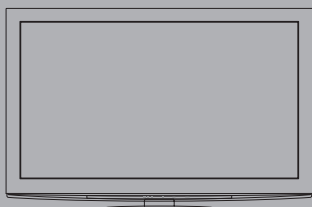# Panasonic®

Operating Instructions
Plasma Television

VIEΓΛ

For more detailed instructions, refer to the Operating Instructions on the CD-ROM.
To view the Operating Instructions on the CD-ROM, you need a computer equipped with a CD-ROM drive, and Adobe® Reader® (Version 7.0 or later is recommended) installed on your computer.

Depending on the operating system or settings on your computer, the Operating Instructions may not start automatically.
In this case, open the PDF file under the "MANUAL" folder manually to view the instructions.

Contents

Be Sure to Read

Quick Start Guide

3D FULL HD **real D 3D**

VIEΓΛ Link **VIEΓΛ IMAGE VIEWER** **VIEΓΛ CAST** **Q Link** **AVCHD™**

dlna CERTIFIED™ **DivX HD** **dts Digital Out** **DOLBY DIGITAL PLUS** **CONEQ™**

SDXC™ **HDMI** **DiSEqC 1.0** **DVB® Digital Video Broadcasting** **FULL HD 1920×1080p** **HD TV 1080p**

Thank you for purchasing this Panasonic product.
Please read these instructions carefully before operating this product and retain them for future reference.
The images shown in this manual are for illustrative purposes only.
Please refer to Pan European Guarantee Card if you need to contact your local Panasonic dealer for assistance.

English

# Safety Precautions

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

If you find any abnormality, remove the mains plug immediately!
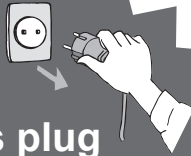
**AC 220-240 V
50 / 60 Hz**

Power source
- This TV is designed to operate on AC 220-240 V, 50 / 60 Hz.

Do not remove covers and NEVER modify the TV yourself
- Do not remove the rear cover as live parts are accessible when it is removed. There are no user serviceable parts inside. (High-voltage components may cause serious electrical shock.)
- Have the TV checked, adjusted, or repaired at your local Panasonic dealer.

Do not expose to rain or excessive moisture
- To prevent damage which might result in electric shock or fire, do not expose this TV to rain or excessive moisture. This TV must not be exposed to dripping or splashing water and objects filled with liquid, such as vases, must not be placed on top of or above the TV.

Do not expose to direct sunlight and other sources of heat
- Avoid exposing the TV to direct sunlight and other sources of heat.

To prevent the spread of fire, keep candles or other open flames away from this product at all times

Do not insert foreign objects into the TV
- Do not allow any objects to drop into the TV through the air vents. (Fire or electrical shock may result.)

Do not place the TV on sloped or unstable surfaces
- The TV may fall off or tip over.

Use only the dedicated pedestals / mounting equipment
- Using an unapproved pedestal or other fixtures may make the TV unstable, risking injury. Be sure to ask your local Panasonic dealer to perform setup.
- Use approved pedestals (p. 5) / wall-hanging brackets (p. 4).

Do not allow children to handle SD Card
- As with any small object, SD Cards can be swallowed by young children. Please remove SD Card immediately after use and store out of reach of children.

2

■ When cleaning the TV, remove the mains plug
● Cleaning an energized TV may cause electrical shock.

### ■ When the TV is not going to be used for a long period of time, remove the mains plug
● This TV will still consume some power even in the Off mode, as long as the mains plug is still connected to a live socket outlet.

■ Transport only in upright position
● Transporting the TV with its display panel facing upward or downward may cause damage to the internal circuitry.

■ Allow sufficient space around the TV for radiated heat

Minimum distance

```
        10
10           10        7
              (cm)
```
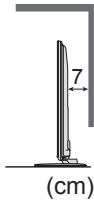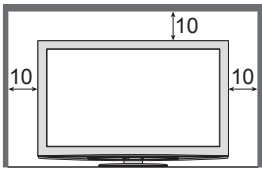
● When using the pedestal, keep the space between the bottom of the TV and the surface where the TV is set.
● In case of using Wall-hanging bracket, follow the manual of it.

■ Do not block the rear air vents
● Blocked ventilation by newspapers, table cloths, curtains, etc. may cause overheating, fire or electrical shock.

■ Do not expose your ears to excessive volume from the headphones
● Irreversible damage can be caused.

■ Do not apply strong force or impact to the display panel
● This may cause damage resulting in injury.

■ The TV is heavy. Handle the TV by 2 or more people. Support as shown to avoid injury by the TV tipping or falling.
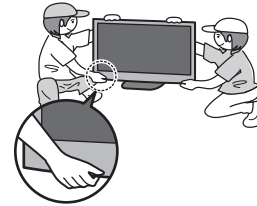
Notes

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
● Video game
● Computer image

To prevent image retention, contrast is lowered automatically after a few minutes if no signals are sent or no operations are performed.

■ Auto power standby function
● The TV will automatically go to Standby mode in the following conditions:
  • no signal is received and no operation is performed for 30 minutes in Analogue TV mode
  • "Off Timer" is active in the Setup Menu (p. 24)
  • no operation is performed for the period selected in "Auto Standby" (p. 27)
● This function does not affect the recording of Timer Programming, Direct TV Recording and One Touch Recording.

■ Keep the TV away from these types of equipment
● Electronic equipment
  In particular, do not place video equipment near the TV. (Electromagnetic interference may distort images / sound.)
● Equipment with an infrared sensor
  This TV also emits infrared rays. (This may affect operation of other equipment.)

Maintenance

First, remove the mains plug from the socket outlet.

Display panel, Cabinet, Pedestal

Regular care:
Gently wipe the surface of the display panel, cabinet, or pedestal by using a soft cloth to clean the dirt or fingerprints.
For stubborn dirt:
Dampen a soft cloth with clean water or diluted neutral detergent (1 part detergent to 100 parts water). Then wring the cloth and wipe the surface. Finally, wipe away all the moisture.

Caution

● Do not use a hard cloth or rub the surface too hard. This may cause scratches on the surface.
● Take care not to subject the TV's surfaces to water or detergent. A liquid inside the TV could lead to product failure.
● Take care not to subject the surfaces to insect repellent, solvent, thinner or other volatile substances. This may degrade surface quality or cause peeling of the paint.
● The surface of the display panel is specially treated and may be easily damaged. Take care not to tap or scratch the surface with your fingernail or other hard objects.
● Do not allow the cabinet and pedestal to make contact with a rubber or PVC substance for a long time. This may degrade surface quality.

Mains plug

Wipe the mains plug with a dry cloth at regular intervals. Moisture and dust may lead to fire or electrical shock.

● Notes ● Maintenance
Safety Precautions

Accessories / Options

Standard accessories

Check that you have the accessories and items shown ☑

☐ Remote Control
  ● N2QAYB000489

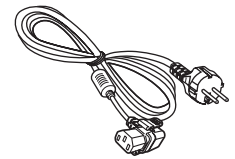☐ Batteries for the
  Remote Control (2)
  ● R6
  ➡ p. 6
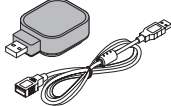
☐ Clamper
  ➡ p. 8
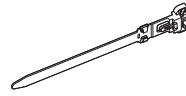
☐ Mains Lead
  ➡ p. 8

☐ Wireless LAN Adaptor and
  Extension cable
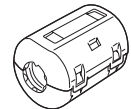 ➡ p. 12

☐ Pedestal
  ➡ p. 5
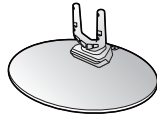
☐ 3D Eyewear set (2)
  ➡ p. 15

☐ Screwdriver
  (for replacing the battery
  of the 3D Eyewear)
  ● + (#0)
  ➡ p. 16

☐ Ferrite core (2)

☐ Operating Instructions

☐ Pan European Guarantee Card

● Accessories may not be placed all together. Take care not to throw them away unintentionally.
● This product contains possibly dangerous parts (such as plastic bags), that can be breathed in or swallowed by young children accidentally. Keep these parts out of reach of young children.

Optional accessories

Please contact your nearest Panasonic dealer to purchase the recommended optional accessories. For additional details, please refer to the manual of the optional accessories.
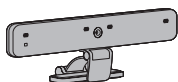
☐ 3D Eyewear set
  (Battery type)
  ● TY-EW3D10E

  (Rechargeable type
  available in autumn 2010)
  ● TY-EW3D2LE
  ● TY-EW3D2ME
  ● TY-EW3D2SE

● If you need 3D Eyewears additionally, please purchase this optional accessory.
● For more product information (English only)
  http://panasonic.net/avc/viera/3d/eu.html
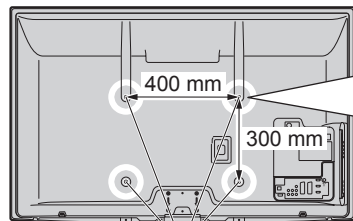
☐ Communication Camera
  ● TY-CC10W

  Caution
  ● This camera can be used on VIERA CAST.
  ● Please also read the manual of the camera.
  ● Depending on the area, this optional accessory may not be available.
    For details, consult your local Panasonic dealer.

☐ Wall-hanging bracket
  ● TY-WK4P1RW

Rear of the TV

400 mm

300 mm
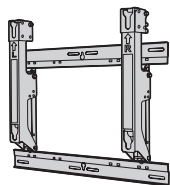
Holes for wall-hanging
bracket installation

Screw for fixing the TV onto the wall-hanging bracket
(not supplied with the TV)
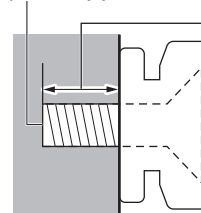
**Depth of screw:
minimum 15 mm, maximum 30 mm**

(View from the side)

Warning
● Using other wall-hanging brackets, or installing a wall-hanging bracket by yourself have the risk of personal injury and product damage. In order to maintain the unit's performance and safety, be absolutely sure to ask your dealer or a licenced contractor to secure the wall-hanging brackets. Any damage caused by installing without a qualified installer will void your warranty.
● Carefully read the instructions accompanying optional accessories, and be absolutely sure to take steps to prevent the TV from falling off.
● Handle the TV carefully during installation since subjecting it to impact or other forces may cause product damage.
● Take care when fixing wall brackets to the wall. Always ensure that there are no electrical cables or pipes in the wall before hanging bracket.
● To prevent fall and injury, remove the TV from its fixed wall position when it is no longer in use.

Attaching / removing the pedestal

Ⓐ Assembly screw (3) (silver)	Ⓑ Assembly screw (4) (black)	Ⓒ Pole	Ⓓ Base
M5 × 18	M5 × 30	●TBLA3828 (TX-P42VT20E) ●TBLA3834 (TX-P46VT20E)	●TBLX0184 (TX-P42VT20E) ●TBLX0155 (TX-P46VT20E)

■**Assembling the pedestal**

Use the assembly screws Ⓐ to fasten the pole Ⓒ to the base Ⓓ securely.
●Make sure that the screws are securely tightened.
●Forcing the assembly screws the wrong way will strip the threads.

