∨

24

■**PC menu setting** (change as desired)
● Making settings ➡ "How to Use Menu Functions" ❶ to ❹ (p. 28)

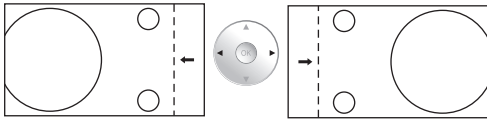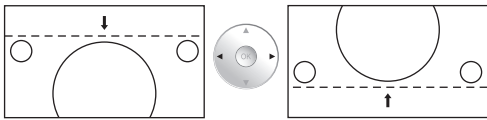| Menu	Item		Adjustments/Configurations (options)
Picture	**PC adjust**	Reset	Resets PC adjust
		Sync	● H & V: The H and V sync signals are input from the HD/VD connector. (p. 57) ● On G: Uses a synchronized signal on the Video G signal, which is input from the G connector. (p. 57)
		Dot clock	Alleviates the problem if a picture appears to be vertically-striped, flickers partially or is blurred.
		H-position	Adjusts the horizontal position.
		V-position	Adjusts the vertical position.
		Clock phase	Alleviates the problem if the whole picture appears to flicker or is blurred. First adjust the Dot Clock to get the best possible picture, then adjust the Clock Phase so that a clear picture appears. (**Note**) It may not be possible to display a clear picture due to poor input signals.
		Input resolution	Switches to wide display. ● Input signal switched from VGA to WVGA ● Input signal switched from XGA to WXGA

		H-frequency V-frequency	Displays the H (Horizontal)/V (Vertical) frequencies.
			● Display range
			  Horizontal: 15 - 110 kHz
			  Vertical: 48 - 120 Hz

● Audio menu (p. 28)
● For PC input, only audio signals can be output from PROG OUT terminals.

Viewing

● Displaying PC Screen on TV

VIERA CAST™

You can access information services (TV content) from the Home screen via the Internet.
● You need broadband environment to use this service.

Preparations
● VIERA CAST connections (p. 27)
● Network setting (p. 36)
● VIERA CAST setting (p. 38)

1 **Display the Home screen**

■**Press to exit from a menu screen**
EXIT

2 **Select the item and press OK**

Settings	H: --° L: 40° **44°**	Viera Concierge **Panasonic**
COMING SOON	Bloomberg TELEVISION **Stocks**	COMING SOON

①select
②view
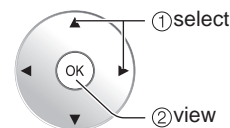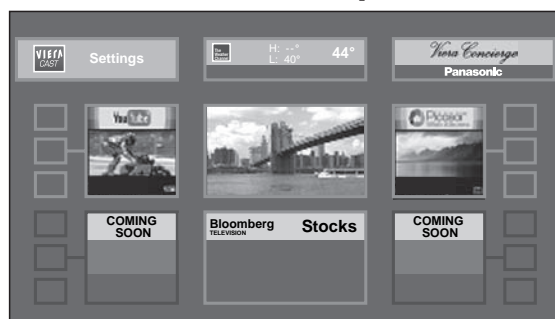
■**Press to return to the Home screen**

This screen is an example. It varies according to the usage conditions.
* Depending on the usage conditions, it may take a while to read all the data.

Other settings

■**To adjust picture and audio**

1 Display "Menu" and select "picture" or "Audio"

MENU

Menu
VIERA Link
☐ Picture
♪ Audio

①select
②ok

2 Select the item and adjust

Picture	1/2
Reset	
Picture mode ◄	Vivid ►
Picture	0
Brightness	0
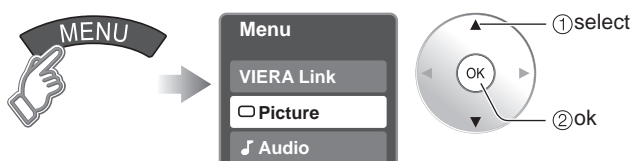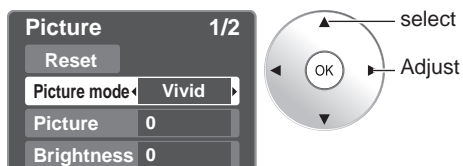
select
Adjust

example: Picture menu
Picture menu/Audio menu
(p. 28)

■**To use VIERA Link function**

1 Display "Menu" and select "VIERA Link"

MENU

Menu
VIERA Link
☐ Picture
♪ Audio

①select
②ok

2 Select the item and set

VIERA Link
Record now
Stop recording
VIERA Link control
◄ Recorder ►

①select
②set

VIERA Link (p. 28, 34)

1 **Contact your Broadband service provider**
If you don't have broadband service, please order the high-speed Internet service no less than 1.5 Mbps by your local broadband company. If you already have Internet high speed service, make sure that the connection speed is at least 1.5Mbps. Please note that dial-up Internet service cannot be used for the IPTV.

2 **Select wired or wireless connection**
If the Cable/DSL modem is close to the TV and you have only one TV set, you might choose wired connection. If the Cable/DSL modem is far from the TV and/or you have more TV's in the house, you might want to use wireless network.

3 **Connecting to the internet**

Ⓐ **Basic connection**
If you are not using the network for connecting anything else but the TV, you could just connect the TV directly to the Cable/DSL Ethernet connection (see schematic below).

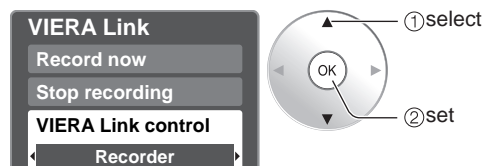Ⓑ **Advanced wired connection**
If you are using the network for connecting many PC's/Laptops and want to connect the TV, you should use a router to connect the TV to the internet (see schematic below).

Ⓒ **Advanced wireless connection**
If you are using the network for connecting many PC's/Laptops and want to connect the TV, you could also use a wireless router to connect the TV to the internet (see schematic below).
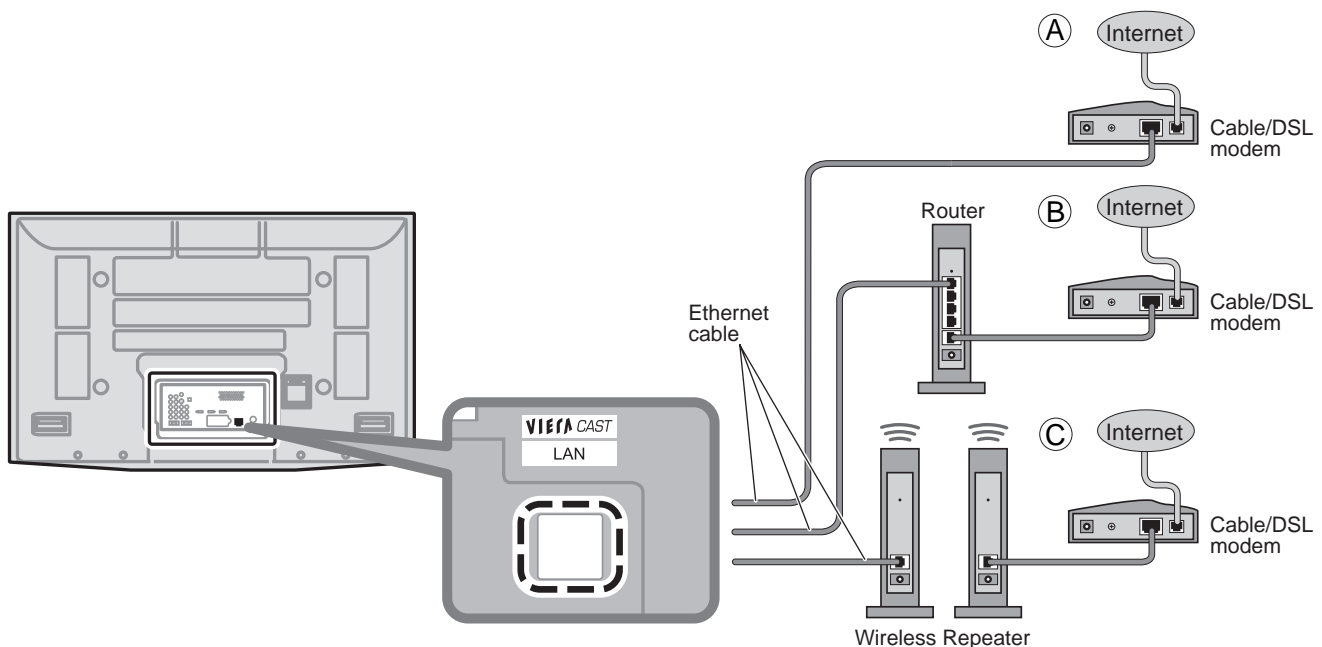
Viewing

● VIERA CAST™

27

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 best suited for you.

1 Display menu

MENU

● Displays the functions that can be set (varies depending on the input signal)

2 Select the menu
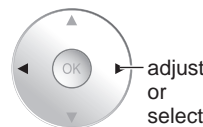
Menu

- VIERA Link
- ▢ Picture
- ♪ Audio
- ⏱ Timer
- 🔒 Lock
- ▤ SD card
- CC CC
- 🔧 Setup

①select
②next

3 Select the item

Picture	1/2
Reset	
Picture mode ◄	Vivid ►
Picture	0
Brightness	0
Color	0
Tint	0
Sharpness	0

(example: Picture menu)

select

4 Adjust or select

Picture	1/2
Reset	
Picture mode ◄	Vivid ►
Picture	0
Brightness	0
Color	0
Tint	0
Sharpness	0

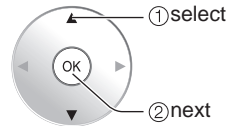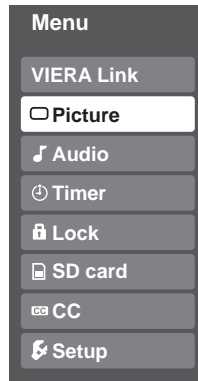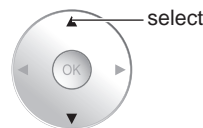(example: Picture menu)

adjust or select

■ **Press to exit from a menu screen**
EXIT

■ **Press to return to the previous screen**
RETURN

■ **Menu list**

Menu	Item	
VIERA Link	Record now Stop recording VIERA Link control Speaker output	
Picture	Reset	
	Picture mode	
	Picture, Brightness, Color, Tint, Sharpness	
	Color temp.	
	Color mgmt.	
	Digital cinema color	
	C.A.T.S.	
	Pro setting	
	Zoom adjust	
	PC adjust	
	Advanced picture — Video NR	
	Advanced picture — 3D Y/C filter	
	Advanced picture — Color matrix	
	Advanced picture — Block NR	
	Advanced picture — Mosquito NR	
	Advanced picture — Black level	
	Advanced picture — 3:2 pulldown	
	Advanced picture — 24p Direct in	
	Advanced picture — HD size	
Audio	Reset	
	Bass	
	Treble	
	Balance	
	Advanced audio — AI sound	
	Advanced audio — BBE VIVA 3D	
	Advanced audio — BBE	
	Advanced audio — Surround	
	Advanced audio — Audio leveler	
	Advanced audio — Speaker output	
	Advanced audio — HDMI 1 in HDMI 2 in HDMI 3 in HDMI 4 in	
Timer	Sleep, Timer 1-5	
Lock		

Adjustments/Configurations (alternatives)		
[Record now/Stop recording] Records programs on the recorder immediately with the TV's remote control (p. 34-35). **[VIERA Link control]** Selects equipment to access and operate. **(Recorder/Home theater/Player/Camcorder)** (p.34-35) **[Speaker output]** Selects an audio output. **(Home theater/TV)** (p. 34-35) ● VIERA Link menu is accessible directly by pressing the VIERA Link button on the remote control. ➡ VIErA Link (p. 34)		
Resets all picture adjustments to factory default settings except for "Advanced picture".		**Reset**
Basic picture mode **(Vivid/Standard/Studio ref/Game/Custom)** (p. 56)		**Picture mode**　Vivid
Adjusts color, brightness, etc. for each picture mode to suit your taste ● Display range 　**Picture/Brightness/Color/Sharpness:**　0 - 100 　**Tint:**　　　　　　　　　　　　　　-50 - +50	**Picture**　+20　**Tint**　0 **Brightness**　0　**Sharpness**　0 **Color**　0	
Selects a choice of Cool (blue), Normal, or Warm (red) color. **(Cool/Normal/Warm)**		**Color temp.**　Cool
On: Enhances green and blue color reproduction, especially outdoor scenes. **(On/Off)**		**Color mgmt.**　On
Auto: Automatically adjusts the color gamut of the input image to the color gamut of the panel. On:　Shows an expanded display of the input image color gamut. Off:　Displays the color gamut of the input image as is. **(Auto/On/Off)**		**Digital cinema color**　Auto
Adjusts the brightness and gradation accordingly to optimize contrast. **(Off/On)**		**C.A.T.S.**　Off
Adjust the "Picture mode" setting in more detail. (p. 56) (This setting can be adjusted only when "Custom" or "Photo" is selected.)		**Pro setting**
Adjusts vertical alignment and size when aspect setting is "ZOOM" (p. 54)		**Zoom adjust**
Sets PC display (p. 24)		**PC 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**　On
Selects image resolution of component-connected devices **(HD/SD)** ● SD: Standard Definition　　HD: High Definition ● Only 480p signal accepted; regular TV (NTSC) is not available.		**Color matrix**　SD
Reduces noise of specific digital signals of DVD, STB, etc. **(On/Off)**		**Block NR**　Off
Reduces HDTV flicker noise in the contoured sections of an image **(Off/On)**		**Mosquito NR**　Off
Selects Dark or Light. Valid only for external input signals. **(Dark/Light)**		**Black level**　Light
Transfers film to video. **(On/Off)**		**3:2 pulldown**　Off
48Hz:　Achieves more cinematic playback by reproducing the movie contents at twice the speed of 24 　　　frames per second. **(60Hz/48Hz)**		**24p Direct in**　60 Hz
Selects between 95 % (Size 1) or 100 % (Size 2) for the scanning area with High-definition signal. **(Size 1/ Size 2)** Select "Size 1" if noise is generated on the edges of the screen. ● Size 1: Selected item for "HD size". Scanning 95% ● Size 2: Selected item for "HD size". Scanning 100%		**HD size**　Size1
Resets Bass, Treble and Balance adjustments to factory default settings.		**Reset**
Increases or decreases the bass response.		**Bass**　0
Increases or decreases the treble response.		**Treble**　0
Emphasizes the left / right speaker volume.		**Balance**　0
Equalizes overall volume levels across all channels and external inputs. **(On/Off)**		**AI sound**　On
BBE ViVA HD3D (High-Definition 3D) Sound provides musically accurate natural 3D image with Hi-Fi sound. The clarity of the sound is improved by BBE while the width, depth and height of sound image are expanded by BBE's proprietary 3D sound process. BBE ViVA HD3D Sound is compatible with all TV programs including news, music, dramas, movies, sports and electronic games. **(On/Off)**		**BBE VIVA 3D**　On
BBE High Definition Sound restores clarity and presence for better speech intelligibility and musical realism. **(On/Off)**		**BBE**　On
Enhances audio response when listening to stereo. **(On/Off)**		**Surround**　Off
Minimizes volume disparity after switching to external inputs		**Audio leveler**　0
Switch to "Off" when using external speakers **(On/Off)** ● "AI sound", "Surround", and "Audio leveler" do not work if "Off" is selected		**Speaker output**　On
The default setting is "Digital" for HDMI connection. (Digital input signal) Select audio input terminal when DVI cable is connected. (Analog audio input signal) **(Digital/Component 1/Component 2/Video 1/Video 2/PC)**	**HDMI1 in**　Digital　**HDMI3 in**　Digital **HDMI2 in**　Digital　**HDMI4 in**　Digital	
The TV can automatically turn On/Off at the designated date and time (p. 46)		**Sleep**　60
Locks the channels and programs (p. 40)		
● In AV mode, the Audio menu and Setup menu give fewer options.		

