Panasonic®

Operating Instructions
Plasma Television

VIEr∧

3D FULL HD

real D 3D

VIEr∧ Link

VIEr∧ IMAGE VIEWER

VIEr∧ CAST

Q Link

∧VCHD ™

dlna™ CERTIFIED

DIVX HD

dts Digital Out

DOLBY DIGITAL PLUS

CONEQ™

SD XC™

HDMI

DiSEqC 1.0

DVB® Digital Video Broadcasting

FULL HD 1920×1080p

HD TV 1080p
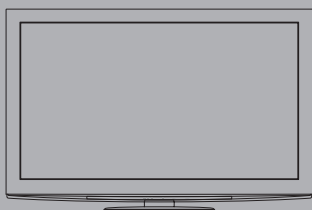
Thank you for purchasing this Panasonic product.
Please read these instructions carefully before operating this product and retain them for future reference.
The images shown in this manual are for illustrative purposes only.
Please refer to Pan European Guarantee Card if you need to contact your local Panasonic dealer
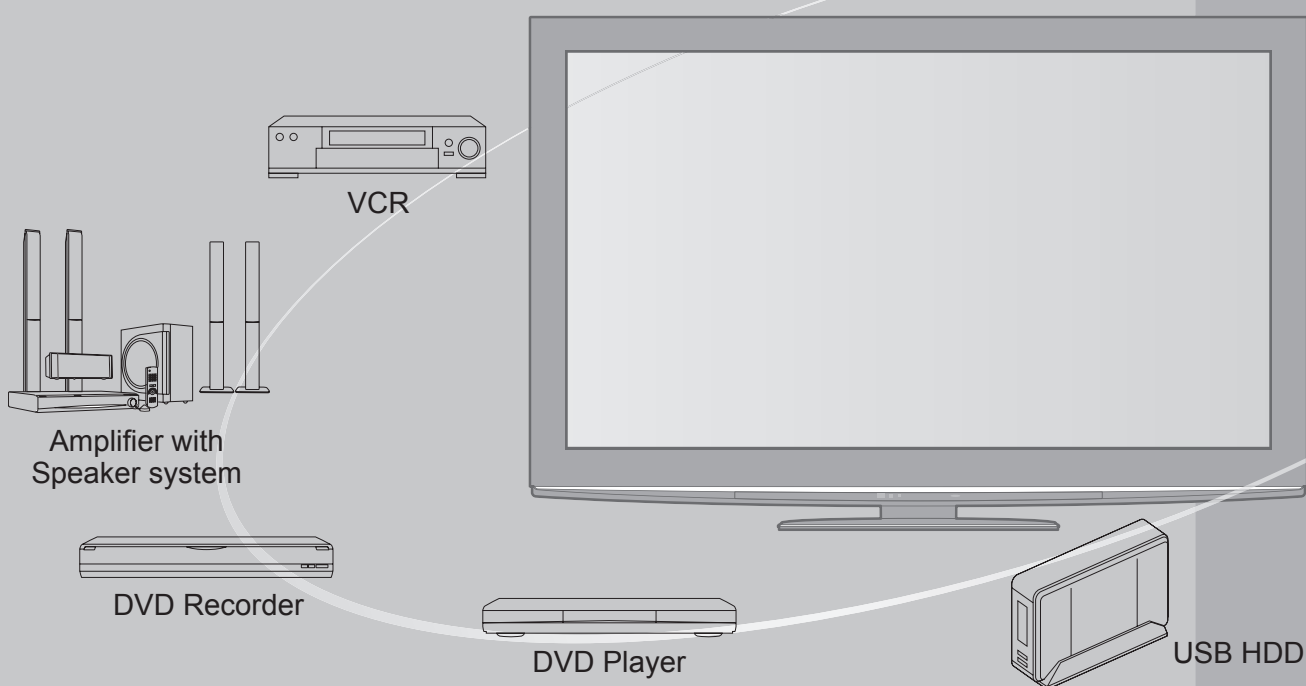for assistance.

English

Experience an amazing level of multimedia excitement

Enjoy rich multimedia

VCR

Amplifier with
Speaker system

DVD Recorder

DVD Player

USB HDD

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/

SD Card

Camcorder

Personal
computer

Set top box

The recording and playback of content on this or any
other device may require permission from the owner of the
copyright or other such rights in that content. Panasonic has
no authority to and does not grant you that permission and
explicitly disclaims any right, ability or intention to obtain
such permission on your behalf. It is your responsibility to
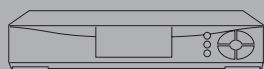ensure that your use of this or any other device complies
with applicable copyright legislation in your country. Please
refer to that legislation for more information on the relevant
laws and regulations involved or contact the owner of the
rights in the content you wish to record or playback.

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.

Contents

Be Sure to Read

Quick Start Guide

Enjoy your TV!

Basic Features

Advanced Features

FAQs, etc.

Quick Start Guide

Basic

Advanced

FAQs, etc.

3

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!
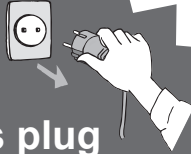
AC 220-240 V 50 / 60 Hz

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. 7) / wall-hanging brackets (p. 6).

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.

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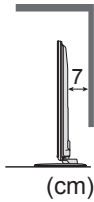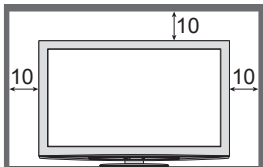
●When using the pedestal, keep the space between the bottom of the TV and the surface where the TV is set.
●In case of using Wall-hanging bracket, follow the manual of it.

■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.
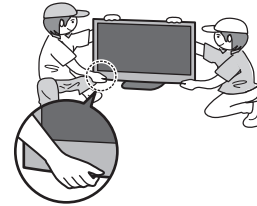
Notes

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. (p. 99)

■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. 19)
  • no operation is performed for the period selected in "Auto Standby" (p. 39)
●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.
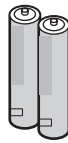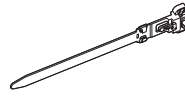
Accessories / Options

Standard accessories

Check that you have the accessories and items shown ☑

☐ Remote Control
  ● N2QAYB000489

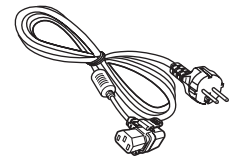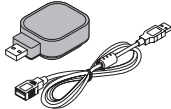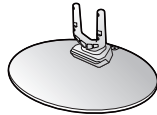☐ Batteries for the Remote Control (2)
  ● R6
  ➡ p. 8

☐ Clamper
  ➡ p. 10

☐ Mains Lead
  ➡ p. 10

☐ Wireless LAN Adaptor and Extension cable
  ➡ p. 14 and p. 75

☐ Pedestal
  ➡ p. 7

☐ 3D Eyewear set (2)
  ➡ p. 27

☐ Screwdriver
  (for replacing the battery of the 3D Eyewear)
  ● + (#0)
  ➡ p. 28

☐ Ferrite core (2)
  ➡ p. 93

Use the Ferrite cores to comply with the EMC standard.
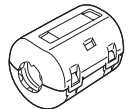
☐ Operating Instructions

☐ 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 (p. 83).
● 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
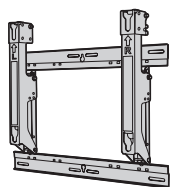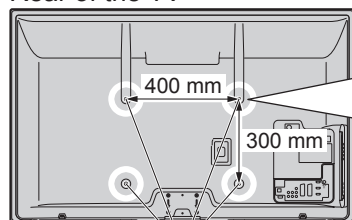
Holes for wall-hanging bracket installation

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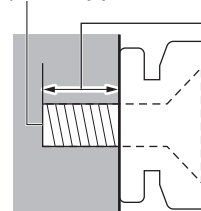
**Depth of screw:
minimum 15 mm, maximum 30 mm**

(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

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 physically damaged.
●If you use the pedestal while it is physically damaged, personal injury may result. Contact your nearest Panasonic dealer immediately.
During set-up, make sure that all screws are securely tightened.
●If insufficient care is 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.
Ensure that the TV does not fall over.
●If the TV is knocked or children climb onto the pedestal with the TV installed, the TV may fall over and personal injury may result.
Two or more people are required to install and remove the TV.
●If two or more people are not present, the TV may be dropped, and personal injury may result.
When removing the pedestal from the TV, do not remove the pedestal by the methods other than the specified procedure. (see below)
●Otherwise the TV and / or pedestal may fall over and become damaged, and personal injury may result.

Ⓐ Assembly screw (3) (silver)　　Ⓑ Assembly screw (4) (black)

Ⓒ Pole
●TBLA3828 (TX-P42VT20E)
●TBLA3834 (TX-P46VT20E)

Ⓓ Base
●TBLX0184 (TX-P42VT20E)
●TBLX0155 (TX-P46VT20E)

M5 × 18　　　M5 × 30
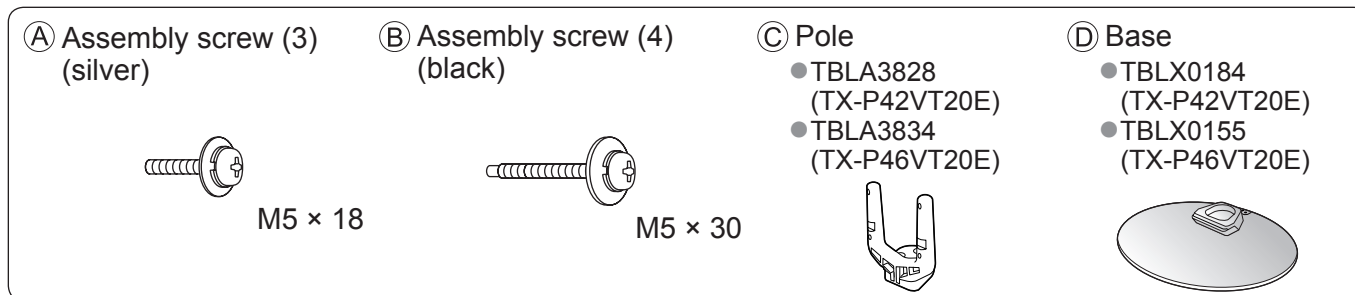
■Assembling the pedestal

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
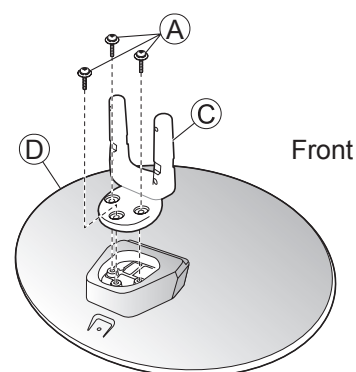
■Securing the TV

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.

Arrow mark

Hole for pedestal installation
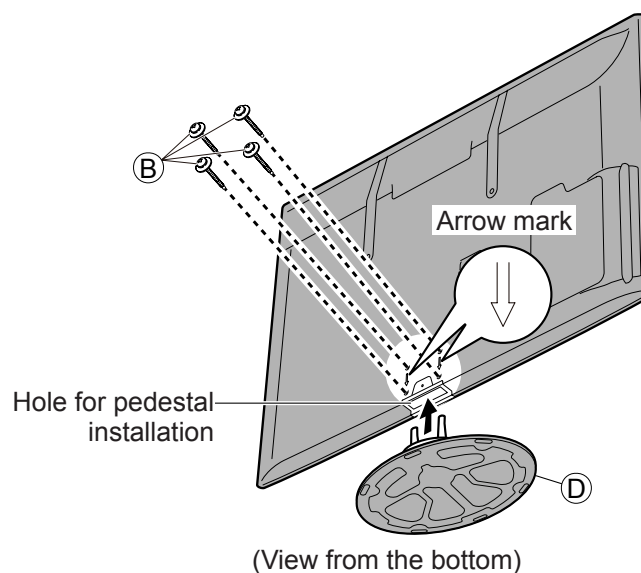
Removing the pedestal from the TV
Be sure to remove the pedestal in the following way when using the wall-hanging bracket or repacking the TV.

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

(View from the bottom)

Identifying Controls

Remote Control

■Installing / removing remote's batteries

1 Pull open

Hook

2 Close

Note the correct polarity (+ or -)
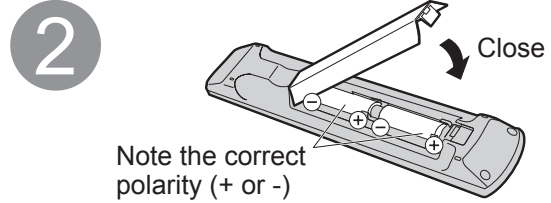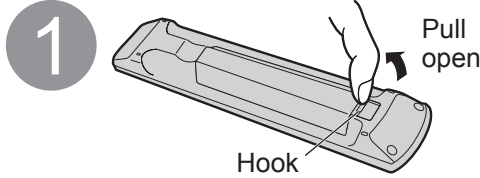
Caution
- Incorrect installation may cause battery leakage and corrosion, resulting in damage to the remote control.
- Do not mix old and new batteries.
- Do not mix different battery types (such as alkaline and manganese batteries).
- Do not use rechargeable (Ni-Cd) batteries.
- Do not burn or breakup 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 (p. 66)
- Switches to SD Card and USB device viewing / listening mode

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

Main Menu (p. 33)
- Press to access Picture, Sound and Setup Menus

Aspect (p. 18)
- Changes aspect ratio from Aspect Selection list
- Also possible by pressing this button repeatedly until you reach the desired aspect

Channel / Programme Information (p. 17)
- Displays channel and programme information

VIERA Link Menu (p. 88)
- Accesses VIERA Link Menu

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

Option Menu (p. 19)
- Easy optional setting for viewing, sound, etc.

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

Teletext (p. 22)
- Switches to teletext mode

Subtitles (p. 18)
- 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 (p. 16)
- AV - switches to AV input mode from Input Selection list (p. 24)

Direct TV Recording (p. 86 and p. 88)
- Records programme immediately in DVD Recorder / VCR with Q-Link or VIERA Link connection

VIERA CAST (p. 83)
- Displays VIERA CAST home screen

Exit
- Returns to the normal viewing screen

VIERA TOOLS (p. 32)
- Displays some special feature icons and accesses easily

TV Guide (p. 20)
- Displays TV Guide

Cursor buttons
- Makes selections and adjustments

Return
- Returns to the previous menu / page

Hold
- Freeze / unfreeze picture (p. 17)
- Holds the current teletext page (teletext mode) (p. 22)

Index (p. 23)
- Returns to the teletext index page (teletext mode)

Last view (p. 19)
- Switches to previously viewed channel or input mode

Channel Up / Down
- Selects channel in sequence

Connected equipment operations (p. 25, 64 and p. 90)

Panasonic
TV

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. 34)

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

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.

CI slot (p. 55)

USB 1 / 2 ports (p. 14, 62, 66 and p. 75)

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 (p. 40, 42 and p. 43)

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 (p. 66)

HDMI4 terminal (p. 93)

Headphones jack (p. 93)

AV3 terminals (p. 93)

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)

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

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	Page up
●Change	
●RETURN	Page down
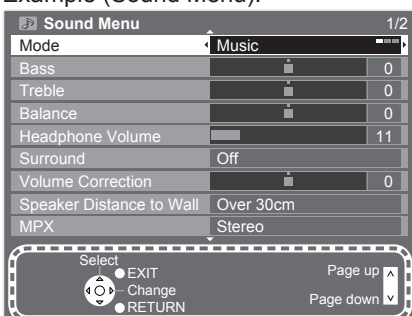
Operation guide will help you.

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. 26 and p. 29

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.
●Selectable satellites and dish alignment to tune DVB-S channels ➡ p. 41

Rear of the TV

AC 220-240 V
50 / 60 Hz

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:
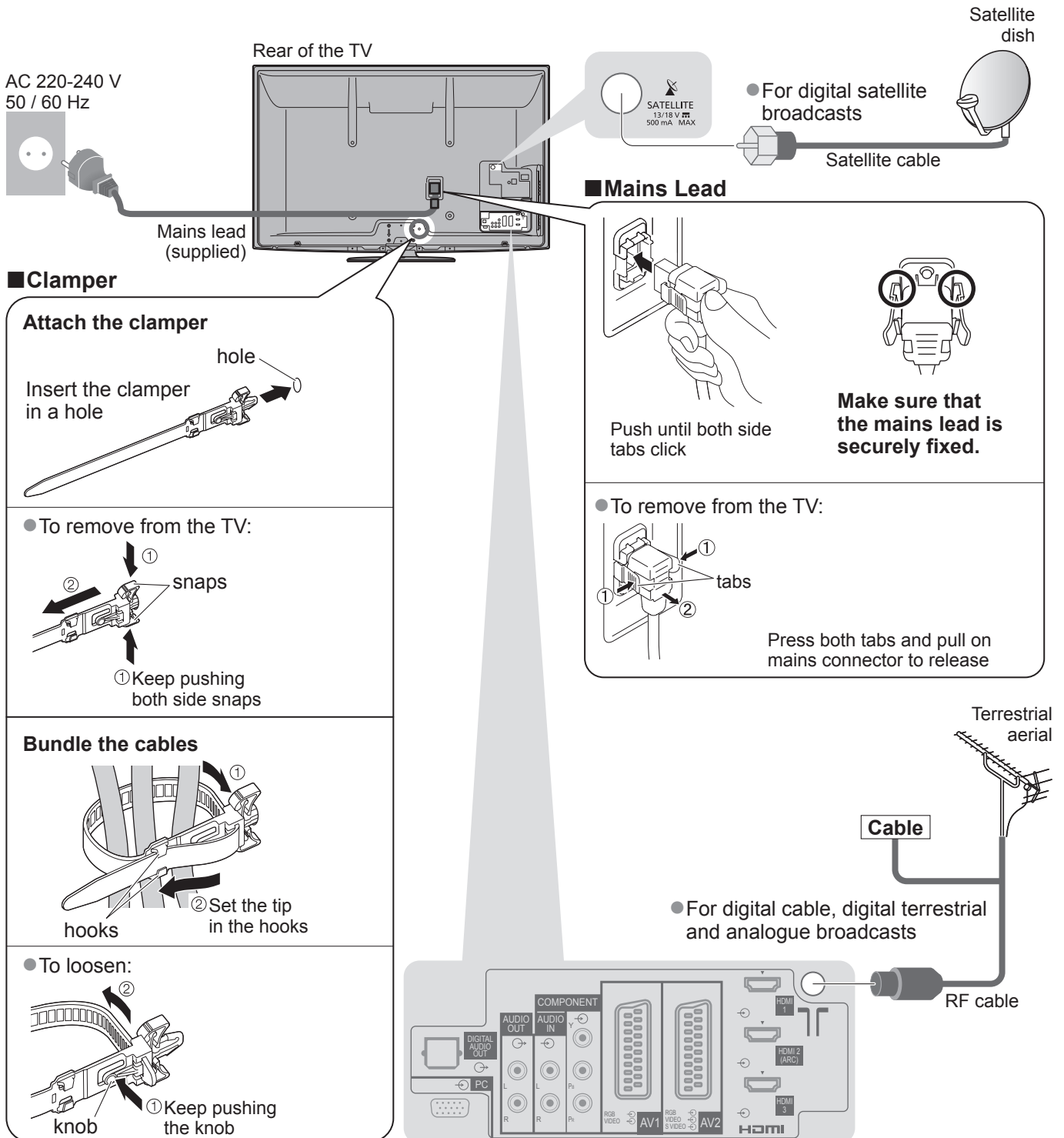
① ①
② tabs

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

knob
①Keep pushing the knob

Terrestrial aerial

Cable

●For digital cable, digital terrestrial and analogue broadcasts

RF cable

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

●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.

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)
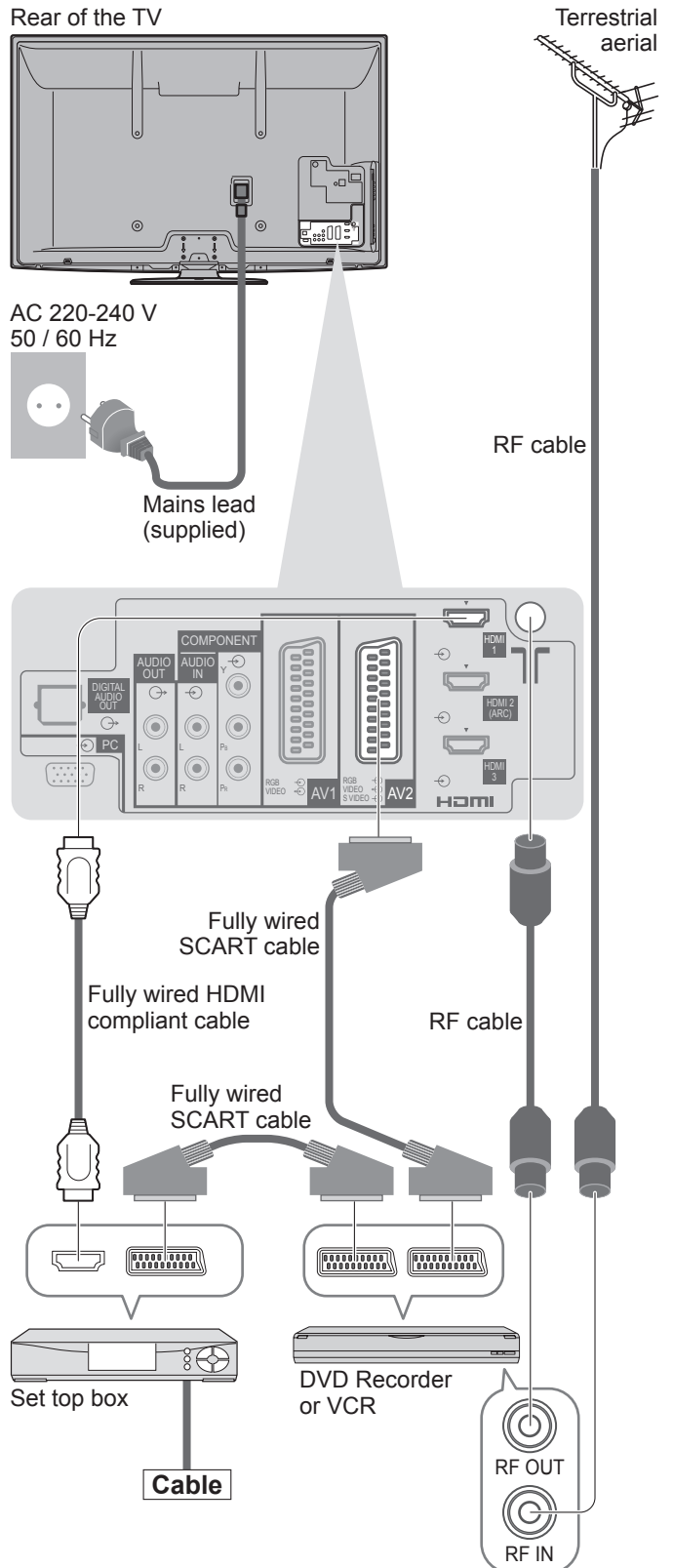
Fully wired HDMI
compliant cable

Fully wired
SCART cable

RF cable

Player /
3D-compatible player

DVD Recorder
or VCR

RF OUT

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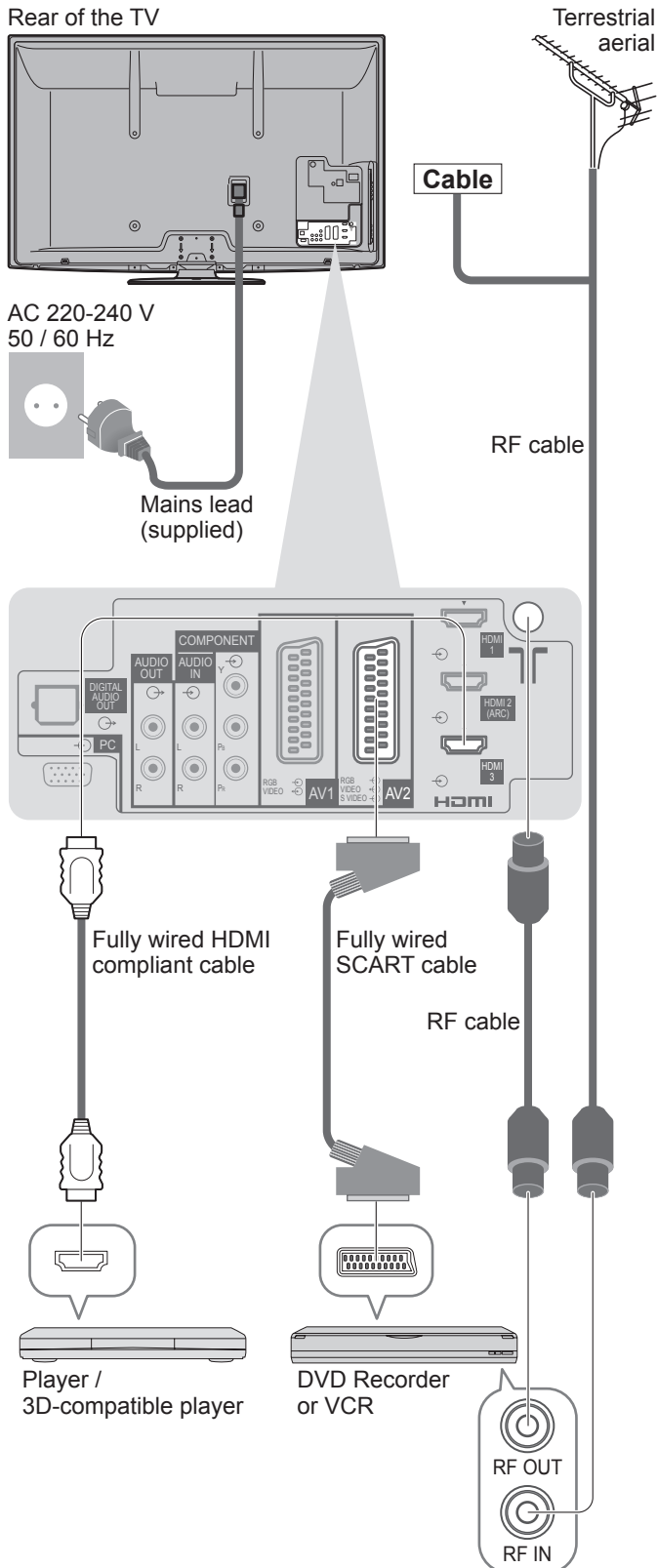
Example 3
Connecting DVD Recorder / VCR and Set top box

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)

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. 26
● Connect to the TV's AV1 / AV2 for a DVD Recorder / VCR supporting Q-Link (p. 86).
● For HDMI-compatible equipment, possible to connect to HDMI terminals (HDMI1 / HDMI2 / HDMI3 / HDMI4) by using HDMI cable (p. 92).
● Network connection ➡ p. 14 and p. 75
● Q-Link connection ➡ p. 84
● VIERA Link connection ➡ p. 84 and p. 85
● Please also read the manual of the equipment being connected.

11

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. 10 and p. 11) 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.
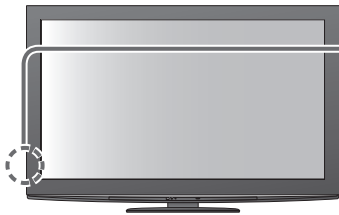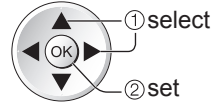
1 **Plug the TV into mains socket and switch On**
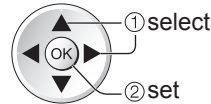(Takes a few seconds to be displayed)

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.
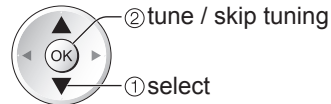
Child Lock-PIN Entry	
Please enter new PIN	
PIN	* * * *

- 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 (p. 102).

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
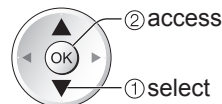
Auto Setup starts

- 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.

Auto Setup varies depending on the country you select.

● DVB-S Search Mode

Search Mode	
All Channels	Free Channels

① select mode
② set

↓

● DVB-S Satellite Search

DVB-S Auto Setup

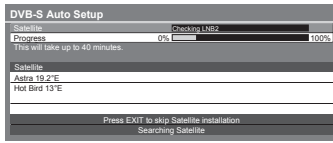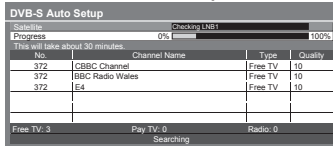| Satellite	Checking LNB2	
Progress	0% ▭	100%
This will take up to 40 minutes.		

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.

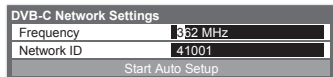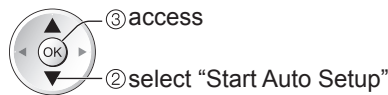| No.	Channel Name	Type	Quality
372	CBBC Channel	Free TV	10
372	BBC Radio Wales	Free TV	10
372	E4	Free TV	10

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.
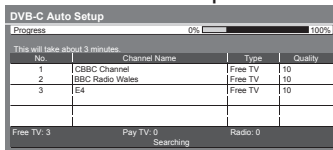And then, select "Start Auto Setup".

DVB-C Network Settings

Frequency	362 MHz
Network ID	41001
Start Auto Setup	

① enter the frequency and network ID
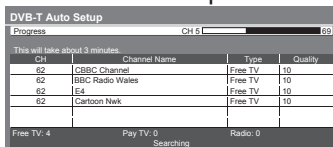
Depending on the country you select, "Auto" is displayed and you do not have to enter them.
In this case, Home Frequency and Network ID will be set automatically.

③ access
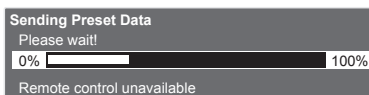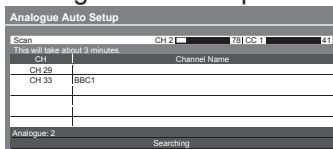② select "Start Auto Setup"

↓

● 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 (p. 86 and p. 87) 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.
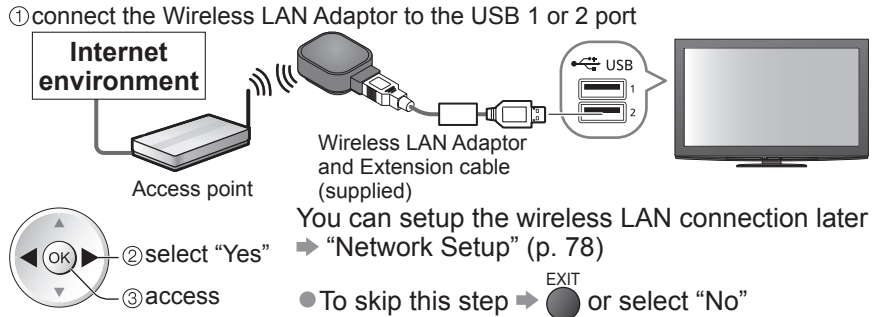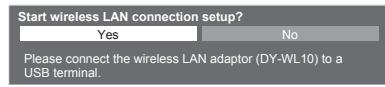➡ "Download" (p. 36)
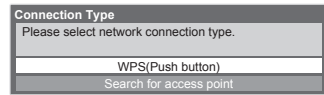
Auto Setup

6 **Setup the wireless LAN connection**
Setup the wireless LAN connection to enable the network service functions (p. 74).
(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. 15)
- Confirm the encryption key, settings and positions of your access point before starting setup. For details, read the manual of the access point.
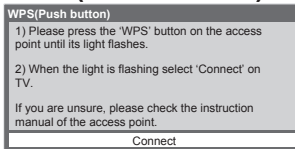
Start wireless LAN connection setup?	
Yes	No

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

Access point

Wireless LAN Adaptor and Extension cable (supplied)

② select "Yes"
③ access

You can setup the wireless LAN connection later ➡ "Network Setup" (p. 78)

- 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.
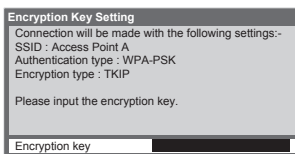- WPS: Wi-Fi Protected Setup™

■ 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 (p. 79) ➡ 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

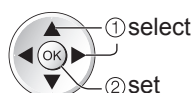- If the selected access point is not encrypted, the confirmation screen will be displayed. It is recommended to select the encrypted access point.