Front
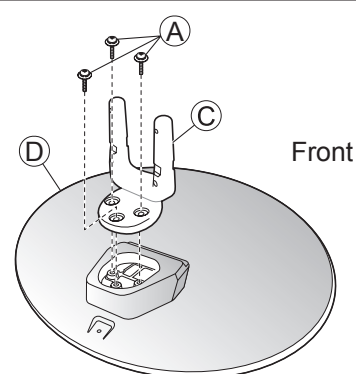
■**Securing the TV**

Use the assembly screws Ⓑ to fasten securely.
●Tighten the four assembly screws loosely at first, then tighten them firmly to fix securely.
●Carry out the work on a horizontal and level surface.
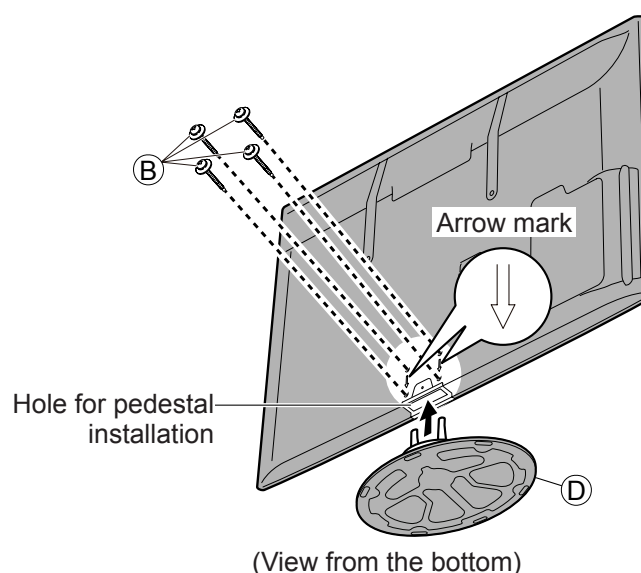
Removing the pedestal from the TV
Be sure to remove the pedestal in the following way when using the wall-hanging bracket or repacking the TV.

① Remove four assembly screws Ⓑ from the TV.
② Pull out the pedestal from the TV.
③ Remove three assembly screws Ⓐ from the pole.

Arrow mark

Hole for pedestal installation

(View from the bottom)

Identifying Controls

Remote Control

■Installing / removing remote's batteries

1 Pull open
Hook

2 Close
Note the correct polarity (+ or -)
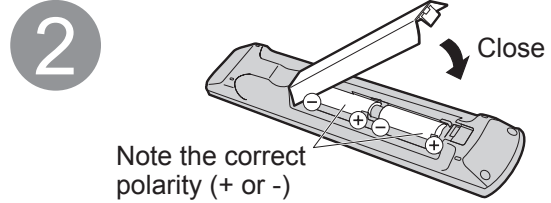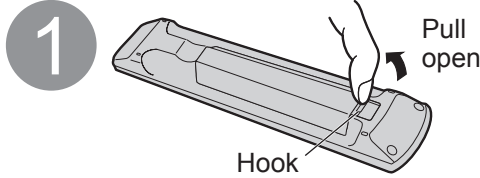
Caution
- Incorrect installation may cause battery leakage and corrosion, resulting in damage to the remote control.
- Do not mix old and new batteries.
- Do not mix different battery types (such as alkaline and manganese batteries).
- Do not use rechargeable (Ni-Cd) batteries.
- Do not burn or breakup batteries.
  Batteries must not be exposed to excessive heat such as sunshine, fire or the like.
- Do not disassemble or modify the remote control.

Media Player
- Switches to SD Card and USB device viewing / listening mode

Standby On / Off switch
- Switches TV On or Off standby

Main Menu
- Press to access Picture, Sound and Setup Menus

Aspect
- Changes aspect ratio from Aspect Selection list
- Also possible by pressing this button repeatedly until you reach the desired aspect

Channel / Programme Information
- Displays channel and programme information

VIERA Link Menu
- Accesses VIERA Link Menu

OK
- Confirms selections and choices
- Press after selecting channel positions to quickly change channel
- Displays the Channel List

Option Menu
- Easy optional setting for viewing, sound, etc.

Coloured buttons
- Used for the selection, navigation and operation of various functions

Teletext
- Switches to teletext mode

Subtitles
- Displays subtitles

Numeric buttons
- Changes channel and teletext pages
- Sets characters
- When in Standby mode, switches TV On (Press for about 1 second)

Sound Mute
- Switches sound mute On or Off

Volume Up / Down

Input mode selection
- TV - switches DVB-S / DVB-C / DVB-T / Analogue mode
- AV - switches to AV input mode from Input Selection list

Direct TV Recording
- Records programme immediately in DVD Recorder / VCR with Q-Link or VIERA Link connection

VIERA CAST
- Displays VIERA CAST home screen

Exit
- Returns to the normal viewing screen

VIERA TOOLS
- Displays some special feature icons and accesses easily

TV Guide
- Displays TV Guide

Cursor buttons
- Makes selections and adjustments

Return
- Returns to the previous menu / page

Hold
- Freeze / unfreeze picture
- Holds the current teletext page (teletext mode)

Index
- Returns to the teletext index page (teletext mode)

Last view
- Switches to previously viewed channel or input mode

Channel Up / Down
- Selects channel in sequence

Connected equipment operations

6

TV

Remote control signal receiver
●Do not place any objects between the TV remote control signal receiver and remote control.

C.A.T.S. (Contrast Automatic Tracking System) sensor
●Senses brightness to adjust picture quality when "Eco Mode" in the Picture Menu is set to "On" (p. 22)

Power and Timer LED
●Standby: red
●On: green
●Timer Programming On: orange
●Recording of Timer Programming, Direct TV Recording or One Touch Recording is in progress: orange (flash)
●Standby with Timer Programming On, Direct TV Recording or One Touch Recording: red with orange flash
●When using the remote control, indicates the TV has received a command.

Infrared transmitter for 3D Eyewear
●Do not place any objects between the transmitter and 3D Eyewear.

CI slot

USB 1 / 2 ports

Function select
●Volume / Contrast / Brightness / Colour / Sharpness / Tint (NTSC signal) / Bass ("Music" or "Speech" mode in the Sound Menu) / Treble ("Music" or "Speech" mode in the Sound Menu) / Balance / Auto Setup

Changes the input mode

Increases or decreases the channel position by one.
When a function is already displayed, press to increase or decrease the selected function.
When in Standby mode, switches TV On (Press for about 1 second).

SD Card slot

HDMI4 terminal

Headphones jack

AV3 terminals

Mains power On / Off switch
●Switch On to turn on the TV or turn the TV to Standby mode by the remote control.

Adjusting the panel to your desired angle
●Do not place any objects within the full rotation range.

(View from the top)

＊: 15°
(TX-P42VT20E)

＊: 10°
(TX-P46VT20E)

● Identifying Controls

Using the On Screen Displays

Many features available on this TV can be accessed via the On Screen Display menu.

■**How to use remote control**

Move the cursor / select the menu item

Move the cursor / adjust levels / select from a range of options

(OK) Access the menu / store settings after adjustments have been made or options have been set

BACK/RETURN Return to the previous menu

MENU Open the main menu

EXIT Exit the menu system and return to the normal viewing screen
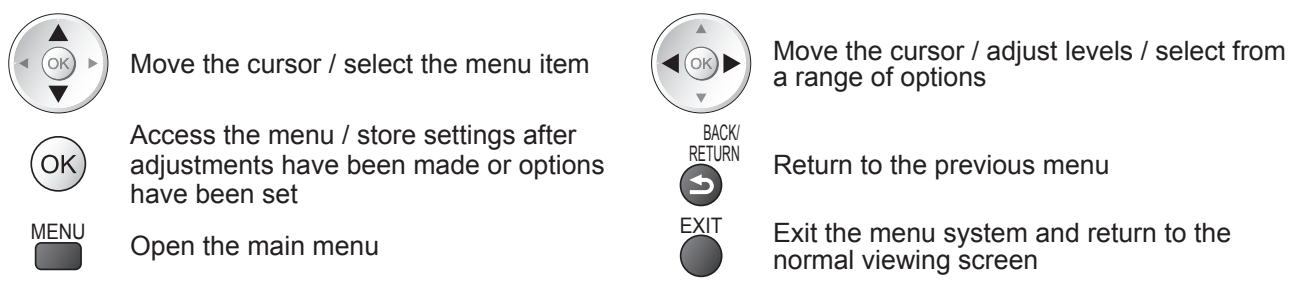
■**ON SCREEN HELP Instructions box - Operation guide**

Example (Sound Menu):

Sound Menu		1/2
Mode	Music	
Bass		0
Treble		0
Balance		0
Headphone Volume		11
Surround	Off	
Volume Correction		0
Speaker Distance to Wall	Over 30cm	
MPX	Stereo	

Select
●EXIT
●Change
●RETURN
Page up
Page down

Operation guide will help you.

Basic Connection

External equipment and cables shown are not supplied with this TV.
Please ensure that the unit is disconnected from the mains socket before attaching or disconnecting any leads.
When disconnecting the mains lead, be absolutely sure to disconnect the mains plug at the socket outlet first.
There are some restrictions on placement for viewing 3D images. For details ➡ p. 14 and p. 17

Example 1
Connecting dish or aerial

TV only
● To ensure your satellite dish is correctly installed, please consult your local dealer.
● Also please consult the received satellite broadcasting companies for details.

AC 220-240 V
50 / 60 Hz

Rear of the TV

Satellite dish

SATELLITE
13/18 V
500 mA MAX

● For digital satellite broadcasts

Satellite cable

Mains lead (supplied)

■ **Mains Lead**

Push until both side tabs click

Make sure that the mains lead is securely fixed.

● To remove from the TV:

① ①
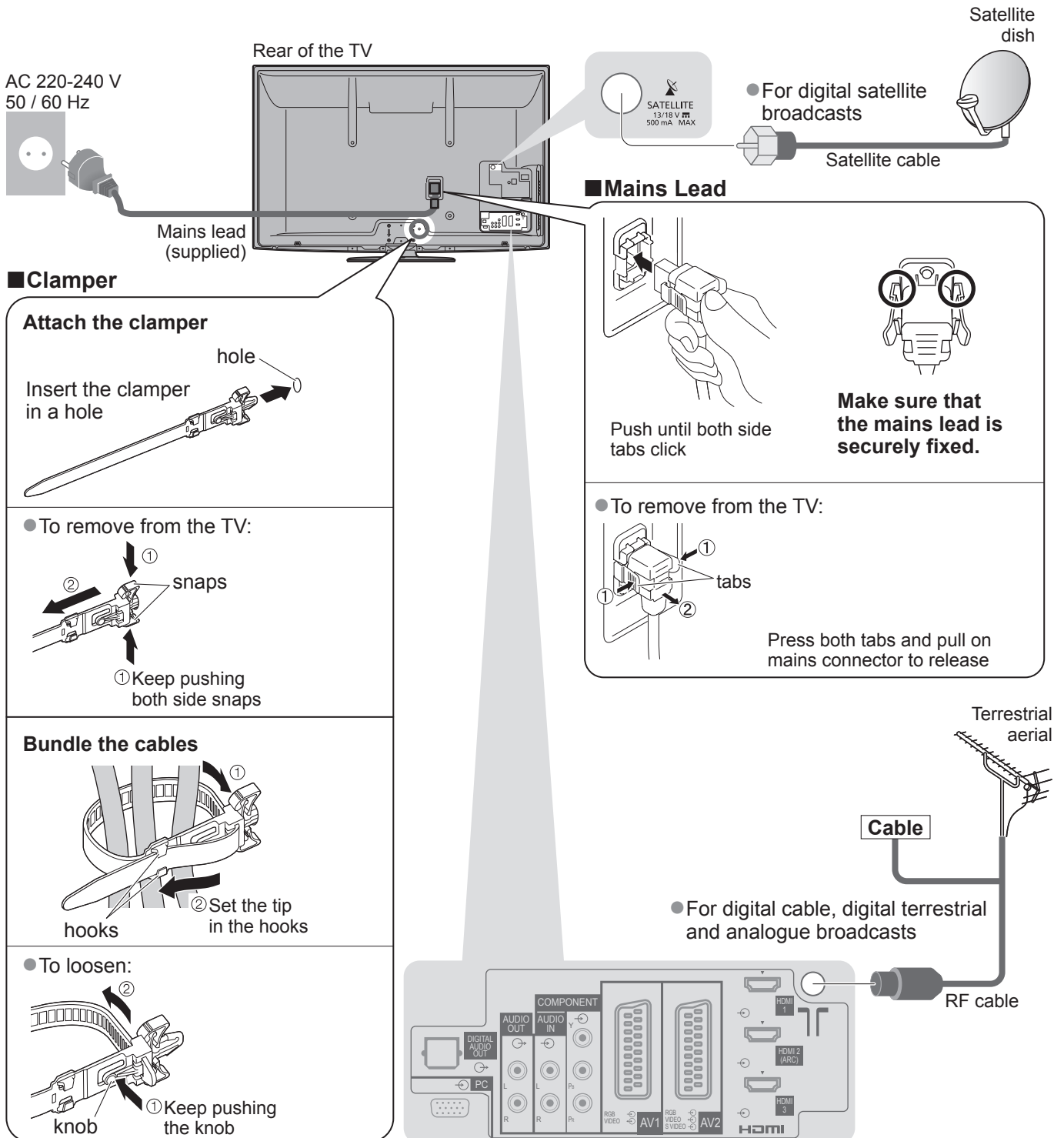② tabs

Press both tabs and pull on mains connector to release

■ **Clamper**

Attach the clamper

hole

Insert the clamper in a hole

● To remove from the TV:

②
① snaps

①Keep pushing both side snaps

Bundle the cables

①
②Set the tip in the hooks

hooks

● To loosen:

②
①Keep pushing the knob

knob

Terrestrial aerial

Cable

● For digital cable, digital terrestrial and analogue broadcasts

RF cable

COMPONENT
AUDIO OUT
AUDIO IN
DIGITAL AUDIO OUT
PC
HDMI 1
HDMI 2 (ARC)
HDMI 3
AV1
AV2
HDMI
RGB VIDEO
RGB VIDEO S VIDEO
L
R
Y
PB
PR

● Do not bundle the Satellite cable, RF cable and mains lead together (could cause distorted image).
● Fix cables with clampers as necessary.
● When using the optional accessory, follow the option's assembly manual to fix cables.