● How to Use Menu Functions
(picture, sound quality, etc.)

Advanced

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 best suited for you.
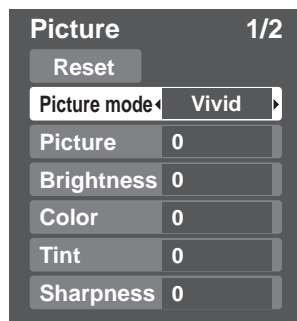
① Display menu

MENU

● Displays the functions that can be set (varies according to the input signal)
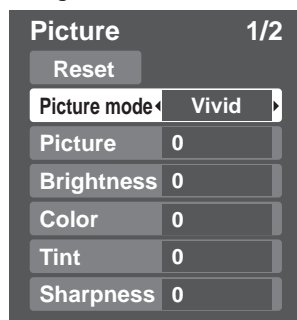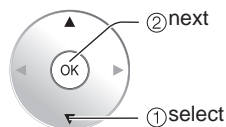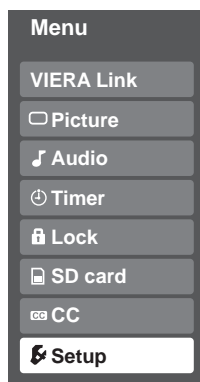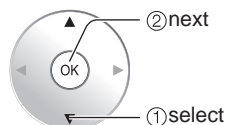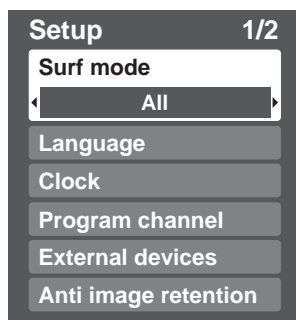
② Select "Setup"

Menu
- VIERA Link
- ⬜ Picture
- ♪ Audio
- ⏱ Timer
- 🔒 Lock
- 📇 SD card
- ㏄ CC
- 🔧 Setup

②next
①select

■ **Press to exit from a menu screen**
EXIT

③ Select the item

Setup 1/2
- Surf mode
  - ◀ All ▶
- Language
- Clock
- Program channel
- External devices
- Anti image retention

②next
①select

■ **Press to return to the previous screen**
RETURN

① Display Sub Menu

SUB MENU

② Select the item

Setup SUB MENU
- Surf mode
  - ◀ All ▶
- Set favorite
- CC   Off
- Caption select
- Signal meter

①select
②set or next
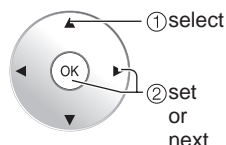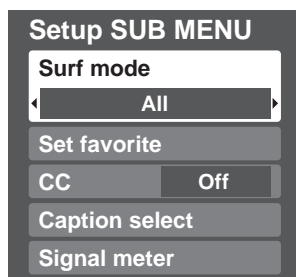
■ Menu list

Menu	Item	
SD Card	SD card	
CC	CC	
Setup	Surf mode	
	Language	
	Clock	
	Program channel	
External devices	Input labels	
	Monitor out	
Anti Image retention	Pixel orbiter	
	Time	
	Side bar	
	Scrolling bar	
VIERA Link setting	VIERA Link	
	Power off link	
	Power on link	
	Default speakers	
	Network setting	
	VIERA CAST setting	
Advanced setup	Auto power on	
	No signal shut-off	
	No action shut-off	
	SD card LED	
	Play SD card automatically	
	About	
	Reset	

■ Sub menu list

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

30

(Continued)

Adjustments/Configurations (alternatives)	
[Photo viewer] To view the still picture. (p. 20) **[Movie player]** To view moving pictures recorded in MPEG 2 or AVCHD format. (p. 18)	**SD card**
Displays subtitles (Closed Caption) (p. 44)	**CC**
Sets the mode to select the channel with Channel up/down button **(All/Favorite/Digital only/Analog only)** ● Favorite: Only channels registered as FAVORITE (p. 17)	**Surf mode**　**All**
Selects the screen menu language (p. 14)	**Language**
Adjusts the clock (p. 14)	**Clock**
Sets channels (p. 42)	**Program channel**
Selects the terminal and label of the external equipment (p. 45)	
[Component 1/Component 2/HDMI 1/HDMI 2/HDMI 3/HDMI 4/Video 1/Video 2] To prevent howling and image oscillation, stops output of the pictures and audio specified in this menu. (p. 45) **(On/Off)**	
Prevents "Image retention" with Wobbling. **(Automatic/Force)** ● Automatic: Shifts the display image automatically. ● Force: Shifts the display image every (1/2/3/4) minutes according to what was set in the "Time" menu.	**Pixel orbiter**　**Automatic**
Sets the time for "Pixel orbiter-Force" setting. **(1/2/3/4)**	**Time**　**4**
Change the brightness of the side bar **(Off/Dark/Mid/Bright)** (4:3 mode only) ● The recommended setting is "Bright" to prevent panel "Image retention". (p. 58)	**Side bar**　**Bright**
Press "OK" to start "Scrolling" on the screen (p. 58)	**Scrolling bar**
Controls equipment connected to HDMI terminals (p. 32) **(On/Off)** ● "Power off link", "Power on link", and "Default speakers" cannot be selected if "Off" is set.	**VIERA Link**　**On**
Sets "Power off link" of HDMI connection equipment (p. 32) **(Set/No)**	**Power off link**　**Set**
Sets "Power on link" of HDMI connection equipment (p. 32) **(Set/No)**	**Power on link**　**Set**
Selects the default speakers (p. 32) **(TV/Theater)**	**Default speakers**　**TV**
Sets Network setting (p. 36)	**Network setting**
Sets VIERA CAST setting (p. 38)	**VIERA CAST setting**
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. 46)	**Auto power on**　**No**
To conserve energy, the TV automatically turns off when NO SIGNAL and NO OPERATION is performed for 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" or PC input display. ● "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**
Set to "On", if you light SD card LED while SD card is inserted. **(On/Off)**	**SD card LED**◄　**On**　►
Set "On" to play back SD cards automatically. **(Movie/Photo/Off/Select later)**	**Play SD card automatically**　**Movie**
Displays TV version and software license.	**About**
Performing Reset will clear all items set with Setup, such as channel settings. (p. 42)	**Reset**

Adjustments/Configurations (alternatives)
Sets the mode to select the channel with Channel up/down button **(All/Favorite/Digital only/Analog only)**
Sets favorite channels. (p. 17)
Displays Closed Caption. (p. 44) **(Off/On)**
Changes the station identifier. (p. 43)
Checks the signal strength if interference or freezing occurs on a digital image. (p. 43)

VIERA Link™ "HDAVI Control™"＊

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

VIERA Link™ is a new name for EZ Sync™

Enjoy additional HDMI Inter-Operability with Panasonic products which have "HDAVI Control" function. This TV supports "HDAVI Control 3" function.

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

The equipment with "HDAVI Control" function enables the following operations:
● Automatic Input Switching (p. 33)
● Power on link (p. 33)
● Power off link (p. 33)
● Default speakers (p. 33)
● One-touch theater playback (p. 33)
● Speaker control (p. 35)

Equipment with the "HDAVI Control 2" (or more) function enables the following operations:
● VIERA Link control only with the TV's remote control (for "HDAVI Control 2" or "HDAVI Control 3") (P. 35)
● Providing the setting information (for "HDAVI Control 3") (p. 33)
● Automatic lip-sync function (for "HDAVI Control 3") (p. 33)
● Direct TV Recording (for "HDAVI Control 3") (p. 35)

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

Please refer to the individual manuals for other manufacturers' equipment supporting the VIERA Link function.

■**For the first time / When adding new equipment, reconnecting equipment or changing the setup after the connection, turn the equipment on and then switch the TV on. Select the input mode to HDMI1, HDMI2, HDMI3 or HDMI4 (p. 22), and make sure that an image is displayed correctly.**

■**HDMI cable**

This function needs an HDMI compliant (fully wired) cable. Non-HDMI-compliant cables cannot be utilized. It is recommended that you use Panasonic's HDMI cable. Recommended part number:
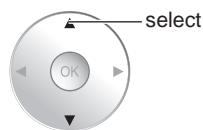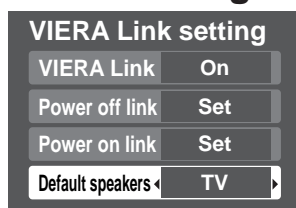RP-CDHG10 (3.3 ft/1.0 m), RP-CDHG15 (4.9 ft/1.5 m), RP-CDHG20 (6.6 ft/2.0 m),
RP-CDHG30 (9.8 ft/3.0 m), RP-CDHG50 (16.4 ft/5.0 m)

 * For more detail on the external equipment's connections, please refer to the operating manuals for the equipment.
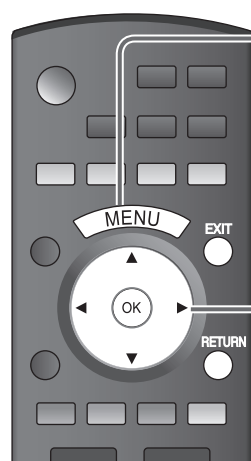
Side tab
Automatic Input Switching
Power on link
Power off link
Default speakers
One-touch theater playback
Providing the setting information (for "HDAVI Control 3")
Automatic lip-sync function (for "HDAVI Control 3")

① **Follow direction ❶ - ❺ in "VIERA Link setting" (p. 23)**

② **Select settings**

VIERA Link setting
VIERA Link	On
Power off link	Set
Power on link	Set
Default speakers ◄	TV ►

— select

■**Press to exit from a menu screen**
EXIT

■**Press to return to the previous screen**
RETURN

③ **Set**

VIERA Link setting
VIERA Link	On
Power off link	Set
Power on link	Set
Default speakers ◄	Theater ►

— change

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.

When "Set" is selected (p. 30), TV is turned on automatically and switches to the appropriate HDMI input whenever VIERA Link compatible equipment is initially turned on and Play mode is selected.

When "Set" is selected (p. 30) and the TV is turned off, all connected VIERA Link 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 VIERA Link 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.

The following information about the TV settings can be transmitted to each equipment (Recorder/Home theater/Player) that has "HDAVI Control 3" function connected to a TV with HDMI cable.

Transmittable data		Recorder	Home theater	Player
① On Screen Display Language setting (English/Español/Français)		○	○	○
② Panel Aspect Ratio (16:9 fixed)		○	○	○
③ Closed caption information	mode	○	---	---
	CC type	○	---	---
	Digital setting	○	---	---
④ Channel information	Input signal	○	---	---
	Channel list	○	---	---
	Caption information	○	---	---

Note
● There is a possibility that all the GUI language information might be set from equipment that has HDMI CEC function connected to TV with HDMI cable. Depending on operating conditions or the specification for each piece of equipment the setting may or may not be applied.
● For details on the external equipment's operation, please refer to the operating manuals for the equipment.

[For Recorder]
● You cannot operate other functions while transmitting TV's information above except Power On/Off key operation. When you turn off this unit, the transmission will be interrupted (only when you are transmitting ④ Channel information).

Minimizes lip-sync delays between the picture and audio when you connect to a Panasonic theater system or Amplifier.

VIERA Link™ "HDAVI Control™"

You can enjoy more convenient operation with the "HDAVI Control" function in the "VIERA Link" menu.
For more details on the of "HDAVI Control" function, refer to p. 32

1 Display VIERA Link menu

VIERA
Link

or

MENU

Menu
VIERA Link
▭ Picture
♪ Audio
⏲ Timer
🔒 Lock
🗐 SD card

Speaker control

2 Select the item

VIERA Link
Record now
Stop recording
VIERA Link control
◄ Recorder ►
Speaker output
TV

① select
OK
② set or next

VIERA Link Control only with the TV's remote control
(for "HDAVI Control 2" or "HDAVI Control 3")

■ **Press to exit from a menu screen**
EXIT

■ **Press to return to the previous screen**
RETURN

3 Select

VIERA Link
Record now
Stop recording
VIERA Link control
◄ Home theater ►
Speaker output
TV

change

4 Set

**Direct TV Recording**
(for HDAVI control 3)

34

(Continued)

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 **Select "Speaker output"**
② **Select "Home theater" or "TV"**

VIE⌐A Link
- Record now
- Stop recording
- VIERA Link control
  - Recorder
- **Speaker output**
  - TV
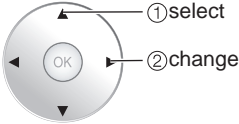
①select
②change

■**Home theater:** Adjustment for equipment

Volume up / down ➡ [+ VOL −]

Mute ➡ [MUTE]
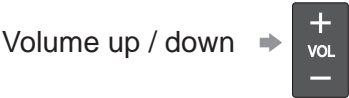
- The sound of the TV is muted.
- When the equipment is turned off, the TV speakers take over.
- Selecting "Home theater" turns the equipment on automatically if it is in standby mode.