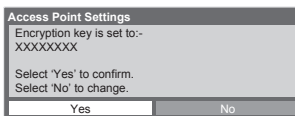**Access Point Settings**
Encryption key

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
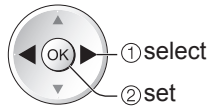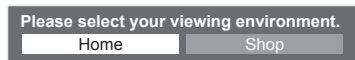② set

- 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

14

7 Select "Home"

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

Please select your viewing environment.	
Home	Shop

①select
②set

↓

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

- To check channel list at-a-glance
  ➡ "Using TV Guide" (p. 20)
- To edit or hide (skip) channels
  ➡ "Tuning and Editing Channels" (p. 44 - 49)
- 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

①select
②set

↓

Auto Setup is complete

- To change viewing environment later on, you will need to initialise all settings by accessing Shipping Condition.
  ➡ "Shipping Condition" (p. 56)

Note

- If tuning has failed or to retune all channels ➡ "Auto Setup" (p. 40 - 43)
- To add the available TV mode later ➡ "Add TV Signal" (p. 37 and p. 38)
- To initialise all settings ➡ "Shipping Condition" (p. 56)
- To use a LAN cable instead of the Wireless LAN Adaptor ➡ p. 77
- 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.
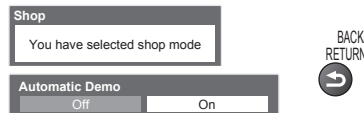
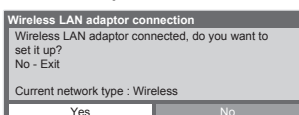### ■ Wireless LAN Adaptor

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)
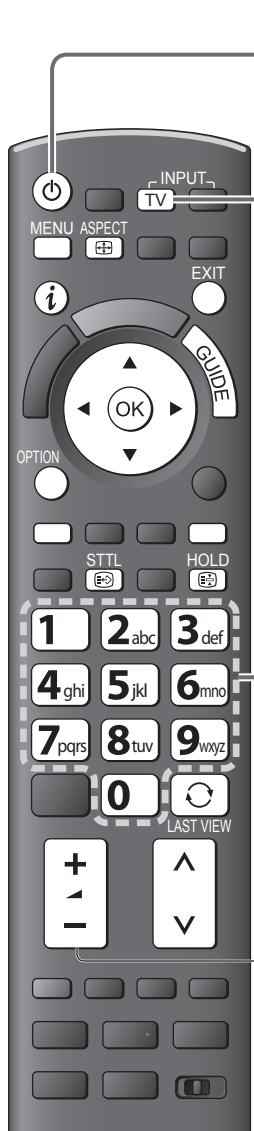 http://panasonic.jp/support/global/cs/tv/

If you connect the Wireless LAN Adaptor later on, the confirmation screen will be displayed for the setup.
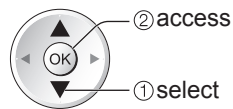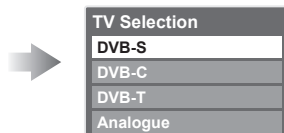- To setup the Wireless LAN connection ➡ p. 78 and p. 79

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

Yes	No

Watching TV

1 Turn power on
(Press for about 1 second)

● Mains power On / Off switch should be On. (p. 9)

2 Select the mode

TV Selection
DVB-S
DVB-C
DVB-T
Analogue

②access
①select

● The selectable modes vary depending on the stored channels (p. 12).
● If "TV Selection" menu is not displayed, press the TV button to switch the mode.
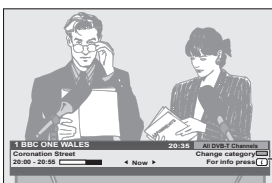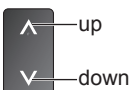
Information banner appears whenever you select a channel
● For details ➡ p. 17

1 BBC ONE WALES	20:35	All DVB-T Channels
Coronation Street		Change category
20:00 - 20:55	◀ Now ▶	For info press

● Also possible to select the mode pressing the TV button repeatedly on the remote control or side panel of the TV. (p. 9)
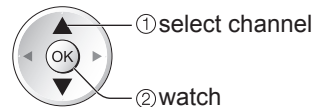
3 Select a channel

∧ — up
∨ — down

or

To select a more than two-digit channel position number, e.g. 399
➡ 3def ➡ 9wxyz ➡ 9wxyz

■ To select from the Channel List

➡ OK ➡

All DVB-T Channels	Sorting 123...
6 Cartoon Nwk	
7 BBC Radio Wales	
8 BBC Radio Cymru	
1 BBC ONE Wales	
2 BBC THREE	
3 BBCi	
4 CBBC Channel	

①select channel
②watch

● To change the category ➡ red
● To sort channel names in alphabetical order ➡ blue

Note
● To watch pay-TV
➡ "Using Common Interface" (p. 55)

Volume

■ Select a channel using Information banner (p. 17)
Possible to confirm the channel name and programme before changing channels.

Display Information banner if it is not displayed

i

While the banner is displayed, select the channel

①select channel
②watch
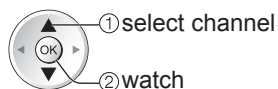
● Possible to set display timeout in "Banner Display Timeout" (p. 38).

■ Select a channel using TV Guide (p. 20)
Possible to confirm the TV Guide (EPG) before changing channels.

Display TV Guide

GUIDE

● The postcode entry or update may be required depending on the country you select (p. 12). Follow the on screen instructions.

Select the current programme or channel

①select
②access

Select "View" (DVB mode)

Das Erste
19:30- 20:00
View	Timer Programming

①select
②watch

● To use Timer Programming ➡ p. 21

■**Other useful functions**

Hold

Freeze / unfreeze picture   HOLD

Display Information banner

Display Information banner   *i*
●Also appears when changing a channel

Category
●To change the category ➡ [   ] blue

Channel position and name

Channel type (Radio, Data, HDTV, etc.)

Current time

Example (DVB):

| 1 ZDF | Radio | 20:35 | All DVB-T Channels |

Programme — **Coronation Street** — **Change category** [   ]

20:00 - 20:55 [▮▮▮▮▮] ◄ **Now** ► — **For info press** *i*

🔇 | **Encrypted** | **Dolby D +** | [↪] | [≡] | MULTI | **45**

Programme
Start / Finish time

Progress time indicator of the selected programme

Features available / Message meanings

Example (Analogue):

3 ITV	19:35	All Analogue Channels
itv1		
CH23		
🔇		[≡] Stereo 45

Channel number

●To confirm another tuned channel name ➡ ▲ ◄ (OK) ► ▼

●To watch the channel listed in the banner ➡ (OK)

●Information on the next programme ➡ ◄ (OK) ►
(DVB)

●To hide ➡ EXIT (●)

●Extra information ➡ *i*
(DVB)   (press again to hide the banner)

●To set display timeout
➡ "Banner Display Timeout" (p. 38)

🔇
Sound mute On

Bad signal
Poor TV signal quality

Encrypted
Scrambled programme

Dolby D +, Dolby D
Dolby Digital Plus or Dolby Digital audio track

[↪]
Subtitle service available

[≡]
Teletext service available

MULTI
Multiple audio available

MULTI
Multiple video available

MULTI
Multiple audio and video available

Stereo, Mono
Audio mode

1 - 90
Off Timer remaining time
●For settings ➡ p. 19

●Watching TV

Watching TV

Display subtitles

Display / hide subtitles (if available)
● To change the language for DVB (if available)
  ➡ "Preferred Subtitles" (p. 38)

STTL
[⊡⊙]

Note

● If you press the STTL button in Analogue mode, it switches to teletext service and calls up a favourite page (p. 23). Press the EXIT button to return to TV mode.
● Subtitles may not be displayed properly in 3D images.

Aspect
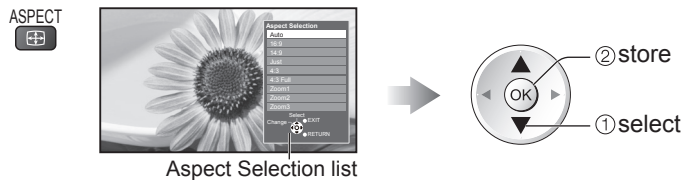
Change the aspect ratio (image size)

ASPECT
[⊞]

Enjoy viewing the image at its optimum size and aspect.
Normally programmes have the Aspect Control Signal (Widescreen signal, etc.), and the TV will choose the aspect ratio automatically according to the Aspect Control Signal (p. 94).

■If you would like to change the aspect ratio manually

Display Aspect Selection list

ASPECT
[⊞]

Aspect Selection list

While the list is displayed, select the mode

②store
(OK)
①select

● To change the mode using the ASPECT button only

➡ ASPECT [⊞] (Press repeatedly until you reach the desired mode)

Auto
The best ratio is chosen and the image expanded to fill the screen.
For details ➡ p. 94

16:9
Directly displays the image at 16:9 without distortion (anamorphic).

4:3 Full
Displays a 4:3 image enlarged horizontally to fit the screen.
● HD signal only

14:9
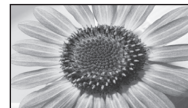Displays the image at the standard 14:9 without distortion.

Zoom1
Displays a 16:9 letterbox or 4:3 image without distortion.

Just
Displays a 4:3 image full-screen. Stretching is only noticeable at the left and right edges.

Zoom2
Displays a 16:9 letterbox (anamorphic) image full-screen without distortion.

4:3
Displays the image at the standard 4:3 without distortion.

Zoom3
Displays a 2.35:1 letterbox (anamorphic) image full-screen without distortion.
At 16:9, displays the image at its maximum (with slight enlargement).

Note

● Aspect is fixed to "16:9" when "Viewing Mode" is set to "Game" in the Picture Menu.
● Only "16:9" and "4:3" are available in PC input mode.
● Aspect cannot be changed in teletext service and 3D mode (aspect is fixed to "16:9" when "3D Picture Format" is set to "2D→3D").
● Aspect mode can be memorized separately for SD (Standard definition) and HD (High definition) signals.

18

Display the selectable settings for the current status

Check or change the current status instantly

OPTION

- To change

②change
①select
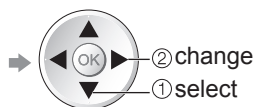
Multi Video (DVB mode)
Allows you to select the image (if available)
- This setting is not memorized and it will return to the default setting once you exit the current programme.

Multi Audio (DVB mode)
Allows you to select between alternative language for sound tracks (if available)
- This setting is not memorized and it will return to the default setting once you exit the current programme.

Dual Audio (DVB mode)
Allows you to select stereo / monaural (if available)

Sub Channel (DVB mode)
Allows you to select the multifeed programme - sub channel (if available)

Subtitle Language (DVB mode)
Allows you to select the language in which subtitles should appear (if available)

Teletext Character Set
Sets the teletext language
➡ Setup Menu (p. 38)

Teletext Language (DVB mode)
Allows you to select between alternative language for teletext (if available)

MPX (Analogue mode)
Selects multiplex sound mode (if available)
➡ Sound Menu (p. 35)

Volume Correction
Adjusts volume of individual channel or input mode

USB Remove Safely
Takes this operation to remove the connected USB device safely from the TV

Last view

Switch to previously viewed channel or input mode easily

LAST VIEW

- Press again to return to the present view.

Note
- Switching channel is not available while the recording of Timer Programming, Direct TV Recording or One Touch Recording is in progress.
- Watching less than 10 sec. is not regarded as the previously viewed channel or input mode.

Off Timer

Turn the TV to Standby mode automatically after a fixed period

Display the menu

MENU

Select "Setup"

VIERA Main Menu
- Picture
- Sound
- Setup

②access
①select
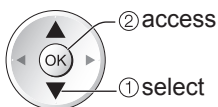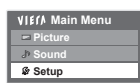
Select "Off Timer" and set the time

Setup Menu   1/2
3D Settings
Timer Programming
Off Timer   Off
USB HDD Setup
Link Settings
Child Lock
DVB-T Tuning Menu
Language
Display Settings

②set
①select
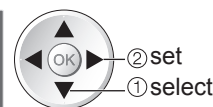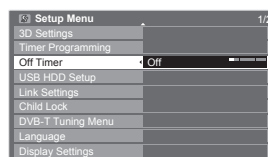
- To cancel ➡ Set to "Off" or turn the TV off.
- To display the remaining time ➡ Information banner (p. 17)

Note
- When the remaining time is within 3 minutes, the remaining time will flash on the screen.

Using TV Guide

TV Guide - Electronic Programme Guide (EPG) provides an on screen listing of the programmes currently broadcast and the forthcoming broadcasts over the next seven days (depending on the broadcasters).
- This function varies depending on the country you select (p. 12).
- The postcode entry or update may be required to use the GUIDE Plus+ system depending on the country you select. ➡ "View advertisement" (p. 21)
- DVB-T and Analogue channels are displayed on the same TV Guide screen. "D" means DVB-T channel and "A" means Analogue channel. There will be no programme listings for Analogue channels.
- When this TV is turned on for the first time, or the TV is switched off for more than a week, it may take some time before the TV Guide is completely shown.

1 Select the mode
➡ p. 16

[TV]

2 View TV Guide

- To change the layout (Landscape / Portrait) ➡
  view "Landscape" to see many channels
  view "Portrait" to see one channel at a time

TV Guide time
Current date and time
TV Guide date   Programme

Example:

		TV Guide: Landscape		
Wed 28.10.2009 10:46
Wed 28.10.2009 | All Types | All Channels
1 BBC ONE
20:00 - 20:30   DIY SOS : We open in the Battersbys   *i*

Time:	19:30	20:00	20:30	21:00
D 1 BBC ONE	Das Erste	DIY SOS	The Bill	Red Cap
D 7 BBC THREE	Hot Wars		Holiday Program	
D 14 E4	Emmerdal.	Coronation Street		The Bill
D 70 BBC FOUR	10 O' clock News BBC		Pepsi Char.	Good bye
D 72 BBC 2W	Panorama	Spring watch		Coast
D 105 BBCi	I'm A Celebrity		Pop Idol	News
D 719 BBC Radi	Rugby	15 To 1		The Bill

Select channel
● EXIT
● Select programme   *i* Info
● RETURN   GUIDE Change display mode   Page up
                      OPTION Select Advert   Page down
Timer Programming
-24 hours   +24 hours   Prog.Type   Category

Advertisement   Landscape (Displays by channel)
Channel position and name

D: DVB-T
A: Analogue

Example:

	TV Guide: Portrait		
Wed 28.10.2009 10:46
Wed 28.10.2009 | All Types | All Channels
◄ D 1 BBC ONE   D 7 BBC THREE D 14 E4   D 70 BBC FOUR ►
19:30-20:00	Das Erste
20:00-20:30	DIY SOS *i*
20:30-21:00	The Bill
21:00-22:00	Red Cap
22:00-23:00	Live junction
23:00-23:30	POP 100
23:30-00:00	Rugby

Select programme
● EXIT
● Select channel   *i* Info
● RETURN   GUIDE Change display mode   Page up
                    OPTION Select Advert   Page down
Timer Programming
+24 hours   Prog.Type   Category

Portrait (Displays by time)

■ To watch the programme
Select the current programme or channel
① select
② access

Select "View" (DVB mode)

Das Erste
19:30- 20:00
View   Timer Programming
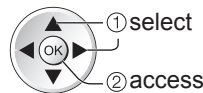
① select
② watch

- To use Timer Programming ➡ p. 21

■ To return to TV
➡ EXIT

■ To the previous day
(DVB mode)
➡ red

■ To the next day
(DVB mode)
➡ green

■ To view a channel list of the selected type
(DVB mode)
➡ yellow

Prog.Type
All Types
All Types
Movie
News

(Type list)
① select type
② view
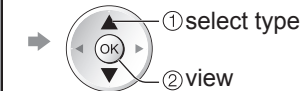
■ To view a channel list of the selected category
➡ blue

Category
All Channels
All Channels
All DVB-T Channels
All Analogue Channels
Free TV
Pay TV
HDTV
Free Radio
Pay Radio
Favourites1
Favourites2
Favourites3
Favourites4

(Category list)

Only Analogue channels are listed

① select category
② view

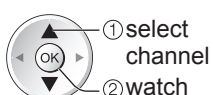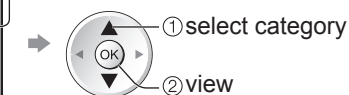- To list favourite channels ➡ p. 45

■ Depending on the country you select, you can select the TV Guide type
➡ "Default Guide" in "Display Settings" (p. 38)
If you select "Channel List", the channel list will appear when the GUIDE button is pressed.

All DVB-T Channels	Sorting 123...
6 Cartoon Nwk	
7 BBC Radio Wales	
8 BBC Radio Cymru	
1 BBC ONE Wales	
2 BBC THREE	
3 BBCi	
4 CBBC Channel	

(Channel list)

① select channel
② watch

20

■Other useful functions

View details of the programme (DVB mode)

Select the programme

▲◀(OK)▶▼ select

View details

(i)

Wed 28.10.2009
10:45
TV Guide: Landscape

VIErA

Wed 28.10.2009
DIY SOS
BBC ONE
20.00 - 20:30, 30 min.
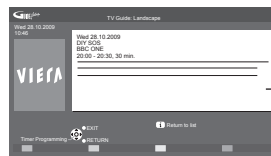
Details

● Press again to return to TV Guide.

● EXIT
Timer Programming ↩ RETURN
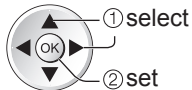⎙ Return to list

Timer Programming (DVB mode)

Timer Programming is a timer to remind watching or record the programme to the external recorder or the USB HDD.

Select the forthcoming programme

▲◀(OK)▶▼ ①select ②set

Select the function
(Ext Rec., USB HDD Rec. or Reminder)

Timer Programming			Wed 28.10.2009 10:46		
Function	No.	Channel Name	Date	Start	End
② Ext Rec.	D 1	BBC ONE <TIMER>	Wed 28.10.2009	20:00	20:30 (30 min.)
--	---		--/--	--:--	--:-- (-- min.)
--	---		--/--	--:--	--:-- (-- min.)
--	---		--/--	--:--	--:-- (-- min.)
--	---		--/--	--:--	--:-- (-- min.)

(Timer Programming screen)

▲◀(OK)▶▼ ②store ①select

☐ ☐ ☐ ⏻/I

LED
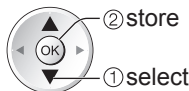
LED will turn to orange if Timer Programming is set.
(Orange LED will flash if the recording of Timer Programming is in progress.)

Ext Rec. / : to record the programme to the external recorder (Ext Rec.) or the
USB HDD Rec. USB HDD (USB HDD Rec.)
When the start time comes, the channel will be switched automatically and the video and audio signals will be output. 2 mins. before the starting time, a reminder message appears if you are watching TV.

Reminder : to remind watching the programme
When you are watching TV, a reminder message appears 2 mins. before the start time. Press the OK button to switch to the programmed channel.

■To check / change / cancel a timer programming event ➡ "Timer Programming" (p. 51)

■To return to TV Guide ➡ BACK/RETURN ↩

■If you select the current programme

A confirmation screen whether you wish to watch or record it will appear.
Select "Timer Programming" and set "Ext Rec." or "USB HDD Rec." to record from the time you finish the timer programming event setting.

Das Erste
19:30- 20:00

| View | Timer Programming |

▲◀(OK)▶▼ ①select ②access
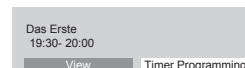
Note

● This function is not available in Analogue mode.
● Timer Programming only works reliably if correct time information is received via the signal from the broadcaster or service provider.
● No other channel can be selected while the recording of Timer Programming is in progress.
● When recording programmes to the external recorder, be sure to make the proper settings on the recorder connected to the TV.
   If a compatible recorder with Q-Link, VIERA Link or similar technologies is connected to the TV (p. 86 and p. 87) and the "Link Settings" (p. 36) are completed, no setting of the recorder is required. Also read the manual of the recorder.
● When recording programmes to the USB HDD, be sure to register the USB HDD and enable it for recording in the "USB HDD Setup" (p. 62).

View advertisement

Depending on the country you select, this TV supports the GUIDE Plus+ system in DVB-T or Analogue mode

The postcode entry or update is required. Follow the on screen instructions.
● Also possible to setup manually from the Setup Menu
   ➡ "Update" / "Postcode" in "GUIDE Plus+ Settings" (p. 39)
● Enter your postcode when using this function for the first time. If you enter an incorrect postcode for your area, or no postcode is entered, advertisements may not be displayed correctly.

Display advertisement information

OPTION

● To display the latest advertisement
   ➡ "Update" in "GUIDE Plus+ Settings" (p. 39)

■To change advertisements ➡ ▲◀(OK)▶▼

■To return to TV Guide ➡ OPTION or BACK/RETURN ↩

Note

● To update the information continuously, the TV must be left in Standby mode at night.

● Using TV Guide

21

Viewing Teletext

Teletext services are the text information provided by the broadcasters.
The features may vary depending on the broadcasters.

What is FLOF (FASTEXT) mode?
In FLOF mode, four differently coloured subjects are situated at the bottom of the screen. To access more information about one of these subjects, press the appropriately coloured button. This facility enables fast access to information on the subjects shown.

What is TOP mode? (in case of TOP text broadcasting)
TOP is a particular improvement of the standard teletext service that results in an easier search and effective guide.
● Fast overview of the teletext information available
● Easy to use step-by-step selection of the topical subject
● Page status information at the bottom of the screen

Available page up / down ➡ [red] [green]
      red green

To select among subject blocks ➡ [blue]
      blue

To select next subject within the subject block   ➡ [yellow]
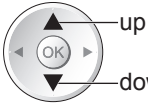(After the last subject, it moves to the next subject block.) yellow

What is List mode?
In List mode, four differently coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in the TV's memory. ("Store frequently viewed pages", p. 23)

■ **To change mode** ➡ "Teletext" in the Setup Menu (p. 38)

1 Switch to Teletext

TEXT
● Displays the index page (content varies depending on the broadcasters)

Sub page number
<< 01 02 03 04 05 06 07   >>
P100   **17:51 28 Feb** — Time / date

Current page number

TELETEXT
INFORMATION

Colour bar

2 Select the page

[1] [2abc] [3def]
[4ghi] [5jkl] [6mno]
[7pqrs] [8tuv] [9wxyz]
[0]

or

(OK) up / down

or

red green yellow blue
(Corresponds to the colour bar)

As the blue bar is displayed

(OK)

■ **To adjust contrast** ➡ MENU (press three times) ➡

■ **To return to TV** ➡ EXIT

Reveal hidden data

Reveal hidden words e.g. quiz page answers

MENU ➡ [red] ● To rehide ➡ [red]

FULL / TOP / BOTTOM

MENU ➡ [green]

(TOP)
P100
Broadcast
(Expand the TOP half)

➡

(BOTTOM)
(Expand the BOTTOM half)

➡

Normal (FULL)
P100
Broadcast
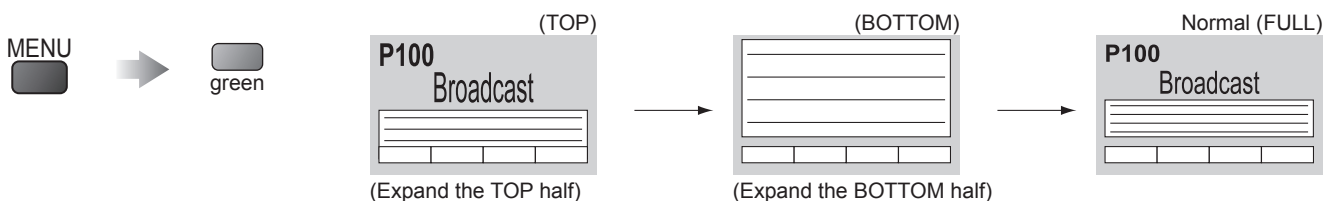
HOLD

Stop automatic updating
(If you wish to hold the current page without updating)

HOLD ● To resume ➡ HOLD

INDEX

Return to the main index page

INDEX
🛈

Call up a favourite page

View a favourite page stored

STTL
⊞⊘
- Call up the page stored on the blue button (List mode).
- Factory setting is "P103".

View in multi window

Watch TV and Teletext in two windows at once

MENU (press twice) ➡ ◀(OK)▶ — Select Picture and text On or Off

- Operations can be made only in Teletext screen.

Store frequently viewed pages

Store frequently viewed pages in the colour bar   (List mode only)

As page is displayed ➡ Corresponding coloured button ➡ OK press and hold

P100
Broadcast

| 101 | 200 | 400 | 888 |
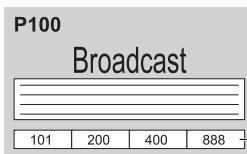
— The number changes to white.

■To change stored pages

Coloured button you want to change ➡ **Enter new page number**

1	2abc	3def
4ghi	5jkl	6mno
7pqrs	8tuv	9wxyz
	0	

➡ OK press and hold

View sub page

View sub page (Only when teletext is more than one page)

◀(OK)▶
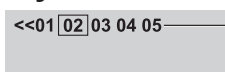
<<01 |02| 03 04 05 — Appears at top of the screen

■To view specific sub page

MENU ➡ blue

T****
Broadcast

➡ Enter the 4-digit number
example: P6
0 0 0 6mno

T0006
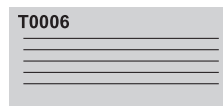
- Sub pages:
  The number of sub pages varies depending on the broadcasters (up to 79 pages).
  It may take some time for searching, during which time you can watch TV.

Watch TV while waiting for update

View the TV picture while searching for a teletext page
Teletext automatically updates itself when new information becomes available.

MENU ➡ yellow ➡

Changes to TV screen temporarily

P108 — Appears when updating is completed
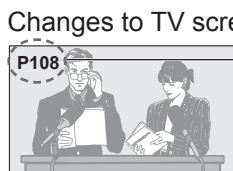
(You cannot change the channel.)

View the updated page

yellow

- The news page provides a function that indicates arrival of latest news ("News Flash").

Watching External inputs

Connect the external equipment (VCRs, DVD equipment, etc.) and you can watch through the input.
● To connect the equipment ➡ p. 10, 11 and p. 92
The Remote Control is capable of operating some functions of selected external equipment.
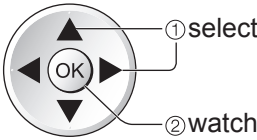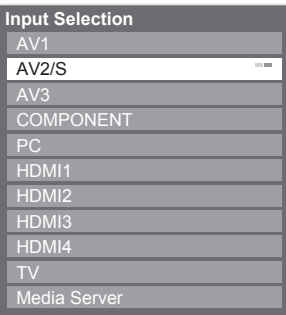
1 Turn the TV on
■ **When connecting with SCART as example 2 or 3** (p. 11)
   ➡ Receives input signals automatically when playback starts
   ● Input signals are automatically identified by the SCART (pin 8) terminal.
   ● This function is also available for HDMI connections (p. 92).
■ **If input mode is not switched automatically**
   ➡ Perform ② and ③
   ● Check the setup of the equipment.

2 Display the Input select menu
AV

3 Select the input mode connected to the equipment

Input Selection
AV1
AV2/S
AV3
COMPONENT
PC
HDMI1
HDMI2
HDMI3
HDMI4
TV
Media Server
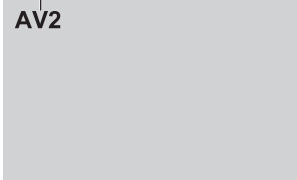
① select
② watch

● You can also select the input using the AV button on the remote control or the side panel of the TV.
  Press the button repeatedly until the desired input is selected.
● You cannot select "Media Server" using the AV button on the side panel of the TV.
● In order to switch between AV2 and AV2S, move the indicator by pressing left and right cursor button.
● You can label or skip each input mode ➡ "Input Labels" (p. 54)
  Skipped inputs will not be displayed when the AV button is pressed.

4 View
Displays the selected mode

AV2

■ **To return to TV**
  ➡ TV

Note
● If the external equipment has an aspect adjustment function, set to "16:9".
● For details, see the manual of the equipment or ask your local dealer.

Operating the equipment with the TV remote control

The equipment connected to the TV can be directly operated with the below buttons of this TV remote control.

DVD/VCR ,, TV	**Selection Switch for operating the connected equipment** Select "DVD/VCR" to operate Panasonic DVD Recorder, DVD Player, Player theatre, Blu-ray Disc theatre or VCR ➡ "How to change the code for the type of the equipment" (see below) Select "TV" to use USB HDD Recording, Media Player or VIERA Link ➡ "USB HDD Recording" (p. 64) ➡ "Media Player" (p. 70) ➡ "VIERA Link Control" (p. 90)
⏻	**Standby** Set to Standby mode / Turn on
▶	**Play** Playback videocassette / DVD / video content
■	**Stop** Stop the operations
◄◄	**Rewind / Skip / Search** VCR: Rewind, view the picture rapidly in reverse DVD / video content: Skip to the previous track or title (not available for the operation of USB HDD Recording) Press and hold to search backward
►►	**Fast-forward / Skip / Search** VCR: Fast-forward, view the picture rapidly forward DVD / video content: Skip to the next track or title (not available for the operation of USB HDD Recording) Press and hold to search forward
❚❚/▶	**Pause** Pause / Resume DVD: Press and hold to play at slow speed
PROGRAMME ∨ ∧	**Channel Up / Down** Select channel
REC ●	**Record** Start recording

■How to change the code for the type of the equipment

Each type of the Panasonic equipment has its own remote control code.
Please change the code according to the equipment you want to operate.

① Set the position to "DVD/VCR" DVD/VCR ,, TV

② Press and hold ⏻ during the following operations

Enter the appropriate code, 1 2abc 3def ➡ Press ■
see table below 4ghi 5jkl 6mno 7pqrs 8tuv 9wxyz 0

Type of the equipment	Code
DVD Recorder, DVD Player	70 (default)
Player theatre, Blu-ray Disc theatre	71
VCR	72

(Note)
● Confirm if the remote control works correctly after changing the code.
● The codes may be reset to default values if batteries are replaced.
● Some operations may not be possible on some equipment models.

● Watching External inputs

25

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. 27 and p. 28
● How to view the 3D images ➡ p. 29

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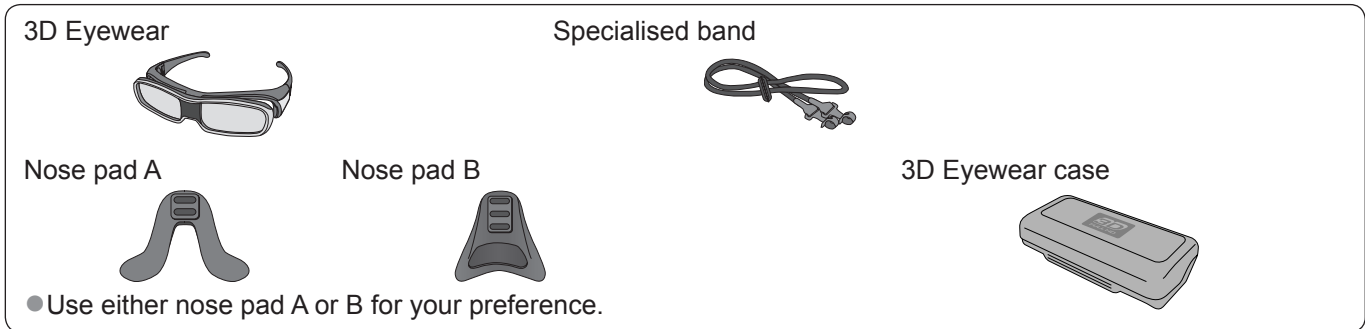
- 3D Eyewear can be worn over vision correction glasses.

■Part names and functions

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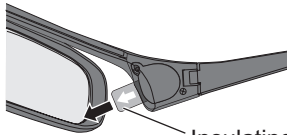
Pull the insulating sheet

Insulating sheet
- To replace the battery ➡ "Replacing the battery" (p. 28)

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. 28)

Specialised band attaching parts
If required, attach the specialised band.
- To attach the band
  ➡ "Attaching the specialised band" (p. 28)
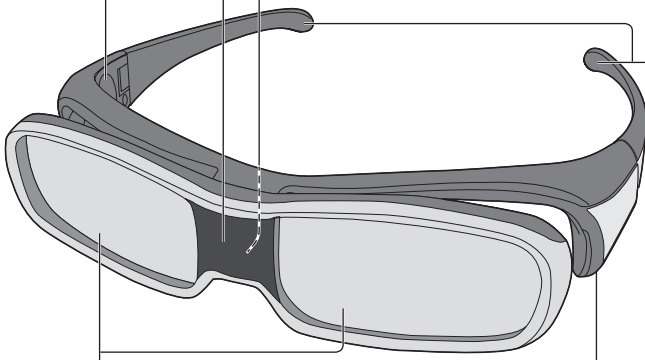
Lenses - Liquid Crystal Shutter
Controls the images for 3D viewing.
- The left and right liquid crystal shutters are alternately opened and closed in time with the images on the TV screen to achieve the 3D effect.

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
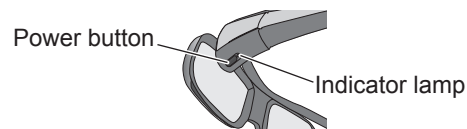
Indicator lamp

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.

Basic

- Viewing 3D images

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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
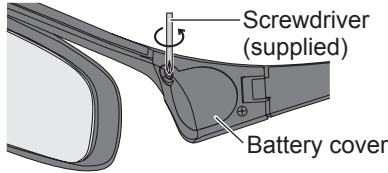
②Replace the battery
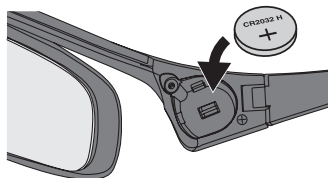
CR2032 H

● 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
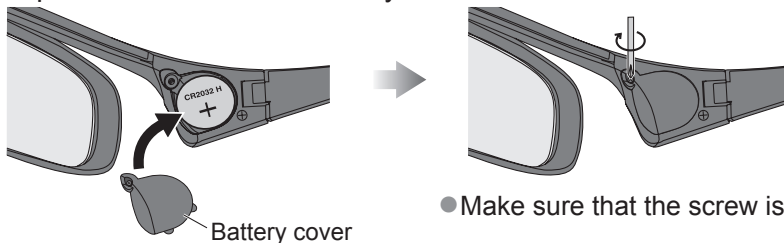
● Make sure that the screw is tightened.