8

Example 2
Connecting DVD Recorder / VCR and Player

TV, DVD Recorder / VCR and Player

Rear of the TV

Terrestrial aerial

Cable

AC 220-240 V
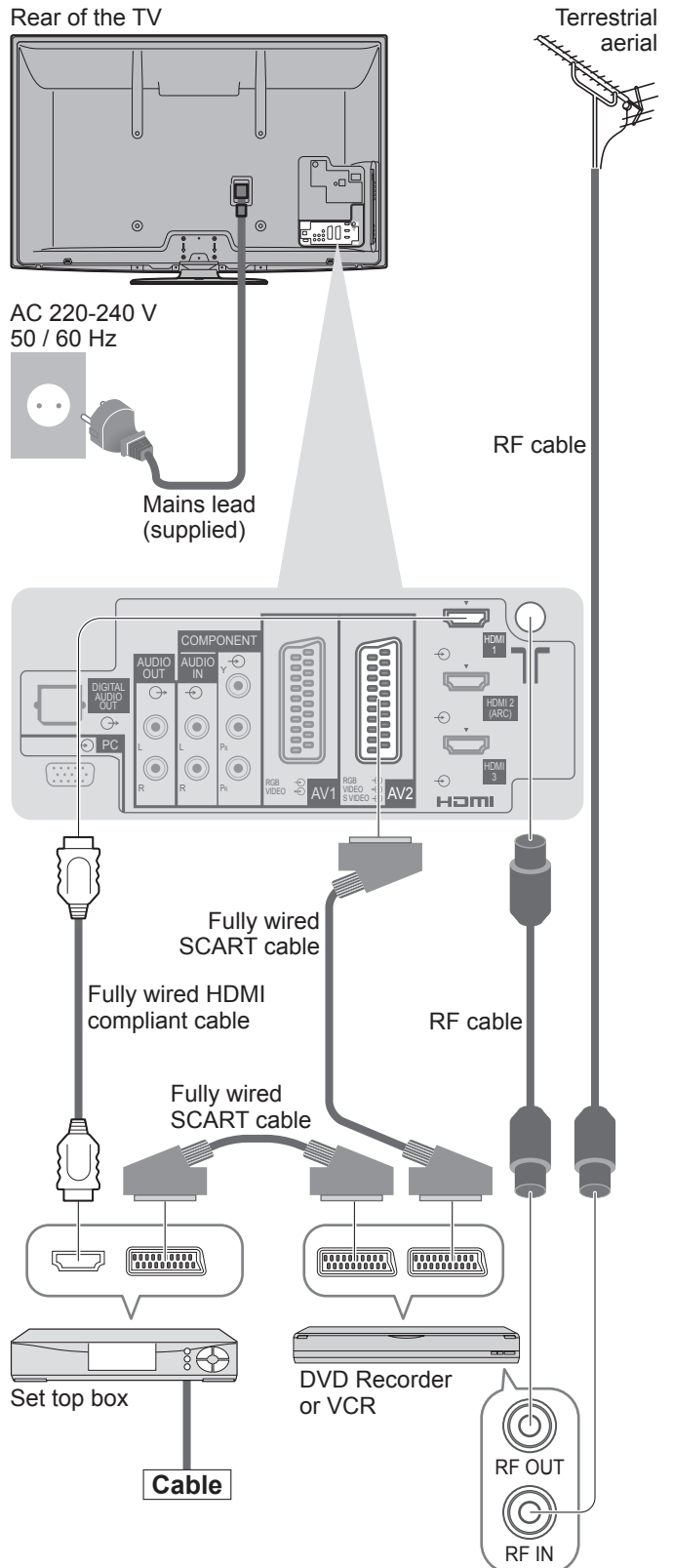50 / 60 Hz

RF cable

Mains lead
(supplied)

COMPONENT

AUDIO OUT
AUDIO IN

DIGITAL AUDIO OUT

PC

L   L   Y

R   R   PB

RGB VIDEO

RGB VIDEO S VIDEO

AV1   AV2

HDMI 1

HDMI 2 (ARC)

HDMI 3

HƎMI

Fully wired HDMI
compliant cable

Fully wired
SCART cable

RF cable

Player /
3D-compatible player

DVD Recorder
or VCR

RF OUT

RF IN
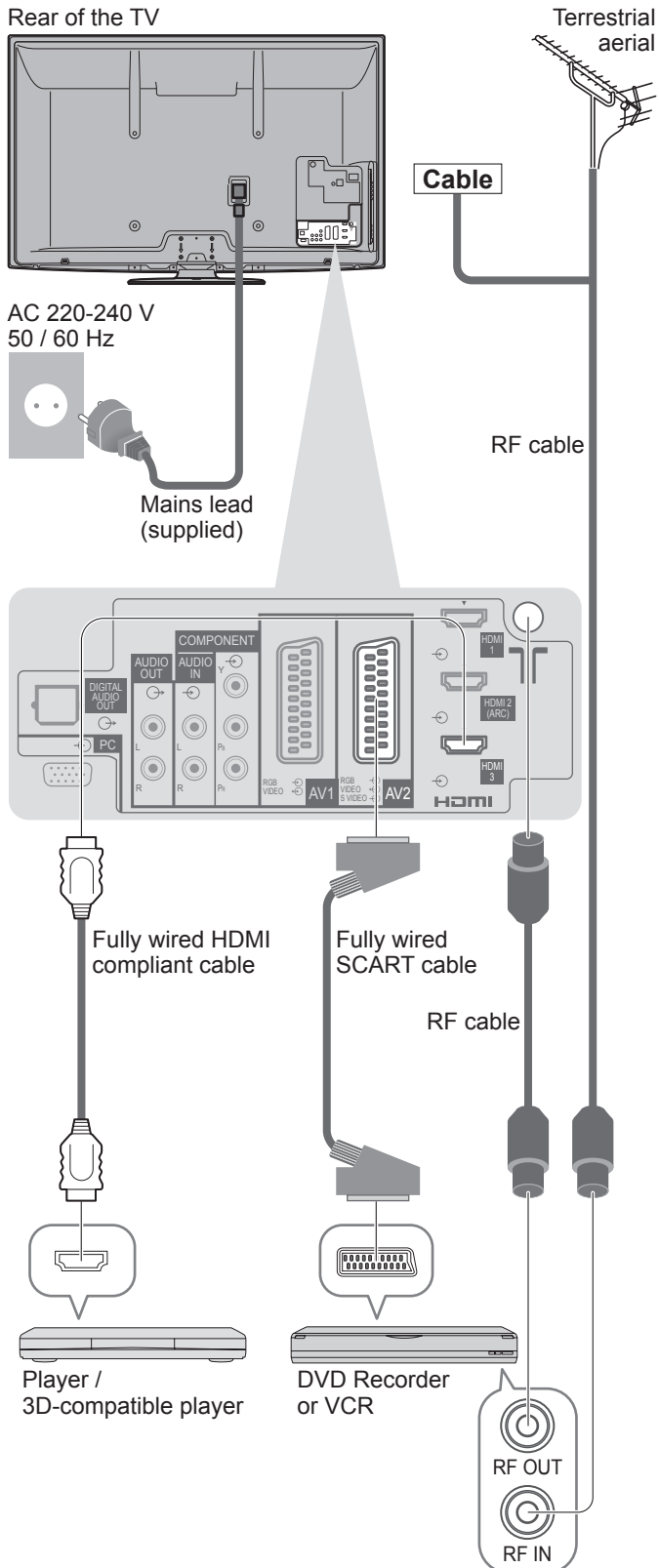
Example 3
Connecting DVD Recorder / VCR and Set top box

TV, DVD Recorder / VCR and Set top box

Rear of the TV

Terrestrial aerial

AC 220-240 V
50 / 60 Hz

RF cable

Mains lead
(supplied)

COMPONENT

AUDIO OUT
AUDIO IN

DIGITAL AUDIO OUT

PC

L   L   Y

R   R   PB

RGB VIDEO

RGB VIDEO S VIDEO

AV1   AV2

HDMI 1

HDMI 2 (ARC)

HDMI 3

HƎMI

Fully wired
SCART cable

Fully wired HDMI
compliant cable

RF cable

Fully wired
SCART cable

Set top box

DVD Recorder
or VCR

Cable

RF OUT

RF IN

● Basic Connection

---

> **Note**
> ● To watch 3D contents ➡ p. 14
> ● Connect to the TV's AV1 / AV2 for a DVD Recorder / VCR supporting Q-Link.
> ● For HDMI-compatible equipment, possible to connect to HDMI terminals (HDMI1 / HDMI2 / HDMI3 / HDMI4) by using HDMI cable.
> ● Please also read the manual of the equipment being connected.

Auto Setup

Search and store TV channels automatically.
- These steps are not necessary if the setup has been completed by your local dealer.
- Please complete connections (p. 8 and p. 9) and settings (if necessary) of the connected equipment before starting Auto Setup. For details of settings for the connected equipment, read the manual of the equipment.
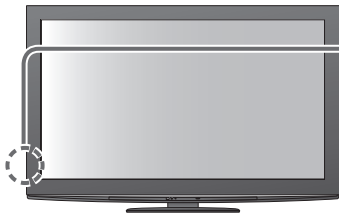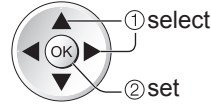
1 **Plug the TV into mains socket and switch On**
(Takes a few seconds to be displayed)

2 **Select the language**

Menüsprache			
Deutsch	Dansk	Polski	Srpski
English	Svenska	čeština	Hrvatski
Français	Norsk	Magyar	Slovenščina
Italiano	Suomi	Slovenčina	Latviešu
Español	Türkçe	Български	eesti keel
Português	Ελληνικά	Română	Lietuvių
Nederlands			

① select
② set

3 **Select your country**

Country		
Germany	Denmark	Poland
Austria	Sweden	Czech
France	Norway	Hungary
Italy	Finland	Slovakia
Spain	Luxembourg	Slovenia
Portugal	Belgium	Estonia
Switzerland	Netherlands	Lithuania
Malta	Turkey	Others
Andorra	Greece	
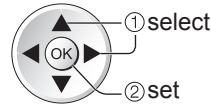
① select
② set

- Depending on the country you select, you may be required to select the Region. In this case, select your region.

- Depending on the country you select, you may be required to input the PIN number for "Child Lock". In this case, enter the PIN number.
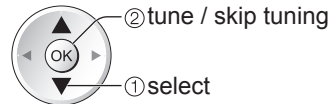
Child Lock-PIN Entry
Please enter new PIN
PIN * * * *

- You will be asked to enter the PIN number twice.
- "0000" is not allowed for the PIN number.
- Make a note of the PIN number in case you forget it.