■**TV:** The TV speakers are on.

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

① **Select "VIERA Link Control"**
② **Select the equipment you want to access.**
   (Recorder/Home theater/Player/Camcorder)

VIE⌐A Link
- Record now
- Stop recording
- **VIERA Link control**
  - Recorder
- Speaker output
  - TV
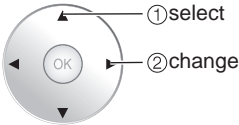
①select
②change

You can select available items only.

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

(cursor/OK)	Move the cursor/Select
OK	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 is displayed on screen

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

Records the current program on the recorder immediately.

①**Select "Record now"**

VIE⌐A Link
- **Record now**
- Stop recording
- VIERA Link control
  - Recorder
- Speaker output
  - TV

①select
②set
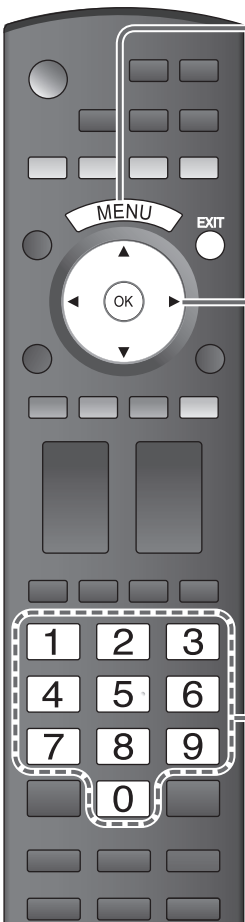
- For optimal recording, the settings of the recorder might be required. For details, read the manual of the recorder.

②**Select "Stop recording", when you want to stop recording**

VIE⌐A Link
- Record now
- **Stop recording**
- VIERA Link control
  - Recorder
- Speaker output
  - TV

①select
②set

- Recording will not stop automatically when the program is finished.
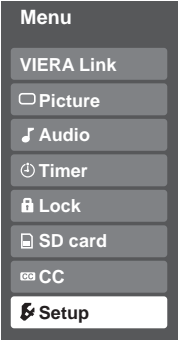
Network Setting

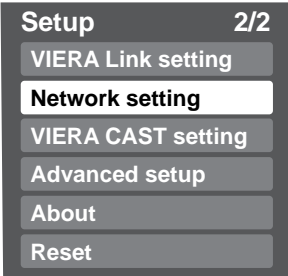This is a setting for connecting to a broadband environment.
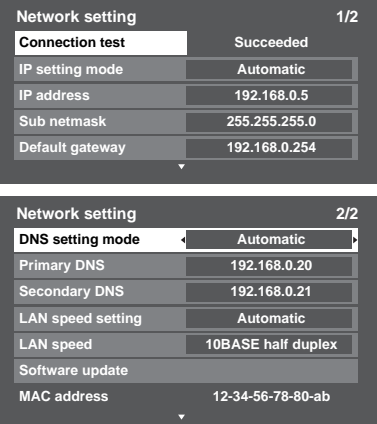
① **Display menu**

MENU

② **Select "Setup"**

Menu

VIERA Link
▭ Picture
♪ Audio
⏲ Timer
🔒 Lock
▣ SD card
▦ CC
⚡ Setup

① select
② set or next

■ **Press to exit from a menu screen**
EXIT

■ **Press to return to the previous screen**
RETURN

③ **Select "Network setting"**

Setup   2/2

VIERA Link setting
Network setting
VIERA CAST setting
Advanced setup
About
Reset

select

④ **Select the item and adjust**

Network setting	1/2
Connection test	Succeeded
IP setting mode	Automatic
IP address	192.168.0.5
Sub netmask	255.255.255.0
Default gateway	192.168.0.254

Network setting	2/2
DNS setting mode	◄ Automatic ►
Primary DNS	192.168.0.20
Secondary DNS	192.168.0.21
LAN speed setting	Automatic
LAN speed	10BASE half duplex
Software update	
MAC address	12-34-56-78-80-ab

① select
② adjust

Connection test

IP setting

• **IP setting mode**
• **IP address**
• **Sub netmask**
• **Default gateway**

DNS setting

• **DNS setting mode**
• **Primary DNS**
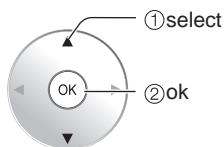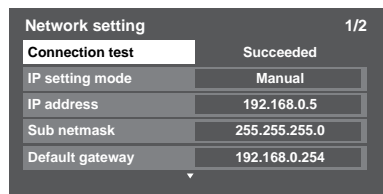• **Secondary DNS**

Connection speed setting

• **LAN speed setting**
• **LAN speed**

Software update

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Check that the network settings are as shown below, and then start "Connection test".

① **Select "Connection test" and press OK.**
*Press OK again to cancel the test.
(It takes a while to cancel the test.)
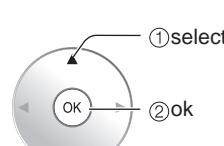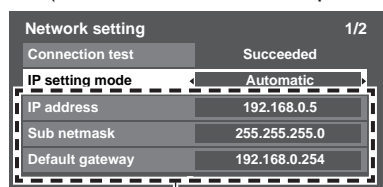
Succeeded: "Connection test" succeeded
Failed:　Check the broadband environment connection and settings and the network settings, and then perform the test again.
Test in progress
---:　　　Test not yet performed

Network setting	1/2
Connection test	**Succeeded**
IP setting mode	Manual
IP address	192.168.0.5
Sub netmask	255.255.255.0
Default gateway	192.168.0.254

①select
②ok

---

① **Select "IP setting mode" and set to "Automatic".**
(When IP automatic acquisition in DHCP can be used)

Network setting	1/2
Connection test	Succeeded
IP setting mode ◄	Automatic ►
IP address	192.168.0.5
Sub netmask	255.255.255.0
Default gateway	192.168.0.254

The acquired address is displayed.

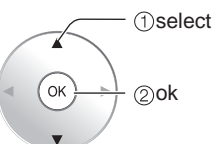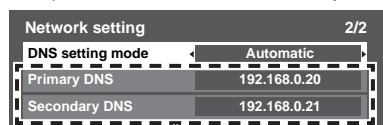② **Each IP address is acquired automatically.**

①select
②ok

■**Manual setting**
① Select "IP setting mode" and set to "Manual"
② Select the item and press OK
③ Check the specifications of the broadband router and enter each IP address.

Sub netmask ◄	10█ ►

1 2 3
4 5 6
7 8 9   or
0

①change channel
②ok

---

① **Select "DNS setting mode" and set to "Automatic".**
(When DNS automatic acquisition in DHCP can be used)

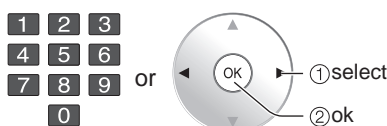| Network setting	2/2
DNS setting mode ◄	Automatic ►
Primary DNS	192.168.0.20
Secondary DNS	192.168.0.21

The acquired address is displayed.

① select
② ok
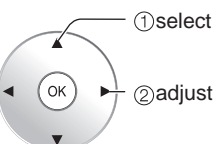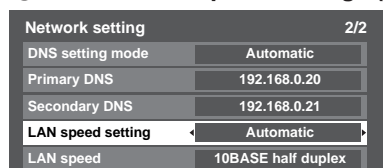
② **Each IP address is acquired automatically.**
If you are using a broadband router, IP automatic acquisition in DHCP can be used under normal circumstances. If you are not sure, check with the person who installed the equipment, or check the instructions of each device.

■**Manual setting**
① Select "DNS setting mode" and set to "Manual"
② Select the item and press OK
③ Enter each IP address as was specified by the provider.

Primary DNS ◄	10█ ►

1 2 3
4 5 6
7 8 9   or
0

①select
②ok

---

① **Select "LAN speed setting" (Default is "Automatic")**

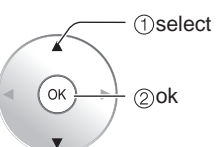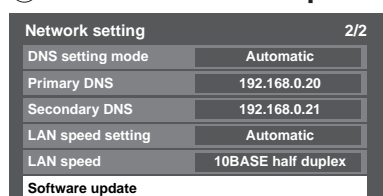| Network setting	2/2
DNS setting mode	Automatic
Primary DNS	192.168.0.20
Secondary DNS	192.168.0.21
LAN speed setting ◄	Automatic ►
LAN speed	10BASE half duplex

① select
② adjust

● Normally, select "Automatic".
● If "Connection test" failed, set the "LAN speed setting" to "manual" and then select "10BASE half duplex", "10BASE duplex", "100BASE half duplex" or "100 BASE duplex".
● Cannot be selected when the "LAN speed setting" is "Automatic".
● Changing the settings may make it impossible to connect some types of equipment.

---

① **Select "Software update"**

Network setting	2/2
DNS setting mode	Automatic
Primary DNS	192.168.0.20
Secondary DNS	192.168.0.21
LAN speed setting	Automatic
LAN speed	10BASE half duplex
Software update	

① select
② ok

② **Press OK to start the software update screen.**
③ **Follow directions of the screen.**
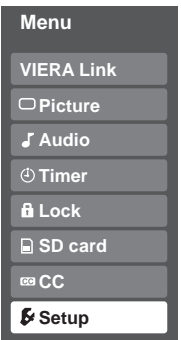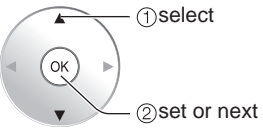
* Set "Clock" first. (p. 15)
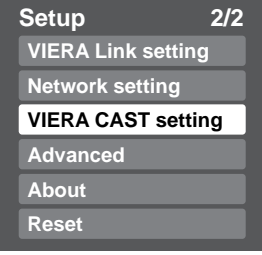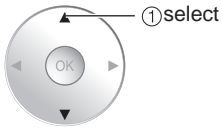
● The network settings become effective when you close the menu and run "Connection test".

VIERA CAST™ Setting

Display menu

① MENU

Select "Setup"

Menu

VIERA Link	
▭ Picture	
♪ Audio	
⏲ Timer	
🔒 Lock	
▤ SD card	
▣ CC	
⚡ Setup	

① select

② set or next

Select "VIERA CAST setting"

Setup   **2/2**

VIERA Link setting
Network setting
VIERA CAST setting
Advanced
About
Reset

select

■ **Press to exit from a menu screen**
EXIT

■ **Press to return to the previous screen**
RETURN

Select the item and adjust

VIERA CAST setting

Proxy address	
Proxy port	0
Connection test	---

① select

Connection test

Proxy setting

- Proxy address
- Proxy port

Entering characters

38

① **Select "Connection test" and Press OK**

| VIERA CAST setting	
Proxy address	
Proxy port	**0**
Connection test	**---**

①select
②ok
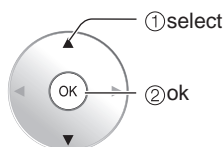
- When a connection is made to the connection test site and a message is displayed that indicates a successful connection
  ➡ The settings are correct.
- When the connection is not successful
  ➡ An error message is displayed on the screen.
- * Check the connection and settings. (p. 36-37, below)

  If you perform the proxy settings, check the proxy address and the proxy port number.

Set only if specified by the provider.
It is not required for normal household use.

■**Proxy address**
This is the address of the relay server that is connected to the target server instead of the browser and sends data to the browser.
Setting is only required if specified by the provider.

① **Select "Proxy address" and Press OK**

VIERA CAST setting	
Proxy address	
Proxy port	**0**
Connection test	**---**
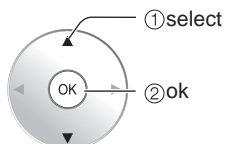
①select
②ok

② **Enter address**
(see "Entering characters" below)

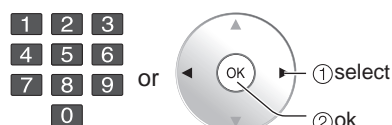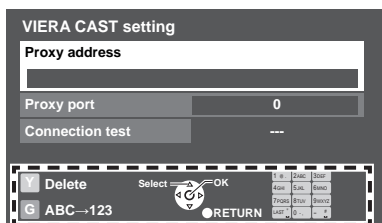| Proxy address	
pr 0	

③ **Select "OK"**

■**Proxy port**
This number is specified by the provider together with the proxy address.

① **Select "Proxy port" and Press OK.**
② **Enter the Port number.**

Proxy port	0

1 2 3
4 5 6
7 8 9
0

or

①select
②ok

If you perform the proxy settings, it may make it impossible to view VIERA CAST movie content.

You can use the remote control key to enter the alphanumeric characters.

VIERA CAST setting	
Proxy address	
Proxy port	**0**
Connection test	**---**
Y Delete Select ◁○▷ OK	
G ABC→123 ●RETURN	

Navigation area

Y Delete   Select ◁○▷ OK
G ABC→123   ●RETURN

Switches Input mode alphabet to numeric.

Characters are displayed as shown in following table.

	A												B
	Number of presses												
	1	2	3	4	5	6	7	8	9	10	11	12	
1	@	.	/	:	~	_	1						1
2	a	b	c	A	B	C	2						2
3	d	e	f										3
4	g	h	i										4
5	j	k	l										5
6	m	n	o										6
7	p	q	r	s									7
8	t	u	v										8
9	w	x	y	z									9
0	-	,	;	'	"	?	!	(	)	&	¥	0	0
LAST	Space												*
-	Space												#

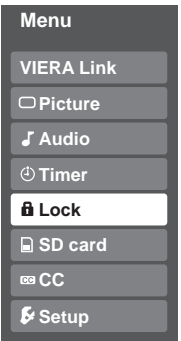- VIERA CAST setting will be effective when you close the menu or run "Connection test".

Lock

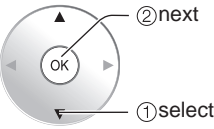You can lock specified channels or shows to prevent children from watching objectionable content.