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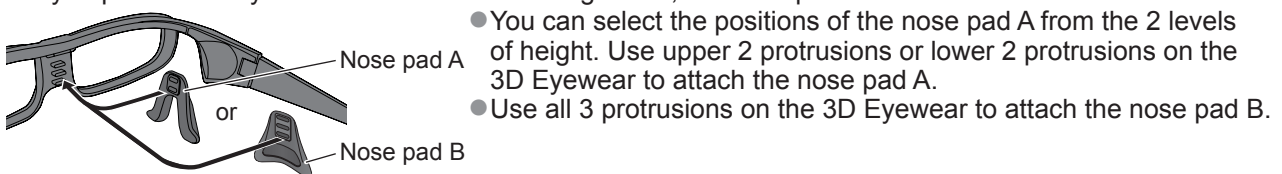
● You can select the positions of the nose pad A from the 2 levels of height. Use upper 2 protrusions or lower 2 protrusions on the 3D Eyewear to attach the nose pad A.
● Use all 3 protrusions on the 3D Eyewear to attach the nose pad B.

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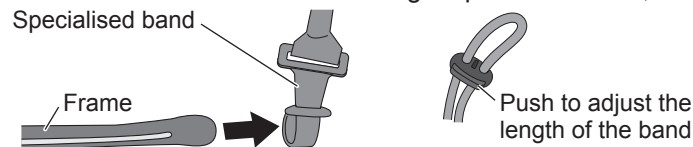
When the end of the specialised band is straightened, form a loop at the end of the band, and fix the twisted part.

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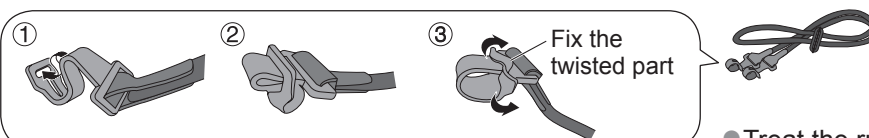
● Treat the rubber part carefully not to break it.

■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. 11 and p. 92) 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 (p. 24).
●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. 31) 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 (p. 68 and p. 70 - 71) and video mode in DLNA (p. 81).

To view 2D images with 3D effect
Use a 2D-to-3D conversion function ➡ "2D→3D" mode in "3D Picture Format" (p. 31)

①**Turn the 3D Eyewear on**
●Press the power button on the 3D Eyewear for about 1 second. (p. 27)
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. 28)
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
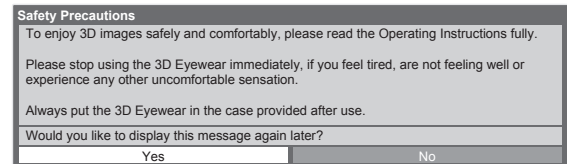
■**To turn the 3D Eyewear off**
 After using the 3D Eyewear, press the power button on the 3D Eyewear for about 1 second to turn it off. (p. 27)

(Note)
●The 3D image or 3D effect may not be available while multi window (p. 58) is active, VIERA CAST home screen (p. 83) is displayed or Ext Rec. of Timer Programming (p. 50) / Direct TV Recording (p. 86 and p. 88) 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

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

Approx. 3.2 m   20°   20°
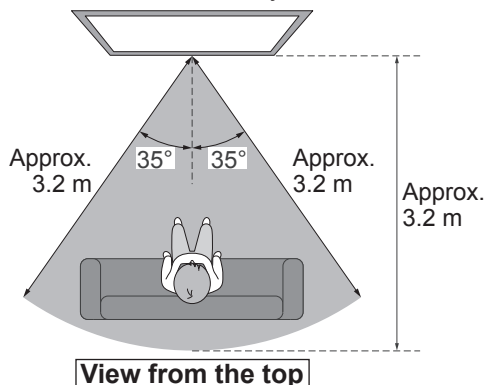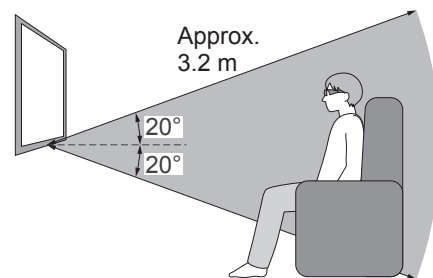
View from the top   **View from the side**

(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**Λ** 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.

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

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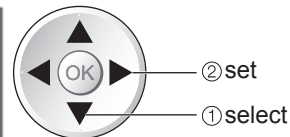
■3D Picture Display (2D / 3D)
Sets the TV to 3D or 2D mode
- Select "2D" to view 3D picture in 2 dimensional without wearing the 3D Eyewear.

■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.

3D Picture Format / Source image 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. 39).

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**

① select
② access

VIERA Link Control | PHOTO | VIDEO | MUSIC | 3D | VIERA CAST | MEDIA SERVER

■**To return to TV**
EXIT
➡ ○ or VIERA TOOLS
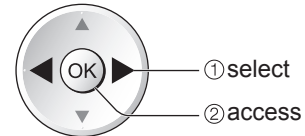
3 **Follow the operations of each feature**

● VIERA Link Control ➡ "VIERA Link Control" (p. 90)

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 mode" (p. 68)

PHOTO

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

● Video ➡ "Video mode" (p. 70)

VIDEO

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

● Music ➡ "Music mode" (p. 73)

MUSIC

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

● 3D ➡ "3D Settings" (p. 30)

3D
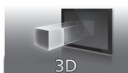
● VIERA CAST ➡ "VIERA CAST™" (p. 83)

VIERA CAST

● Media Server ➡ "Using DLNA® features" (p. 80)

MEDIA SERVER

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)

■**To return to TV at any time**

EXIT

➡

■**To return to the previous screen**

BACK/ RETURN

➡

■**To change menu pages**

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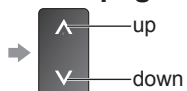
■**Choose from among alternatives**

Number and positions of alternatives

Colour Balance	◄ Normal ►
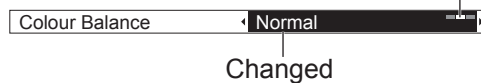
Changed

■**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.
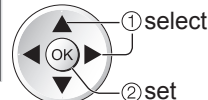
User input
Name

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.
➡ "Characters table for numeric buttons" (p. 96)

■**To reset the settings**

●To reset the picture settings only
➡ "Reset to Defaults" in the Picture Menu (p. 34)

●To reset the sound settings only
➡ "Reset to Defaults" in the Sound Menu (p. 36)

●To initialise all settings
➡ "Shipping Condition" in the Setup Menu (p. 39)

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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. 38) 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" 　➡ p. 60 　●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 (p. 58)
	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

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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. (p. 59 - 61, 67 - 73 and p. 82)
●Only available items can be selected.

Basic

● 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 (p. 81) or Video mode (p. 70)

	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)** (p. 97) 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 (p. 30)
	Timer Programming	Sets a timer to remind watching or record forthcoming programmes (p. 50) ●DVB mode only
	Off Timer	Sets the time the TV automatically goes to Standby mode **(Off / 15 / 30 / 45 / 60 / 75 / 90 minutes)** (p. 19)
	USB HDD Setup	Registers the connected USB HDD and makes the settings for the recording (p. 62)
	Link Settings — **VIERA Link**	Sets to use VIERA Link functions **(Off / On)** (p. 87)
	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)** (p. 86) ●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)** (p. 86 and p. 87)
	Power off Link	Sets to use Power off Link function **(Off / On)** (p. 86 and p. 87)
	Standby Power Save	Controls the power consumption in Standby mode of the connected equipment to reduce the consumption **(Off / On)** (p. 88) ●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))** (p. 88) ●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 (p. 52)

Menu	Item	Adjustments / Configurations (alternatives)
Setup / **DVB-S Tuning Menu**	**Favourites Edit**	Creates list of favourite DVB-S channels (p. 45)
	Channel List	Skips the unwanted DVB-S channels or edits DVB-S channels (p. 45)
	Auto Setup	Automatically sets the DVB-S channels received in the area (p. 40)
	Manual Tuning	Sets the DVB-S channels manually (p. 46)
	Update Channel List	Updates DVB-S Channel List while keeping your settings (p. 46)
	New Channel Message	Selects whether to give a notification message when a new DVB-S channel is found **(Off / On)** (p. 47)
	Signal Condition	Checks the DVB-S signal condition (p. 47)
	Antenna System	Sets the antenna system to use plural LNBs for receiving several satellites **(One LNB / MiniDiSEqC / DiSEqC1.0 / Single Cable)** (p. 41) ●This TV supports DiSEqC Version 1.0.
	LNB Configuration	Selects the satellite for each LNB (p. 41)
	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. 12 and p. 13).
DVB-C Tuning Menu	**Favourites Edit**	Creates list of favourite DVB-C channels (p. 45)
	Channel List	Skips the unwanted DVB-C channels or edits DVB-C channels (p. 45)
	Auto Setup	Automatically sets the DVB-C channels supplied (p. 42)
	Manual Tuning	Sets the DVB-C channels manually (p. 46)
	Update Channel List	Updates DVB-C Channel List while keeping your settings (p. 46)
	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)** (p. 47)
	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 (p. 47)
	Attenuator	Automatically reduces the DVB-C signal to avoid the interference **(Off / On)** (p. 47)
	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. 12 and p. 13).
DVB-T Tuning Menu	**Favourites Edit**	Creates list of favourite DVB-T channels (p. 45)
	Channel List	Skips the unwanted DVB-T channels or edits DVB-T channels (p. 45)
	Auto Setup	Automatically sets the DVB-T channels received in the area (p. 43)
	Manual Tuning	Sets the DVB-T channels manually (p. 46)
	Update Channel List	Updates DVB-T Channel List while keeping your settings (p. 46)
	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)** (p. 47)
	Signal Condition	Checks the DVB-T signal condition (p. 47)
	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. 12 and p. 13).

●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. (p. 59 - 61, 67 - 73 and p. 82)
●Only available items can be selected.

Basic

●How to Use Menu Functions

How to Use Menu Functions

Menu	Item	Adjustments / Configurations (alternatives)
Analogue Tuning Menu	**Channel List**	Skips the unwanted Analogue channels or edits Analogue channels (p. 49)
	Auto Setup	Automatically sets the Analogue channels received in the area (p. 43)
	Manual Tuning	Sets the Analogue channels manually (p. 49)
	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. 12 and p. 13).
Setup / **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) ●To display subtitles ➡ p. 18
	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)** (p. 22)
	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. 　　　　　　　●To use EPG ➡ p. 20 Channel List : EPG is not available and the channel list will appear instead of it.
	Input Labels	Labels or skips each input terminal (p. 54)
	Banner Display Timeout	Sets how long the Information banner (p. 17) 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. 34).
	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 (p. 55)
	Network Setup	Sets the network setting to use in your network environment (p. 76)
	DivX® VOD	Displays DivX VOD registration code (p. 95)

Menu	Item		Adjustments / Configurations (alternatives)
Setup	**System Menu**	**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.
		USB Keyboard Layout	Selects the language that your USB Keyboard supports ●Use a USB Keyboard to enter characters in VIERA CAST (p. 83). ●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 (p. 56)
		System Update	Downloads new software to TV (p. 57)
		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 (p. 21)
		Postcode	Sets your postcode to display advertisements in the GUIDE Plus+ system (p. 21)
		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)** (p. 66)
		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. (p. 59 - 61, 67 - 73 and p. 82)
●Only available items can be selected.

● How to Use Menu Functions

Retuning from Setup Menu

DVB-S channels

Automatically retune all the DVB-S channels received in the area.
- This function is available if DVB-S channel tuning is already performed.
- Only DVB-S channels are retuned.
- All the previous tuning settings are erased.
- If a Child Lock PIN number (p. 52) has been set, it must be entered.

1 **Select DVB-S** TV
➡ p. 16

2 **Display the menu** MENU

3 **Select "Setup"**

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

② access
① select

4 **Select "DVB-S Tuning Menu"**

Setup Menu	1/2
3D Settings	
Timer Programming	
Off Timer	Off
USB HDD Setup	
Link Settings	
Child Lock	
DVB-S Tuning Menu	Access
Language	
Display Settings	

② access
① select

■**To return to TV**

➡ EXIT

5 **Set "Antenna System" and "LNB Configuration"**

■**For Auto Setup, using the buttons on the side panel of the TV** (p. 9)
① Press repeatedly until "Auto Setup" appears
F
② Access "Auto Setup"
TV
③ Set the satellite, search mode and scan mode
∧+ ∨ (select the item)
TV (set)
④ Start "Auto Setup"
AV

6 **Select "Auto Setup"**

DVB-S Tuning Menu	
Favourites Edit	
Channel List	
Auto Setup	Access
Manual Tuning	
Update Channel List	
New Channel Message	On
Signal Condition	
Antenna System	DiSEqC1.0
LNB Configuration	

② access
① select

7 **Set the satellite, search mode and scan mode**

DVB-S Auto Setup Settings	
Satellite	Astra 19.2° E
Search Mode	Free Channels
Scan Mode	Quick

③ store
② set
① select

Full: scans the whole frequency range
Quick: scans the suitable frequency for the selected satellite

● To return to TV ➡ F

8 **Start Auto Setup**

DVB-S Auto Setup	
All DVB-S tuning data will be erased	

OK ➡

DVB-S Auto Setup			
Satellite	Astra 19.2° E		
Progress	0%		100%
This will take about 40 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		

Settings are made automatically

When the operation is completed, the channel at the lowest position will be displayed.

Note
- If tuning has not been done completely
➡ "Manual Tuning" (p. 46)

```
┌─────────────────────────────────────┐
│ DVB-S Tuning Menu                    │
│ Favourites Edit          │           │
│ Channel List             │           │
│ Auto Setup               │           │
│ Manual Tuning            │           │
│ Update Channel List      │           │
│ New Channel Message      │ On        │
│ Signal Condition         │           │
│ Antenna System           │ ◄ DiSEqC1.0 ▬▬▬▬▶│
│ LNB Configuration        │ Access    │
└─────────────────────────────────────┘
```

① **Select "Antenna System" and set**

You can receive several satellites if you have DiSEqC control antenna system.
● This TV supports DiSEqC Version 1.0.

```
┌─────────────────────────────────────┐
│ DVB-S Tuning Menu                    │
│ Favourites Edit          │           │
│ Channel List             │           │
│ Auto Setup               │           │
│ Manual Tuning            │           │
│ Update Channel List      │           │
│ New Channel Message      │ On        │
│ Signal Condition         │           │
│ Antenna System           │ ◄ DiSEqC1.0 ▬▬▬▶│
│ LNB Configuration        │           │
└─────────────────────────────────────┘
```

②set
①select
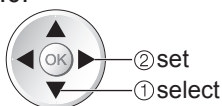
One LNB
compatible with single LNB
MiniDiSEqC
up to 2 LNBs can be controlled
DiSEqC1.0
up to 4 LNBs can be controlled
Single Cable
When using the Single Cable router, up to 8 user bands are available.

② **Select "LNB Configuration"**

```
┌─────────────────────────────────────┐
│ DVB-S Tuning Menu                    │
│ Favourites Edit          │           │
│ Channel List             │           │
│ Auto Setup               │           │
│ Manual Tuning            │           │
│ Update Channel List      │           │
│ New Channel Message      │ On        │
│ Signal Condition         │           │
│ Antenna System           │ DiSEqC1.0 │
│ LNB Configuration        │ Access    │
└─────────────────────────────────────┘
```

②access
①select
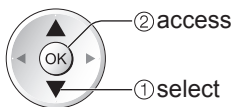
③ **Select "LNB" and set one of the LNBs**

```
┌─────────────────────────────────────┐
│ LNB Configuration                    │
│ Signal Quality        0          10  │
│ Signal Strength       0          10  │
│                                      │
│ LNB                   ◄ AA      ▬▬▬▶ │
│ LNB Low Band Frequency   9750 MHz    │
│ LNB High Band Frequency  10600 MHz   │
│ Satellite             No Satellite   │
│ Test Transponder Frequency 10700 MHz │
└─────────────────────────────────────┘
```

②set
①select
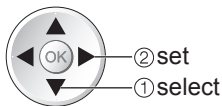
● If you set to "One LNB"
  ➡ not selectable
● If you set to "MiniDiSEqC" or "Single Cable"
  ➡ select between LNB AA and AB
● If you set to "DiSEqC1.0"
  ➡ select between LNB AA, AB, BA and BB

④ **Select "Satellite" and set**

Set the connected satellite for the selected LNB.

```
┌─────────────────────────────────────┐
│ LNB Configuration                    │
│ Signal Quality        0          10  │
│ Signal Strength       0          10  │
│                                      │
│ LNB                   AA             │
│ LNB Low Band Frequency   9750 MHz    │
│ LNB High Band Frequency  10600 MHz   │
│ Satellite             ◄ Astra 19.2° E│
│ Test Transponder Frequency 10744 MHz │
└─────────────────────────────────────┘
```

②set
①select
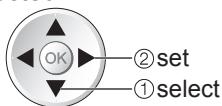
● Select "No Satellite" if you do not know the connected satellite (available satellite will be searched in Auto Setup).
● Select "User defined" to set "Test Transponder Frequency" manually.
● If you set to "Single Cable", additional settings are required. Set "User Band", "User Band Frequency" and "PIN" (depending on the Single Cable router you use).
For details, read the manual of the Single Cable router.

⑤ **Store**

BACK/
RETURN
↩

■**Selectable satellites and dish alignment to tune DVB-S channels:**

• Turksat at 42° East	• Eutelsat at 16° East	• Thor at 0.8° West / Intelsat at 1° West
• Hellas at 39° East	• Hot Bird at 13° East	• Amos at 4° West
• Astra at 28.2° East	• Eutelsat at 10° East	• Atl. Bird at 5° West
• Arabsat at 26° East	• Eurobird at 9° East	• Atl. Bird at 7° West
• Astra at 23.5° East	• Eutelsat at 7° East	• Atl. Bird at 8° West
• Astra at 19.2° East	• Sirius at 5° East	• Hispasat at 30° West

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

Advanced

Retuning from Setup Menu

DVB-C channels

Automatically retune all the DVB-C channels supplied.
●This function is available if DVB-C channel tuning is already performed.
●Only DVB-C channels are retuned.
●All the previous tuning settings are erased.
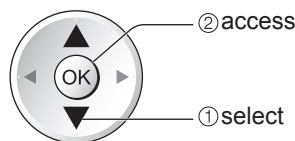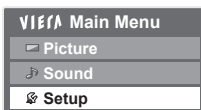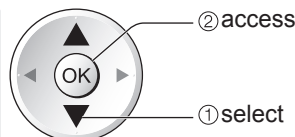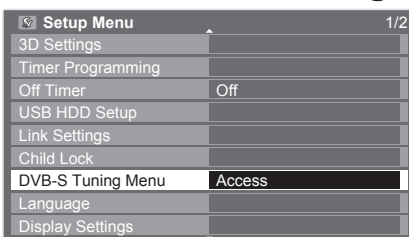●If a Child Lock PIN number (p. 52) has been set, it must be entered.

1 **Select DVB-C**　TV
➡ p. 16

2 **Display the menu**　MENU

3 **Select "Setup"**

VIEᴙA **Main Menu**
　□ **Picture**
　♪ **Sound**
　✍ **Setup**
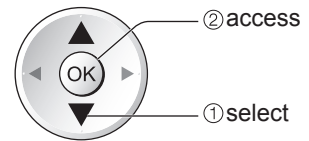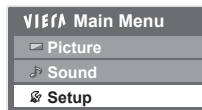
②access
①select

4 **Select "DVB-C Tuning Menu"**
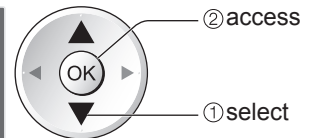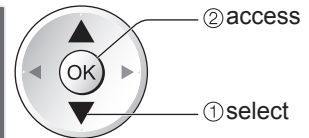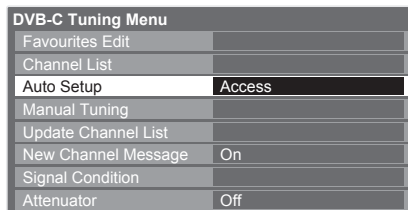
⚙ Setup Menu	1/2
3D Settings	
Timer Programming	
Off Timer	Off
USB HDD Setup	
Link Settings	
Child Lock	
DVB-C Tuning Menu	Access
Language	
Display Settings	

②access
①select

■To return to TV
EXIT
➡

5 **Select "Auto Setup"**

DVB-C Tuning Menu	
Favourites Edit	
Channel List	
Auto Setup	Access
Manual Tuning	
Update Channel List	
New Channel Message	On
Signal Condition	
Attenuator	Off

②access
①select

■For Auto Setup, using the buttons on the side panel of the TV (p. 9)
　① Press repeatedly until "Auto Setup" appears
　　F ▇
　② Access "Auto Setup"
　　TV ▇
　③ Set the search mode and scan mode
　　⌃▇ ⌄▇ (select the item)
　　TV ▇ (set)
　④ Start "Auto Setup"
　　AV ▇

●To return to TV ➡ F ▇

6 **Set the Auto Setup settings**

DVB-C Auto Setup Settings	
Search Mode	Free Channels
Scan Mode	Quick
Frequency	362 MHz
Symbol Rate	Auto
Network ID	41001
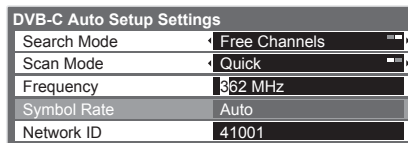
●Normally set Symbol Rate "Auto".

●Search mode, Scan mode
②set
①select

●Frequency, Network ID
①select
②enter
[1][2abc][3def]
[4ghi][5jkl][6mno]
[7pqrs][8tuv][9wxyz]
[0]
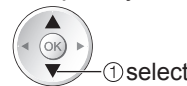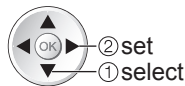
Store
(OK)

Full: scans the whole frequency range
Quick: scans the suitable frequency in your country

Enter the Home Frequency and Network ID specified by your cable provider.
Depending on the country you select, "Auto" is displayed and you do not have to enter them.

7 **Start Auto Setup**
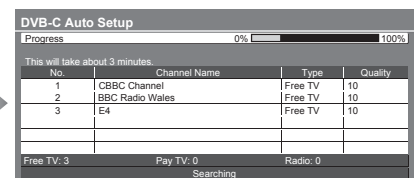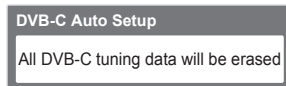
DVB-C Auto Setup	
All DVB-C tuning data will be erased	

(OK)

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		

Settings are made automatically

When the operation is completed, the channel at the lowest position will be displayed.

（Note）
●If tuning has not been done completely
➡ "Manual Tuning" (p. 46)

DVB-T or Analogue channels

Automatically retune all DVB-T or Analogue channels received in the area.
- Auto Setup is available if channel tuning is already performed.
- Only DVB-T channels are retuned in DVB-T mode.
- Only Analogue channels are retuned in Analogue mode.
- All the previous tuning settings are erased.
- If a Child Lock PIN number (p. 52) has been set, it must be entered.

1 Select DVB-T or Analogue
→ p. 16

TV

2 Display the menu

MENU

3 Select "Setup"

VIERA **Main Menu**
- Picture
- Sound
- **Setup**

② access
① select
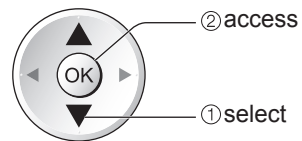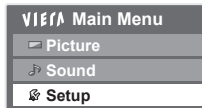
4 Select "DVB-T Tuning Menu" or "Analogue Tuning Menu"

Setup Menu　　　　　　1/2
3D Settings	
Timer Programming	
Off Timer	Off
USB HDD Setup	
Link Settings	
Child Lock	
DVB-T Tuning Menu	Access
Analogue Tuning Menu	Access
Language	
Display Settings	

② access
① select
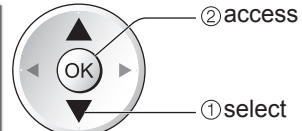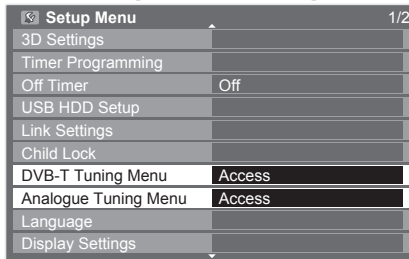
- "DVB-T Tuning Menu" is available in DVB-T mode only.
- "Analogue Tuning Menu" is available in Analogue mode only.

5 Select "Auto Setup"

DVB-T:

DVB-T Tuning Menu
Favourites Edit	
Channel List	
Auto Setup	Access
Manual Tuning	
Update Channel List	
New Channel Message	On
Signal Condition	

Analogue:

Analogue Tuning Menu
Channel List	
Auto Setup	Access
Manual Tuning	

② access
① select

■**To return to TV**
EXIT
→

■**For Auto Setup, using the buttons on the side panel of the TV** (p. 9)
① Press repeatedly until "Auto Setup" appears
F
② Access "Auto Setup"
TV
③ Start "Auto Setup"
TV

F
+
−
TV
AV

- To return to TV → F

6 Start Auto Setup

DVB-T:

DVB-T Auto Setup

All DVB-T tuning data will be erased

OK →

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

Analogue:

Analogue Auto Setup

All analogue tuning data will be erased

OK →

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

Settings are made automatically

- The channel, language, country / region settings are downloaded to a Q-Link or VIERA Link compatible equipment connected to the TV.

When the operation is completed, the channel at channel position "1" will be displayed.

Note
- If tuning has not been done completely
  → "Manual Tuning" (p. 46 and p. 49)

● Retuning from Setup Menu

Advanced

43

Tuning and Editing Channels
(DVB)

You can retune channels or make your favourite channel lists, skip unwanted channels, etc.

1 **Select DVB-S, DVB-C or DVB-T**
→ p. 16

[TV]

2 **Display the menu**
MENU

3 **Select "Setup"**

VIErA **Main Menu**
- **Picture**
- **Sound**
- **Setup**
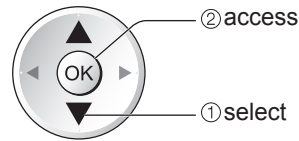
②access
①select

4 **Select "DVB-S Tuning Menu", "DVB-C Tuning Menu" or "DVB-T Tuning Menu"**

Setup Menu	1/2
3D Settings	
Timer Programming	
Off Timer	Off
USB HDD Setup	
Link Settings	
Child Lock	
DVB-S Tuning Menu	Access
DVB-C Tuning Menu	Access
DVB-T Tuning Menu	Access
Language	
Display Settings	
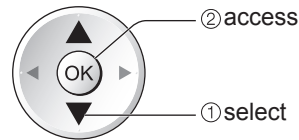
②access
①select

- "DVB-S Tuning Menu" is available in DVB-S mode only.
- "DVB-C Tuning Menu" is available in DVB-C mode only.
- "DVB-T Tuning Menu" is available in DVB-T mode only.

5 **Select one of the following functions**

DVB-C Tuning Menu	
Favourites Edit	Access
Channel List	Access
Auto Setup	Access
Manual Tuning	Access
Update Channel List	Access
New Channel Message	On
Signal Condition	Access
Attenuator	Off
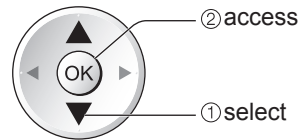
②access
①select

- The function items vary depending on the country you select (p. 12).

- Auto Setup → "Retuning from Setup Menu" (p. 40 - 43)

6 **Set**

■**To return to TV**
EXIT
→

Panasonic
TV

List favourite DVB channels `Favourites Edit`

Create your favourite channel lists from various broadcasters (up to 4: Favourites1 to 4).
The DVB Favourites lists are available from "Category" in the Information banner (p. 17) and the TV Guide (p. 20).

① Select a channel to list

DVB-C Favourites Editor	Sorting 123...
All DVB-C Channels	Favourites1
1 BBC One Wales	
7 BBC THREE	
14 E4	
70 CBBC Channel	
72 Cartoon Nwk	
105 BBCi	
719 BBC Radio Wales	
720 BBC Radio Cymru	

select

Encrypted channel
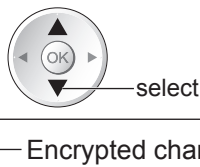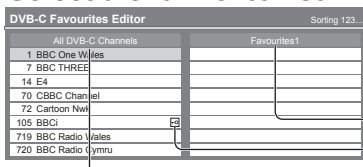
- To sort channel names in alphabetical order ➡ **blue**
- To display other Favourites ➡ **green**
- To change the category ➡ **red**

② Add it to the Favourites list

DVB-C Favourites Editor	Sorting 123...
All DVB-C Channels	Favourites1
1 BBC One Wales	1 BBC One Wales
7 BBC THREE	
14 E4	
70 CBBC Channel	
72 Cartoon Nwk	
105 BBCi	
719 BBC Radio Wales	
720 BBC Radio Cymru	

OK

A channel is added
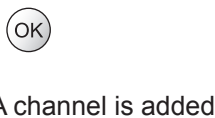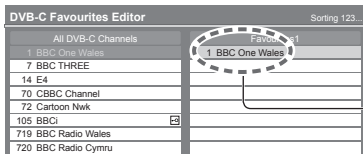
- To add continuous block of channels to the list at once
  ➡ **yellow** ➡ Make the block ➡ OK

■ To edit Favourites list

Select the field of Favourites to edit and:

- To delete the channel ➡ OK
- To delete all channels ➡ **yellow**

- To name the Favourites ➡ **red** ➡ Set characters one by one

  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	(	)	+	-	.	*	_							
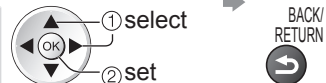
  ① select
  ② set

  ➡ Store
  BACK/
  RETURN

  (maximum: ten characters)
  You can set characters by using numeric buttons.
  ➡ "Characters table for numeric buttons" (p. 96)

- To move the channel ➡ **green** ➡ Select the new position or `1` `2abc` `3def` `4ghi` `5jkl` `6mno` `7pqrs` `8tuv` `9wxyz` `0` ➡ Store **green**

③ Store

BACK/
RETURN ➡ OK

Skip unwanted DVB channels, Edit DVB Channels `Channel List`

You can hide unwanted DVB channels.
The hidden channels cannot be displayed except in this function. Use this function to skip unwanted channels.

Select a channel and reveal / hide

All DVB-C Channels	Sorting 123...
☑ 70 CBBC Channel	
☑ 72 Cartoon Nwk	
☑ 105 BBCi	
☐ 719 BBC Radio Wales	
☐ 720 BBC Radio Cymru	
☐ 1 BBC ONE Wales	
☑ 7 BBC THREE	

② reveal / hide
① select

☑ : reveal
☐ : hide (skip)

- To reveal all channels ➡ **yellow**

■ To edit channels

You can also edit each channel in Channel List.

Channel position

1 ZDF	19:35	All DVB-T Channels
Coronation Street		Change category
19:30 - 20:00	◀ Now ▶	For info press ⓘ

- To change the category ➡ **red**

- To swap the channel position (if available) ➡ **green** ➡ Enter the new position number `1` `2abc` `3def` `4ghi` `5jkl` `6mno` `7pqrs` `8tuv` `9wxyz` `0` ➡ Store **green**

- To move the channel position (if available) ➡ **green** ➡ Select the new position or `1` `2abc` `3def` `4ghi` `5jkl` `6mno` `7pqrs` `8tuv` `9wxyz` `0` ➡ Store **green**

- To sort channel names in alphabetical order ➡ **blue**

Tuning and Editing Channels
(DVB)

Set DVB channel manually Manual Tuning

Normally use "Auto Setup" or "Update Channel List" to retune DVB channels.
If tuning has not been done completely or for adjusting the direction of the aerial or dish, use this function.
● All channels found will be added to the Channel List.

DVB-S:

DVB-S Manual Tuning	
Signal Quality	0 ▬▬▬▬▬ 10
Signal Strength	0 ▬▬▬▬▬ 10
Satellite	Astra 19.2° E
Transponder Frequency	10847 MHz
Symbol Rate	Auto
Polarisation	Horizontal
Modulation	Auto
Service ID	Auto

Set the satellite

② set
① select

● Please consult the received satellite broadcasting companies for the setting.
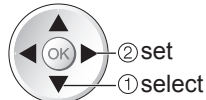
Set "Transponder Frequency", "Symbol Rate", "Polarisation", "Modulation" and "Service ID"

② set
① select

Search

OK

DVB-C:

DVB-C Manual Tuning			
Frequency		474.00 MHz	
Symbol Rate		◄ Auto ►	
Service ID		◄ Auto ►	
Signal Quality	0		10
Signal Strength	0		10
No.	Channel Name	Type	New
Free TV: 0	Pay TV: 0	Radio: 0	
Stopped			
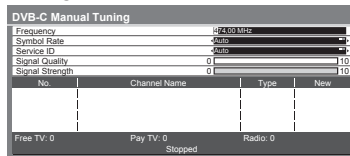
Enter the frequency

Search

OK

● Normally set Symbol Rate and Service ID to "Auto".