4 **Select the mode you want to tune**

TV Signal Selection
- ☑ DVB-S
- ☑ DVB-C
- ☑ DVB-T
- ☑ DVB-T support for HD services
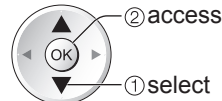- ☑ Analogue
- Start Auto Setup

② tune / skip tuning
① select

☑ : tune (the mode will be tuned and searched for the available channels)
☐ : skip tuning

- "DVB-C" may not appear depending on the country you select.

5 **Select "Start Auto Setup"**

TV Signal Selection
- ☑ DVB-S
- ☑ DVB-C
- ☑ DVB-T
- ☑ DVB-T support for HD services
- ☑ Analogue
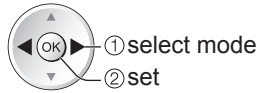- Start Auto Setup

② access
① select

Auto Setup starts

- Auto Setup will start to search for TV channels and store them. The stored channels and sorted channel order vary depending on the country, area, broadcasting system and conditions of signal reception.
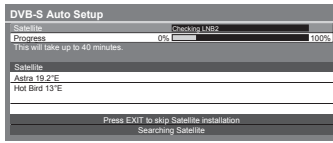
Panasonic
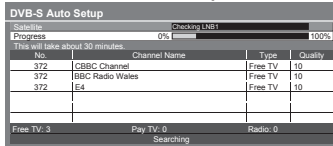TV

Auto Setup varies depending on the country you select.

● DVB-S Search Mode

Search Mode

| All Channels | Free Channels |

 ①select mode
②set

● DVB-S Satellite Search

DVB-S Auto Setup

| Satellite | Checking LNB2 | |
| Progress | 0% | 100% |

This will take up to 40 minutes.

| Satellite |
| Astra 19.2°E |
| Hot Bird 13°E |

Press EXIT to skip Satellite installation
Searching Satellite

● DVB-S Auto Setup

DVB-S Auto Setup

| Satellite | Checking LNB1 | | |
| Progress | 0% | | 100% |

This will take about 30 minutes.

No.	Channel Name	Type	Quality
372	CBBC Channel	Free TV	10
372	BBC Radio Wales	Free TV	10
372	E4	Free TV	10

| Free TV: 3 | Pay TV: 0 | Radio: 0 |

Searching
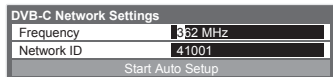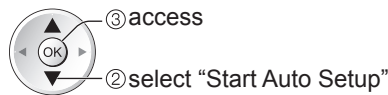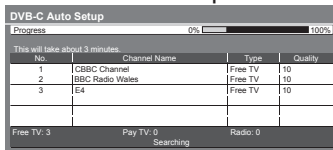
● DVB-C Network Settings

Enter the Home Frequency and Network ID specified by your cable provider.
And then, select "Start Auto Setup".

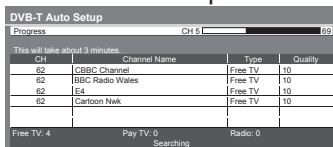**DVB-C Network Settings**

| Frequency | 362 MHz |
| Network ID | 41001 |

Start Auto Setup

①enter the frequency and network ID

[1] [2abc] [3def] Depending on the country you select, "Auto" is displayed
[4ghi] [5jkl] [6mno] and you do not have to enter them.
[7pqrs] [8tuv] [9wxyz] In this case, Home Frequency and Network ID will be set
[0] automatically.

③access

②select "Start Auto Setup"

● DVB-C Auto Setup

DVB-C Auto Setup

| Progress | 0% | | 100% |

This will take about 3 minutes.

No.	Channel Name	Type	Quality
1	CBBC Channel	Free TV	10
2	BBC Radio Wales	Free TV	10
3	E4	Free TV	10

| Free TV: 3 | Pay TV: 0 | Radio: 0 |

Searching

● DVB-T Auto Setup

DVB-T Auto Setup

| Progress | CH 5 | 69 |

This will take about 3 minutes.

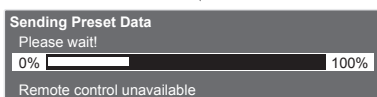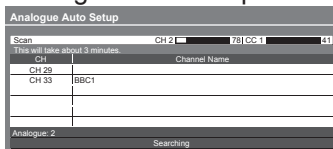| CH	Channel Name	Type	Quality
62	CBBC Channel	Free TV	10
62	BBC Radio Wales	Free TV	10
62	E4	Free TV	10
62	Cartoon Nwk	Free TV	10

| Free TV: 4 | Pay TV: 0 | Radio: 0 |

Searching

Depending on the country you select, the channel selection screen
will be displayed after DVB-T Auto Setup if multiple channels have the
same logical channel number. Select your preferred channel or exit the
screen for automatic selections.

● Analogue Auto Setup

Analogue Auto Setup

| Scan | CH 2 | 78 | CC 1 | 41 |

This will take about 3 minutes.

CH	Channel Name
CH 29	
CH 33	BBC1

Analogue: 2

Searching

Sending Preset Data
Please wait!

| 0% | 100% |

Remote control unavailable

● If Q-Link, VIERA Link or similar technology compatible recorder
is connected, channel, language, country / region settings are
automatically downloaded to the recorder.
● If downloading has failed, you can download later by the menu item.
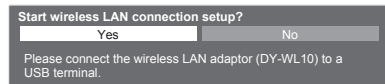➡ "Download" (p. 24)

● Auto Setup

11

Auto Setup

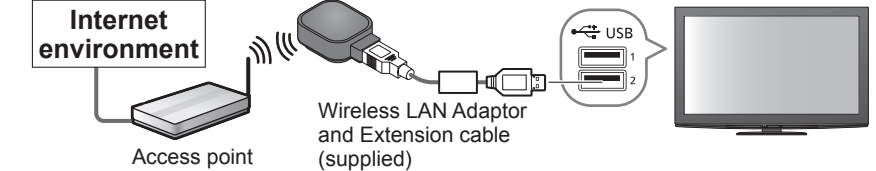## 6 Setup the wireless LAN connection

Setup the wireless LAN connection to enable the network service functions.
(If you do not wish to use wireless LAN connection or the network service functions, skip this step.)

● To setup the wireless LAN connection, use the Wireless LAN Adaptor (supplied). For the information about the Wireless LAN Adaptor ➡ "Wireless LAN Adaptor" (p. 13)
● Confirm the encryption key, settings and positions of your access point before starting setup. For details, read the manual of the access point.
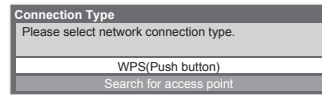
Start wireless LAN connection setup?
| Yes | No |

Please connect the wireless LAN adaptor (DY-WL10) to a USB terminal.

① connect the Wireless LAN Adaptor to the USB 1 or 2 port

Internet environment

USB
1
2

Access point

Wireless LAN Adaptor and Extension cable (supplied)

You can setup the wireless LAN connection later

② select "Yes"
③ access

● To skip this step ➡ EXIT or select "No"

Wireless LAN connection setup starts

Connection Type
Please select network connection type.
| WPS(Push button) |
| Search for access point |

Select the connection type
② access
① select

■WPS(Push button)

WPS(Push button)
1) Please press the 'WPS' button on the access point until its light flashes.
2) When the light is flashing select 'Connect' on TV.
If you are unsure, please check the instruction manual of the access point.
| Connect |
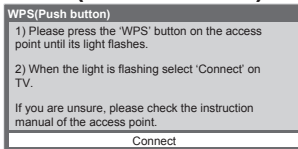
Press the WPS button on the access point until the light flashes.
And then, press the OK button to connect the Wireless LAN Adaptor and the access point.

OK

● Ensure that your access point supports WPS for this setup.
● WPS: Wi-Fi Protected Setup™

■Search for access point

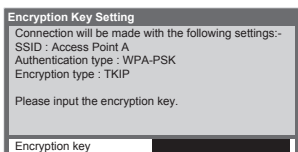Access points found automatically are listed.

Available Access Points
No.	SSID	Wireless type	Encrypt	Reception
1	Access Point A	11n(2.4GHz)	🔒	
2	Access Point B	11n(5GHz)	🔒	
3	Access Point C	11n(5GHz)		

Select your desired access point
② access
① select

🔒 : Encrypted access point

● To search access points again ➡ yellow
● For the information of the highlighted access point ➡ ⓘ
● To set manually ➡ red

Encryption Key Setting
Connection will be made with the following settings:-
SSID : Access Point A
Authentication type : WPA-PSK
Encryption type : TKIP
Please input the encryption key.
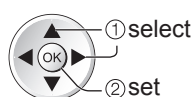| Encryption key |

Access the encryption key input mode

OK

● If the selected access point is not encrypted, the confirmation screen will be displayed. It is recommended to select the encrypted access point.
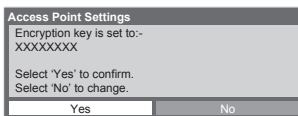
Access Point Settings
Encryption key
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
U	V	W	X	Y	Z	0	1	2	3	4	5	6	7	8	9	!	:	#
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t
u	v	w	x	y	z	(	)	+	-	.	*	_

Enter the encryption key of the access point
Set characters one by one
① select
② set

Store
BACK/ RETURN

● You can set characters by using numeric buttons.

Access Point Settings
Encryption key is set to:-
XXXXXXXX
Select 'Yes' to confirm.
Select 'No' to change.
| Yes | No |

Select "Yes"
① select
② set
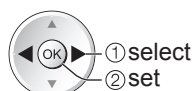
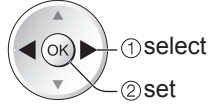● To re-enter the encryption key, select "No".

● If the connection has failed, check the encryption key, settings and positions of your access point. And then, follow the on screen instructions.

Exit to go to the next step OK

Select "Home"

Select "Home" viewing environment to use in your home environment.

Please select your viewing environment.	
Home	Shop

① select
② set

⬇

Auto Setup is now complete and your TV is ready for viewing.

●If tuning has failed, check the connection of the Satellite cable, RF cable, and then, follow the on screen instructions.
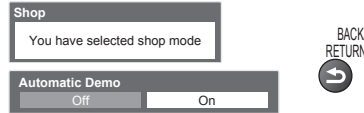
■**"Shop" viewing environment (for shop display only)**
"Shop" viewing environment is the demonstration mode to explain main features of this TV.
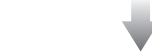
Select "Home" viewing environment to use in your home environment.
●You can return to viewing environment selection screen at the stage of Shop confirmation screen and Automatic Demo Off / On selection screen.

① Return to viewing environment selection screen

Shop	
You have selected shop mode	

Automatic Demo	
Off	On

BACK/ RETURN

② Select "Home"

Please select your viewing environment.	
Home	Shop

① select
② set

⬇

Auto Setup is complete

●To change viewing environment later on, you will need to initialise all settings by accessing Shipping Condition.
➡ "Shipping Condition" (p. 27)

Note

●If tuning has failed or to retune all channels ➡ "Auto Setup" (p. 25 and p. 26)
●To add the available TV mode later ➡ "Add TV Signal" (p. 25 and p. 26)
●To initialise all settings ➡ "Shipping Condition" (p. 27)
●If you turned the TV Off during Standby mode last time, the TV will be in Standby mode when you turn the TV On with Mains power On / Off switch.