1 Display menu

MENU

2 Select "Lock"

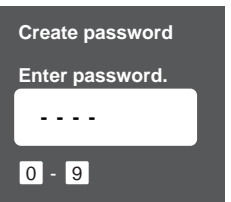| Menu |
| --- |
| VIERA Link |
| ▢ Picture |
| ♪ Audio |
| ⏱ Timer |
| 🔒 Lock |
| ▦ SD card |
| ▭ CC |
| ⚡ Setup |

②next

①select

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

3 Input your 4-digit password

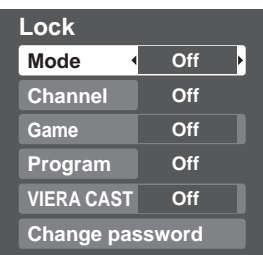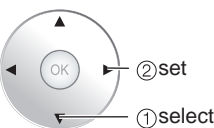A 4-digit code must be entered to view a blocked program or change rating settings.

Create password

Enter password.

- - - -

0 - 9

● If it is your first time entering the password, enter the password twice in order to register it.

■ **Press to exit from a menu screen**

EXIT

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.

4 Select the Lock mode

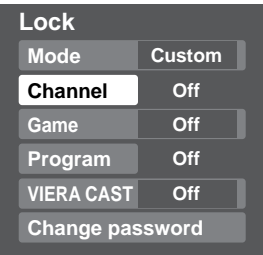| Lock	
Mode ◄	Off ►
Channel	Off
Game	Off
Program	Off
VIERA CAST	Off
Change password	

②set

①select

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

5 Select the item

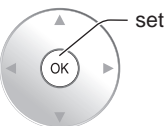| Lock	
Mode	Custom
Channel	Off
Game	Off
Program	Off
VIERA CAST	Off
Change password	

select

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

6 Set

set

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

|				
Channel lock	Select up to 7 (1-7) channels to be blocked. These channels will be blocked regardless of the program rating. ① **Select "Mode" and set to "Custom"** ② **Select channel to lock.** **Channel lock** Mode ◄ Custom ► Channel 1 3 Channel 2 4 Channel 3 –	①select OK ②set	● To lock/unlock all channels: Select "Mode" and set to "All" or "Off". All: Locks all channels Off: Unlocks all channels	
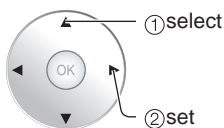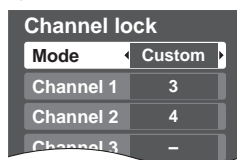
Game lock

Locks Channel 3, Channel 4 and external inputs.
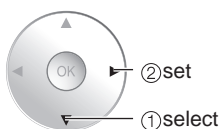
Select "Game" in ⑤ and set to "On".
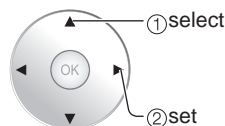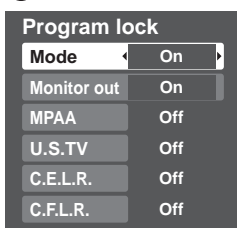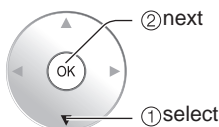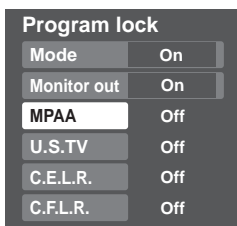
①select
OK
②set

On: Locks
Off: Unlocks

Program lock

■**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
Mode ◄	On	
Monitor out	On
MPAA	Off
U.S.TV	Off
C.E.L.R.	Off
C.F.L.R.	Off

OK
②set
①select

② **Select the rating category you wish to follow**

Program lock
Mode	On
Monitor out	On
MPAA	Off
U.S.TV	Off
C.E.L.R.	Off
C.F.L.R.	Off

OK
②next
①select

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
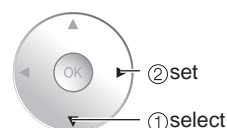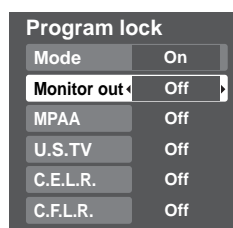
③ **Select the rating to be locked**

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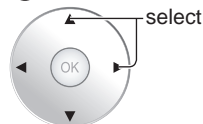
Example of "MPAA" (U.S movie ratings)

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
X	Adults only

● To get more information (p. 53)

■**To disable recording of the locked program**
➡ Select "Monitor out" and set to "On".

Program lock
Mode	On
Monitor out ◄	Off ►
MPAA	Off
U.S.TV	Off
C.E.L.R.	Off
C.F.L.R.	Off

OK
②set
①select

VIERA CAST lock

VIERA CAST lock
Locks VIERA CAST.
Select "VIERA CAST" in ⑤ and set to "On".
When you press VIERA CAST, the "VIERA CAST Lock" screen is displayed.
Type the correct password to enter the Home screen.
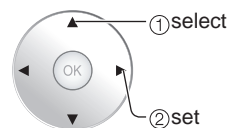
①select
OK
②set

On: Locks
Off: Unlocks

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
VIERA CAST	Off
Change password	

➡

Change password
Enter new password.

- - - -

0 - 9

Advanced

──────────
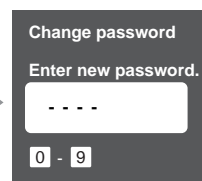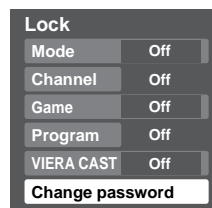
Note

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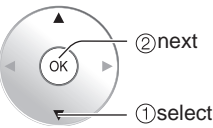
Editing and Setting Channels

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

1 **Display menu**

MENU

2 **Select "Setup"**

Menu
VIERA Link
⬜ Picture
♪ Audio
⏲ Timer
🔒 Lock
▣ SD card
▣ CC
🔧 Setup

②next
①select

Auto

Set automatically
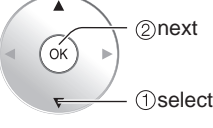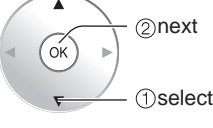
3 **Select "Program channel"**
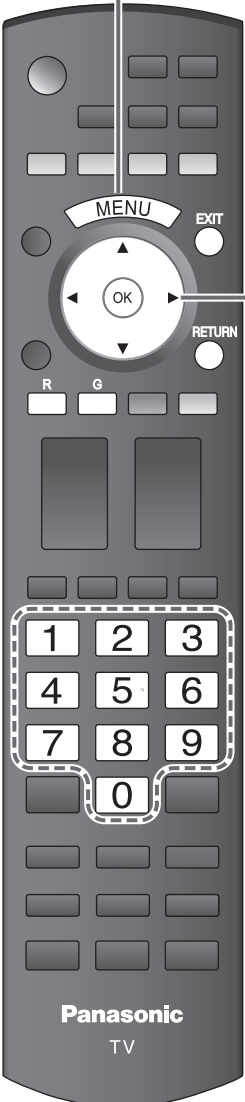
Setup	1/2
Surf mode	
All	
Language	
Clock	
Program channel	
External devices	
Anti image retention	
⋮	
Reset	

②next
①select

Manual

Set manually

4 **Select the function**

■ **Press to exit from a menu screen**

EXIT

Program channel	
ANT in	Cable
Auto	
Manual	
Signal meter	

②next
①select

5 **Set**

■ **To reset the settings of setup menu**
① Select "Reset" in Setup menu (❸) and press OK
② Input your 4-digit password with number buttons
③ Select "YES" on the confirmation screen and press OK

Signal meter

Check signal strength

Automatically searches and adds available channels to the memory.

① **Select "ANT in"**
➡ Select Cable or Antenna (p. 14)

② **Select "Auto"**

Program channel

ANT in	Cable
Auto	
Manual	
Signal meter	

②next
①select
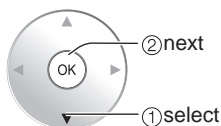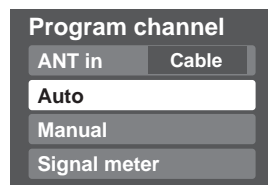
③ **Select a scanning mode** (p. 15)

Auto program

All channels
Analog only
Digital only

②ok
①select
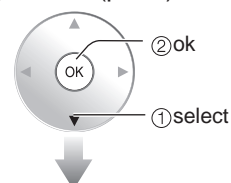
Settings are made automatically

● After the scanning is completed, select "Apply".
(see below ⑤).
● All previously saved channels are erased.

Use this procedure when changing the channel setup or changing the channel display.
Also, use this to add or skip channels from channel list manually.
You can select channel tuning mode (Digital only/Analog only) in "Surf mode"(p. 31)

① **Select "Edit"**

Manual program

Edit	Apply	Cancel	
Cannnel	Caption	Favorite	Add
2	---	...	Yes
3	---	...	Yes
4	---	...	Yes
5	---	...	Yes

①select
②next

② **Select the item to be edited**

Manual program

Edit	Apply	Cancel	
Cannnel	Caption	Favorite	Add
2	---	...	Yes
3	---	...	Yes
4	---	...	Yes
			Yes

Caption   Favorite   Add

①select the item to edit (Caption/Favorite/Add)
②next

Select
OK
RETURN R Prev. page G Next page B Y

R   G   Proceed to next page
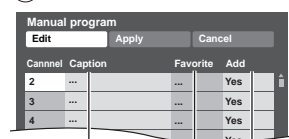
Go back to previous page

● Caption:
Changes the station identifier
● Favorite:
Registers channel to Favorite List
● Add:
Adds or skips channels

③ **Edit**
● **Caption**

Caption select

Caption	◀ --- ▶
Caption detail	
Apply	Cancel

①select
②change
③set/next
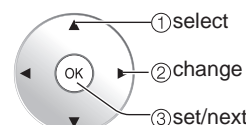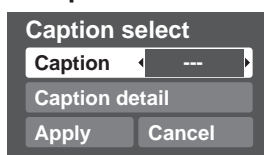
Caption
Select the station identifier

Caption detail
Rename (maximum 7 characters available)

● **Favorite**

Set favorite   1/3

1	26-1	- - -
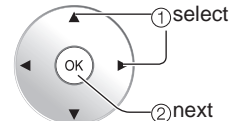
①select
②next

Set favorite Select the number

● **Add**
Press OK to select "Yes (add)" or "No (skip)"

RETURN

④ **Move cursor to channel number**

Manual program

Edit	Apply	Cancel	
Cannnel	Caption	Favorite	Add
2	---	...	Yes
3	---	...	Yes

①select
②Press OK to tune to the channel.

⑤ **Select "Apply"**

program

Apply	Cancel
Caption	**Favorite**	**Add**
.	...	Yes

①select "Apply"
②ok

To cancel the Edit

Manual program

Edit	Apply	Cancel
Cannnel	Caption	Favorite	Add
2	---	...	Yes
3	---	...	Yes
4	---	...	Yes
5	---	...	Yes

①select
②next

Changes will be lost. Continue?

Yes	No

①select "Yes"

②ok
(returns to "Program channel")
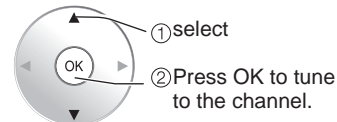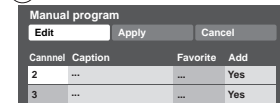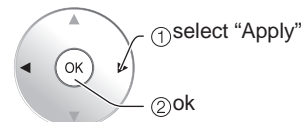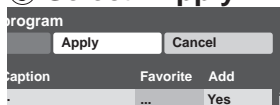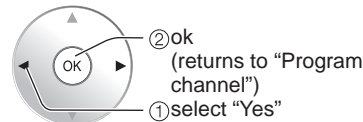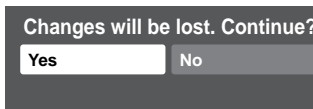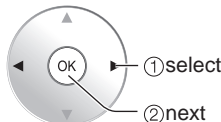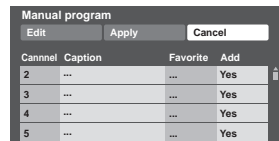
Check the signal strength if interference is found or freezing occurs on a digital image.

Signal meter

Channel	◀ 1-1 ▶

Signal strength

Current	30%
Peak level	45%

1 2 3
4 5 6
7 8 9
0

or

①change channel
②ok
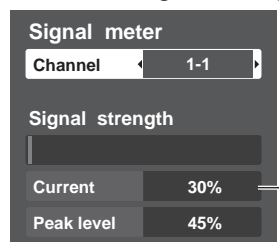
Signal intensity

● 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).
● Available only for digital antenna channels.

● If "Lock" (p. 40) is activated and "Program channel" is selected, "Enter password." will be displayed.