DVB-T:

DVB-T Manual Tuning			
Frequency	[CH21]	474.00 MHz	
Signal Quality	0		10
Signal Strength	0		10
No.	Channel Name	Type	New
Free TV: 0	Pay TV: 0	Radio: 0	Data: 0
Stopped			

② adjust frequency
① select channel

Search

OK
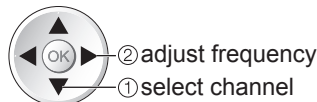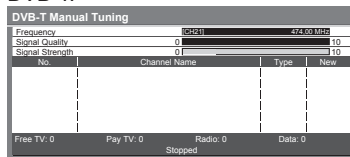
● Set where the level of "Signal Quality" becomes the maximum.

Update DVB channel automatically Update Channel List

You can add new channels, delete removed channels, update channel name and position automatically to Channel List.

DVB-T Update Channel List			
Progress	CH 5	▬▬▬	69
This will take about 3 minutes.			
CH	Channel Name	Type	Quality
Free TV: 0	Pay TV: 0	Radio: 0	
Searching			
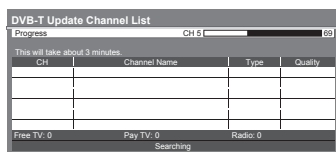
● Channel List is updated while keeping your settings in Favourites Edit, Channel List, Child Lock, etc.

● To update DVB-S channels, the satellite, search mode and scan mode settings are required before updating.

DVB-S Update Channel List Settings	
Satellite	◄ Astra 19.2° E ►
Search Mode	◄ Free Channels ►
Scan Mode	◄ Quick ►

③ store
② set
① select
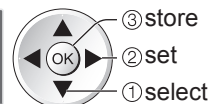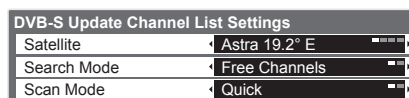
Display a notification message New Channel Message

Selects whether to give a notification message when a new DVB channel is found. **(Off / On)**

```
New channels found!
Press OK to update channel list.
Press EXIT to ignore.
```
●Selecting OK will perform "Update Channel List".

Check DVB signal Signal Condition

Selects a channel and checks the DVB signal condition.

●To change the channel ➡ ∧ ∨

DVB-S:

DVB-S Signal Condition		
Channel Name	1 BBC 1 East (W)	
Signal Quality	0	10
Signal Strength	0	10
Bit Error Rate	0.00E+00	
Satellite	Astra 19.2° E	
Parameter	10847MHz, H, 22000kS/s	

DVB-C:

DVB-C Signal Condition		
Channel Name	70 CBBC Channel	
Signal Quality	0	10
Signal Strength	0	10
Bit Error Rate	0.00E+00	
Network Name	Wenvoe	
Parameter	802,00 MHz, 64 QAM, 6940 kS/s	

DVB-T:

DVB-T Signal Condition		
Channel Name	70 CBBC Channel	
Signal Quality	0	10
Signal Strength	0	10
Bit Error Rate	0.00E+00	
Network Name	Wenvoe	
Parameter	[CH62] 802,00 MHz	

A good Signal Strength is not an indication of suitable signal for DVB reception. Please use the Signal Quality indicator as follows:
Signal Quality:
●Green bar ➡ Good
●Yellow bar ➡ Poor
●Red bar ➡ Bad (Check the Terrestrial aerial, cable or Satellite dish)

Reduce the DVB-C signal Attenuator

If the DVB-C signal is too strong, the interference may occur. In this case set to "On" to reduce the signal automatically.
●This function is available only for DVB-C signal.

●Tuning and Editing Channels (DVB)

Advanced

47

Tuning and Editing Channels

(Analogue)

You can retune channels or skip unwanted channels, edit channels etc.

1 **Select Analogue**
→ p. 16

TV

2 **Display the menu**

MENU

3 **Select "Setup"**

VIErA Main Menu	
◻ Picture	
♪ Sound	
⚙ Setup	

②access

①select

4 **Select "Analogue Tuning Menu"**

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

②access

①select

5 **Select one of the following functions**

Analogue Tuning Menu	
Channel List	Access
Auto Setup	Access
Manual Tuning	Access

②access

①select

●The function items vary depending on the country you select (p. 12).

●Auto Setup
→ "Retuning from Setup Menu" (p. 43)

■**To return to TV**

EXIT

→

6 **Set**

48

Skip unwanted Analogue channels, Edit Analogue channels | Channel List

You can hide unwanted Analogue channels.
The hidden channels cannot be displayed except in this function. Use this function to skip unwanted channels.

Select a channel and reveal / hide

Analogue Channel List	
☑	1 BBC1
☐	2 *****
☐	3 *****
☑	4
☑	5
☑	6
☑	7

②reveal / hide
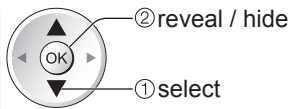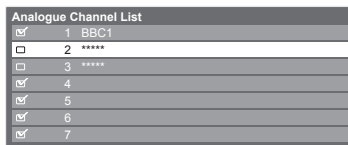
①select

☑ : reveal
☐ : hide (skip)

● To reveal all channels
➡ ☐ yellow

■ To edit channels
You can also edit each channel in Channel List.

Select a channel to edit and:

Channel position
└─ Channel name

3 ITV	23:35	All Analogue Channels
itv		
CH23		

● To retune each channel (Manual Tuning) ➡ ☐ red (see below)

● To move the channel position ➡ ☐ green ➡ Select the new position ➡ Store ☐ green

● To rename the channel name ➡ ☐ blue ➡ Set characters one by one

Edit channel name
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	(	)	+	-	.	*	_							

①select
②set

➡ Store
BACK/
RETURN
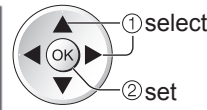
(maximum: five characters)
● You can set characters by using numeric buttons.
➡ "Characters table for numeric buttons" (p. 96)

(**Note**)
● If a VCR is connected only with the RF cable, edit "VCR".

Set Analogue channel manually | Manual Tuning

■ Fine Tuning
Use to make small adjustments to the tuning of an individual programme (affected by weather conditions, etc.)

■ Manual Tuning
Set Analogue channel manually after Auto Setup.
● Set Sound System and Colour System, and then perform this function.
Normally set Colour System "Auto".
● If a VCR is connected only with the RF cable, select channel position "0".

Analogue Manual Tuning	
1 BBC1	CH33
Fine Tuning	
Manual Tuning	2 ◄ 78	1 ► 41
Sound System	SC1
Colour System	Auto
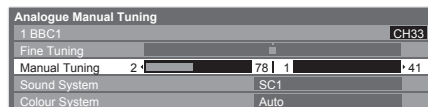
SC1:PAL B, G, H / SECAM B, G
SC2:PAL I
SC3:PAL D, K / SECAM D, K
F: SECAM L, L'

Select the channel position

1 2abc 3def
4ghi 5jkl 6mno
7pqrs 8tuv 9wxyz
0

Select the channel

∧
∨

Search and store

①search
②store
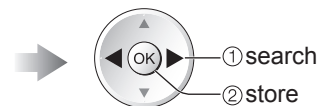
Timer Programming

Timer Programming from Menu

The Timer Programming menu allows you to choose programmes that you wish to remind watching or record to the external recorder or the USB HDD. At the correct time, the TV will tune to the correct channel even if the TV is in Standby mode.

TV Guide may also be used to set timer programming event (p. 21).

- This function is not available in Analogue mode.
- Timer Programming can store up to 15 events.
- Timer Programming only works reliably if correct time information is received via the signal from the broadcaster or service provider.
- For recording using Timer Programming, the TV must be either On or in standby. For reminders to be displayed, the TV must be On.
- No other channel can be selected while the recording of Timer Programming is in progress.
- It may not be possible to record an encrypted programme (which is copy-protected).
- When recording programmes to the external recorder, be sure to make the proper settings on the recorder connected to the TV.
  If a compatible recorder with Q-Link, VIERA Link or similar technologies is connected to the TV (p. 86 and p. 87) and the "Link Settings" (p. 36) are completed, no setting of the recorder is required. Also read the manual of the recorder.
- If the recorder is not compatible with Q-Link, VIERA Link or similar technologies, set "Q-Link" in the Setup Menu (p. 36) to the connected terminal (AV1 or AV2), and make timer programming of the recorder. For preparations of a recorder, read the manual of the recorder.
- When recording programmes to the USB HDD, be sure to register the USB HDD and enable it for recording in the "USB HDD Setup" (p. 62).
- Recordings are always in standard definition composite video via SCART, even if the original programme is in high definition.
- 2 mins. before the starting time, a reminder message appears if you are watching TV.

  - To remove the message and start the programming ➡ (OK)

  - To cancel the programming ➡ EXIT ○

1 Select the mode you want to set
➡ p. 16

[TV]

2 Display the menu
MENU

3 Select "Setup"

VIEΓA **Main Menu**
▭ **Picture**
♪ **Sound**
⚙ **Setup**

②access
①select

4 Select "Timer Programming"

⚙ Setup Menu		1/2
3D Settings		
Timer Programming	Access	
Off Timer	Off	
USB HDD Setup		
Link Settings		
Child Lock		
DVB-C Tuning Menu		
Language		
Display Settings		

②access
①select
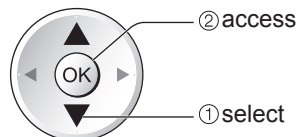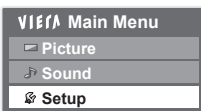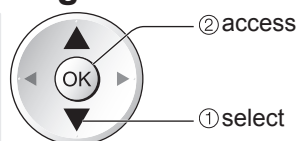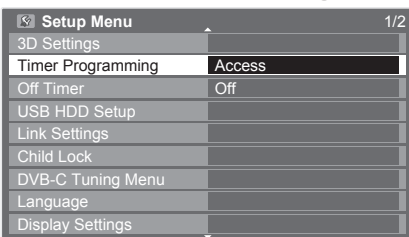
■ To return to TV
EXIT
➡ ○

■ To unlock the tuner (stop recording)
GUIDE ➡ EXIT ○

5 Set

Set timer programming event details `Timer Programming`

① **Start making the settings**

(OK)

② **Select the function (Ext Rec., USB HDD Rec. or Reminder)**

(▲ OK ▼) — select

Ext Rec. / USB HDD Rec. : to record the programme to the external recorder (Ext Rec.) or the USB HDD (USB HDD Rec.)
When the start time comes, the channel will be switched automatically and the video and audio signals will be output. 2 mins. before the starting time, a reminder message appears if you are watching TV.

Reminder : to remind watching the programme
When you are watching TV, a reminder message appears 2 mins. before the start time.
Press the OK button to switch to the programmed channel.

③ **Set the channel, date and time (repeat the operations as below)**
Set items in the order of ❶ to ❹.

(◄ OK ►) — select the item ➡ (▲ OK ▼) — set

● ❶, ❸ and ❹ can also be entered with numeric buttons.
1 2abc 3def
4ghi 5jkl 6mno
7pqrs 8tuv 9wxyz
0

Displayed if the timer programming events are overlapped

Information of the USB HDD (if available)
Records with subtitles (if available)
● To indicate this ➡ ▢ (press again to yellow remove subtitles)

Timer Programming	USB HDD Remaining Capacity 500GB (50%)				Wed 28.10.2009 10:46	
Function	No.	Channel Name		Date	Start	End
🔔 Reminder	D 7	BBC7 <TIMER>		Wed 28.10.2009	17:00	18:30 (90 min.)
🕐 Ext Rec.	D 1	BBC1 <TIMER>	STTL	Wed 28.10.2009	18:00	20:00 (120 min.)
🕐 Ext Rec.	C 3	ITV1 <TIMER>		Thu 29.10.2009	21:30	22:30 (60 min.)
---	--				--:--	--:--

Duration (automatic display)
❹ Ending time
❸ Starting time
❶ Channel number
❷ Date

S: DVB-S
C: DVB-C
D: DVB-T
● You cannot change the mode within the menu.

(▲ OK ▼) — one day ahead / daily or weekly (press repeatedly)

● Daily Sun-Sat: Sunday to Saturday
● Daily Mon-Sat: Monday to Saturday
● Daily Mon-Fri: Monday to Friday
● Weekly Sat/Fri/Thu/Wed/Tue/Mon/Sun: Same time on the same day every week

④ **Store**
(OK)

■To change a timer programming event
➡ Select the programme to be changed (◄ ▲ OK ▼ ►) ② access ① select ➡ Correct as necessary (as above)

■To cancel a timer programming event
➡ Select the programme to be deleted (◄ ▲ OK ▼ ►) ➡ ▢ red ➡ (OK)

■To record with subtitles (if available)
➡ Select the programme to record with subtitles (◄ ▲ OK ▼ ►) ➡ ▢ yellow ● Each time pressed: auto ←→ off

■To cancel a timer programming event temporarily
➡ Select the programme to be cancelled (◄ ▲ OK ▼ ►) ➡ ▢ blue ● Each time pressed: cancel ←→ stop cancelling

● Check that the LED is orange. If not, timer programmes are not active or not stored.
● Timer Programming reminder messages will remain displayed until one of the following occurs:
  • You press the OK button to view the programme or the EXIT button to cancel the reminder.
  • The timer programming event that the reminder is set for ends.
● "!" identifies that any timer programming events have overlapped. "Ext Rec." and "USB HDD Rec." are given priority over "Reminder". As for the overlapped two or more "Ext Rec." / "USB HDD Rec.", the first timer programming event starts and finishes as programmed. The next timer programming event can then start.
● The recording of Timer Programming will automatically change to the programmed channel 10 seconds before the start time.
● To stop recording the timer programming event directly prior to the start time, it may be necessary to stop the recorder manually.
● The recording of Timer Programming will be performed even if the TV is in REW LIVE TV recording (p. 65) and Pause Live TV recording (p. 89). In this case, these recordings will be cancelled.

● Timer Programming

Advanced

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Child Lock

You can lock specific channels / AV input terminals and control who watches them.
When the locked channel / input is selected, a message appears; by entering the PIN number, you can watch it.

1 **Display the menu**

MENU

2 **Select "Setup"**

VIE**∩** Main Menu
⌐ **Picture**
♪ **Sound**
☼ **Setup**

②access

①select

3 **Select "Child Lock"**

☒ Setup Menu	1/2
3D Settings	
Timer Programming	
Off Timer	Off
USB HDD Setup	
Link Settings	
Child Lock	Access
DVB-C Tuning Menu	
Language	
Display Settings	

②access

①select

4 **Set**
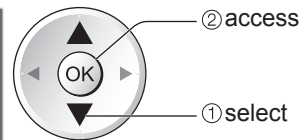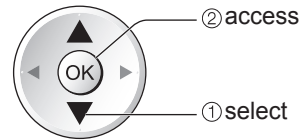
■**To return to TV**

EXIT

➡

Control channel audience Child Lock

① **Enter the PIN number (4 digits)**

Child Lock-PIN Entry	
Please enter new PIN	
PIN	* * * *

[1] [2 abc] [3 def]
[4 ghi] [5 jkl] [6 mno]
[7 pqrs] [8 tuv] [9 wxyz]
[0]

- Enter the PIN number twice at first setting.
- Make a note of the PIN number in case you forget it.
- "0000" may be stored as the default PIN number which depends on the country you select (p. 12).
- "0000" is not allowed depending on the country you select.

② **Select "Child Lock List"**

Child Lock	
Change PIN	
Child Lock List	Access
Parental Rating	No Limit

② access
(OK)
① select

③ **Select the channel / input to be locked**

Child Lock List - TV and AV			Sorting 123...
Name	Input	Type	Lock
101 BBC 1 Wales	DVB-C	FreeTV	🔒
7 BBC THREE	DVB-T	FreeTV	
14 E4	DVB-T	FreeTV	
VCR	Analogue	Analogue	
1 BBC1	Analogue	Analogue	
2 *****	Analogue	Analogue	🔒
AV1	External	AV	
AV2/S	External	AV	

② lock
(OK)
① select
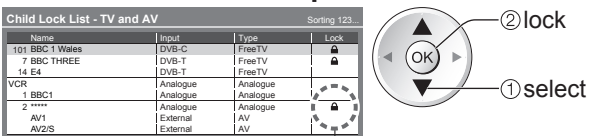
Appears when the channel / input is locked

- To cancel ➡ Select the locked channel / input ➡ (OK)
- To jump to the top of the next input ➡ [red]
- To lock all ➡ [green]
- To cancel all locks ➡ [yellow]
- To sort channel names in alphabetical order ➡ [blue]

■**To change the PIN number**

Select "Change PIN"

Child Lock	
Change PIN	Access
Child Lock List	
Parental Rating	No Limit

② access
(OK)
① select

Enter a new PIN number twice
[1] [2 abc] [3 def]
[4 ghi] [5 jkl] [6 mno]
[7 pqrs] [8 tuv] [9 wxyz]
[0]

■**To set Parental Rating**

- The availability of this function depends on the country you select (p. 12).
If the DVB programme has the rated information for over the selected age, you have to enter the PIN number to watch (depending on the broadcaster).
Select "Parental Rating" and set an age for the restriction of programmes.

Child Lock	
Change PIN	
Child Lock List	
Parental Rating	No Limit

② set
(OK)
① select

Note

- Setting "Shipping Condition" (p. 56) erases the PIN number and all settings.

● Child Lock

Advanced

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Input Labels

For easier identification and selection of the input mode, you can label each input mode or skip terminal that is not connected to any equipment.
● To select the input mode ➡ p. 24

1 **Display the menu**
MENU

2 **Select "Setup"**

VIEIA Main Menu	
▭ Picture	
♪ Sound	
☆ Setup	

②access
①select

3 **Select "Display Settings"**

⬚ Setup Menu	1/2
3D Settings	
Timer Programming	
Off Timer	Off
USB HDD Setup	
Link Settings	
Child Lock	
DVB-C Tuning Menu	
Language	
Display Settings	Access

②access
①select

4 **Select "Input Labels"**

Display Settings	
Preferred Subtitle Type	Standard
Teletext	TOP
Teletext Character Set	West
Side Panel	Off
Default Guide	TV Guide
Input Labels	Access
Banner Display Timeout	3 seconds
Playing Time Display	On
Radio Mode	Off

②access
①select

5 **Select a input terminal and set**

Input Labels	1/2
AV1	◄ DVD ►
AV2/S	◄ AV2/S ►
AV3	◄ AV3 ►
COMPONENT	◄ COMPONENT ►
PC	◄ PC ►
HDMI1	◄ HDMI1 ►
HDMI2	◄ HDMI2 ►
HDMI3	◄ HDMI3 ►
HDMI4	◄ HDMI4 ►

Input Labels	2/2
DVB-S	◄ DVB-S ►
DVB-C	◄ DVB-C ►
DVB-T	◄ DVB-T ►
Analogue	◄ Analogue ►

②set
①select
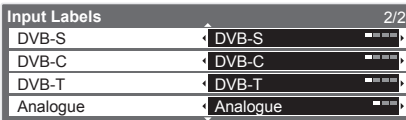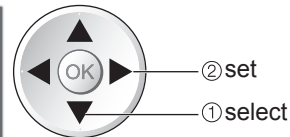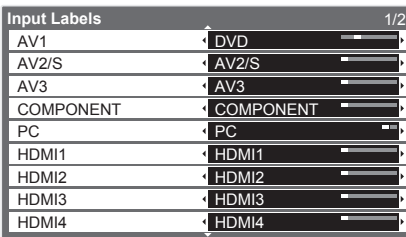
The labels you set will be displayed in "Input Selection" menu (p. 24),
"TV Selection" menu (p. 16) or banner.
● If "Skip" is selected, you cannot select the mode.

■**To return to TV**
EXIT

Panasonic
TV

■**User input**
You can name each input mode freely.

Select "User input"   Set characters one by one   Store
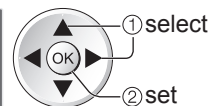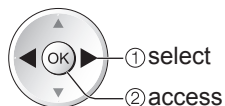
①select
②access

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 ( ) + - * _

(maximum: ten characters)

①select
②set

BACK/
RETURN

●You can set characters by using numeric buttons.
➡ "Characters table for numeric buttons" (p. 96)

Using Common Interface

The Common Interface Module menu provides access to software contained on Common Interface (CI) Modules.
●This function may not be available in some countries or regions.
●Video and audio signals may not be output depending on broadcasts or services.
Although CI module may enable you to view some services, this TV does not guarantee all services (e.g. pay-TV).
Please use only the approved CI module by the broadcaster.
Consult your local Panasonic dealer or broadcasters for more information and conditions of the services.

| Caution |

●Turn Off Mains power On / Off switch whenever inserting or removing the CI module.
●If a view card and a card reader come as a set, first insert the card reader, then insert the view card into the card reader.
●Insert the module in the correct direction.

CI slot

Insert or remove straightly and completely

CI module

Side of the TV
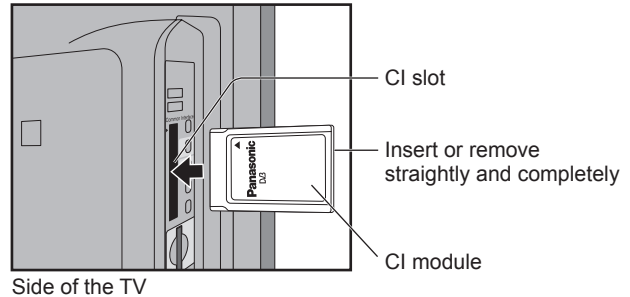
Insert the CI module (optional)

●The features that appear on screen are dependent on the contents of the selected CI module.
●Normally pay-TV channels will appear. Follow the on screen operation guide.
If pay-TV channel does not appear, perform below.
●For more details, see the manual of the CI module, or check with the broadcaster.

1 Select DVB-S, DVB-C or DVB-T
→ p. 16
[TV]

2 Display the menu
MENU

3 Select "Setup"

VIERA **Main Menu**
- **Picture**
- **Sound**
- **Setup**
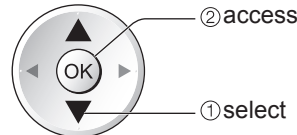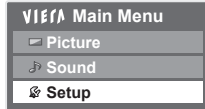
②access
①select

4 Select "Common Interface"

Setup Menu	2/2
Common Interface	Access
Network Setup	
DivX® VOD	
Advance(isfccc)	Off
System Menu	
Other Settings	
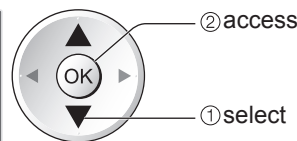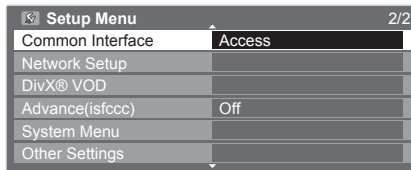
②access
①select

5 Access Common Interface

Common Interface	
Slot 1:	Module inserted

OK

6 Follow the on screen operation guide

For example: select, go → OK

◀ ▶ ▼ ▲ → (OK)

Coloured characters → red green yellow blue

■To return to TV
EXIT
→

●On screen operation guide may not correspond to the remote control buttons.

Shipping Condition

Resets the TV to its original condition, i.e. no channels tuned in.
All settings other than "USB HDD registration" are reset (channels, picture, sound settings, etc.).

1 **Display the menu**
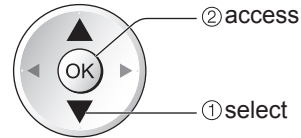
MENU

2 **Select "Setup"**

VIErA **Main Menu**
- ▭ Picture
- ♪ Sound
- ✎ **Setup**

②access
①select

3 **Select "System Menu"**

✎ Setup Menu	2/2
Common Interface	
Network Setup	
DivX® VOD	
Advance(isfccc)	Off
System Menu	Access
Other Settings	
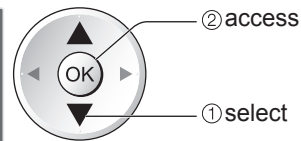
②access
①select

4 **Select "Shipping Condition"**

System Menu	
USB Keyboard Layout	English(UK)
Shipping Condition	Access
System Update	
Software Licence	
System Information	

②access
①select
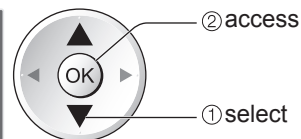
■**To return to TV**

EXIT

5 **Set**

Restore Settings Shipping Condition

① **Check the message and initialise**

Shipping Condition

All tuning data will be erased
Are you sure?
Are you sure?

Confirm
● EXIT
● RETURN

(OK) (confirm)
↓
(OK) (confirm)
↓
(OK) (start Shipping Condition)
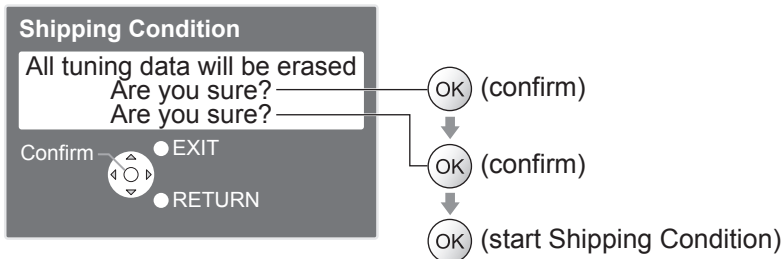
② **Follow the on screen instructions**

Reset to Factory Shipping Condition
Completed.
Please switch off TV.

● "Auto Setup" will automatically start when Mains power On / Off switch is next turned On. (p. 12)

■**To retune TV channels only, e.g. after moving house**
➡ "Retuning from Setup Menu" (p. 40 - 43)

Updating the TV Software

From time to time, a new version of software may become available for download to enhance the performance or operations of the TV.
If there is an update available, a notification banner is displayed when the channel has the update information.
● To download ➡ (OK)
● If you choose not to download ➡ ◯ EXIT
You can update any new software automatically or update manually.

1 **Display the menu**
MENU

2 **Select "Setup"**

VIErA Main Menu	
▭ Picture	
♪ Sound	
✥ Setup	

②access
①select

3 **Select "System Menu"**

⚙ Setup Menu	2/2
Common Interface	
Network Setup	
DivX® VOD	
Advance(isfccc)	Off
System Menu	Access
Other Settings	

②access
①select

4 **Select "System Update"**

System Menu	
USB Keyboard Layout	English(UK)
Shipping Condition	
System Update	Access
Software Licence	
System Information	

②access
①select

■To return to TV
➡ ◯ EXIT

5 **Set**

Update TV's software system System Update

■To update automatically
Select "Auto Update Search in Standby"

System Update	
Auto Update Search in Standby	◀ Off ▶
System Update Search Now	

②set
①select
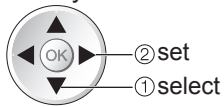
● Every time you set, the TV automatically performs a search in standby and downloads an update, if any software updates are available.
● The automatic updating is performed under the following conditions:
  • Standby (TV turned Off with the remote control)
  • Recording of Timer Programming, Direct TV Recording or One Touch Recording is not in progress.

If System Update is performed, the software will be updated (it may change TV functions).
If you do not wish to do so, set "Auto Update Search in Standby" to "Off".

■To update immediately
Select "System Update Search Now"

System Update	
Auto Update Search in Standby	Off
System Update Search Now	Access

②access
①select

Searches for an update (for several mins.) and displays a corresponding message if any

Download

(OK)
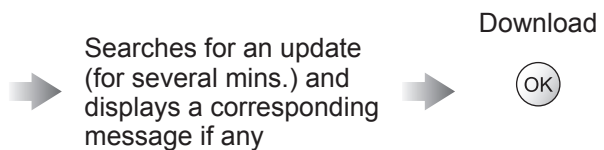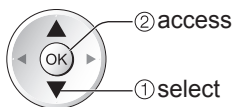
Note
● Download may take for about 60 mins.
● During software download and update, DO NOT switch Off the TV.
● The message might be the notification beforehand. In this case, the schedule information (the date that the new version can be used) will appear. You can set the reservation for update. The update will not start when the TV is set to Off.

Advanced

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Multi Window

Enjoy viewing the digital TV programme and external input (AV, COMPONENT or HDMI) at once.

1 Display the menu

MENU

2 Select "Picture"

VIEᴙ Main Menu
- Picture
- Sound
- Setup

② access
① select

3 Select "Picture in Picture"

Picture Menu	2/2
Picture in Picture	Access
Panel	On
Reset to Defaults	Reset

② access
① select
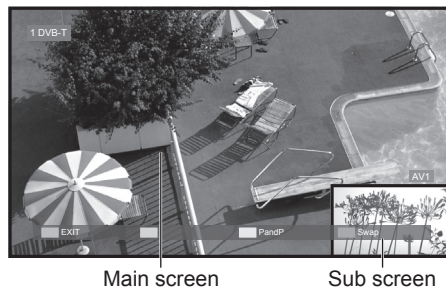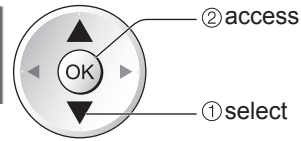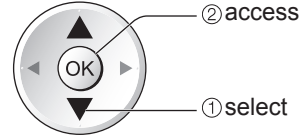
- Remote control operations apply to the main screen.

1 DVB-T
AV1
EXIT   PandP   Swap

Main screen   Sub screen

■How to operate in multi window

Display the colour bar if it is not displayed ➡ ⓘ

Picture-in-Picture mode (PinP)

1 DVB-T
A
AV1
B
EXIT   PandP

yellow

green

Picture-and-Picture mode (PandP)

1 DVB-T   AV1
A   B
EXIT PinP   Swap

blue

AV1
B
1 DVB-T
A — Colour bar
EXIT   PandP
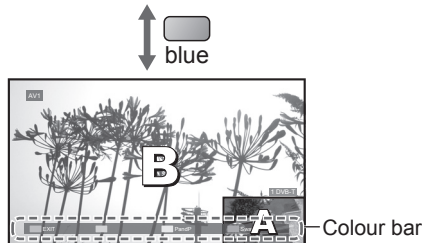
- To exit multi window ➡ red

- To change the input mode or channel of sub screen ➡ Swap sub screen for main screen (blue) ➡ Change the input mode or channel by the remote control (p. 16 or p. 24) ➡ Swap again (blue)

Note

- Each input mode can only be displayed either on main screen or sub screen.
- The sound comes from only the main screen in multi window.
- You cannot change the aspect ratio in multi window.
- This function cannot be used with PC, Media Player or Network services.
- HDMI is available only for main screen.
- Some signals are reformatted for suitable viewing on your display.

58

Displaying PC Screen on TV

The screen of the PC connected to the TV can be displayed on the TV.
You can also listen to PC sound with the audio cable connected.
- To connect PC ➡ p. 92

1 Select the external input
AV

2 Select "PC"

Input Selection
AV1
AV2/S
AV3
COMPONENT
PC
HDMI1
HDMI2
HDMI3
HDMI4
TV
Media Server

②access
①select
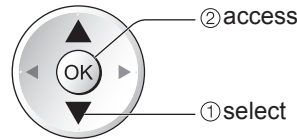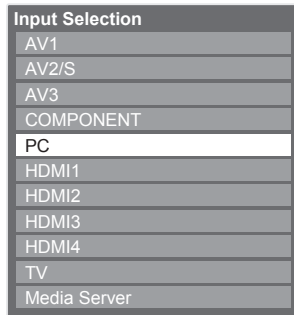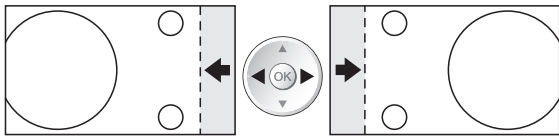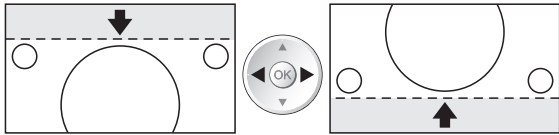
- Corresponding signals ➡ p. 98
- If "H-freq." or "V-freq." is shown in red, the signals may not be supported.