■**Wireless LAN Adaptor**

Caution

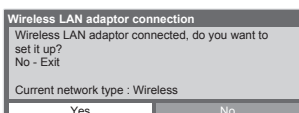Be aware of the following limits before using the Wireless LAN Adaptor (DY-WL10).
●To use the Wireless LAN Adaptor, an access point needs to be obtained.
●It is recommended to use the Wireless LAN Adaptor with the supplied extension cable.
●Do not use the Wireless LAN Adaptor to connect to any wireless network (SSID*) for which you do not have usage rights. Such networks may be listed as a result of searches. However, using them may be regarded as illegal access.
  *SSID is a name for identifying a particular wireless network for transmission.
●Do not subject the Wireless LAN Adaptor to high temperatures, direct sunlight or moisture.
●Do not bend, or subject the Wireless LAN Adaptor to strong impacts.
●Do not disassemble or alter the Wireless LAN Adaptor in any way.
●Do not attempt to install the Wireless LAN Adaptor in any incompatible device.
●Do not remove the Wireless LAN Adaptor from the TV's USB port during operations.
●Data transmitted and received over radio waves may be intercepted and monitored.
●To avoid malfunctions caused by radio wave interference, keep the TV away from the devices such as other wireless LAN devices, microwaves and the devices that use 2.4 GHz and 5 GHz signals when using the Wireless LAN Adaptor.
●When noises occur due to the static electricity, etc., the TV might stop operating for the protection of the devices. In this case, turn the TV Off with Mains power On / Off switch, then turn it On again.
●Depending on the area, this Wireless LAN Adaptor may not be available.
●Additional information for Wireless LAN Adaptor and access point may be on the following web site. (English only)
  http://panasonic.jp/support/global/cs/tv/

If you connect the Wireless LAN Adaptor later on, the confirmation screen will be displayed for the setup.

Wireless LAN adaptor connection	
Wireless LAN adaptor connected, do you want to set it up? No - Exit	
Current network type : Wireless	
Yes	No

●Auto Setup

Viewing 3D images

You can enjoy viewing 3D images with contents or programmes corresponding to the 3D effect by wearing the 3D Eyewear (supplied).
This TV supports "Frame Sequential*[1]", "Side by Side*[2]" and "Top and Bottom*[3]" 3D formats.
*1: The 3D format that the images for the left and right eyes are recorded with the high definition quality and alternately played back
*2, *3: Other available 3D formats
● How to use the 3D Eyewear ➡ p. 15 and p. 16
● How to view the 3D images ➡ p. 17

Warning

Small Parts
● 3D Eyewear contains small parts (battery and specialised band, etc.) and must be kept out of reach of small children to avoid accidental ingestion.

Disassembly
● Do not disassemble or modify the 3D Eyewear.

Lithium Battery
● Batteries must not be exposed to excessive heat such as sunshine, fire or the like.

Caution

To enjoy 3D images safely and comfortably, please read these instructions fully.

3D Eyewear
● Do not drop, exert pressure on, or step on the 3D Eyewear.
● Always store the 3D Eyewear in the case provided when not in use.
● Be careful of the tips of the frame when putting on the 3D Eyewear.
● Be careful not to trap a finger in the hinge section of the 3D Eyewear.
● Pay special attention when children are using the 3D Eyewear.
  3D Eyewear should not be used by children younger than 5 - 6 years old, as a guideline.
  All children must be fully supervised by parents or guardians who must ensure their safety and health throughout the using 3D Eyewear.

Viewing 3D Content
● Do not use the 3D Eyewear if you have a history of over-sensitivity to light, heart problems, or have any other existing medical conditions.
● Please stop using the 3D Eyewear immediately, if you feel tired, are not feeling well or experience any other uncomfortable sensation.
● Take an appropriate break after viewing a 3D movie.
● Take a break of between 30 - 60 minutes after viewing 3D content on interactive devices such as 3D games or computers.
● Be careful not to strike the TV screen or other people unintentionally. When using the 3D Eyewear the distance between the user and screen can be misjudged.
● The 3D Eyewear must only be worn when viewing 3D content.
● If you do not look toward the TV screen for a while when viewing 3D images, the 3D Eyewear may be turned off automatically.
● If you suffer from any eyesight problems (short / far-sighted, astigmatism, eyesight differences in left and right), please ensure to correct your vision before using the 3D Eyewear.
● Stop using the 3D Eyewear if you can clearly see double images when viewing 3D content.
● Do not use the 3D Eyewear at a distance less than the recommended distance.
  The recommended viewing distance is 3 times of image height.
  TX-P42VT20E: 1.6 m or more / TX-P46VT20E: 1.7 m or more
  When the top and bottom area of the screen is blackened, such as movies, view the screen at a distance 3 times further than the height of the actual image. (That makes the distance closer than above recommended figure.)

3D Eyewear Use
● Before using the 3D Eyewear, ensure no breakable objects surrounding the user to avoid any accidental damage or injury.
● Remove the 3D Eyewear before moving around to avoid falling or accidental injury.
● Always put the 3D Eyewear in the case (supplied) after use.
● Use the 3D Eyewear only for the intended purpose and nothing else.
● Do not use 3D Eyewear in the condition of high temperature.
● Do not use if the 3D Eyewear is physically damaged.
● Do not use any devices that emit the infrared signals near the 3D Eyewear, as this may cause the 3D Eyewear false operations.
● Do not use devices (such as mobile phones or personal transceivers) that emit strong electromagnetic waves near the 3D Eyewear as this may cause the 3D Eyewear to malfunction.
● Stop using the 3D Eyewear immediately if a malfunction or fault occurs.
● Stop using the 3D Eyewear immediately if you experience any redness, pain, or skin irritation around the nose or temples.
● In rare cases, the materials used in the 3D Eyewear may cause an allergic reaction.
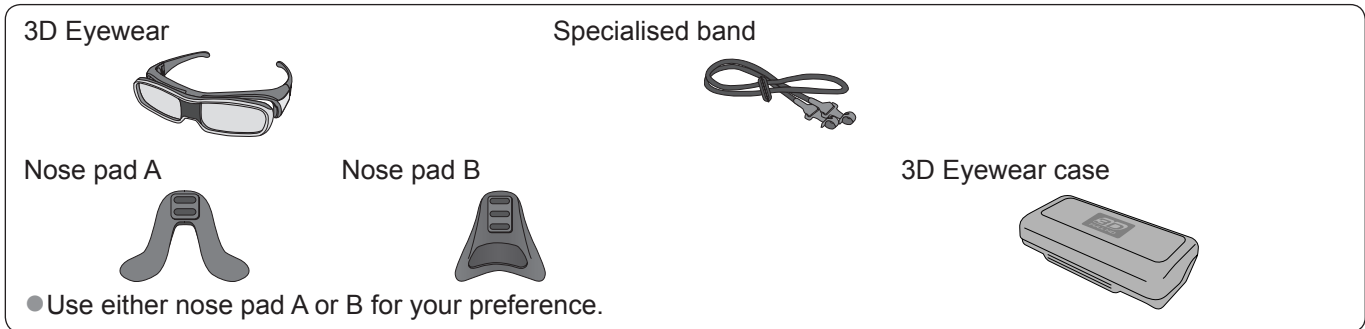
Lithium Battery
● Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.
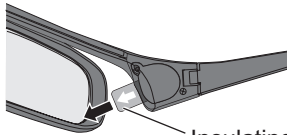
3D Eyewear

3D Eyewear set (2)
- TY-EW3D10E

3D Eyewear	Specialised band

Nose pad A   Nose pad B   3D Eyewear case

- Use either nose pad A or B for your preference.

- 3D Eyewear can be worn over vision correction glasses.

■Part names and functions

Battery cover
- When using for the first time, remove the insulating sheet.

Pull the insulating sheet

Insulating sheet
- To replace the battery ➡ "Replacing the battery" (p. 16)

Infrared receiver
Receives infrared signals from the TV.
- 3D Eyewear is controlled by receiving infrared signals from the TV, which allows you to view 3D images.

Note
- Do not soil the infrared receiver section or attach stickers etc. to it.
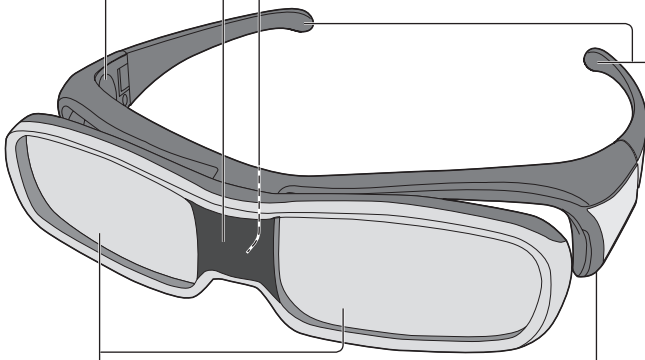
Nose pad installation section
If required, attach the nose pad.
- To attach the nose pad ➡ "Attaching the nose pad" (p. 16)

Specialised band attaching parts
If required, attach the specialised band.
- To attach the band
  ➡ "Attaching the specialised band" (p. 16)

Lenses - Liquid Crystal Shutter
Controls the images for 3D viewing.
- The left and right liquid crystal shutters are alternately opened and closed in time with the images on the TV screen to achieve the 3D effect.

Note
- Do not apply pressure to or scratch the surface of the liquid crystal shutter.

Power button of the 3D Eyewear
(bottom side of the 3D Eyewear)
Switches the 3D Eyewear on or off.
- Press the button for about 1 second to turn the power on. The indicator lamp lights for about 2 seconds and then goes off.
- To turn the power off, press the button for about 1 second again. The indicator lamp flashes 3 times, then the 3D Eyewear turns off.

Power button   Indicator lamp
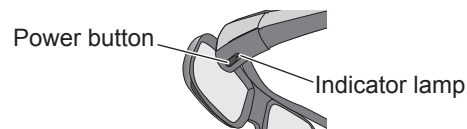
Note
- If the 3D Eyewear does not receive any signals from the TV for about 5 minutes, the 3D Eyewear will be turned off automatically.

● Viewing 3D images

15

Viewing 3D images

■Replacing the battery

When the battery is running low, the indicator lamp flashes 5 times on turning the 3D Eyewear on. In this case, early battery replacement is recommended.

●Dispose of the old batteries as non-burnable rubbish, or in line with the waste disposal regulations in your local area.

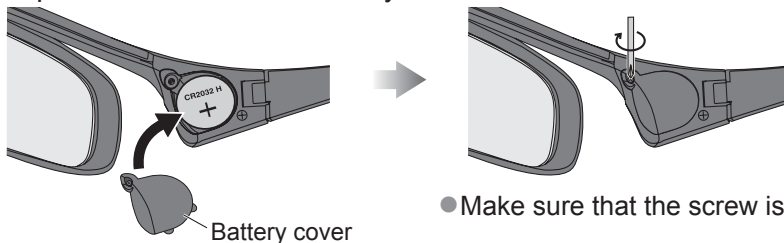①Loosen the screw and remove the battery cover using the supplied screwdriver

Screwdriver
(supplied)
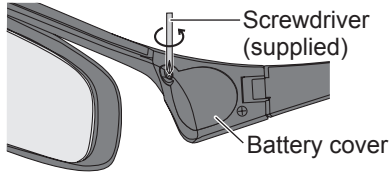
Battery cover

②Replace the battery
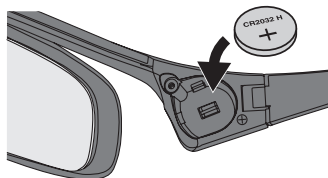
CR2032 H

●Use the specified type of battery (coin-shaped lithium battery CR2032).
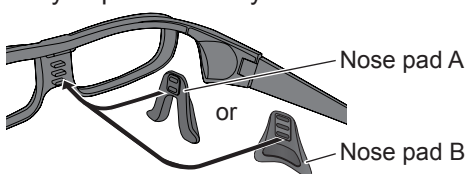●Note the correct polarity (+ or -).

③Replace and fasten the battery cover

CR2032 H

Battery cover

●Make sure that the screw is tightened.

■Attaching the nose pad

Use either nose pad A or B for your preference.

●If you put the 3D Eyewear on vision correction glasses, the nose pad is recommended to be removed.

Nose pad A

or

Nose pad B

●You can select the positions of the nose pad A from the 2 levels of height. Use upper 2 protrusions or lower 2 protrusions on the 3D Eyewear to attach the nose pad A.
●Use all 3 protrusions on the 3D Eyewear to attach the nose pad B.

■Attaching the specialised band

If the 3D Eyewear slips out of place, use the supplied specialised band to hold it in place.

●Attach the band to the left and right tips of the frame, and adjust the length.

Specialised band

Frame

Push to adjust the length of the band

When the end of the specialised band is straightened, form a loop at the end of the band, and fix the twisted part.