43

Closed Caption

1 **Display menu**
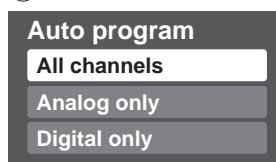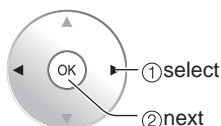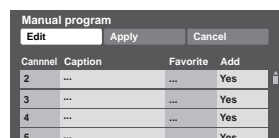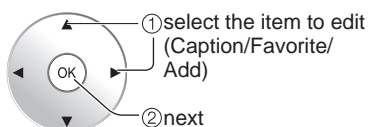
MENU

MENU   EXIT

OK

RETURN

■ **Press to exit from a menu screen**

EXIT

2 **Select "CC"**

Menu

VIERA Link

☐ Picture

♪ Audio

⏲ Timer

🔒 Lock

▤ SD card

☒ CC

⚡ Setup

OK

②next

①select

CC

Display Closed Caption
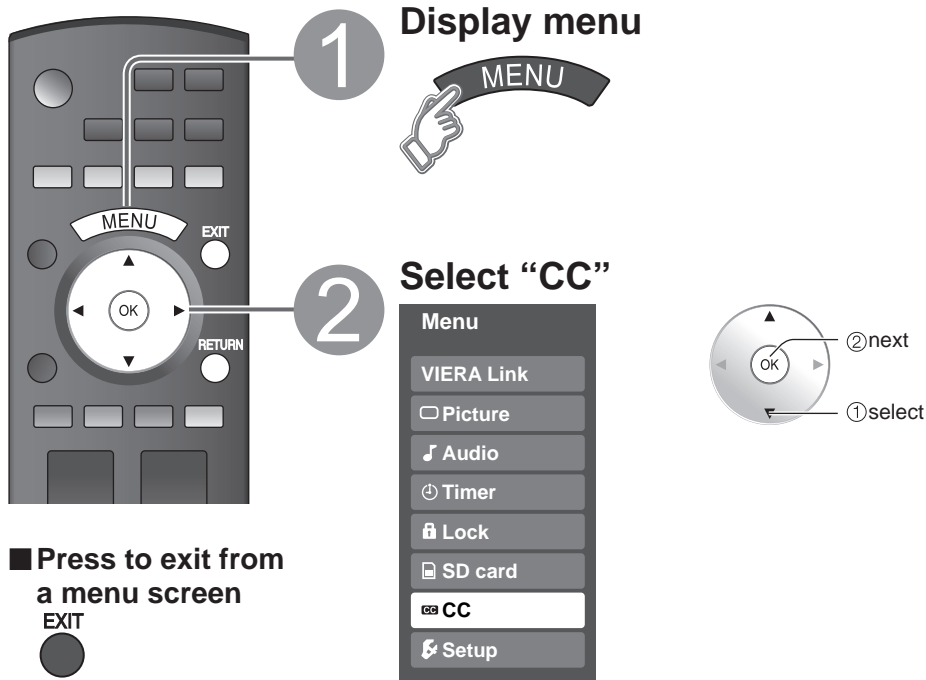
The television includes a built-in decoder that is capable of providing a text display of the audio. The program being viewed must be transmitting Closed Caption (CC) information. (p.54)

■ **Select the item and set**

CC

Mode	On
Analog	CC1
Digital	◄ Primary ►
Digital setting	
CC reset	

OK
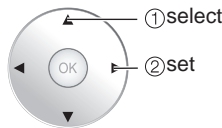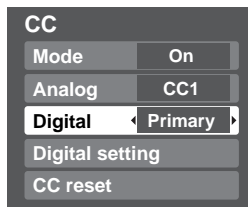
①select
②set

● 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)

Digital	(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

Digital setting

Size	Automatic
Font	Automatic
Style	Automatic
Foreground	◄ Automatic ►
Fore opacity	Automatic
Background	Automatic
Back opacity	Automatic
Outline	Automatic

OK

①select
②set
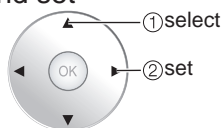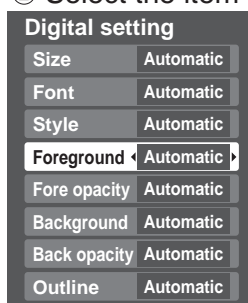
● Size: Text size
● Font: Text font
● Style: Text style (Raised, Depressed, etc.)
● Foreground: Color of text
● Fore opacity: Opacity of text
● Background: Color of text box
● Back opacity: Opacity of text box
● Outline: Outline color of text (Identify the setting options on the screen.)

■ **To reset the settings**
Select "CC reset" and press OK

Input Labels/Monitor Out

1 **Display menu and select "Setup"**

MENU

Menu

VIERA Link

🔒 Lock

📄 SD card

💬 CC

🔧 Setup

②next

OK

①select

2 **Select "External devices"**

Setup	1/2
Surf mode	
All	
Language	
Clock	
Program channel	
External devices	
Anti image retention	

②next

OK

①select

■ **Press to exit from a menu screen**
EXIT

3 **Select "Input labels" or "Monitor out"**

External devices

Input labels

Monitor out

②next

OK

①select

Advanced

	Devices connected to external input terminals can be labeled for easier identification during input selection. (In selecting input mode from p. 22 ②)
Input labels **Display labels of external devices**	■ **Select the terminal and label of the external equipment** **Input labels** Component 1 ◄ Component 2 HDMI 1 HDMI 2 HDMI 3 HDMI 4 · · · GAME Video 1 Video 2 · · · GAME PC ①select OK ②set Label · · · Terminal Video 1 VCR [example] ● Terminals: Comp. 1-2/HDMI 1-4/Video 1-2/PC ● Label: SKIP*/VCR/DVD/CABLE/DBS/PVR/GAME/AUX/ 　　　　　RECEIVER/[BLANK] 　For the PC terminal, only "SKIP" is available. * If "SKIP" is selected, the TV/VIDEO button press will skip its input. ● Each selected label will be displayed on "Input select" screen. 　(p. 22)
Monitor out **Stop output of the picture and audio**	To prevent howling and image oscillation, stops output of the pictures and audio specified in this menu. (p. 31) ■ **Select the terminal and set "Off"** **Monitor out** Component 1 · · · On Component 2 · · · On HDMI 1 · · · On HDMI 2 · · · On HDMI 3 · · · On HDMI 4 · · · On Video 1 ◄ · · · Off ► Video 2 · · · On ①select OK ②set ● Select "Off" to stop output of picture and audio. (Video 1/Video 2) ● Component 1/Component 2/HDMI 1/HDMI 2/HDMI 3/HDMI 4 cannot output video signals regardless of "Monitor out" setting. When equipment (STB, DVD, etc.) is connected to HDMI, COMPONENT or PC terminals, no video signals can be passed through PROG OUT terminal.
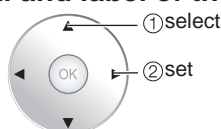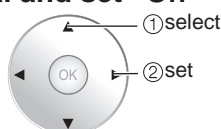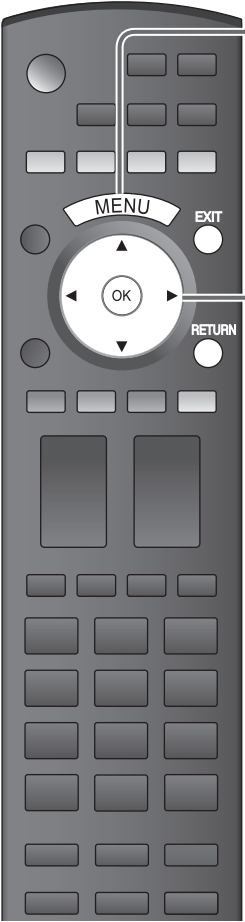
Using Timer

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. 15)
- The "Sleep" timer and "On / Off timer" will not work if the "Auto power on" (p. 31) is set.

1 Display menu

MENU

2 Select "Timer"

Menu
VIERA Link
☐ Picture
♪ Audio
⊙ **Timer**
🔒 Lock
🗎 SD card

②next
OK
①select
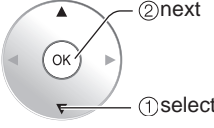
3 Select the timer to set
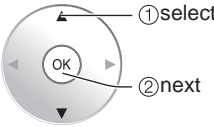
Timer
Sleep
Timer 1
Timer 2
Timer 3
Timer 4
Timer 5

①select
OK
②next

Sleep	Turns Off automatically
Timer 1 ⑦	Turns On/Off automatically (5 timers can be set.)
Timer 5	

4 Set the timer

■ To set "Sleep" (Off Timer)
Set to shut the unit off after a pre-selected amount of time.

Sleep	
Sleep	◄ **60** ►

OK — set

● 0/30/60/90 (minutes)

■ To set "Timer 1-5" (On/Off Timer)
Select the item and set

Timer 1	
Channel	◄ **310 - 1** ►
Day	EVR FRI
On time	10:00 AM
Off time	11:00 AM
Set	On

1 2 3
4 5 6 or
7 8 9
0
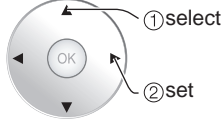
①select
OK
②set

Channel	Select the channel
Day	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)

■ **Press to exit from a menu screen**
EXIT

■ **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.

46

Programming the Remote to Operate Peripheral Equipment

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

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

2 POWER + OK

Press both buttons simultaneously for more than 3 seconds.

●Release the buttons when the equipment selection buttons start flashing.

3 VCR DBS/CBL DVD

Select the equipment
with the equipment selection button

●The selected button remains lit (other buttons are not lit).

4
Input the equipment's 4-digit remote control code (p. 51-52)

5 POWER ➡ **Operate the equipment with the remote control** (p. 50)

●The external equipment turns On.

■**Press to return to the TV mode**
TV

■**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 ❹ above and test again

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 ❸ above, change the code and test**

OK — change ➡ POWER

➡ Operate the equipment with the remote control (p. 50)

●Repeat until the code is found
●It may take many attempts before the correct code is found

② **When the correct code is found**

store — OK
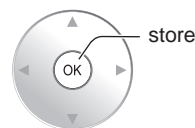
Recommended AV Connections

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

Front of the TV

Back of the TV

AC 120 V 60 Hz

AC Cord
(Connect after all the other connections are complete.)

Cable TV

or

Cable Box

VIDEO IN 2
S VIDEO   VIDEO   L   AUDIO   R   4   HD

or

or

AUDIO IN

DIGITAL AUDIO OUT

S VIDEO

HDMI   AV IN

HDMI 2   HDMI 3

VIErA CAST   LAN

ANTENNA
Cable In

COMPONENT 1 IN   VIDEO 1   TO AMP OUT

PC

R232C

or   or

LAN connection
(p. 27)

■ **To watch camcorder images**

Camcorder
VCR DVD
Player
(For HDMI connection, HDMI compatible equipment only. For connection using HDMI-DVI Conversion cable, see HDMI 1, HDMI 2 or HDMI 3 connection on this page.)

RGB
PC cable

RS232C connection
(Serial port)*2

Conversion adapter (if necessary)

AUDIO cable
(stereo mini)

Optical digital
audio cable

Audio cable

OPTICAL IN

Amplifier

Connect with
(A) or (B)

(A)
HDMI cable

(B)
HDMI-DVI
Conversion
cable +
Audio cable*1

or

or

■ **To watch DVDs**
DVD Player/Set Top Box

■ **PC**
Computer

■ **To listen to the TV through speakers**

■ **To watch digital video image**
DVD Player or Set Top Box
(HDMI compatible machines only)

■ **DVD Recorder / VCR**

Note

● The picture and audio input signals connected to a terminal specified in "Monitor out" (p. 45) 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, 45)
● When equipment (STB, DVD, etc.) is connected to HDMI, COMPONENT or PC terminals, no video signals can be passed through PROG OUT terminal.

● When receiving digital channel signals, all digital formats are down-converted to composite NTSC video to be output through the PROG OUT terminals.
*1 Please see p. 28-29 for setup when using an external analog audio cable with an HDMI to DVI cable.
*2 ● For details about the RS232C command, contact Customer Care. (p.63, 64) Note that we only provide information in accordance with our disclosure rules.
  ● See "RS232C terminal Specification" sheet. (attached separately)

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VIERA Link™ Connections

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

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

Note

● HDMI 1 is recommended.
When connecting to HDMI 2/HDMI 3/HDMI 4, set the input mode to HDMI 2/HDMI 3/HDMI 4 (p. 22) initially before connecting to HDMI 2/HDMI 3/HDMI 4. After connection, confirm the HDMI control functions (p. 32-35).

■ **Connecting this unit to the DVD recorder (DIGA), RAM theater, or Player theater**
● For DVD recorder (DIGA): Connect with HDMI cable
● For RAM theater and Player theater:
Connect with the HDMI and audio cables.
If audio cable is not connected, you cannot listen to the TV program through the theater system.

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

● Recommended AV Connections

Advanced

Digital Audio out

Back of the TV

AUDIO IN

HDMI (AV OUT) or HDMI (AV OUT)

HDMI (AV OUT)

HDMI (AV OUT) HDMI (AV IN)

HDMI cable

Home Theater Systems with VIERA Link function / HD Camcorder with VIERA Link function

DVD recorder (DIGA) with VIERA Link function

AV amp with VIERA Link function

DVD recorder (DIGA) with VIERA Link function
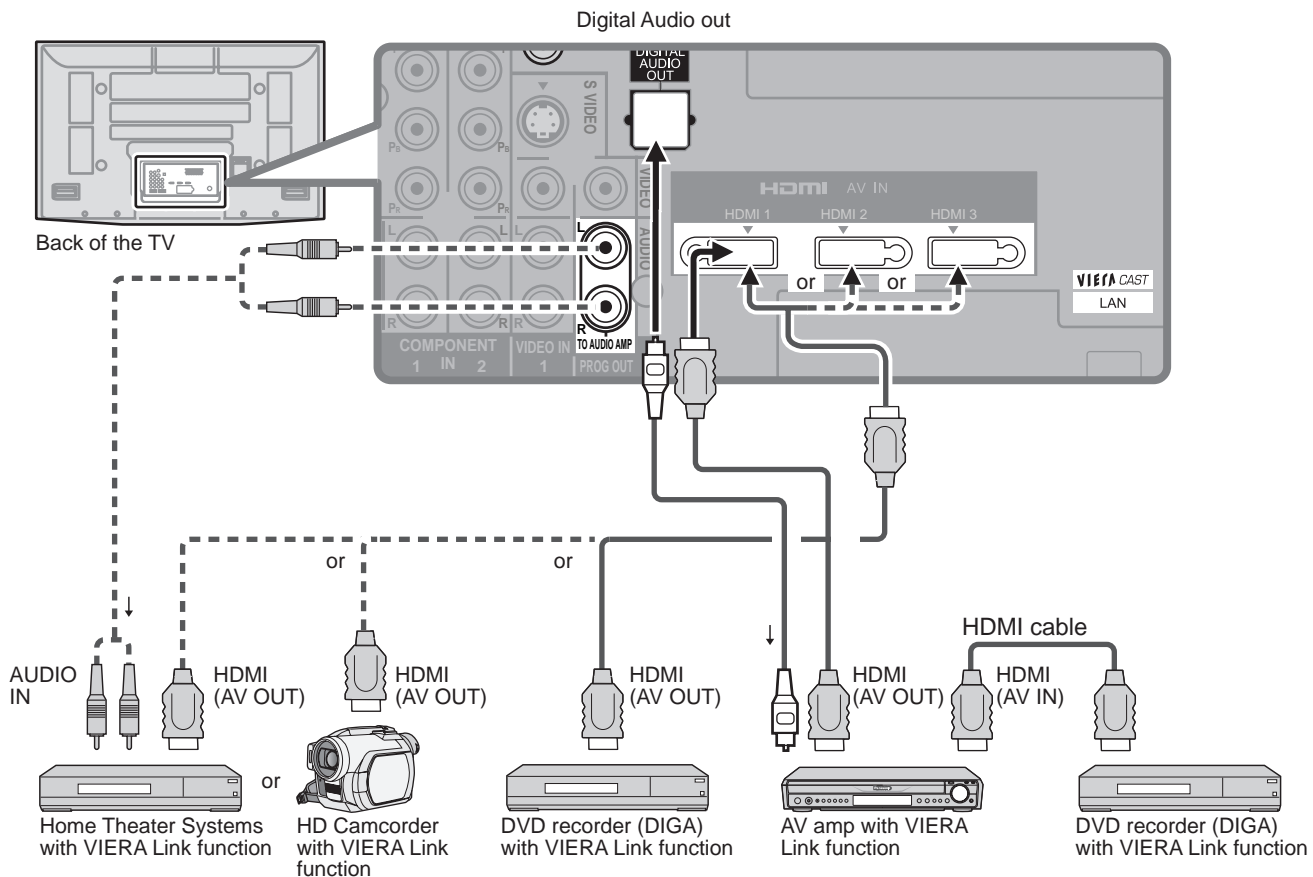
● One AV amp and one DVD recorder (DIGA) can be operated with this unit.
● Refer to the diagram above when connecting a DVD recorder/player and an AV amp to your Viera Television.