■To return to TV
➡ TV

■PC menu setting
- To make settings ➡ "How to Use Menu Functions" ① to ④ (p. 33)

Menu		Item	Adjustments / Configurations (options)
Picture	Advanced Settings	R-Gain	Adjusts the white balance of bright red area
		G-Gain	Adjusts the white balance of bright green area
		B-Gain	Adjusts the white balance of bright blue area
		R-Cutoff	Adjusts the white balance of dark red area
		G-Cutoff	Adjusts the white balance of dark green area
		B-Cutoff	Adjusts the white balance of dark blue area
		Gamma	Switches the gamma curve **(S Curve / 1.8 / 2.0 / 2.2 / 2.4 / 2.6)** - Please note the numerical values are reference for the adjustment.
		Reset to Defaults	Press the OK button to reset to the default Advanced Settings
Setup	PC Setup	Input Resolution	Switches to a wide view - VGA (640 × 480 pixels), WVGA (852 × 480 pixels), XGA (1,024 × 768 pixels), WXGA (1,280 × 768 pixels, 1,366 × 768 pixels) - Options change depending on signals
		Clock	Set to the minimum level if noise occurs
		H-pos	Adjusts horizontal position
		V-pos	Adjusts vertical position
		Clock Phase	Eliminates flicker and distortion - Adjust after Clock adjustment - Set to the minimum level if noise occurs
		Sync	Chooses another synchronous signal if the image is distorted **(H & V / On Green)** - H & V : by the horizontal and vertical signals from your PC On Green : by the green signal from your PC (if available)
		Reset to Defaults	Press the OK button to reset to the default PC Setup settings

- Other items ➡ p. 34 - 39

Note
- For HDMI-compatible PC, possible to connect to HDMI terminals (HDMI1 / HDMI2 / HDMI3 / HDMI4) by using HDMI cable (p. 97).

Advanced Picture Settings

You can adjust and setup the detailed picture settings for each input and Viewing Mode.
- To use this function completely, set "Advance(isfccc)" to "On" in the Setup Menu. ➡ p. 39
- For PC input mode, some functions are available without setting "Advance(isfccc)".

1 **Select the input mode to adjust and setup**
➡ p. 16 and p. 24

TV AV

2 **Display the menu**
MENU

3 **Select "Picture"**

VIErA Main Menu
- Picture
- Sound
- Setup

②access
①select
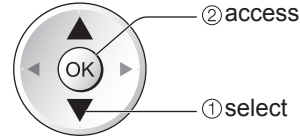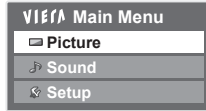
4 **Select "Viewing Mode" and set the mode**

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

②set
①select

5 **Select one of the following functions**

Picture Menu	2/2
Picture in Picture	
Panel	On
Advanced Settings	Access
Lock Settings	Access
Copy Adjustment	Access
Reset to Defaults	Reset

②access
①select
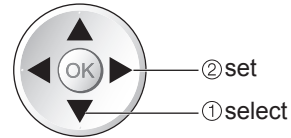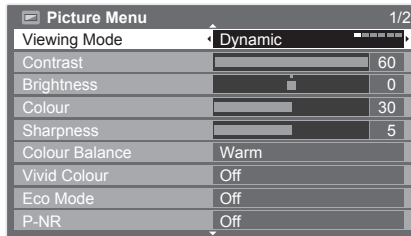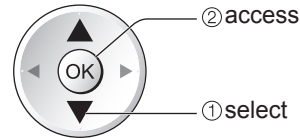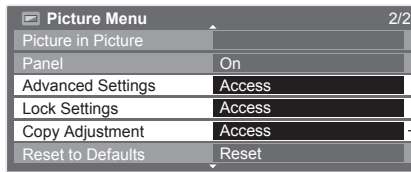
- "Copy Adjustment" is available when "Viewing Mode" in the Picture Menu is set to "Professional1" or "Professional2".

■**To return to TV**
EXIT

6 **Set**

Lock the picture setting Lock Settings

Advanced Settings can be locked for each Viewing Mode and input.
Additionally, Contrast, Brightness, Colour, Sharpness, Tint and Reset to Defaults in the Picture Menu can be locked for "Professional1" and "Professional2".

① **Enter the PIN number (4 digits)**

Lock Settings-PIN Entry
Please enter new PIN
PIN   * * * *

- Enter the PIN number twice at first setting.
- Make a note of the PIN number in case you forget it.

② **Select "Adjustment Lock" and set to "On"**

Lock Settings
Change PIN
Adjustment Lock   On

②set
①select

■**To change the PIN number**
Select "Change PIN"

Lock Settings
Change PIN   Access
Adjustment Lock   On

②access
①select

Enter a new PIN number twice

Adjust the detailed picture settings | Advanced Settings |

- To make settings ➡ "How to Use Menu Functions" ❶ to ❹ (p. 33)

```
Advanced Settings
R-Gain
G-Gain
B-Gain
R-Cutoff
G-Cutoff
B-Cutoff
Gamma            2.2
Reset to Defaults   Reset
```

Menu		Item	Adjustments / Configurations (alternatives)
Picture	Advanced Settings	R-Gain	Adjusts the white balance of bright red area
		G-Gain	Adjusts the white balance of bright green area
		B-Gain	Adjusts the white balance of bright blue area
		R-Cutoff	Adjusts the white balance of dark red area
		G-Cutoff	Adjusts the white balance of dark green area
		B-Cutoff	Adjusts the white balance of dark blue area
		Gamma	Switches the gamma curve (**S Curve / 1.8 / 2.0 / 2.2 / 2.4 / 2.6**) ● Please note the numerical values are reference for the adjustment.
		Reset to Defaults	Press the OK button to reset to the default Advanced Settings

■ For the mode of "Professional1" or "Professional2" in "Viewing Mode"

- White Balance   ● Colour Management   ● Gamma

```
Advanced Settings
White Balance      Access
Colour Management  Access
Gamma              Access
```
➡
```
White Balance
R-Gain
G-Gain
B-Gain
R-Cutoff
G-Cutoff
B-Cutoff
Reset to Defaults   Reset
```
```
Colour Management
R-Hue
G-Hue
B-Hue
R-Saturation
G-Saturation
B-Saturation
Reset to Defaults   Reset
```
```
Gamma
Gamma              2.2
Reset to Defaults   Reset
```

Menu			Item	Adjustments / Configurations (alternatives)
Picture	Advanced Settings	White Balance	R-Gain	Adjusts the white balance of bright red area
			G-Gain	Adjusts the white balance of bright green area
			B-Gain	Adjusts the white balance of bright blue area
			R-Cutoff	Adjusts the white balance of dark red area
			G-Cutoff	Adjusts the white balance of dark green area
			B-Cutoff	Adjusts the white balance of dark blue area
			Reset to Defaults	Press the OK button to reset to the default White Balance
		Colour Management	R-Hue	Adjusts the picture hue of red area
			G-Hue	Adjusts the picture hue of green area
			B-Hue	Adjusts the picture hue of blue area
			R-Saturation	Adjusts the saturation of red area
			G-Saturation	Adjusts the saturation of green area
			B-Saturation	Adjusts the saturation of blue area
			Reset to Defaults	Press the OK button to reset to the default Colour Management
		Gamma	Gamma	Switches the gamma curve (**S Curve / 1.8 / 2.0 / 2.2 / 2.4 / 2.6**) ● Please note the numerical values are reference for the adjustment.
			Reset to Defaults	Press the OK button to reset to the default Gamma

Copy the settings to the other input | Copy Adjustment |

You can copy the selected "Professional1" or "Professional2" settings to that of the other input.
The settings of Contrast, Brightness, Colour, Sharpness, Tint and Advanced Settings will be copied.

Select the destination to copy to

```
Copy Adjustment
Destination        All
```

①select
②copy
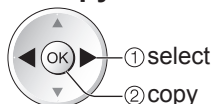
● You cannot copy to the locked mode.

USB HDD Recording

You can record the digital TV programmes to the connected USB HDD and enjoy playing back in various ways.
- Analogue TV programme cannot be recorded to the USB HDD.
- The data broadcasting (MHEG, etc.), radio broadcasting and the periods without any signal will not be recorded.
- Not all the programmes can be recorded depending on the broadcaster and service provider.
- This TV supports USB HDD with capacity from 160 GB up to 2 TB.
- If the remaining capacity of the USB HDD is run out, the recording cannot be done.
- Regarding the performance, not all USB HDDs are guaranteed.
  Check the USB HDDs that have been tested for the performance with this TV at the following website. (English only)
  http://panasonic.jp/support/global/cs/tv/

Caution
- Register the USB HDD with this TV in order to use it for recording. Please note that USB HDD will be formatted and all data (including the data from your PC, etc.) in it will be erased when you register it.
- In order to use the USB HDD with your PC after you use it with this TV for recording, format the drive on your PC. To format, refer to the manual of the PC. Please note that all data in the USB HDD will be erased when it is formatted.
- The data recorded to the USB HDD with this TV can only be played back on this TV. You cannot playback its contents with another TV (including the TV of the same model number) or any PCs.
- If your TV is repaired due to a malfunction, the registered USB HDD may not be available with your repaired TV. Register this USB HDD again to use it with your repaired TV. (All data in it will be erased.)

USB HDD connection

Connect the USB HDD to the USB 1 or 2 port.

socket outlet

USB cable
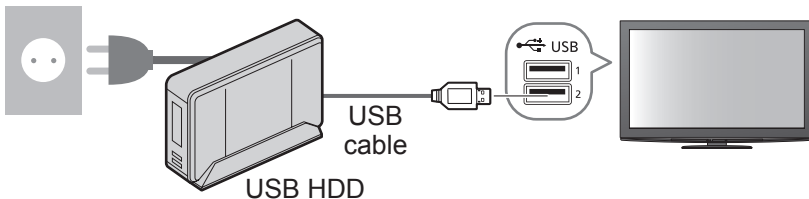
USB HDD

- Be sure to connect the USB HDD to the socket outlet.
- Do not turn off or disconnect the USB HDD during operation. It may cause malfunction of the drive or damage the recorded data.
- To remove the USB HDD safely from the TV
  ➡ p. 63 and p. 67

Setting for USB HDD

Register and setup the USB HDD with this TV in order to use it for recording. Connect the USB HDD before starting this settings. ➡ "USB HDD connection" (above)
- Before the settings, be sure to turn on the USB HDD.
- You cannot change the settings for the USB HDD while recording is in progress.
- Please note that USB HDD will be formatted and all data in it will be erased when you register it.

1 Display the menu
MENU

2 Select "Setup"

VIErn Main Menu
Picture
Sound
Setup

② access
① select

3 Select "USB HDD Setup"

Setup Menu	1/2
3D Settings	
Timer Programming	
Off Timer	Off
USB HDD Setup	Access
Link Settings	
Child Lock	
DVB-C Tuning Menu	
Language	
Display Settings	

② access
① select
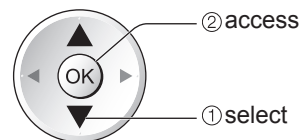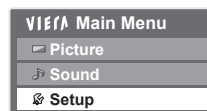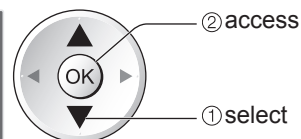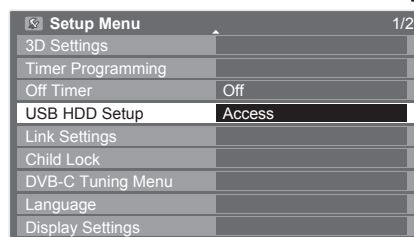
4 Select "Device Setup" and set

USB HDD Setup	
Device Setup	Access
One Touch Recording	180 minutes
REW LIVE TV	Off

② access
① select

■**To return to TV**
EXIT
➡

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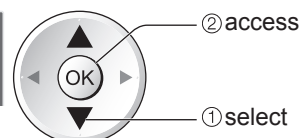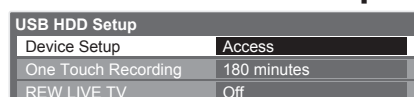
Register and setup the USB HDD | Device Setup

All the USB devices recognized as a mass storage device will be listed. You can only register
USB HDDs.
- Up to 8 USB HDDs can be registered with this TV. However you can only choose one USB HDD for recording
at a time.
- Some USB HDD may not be registered.

Select the USB HDD for recording and start registration / setup

USB HDD Device Setup		
Connect	Product	Name
Yes	USB Drive A	
Yes	USB Flash Disk	

② access
① select
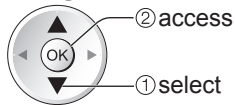
- For the information of the highlighted device ➡ 🛈

- Caution of USB HDD recording and playing back

USB HDD Registration
The data recorded to the USB HDD with this TV can only
be played back on this TV.
You cannot playback it with other TV (including the TV
of the same model number) or any PCs.
If your TV is repaired due to a malfunction, the
registered USB HDD may not be available with your
repaired TV.
Continue?
Yes | No
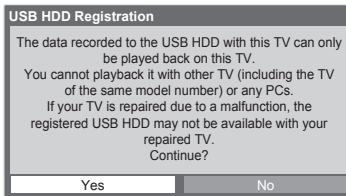
① select "Yes"
② set

- Confirmation of USB HDD registration

USB HDD Registration
To use this device for recording,
it must be registered first.
Continue?
Yes | No
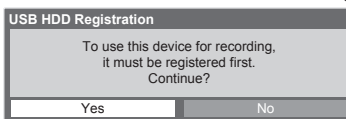
① select "Yes"
② set

- Confirmation of USB HDD format

USB HDD Registration
This device will be formatted and
all contents deleted.
Are you sure?
Yes | No

① select "Yes"
② set

- Confirmation of USB HDD name

USB HDD Registration
Name : USB HDD 1
Edit name?
Yes | No
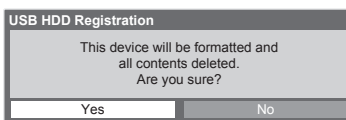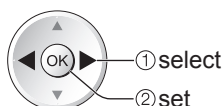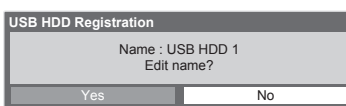
① select
② set

The name for the registered USB HDD is created
automatically. If you want to edit the name, select "Yes".
Set characters one by one   Store

USB HDD
Name   USB HDD 1
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 ( ) + - . * _

① select
② set

BACK/
RETURN
↩

- You can set characters by using numeric buttons.

- Confirmation to enable USB HDD for recording
If the registered USB HDD for recording already exists, this confirmation screen
will be displayed to switch to enable this USB HDD for recording.

USB HDD Registration
Do you want to enable this
device now for recording?
Yes | No
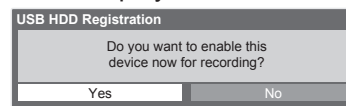
USB HDD Device Setup			
Connect	Product	Name	
Yes	USB Drive A	USB HDD 1	●▷
Yes	USB Flash Disk		

●▷ : The USB HDD is registered and available for recording / playing
back if the connection status is "Yes".
Only one registered USB HDD on the list can be available for
recording.
▷ : The USB HDD is registered and available for playing back if the
connection status is "Yes".
Name is displayed if the registration is completed
Connection status (Yes: connected / No: not connected)
**To remove the USB HDD safely from the TV, ensure the status is
"No" before removing.**

- To change the status ➡ yellow

- You can also remove the USB HDD safely from Media Player
➡ "Remove the USB devices safely" (p. 67)

■To unregister the registered USB HDD
- Once you unregister the USB HDD, it will not be possible to playback any of the recorded content on any
TV.

Select the USB HDD   Unregister

➡ red

- The confirmation screen will be displayed twice.
Select "Yes" to unregister.

USB HDD Recording

Recording the TV programme to USB HDD

You can record the current programme immediately by using "One Touch Recording".
You can also record the current programme constantly for the selected period by using "REW LIVE TV"
so that you can go back or pause the current programme.
● Ensure the connection, registration and setup are completed before start recording ➡ p. 62 and p. 63
● Ensure not to connect or disconnect any USB devices during USB HDD recording. Otherwise the recording may not work properly.

1 Display the menu
MENU

2 Select "Setup"

VIEfA Main Menu
🗐 Picture
♪ Sound
🎬 Setup

②access
①select

3 Select "USB HDD Setup"

🗐 Setup Menu	1/2
3D Settings	
Timer Programming	
Off Timer	Off
USB HDD Setup	Access
Link Settings	
Child Lock	
DVB-C Tuning Menu	
Language	
Display Settings	

②access
①select
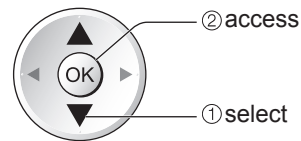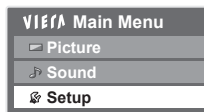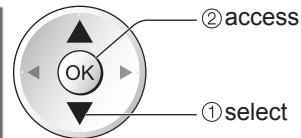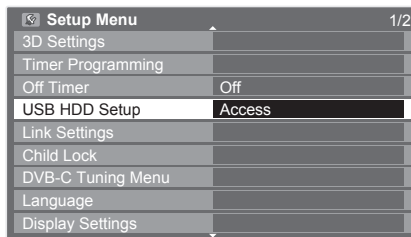
4 Select "One Touch Recording" or "REW LIVE TV"

USB HDD Setup	
Device Setup	
One Touch Recording	◀ 180 minutes ▶
REW LIVE TV	◀ Off ▶

select

■To return to TV
EXIT
➡

5 Set

One touch direct TV recording - What you see is What you record | One Touch Recording |
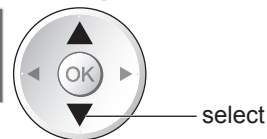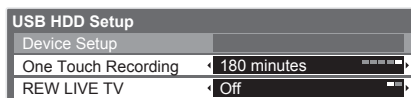
Recording the current programme in the USB HDD immediately.
**Select the maximum recording time
(30 / 60 / 90 / 120 / 180 minutes)**

USB HDD Setup	
Device Setup	
One Touch Recording	◄ 180 minutes ►
REW LIVE TV	Off
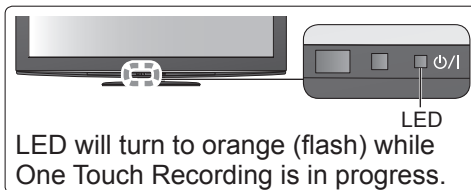
◄(ok)► select

LED will turn to orange (flash) while
One Touch Recording is in progress.

LED
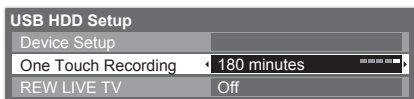
■To start One Touch Recording
Set the position to "TV" Start

DVD/VCR ┄ TV ➡ REC

●No other channel can be selected while the recording is in progress.

■To stop recording on the way

DVD/VCR ┄ TV ➡ ■ or GUIDE ➡ EXIT

■To playback or delete the recorded contents
➡ "Using Media Player" (p. 71) or "Video" in VIERA TOOLS (p. 32)
●Even if One Touch Recording is in progress, you can playback all the contents.
However, the recording may not work properly while playback.

Record constantly | REW LIVE TV |

Recording the current programme constantly.
Select "On" to start REW LIVE TV

USB HDD Setup	
Device Setup	
One Touch Recording	180 minutes
REW LIVE TV	◄ On ►
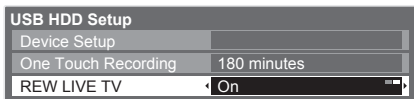
◄(ok)► select

●When you select "On", the recording will start automatically.

■To operate the REW LIVE TV
Set the position to "TV"

DVD/VCR ┄ TV

● To pause ➡ ▐▐/▶

● To search backward ➡ ◄◄ ▐◄◄ (press and hold)

●After pausing or searching backward, the following buttons are available to operate.

search backward
pause
search forward
playback
stop (stops the current
operation and goes
back to live TV)

search backward / forward
▐◄◄ ▶▶▌
◄◄ ▶▶
(press and hold)

pause / playback
▐▐/▶

playback
▶

stop
■
(stops the current
operation and
goes back to
live TV)

■To stop the REW LIVE TV

USB HDD Setup	
Device Setup	
One Touch Recording	180 minutes
REW LIVE TV	◄ Off ►

◄(ok)► select "Off"
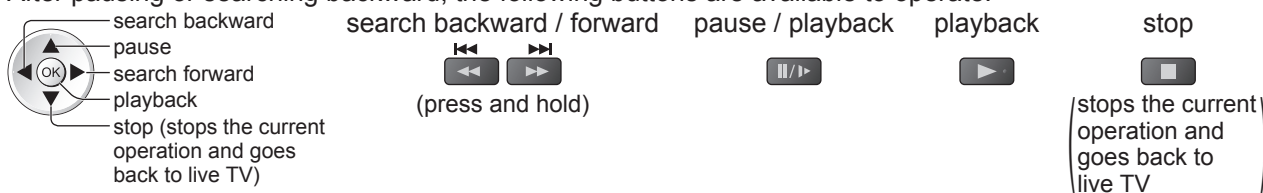
●If you stop the REW LIVE TV, the recorded content for the REW LIVE
TV will be deleted.

●REW LIVE TV will be stopped and the recorded content deleted automatically in the following conditions:
(Even if REW LIVE TV stops for the following conditions, as long as the setting is "On", the new recording
will start automatically in a condition that makes the recording available.)
• selected other channels
• selected locked channel
• selected invalid channel
• no TV signal
• when the other recording starts
• when the TV is turned off or standby

● USB HDD Recording

Advanced

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Using Media Player

Media Player allows you to enjoy photo, video or music recorded on an SD Card and a USB Flash Memory, and recorded contents on the registered USB HDD.
VIERA IMAGE VIEWER is the function of the easy viewing for photos or videos recorded on an SD Card on the TV screen by simply inserting into the SD Card slot.
Photo mode : Still pictures recorded by digital cameras will be displayed.
Video mode : (For SD Card or USB Flash Memory) Moving pictures recorded by digital video cameras will be played back.
　　　　　　　(For registered USB HDD) TV programmes recorded in USB HDD registered to this TV will be played back.
Music mode : Digital music data will be played back.
● During the operation, audio signal is output from AV1, AV2, AUDIO OUT and DIGITAL AUDIO OUT terminals. But no video signals are output. AV1 and AV2 can output audio signal if "AV1 / AV2 out" is set to "Monitor" in the Setup Menu (p. 36).
● "Date" shows the date on which the recording was made by the recording equipment. The file without record of the date is shown "**/**/****".

■Data format for SD Card / USB Flash Memory browsing
● Photo : Still images taken by digital still cameras, recorded in JPEG files of DCF[*1] and EXIF standards.
　　　　　Data format - Baseline JPEG (Sub-sampling 4:4:4, 4:2:2 or 4:2:0)
　　　　　　　　　　　MPF (3D) : Multi Picture Format for 3D still image (Extension - ".mpo")
　　　　　Image resolution - 8 × 8 to 30,719 × 17,279 pixels
● Video : SD-Video Standard Ver. 1.2 [MPEG-2 (PS format)] and AVCHD[*2] 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.)
　　　　　DivX ➡ p. 95
　　　　　MKV (Matroska Video) file
● Music : Data format - MP3 and AAC (Copy-protected files cannot be played back.)
● SD Card format : SDXC Card - exFAT
　　　　　　　　　　SDHC Card / SD Card - FAT16 or FAT32
● Compliant card type (maximum capacity): SDXC Card (64 GB), SDHC Card (32 GB), SD Card (2 GB),
　　　　　　　　　　　　　　　　　　　　miniSD Card (2 GB) (requiring miniSD adapter)
● If miniSD Card is used, insert / remove it together with the adapter.
● Check the latest information on the card type at the following website. (English only)
　http://panasonic.jp/support/global/cs/tv/
● USB Flash Memory format : FAT16, FAT32 or exFAT
　　　　　　　　　　　　　　(A USB HDD formatted by PC is not supported in Media Player.)
*1: DCF (Design rule for camera file system): Unified standard established by Japan Electronics and Information Technology Industries Association (JEITA).
*2: Including 3D videos in Side by Side mode.
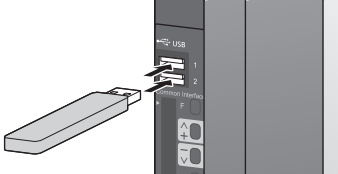
> **Note**
> ● Format the device with the recording equipment.
> ● The picture may not appear correctly on this TV depending on the recording equipment used.
> ● Display may take some time when there are many files and folders.
> ● This function cannot display Motion JPEG and still image not JPEG formatted (i.e. TIFF, BMP).
> ● A data modified with a PC may not be displayed.
> ● Images imported from a PC must be compatible with EXIF (Exchangeable Image File) 2.0, 2.1, and 2.2.
> ● Partly degraded files might be displayed at a reduced resolution.
> ● The folder and file names may be different depending on the digital camera or digital video camera used.
> ● Do not use two-byte characters or other special codes.
> ● The device may become unusable with this TV if the file or folder names are changed.

■To insert or remove the SD Card / USB Flash Memory
● For the USB HDD Connection ➡ p. 62
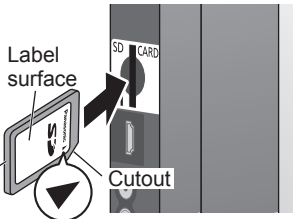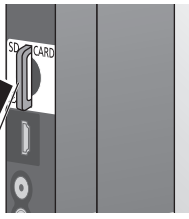
USB Flash Memory
● Insert or remove straightly and completely.
● Before removing the USB Flash Memory, ensure to perform "Remove the USB devices safely" (p. 67)

SD Card
● To insert the SD Card

Gently insert the SD Card label surface facing front.

Label surface

Push until a click is heard

Cutout

● To remove the SD Card

Push the centre of the card

Blue LED

● Blue LED lights while SD Card is inserted if "SD Card LED" is set to "On" in the Setup Menu (p. 39).

● For more information of the SD Card ➡ p. 94

Starting Media Player

1 **Insert the SD Card or USB Flash Memory**
- For registered USB HDD, ensure the connection status is "Yes". ➡ p. 63

2 **Switch to Media Player**
SD CARD
- When SD Card is inserted, switching will be done automatically.

3 **Start Media Player**

Media Player

Signal output from all AV terminals will be disabled during Media Player view.
Press OK to proceed.
Press EXIT to return to TV viewing.

(OK)

4 **Select the icon you want to access to**

Media Player

Drive Select
● EXIT
● Select
● RETURN
Access
SD Card

selected device name

①select
②access

- If two or more devices are not connected, this step will be skipped.
- For the registered USB HDD, all the USB HDD of which the connection status is "Yes" is available.
  ➡ "Register and setup the USB HDD" (p. 63)

■ **To return to TV**
EXIT or SD CARD

■ **To return to the previous screen**
BACK/RETURN

5 **Select the content**

Media Player

Contents Select
● EXIT
● Select
● RETURN
Access
SD Card
Photo   Video   Music

①select
②access

- For registered USB HDD, this step will be skipped and recorded contents list will be displayed. ➡ p. 71

- Photo ➡ "Photo mode" (p. 68)
- Video ➡ "Video mode" (p. 70)
- Music ➡ "Music mode" (p. 73)

● Using Media Player

Change the device

You can change to the other device directly in the same mode if two or more devices are connected.

Display the menu
MENU

Select "Drive Select"

VIErA Main Menu
Picture
Sound
Photo Setup
Video Setup
Music Setup
3D Settings
Drive Select
USB Remove Safely

②access
①select

Appears if the USB device is connected to the TV.

Select the icon you want to access to

Media Player

Drive Select
● EXIT
● Select
● RETURN
Access
SD Card

selected device name

①select
②access
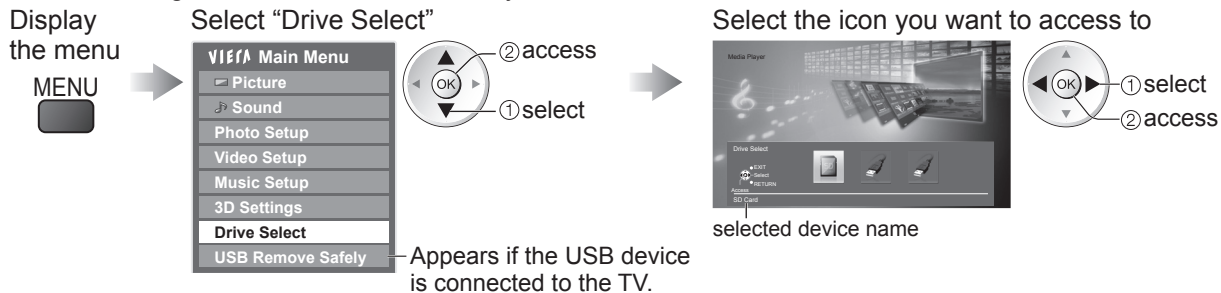
Remove the USB devices safely

Before remove the USB devices, please take the following steps in order to protect the devices.

Display the menu
MENU

Select "USB Remove Safely"

VIErA Main Menu
Picture
Sound
Photo Setup
Video Setup
Music Setup
3D Settings
Drive Select
USB Remove Safely

②access
①select

Appears if the USB device is connected to the TV.

Select the USB Flash Memory or USB HDD to remove

USB Remove Safely
Product	Name
USB Flash Disk	

②set
①select

Advanced

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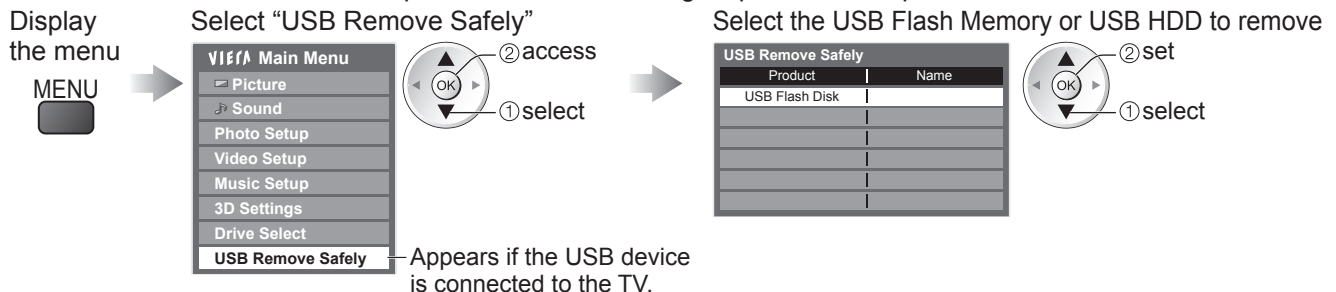
Using Media Player

Photo mode

Photo mode reads all ".jpg" extension files and supports MPF (3D) files in the SD Card or USB Flash Memory.

Error display
(images that could not be loaded, etc.)

Media Player　Photo　All photos

View — EXIT
Select — RETURN　Info　SD Card
Slideshow　View Select　Change Size　Contents Select

(Thumbnail - All photos)

selected device name

The thumbnail of all the photos in the SD Card or USB Flash Memory will be displayed.
- You can also access Photo mode directly by using VIERA TOOLS.
  → "How to Use VIERA TOOLS" (p. 32)
- To change the back ground music
  → "Photo Setup" (p. 69)
- To display the information of the highlighted photo

→ i

3D — displayed for MPF (3D) file
1/48
File name
　　p1010001.JPG　file number /
Date　　　　　　total file number
　　23/10/2009
Pixel
　　1600X1200
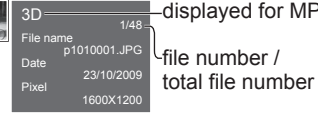
- To change the number of photos on a thumbnail screen at a time

→ yellow (7 × 4 ←→ 10 × 6)

■To sort by folder, recorded date or recorded month

Folder view : Displays the thumbnail grouped by folder
- The files which are not into a folder will be collected to the folder named "/".

Sort by Date : Displays the thumbnail grouped by the same date
- The group of the photos without recorded date is shown as "Unknown".

Sort by Month: Displays the thumbnail grouped by the same month
- The group of the photos without recorded date is shown as "Unknown".

Display the view selection

green

Select the sort type

| Folder view |
| Sort by Date |
| Sort by Month |

②access
①select

- To return to the thumbnail of all photos

→ green → ②access ①select "All photos"

Select one of the sorted group to display the thumbnail of the selected group

Media Player　Photo　Sort by Date

23/10/2009 25/10/2009 01/11/2009 05/11/2009 10/11/2009 22/11/2009 23/11/2009
24/11/2009 01/12/2009 03/12/2009 20/12/2009 22/12/2009

Access — EXIT
Select — RETURN　Info　SD Card
Slideshow　View Select　Contents Select

①select
②thumbnail of the selected group

- To display the information of the highlighted group

→ i
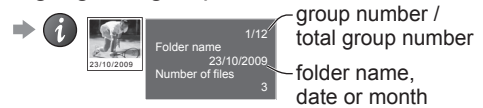
group number / total group number
1/12
Folder name
　　　23/10/2009
Number of files
　　　3
folder name, date or month

23/10/2009

■To return to TV

EXIT
→ ○ or SD CARD

■To return to the previous screen

BACK/
RETURN
→ ↩

■Single view - Displayed one at a time

Select the file from the thumbnail of photos to be viewed
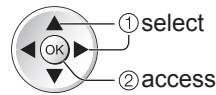
①select
②access

Single view
Rotate
EXIT
Select
RETURN
Slideshow
3D
(Single view)
Operation guide

- To display / hide the operation guide
  → i
- To operate Single view

To the previous photo
Rotate 90° (anti-clockwise)
To the next photo
Slideshow
Rotate 90° (clockwise)
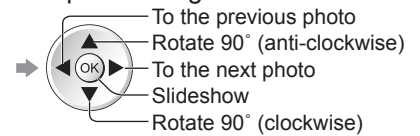
BACK/
RETURN
- To return to thumbnail → ↩

■Slideshow - Slideshow will be completed within the thumbnail from which it was started.