① ② ③ Fix the twisted part
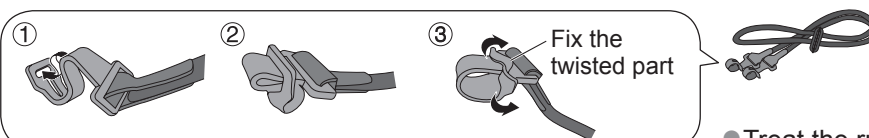
●Treat the rubber part carefully not to break it.

■Storing and cleaning the 3D Eyewear

●Use the supplied 3D Eyewear case to store the 3D Eyewear.
●Avoid storing the 3D Eyewear in hot or highly humid locations.
●Use a clean, soft and dry cloth to wipe the 3D Eyewear. Otherwise, dirt or dust may scratch the eyewear.
●Do not use benzene, thinner, or wax on the 3D Eyewear, as doing so may cause the paint to peel off.
●Do not submerge the 3D Eyewear in liquid such as water when cleaning.

To view the 3D images

To view the contents of the Frame Sequential format (ex. 3D-compatible Blu-ray Disc, etc.) with 3D effect

Connect the 3D-compatible player via an HDMI cable (p. 9) and playback the contents.
- Use fully wired HDMI compliant cable.
- For the settings of the player, read the manual of the player.
- If input mode is not switched automatically, select the input mode connected to the player.
- If you use the non 3D-compatible player, the images will be displayed without 3D effect.

To view the contents or programmes of 3D formats other than Frame Sequential with 3D effect.

Match the picture format in "3D Picture Format" (p. 19) before viewing.
- You can view "Side by Side" and "Top and Bottom" with 3D effect even if you use the non 3D-compatible player.
- Please consult the suppliers of contents or programmes for availability of this service.
- You can also view 3D images in photo / video mode in Media player and video mode in DLNA.

To view 2D images with 3D effect

Use a 2D-to-3D conversion function ➡ "2D→3D" mode in "3D Picture Format" (p. 19)

① **Turn the 3D Eyewear on**
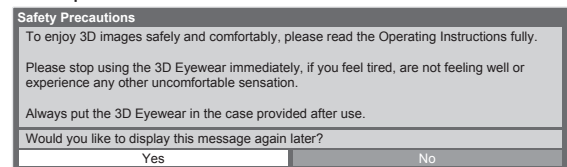- Press the power button on the 3D Eyewear for about 1 second. (p. 15)

② **Put on the 3D Eyewear**
- If the 3D Eyewear slips out of place, hold it in place using the specialised band, and adjust the length of the band. (p. 16)

③ **Watch the 3D images**
- Safety precautions will be displayed when you first watch the 3D image. Select "Yes" or "No" to continue to view 3D images. If you select "Yes", this message will be displayed again in the same condition after Mains power On / Off switch is next turned On. Select "No" if you do not wish to display this message again.

Example:

Safety Precautions
To enjoy 3D images safely and comfortably, please read the Operating Instructions fully.
Please stop using the 3D Eyewear immediately, if you feel tired, are not feeling well or experience any other uncomfortable sensation.
Always put the 3D Eyewear in the case provided after use.
Would you like to display this message again later?

Yes	No

■ **To turn the 3D Eyewear off**

After using the 3D Eyewear, press the power button on the 3D Eyewear for about 1 second to turn it off. (p. 15)
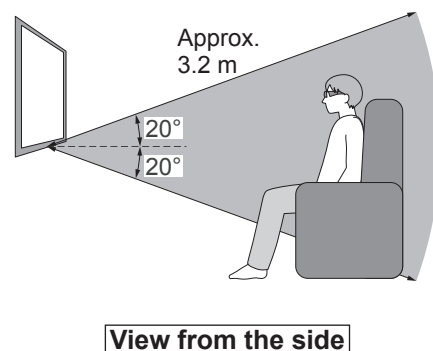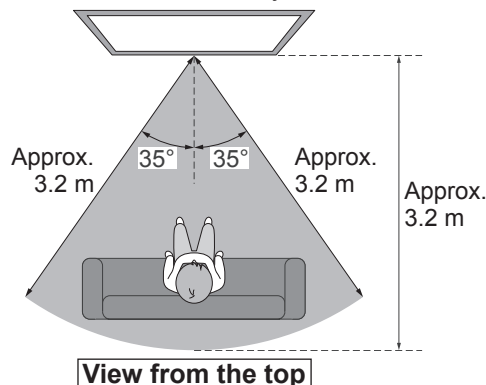
Note
- The 3D image or 3D effect may not be available while multi window is active, VIERA CAST home screen is displayed or Ext Rec. of Timer Programming / Direct TV Recording is in progress. As for the contents of the Frame Sequential format, no images will be displayed in these conditions.
- If the room is lit by fluorescent lights (50 Hz) and light appears to flicker when using the 3D Eyewear, switch off the fluorescent light.
- 3D content will not be correctly visible if the 3D Eyewear is worn upside down or back-to-front.
- Do not wear the 3D Eyewear when watching anything other than 3D images. Liquid crystal displays (such as computer screens, digital clocks or calculators, etc.) may be difficult to see while wearing the 3D Eyewear.
- Do not use the 3D Eyewear as sunglasses.
- 3D effects may be perceived differently depending on the person.

Available range for the 3D Eyewear

If the 3D Eyewear is placed outside the available area for about 5 minutes, the 3D Eyewear will be turned off automatically.

⬤ : Available area to use the 3D Eyewear

View from the top

Approx. 3.2 m   35° 35°   Approx. 3.2 m   Approx. 3.2 m

View from the side

Approx. 3.2 m   20°   20°

Note
- The range may be shortened depending on the obstacles between the infrared sensors on the TV and the 3D Eyewear, the dirt of the infrared sensors or the surrounding environment.
- If you do not look toward the TV screen for a while when viewing 3D images, the 3D Eyewear may be turned off automatically even if in the available area.

Viewing 3D images

3D Settings

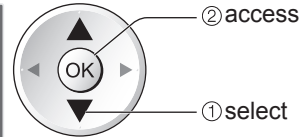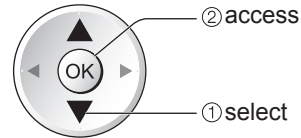If the 3D images are not displayed correctly or seem unusual, please adjust and setup the 3D settings.

1 Display the menu

MENU

2 Select "Setup"

VIE�*A **Main Menu**
- Picture
- Sound
- Setup

② access
① select

3 Select "3D Settings"

Setup Menu	1/2
3D Settings	Access
Off Timer	Off
USB HDD Setup	
Link Settings	
Child Lock	
Language	
Display Settings	
Network Setup	
DivX® VOD	

② access
① select

● You can also access 3D Settings menu directly by using VIERA TOOLS.
→ "How to use VIERA TOOLS" (p. 20)

4 Select one of the following functions and set

3D Settings	
3D Picture Display	◄ 3D ►
3D Picture Format	◄ Auto ►
2D→3D Depth	◄ Mid ►
3D Picture Sequence	◄ Normal ►
Edge Smoother	◄ Off ►
Safety Precautions	Access

② set
① select

■ **To return to TV**
EXIT

Panasonic
TV

18
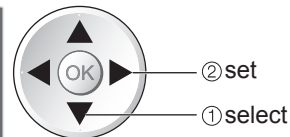
■3D Picture Display (2D / 3D)

Sets the TV to 3D or 2D mode
- Select "2D" to view 3D picture in 2 dimensional without wearing the 3D Eyewear.

■3D Picture Format (Auto / Side by Side / Top and Bottom / 2D→3D / Original)

Selects 3D picture format to suit the format of the source image
- Depending on the format of the source image, the 3D images will be displayed correctly regardless of the setting of "3D Picture Format" (when "3D Picture Display" is set to "3D") : for example, when receiving the Frame Sequential format (ex. playback of the 3D-compatible Blu-ray Disc with the 3D-compatible player) via an HDMI cable.

Auto (default)   : 3D images are automatically displayed according to the image.
- This mode may not work properly depending on the source image format. In this case, select the appropriate picture format.

Side by Side /
Top and Bottom : One of the formats of the 3D standard
- Select these formats as necessary.
- Not valid on Analogue and AV mode

2D→3D   : Converts 2D images into 3D
- Picture aspect is fixed to 16:9 regardless of the original aspect.
- For DVB, Analogue, AV, Component, HDMI, Media Player (photo and video) and Media Server (video).
- On-screen displays are also seen in 3D in this mode.
- Please note the 3D images appear slightly different from the originals.
- Using this function for profit-making purposes, or publically showing images converted from 2D to 3D in places such as shops or hotels etc. may infringe on the rights of the copyright holder protected under copyright law.

Original   : Displays the source image as it is.
- Use to identify the format type of the source image.

Table of images that can be seen for each 3D Picture Format and the source image format
If the picture appears to be abnormal, refer to the table below to choose the correct 3D picture format setting.

Source image format \ 3D Picture Format	Auto	Side by Side	Top and Bottom	2D→3D	Original
Side by side	*1	Normal*2		*2	
Top and bottom	*1		Normal*2	*2	
Normal format (2D)	Normal			Normal*2	Normal

*1 when the source image is not recognized correctly
*2 When "3D Picture Display" is set to "3D", the images will be displayed with 3D effect. When set to "2D", displayed without 3D effect.
- Depending on the player or broadcasts, the image may be different from the above illustrations.

■2D→3D Depth (Min / Mid / Max)

Select a level of 3D-image depth for viewing converted 2D images.
- This function is available when "3D Picture Format" is set to "2D→3D".

■3D Picture Sequence (Normal / Reverse)

Select "Reverse" if you feel that the sense of depth is unusual.
- Not valid when "3D Picture Format" is set to "2D→3D".

■Edge Smoother (Off / On)

Select "On" if you feel the contoured parts of an image are not smooth enough. (for "Side by Side" or "Top and Bottom" format)
- Not valid when "3D Picture Format" is set to "2D→3D".

■Safety Precautions

Displays the precautions for viewing 3D images.

Note
- These settings will not be memorized when changing the input mode or channel.
- When viewing the 3D-compatible 24p source movie, you can reduce juddering noises by setting "3D 24p Film Display" in "Other Settings" (p. 27).

● Viewing 3D images

19

How to Use VIERA TOOLS

You can access some special features easily by using the VIERA TOOLS function.

1 **Display icons of the feature**

VIERA TOOLS

2 **Select a feature**
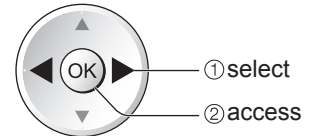
①select
②access

3 **Follow the operations of each feature**

●VIERA Link Control

VIERA LINK CONTROL

When two or more compatible equipment are connected, a selection screen will be displayed.
Please select the correct description and access.

●Photo

PHOTO

When two or more available devices are connected, a selection screen will be displayed.
Please select the correct description and access.

●Video

VIDEO

When two or more available devices are connected, a selection screen will be displayed.
Please select the correct description and access.

●Music

MUSIC

When two or more available devices are connected, a selection screen will be displayed.
Please select the correct description and access.

●3D

3D
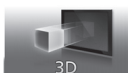
●VIERA CAST

VIERA CAST

●Media Server

MEDIA SERVER

■**To return to TV**

EXIT

➡ ◯ or VIERA TOOLS

Panasonic
TV

| Note |

●If the selected feature is not available, the demonstration to explain how to use it can be displayed. Press the OK button to view the demonstration after selecting the unavailable feature.

How to Use Menu Functions

Various menus allow you to make settings for the picture, sound, and other functions.