■ **Setting of this unit after connection**
After making connections as shown above, set "VIERA Link" (under "VIERA Link setting") to "On" using the Setup menu. (p. 23, 30-31).

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.)
● For more details about HDMI cables for connecting a Panasonic HD camcorder, read the manual of the equipment.

Remote Control Operation/Code List

The following explains how to operate external devices with the TV's remote control.
● Register the remote control codes (p. 47) if you want to operate an external device from another manufacturer. (p. 51-52)

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
		(DBS)	(CBL)	
POWER	Power	Power	Power	Power
SAP	—	LIST	LIST	DVD AUDIO
TV VIDEO	TV Input Switch	TV Input Switch	TV Input Switch	TV Input Switch
MENU	—	Menu	Menu	Functions
EXIT	—	Exit	Exit	—
▲◀ OK ▶▼	—	Up/Down/Left/Right	Up/Down/Right/Left	Up/Down/Right/Left
	—	Select	Select	Enter
SUB MENU	—	Guide	Guide	Sub Menu
RETURN	—	PPV/VOD	PPV/VOD	Return
R	—	Red	A	Red
G	—	Green	B	Green
B	—	Blue	C	Blue
Y	—	Yellow	D	Yellow
CH	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
FORMAT	—	Aspect	Aspect	—
FAVORITE	—	Favorite	Favorite	Direct Navigator
INFO	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
LAST	—	Last Channel	Last Channel	Drive Select
—	—	Sub Channel	Music	PROG (Sub Channel)
SKIP ⏮ ⏭	—	Page Down/Up	Page Down/Up	Skip Reverse/Forward
TV/VCR GAME	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 ⏸	Pause	Pause	Pause	Pause
PLAY ▶	Play	Play	Play	Play

*1: Combination type

Remote Control Code List

Cable Converter (C)

Brand	Code	Brand	Code	Brand	Code	Brand	Code
ABC	0003, 0007, 0008	Hytex	0007	Philips	0317, 1305	Supercable	0276
ADB	2092	i3 Micro	1602	Pioneer	0144, 0533, 0877, 1877	Supermax	0883
Americast	0899	Jerrold	0003, 0012, 0276, 0476, 0810	Pulsar	0000	Thomson	1256
Amino	1602, 1822	Memorex	0000	Quasar	0000	Tocom	0012, 0059
Bell South	0899	Motorola	0276, 0476, 0810, 1106, 1187, 1254, 1376, 1951	RadioShack	0883	Torx	0003
Clearmaster	0883			RCA	0021, 1256	Toshiba	0000
ClearMax	0883	MTS	1951	Regal	0273, 0279	Tristar	0883
Contec	0019	Multitech	0883	Runco	0000	United Artists	0007
Coolmax	0883	Myrio	1602, 1822	Samsung	0144	V2	0883
Digeo	1187	Oak	0007, 0019	Scientific Atlanta	0008, 0477, 0877, 1877	Viewmaster	0883
Director	0476	Optimus	0021	Sejin	1602	Vision	0883
General Instrument	0003, 0276, 0476, 0810	Pace	0008, 0237, 1877	Sony	1006	Vortex View	0883
GoldStar	0144	Panasonic	0000, 0021, 0107, 0623	Sprucer	0021	Zenith	0000, 0525, 0899
Hamlin	0009, 0273	Paragon	0000	Starcom	0003		

Cable/PVR Combination (C)

Brand	Code	Brand	Code	Brand	Code	Brand	Code
Americast	0899	Jerrold	0810	Pioneer	0877, 1877	Supercable	0276
Amino	1822	Motorola	0810, 1106, 1187, 1376	RCA	1256	Thomson	1256
Digeo	1187	Myrio	1822	Scientific Atlanta	0877, 1877	Zenith	0899
General Instrument	0810	Pace	0237, 1877	Sony	1006		

Satellite Receiver (S)

Brand	Code	Brand	Code	Brand	Code	Brand	Code
AlphaStar	0772	GE	0566	Magnavox	0722, 0724	RCA	0143, 0566, 0855, 1392
Bell ExpressVu	0775, 1170	General Instrument	0869	Memorex	0724	Samsung	1108, 1109, 1276, 1377, 1442, 1609
Chaparral	0216	GOI	0775, 1775	Mitsubishi	0749	Sanyo	1219
Coolsat	1806	Goodmans	1246	Motorola	0869	Sony	0639, 1639, 1640
Crossdigital	1109	Hisense	1535	NEC	1270	Star Choice	0869
DirecTV	0099, 0247, 0392, 0566, 0639, 0724, 0749, 0819, 1076, 1108, 1109, 1142, 1189, 1377, 1392, 1414, 1442, 1443, 1444, 1609, 1639, 1640, 1749, 1856	Hitachi	0819, 1250	Next Level	0869	Tivo	1142, 1442, 1443, 1444
		HTS	0775, 1775	Panasonic	0152, 0247, 0701, 1189, 1786	Toshiba	0749, 0790, 1285, 1749
		Hughes Network Systems	0749, 1142, 1442, 1443, 1444, 1749	Pansat	1807	UltimateTV	1392, 1640
				Paysat	0724	Ultrasat	1806
Dish Network System	0775, 1005, 1170, 1505, 1775	Humax	1781, 1790	Philips	0099, 0722, 0724, 0749, 0856, 1076, 1142, 1442, 1749	Uniden	0722, 0724
Dishpro	0775, 1005, 1505, 1775	iLo	1535			US Digital	1535
Echostar	0775, 1005, 1170, 1505, 1775	Janeil	0152	Proscan	0392, 0566	USDTV	1535
Expressvu	0775, 1775	JVC	0775, 1170, 1775	Proton	1535	Voom	0869
Fortec Star	1821, 1948	LG	1226, 1414	RadioShack	0869	Zenith	1810, 1856

DBS/PVR Combination (S)

Brand	Code	Brand	Code	Brand	Code	Brand	Code
Bell ExpressVu	0775, 1170	Echostar	0775, 1170, 1505	Motorola	0869	Sony	0639, 1640
DirecTV	0099, 0392, 0639, 1076, 1142, 1377, 1392, 1442, 1443, 1444, 1640	Expressvu	0775	Philips	1142, 1442	Star Choice	0869
		Hughes Network Systems	1142, 1442, 1443, 1444	Proscan	0392	Tivo	1142, 1442, 1443, 1444
Dish Network System	0775, 1505			RCA	1392	Zenith	1810
Dishpro	0775, 1505	JVC	1170	Samsung	1442		

VCR (V)

Brand	Code	Brand	Code	Brand	Code	Brand	Code
ABS	1972	GE	0035, 0060, 0202, 0240, 0761, 0807, 1035, 1060, 2613	MTC	0000, 0240	Sansui	0000, 0041, 0067, 0209, 0479, 1479
Accurian	0000			Multitech	0000, 0072	Sanyo	0046, 0047, 0104, 0159, 0240
Admiral	0048, 0209	Go Video	0432, 0526, 0614, 0643, 1137	NEC	0038, 0040, 0041, 0050, 0067, 0104	Scott	0043, 0045, 0121, 0184, 0212
Adventura	0000	GoldStar	0037, 0038, 1137, 1237	Nikko	0037	Sears	0000, 0035, 0037, 0042, 0046, 0047, 0104, 0105, 1237
Aiko	0278	Gradiente	0000	Nikon	0034		
Aiwa	0000, 0037, 0124, 0307, 0468	Harley Davidson	0000	Niveus Media	1972	Sharp	0048, 0807, 0848
Akai	0041, 0061, 0106, 0175, 0242	Harman/Kardon	0038, 0075, 0081	Noblex	0240	Shintom	0072
Alienware	1972	Harwood	0068, 0072	Northgate	1972	Shogun	0240
Allegro	1137	Headquarter	0046	Olympus	0035, 0226	Singer	0072
America Action	0278	Hewlett Packard	1972	Onkyo	0222	Sonic Blue	0614, 0616, 1137
American High	0035	HI-Q	0047	Optimus	0037, 0048, 0104, 0162, 0432, 0593, 1048, 1062, 1162, 1262	Sony	0000, 0032, 0033, 0034, 0035, 0636, 1032, 1972
Asha	0240	Hitachi	0000, 0041, 0042, 0089, 0105, 2613	Orion	0002, 0184, 0209, 0479, 1479	Stack 9	1972
Audio Dynamics	0040	Howard Computers	1972	Panasonic	0035, 0077, 0102, 0162, 0225, 0226, 0227, 0246, 0378, 0485, 0614, 0616, 0837, 1035, 1062, 1162, 1244, 1262, 1562, 1807, 1808, 1809	STS	0042
Audiovox	0037, 0278	HP	1972			Sylvania	0000, 0035, 0043, 0081, 0110, 0593, 1593, 1781
Beaumark	0240	Hughes Network Systems	0042, 0739			
Bell & Howell	0104					Symphonic	0000, 0593, 1593
Broksonic	0002, 0121, 0184, 0209, 0348, 0479, 1479	Humax	0739, 1797, 1988	Penney	0035, 0037, 0038, 0040, 0042, 0240, 1035, 1237	Systemax	1972
		Hush	1972			Tagar Systems	1972
Calix	0037	iBUYPOWER	1972	Pentax	0042, 0105,	Tashiko	0037
Canon	0035, 0102	Instant Replay	0035, 0226	Philco	0035	Tatung	0041
Captive Works	2167	Jensen	0041	Philips	0035, 0081, 0110, 0618, 0739, 1081, 1181	Teac	0000, 0041
Carver	0081	JVC	0008, 0041, 0067, 2079			Technics	0035, 0162, 0246
CCE	0072, 0278	KEC	0037, 0278			Teknika	0000, 0035, 0037
CineVision	1137	Kenwood	0038, 0041, 0067	Pilot	0037	Thomas	0000
Citizen	0037, 0278, 1278	KLH	0072	Pioneer	0067, 1337	Tivo	0618, 0636, 0739, 1337, 1996
Colt	0072	Kodak	0035, 0037	Polk Audio	0081	TMK	0208, 0240
Craig	0037, 0047, 0072, 0240	LG	1037, 1137, 2010	Presidian	1593	Toshiba	0043, 0045, 0212, 0845, 1008, 1145, 1972, 1988, 1996
Curtis Mathes	0035, 0041, 0060, 0162, 1035	Linksys	1972	Profitronic	0240		
Cybernex	0240	Lloyd's	0000, 0208	Proscan	0060, 0202, 0761, 1060	Totevision	0037, 0240
CyberPower	1972	Logik	0072	Protec	0072	Touch	1972
Daewoo	0045, 0278, 0561, 0637, 1137, 1278	LXI	0037	Pulsar	0039	Unitech	0240
DBX	0040, 0050	Magnasonic	0593, 1278	Quarter	0046	Vector	0045
Dell	1972	Magnavox	0000, 0035, 0039, 0081, 0110, 0149, 0563, 0593, 1335, 1593, 1781	Quartz	0046	Vector Research	0038, 0040
Denon	0042			Quasar	0035, 0077, 0162, 1035, 1162	Video Concepts	0040, 0045, 0061
Dimensia	2613	Magnin	0240	RadioShack	0000, 1037	Videomagic	0037
DirecTV	0739	Marantz	0035, 0081	Radix	0037	Videosonic	0240
Durabrand	0038, 0039	Marta	0037	Randex	0037	Viewsonic	1972
Dynatech	0000	Matsushita	0035, 0162, 1162	RCA	0042, 0060, 0077, 0105, 0106, 0149, 0202, 0240, 0761, 0807, 0880, 1035, 1060, 2613	Villain	0000
Electrohome	0037	Media Center PC	1972			Voodoo	1972
Electrophonic	0037	MEI	0035			Wards	0000, 0035, 0042, 0047, 0048, 0060, 0072, 0081, 0149, 0212, 0240
Emerex	0032	Memorex	0000, 0035, 0037, 0039, 0046, 0047, 0048, 0104, 0162, 0240, 0307, 0348, 0479, 1037, 1162, 1237, 1262	Realistic	0000, 0035, 0037, 0046, 0047, 0048, 0104	
Emerson	0000, 0002, 0037, 0043, 0061, 0068, 0121, 0184, 0208, 0209, 0212, 0278, 0479, 0561, 0593, 0637, 1278, 1479, 1593			ReplayTV	0614, 0616	White Westinghouse	0072, 0209, 0637
				Ricavision	1972	XR-1000	0000, 0035, 0072
		MGA	0043, 0061, 0240	Ricoh	0034	Yamaha	0038
ESA	1137	MGN Technology	0240,	Rio	1137	Zenith	0000, 0033, 0034, 0039, 0209, 0479, 0637, 1137, 1139, 1479
Fisher	0047, 0104	Microsoft	1972	Runco	0039		
Fuji	0033, 0035	Mind	1972	Salora	0075	ZT Group	1972
Funai	0000, 0593, 1335, 1593	Minolta	0042, 0105	Samsung	0045, 0240, 0739, 1014		
Garrard	0000	Mitsubishi	0043, 0061, 0067, 0075, 0173, 0214, 0242, 0443, 0807	Samtron	0643		
Gateway	1972	Motorola	0035, 0048	Sanky	0039, 0048		

■ Remote Control Code List

DBS/PVR Combination (V) (DBS/CBL)

Brand	Code	Brand	Code	Brand	Code	Brand	Code
DirecTV	0739	Hughes Network Systems	0739	Philips	0739	Tivo	0739
				Samsung	0739		

DVD-Recorder (V) (DBS/CBL)

Brand	Code
Magnavox	0000

PVR (V) (DBS/CBL)