Select the file from the thumbnail of photos for the first view

select

Start Slideshow

red

- To display / hide the operation guide → i
- To pause (return to Single view) → OK

BACK/
RETURN
- To return to thumbnail → ↩

Note

- Picture quality may become lower depending on the slideshow settings.
- Picture setting may not work depending on the slideshow settings.

Panasonic
TV

Photo Setup

Setup the settings for Photo mode.

Display the menu	Select "Photo Setup"		Select the items and set	

MENU

VIErA **Main Menu**
- ⚏ Picture
- ♪ Sound
- **Photo Setup**
- Video Setup
- Music Setup
- 3D Settings
- Drive Select

② access
① select

Photo Setup Menu
Back Ground Music	Type1
Frame	Off
Colour Effect	Off
Transition Effect	Fade
Screen Mode	Normal
Interval	5 seconds
Repeat	On
Burst Playback	Off

② set
① select
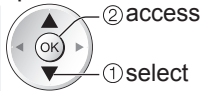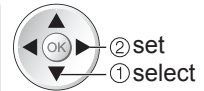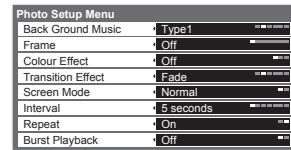
●Other items ➡ p. 31, 34 - 36, 67, 72 and p. 73

Menu	Item	Adjustments / Configurations (alternatives)
Photo Setup	Back Ground Music	Selects the back ground music during the Photo mode **(Off / Type1 / Type2 / Type3 / Auto / User)** ●Type1, Type2 and Type3 are the fixed music each installed in this TV. Auto : Music data stored in the root folder of the current device will be played back randomly. ●If there is no available music data, no sound will be produced. User : Music data in the current device registered by yourself in Music mode will be played back. ●To register the music ➡ "Set background music for Photo mode" (p. 73) ●If no music has been registered or the registered music device are removed, no sound will be produced.
	Frame	Selects the indication frame of the slideshow **(Off / Multi / Collage / Drift (+ calendar) / Drift / Gallery (+ calendar) / Gallery / Cinema)** Multi : 9 division display like tiled design Collage : A photo is displayed at random position and random scale. Drift (+ calendar) / Drift : Photos are displayed like flow images. ●You can select to display the calendar or not. The month of calendar is turned by pressing up or down cursor button. Gallery (+ calendar) / Gallery : The various size of photos in the frame are displayed. ●You can select to display the calendar or not. The month of calendar is turned by pressing up or down cursor button. Cinema : Photos are displayed like old films (sepia tone)
	Colour Effect	Selects the colour effect of photos on Single view and Slideshow **(Off / Sepia / Gray scale)** ●This function is not available when "Frame" is set to "Drift", "Gallery" or "Cinema".
	Transition Effect	Selects the transition effect for switching the photo during the slideshow **(Off / Fade / Slide / Dissolve / Motion / Random)** Fade : The next photo fades in gradually. Slide : The next photo slides and appears from the left side. Dissolve : The photo is replaced by an indefinite block unit. Motion : The photo is replaced with enlarged, reduced, moved up or moved down. Random : Each transition is selected at random. ●This function is available when "Frame" is set to "Off".
	Screen Mode	Selects whether enlarged or normal viewing on Single view and Slideshow **(Normal / Zoom)** ●This function is not available when "Frame" is set to "Collage", "Drift", "Gallery" or "Cinema". ●This function is not available when "Transition Effect" is set to "Motion". ●Depending on the photo size, the photo may not be enlarged.
	Interval	Selects slideshow interval **(5 / 10 / 15 / 30 / 60 / 90 / 120 seconds)** ●This function is not available when "Frame" is set to "Drift", "Gallery" or "Cinema". ●This function is not available when "Transition Effect" is set to "Motion".
	Repeat	Slideshow repeat **(Off / On)**
	Burst Playback	Selects whether the continuous shots are displayed in rapid interval during the slideshow **(Off / On)** ●This function is not available when "Frame" is set to "Drift", "Gallery" or "Cinema". ●This function is not available when "Transition Effect" is set to "Motion".

Change the contents

You can switch to the other mode of Media Player from the thumbnail.
●The mode can be switched in the current device.
●To change the device ➡ "Change the device" (p. 67)

While the thumbnail is displayed, display the contents selection

blue

Select the contents

① select
② access

●Photo ➡ "Photo mode" (p. 68)
●Video ➡ "Video mode" (p. 70)
●Music ➡ "Music mode" (p. 73)

●Using Media Player

Advanced

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Using Media Player

Video mode

For SD Card or USB Flash Memory
Video mode supports AVCHD, MPEG2, DivX® and MKV (Matroska Video) file formats.

Film icon will be displayed if the file does not support thumbnail view.

Error display (images that could not be loaded, etc.)

Media Player ▸ Video — Title view
Trip1 Trip2 Trip3 Trip4 Trip5 Room Nature1
Nature2 Nature3 Nature4 Nature5 Nature6 2009_4 2009_7
2009_9
Access — EXIT
Select — RETURN
Info
SD Card
Play · Contents Select
(Thumbnail - Title view)
selected device name

The thumbnail of video titles in the SD Card or USB Flash Memory will be displayed.
The preview will start when the title is highlighted if it supports a preview.
● You can also access Video mode directly by using VIERA TOOLS
  ➡ "How to Use VIERA TOOLS" (p. 32)
● To off the preview ➡ "Video Setup" (p. 72)
● To display the information of the highlighted title
  ➡ (i)

Trip1
3D — displayed for 3D video file
AVCHD — file format
1/15 — title number / total title number
Title   Trip1
Date & Time   19/02/2009 11:21
Number of scenes   8
Duration   00h15m39s
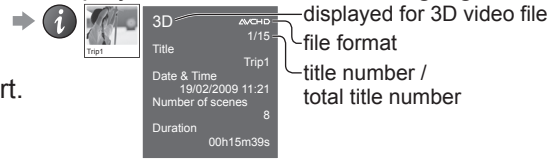
■Playback from Title view
Playback of the selected title will start.
Select the title   Start playback
select
➡
red

● DivX and MKV contents cannot be played back from Title view. Select DivX or MKV folder and press the OK button to display DivX or MKV files, and then select one of the file to be played back.

■Playback from the selected scene in the title (AVCHD or MPEG2)
Playback will start from the selected scene to the end of the title.
Select the title   Select the scene to start playback
① select
② access
➡

Media Player ▸ Video — Title view > Trip1
Trip1_1 Trip1_2 Trip1_3 Trip1_4 Trip1_5 Trip1_6 Trip1_7
Trip1_8
Play — EXIT
Select — RETURN
Info
SD Card
Contents Select
(Thumbnail - Scene view)

① select
② playback
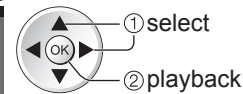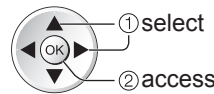
The preview will start when the scene is highlighted if it supports a preview.
● To off the preview
  ➡ "Video Setup" (p. 72)

● To repeat playback   ● To display the information of the highlighted scene
  ➡ "Video Setup" (p. 72)   ➡ (i)

Trip1
3D — displayed for 3D video file
AVCHD — file format
1/8 — scene number / total scene number
Scene   Trip1_1
Date & Time   19/02/2009 11:21
Duration   00h04m12s

■To return to TV
EXIT or SD CARD
➡
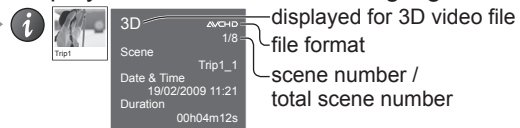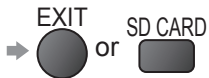
■To return to the previous screen
BACK/RETURN
➡

Note
● The structure of titles and scenes may vary depending on the digital video camera used.

■How to operate in the playback
II/▶
▶
◀◀ ⟨⊙⟩ ▶▶   EXIT
■   RETURN
Title   Trip1   ▶   AVCHD
Date & Time 19/02/2009 11:21
3D   00:02:05 / 00:15:39
Operation guide   (Playback)
Information banner
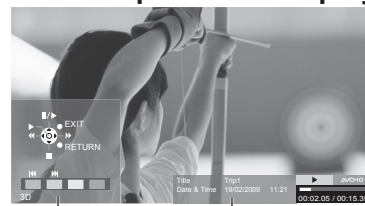
● To change aspect (only for the 4:3 video content)
  ➡ ASPECT

● To display / hide the operation guide and information banner ➡ (i)
● To operate the playback
  ◀◀ Rewind
  II/▶ Pause / Playback
  ▶ Playback
  ▶▶ Fast forward
  ■ Stop

● To the previous scene ➡ red
● To the next scene ➡ green

● To return to thumbnail ➡ BACK/RETURN

● You can also use the following buttons. (p. 25)
  Set the position to "TV"
  DVD/VCR ‖ TV
  ➡ |◀◀ ▶▶| ▶ ■ II/▶

● To confirm or change the current status (if available)
  OPTION
  ➡
  Example:
  Option Menu
  Multi Audio   ◀ Audio1 ▶
  DivX Subtitle   ◀ Subtitle1 ▶
  ➡
  ② change
  ① select

■To change the content in the current device
  ➡ "Change the contents" (p. 69)

Panasonic TV
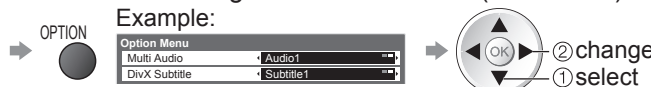
For registered USB HDD

Remaining capacity of the HDD
●This value may not be accurate depending on the condition.

Media Player	USB HDD recordings		Remaining Capacity 500GB (50%)

Channel	Date	Time	Title
▫ BBC 1	Wed 28/10	12:00	Das Erste
▫ ITV	Sun 10/01	13:30	News
● BBC 2	Fri 15/01	13:50	Cinema

Select
●EXIT
●RETURN
Play
Delete
Info
USB HDD 1

Contents list of the registered USB HDD will be displayed.
●You can also access the contents list directly by using VIERA TOOLS.
  ➡ "How to use VIERA TOOLS" (p. 32)
●To display the information of the highlighted content
  ➡ ⓘ

Channel :
    DVB-T, BBC 1
Title :
    Das Erste
Date & Time :
    Wed 28/10/2009 12:00
Duration :
    00:20

Content under recording
  ●You can playback this content even if under recording.

Content not played back
  ●Once you playback the content, this icon will disappear.

■Playback the content from the list
Select the content
select
Start playback
(OK)

■Delete the selected content
Select the content
select
Delete the content
red
Confirm
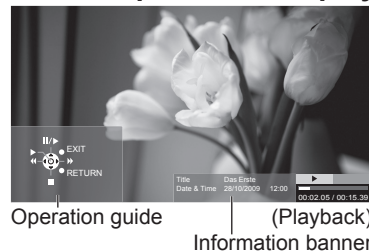
Delete
    DVB-T, BBC 1
    Das Erste
    Wed 28/10/2009 12:00
    00:20
(OK)

■How to operate in the playback

Operation guide
(Playback)
Information banner

Title   Das Erste
Date & Time   28/10/2009   12:00
00:02.05 / 00:15.39

●To display / hide the operation guide and information banner ➡ ⓘ
●To operate the playback
  ◄◄ Rewind
  II/► Pause / Playback
  ► Playback
  ►► Fast forward
  ■ Stop

●To return to list ➡ BACK/RETURN

●You can also use the following buttons. (p. 25)
  Set the position to "TV"
  DVD/VCR TV
  ◄◄ ►► ► ■ II/►
  (press and hold)

●To confirm or change the current status (if available) ➡ OPTION

Example:

Option Menu	
Multi Audio	eng
Dual Audio	eng

②change
①select
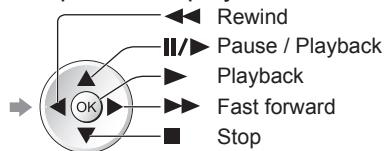
●To change aspect ➡ ASPECT

●To display the subtitle (if available) ➡ STTL
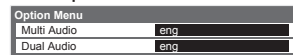
Note
●Depending on the recorded programmes, some playback operations may not work properly.

Using Media Player

Sound Settings

You can enjoy the multi-channel sound via an amplifier connected to DIGITAL AUDIO OUT terminal.

■**To confirm or change the current sound status** (during playback)

Display the Option menu

OPTION

Option Menu
Multi Audio   Stereo

(current sound status)

Example:

Change the sound (if the video has multiple audio signals)

◀(OK)▶—change

●It may take several seconds to change the sound.

■**Audio output settings**

Display the menu

MENU

Select "Sound"

VIErA Main Menu
- Picture
- ♪ **Sound**
- Photo Setup
- Video Setup
- Music Setup
- 3D Settings
- Drive Select

②access
①select

Select "SPDIF Selection" and set

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
SPDIF Selection   Auto

②set
①select

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 is output as Dolby Digital Bitstream. MPEG is output as PCM. PCM: Digital output signal is fixed to PCM.

Video Setup

Setup the settings for Video mode.
●These settings are not available for the registered USB HDD.

Display the menu

MENU

Select "Video Setup"

VIErA Main Menu
- Picture
- ♪ Sound
- Photo Setup
- **Video Setup**
- Music Setup
- 3D Settings
- Drive Select

●Other items
➡ p. 31, 34 - 36, 67, 69 and p. 73

Select "Other Settings"

Video Setup Menu
Display Settings
Other Settings   Access

②access
①select

●Display Settings
➡ p. 38

Select the items and set

Other Settings
Intelligent Frame Creation   Off
16:9 Overscan   On
Video Preview   On
Repeat   Off

②set
①select

●Other items
➡ p. 39

Menu	Item		Adjustments / Configurations (alternatives)
Video Setup	Other Settings	**Video Preview**	Sets to start the preview of the title or scene in the thumbnail screen **(Off / On)** ●Image may not be displayed for an instant in the thumbnail screen. Set the preview "Off" to resolve this.
		Repeat	Playback repeat within the title **(Off / On)** ●Only the selected file will be repeated for DivX and MKV (Matroska Video) contents.

Music mode

Music mode supports MP3 and AAC file format.

Media Player ♫ Music	Folder view
My Music_1 My Music_2 My Music_3	

Access — EXIT / Select — RETURN / Info / SD Card / Play Folder / Contents Select

selected device name
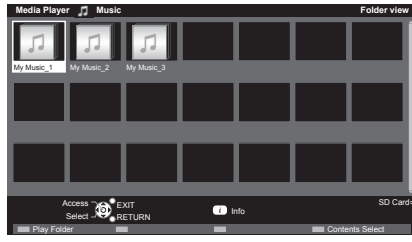
The thumbnail of music folders in the SD Card or USB Flash Memory will be displayed.

● You can also access Music mode directly by using VIERA TOOLS
→ "How to use "VIERA TOOLS" (p. 32)

● To display the information of the highlighted title

→ (i) ♫ My Music_1

Folder name My Music_1   1/3 — folder number / total folder number
Number of files   11
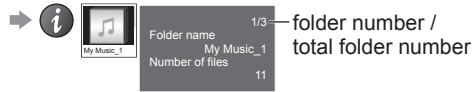
■Playback from Folder view
Playback all the files in the selected folder will start.
Select the folder   Start playback

select

red

■Playback from File view
Playback of the selected file will start.
Select the folder   Select the file to start playback

①select
②access

Media Player ♫ Music	Folder view > My Music_1
My Song_1 My Song_2 My Song_3 My Song_4 My Song_5 My Song_6 My Song_7	
My Song_8 My Song_9 My Song_10 My Song_11	

Play — EXIT / Select — RETURN / Info / SD Card / Contents Select

①select
②playback

● To display the information of the highlighted title

→ (i) ♫ My Song_1

		1/11 — file number / total file number
Title	My Song_1	
Album	My Music_1	
Artist	My Favorite	
Track No.	1	
Duration	00h03m29s	

■How to operate in the playback

♪ My Song_9
∅ My Favourite
♣ My Music_1
00:02.43 / 00:05.44

II/▶ EXIT / RETURN / User BGM

Operation guide   (Playback)

● To display / hide the operation guide → (i)
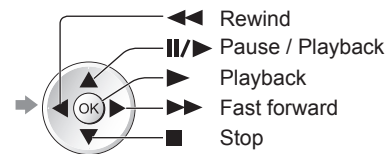
● To operate the playback

◄◄ Rewind
II/▶ Pause / Playback
▶ Playback
►► Fast forward
■ Stop

● To the previous track
→ red

● To the next track
→ green

● To return to thumbnail
→ BACK/RETURN

■To return to TV
EXIT   SD CARD
→ ○ or □
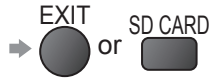
■To return to the previous screen
BACK/RETURN
→ ↩

■To change the content in the current device
→ "Change the contents" (p. 69)

Music Setup

Setup the setting for Music mode.

Display the menu   Select "Music Setup"   Set

MENU

VIERA Main Menu
▭ Picture
♪ Sound
Photo Setup
Video Setup
Music Setup
Drive Select

②access
①select

Music Setup Menu
Repeat ◄ One ►

set
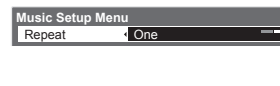
Folder : Playback repeat within the selected folder
One   : Playback repeat of the selected one file

Set background music for Photo mode

You can register your favourite music as background music for Photo mode.
● Select "User" in "Back Ground Music" → "Photo Setup" (p. 69)
● If you remove the device in which the registered music is stored, the setting of "User" will be reset.

While playing music, display the selection screen   Select "File" or "Folder" and set

Register Slideshow BGM?
File
Folder

blue

②set
①select
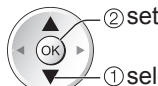
File   : The current music will be registered as back ground music.
Folder : All the music in the current folder will be registered as back ground music.

73

Using Network Services
(DLNA / VIERA CAST)

DLNA®

This TV is a DLNA Certified™ product.

DLNA (Digital Living Network Alliance) is a standard that makes DLNA Certified digital electronics easier and more convenient to use on a home network. To learn more, visit www.dlna.org.

It allows you to share photos and videos (including 3D images) stored in the DLNA Certified media server (for example, PC with windows 7 installed, DIGA Recorder etc.) connected to your home network, and enjoy watching them on the TV screen.

■Applicable data format

Photo : JPEG (Sub-sampling 4:4:4, 4:2:2 or 4:2:0)
      Image resolution - 8 × 8 to 30,719 × 17,279 pixels
        ●MOTION JPEG and Progressive JPEG are not supported.

Video : MPEG-2 (PS format and TS format)
        ●AVCHD, DivX and MKV (Matroska Video) files are not supported by DLNA, but can be played by Media Player (p. 70).

●Music files are not supported by DLNA functions of this TV, but MP3 and AAC files can be played back by Media Player (p. 73).

■Media server

Ensure the connected equipment has a DLNA Certified media server.

To use the PC, install the server software on the PC for obtaining a media server.

Store photos or videos into the media server, and then you can watch them on the TV.

"TwonkyMedia server 5.1.x" and "Windows 7" are the server software that has been tested for the performance with this TV (current as of January, 2010).

For installing, read the manual of the server software.

●The DLNA control function of Windows 7 is not supported with this TV.

●When a server software for the media server is installed on the PC, the data may be at risk of being accessed by other people. Please take care of the settings and connections under the network circumstances at the office, hotel or even at home when not using a router.

By connecting a DLNA compatible DIGA Recorder to your home network, you can enjoy and control it as one of the media servers.

●For details, read the manual of the DIGA Recorder.

■Network connection

➡ Example 1 or Example 2 in "Network connections" (p. 75)

■Network setup

➡ p. 76 - 79

■DLNA operations

➡ p. 80 - 82

VIERA CAST™

VIERA CAST is a gateway to the internet services unique to Panasonic.

By connecting the TV to the internet environment, VIERA CAST allows you to enjoy internet content on the TV screen such as photos, videos, weather, etc. from VIERA CAST home screen.

You can access VIERA CAST home screen directly by pressing the VIERA CAST button on the remote control.

■Network connection

➡ Example 1 or Example 3 in "Network connections" (p. 75)

■Network setup

➡ p. 76 - 79

■VIERA CAST operations

➡ p. 83

Network connections

To use only DLNA features, you can operate the features without Broadband network environment.
To use VIERA CAST features, you need a Broadband network environment.
●If you do not have any Broadband network services, please consult your retailer for assistance.
●Confirm the terms and conditions of the contracts with your Internet Service Provider (ISP) or telecommunications company.
●Set up and connect any equipment required for the network environment.
●Required speed (effective): at least 1.5 Mbps for SD and 6 Mbps for HD picture quality, respectively. If the transfer speed is not enough, contents may not be played back properly.
●Read the manual of the network equipment, too.

■Example 1

■Wireless LAN connection
You can connect to the network by using a Wireless LAN Adaptor (supplied) and an access point.
●It is recommended to use the Wireless LAN Adaptor with the supplied extension cable.

USB
1

ETHERNET

LAN cable

■Wired LAN connection
You can also connect to the network directly by using a LAN cable.

Internet

Modem

Hub, Router or Access point

DLNA Certified media server (for example, PC, DIGA Recorder, etc.)
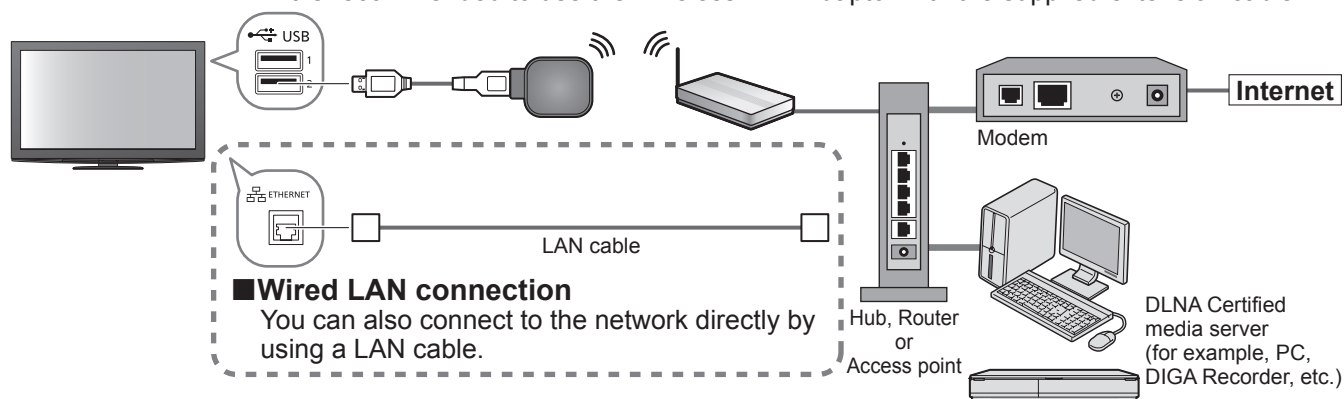
●Ensure to use a LAN straight cable for this connection.
●If your modem has no broadband router functions, use a broadband router.
●If your modem has broadband router functions but there are no vacant ports, use a hub.
●Ensure that the Broadband routers and hubs are compatible with 10BASE-T / 100BASE-TX.
●If you use the equipment compatible only with 100BASE-TX, category 5 LAN cables are required.

■Example 2
You can connect the TV and the equipment directly to use DLNA features.

ETHERNET

LAN cable

DLNA Certified media server (for example, PC, DIGA Recorder, etc.)
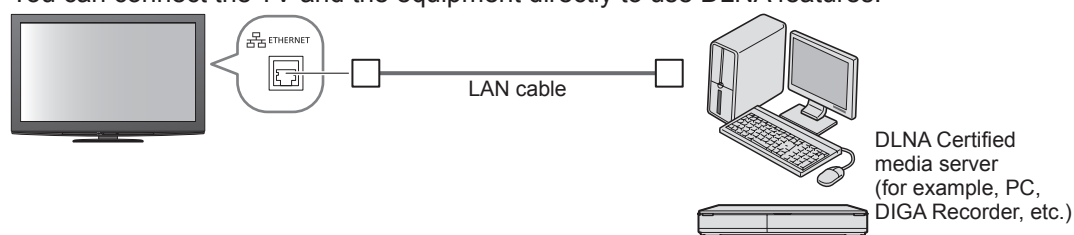
●Ensure to use a LAN cross cable for this connection.

■Example 3
You can connect the TV and the telecommunication equipment directly to use VIERA CAST features.

ETHERNET

LAN cable

Internet

Modem
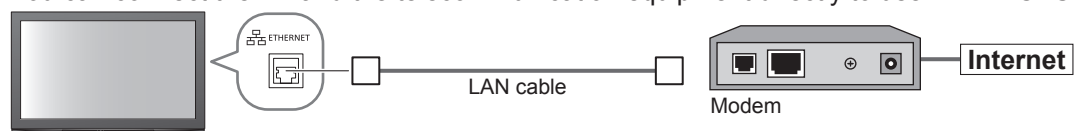
Note
●Depending on the ISP or telecommunications company, the required equipment and the internet connection procedure are different. Ensure that you use the network equipment that are authorized by your ISP and telecommunications company.
●You cannot make settings for the network equipment on this TV. You may be required to make settings on your computer.
●Depending on the terms and conditions of the contracts with your ISP or telecommunications company, additional fees may be charged or multiple connections to the internet may be impossible.
●Please contact your ISP or telecommunications company if you require further assistance regarding the network equipment.

● Using Network Services (DLNA / VIERA CAST)

Advanced

75

Using Network Services
(DLNA / VIERA CAST)

Network Setup

- Ensure the connections are completed before starting Network Setup.
  → "Network connections" (p. 75)

1 **Display the menu**

MENU

2 **Select "Setup"**

VIErA **Main Menu**
- ▭ **Picture**
- ♪ **Sound**
- ☒ **Setup**

②access
①select

3 **Select "Network Setup"**

☒ Setup Menu	2/2
Common Interface	
Network Setup	Access
DivX® VOD	
Advance(isfccc)	Off
System Menu	
Other Settings	

②access
①select
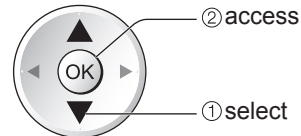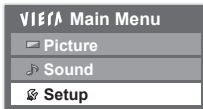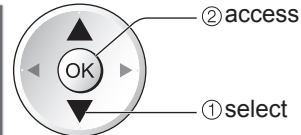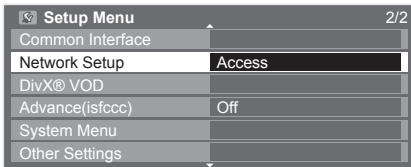
■**To return to TV**
→ EXIT

4 **Set**

Edit the name of this TV

You can set your favourite name for this TV. This name will be used to display the name of this TV on the screen of the other DLNA compatible equipment.

Select "VIERA Name"

Network Setup	
Network Type	Wired
Access Point Settings	---
IP/DNS Settings	
Proxy Settings	
Connection Test	
VIERA Name	VIERA
Software Update	
MAC Address	ab-cd-ef-gh-ij-kl
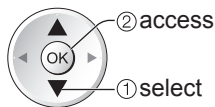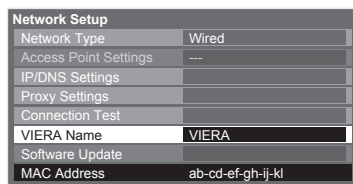
②access
①select

Edit the name
Set characters one by one
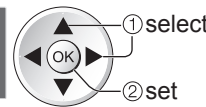
VIERA Name	
Name	VIERA

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	(		)	+	-	.	*	_	

①select
②set

- You can set characters by using numeric buttons.
  → "Characters table for numeric buttons" (p. 96)

Store
BACK/
RETURN

Update TV's software

Accesses the specific web site to update TV's software and search if any software updates are available.
Select "Software Update"

Network Setup	
Network Type	Wired
Access Point Settings	---
IP/DNS Settings	
Proxy Settings	
Connection Test	
VIERA Name	VIERA
Software Update	Access
MAC Address	ab-cd-ef-gh-ij-kl
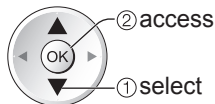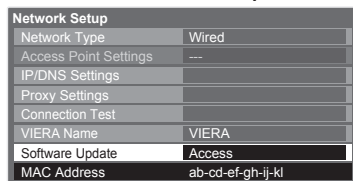
②access
①select

- Follow the on screen instructions

(Note)
MAC Address
- MAC address is a unique address that identifies hardware in the network.
  (for information only)

Network Setup	
Network Type	Wired
Access Point Settings	---
IP/DNS Settings	
Proxy Settings	
Connection Test	
VIERA Name	VIERA
Software Update	
MAC Address	ab-cd-ef-gh-ij-kl

Network settings for the LAN Cable connection

This setting is for the network connection by using the LAN cable.

① Select "Network Type" and set to "Wired"

Network Setup	
Network Type	Wired
Access Point Settings	---
IP/DNS Settings	
Proxy Settings	
Connection Test	
VIERA Name	VIERA
Software Update	
MAC Address	ab-cd-ef-gh-ij-kl

②set
①select
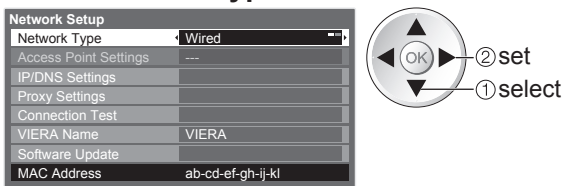
If you make the network connection like "Example2" (p. 75), you do not have to set "Acquire DNS Address", "Proxy" and "Proxy Port".

② Select "IP/DNS Settings" and set the items

Network Setup	
Network Type	Wired
Access Point Settings	---
IP/DNS Settings	Access
Proxy Settings	
Connection Test	
VIERA Name	VIERA
Software Update	
MAC Address	ab-cd-ef-gh-ij-kl

②access
①select
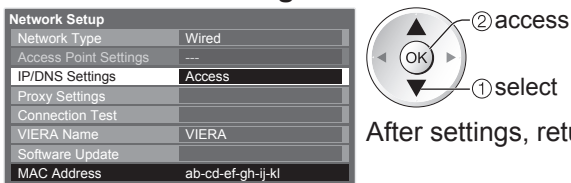
After settings, return to "Network Setup" screen ➡ BACK/RETURN

■Acquire IP Address
■Acquire DNS Address
Sets IP Address, Subnet Mask, Gateway, Primary DNS and Secondary DNS.
For most users, the recommended method of connection to your network is by using Auto feature.

Select "Acquire IP Address" and then set to "Auto"
Select "Acquire DNS Address" and then set to "Auto"

IP/DNS Settings	
Acquire IP Address	Auto
IP Address	. . .
Subnet Mask	. . .
Gateway	. . .
Acquire DNS Address	Auto
Primary DNS	. . .
Secondary DNS	. . .

②set
①select
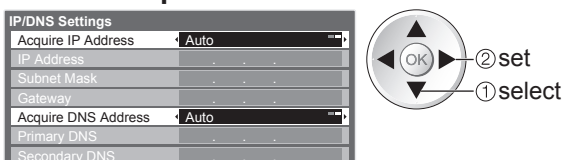
●The available settings are displayed automatically.

Manual settings
If you wish to set these functions manually, select "Manual".
Select "IP Address", "Subnet Mask", "Gateway", "Primary DNS" or "Secondary DNS"
select

Move the cursor and enter the number
move

1 2abc 3def
4ghi 5jkl 6mno
7pqrs 8tuv 9wxyz
0
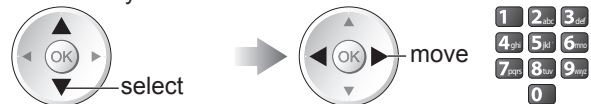
③ Select "Proxy Settings" and set the items

Network Setup	
Network Type	Wired
Access Point Settings	---
IP/DNS Settings	
Proxy Settings	Access
Connection Test	
VIERA Name	VIERA
Software Update	
MAC Address	ab-cd-ef-gh-ij-kl

②access
①select
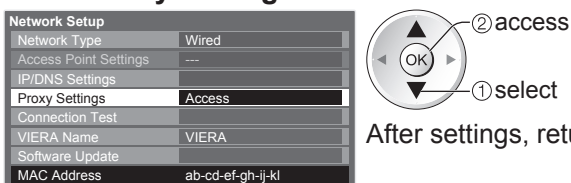
After settings, return to "Network Setup" screen ➡ BACK/RETURN

■Proxy
Sets 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 required if specified by the provider.

Select "Proxy"

Proxy Settings	
Proxy	
Proxy Port	0

②access
①select

Enter the address
Set characters one by one

Host

①select
②set

Store
BACK/RETURN

●You can set characters by using numeric buttons.

■Proxy Port
Sets Proxy port number.
●This number is also specified by the provider with the Proxy address.