1 Display the menu

MENU
- Displays the functions that can be set (varies according to the input signal)

2 Select the menu

VIErA **Main Menu**
- **Picture**
- **Sound**
- **Setup**

(example: Picture Menu)

② access
① select

3 Select the item

Picture Menu	1/2
Viewing Mode	Dynamic
Contrast	60
Brightness	0
Colour	30
Sharpness	5
Tint	0
Colour Balance	Warm
Vivid Colour	Off
Eco Mode	Off

(example: Picture Menu)

select

4 Adjust or select

Picture Menu	1/2
Viewing Mode	Dynamic
Contrast	60
Brightness	0
Colour	30
Sharpness	5
Tint	0
Colour Balance	Warm
Vivid Colour	Off
Eco Mode	Off

(example: Picture Menu)

① change
② store or access
  (Required by some functions)

Panasonic
TV

■To return to TV at any time

EXIT
➡

■To return to the previous screen

BACK/
RETURN
➡

■To change menu pages

∧ — up
➡
∨ — down
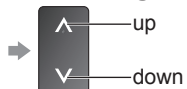
■Choose from among alternatives

Number and positions of alternatives

Colour Balance	Normal

Changed

■Adjust using the slide bar

Sharpness	5

Moved

■Go to the next screen

Child Lock	Access

Displays the next screen

■Enter characters by free input menu

You can enter names or numbers freely for some items.

User input
Name

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
U	V	W	X	Y	Z	0	1	2	3	4	5	6	7	8	9	!	:	#
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t
u	v	w	x	y	z	(	)	+	-	.	*	_

Set characters one by one
① select
② set
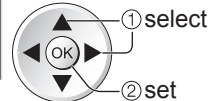
Store
BACK/
RETURN

- You can set characters by using numeric buttons.

■To reset the settings

- To reset the picture settings only
  ➡ "Reset to Defaults" in the Picture Menu (p. 22)
- To reset the sound settings only
  ➡ "Reset to Defaults" in the Sound Menu (p. 24)
- To initialise all settings
  ➡ "Shipping Condition" in the Setup Menu (p. 27)

How to Use Menu Functions

■Menu list

Menu	Item	Adjustments / Configurations (alternatives)
Picture	**Viewing Mode**	Basic picture mode **(Dynamic / Normal / Cinema / THX (True Cinema) / Game / Photo / Professional1 / Professional2)** In each Viewing Mode and input, Contrast, Brightness, Colour, Sharpness, Tint, Colour Balance, Vivid Colour, Eco Mode, P-NR and 3D-COMB can be adjusted and stored to suit your particular viewing requirement. ●Set for each input signal. Dynamic : Provides enhanced picture contrast and sharpness when viewing in a bright room. Normal : Recommended for viewing under normal ambient room lighting conditions. Cinema : For watching movies in a darkened room with the improved performance of contrast, black and colour reproduction THX : Precisely reproduces the original quality of the image without any revision. (True Cinema) Recommended for playback of THX disc (disc with "THX" logo) THX mode is used to mirror the picture settings used by professional filmmakers, faithfully reproducing the image quality of THX Certified movies. ●THX Certified movies have the "THX" logo on a disc. ●"True Cinema" is displayed instead of "THX" in the mode of 3D, PC input, Media Player and Network service operations. Game : Fast response signal specifically to provide suitable images for playing games ●Not valid on TV mode ●A continuous record of time spent using Game mode can be displayed in the top right of the screen. ➡ "Playing Time Display" (p. 26) Photo : Set "Reversal Film" to "On" to provide the suitable image quality for photos ●For HDMI input, Media Player and Network service operations Professional : Allows you to set the professional picture settings in "Advanced Settings", 1 / 2 "Lock Settings" and "Copy Adjustment" ●This mode is available only when "Advance(isfccc)" in the Setup Menu is set to "On". ●Not valid on VIERA CAST ●If the certified professional dealer sets these modes, "Professional1" and "Professional2" may be displayed as "isf Day" and "isf Night".
	Contrast, Brightness, Colour, Sharpness	Increases or decreases the levels of these options according to your personal preference
	Tint	With an NTSC signal source connected to the TV, the picture hue can be adjusted to suit your taste ●For NTSC signal reception only
	Colour Balance	Allows you to set the overall colour tone of the picture **(Cool / Normal / Warm)** ●Not valid when "Viewing Mode" is set to "THX (True Cinema)", "Professional1" or "Professional2".
	Vivid Colour	Automatically adjusts colours to vivid ones **(Off / On)** ●Not valid on PC signal. ●Not valid when "Viewing Mode" is set to "Professional1" or "Professional2".
	Reversal Film	Provides the picture effect such as the reversal film **(Off / On)** ●This function is available when "Viewing Mode" is set to "Photo".
	Eco Mode	Automatic Brightness Control function Adjusts picture settings automatically dependent on ambient lighting conditions **(Off / On)**
	P-NR	Picture Noise Reduction Automatically reduces unwanted picture noise and flicker noise in the contoured parts of a picture **(Off / Min / Mid / Max)** ●Not valid on PC signal.
	3D-COMB	Makes still or slow moving pictures look more vivid **(Off / On)** ●Occasionally, whilst viewing still or slow moving pictures, colour patterning may be seen. Set to "On" to display sharper and more accurate colours. ●For PAL or NTSC signal reception only ●Not valid on RGB, S-Video, Component, PC, HDMI and Media Player
	Picture in Picture	Displays two windows at once
	Panel	Turns the screen off when you select "Off" **(Off / On)** ●The sound is active even if the screen turns off. ●Press any buttons to turn the screen on. ●This function is effective in reducing power consumption when listening to a sound without watching the TV screen.
	Reset to Defaults	Press the OK button to reset the present Picture Viewing Mode of the selected input to the default settings

22

Menu	Item	Adjustments / Configurations (alternatives)
Sound	**Mode**	Selects the basic sound mode **(Music / Speech / User)** ●The selected mode affects all input signals. Music: Improves sound quality for watching music videos, etc. Speech: Improves sound quality for watching news, drama, etc. ●Music and Speech modes use CONEQ™ brand equalization technology to improve sound quality. CONEQ equalizes acoustic power frequency response and corrects time and phase alignment errors of a speaker system. Speakers with CONEQ perform as near-perfect electro-acoustic transducers providing true to the original sound with the highest musically and intelligibility. ●In Music and Speech modes, you can adjust "Bass" and "Treble" settings, and those settings will be stored for each mode. User: Adjusts the sounds manually by using the equalizer to suit your favourite sound quality. ●For the User mode, "Equalizer" will appear on the Sound Menu instead of "Bass" and "Treble". Select the "Equalizer" and adjust the frequency. ➡ "Equalizer" (below)
	Bass	Increases or decreases level to enhance or minimise lower, deeper sound output
	Treble	Increases or decreases level to enhance or minimise sharper, higher sound output
	Equalizer	Adjusts the frequency level to suit your favourite sound quality ●This function is available when "Mode" is set to "User". ●Select the frequency and change the frequency level by using the cursor button. ●If you want to enhance the bass sound, raise the level of the lower frequency. If you want to enhance the treble sound, raise the level of the higher frequency. ●To reset the levels of each frequency to the default settings, select the "Reset to Defaults" by using cursor button, and then press the OK button.
	Balance	Adjusts volume level of right and left speakers
	Headphone Volume	Adjusts the volume of the headphones
	Surround	Surround sound settings **(Off / V-Audio / V-Audio Surround / V-Audio ProSurround)** V-Audio: Provides a dynamic enhancer of width to simulate improved spatial effects V-Audio Surround: Provides a dynamic enhancer of width and depth to simulate improved spatial effects V-Audio ProSurround: Provides a more progressive enhancer and reverberation to simulate improved spatial effects
	Volume Correction	Adjusts the volume of individual channel or input mode
	Speaker Distance to Wall	Adjusts the low frequency sound **(Over 30cm / Up to 30cm)** ●If the back space between the TV and wall is over 30 cm, "Over 30cm" is recommended. ●If the back space between the TV and wall is within 30 cm, "Up to 30cm" is recommended.
	MPX	Selects multiplex sound mode (if available) ●Normally: Stereo ●Stereo signal cannot be received: Mono ●M1 / M2: Available while mono signal is transmitted ●Analogue mode only
	Audio Preference	Selects the initial setting for audio tracks **(Auto / MPEG)** Auto : Automatically selects the audio tracks if programme has more than two tracks. The priority is given in the following order - Dolby Digital Plus, HE-AAC, Dolby Digital, MPEG. MPEG : The priority is given to MPEG as long as the programme contains MPEG audio. ●Dolby Digital Plus and Dolby Digital are the methods of coding digital signals developed by Dolby Laboratories. Apart from stereo (2ch) audio, these signals can be multi-channel audio. ●HE-AAC is a perceptual coding method used to compress digital audio for efficient storage and transmission. ●MPEG is an audio compression method that compresses audio to the smaller size without any considerable loss of audio quality. ●Dolby Digital Plus and HE-AAC are the technologies for HD (High definition) programmes. ●DVB mode only

●A different menu will be displayed when "Advance(isfccc)" in the Setup Menu is set to "On" or in the mode of PC input, Media Player or Network service operations.
●Only available items can be selected.

●How to Use Menu Functions

How to Use Menu Functions

Menu	Item	Adjustments / Configurations (alternatives)
Sound	**SPDIF Selection**	SPDIF : A standard audio transfer file format Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT terminal **(Auto / PCM)** Auto : Dolby Digital Plus and Dolby Digital are output as Dolby Digital Bitstream. 　　　 HE-AAC (48 kHz) 5.1ch is output as DTS. 　　　 MPEG is output as PCM. PCM : Digital output signal is fixed to PCM. ●For DVB mode, Network video contents or Video mode
	MPEG Optical Level	Adjusts the audio level of MPEG output from DIGITAL AUDIO OUT terminal as the initial setting **(0 / -2 / -4 / -6 / -8 / -10 / -12dB)** ●Normally, MPEG sound is larger comparing with the other types of audio track. ●DVB mode only
	HDMI1 / 2 / 3 / 4 Input	Select to fit the input signal **(Digital / Analogue)** Digital　　 : HDMI cable connection Analogue : HDMI-DVI adapter cable connection ●HDMI input mode only
	SPDIF Delay	Adjusts the delay time of the sound output from DIGITAL AUDIO OUT terminal if the sound does not synchronize the image ●DVB mode only
	Reset to Defaults	Press the OK button to reset the present Sound Mode, Balance, Headphone Volume and Surround to the default settings
Setup	**3D Settings**	Adjusts and sets to view 3D images
	Timer Programming	Sets a timer to remind watching or record forthcoming programmes ●DVB mode only
	Off Timer	Sets the time the TV automatically goes to Standby mode **(Off / 15 / 30 / 45 / 60 / 75 / 90 minutes)**
	USB HDD Setup	Registers the connected USB HDD and makes the settings for the recording
	Link Settings — **VIERA Link**	Sets to use VIERA Link functions **(Off / On)**
	HDMI Content Type	Adjusts the picture settings according to the content type signal from the connected equipment via HDMI cable **(Off / Auto)** ●This function is available if the connected equipment supports HDMI Content Type. ●The content type information will be displayed for several seconds when this function works.
	Q-Link	Selects which AV terminal is to be used for data communication between this TV and a compatible recorder **(AV1 / AV2)** ●Select the connected terminal to the recorder even it is not compatible with Q-Link.
	AV1 / AV2 out	Chooses the signal to be transmitted from the TV to Q-Link **(TV / AV1 / AV2 / AV3 / Monitor)** ●Monitor: Image displayed on screen ●Component, PC and HDMI signals cannot be outputted.
	Power on Link	Sets to use Power on Link function **(Off / On)**
	Power off Link	Sets to use Power off Link function **(Off / On)**
	Standby Power Save	Controls the power consumption in Standby mode of the connected equipment to reduce the consumption **(Off / On)** ●This function is available when "VIERA Link" is set to "On" and "Power off Link" is set to "On".
	Intelligent Auto Standby	Makes non-watched or non-used connected equipment go into Standby mode to reduce the power consumption **(Off / On (With reminder) / On (No reminder))** ●This function is available when "VIERA Link" is set to "On".
	Download	Downloads channel, language, country / region settings to a Q-Link or VIERA Link compatible equipment connected to the TV ●DVB-S and DVB-C channel settings cannot be downloaded.
	Child Lock	Locks a channel / AV input to prevent access to it