Brand	Code	Brand	Code	Brand	Code	Brand	Code
ABS	1972	Hughes Network Systems	0739	Northgate	1972	Tagar Systems	1972
Alienware	1972	Humax	0739, 1797, 1988	Panasonic	0614, 0616, 1807, 1808, 1809	Tivo	0618, 0636, 0739, 1337
Captive Works	2167	Hush	1972	Philips	0618, 0739	Toshiba	1008, 1972, 1988, 1996
CyberPower	1972	iBUYPOWER	1972	Pioneer	1337	Touch	1972
Dell	1972	LG	2010	RCA	0880	Viewsonic	1972
DirecTV	0739	Linksys	1972	ReplayTV	0614, 0616	Voodoo	1972
Gateway	1972	Media Center PC	1972	Samsung	0739	ZT Group	1972
Go Video	0614	Microsoft	1972	Sonic Blue	0614, 0616		
Hewlett Packard	1972	Mind	1972	Sony	0636, 1972		
Howard Computers	1972	Niveus Media	1972	Stack 9	1972		
HP	1972			Systemax	1972		

DVD (Y) (DVD)

Brand	Code	Brand	Code	Brand	Code	Brand	Code
Accurian	0675, 1072, 1416	Emerson	0591, 0675, 1268	Malata	0782, 1159	Sampo	0698, 0752
Adcom	1094	Enterprise	0591	Marantz	0539	Samsung	0199, 0490, 0573, 0820, 0899, 1044, 1075, 1470
Aiwa	0641	ESA	1268	McIntosh	1273		
Akai	0695, 0770, 0899, 1089	Fisher	0670	Memorex	0695, 0831, 1270	Sansui	0695
Alco	0790	Funai	0675, 1268, 1334	Microsoft	0522, 1708, 2083	Sanyo	0670, 0695, 0873
Allegro	0869	Gateway	1073, 1077, 1158	Mintek	0717, 0839, 1472	Sensory Science	1158
Amphion Media Works	0872, 1245	GE	0522, 0717, 0815	Mitsubishi	0521, 1521	Sharp	0630, 0675, 0752, 1256
AMW	0872, 1245	Go Video	0715, 0741, 0744, 0783, 0833, 0869, 1044, 1075, 1099, 1144, 1158, 1304, 1730	Momitsu	1082	Sharper Image	1117
Apex Digital	0672, 0717, 0755, 0794, 0796, 0797, 1004, 1020, 1056, 1061, 1100			NAD	0692, 0741	Sherwood	0633, 0770, 1043, 1077
				Nakamichi	1222	Shinsonic	0533, 0839
Arrgo	1023	Go Vision	1072	NEC	0785	Sigma Designs	0674
Aspire Digital	1168, 1407	GoldStar	0741	Nesa	0717	Sonic Blue	0869, 1099
Astar	1678, 1679	GPX	0699, 0769	Next Base	0826	Sony	0533, 0864, 1033, 1069, 1070, 1431, 1432, 1433, 1516, 1533, 1536, 1548, 1791, 1824, 1892, 1903, 1904, 1934, 1981, 2020, 2043
Audiologic	0736	Greenhill	0717	NexxTech	1402		
Audiovox	0790, 1041, 1072, 1121, 1122	Harman/Kardon	0582, 0702	Norcent	0872, 1003, 1107, 1265		
Axion	1072	Helios	2080	Nova	1517		
B & K	0655, 0662	Hello Kitty	0831	Onkyo	0503, 0627, 0792, 1769		
BBK	1224	Hitachi	0573, 0664, 1247	Oppo	0575, 1224 1525	Sova	1122
Bel Canto Design	1571	Hiteker	0672	OptoMedia Electronics	0896	Sungale	1074
Blaupunkt	0717	Humax	1500, 1588	Oritron	0651	SVA	0860, 1105
Blue Parade	0571	iLo	1348, 1472	Panasonic	0458, 0490, 0632, 0703, 1010, 1011, 1362, 1462, 1464, 1490, 1641, 1762, 1907, 1908, 1909, 1910, 1925, 1986, 1990, 2017, 2060, 2061, 2062	Sylvania	0675, 1268
Broksonic	0695, 1419	Initial	0717, 1472			Symphonic	0675
CAVS	1057	Insignia	1268, 2095			TAG McLaren	0894
Cinea	0831	Integra	0627			Teac	0790
Cinego	1399	Jaton	1078			Technics	0490, 0703
CineVision	0833, 0869, 0876	JBL	0702	Philco	0675	Technosonic	0730
Citizen	0695, 1277, 1587, 2116	JSI	1423	Philips	0503, 0539, 0646, 0675, 1267, 1340, 1354, 2056, 2084	Techwood	0692
Coby	0778, 0852, 1086, 1107, 1165, 1177, 1351, 1628	JVC	0558, 0623, 0867, 1164, 1275, 1550, 1602			Terapin	1031
				Pioneer	0142, 0525, 0571, 0631, 0632, 1571	Theta Digital	0571
Craig	0831	jWin	1049, 1051, 1675	Polaroid	1020, 1061, 1086, 1245, 1316, 1478, 2130	Tivo	1503
Curtis Mathes	1087	Kawasaki	0790			Toshiba	0503, 0695, 1045, 1154, 1503, 1588, 1608, 1769, 1854
CyberHome	0816, 0874, 1023, 1024, 1117, 1129, 1502, 1537	Kenwood	0490, 0534, 0682	Polk Audio	0539		
		KLH	0717, 0790, 1020, 1149	Portland	0770	Tredex	0799, 0800, 0803, 0804
Daewoo	0705, 0784, 0833, 0869, 1169, 1172, 1234, 1242, 1441	Konka	0711, 0721	Presidian	0675, 1072	Urban Concepts	0503
		Koss	0651, 0896, 1423	Princeton	0674	US Logic	0839
Denon	0490, 0634, 1634	Landel	0826	Proscan	0522	Venturer	0790
Desay	1407	Lasonic	0798, 1173	ProVision	0778	Vizio	1064, 1226
Diamond Vision	1316	Lenoxx	1127	Qwestar	0651	Vocopro	1027, 1360
Disney	0675, 1270	LG	0591, 0741, 0869	RCA	0522, 0571, 0717, 0790, 0822, 1022, 1132, 1769	Xbox	0522, 1708, 2083
Dual	1068, 1085	LiteOn	1058, 1158, 1416, 1440, 1656			Xwave	1001
Durabrand	1127	Loewe	0511	Rio	0869	Yamaha	0490, 0497, 0539, 0545
DVD2000	0521	Magnavox	0503, 0539, 0646, 0675, 1268, 1354, 1472, 1506	RJTech	1360	Zenith	0503, 0591, 0741, 0869
Electrohome	2116			Rotel	0623, 1178	Zoece	1265
				Rowa	0823		

DVD-Recorder (Y) (DVD)

Brand	Code	Brand	Code	Brand	Code	Brand	Code
Accurian	0675, 1416	Funai	0675, 1334	Panasonic	0490, 1010, 1011, 2060, 2061, 2062	Sony	1033, 1069, 1070, 1431, 1432, 1433, 1536
Apex Digital	1056	Gateway	1073, 1158	Philips	0646, 1340		
Aspire Digital	1168	Go Video	0741, 1158, 1304, 1730	Pioneer	0631	Sylvania	0675
Broksonic	1419	iLo	1348	Polaroid	1086, 2130	Toshiba	1588
Citizen	2116	JVC	1164, 1275	RCA	0522	Zenith	0741
Coby	1086	LG	0741	Samsung	0490, 1470		
CyberHome	1129, 1502	LiteOn	1158, 1416, 1440	Sensory Science	1158		
Electrohome	2116	Magnavox	0646, 0675, 1506	Sharp	0675		

Blu-ray Disc (Y) (DVD)

Brand	Code	Brand	Code	Brand	Code
LG	0741	Philips	2084	Samsung	0199
Panasonic	1641, 2061, 2062	Pioneer	0142	Sony	1516

HD-DVD (Y) (DVD)

Brand	Code	Brand	Code	Brand	Code	Brand	Code
LG	0741	Onkyo	1769	RCA	1769	Toshiba	1769

HTiB (Y) (DVD)

Brand	Code	Brand	Code	Brand	Code	Brand	Code
Aiwa	0641	Panasonic	0458, 1779, 1907, 1908, 1909, 1910, 1925, 1990, 2017	Rio	0869	Teac	0790
Audiovox	0790			Sherwood	1077	Toshiba	1854
KLH	0790	Philips	1267	Sonic Blue	0869	Venturer	0790
Koss	0651	Polk Audio	0539	Sony	1824, 1892, 1903, 1904, 1934, 1981, 2020, 2043	Yamaha	0497
Oritron	0651	RCA	0790				

Ratings List for Lock

"V-chip" technology enables you to lock channels or shows according to standard ratings set by the entertainment industry. (p. 41)

■ U.S. MOVIE RATINGS (MPAA)

NR	NO RATING (NOT RATED) AND NA (NOT APPLICABLE) PROGRAMS. Movie which has not been rated or where rating does not apply.
G	GENERAL AUDIENCES. All ages admitted.
PG	PARENTAL GUIDANCE SUGGESTED. Some material may not be suitable for children.
PG-13	PARENTS STRONGLY CAUTIONED. Some material may be inappropriate for children under 13.
R	RESTRICTED. Under 17 requires accompanying parent or adult guardian.
NC-17	NO ONE 17 AND UNDER ADMITTED.
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	● Viewable ● Blocked	Not Rated.
Youth	TV-Y	● Viewable ● Blocked	All children. The themes and elements in this program are specifically designed for a very young audience, including children from ages 2-6.
	TV-Y7	● FV Blocked ● Viewable ● Blocked	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.
Guidance	TV-G	● Viewable ● Blocked	General audience. It contains little or no violence, no strong language, and little or no sexual dialogue or situations.
	TV-PG	● D,L,S,V (all selected) ● Any combination of D, L, S, V	Parental guidance suggested. The program may contain infrequent coarse language, limited violence, some suggestive sexual dialogue and situations.
	TV-14	● D,L,S,V (all selected) ● Any combination of D, L, S, V	Parents strongly cautioned. This program may contain sophisticated themes, sexual content, strong language and more intense violence.
	TV-MA	● L,S,V (all selected) ● Any combination of L, S, V	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.
C	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

● Remote Control Operation/Code List ● Ratings List for Lock

FAQs, etc.

Technical Information

Closed Caption (CC)

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

Aspect Ratio (FORMAT)

Press the FORMAT button to cycle through the aspect modes. This lets you choose the aspect depending on the format of the received signal and your preference. (p. 17)
(e.g.: in case of 4:3 image)

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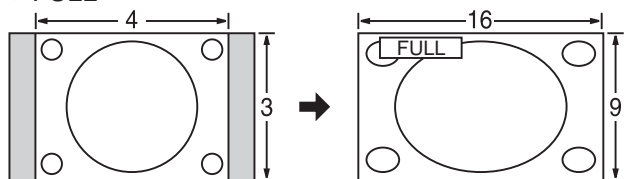
Enlarges the 4:3 image horizontally to the screen's side edges. (Recommended for anamorphic picture)

- 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)
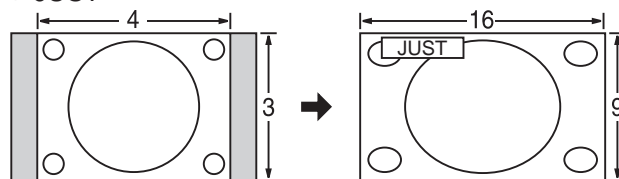
- JUST

Stretches to justify the 4:3 image to the four corners of the screen.
(Recommended for normal TV broadcast)

- 4:3
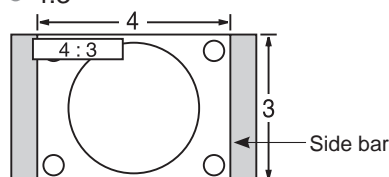
Standard
(Note that "Image retention" of the side bar may occur from displaying it for a long time.)

Side bar

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

- Zoom adjust
  Vertical image position and size can be adjusted in "ZOOM".
  ① Select "Zoom adjust" on the "Picture" menu. (p. 28-29)
  ② V-position: Vertical position adjustment   ③ V-size: Vertical size adjustment
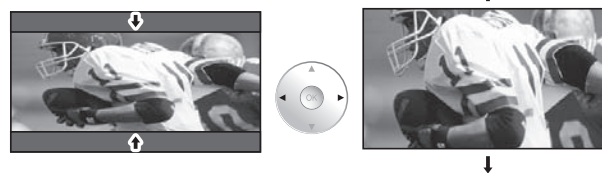
- To reset the aspect ratio ➡ (OK) (OK)

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

Movie: SD-Video Standard Ver. 1.2 [MPEG-2 (PS format)] and AVCHD Standard compatible files with an audio format that is either MPEG-1/Layer-2 format or Dolby Digital format
(A modified data with a PC may not be displayed correctly.)

* DCF (Design rule for camera file system): A Japan Electronics and Information Technology Industries Association's standard

** EXIF (Exchangeable Image File Format)

Note

- Format the card with the recording equipment.
- The picture may not appear correctly on this TV depending on the recording equipment used.
- Display may take some time when there are many files and folders.
- This function cannot display Motion JPEG and still image not DCF formatted (i.e. TIFF, BMP).
- Data modified with a PC may not be displayed.
- Images imported from a PC must be compatible with EXIF 2.0, 2.1 and 2.2.
- Partly degraded files might be displayed at a reduced resolution.
- All ".JPG" extension datas in the card will be read in Photo View Mode.
- The folder and file names may be different depending on the digital camera used.
- Do not use two-byte characters or other special codes.
- The card may become unusable with this TV if file or folder names are changed.
- 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:

- 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.)

SD Card warning messages

Message	Meaning
Is SD card in?	• The card is not inserted.
No file	• The card has no data or this type of data is not supported.
Cannot read file	• The file is broken or unreadable. • The TV does not support the format.
Feature not available	• Your operation is not available.

GalleryPlayer warning messages

Cannot display image due to incorrect ID data.	• There is a problem with your TV decoder. • If this message appears, please contact Panasonic Service Center for assistance. Refer to page 63 (Customer Services Directory), page 62, 64 (Limited Warranty)
Cannot display image on SD card.	• There is a problem with the data. Check the data inside the SD card.

● Technical Information

FAQs, etc.