Select "Proxy Port"
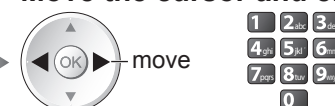
Proxy Settings	
Proxy	
Proxy Port	0

select

Move the cursor and enter the number
move

1 2abc 3def
4ghi 5jkl 6mno
7pqrs 8tuv 9wxyz
0

④ Select "Connection Test" and access to test

Network Setup	
Network Type	Wired
Access Point Settings	---
IP/DNS Settings	
Proxy Settings	
Connection Test	Access
VIERA Name	VIERA
Software Update	
MAC Address	ab-cd-ef-gh-ij-kl

②access
①select

Connection Test
☑ Check network cable connection.
☑ Check acquired IP address.
☑ Check for devices using same IP address.
☑ Check gateway connection.
☑ Check server connection.
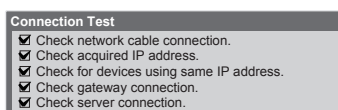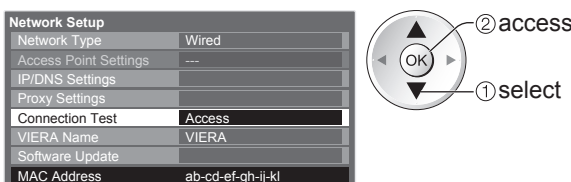
☑ : **succeeded**
The test is successful and the TV is connected to the network.

☒ : **failed**
Check the settings and connections, and then perform this function again.

Performs automatic testing of the network connection for the TV. (It takes a while to test.)

Advanced

77

Using Network Services
(DLNA / VIERA CAST)

Network settings for the Wireless LAN connection

This setting is for the network connection by using Wireless LAN Adaptor. (Wireless LAN connection)
● Confirm the encryption key, settings and positions of your access point before starting setup. For details, read the manual of the access point.

① **Select "Network Type" and set to "Wireless"**

Network Setup	
Network Type	‹ Wireless ··· ›
Access Point Settings	No settings
IP/DNS Settings	
Proxy Settings	
Connection Test	
VIERA Name	VIERA
Software Update	
MAC Address	ab-cd-ef-gh-ij-kl

② set
① select
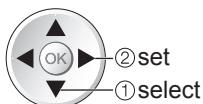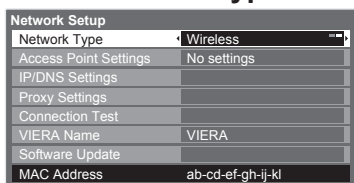
② **Select "Access Point Settings"**

Network Setup	
Network Type	Wireless
Access Point Settings	No settings
IP/DNS Settings	
Proxy Settings	
Connection Test	
VIERA Name	VIERA
Software Update	
MAC Address	ab-cd-ef-gh-ij-kl
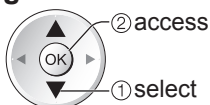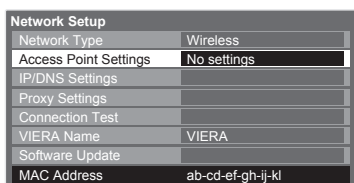
② access
① select

③ **Select the connection type and set**

Connection Type
Please select network connection type.
WPS(Push button)
WPS(PIN)
Search for access point
Manual
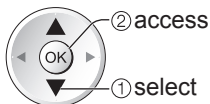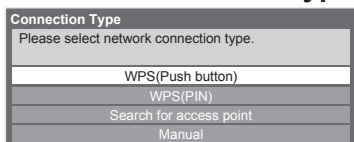
② access
① select

● For details of each connection type ➡ p. 79

After settings, return to "Network Setup" screen ➡ (OK)

④ **Confirm the connection status of "Access Point Settings"**

Network Setup	
Network Type	Wireless
Access Point Settings	Connected
IP/DNS Settings	
Proxy Settings	
Connection Test	
VIERA Name	VIERA
Software Update	
MAC Address	ab-cd-ef-gh-ij-kl
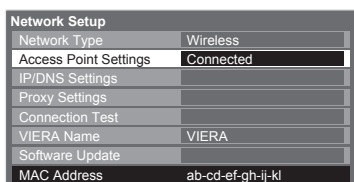
- - - : "Wired" is selected in "Network Type".
No adaptor : Wireless LAN Adaptor is not connected.
No settings : Setting for connecting to the access point has not been set.
Connecting... : Connecting to the access point in progress.
Connected : Wireless LAN connection to the access point succeeded
   ● To display the current access point settings, press the OK button.
     To change the settings, select "No" on this screen.
   ● Some access points do not allow access to the internet. Perform "Connection Test" (below) to check if internet connection is available.
USB
overcurrent : Overcurrent error ➡ p. 101

⑤ **Select "Connection Test" and access to test**
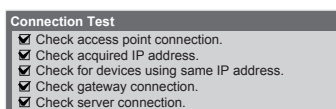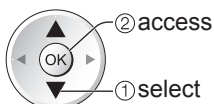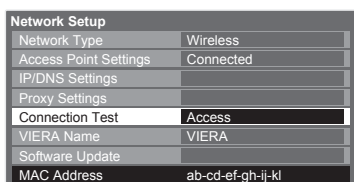
Network Setup	
Network Type	Wireless
Access Point Settings	Connected
IP/DNS Settings	
Proxy Settings	
Connection Test	Access
VIERA Name	VIERA
Software Update	
MAC Address	ab-cd-ef-gh-ij-kl

② access
① select

Performs automatic testing of the network connection for the TV. (It takes a while to test.)

Connection Test
☑ Check access point connection.
☑ Check acquired IP address.
☑ Check for devices using same IP address.
☑ Check gateway connection.
☑ Check server connection.

☑ : **succeeded**
The test is successful and the TV is connected to the network.

☒ : **failed**
Check the settings and connections, and then perform this function again.
If you continue to have difficulty, please contact your internet service provider.

■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

②access
(OK)
①select

⌐o : Encrypted access point

- To search access points again → [yellow]
- For the information of the highlighted access point → (i)
- 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   Store

①select
(OK)   BACK/
②set   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"

①select
(OK)
②confirm

- To re-enter the encryption key, select "No".

■WPS(PIN)

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

②access
(OK)
①select

- Ensure that your access point supports WPS for this setup.
- To search access points again
  → [yellow]
- For the information of the highlighted access point → (i)
- To set manually → [red]

WPS(PIN)
Please register the following PIN codes on the access point.

PIN code : 12345678

Select 'Connect' after entering and saving the settings on the access point.

Connect

Enter the PIN code to the access point, and then select "Connect"

(OK)

■Manual

You can setup SSID, authentication type, encryption type, and encryption key manually. Follow the on screen instructions and set manually.
- When you use 11n (5GHz) for the wireless system between the Wireless LAN Adaptor and access point, please select "AES" for the encryption type.

Access Point Settings
Please input the SSID.

SSID   XXXXXXX

SSID Setting
SSID is set to:-
XXXXXXX

Select 'Yes' to confirm.
Select 'No' to change.

Yes   No

Authentication Type Settings
Connection will be made with the following settings:-
SSID : XXXXXXX

Please select the authentication type.

WPA2-PSK
WPA-PSK
Shared key
Open

Using Network Services
(DLNA / VIERA CAST)

Using DLNA® features

- Ensure the preparation of media server, network connections and network settings are completed.
  - → "Media server" (p. 74), "Network connections" (p. 75), "Network Setup" (p. 76 - 79)

1 **Display the Input select menu**

AV

2 **Select "Media Server"**

Input Selection
AV1
AV2/S
AV3
COMPONENT
PC
HDMI1
HDMI2
HDMI3
HDMI4
TV
Media Server
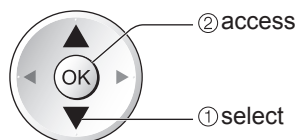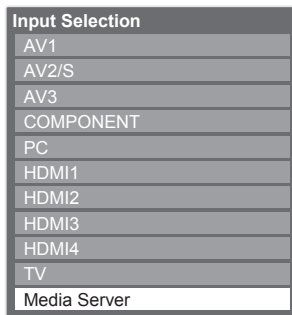
② access
① select

- You can also access directly by using VIERA TOOLS
  - → "How to Use VIERA TOOLS" (p. 32)

3 **Select one of the media servers you want to access**

Media Server

A	SERVER1
5	SERVER2
g	SERVER3
	DIGA

Select ● EXIT
● RETURN
Access

4

(Media server list)
Available media servers
Total listed number

② access
① select
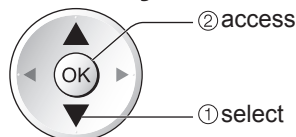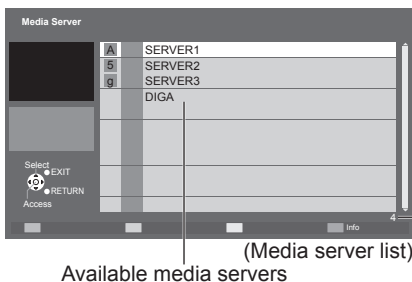
- To display the information of the highlighted media server → ⓘ or ☐ blue

4 **Select the file (photo or video) to be viewed**

Media Server
SERVER1

P000102	2008-10-05	09:54
P000135	2008-11-20	13:18
P000180	2008-12-07	11:31
P000214	2008-12-10	15:20
P000251	2008-12-19	12:39
P000276	2008-12-25	14:06
P000293	2009-01-06	13:52
M10025	2009-01-12	15:56
M10042	2009-01-20	10:08
M10054	2009-01-28	14:48
M10078	2009-02-09	19:58

Pixel 3648×2736
Format JPEG

Select ● EXIT
● RETURN
View

Slideshow

28

Info

(File list)

② access
① select
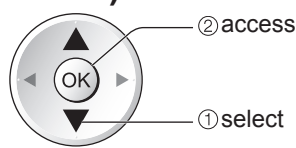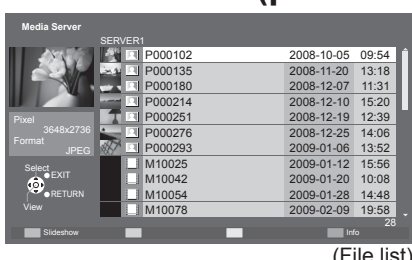
- Depending on the conditions of media server, you may need to select the folder before selecting the file.
- To display the information of the highlighted file → ⓘ or ☐ blue

■**To return to TV**

EXIT
→

■**To return to the previous screen**

BACK/
RETURN
→ ⤶

Panasonic
TV

80

For photo file

■Single view - Displayed one at a time

Operation guide   (Single view)

- ●To display / hide the operation guide ➡ ℹ
- ●To operate Single view

  To the previous photo
  Rotate 90˚ (anti-clockwise)
  To the next photo
  Slideshow
  Rotate 90˚ (clockwise)
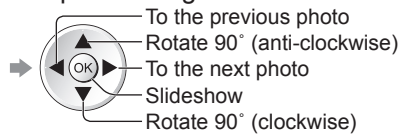
- ●To return to list ➡ [BACK/ RETURN ↩]

■Slideshow - Slideshow will be started from the selected photo file and completed within the list.

Start Slideshow
red

- ●To display / hide the operation guide ➡ ℹ
- ●To pause (return to Single view) ➡ (OK)
- ●To return to list ➡ [BACK/ RETURN ↩]

For video file

■Playback - Playback will start.

Operation guide   (Playback)
Information banner

- ●To display / hide the operation guide and information banner ➡ ℹ
- ●To operate the playback

  ◀◀ Rewind
  ‖/▶ Pause / Playback
  ▶ Playback
  ▶▶ Fast forward
  ■ Stop
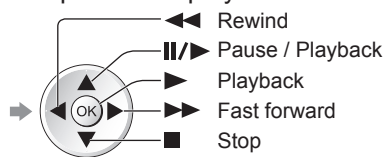
- ●To the previous scene ➡ red
- ●To the next scene ➡ green
- ●To change aspect (only for the 4:3 video content) ➡ [ASPECT ⊞]
- ●To return to list ➡ [BACK/ RETURN ↩]

For DIGA Recorder

■Control the DIGA Recorder

The screen of the DIGA Recorder will be displayed. You can control the functions of the DIGA Recorder with this TV remote control according to the operation guide.
- ●Before operating, register this TV on the DIGA Recorder.
- ●For details, read the manual of the DIGA Recorder.

Example:
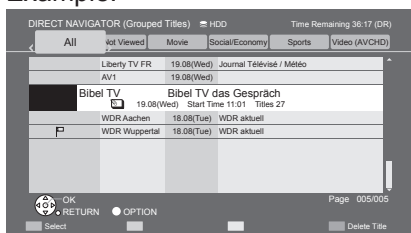
Note

- ●You may select and playback the music file.
- ●Non-playable files are also listed but cannot be selected.
- ●Turn the TV off, and then on again when changing or reconnecting the network connection.

Using Network Services
(DLNA / VIERA CAST)

Photo Setup (for photo contents) and Video Setup (for video contents)

Setup the settings for Photo and Video file operations.

Display the menu	Select "Photo Setup" or "Video Setup"		Select the items and set

MENU

VIErA Main Menu
- Picture
- Sound
- **Photo Setup**
- **Video Setup**
- Music Setup
- 3D Settings

② access
① select

Photo Setup Menu
Back Ground Music	Type1
Transition Effect	Fade
Interval	5 seconds
Repeat	On
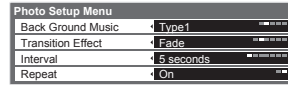
Select "Other Settings"   Select the items and set

Video Setup Menu
| Display Settings | |
| Other Settings | Access |

Other Settings
Intelligent Frame Creation	Off
16:9 Overscan	On
Video Preview	On
Repeat	Off
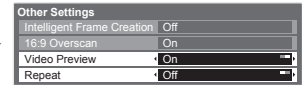
● Other items ➡ p. 31, 34 - 39 and p. 73

Menu	Item		Adjustments / Configurations (alternatives)
Photo Setup	**Back Ground Music**		Selects the back ground music while photo **(Off / Type1 / Type2 / Type3 / User)** ● Type1, Type2 and Type3 are the fixed music each installed in this TV. User : Music data registered by yourself in Music mode will be played back. 　　● To register the music ➡ "Set background music for Photo mode" (p. 73) 　　● Only available music files can be registered. 　　● If no music has been registered or you change to the other media server, no sound will be produced.
	Transition Effect		Selects the transition effect for switching the photo during the slideshow **(Off / Fade / Slide / Dissolve / Motion / Random)** Fade 　　 : The next photo fades in gradually. Slide 　　 : The next photo slides and appears from the left side. Dissolve : The photo is replaced by an indefinite block unit. Motion 　 : The photo is replaced with enlarged, reduced, moved up or moved down. Random : Each transition is selected at random.
	Interval		Selects slideshow interval **(5 / 10 / 15 / 30 / 60 / 90 / 120 seconds)** ● This function is not available when "Transition Effect" is set to "Motion".
	Repeat		Slideshow repeat **(Off / On)**
Video Setup	**Other Settings**	**Video Preview**	Sets to start the preview of the title or scene in the thumbnail screen **(Off / On)** ● Image may not be displayed for an instant in the thumbnail screen. Set the preview "Off" to resolve this.
		Repeat	Playback repeat within the title **(Off / On)**

Sound Settings (for video contents)

You can enjoy the multi-channel sound via an amplifier connected to DIGITAL AUDIO OUT terminal.

■ **To confirm or change the current sound status** (during playback)

Display the Option menu   Change the sound (if the video has multiple audio signals)

OPTION

Option Menu
| Multi Audio | Stereo |

(current sound status)
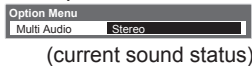
──change

● It may take several seconds to change the sound.

■ **Audio output settings**

Display the menu	Select "Sound"		Select "SPDIF Selection" and set

MENU

VIErA Main Menu
- Picture
- **Sound**
- Photo Setup
- Video Setup
- Music Setup
- 3D Settings

② access
① select

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
SPDIF Selection	Auto

② set
① select

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 is output as Dolby Digital Bitstream. MPEG is output as PCM. PCM: Digital output signal is fixed to PCM.

You can access a selection of internet services from VIERA CAST home screen. For example, YouTube, Picasa Web Albums (current as of March, 2010).
●VIERA CAST requires a broadband internet connection. Dial-up internet connections cannot be used.
●Ensure the network connections and network settings are completed.
➡ "Network connections" (p. 75), "Network Setup" (p. 76 - 79)

Access VIERA CAST

VIErN CAST
●Depending on the usage conditions, it may take a while to read all the data.

●You can also access VIERA CAST by using VIERA TOOLS
➡ "How to Use VIERA TOOLS" (p. 32)

Example:

> **Welcome to VIERA CAST™**
> VIERA CAST™ home screen is subject to change without notice.
> The services through VIERA CAST™ are operated by their respective service providers, and service may be discontinued either temporarily or permanently without notice. Therefore, Panasonic will make no warranty for the content or the continuity of the services.
> All features of websites or content of the service may not be available.
>
> ☐ Don't show this message again
> ENTER
> Some content may be inappropriate for some viewers.
> Some content may only be available for specific countries and may be presented in specific languages.

●Messages might be displayed before VIERA CAST home screen. Please read these instructions carefully and follow the on screen instructions.

■**To return to TV**
EXIT
➡ ○

Example:

VIERA CAST home screen

●Video communication (ex. Skype™) requires an exclusive Communication Camera TY-CC10W (optional accessory ➡ p. 6). For details, read the manual of the Communication Camera.

■**How to operate VIERA CAST** (current as of March, 2010)
●To go to the next level ➡ Select "MORE"

●To back to the previous level ➡ Select "BACK"

●To move the cursor / select the item ➡ (◄ OK ►)

●To access ➡ (OK)

●To return to the previous screen ➡ BACK/RETURN ↩

●To return to VIERA CAST home screen ➡ **VIErN CAST**

●When the key words are displayed on colour bar ➡ red green yellow blue

●When options with numbers are displayed ➡ [1][2][3] [4][5][6] [7][8][9] [0]

●Setup menu
(Items in the "Setup" may change without notice.)

Customize HomeScreen	Changes the position of each services on VIERA CAST home screen
My Account	Confirms or removes the account information of the TV you entered on VIERA CAST
Lock	Sets to restrict access to some services
Beep	Sets beep sound On or Off when operating VIERA CAST
Notices	Displays the information of VIERA CAST

■**USB Keyboard**
You can input characters on VIERA CAST screen by using the USB Keyboard connected to the USB port.
●You cannot use two or more keyboards simultaneously.
●The USB Keyboard which requires the driver is not supported.
●To change the language type ➡ "USB Keyboard Layout" (p. 39)

> **Note**
●Be sure to update the software when a software update notice is displayed on the TV screen. If the software is not updated, you will not be able to use VIERA CAST.
You can update the software later manually ➡ "Software Update" in the Network Setup Menu (p. 76)
●VIERA CAST™ home screen is subject to change without notice.
●The services through VIERA CAST™ are operated by their respective service providers, and service may be discontinued either temporarily or permanently without notice. Therefore, Panasonic will make no warranty for the content or the continuity of the services.
●All features of websites or content of the service may not be available.
●Some content may be inappropriate for some viewers.
●Some content may only be available for specific countries and may be presented in specific languages.
●Depending on the connection environment, the internet connection may be slow or may not be successful.
●During the operation, audio signal is output from AV1, AV2, AUDIO OUT and DIGITAL AUDIO OUT terminals. But no video signals are output. AV1 and AV2 can output audio signal if "AV1 / AV2 out" is set to "Monitor" in the Setup Menu (p. 36).
●You can set to restrict using VIERA CAST ➡ "Child Lock" (p. 52)
●Turn the TV off, and then on again when changing or reconnecting the network connection.
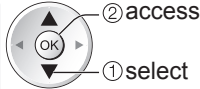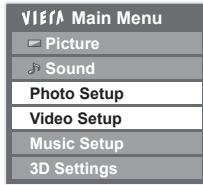
● Using Network Services (DLNA / VIERA CAST)

Advanced

Link Functions (Q-Link / VIERA Link)
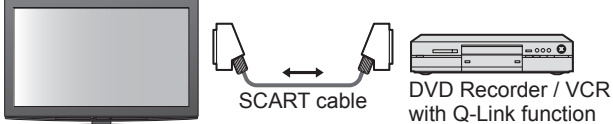
Q-Link connects the TV and DVD Recorder / VCR, and enables easy recording, playback, etc. (p. 86)
VIERA Link (HDAVI Control™) connects the TV and the equipment with VIERA Link function, and enables easy control, convenient recording, playback, energy saving, creating home theatre, etc., without complicated setting. (p. 87 - 91)
You can use Q-Link and VIERA Link functions together.
● This TV supports "HDAVI Control 5" function. But available features are depending on the connected equipment's version of HDAVI Control. Please refer to the manual of the equipment to confirm the version.
● VIERA Link features may be available even with other manufacturers' equipment supporting HDMI CEC.

Summary of Q-Link and VIERA Link features

■Q-Link (SCART connection only)

Features \ Connected equipment	DVD Recorder / VCR with Q-Link function
Preset download	○
Easy playback	○
Power on link	○
Power off link	○
Direct TV Recording	○

Connection

● Use fully wired SCART cable.
● Connect the DVD Recorder / VCR supporting Q-Link to the TV's AV1 or AV2 terminal via a SCART cable.

SCART cable — DVD Recorder / VCR with Q-Link function

■VIERA Link (HDMI connection only)
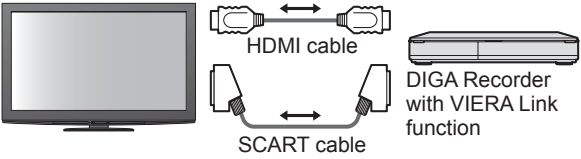
Features \ Connected equipment	DIGA Recorder with VIERA Link function	DVD Player / Blu-ray Disc Player with VIERA Link function	HD Video Camera / LUMIX Camera with VIERA Link function
Preset download	○*2	–	–
Easy playback	○	○	○
Power on link	○	○	○
Power off link	○	○	○
Reduce unnecessary power consumption in standby	○*3	○*3	–
Auto standby for unnecessary equipment	○*3	○*3	–
Pause Live TV programme	○*2 *4	–	–
Direct TV Recording	○*2	–	–
Control the menu of the connected equipment by VIERA remote control	○*1	○*1	○*1
Speaker control	–	–	–
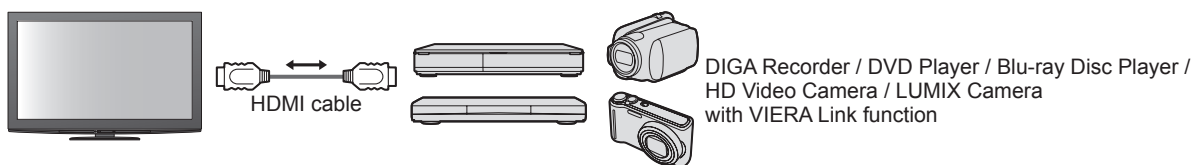
Connection

HDMI cable — DIGA Recorder / DVD Player / Blu-ray Disc Player / HD Video Camera / LUMIX Camera with VIERA Link function

● Use fully wired HDMI compliant cable.
● Connect the equipment supporting VIERA Link to the TV's HDMI1, HDMI2, HDMI3 or HDMI4 terminal via an HDMI cable.
● About HDMI cable for connecting Panasonic HD Video Camera or LUMIX Camera, read the manual of the equipment.

■VIERA Link (HDMI and SCART connections)

Features \ Connected equipment	DIGA Recorder with VIERA Link function
Preset download	○
Easy playback	○
Power on link	○
Power off link	○
Reduce unnecessary power consumption in standby	○*3
Auto standby for unnecessary equipment	○*3
Pause Live TV programme	○*2 *4
Direct TV Recording	○*2
Control the menu of the connected equipment by VIERA remote control	○*1
Speaker control	–

Connection

HDMI cable — DIGA Recorder with VIERA Link function
SCART cable

● Use fully wired HDMI compliant cable.
● Connect the equipment supporting VIERA Link to the TV's HDMI1, HDMI2, HDMI3 or HDMI4 terminal via an HDMI cable.
● Use fully wired SCART cable.
● Connect the equipment supporting VIERA Link to the TV's AV1 or AV2 terminal via a SCART cable.

■VIERA Link (HDMI and Audio out connections)

Features \ Connected equipment	Player theatre with VIERA Link function	Blu-ray Disc theatre with VIERA Link function	Amplifier with VIERA Link function
Preset download	–	–	–
Easy playback	○*5	○*5	–
Power on link	○	○	–
Power off link	○	○	○
Reduce unnecessary power consumption in standby	–	○*3	–
Auto standby for unnecessary equipment	○*3 *6	○*3 *6	○*3
Pause Live TV programme	–	–	–
Direct TV Recording	–	–	–
Control the menu of the connected equipment by VIERA remote control	○*1	○*1	–
Speaker control	○	○	○

Connection

● To use Player theatre / Blu-ray Disc theatre:
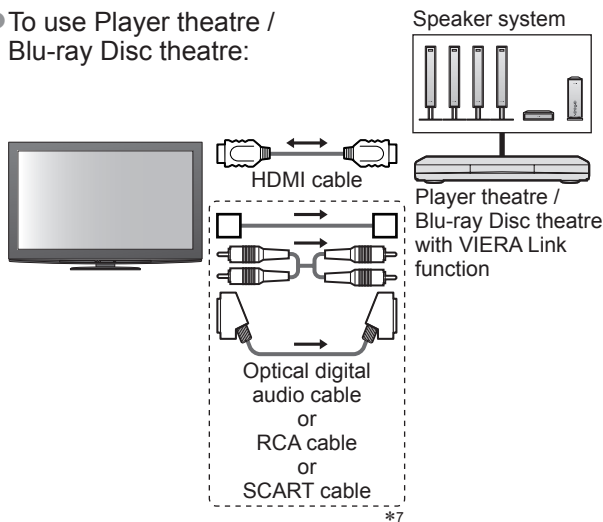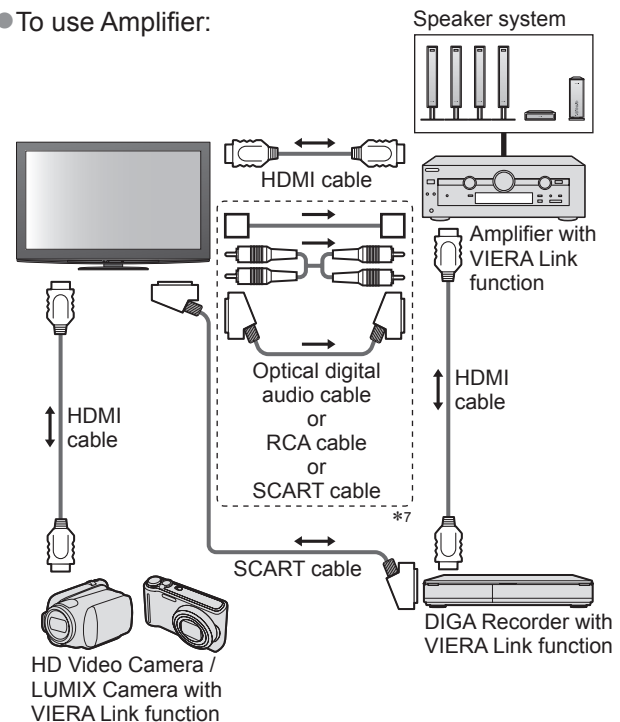
Speaker system

HDMI cable

Player theatre / Blu-ray Disc theatre with VIERA Link function

Optical digital audio cable or RCA cable or SCART cable
*7

● To use Amplifier:

Speaker system

HDMI cable

Amplifier with VIERA Link function

HDMI cable

Optical digital audio cable or RCA cable or SCART cable
*7

HDMI cable

SCART cable

HD Video Camera / LUMIX Camera with VIERA Link function

DIGA Recorder with VIERA Link function

● Use fully wired HDMI compliant cable.
● Connect the equipment supporting VIERA Link to the TV's HDMI2, HDMI3 or HDMI4 terminal via an HDMI cable.
● Use fully wired SCART cable.
● If you use a SCART cable for audio output, connect the equipment supporting VIERA Link to the TV's AV1 or AV2 terminal and set "AV1 / AV2 out" to "Monitor" in the Setup Menu (p. 36).
● Use any one of the optical digital audio cable, RCA cable and SCART cable for audio output from the TV.

*1: Available with the equipment which has "HDAVI Control 2 or later" function.
*2: Available with the equipment which has "HDAVI Control 3 or later" function.
*3: Available with the equipment which has "HDAVI Control 4 or later" function.
*4: Available with DIGA Recorder which has HDD.
*5: while playing a disc
*6: except for watching a disc
*7: If the connected equipment has "HDAVI Control 5" function, you do not have to use this audio cable (Optical digital audio cable, RCA cable or SCART cable). In this case, connect the equipment to the TV's HDMI2 terminal via an HDMI cable.

■VIERA Link Control of compatible equipment (VIERA Link Control ➡ p. 90)
● Table below displays maximum number of compatible equipment that can be controlled by VIERA Link Control. This includes connections to equipment already connected to the TV.
For example, DIGA Recorder connected to Amplifier which is connected to the TV via an HDMI cable.

Type of the equipment	Maximum number
Recorder (DIGA Recorder, etc.)	3
Player (DVD Player, Blu-ray Disc Player, HD Video Camera, LUMIX Camera, Digital Camera, Player theatre, Blu-ray Disc theatre, etc.)	3
Audio system (Player theatre, Blu-ray Disc theatre, Amplifier, etc.)	1
Tuner (Set top box, etc.)	4

Link Functions $\left(\begin{array}{l}\text{Q-Link} \\ \text{VIERA Link}\end{array}\right)$

Q-Link

■Preparations
- Connect the DVD Recorder / VCR with the following logos:
  "Q-Link", "NEXTVIEWLINK", "DATA LOGIC", "Easy Link", "Megalogic" or "SMARTLINK"
- Q-Link connection ➡ p. 84
- Use fully wired SCART cable.
- Set up the DVD Recorder / VCR. Read the manual of the recorder.
- Q-Link terminal setup in the Setup Menu ➡ "Q-Link" (p. 36), "AV1 / AV2 out" (p. 36)
- Download preset - channel, language, country / region settings ➡ "Preset download" (see below)

■Features available

Preset download

Channel, language, country / region settings can be downloaded to the recorder.
- DVB-S and DVB-C channel settings cannot be downloaded.
- To download settings ➡ "Download" (p. 36) or "Auto Setup" (p. 43) or "Auto Setup" - when first using the TV (p. 12 and p. 13)

Direct TV Recording - What you see is What you record

Recording the current programme in DVD Recorder / VCR immediately.

- Available conditions:

Current mode	Using tuner	How to record
Analogue	TV	TV monitor out
	Recorder	Recorder's tuner
DVB	TV	TV monitor out
AV (watching recorder's tuner)	Recorder	Recorder's tuner
AV (watching recorder's external input)	–	Recorder's external input
AV (watching TV's external input)	–	TV monitor out

- When Direct TV Recording is performed, the recorder is automatically turned on if it is in Standby mode.
- Changing channel or turning off the TV is available while the recorder is recording from its own tuner.
- Changing channel is not available while the recorder is recording from the TV tuner.

■To stop recording

Unlock the tuner

Tuner Locked
Press EXIT to unlock and stop recording

Continue — ● Unlock

EXIT
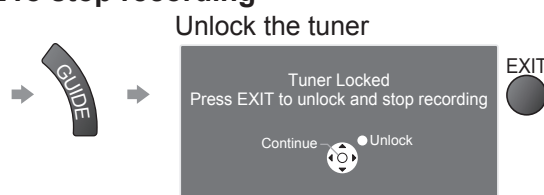
Power on link and Easy playback

Set Power on Link "On" in the Setup Menu to use this function ➡ "Power on Link" (p. 36)
When DVD Recorder / VCR starts playback or direct navigator / function menu for the equipment are activated, the TV is turned on and input mode is switched automatically so that you can view the content. (Only when the TV is in Standby mode.)

Power off link

Set Power off Link "On" in the Setup Menu to use this function ➡ "Power off Link" (p. 36)
When TV is set to Standby mode, the recorder is also automatically set to Standby. (Only when the videocassette or disc is not active.)
- This function will work even if the TV enters Standby mode automatically by auto power standby function.

- "DATA LOGIC" (a trademark of Metz Corporation)
- "Easy Link" (a trademark of Philips Corporation)
- "Megalogic" (a trademark of Grundig Corporation)
- "SMARTLINK" (a trademark of Sony Corporation)

Note
- Some recorders are not applicable. Read the manual of the recorder.

VIERA Link "HDAVI Control™"∗

∗Enjoy additional HDMI Inter-Operability with Panasonic products which have "HDAVI Control" function. This TV supports "HDAVI Control 5" function.
Connections to the equipment (DIGA Recorder, HD Video Camera, Player theatre, Amplifier, etc.) with HDMI and SCART cables allow you to interface them automatically (p. 84 and p. 85).
These features are limited to models incorporating "HDAVI Control" and "VIERA Link".
● Some functions are not available depending on the equipment's version of HDAVI Control. Please confirm the connected equipment's version of HDAVI Control.
● 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 individual manuals for other manufacturers' equipment supporting VIERA Link function.
● About applicable Panasonic equipment, consult your local Panasonic dealer.