Menu	Item		Adjustments / Configurations (alternatives)
Setup	**DVB-S Tuning Menu**	**Favourites Edit**	Creates list of favourite DVB-S channels
		Channel List	Skips the unwanted DVB-S channels or edits DVB-S channels
		Auto Setup	Automatically sets the DVB-S channels received in the area
		Manual Tuning	Sets the DVB-S channels manually
		Update Channel List	Updates DVB-S Channel List while keeping your settings
		New Channel Message	Selects whether to give a notification message when a new DVB-S channel is found **(Off / On)**
		Signal Condition	Checks the DVB-S signal condition
		Antenna System	Sets the antenna system to use plural LNBs for receiving several satellites **(One LNB / MiniDiSEqC / DiSEqC1.0 / Single Cable)** ●This TV supports DiSEqC Version 1.0.
		LNB Configuration	Selects the satellite for each LNB
		Add TV Signal	Adds the TV mode ●This function is available if you skip any modes to tune in "Auto Setup" for first using the TV. ●To operate, refer to the "Auto Setup" operations for first using the TV (p. 10 and p. 11).
	DVB-C Tuning Menu	**Favourites Edit**	Creates list of favourite DVB-C channels
		Channel List	Skips the unwanted DVB-C channels or edits DVB-C channels
		Auto Setup	Automatically sets the DVB-C channels supplied
		Manual Tuning	Sets the DVB-C channels manually
		Update Channel List	Updates DVB-C Channel List while keeping your settings
		Favourite Network	Selects your favourite network for each broadcasters (only available in some countries)
		New Channel Message	Selects whether to give a notification message when a new DVB-C channel is found **(Off / On)**
		Service Replacement	Set to "On" to enable a message to switch to the available service (only available in some countries) **(Off / On)**
		Signal Condition	Checks the DVB-C signal condition
		Attenuator	Automatically reduces the DVB-C signal to avoid the interference **(Off / On)**
		Add TV Signal	Adds the TV mode ●This function is available if you skip any modes to tune in "Auto Setup" for first using the TV. ●To operate, refer to the "Auto Setup" operations for first using the TV (p. 10 and p. 11).
	DVB-T Tuning Menu	**Favourites Edit**	Creates list of favourite DVB-T channels
		Channel List	Skips the unwanted DVB-T channels or edits DVB-T channels
		Auto Setup	Automatically sets the DVB-T channels received in the area
		Manual Tuning	Sets the DVB-T channels manually
		Update Channel List	Updates DVB-T Channel List while keeping your settings
		Favourite Network	Selects your favourite network for each broadcasters (only available in some countries)
		New Channel Message	Selects whether to give a notification message when a new DVB-T channel is found **(Off / On)**
		Signal Condition	Checks the DVB-T signal condition
		Add TV Signal	Adds the TV mode ●This function is available if you skip any modes to tune in "Auto Setup" for first using the TV. ●To operate, refer to the "Auto Setup" operations for first using the TV (p. 10 and p. 11).

●A different menu will be displayed when "Advance(isfccc)" in the Setup Menu is set to "On" or in the mode of PC input, Media Player or Network service operations.
●Only available items can be selected.

● How to Use Menu Functions

How to Use Menu Functions

Menu	Item		Adjustments / Configurations (alternatives)
Setup	**Analogue Tuning Menu**	**Channel List**	Skips the unwanted Analogue channels or edits Analogue channels
		Auto Setup	Automatically sets the Analogue channels received in the area
		Manual Tuning	Sets the Analogue channels manually
		Add TV Signal	Adds the TV mode ●This function is available if you skip any modes to tune in "Auto Setup" for first using the TV. ●To operate, refer to the "Auto Setup" operations for first using the TV (p. 10 and p. 11).
	Language	**OSD Language**	Changes language for on screen displays
		Preferred Audio 1 / 2	Selects the first and second preferred language for DVB multi audio (depending on the broadcaster)
		Preferred Subtitles 1 / 2	Selects the first and second preferred language for DVB subtitles (depending on the broadcaster)
		Preferred Teletext	Selects the preferred language for DVB teletext service (depending on the broadcaster)
	Display Settings	**Preferred Subtitle Type**	Selects the preferred subtitle type **(Standard / Hard of Hearing)** ●"Hard of Hearing" provides aids in understanding and enjoyment with DVB subtitles (depending on the broadcaster). ●"Preferred Subtitles 1 / 2" in "Language" are given priority.
		Teletext	Teletext display mode **(TOP (FLOF) / List)**
		Teletext Character Set	Selects teletext language **(West / East1 / East2)** ●West: English, French, German, Greek, Italian, Spanish, Swedish, Turkish, etc. ●East1: Czech, English, Estonian, Lettish, Rumanian, Russian, Ukrainian, etc. ●East2: Czech, Hungarian, Lettish, Polish, Rumanian, etc.
		Side Panel	Increases the brightness of the side panel **(Off / Low / Mid / High)** ●The recommended setting is "High" to prevent panel "image retention".
		Default Guide	Selects the default TV Guide type when the GUIDE button is pressed **(TV Guide / Channel List)** TV Guide : Electronic Programme Guide (EPG) is available. Channel List : EPG is not available and the channel list will appear instead of it.
		Input Labels	Labels or skips each input terminal
		Banner Display Timeout	Sets how long the Information banner stays on screen **(0 (No display) / 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 seconds)**
		Playing Time Display	Set to "On" to display a continuous record of time spent using Game mode every 30 mins **(Off / On)** ●This function is available when "Game" is selected in "Viewing Mode" (p. 22).
		Radio Mode	Sets the timer for turning off the screen automatically when a radio channel is selected **(Off / 5 / 10 / 15 / 20 seconds)** ●The sound is active even if the screen turns off. ●Press any buttons except Volume Up / Down and Sound Mute buttons to turn the screen on. ●This function is effective in reducing power consumption when listening to a radio channel.
		Common Interface	Uses include to watch pay-TV
		Network Setup	Sets the network setting to use in your network environment
		DivX® VOD	Displays DivX VOD registration code

Menu	Item		Adjustments / Configurations (alternatives)
Setup	**Advance(isfccc)**		Enables the advanced picture settings **(Off / On)** ●Set to "On" to enable the mode of "Professional1" and "Professional2" in "Viewing Mode". ●Set to "On" to display the advanced items in the Picture Menu - "Advanced Settings", "Lock Settings" and "Copy Adjustment". "Copy Adjustment" will be displayed when "Viewing Mode" is set to "Professional1" or "Professional2". ●"isfccc" is the picture setting for the certified professional dealer. For details, consult your local dealer.
	System Menu	**USB Keyboard Layout**	Selects the language that your USB Keyboard supports ●Use a USB Keyboard to enter characters in VIERA CAST. ●Characters may not be displayed correctly on the TV screen depending on the connected keyboard or the keyboard layout setting.
		Shipping Condition	Resets all settings, for example, when moving house
		System Update	Downloads new software to TV
		Software Licence	Displays the software licence information
		System Information	Displays the system information of this TV
	Other Settings	**AV Colour System**	Selects optional colour system based on video signals in AV mode **(Auto / PAL / SECAM / M.NTSC / NTSC)**
		GUIDE Plus+ Settings — **Update**	Performs the update of the GUIDE Plus+ schedule and advertising informations for the GUIDE Plus+ system
		Postcode	Sets your postcode to display advertisements in the GUIDE Plus+ system
		System Information	Displays the system information of the GUIDE Plus+ system
		Intelligent Frame Creation	Automatically compensates the picture frame rate and removes juddering movements to make the images smooth and clear **(Off / On)** ●This function is not available for selection (default to "Off") when "Viewing Mode" is set to "Game" or in the mode of 3D, PC input, photo or Network service operations.
		24p Smooth Film	Automatically compensates the picture frame rate to make the 24p source movie images smooth **(Off / On)** ●This is available only for 24p signal input and displayed instead of "Intelligent Frame Creation". ●This function is not available for selection (default to "Off") when "Viewing Mode" is set to "Game", when "3D Picture Format" is set to "2D→3D" in "3D Settings" or in the mode of PC input, photo or Network service operations.
		3D 24p Film Display	Reduces juddering noises of the 3D images **(Off / On)** ●Set to "On" for the cinema-like images. ●This function is available for the 3D-compatible 24p source movie.
		Super Resolution	Enhances the picture resolution to make the image sharper **(Off / Mid / Max)** ●This function is available for SD (Standard definition) signal. ●As for HD (High definition) signal, this function is available when aspect mode is set to 16:9 (16:9 Overscan is set to "On"), 4:3 Full or Zoom. ●Not valid on 3D, PC, VIERA CAST and Media Player
		Auto Standby	Sets the time the TV automatically goes to Standby mode when no operation is performed for the selected times **(Off / 2 / 4 hours)** ●Starting Timer Programming automatically does not affect this function. ●Automatic input switching with the connected equipment affects this function and time-count will be reset. ●The notification message will appear 3 minutes before going to Standby mode.
		Power Save	Reduces brightness of picture to economise on power consumption **(Off / On)**
		16:9 Overscan	Selects the screen area displaying the image **(Off / On)** On : Enlarged the image to hide the edge of the image. Off : Displayed the image in the original size. ●Set to "On" if noise is generated on the edge of the screen. ●This function is available when aspect is set to Auto (16:9 signal only) or 16:9. ●This function can be memorized separately for SD (Standard definition) and HD (High definition) signals.
		SD Card LED	Lights blue LED while SD Card is inserted **(Off / On)**
		Time Zone	Adjusts the time data ●The time data will be corrected based on GMT. ●Set to "Auto" to adjust the time automatically according to your area.
		DVI Input Setting	Changes the black level in the image for HDMI input mode with DVI input signal manually **(Normal / Full)** ●When the DVI input signal from the external equipment, especially from PC, is displayed, the black level may not be suitable. In this case, select "Full". ●The black level for HDMI input signal will be adjusted automatically. ●For HDMI input mode with DVI input signal only

●A different menu will be displayed when "Advance(isfccc)" in the Setup Menu is set to "On" or in the mode of PC input, Media Player or Network service operations.
●Only available items can be selected.

● How to Use Menu Functions

Information for Users on Collection and Disposal of Old Equipment and used Batteries

These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries should not be mixed with general household waste. For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points, in accordance with your national legislation and the Directives 2002/96/EC and 2006/66/EC.

By disposing of these products and batteries correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.

For more information about collection and recycling of old products and batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

For business users in the European Union
If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

[Information on Disposal in other Countries outside the European Union]
These symbols are only valid in the European Union. If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.

Note for the battery symbol (bottom two symbol examples):
This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.

Cd

■TV

	TX-P42VT20E	TX-P46VT20E
Power Source	AC 220-240 V, 50 / 60 Hz	
Rated Power Consumption	390 W	420 W
On mode Average Power Consumption (based on IEC 62087 Ed.2 measurement method)	179 W	216 W
Standby Power Consumption	0.40 W	
	32.00 W (With monitor out recording)	

● This equipment complies with the EMC standards listed below.
  EN55013, EN61000-3-2, EN61000-3-3, EN55020, EN55022, EN55024

Notice for DVB functions

This TV is designed to meet the standards (current as of August, 2009) of DVB-T (MPEG2 and MPEG4-AVC(H.264)) digital terrestrial services, DVB-C (MPEG2 and MPEG4-AVC(H.264)) digital cable services and DVB-S (MPEG2 and MPEG4-AVC(H.264)) digital satellite services.

Consult your local dealer for availability of DVB-T or DVB-S services in your area.

Consult your cable service provider for availability of DVB-C services with this TV.

● This TV may not work correctly with the signal which does not meet the standards of DVB-T, DVB-C or DVB-S.
● Not all the features are available depending on the country, area, broadcaster, service provider and satellite.
● Not all CI modules work properly with this TV. Consult your service provider about the available CI module.
● This TV may not work correctly with CI module that is not approved by the service provider.
● Additional fees may be charged depending on the service provider.
● The compatibility with future DVB services is not guaranteed.
● Check the latest information on the available services at the following website. (English only)
  http://panasonic.jp/support/global/cs/tv/

Customer's Record

The model number and serial number of this product may be found on its rear panel. 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