Technical Information (Continued)

VIERA Link™ "HDAVI Control™"

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), VIERA Link™ is available for the terminal with the smaller number.
- If you connect equipment that has more than "HDAVI Control 2" (or more) function to the TV with HDMI cable, the sound from DIGITAL AUDIO OUT terminal can be output as multi channel surround.
- "HDAVI Control 3" is the newest standard (current as of December, 2007) for the HDAVI Control compatible equipment. This standard is compatible with the conventional HDAVI equipment.

HDMI connection

HDMI (high-definition multimedia interface) allows you to enjoy high-definition digital images and high-quality sound by connecting the TV unit and the devices.
HDMI-compatible equipment (*1) with an HDMI or DVI output terminal, such as a set-top box or a DVD player, can be connected to the HDMI connector using an HDMI compliant (fully wired) cable.

- HDMI is the world's first complete digital consumer AV interface complying with a non-compression standard.
- If the external equipment has only a DVI output, connect to the HDMI terminal via a DVI to HDMI adapter cable (*2).
- When the DVI to HDMI adapter cable is used, connect the audio cable to the audio input terminal.
- Audio settings can be made on the "HDMI 1 in", "HDMI 2 in", "HDMI 3 in" or "HDMI 4" 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.
(*2): Enquire at your local digital equipment retailer shop.

Caution

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

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.
- When playing movie on SD Card Movie player, when the sound has been recorded in Dolby Digital, the output from the DIGITAL AUDIO OUT terminal will be Dolby Digital. When the sound is recorded in the other formats, the output will be PCM. See pages 48-49 for more information

Picture mode

- Vivid: Provides enhanced picture contrast and sharpness for viewing in a well-lit room.
- Standard: Recommended for normal viewing conditions with subdued room lighting.
- Studio ref: Provides high-quality gradation and color tone picture for a cinema-like feel.
- Game: For playing video game. This mode will be set automatically if "GAME" is selected from Input label setting (p. 45)
- Custom (Photo):   Customizes each item according to your taste.
                    Photo is displayed in JPEG mode.

Note

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

Pro setting

- Normal: Resets all Pro setting adjustments to factory default settings. (Set/No)
- Panel brightness: Selects the display panel brightness.
  (High: Vivid, Mid: Standard, Low: Studio ref)
- Contour emphasis: Adjusts the contour emphasis of the image. (On/Off)
- Gamma adjust: Gamma correction. Adjusts the intermediate brightness of the image. (Normal/Mid/Full 1/Full 2)
- Black extension: Adjusts the dark shades of the image in gradation.
- W/B high R: Adjusts the white balance for light red areas.
- W/B high B: Adjusts the white balance for light blue areas.
- W/B low R: Adjusts the white balance for dark red areas.
- W/B low B: Adjusts the white balance for dark blue areas.
- AGC: Increases the brightness of dark signal automatically. (On/Off)

Input signal that can be displayed

* Mark: Applicable input signal for Component (Y, P_B, P_R), 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		*	
1,125 (1,080) /24p	26.97	23.98		*	
1,125 (1,080) /24p	27.00	24.00		*	
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.

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 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
  If the display resolution exceeds these maximums, it may not be possible to show fine detail with sufficient clarity.
- Signal Names for D-sub 15P Connector
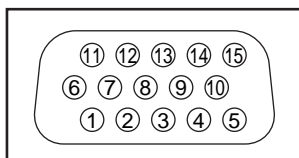
Pin Layout for PC Input Terminal

| Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
①	R	⑥	GND (Ground)	⑪	NC (not connected)
②	G	⑦	GND (Ground)	⑫	NC
③	B	⑧	GND (Ground)	⑬	HD/SYNC
④	NC (not connected)	⑨	NC (not connected)	⑭	VD
⑤	GND (Ground)	⑩	GND (Ground)	⑮	NC

Technical Information (Continued)

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.
See pages 30-31 for more information
● The side bar may flash (alternate black/white) depending on the picture. Using Cinema mode will reduce such flashing (See below).
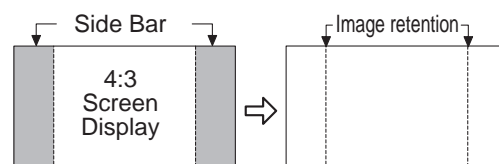
Scrolling bar

Scrolling bar: To prevent "Image retention", scrolls white horizontal bar from top to bottom on a black screen.
● Press any key except the POWER key to return to previous screen.
● You will return to previous screen if no key operation has not been performed for 15 minutes.
  See pages 30-31 for more information
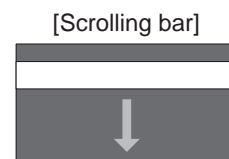
Care and Cleaning

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

Display panel

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

Cabinet

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

Pedestal

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

Specifications

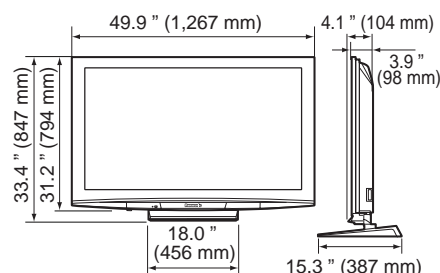|		TH-46PZ850U	TH-50PZ850U
Power Source		AC 120 V, 60 Hz	
Power Consumption	**Maximum**	638 W	700 W
	Standby condition	0.2 W	0.2 W
Plasma Display panel	**Drive method**	AC type	
	Aspect Ratio	16:9	
	Visible screen size	46 " class (46.0 inches measured diagonally)	50 " class (49.9 inches measured diagonally)
	(W × H × Diagonal)	40.1 " × 22.5 " × 46.0 " (1,019 mm × 573 mm × 1,169 mm)	43.5 " × 24.4 " × 49.9 " (1,106 mm × 622 mm × 1,269 mm)
	(No. of pixels)	2,073,600 (1,920 (W) × 1,080 (H)) [5,760 × 1,080 dots]	
Sound	**Audio Output**	Super Slim SP (2.5 W) × 2, Woofer (13 W) × 2	
PC signals		VGA, SVGA, XGA, WXGA, SXGA Horizontal scanning frequency 31 - 69 kHz Vertical scanning frequency 59 - 86 Hz	
Channel Capability (Digital/Analog)		VHF/ UHF: 2 - 69, CATV: 1 - 135	
Operating Conditions		Temperature:　　32 °F – 104 °F (0 °C – 40 °C) Humidity:　　　20 % – 80 % RH (non-condensing)	
Connection Terminals	**VIDEO IN 1-2**	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]	
	COMPONENT 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]	
	HDMI 1-4	TYPE A Connector × 4 ● This TV supports "HDAVI Control 3" function.	
	PC	D-SUB 15PIN:　　R,G,B / 0.7 V [p-p] (75 Ω) 　　　　　　　　HD, VD / 1.0 - 5.0 V [p-p] (high impedance) AUDIO L-R:　　　Stereo Mini Jack (Φ3.5 mm) × 1	
	RS232C (Serial)	D-sub 9pin for external control	
	LAN (for VIERA CAST IPTV)	RJ45 (10BASE-T/100BASE-TX)	
	Card slot	SD CARD slot × 1	
	AV PROG OUT	VIDEO:　　　　RCA PIN Type × 1　　1.0 V [p-p] (75 Ω) AUDIO L-R:　　RCA PIN Type × 2　　0.5 V [rms]	
	DIGITAL AUDIO OUT	PCM / Dolby Digital, Fiber Optic	
FEATURES		3D Y/C FILTER　　CLOSED CAPTION　　　IPTV (VIERA CAST) V-Chip　　　　　　BBE VIVA 3D Photo viewer　　　Movie player　　　　　HDAVI Control 3	
Dimensions (W × H × D)	**Including pedestal**	46.5 " × 31.7 " × 15.3 " (1,181 mm × 803 mm × 387 mm)	49.9 " × 33.4 " × 15.3 " (1,267 mm × 847 mm × 387 mm)
	TV Set only	46.5 " × 29.6 " × 4.1 " (1,181 mm × 750 mm × 104 mm)	49.9 " × 31.2 " × 4.1 " (1,267 mm × 794 mm × 104 mm)
Mass	**Including pedestal**	92.6 lb. (42 kg)	99.3 lb. (45 kg)
	TV Set only	83.8 lb. (38 kg)	88.2 lb. (40 kg)

[TH-46PZ850U]　　　　　　**[TH-50PZ850U]**

46.5 " (1,181 mm)　4.1 " (104 mm)　　3.9 " (98 mm)
31.7 " (803 mm)　29.6 " (750 mm)
18.0 " (456 mm)　15.3 " (387 mm)

49.9 " (1,267 mm)　4.1 " (104 mm)　　3.9 " (98 mm)
33.4 " (847 mm)　31.2 " (794 mm)
18.0 " (456 mm)　15.3 " (387 mm)
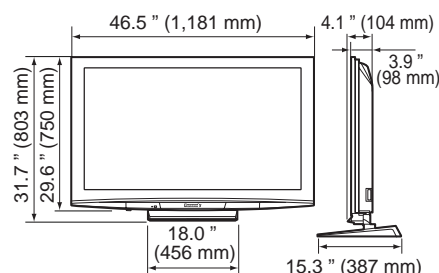
(Note)

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

● Technical Information　● Care and Cleaning　● Specifications

FAQs, etc.

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. 63, 64)
For additional assistance, please contact us via the website at:
www.panasonic.com/contactinfo
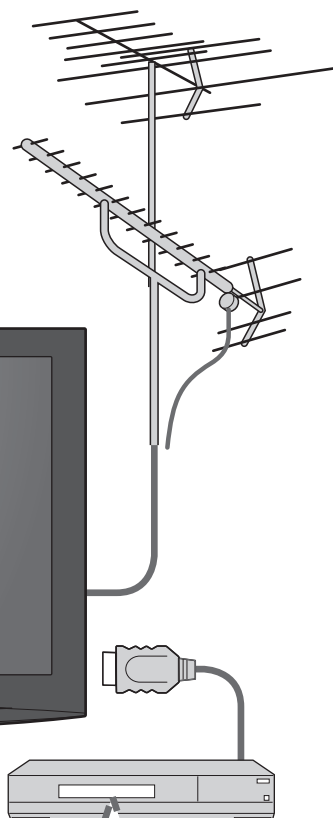www.panasonic.ca

White spots or shadow images (noise)
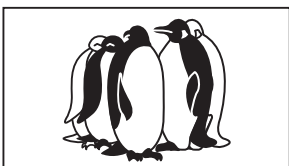
- Check the position, direction, and connection of the antenna.

Interference or frozen digital channels (intermittent sound)

- Change the direction of antenna for digital channels.
- Check "Signal meter" (p. 43). 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. 48, 49)
- Turn Off the TV unit and equipment, then turn them On again.
- Check an input signal from the equipment. (p. 57)
- Use equipment compliant with EIA/CEA-861/861B.

Recording does not start immediately

- Check the settings of the recorder. For details, read the manual of the recorder.

The remote control does not work

- Are the batteries installed correctly? (p. 6)
- Are the batteries new?
- Select the correct remote control mode (p. 13, 22)

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
Screen	

"Press any key to return" moves on the screen	● The function to prevent "Image retention" is activated. (Not a faulty symptom)
	   ● The screen saver is activated if the TV unit is not operated for a certain time in SD mode.
	   ● "Image retention" (p. 5)

One spot remains dark	● A pixel or luminescent spot can occasionally be missing in plasma displays. (Not a faulty symptom)
Chaotic image, noisy	● Check nearby electrical products (car, motorcycle, fluorescent lamp).
No image can be displayed	● Check Picture menu (p. 28) ● Check the cable connections. (p. 9-12) ● Check that the correct input has been selected. (p. 22)
Only spots are displayed instead of images	● Check the channel settings. (p. 42) ● Check the antenna cables.
Neither image nor sound is produced	● Is the AC power cord plugged into the outlet? ● Is the TV unit turned On? ● Check Picture menu (p. 28) and volume. ● Check the AV cable connections. (p. 9-12) ● Check that the correct input has been selected. (p. 22)
Black Box appears	● Change settings of Closed Caption (CC). (p. 44)
Sound	
No sound is produced	● Are the speakers' cables connected correctly? (p. 48) ● Is "Sound Mute" active? (p. 13) ● Is the volume set to the minimum? ● Is "Speaker output" set to "Off"? (p. 28) ● Change "SAP" settings. (p. 16) ● Check "HDMI 1 in", "HDMI 2 in", "HDMI 3 in" or "HDMI 4 in" settings. (p. 28)
Sound is unusual	● Set "SAP" setting to "Stereo" or "Mono." ● Check the HDMI device connected to the unit. ● Set the audio setting of the HDMI device to "Linear PCM." ● If digital sound connection has a problem, select analog sound connection.
Whirling sound is heard	● The sound is from the built-in cooling fan (not a sign of faulty operation).
TV set	
Parts of the TV set become hot.	● Even when the temperature of parts of the front, top and rear panels has risen, these temperature rises will not pose any problems in terms of performance or quality.

● FAQ

FAQs, etc.

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Limited Warranty (for U.S.A.)

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

On-Site or Carry-in Service

For On-Site or Carry-In Service in the United States call 1-877-95-VIERA (1-877-958-4372).
For assistance in Puerto Rico call Panasonic Puerto Rico, Inc. (787)-750-4300 or fax (787)-768-2910.

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

Limited Warranty Limits And Exclusions

This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage, nor does it cover markings or retained images on the 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 ON-SITE 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/help

or, contact us via the web at:

http://www.panasonic.com/contactinfo

You may also contact us directly at:

1-877-95-VIERA (958-4372)

Monday-Friday 9 am-9 pm; Saturday-Sunday 10 am-7 pm, EST.

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

Accessory Purchases

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

http://www.pstc.panasonic.com

or, send your request by E-mail to:

npcparts@us.panasonic.com

You may also contact us directly at:

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

Panasonic Service and Technology Company

20421 84th Avenue South,

Kent, WA 98032

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

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

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

● Customer Services Directory (for U.S.A.)
● Limited Warranty (for U.S.A.)

FAQs, etc.

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.

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

LIMITATIONS AND EXCLUSIONS

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

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

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

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

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

WARRANTY SERVICE

For product operation and information assistance, please contact:

        Our Customer Care Centre: 1-800 #:   1-866-330-0014
                                       Email link: www.vieraconcierge.ca

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

IF YOU SHIP THE PRODUCT TO A SERVICENTRE

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

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 _____

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