■Preparations
● Connect the equipment supporting VIERA Link.
● VIERA Link connection ➡ p. 84 and p. 85
● Use fully wired HDMI compliant cable. Non-HDMI-compliant cables cannot be utilized.
  Recommended Panasonic's HDMI cable part number:
  • RP-CDHS15 (1.5 m)　　• RP-CDHS30 (3.0 m)　　• RP-CDHS50 (5.0 m)
● Use fully wired SCART cable.
● Set up the connected equipment. Read the manual of the equipment.
● For optimal recording, the settings of the recorder may need to be changed. For details, read the manual of the recorder.
● Download preset - channel, language, country / region settings ➡ "Preset download" (see below)
● Set VIERA Link On in the Setup Menu ➡ "VIERA Link" (p. 36)
● Set up the TV
  ➡ **After connection, turn the equipment on and then switch the TV on.**
    Select the input mode to HDMI1, HDMI2, HDMI3 or HDMI4 (p. 24), and make sure that an image is displayed correctly.
    This setup should be done each time when the following conditions occur:
    • for the first time
    • when adding or reconnecting equipment
    • when changing setup

■Features available

Preset download

Channel, language, country / region settings can be downloaded to the recorder.
● DVB-S and DVB-C channel settings cannot be downloaded.
● To download settings ➡ "Download" (p. 36) or "Auto Setup" (p. 43) or "Auto Setup" - when first using the TV
　　　　　　　　　　　　(p. 12 and p. 13)

Easy playback

Automatic Input switching - When the connected equipment is operated, input mode is switched automatically. When it is stopped operating, input mode is returned.

Power on link

Set Power on Link "On" in the Setup Menu to use this function ➡ "Power on Link" (p. 36)
When the connected equipment starts playback or direct navigator / function menu for the equipment are activated, the TV is automatically turned on. (Only when the TV is in Standby mode.)

Power off link

Set Power off Link "On" in the Setup Menu to use this function ➡ "Power off Link" (p. 36)
When the TV is set to Standby mode, the connected equipment is also automatically set to Standby.
● This function will work even if the TV enters Standby mode automatically by auto power standby function.

● Link Functions
(Q-Link / VIERA Link)

Advanced

Link Functions $\left(\begin{array}{l}\text{Q-Link}\\\text{VIERA Link}\end{array}\right)$

■**Features available**

Reduce unnecessary power consumption in standby | Standby Power Save

Set Standby Power Save "On" in the Setup Menu to use this function
➡ "Standby Power Save" (p. 36)

The power consumption in Standby mode of the connected equipment is controlled higher or lower in synchronization with the TV On / Off state to reduce the consumption.
When the TV is set to Standby mode, the connected equipment is automatically set to Standby and the power consumption in Standby mode of the connected equipment is automatically minimized.
When the TV is turned on, the connected equipment is still in Standby mode, but the power consumption is increased to make startup time early.

●This function is effective if the connected equipment can change the power consumption in Standby mode and is set to higher consumption.
●This function will work when "Power off Link" is set to "On".

Auto standby for unnecessary equipment | Intelligent Auto Standby

Set Intelligent Auto Standby "On (With reminder)" or "On (No reminder)" in the Setup Menu to use this function
➡ "Intelligent Auto Standby" (p. 36)

When the TV is On, non-watched or non-used connected equipment goes into Standby mode automatically to reduce the power consumption. For example, when the input mode is switched from HDMI, when Speaker Selection is changed to "TV" (except for watching a disc).

●If you select "On (With reminder)", the on screen message will be displayed to be noticed before working this function.
●This function may not work properly depending on the connected equipment. If required, set to "Off".

■**Features available** (Using VIERA Link Menu)

Direct TV Recording - What you see is What you record | Direct TV Rec

Recording the current programme in DIGA Recorder immediately.
●If you connect a variety of recorders including other manufacturers' recorders at the same time, please connect DIGA Recorder to the TV's lower HDMI terminal number. For example, if you use HDMI1 and HDMI2 for two recorders, in this case connect DIGA Recorder to HDMI1.
●If you cannot operate, check the settings and the equipment
  ➡ "Summary of Q-Link and VIERA Link features" (p. 84 and p. 85), "Preparations" (p. 87)
●If you wish to record the programme which DIGA Recorder does not support, SCART connection is required and the programme is recorded by Q-Link function (p. 86).
●Depending on the programme, SCART connection may be required to record.
●Changing channel or turning off the TV is available while the recorder is recording from its own tuner.
●Changing channel is not available while the recorder is recording from the TV tuner.
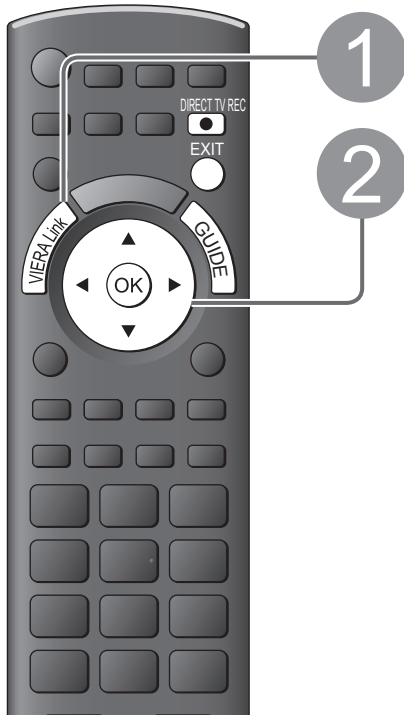
1 **Display "VIERA Link Menu"**

2 **Select "Direct TV Rec" and start recording**

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	Recorder
Speaker Selection	Home Cinema

② start
① select

●You can also start recording directly ➡ DIRECT TV REC

■**To stop recording**
Select "Stop" in "Direct TV Rec" and access

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Stop
VIERA Link Control	Recorder
Speaker Selection	Home Cinema

① select
② stop
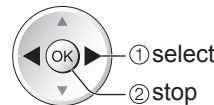
●You can also stop recording directly.
Unlock the tuner

Tuner Locked
Press EXIT to unlock and stop recording
Continue   ● Unlock

EXIT
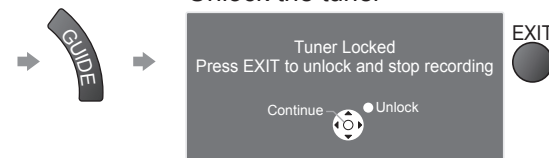
■**Features available** (Using VIERA Link Menu)

Pause Live TV programme ┃ Pause Live TV ┃

You can pause the live TV programme and resume later.
Live TV programme will be recorded on HDD of the connected DIGA Recorder.
● This function is available with DIGA Recorder which has HDD.
● If you connect a variety of recorders including other manufacturers' recorders at the same time, please
  connect DIGA Recorder which has HDD to the TV's lower HDMI terminal number. For example, if you use
  HDMI1 and HDMI2 for two recorders, in this case connect DIGA Recorder which has HDD to HDMI1.
● If you cannot operate, check the settings and the equipment
  ➡ "Summary of Q-Link and VIERA Link features" (p. 84 and p. 85), "Preparations" (p. 87)
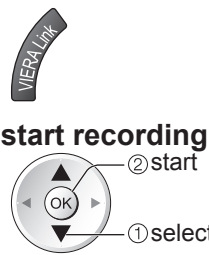
Access and pause the live TV programme

1 **Display "VIERA Link Menu"**

2 **Select "Pause Live TV" and pause**

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	Recorder
Speaker Selection	Home Cinema
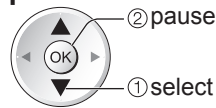
② pause
① select

The TV picture will be paused.

● Live TV programme is recorded on HDD from where it was paused.
● If the paused TV picture disappears after a few minutes
  ➡ ◯^OPTION (the paused picture will be restored)

● Follow the operation guide to operate Pause Live TV function.

■**To operate Pause Live TV**

search backward
pause
search forward
playback
stop
● If you stop playback, the recorded programme
  will be deleted from HDD.
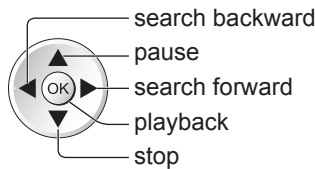
● Operations may be different
  depending on the recorder. In this
  case, follow the operation guide or
  read the manual of the recorder.

■**To return to Live TV**
(stop playback of Pause Live TV / cancel pause)
Select "Yes"
➡ TV ➡

Pause Live TV	
Stop Pause Live TV?	
Yes	No

① select
② stop
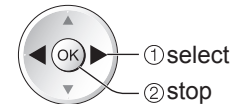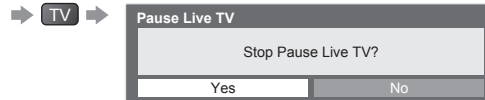
● If you stop playback or cancel pause, the recorded programme will be
  deleted from HDD.

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● Link Functions
(Q-Link / VIERA Link)

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Link Functions $\left(\substack{\textbf{Q-Link}\\\textbf{VIERA Link}}\right)$

■**Features available** (Using VIERA Link Menu)

Control the menu of the connected equipment by VIERA remote control

VIERA Link Control

You can control some functions of the connected equipment with this TV remote control (point the remote control at the TV's signal receiver).
●If you cannot operate, check the settings and the equipment
  ➡ "Summary of Q-Link and VIERA Link features" (p. 84 and p. 85), "Preparations" (p. 87)
●For details of the operations for the connected equipment, read the manual of the equipment.

Access and operate the menu of the equipment

1 Display "VIERA Link Menu"

2 Select "VIERA Link Control"

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	◄ Recorder
Speaker Selection	Home Cinema
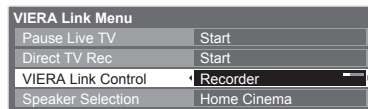
select

3 Select the equipment you want to access
The type of the connected equipment is displayed.
Select the type of the equipment and access.

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	◄ Recorder ►
Speaker Selection	Home Cinema
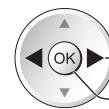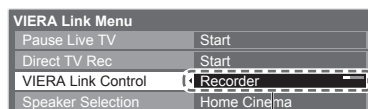
①select
②access

**Recorder / Player / Home Cinema / Video Camera / LUMIX /
Digital Camera / Other**

●You can also access directly by using VIERA TOOLS
  ➡ "How to Use VIERA TOOLS" (p. 32)
●The displayed item may vary depending on the connected equipment.
●"Home Cinema" means Player theatre, Blu-ray Disc theatre or Recorder theatre.
●"Other" means Tuner set top box.

The menu of the accessed equipment
(Input mode will be changed automatically)

4 Operate the menu of the equipment
Available VIERA remote control buttons:
(depending on the connected equipment)

① **Set the position to "TV"**
DVD/VCR ‚‚ TV

② **Follow the operation guide**

●To display the operation guide ➡ OPTION
If other manufacturers' equipment is accessed, Setup / Contents Selection menu may be displayed.

●When the key words are displayed on colour bar
  ➡ red green yellow blue

Note
●Some operations may not be available depending on the equipment. In this case use its own remote control to operate the equipment.

■**If multiple recorders or players are connected**

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	◄ Recorder2
Speaker Selection	Home Cinema
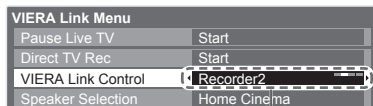
Recorder1-3 / Player1-3

The number is given from the TV's lower HDMI terminal number connected to the same type equipment. For example, two recorders to HDMI2 and HDMI3, in this case the recorder connected to HDMI2 is displayed as "Recorder1", and the recorder connected to HDMI3 is displayed as "Recorder2".

■**If you access non-VIERA Link equipment**

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	◄ Recorder
Speaker Selection	Home Cinema

The type of the connected equipment is displayed. You can access the menu of the equipment. But you cannot operate it. Use its own remote control to operate the equipment.

■**Features available** (Using VIERA Link Menu)

Speaker control | Speaker Selection |

You can control the theatre speaker with this TV remote control (point the remote control at the TV's signal receiver).
●If you cannot operate, check the settings and the equipment
  ➡ "Summary of Q-Link and VIERA Link features" (p. 84 and p. 85), "Preparations" (p. 87)

Access and control the speaker volume

1 **Display "VIERA Link Menu"**

2 **Select "Speaker Selection"**

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	Recorder
Speaker Selection	◄ Home Cinema ───►

select

3 **Set to "Home Cinema" or "TV"**

set

■**Home Cinema**
Player theatre, Blu-ray Disc theatre or Amplifier will be automatically turned on if it is in Standby mode and the sound is from theatre speakers connected to the equipment.

●Volume up / down ➡ [+ / ᐸ / −]

●Mute ➡ [🔇]

●The sound of TV speakers is mute.
●When the equipment is turned off, TV speakers will be active.

■**TV**
TV speakers are active.

◖ **Note** ◗
●If you wish to enjoy the multi-channel sound (e.g. Dolby Digital 5.1ch) via an Amplifier, connect with HDMI cable and Optical digital audio cable (p. 85), and then select "Home Cinema". If your Amplifier has "HDAVI Control 5" function, you can connect only with HDMI cable. In this case, connect your Amplifier to the TV's HDMI2 terminal.
To enjoy the sound from the DIGA Recorder in multi-channel sound, connect an HDMI cable from the DIGA Recorder to the Amplifier (p. 85).

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◖ **Note** ◗
●These functions may not work properly depending on the connected equipment.
●Image or sound may not be available for the first few seconds when Input mode is switched.
●Easy playback may be available by using the remote control for Player theatre, Blu-ray Disc theatre or Amplifier. Read the manual of the equipment.
●"HDAVI Control 5" is the newest standard (current as of December, 2009) for HDAVI Control compatible equipment. This standard is compatible with conventional HDAVI equipment.
●To confirm this TV's version of HDAVI Control ➡ "System Information" (p. 39)

● Link Functions
(Q-Link / VIERA Link)

Advanced

External Equipment

These diagrams show our recommendations for connection of your TV to various pieces of equipment. For other connections, consult the instructions for each piece of equipment, the table below, and the specifications (p. 103).

Satellite dish

Satellite cable

SATELLITE
13/18 V
500 mA MAX

To watch DVDs

DVD Player

(Viewing)

(Listening)

HDMI equipment
➡ "HDMI connection" (p. 97)

Recorder / Player

Fully wired HDMI compliant cable

To enjoy the sound from the external equipment in multi-channel sound (e.g. Dolby Digital 5.1ch), connect the equipment to the amplifier.
For the connections, read the manuals of the equipment and amplifier.

To listen with speakers

Amplifier with speaker system

Optical digital audio cable
or
RCA cable

COMPONENT
AUDIO OUT
AUDIO IN
DIGITAL AUDIO OUT
PC
Y
P_B
P_R
RGB VIDEO
AV1
RGB VIDEO S VIDEO
AV2
HDMI 1
HDMI 2 (ARC)
HDMI 3
HƏMI

PC

Conversion adapter (if necessary)

(Viewing)

(Listening)

Computer

To record / playback

Fully wired SCART cable

Terrestrial aerial

or

RF cable

DVD Recorder / VCR

■Types of connectable equipment to each terminal

Recording / Playback (equipment)	AV1	AV2	AV3 (Side panel of the TV)
To record / playback videocassettes / DVDs (VCR / DVD Recorder)	◯	◯	
To watch 3D contents (Blu-ray Disc Player)			
To watch DVDs (DVD Player)	◯	◯	◯
To watch camcorder images (Video camera)	◯	◯	◯
To watch cable broadcasts (Set top box)	◯	◯	◯
To play games (Game equipment)	◯	◯	◯
To use amplifier with speaker system			
To use Network services			
USB HDD Recording			
Q-Link	◯	◯	
VIERA Link	◯ (with HDMI)	◯ (with HDMI)	
Direct TV Recording	◯	◯	

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◯ : Recommended Connection
∗1 : applicable if your amplifier has ARC (Audio Return Channel) function

USB devices

Rear of the TV

USB cable

Network

Internet

Less than 10 cm

Less than 10 cm

LAN cable

Modem

Hub or Router

Ferrite core (supplied)

Service Port

This terminal is only for the authorized service dealer.

Installing the Ferrite core

① Pull back the tabs (in two places)
② Wind the cable twice — Open
③ Press the cable through and close

To watch cable broadcasts

Cable

Fully wired HDMI compliant cable

Set top box

Fully wired SCART cable

Camcorder / HDMI equipment

HDMI 4

Fully wired HDMI compliant cable

Camcorder / Game equipment

(Viewing)
AV 3
V

L
R

(Listening)

Headphones

(M3 stereo mini plug)

●To adjust volume
➡ "Headphone Volume" in the Sound Menu (p. 35)

COMPONENT	AUDIO OUT	DIGITAL AUDIO OUT	ETHERNET	HDMI 1	HDMI 2	HDMI 3	HDMI 4	USB 1	USB 2
				○	○	○	○		
○				○	○	○	○		
				○	○	○	○		
				○					
				○	○	○	○		
	○	○			○*1				
			○					○	○
								○	○
				○	○	○	○		
				○	○	○	○		

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Technical Information

Auto Aspect

The optimum size and aspect can be chosen automatically, and you can enjoy finer images. (p. 18)

■**Aspect Control Signal**

"WIDE" will appear in the top left of the screen if a Widescreen signal (WSS) or a Control signal through SCART / HDMI terminal is found.

The aspect will switch to the appropriate 16:9 or 14:9 widescreen ratio.

This function will work in any aspect mode.

Input terminal	Input signal format	Aspect Control Signal	
		Widescreen signal (WSS)	Control signal through SCART (pin8) / HDMI terminal
Satellite	DVB-S	○	
Cable RF	DVB-C	○	
	DVB-T	○	
	PAL B, G, H, I	○	
	PAL D, K	○	
	SECAM B, G	○	
	SECAM L, L'	○	
	SECAM D, K	○	
	PAL 525/60 6.5 MHz	–	
	PAL 525/60 6.0 MHz	–	
	PAL 525/60 5.5 MHz	–	
	M.NTSC 6.5 MHz	–	
	M.NTSC 6.0 MHz	–	
	M.NTSC 5.5 MHz	–	
AV1 (Composite) AV2 (Composite or S-Video) AV3	PAL	○	○
	SECAM	○	○
	PAL 525/60	–	○
	M.NTSC	–	○
	NTSC	–	○
COMPONENT	525 (480) / 60i	–	
	525 (480) / 60p	–	
	625 (576) / 50i	○	
	625 (576) / 50p	○	
	750 (720) / 60p	–	
	750 (720) / 50p	–	
	1,125 (1,080) / 60i	–	
	1,125 (1,080) / 50i	–	
HDMI1 HDMI2 HDMI3 HDMI4	525 (480) / 60i	–	○
	525 (480) / 60p	–	○
	625 (576) / 50i	–	○
	625 (576) / 50p	–	○
	750 (720) / 60p	–	○
	750 (720) / 50p	–	○
	1,125 (1,080) / 60i	–	○
	1,125 (1,080) / 50i	–	○
	1,125 (1,080) / 60p	–	○
	1,125 (1,080) / 50p	–	○
	1,125 (1,080) / 24p	–	○

■**Auto mode**

Auto mode determines the best aspect ratio to fill the screen. It does this using a four step process (WSS, Control signal through SCART / HDMI terminal, Letterbox detection, or Justify to fill the screen) to determine. This process may take several minutes, depending on the darkness of the image.

Letterbox detection: If black bands at the top and bottom of the screen are detected, Auto mode chooses the best ratio and expands the image to fill the screen.

If no aspect signals are detected, Auto mode enhances the image for optimum viewing pleasure.

(Note)

● The ratio varies depending on the programme, etc. If the ratio is out of the standard 16:9, black bands at the top and bottom of the screen may appear.

● If the screen size looks unusual when a widescreen-recorded programme is played back on a VCR, adjust the tracking of the VCR. Read the manual of the VCR.

SD Card

● Use an SD Card which meets SD standards. If not, it may cause the TV to malfunction.

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

● Do not touch the pins 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 TV. (Panasonic is not liable for any deterioration or damage of recorded data.)

2.1 mm

32 mm

24 mm
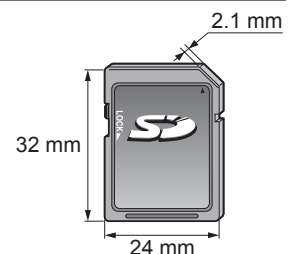
DivX

ABOUT DIVX VIDEO:
DivX® is a digital video format created by DivX, Inc. This is an official DivX Certified device that plays DivX video.
Visit www.divx.com for more information and software tools to convert your files into DivX video.

■DivX video file
DivX Certified® to play DivX® video up to HD 1080p, including premium content.
Extension - ".divx" or ".avi"
Image resolution - Up to 1,920 × 1,080 pixels
   Video
    • Number of stream: Up to 1
    • Codec: DIV3, DIV4, DIVX, DX50, DIV6
    • FPS (Frame Per Second): Up to 60 fps
   Audio
    • Number of stream: Up to 8
    • Format: MP3, MPEG, AC3
    • Multi channel: AC3 is possible. MPEG multi is 2 ch conversion.
● GMC (Global Motion Compensation) is not supported.

■Subtitle text file of DivX
Subtitles format - MicroDVD, SubRip, TMPlayer
● The DivX video file and subtitles text file are inside the same folder, and the file names are the same except for the file extensions.
● If there are more than one subtitles text files inside the same folder, they are displayed in the following order of priority: ".srt", ".sub", ".txt".
● To confirm or change the current subtitle status while playing DivX content, press the OPTION button to display Option Menu.
● Depending on the methods used to create the file or the state of recording, only parts of the subtitles may be displayed, or the subtitles may not be displayed at all.

> **Note**
> ● Depending on how you make SD Card or USB Flash Memory, files and folders may not be displayed in the order you numbered.
> ● Depending on the software you use to create DivX files, the files may not play.
> ● Depending on how you create the files and the structure of folders, the files and folders may not be displayed.
> ● When there are many files and folders, operation may take time to complete or some files may not be displayed or playable.

ABOUT DIVX VIDEO-ON-DEMAND:
This DivX Certified® device must be registered in order to play DivX Video-on-Demand (VOD) content.
To generate the registration code, locate the DivX VOD section in the Setup Menu. Go to vod.divx.com with this code to complete the registration process and learn more about DivX VOD.

■To show DivX VOD registration code
➡ "DivX® VOD" in the Setup Menu (p. 38)
● If you want to generate the new registration code, you have to deregister the present registration code.
After playing DivX VOD content once, the confirmation screen to deregister will be displayed in "DivX® VOD" in the Setup Menu. If you press the OK button on the confirmation screen, the deregistration code will be generated and you will not be able to play any contents that you purchased using the present registration code.
You will obtain the new registration code by pressing the OK button on the deregistration code screen.
● If you purchase DivX VOD content using a registration code different from this TV's code, you will not be able to play this content. ("Your device is not authorized to play this DivX protected video." is displayed.)

■Regarding DivX content that can only be played a set number of times
Some DivX VOD content can only be played a set number of times.
When you play this content, the remaining number of plays is displayed. You cannot play this content when the number of remaining plays is zero. ("This DivX rental has expired." is displayed.)
● When playing this content, the number of remaining plays is reduced by one in the following conditions:
    • If you exit the current application.
    • If you play the other content.
    • If you go to the next or previous content.

● Technical Information

FAQs, etc.

Technical Information

Characters table for numeric buttons

You can enter characters by using numeric buttons for free input items.

Press the numeric button repeatedly until you reach the desired character.

- The character is set automatically if you leave for one second.
- You can also set the character by pressing the OK button or other numeric buttons within one second.

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 ( ) + - . * _
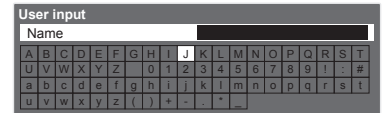
Characters table:

Numeric buttons / The number of times to press	1	2	3	4	5	6	7	8	9	10	11
1	.	1	!	:	#	+	-	*	_	(	)
2abc	a	b	c	2	A	B	C				
3def	d	e	f	3	D	E	F				
4ghi	g	h	i	4	G	H	I				
5jkl	j	k	l	5	J	K	L				
6mno	m	n	o	6	M	N	O				
7pqrs	p	q	r	s	7	P	Q	R	S		
8tuv	t	u	v	8	T	U	V				
9wxyz	w	x	y	z	9	W	X	Y	Z		
0	Space	0									

SCART and HDMI terminal information

■AV1 SCART terminal
(RGB, VIDEO, Q-Link)
Suitable inputs for AV1 include RGB (Red / Green / Blue).

Socket Earth	21	20	CVBS in (video)
CVBS out (video)	19	18	RGB status earth
CVBS earth	17	16	Status RGB
Red in	15	14	Earth
Red earth	13	12	--
Green in	11	10	Q-Link data
Green earth	9	8	Status CVBS
Blue in	7	6	Audio in (L)
Blue earth	5	4	Audio earth
Audio out (L)	3	2	Audio in (R)
Audio out (R)	1		
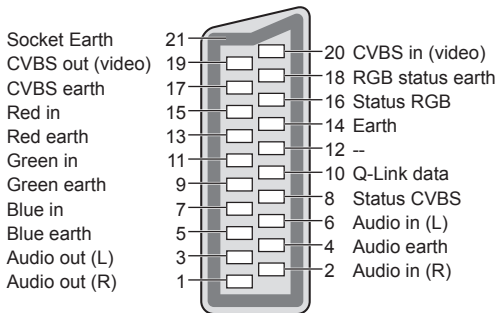
■AV2 SCART terminal
(RGB, VIDEO, S-VIDEO, Q-Link)
AV2 - Pins 15 and 20 are dependent on AV2 S-VHS / VIDEO switching.

Socket Earth	21	20	CVBS in (video)
CVBS out (video)	19	18	RGB status earth
CVBS earth	17	16	Status RGB
Red in, S.C. - in	15	14	Earth
Red earth	13	12	--
Green in	11	10	Q-Link data
Green earth	9	8	Status CVBS
Blue in	7	6	Audio in (L)
Blue earth	5	4	Audio earth
Audio out (L)	3	2	Audio in (R)
Audio out (R)	1		

■HDMI terminal

Hot Plug Detect	19	18	+5V Power
DDC/CEC Ground	17	16	SDA
SCL	15	14	Reserved (in cable but N.C. on device)
CEC	13	12	TMDS Clock−
TMDS Clock Shield	11	10	TMDS Clock+
TMDS Data0−	9	8	TMDS Data0 Shield
TMDS Data0+	7	6	TMDS Data1−
TMDS Data1 Shield	5	4	TMDS Data1+
TMDS Data2−	3	2	TMDS Data2 Shield
TMDS Data2+	1		

HDMI connection

HDMI (high-definition multimedia interface) is the world's first complete digital consumer AV interface complying with a non-compression standard.
HDMI allows you to enjoy high-definition digital images and high-quality sound by connecting the TV and the equipment.
HDMI-compatible equipment(∗1) with an HDMI or DVI output terminal, such as a DVD player, a set top box or a game equipment, can be connected to the HDMI terminal using an HDMI compliant (fully wired) cable.
About connections, see "External Equipment" (p. 92).

■Applicable HDMI features

- ●Input audio signal : 2ch Linear PCM (sampling frequencies - 48 kHz, 44.1 kHz, 32 kHz)
- ●Input video signal : 480i, 480p, 576i, 576p, 720p, 1080i and 1080p
  - ➡ "Input signal that can be displayed" (p. 98)
  - Match the output setting of the digital equipment.
- ●Input PC signal   : ➡ "Input signal that can be displayed" (p. 98)
  - Match the output setting of the PC.
- ●VIERA Link (HDAVI Control 5) : ➡ "VIERA Link" (p. 87)
- ●3D
- ●Content Type
- ●Deep Colour
- ●x.v.Colour™
- ●Audio Return Channel(∗3) (HDMI2 terminal only)

■DVI connection

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 (HDMI1 / 2 / 3: use COMPONENT-AUDIO terminals / HDMI4: use AV3 audio terminals).

Note

- ●Audio settings can be made on the "HDMI1 / 2 / 3 / 4 Input" in the Sound Menu. (p. 36)
- ●If the connected equipment 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.
- ●An equipment having no digital output terminal may be connected to the input terminal of either "COMPONENT", "S-VIDEO", or "VIDEO" to receive analogue signals.
- ●This TV incorporates HDMI™ technology.

(∗1): The HDMI logo is displayed on HDMI-compliant equipment.
(∗2): Enquire at your local digital equipment retailer shop.
(∗3): Audio Return Channel (ARC) is a function to be able to send digital sound signals via an HDMI cable.

PC connection

A PC may be connected to this TV so that the PC screen is displayed and sound is heard from the TV.
- ●PC signals that can be inputted: Horizontal scanning frequency 31 to 69 kHz; vertical scanning frequency 59 to 86 Hz (more than 1,024 signal lines could result in incorrect display of the image).
- ●A PC adapter is not necessary for the DOS/V-compliant D-sub 15-pin connector.

Note

- ●Some PC models cannot be connected to this TV.
- ●When using PC, set the colour display quality of PC to the highest position.
- ●For details of the applicable PC signals
  - ➡ "Input signal that can be displayed" (p. 98)
- ●Max. display resolution

Aspect	4:3	1,440 × 1,080 pixels
	16:9	1,920 × 1,080 pixels

- ●D-sub 15-pin connector signal

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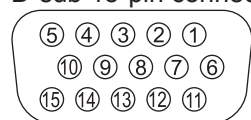
Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
①	R	⑥	GND (Ground)	⑪	NC (not connected)
②	G	⑦	GND (Ground)	⑫	NC (not connected)
③	B	⑧	GND (Ground)	⑬	HD
④	NC (not connected)	⑨	NC (not connected)	⑭	VD
⑤	GND (Ground)	⑩	GND (Ground)	⑮	NC (not connected)

● Technical Information   FAQs, etc.

Technical Information

USB connection

- It is recommended to connect the USB HDD or USB Flash Memory directly to the TV's USB ports.
- Some USB devices or USB HUB may not be used with this TV.
- You cannot connect any devices by using USB card reader.

■The combination of USB devices that have been tested for each TV's USB port.

Combination of USB port 1 + port 2 (and vice versa):
- USB HDD + USB Flash Memory
- USB HDD + Wireless LAN Adaptor
- USB HDD + USB Keyboard
- USB Flash Memory + Wireless LAN Adaptor
- USB Flash Memory + USB Keyboard
- Wireless LAN Adaptor + USB Keyboard

Note

- Additional information for USB devices may be on the following web site. (English only)
  http://panasonic.jp/support/global/cs/tv/

Input signal that can be displayed

COMPONENT (Y, P$_B$, P$_R$), HDMI

∗ Mark: Applicable input signal

Signal name	COMPONENT	HDMI
525 (480) / 60i	∗	∗
525 (480) / 60p	∗	∗
625 (576) / 50i	∗	∗
625 (576) / 50p	∗	∗
750 (720) / 60p	∗	∗
750 (720) / 50p	∗	∗
1,125 (1,080) / 60i	∗	∗
1,125 (1,080) / 50i	∗	∗
1,125 (1,080) / 60p		∗
1,125 (1,080) / 50p		∗
1,125 (1,080) / 24p		∗

PC (from D-sub 15P)   Applicable input signal for PC is basically compatible to VESA standard timing.

Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)
640 × 400 @70 Hz	31.47	70.07
640 × 480 @60 Hz	31.47	59.94
640 × 480 @75 Hz	37.50	75.00
800 × 600 @60 Hz	37.88	60.32
800 × 600 @75 Hz	46.88	75.00
800 × 600 @85 Hz	53.67	85.06
852 × 480 @60 Hz	31.44	59.89
1,024 × 768 @60 Hz	48.36	60.00
1,024 × 768 @70 Hz	56.48	70.07
1,024 × 768 @75 Hz	60.02	75.03
1,024 × 768 @85 Hz	68.68	85.00
1,280 × 768 @60 Hz	47.70	60.00
1,280 × 1,024 @60 Hz	63.98	60.02
1,366 × 768 @60 Hz	48.39	60.04
Macintosh13" (640 × 480)	35.00	66.67
Macintosh16" (832 × 624)	49.73	74.55
Macintosh21" (1,152 × 870)	68.68	75.06

PC (from HDMI terminal)   Applicable input signal for PC is basically compatible to HDMI standard timing.

Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)
640 × 480 @60 Hz	31.47	60.00
750 (720) / 60p	45.00	60.00
1,125 (1,080) / 60p	67.50	60.00

Note

- Signals other than above may not be displayed properly.
- The above signals are reformatted for optimal viewing on your display.
- PC signal is magnified or compressed for display, so that it may not be possible to show fine detail with sufficient clarity.

FAQs

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 for assistance.

Block noise, frozen or disappearing image occurs in DVB mode / White spots or shadow image (ghosting) occurs in Analogue mode / Some channels cannot be tuned

- Check the position, direction and connection of the aerial or dish.
- Check "Signal Condition" (p. 47). If "Signal Quality" is displayed in red, the DVB signal is weak.
- Weather conditions will affect signal reception (heavy rain, snow, etc.), in particular in poor reception areas. Even during good weather, the high pressure can cause poor reception of some channels.
- Due to the digital reception technologies involved, quality of the digital signals may be relatively low in some cases, despite good reception of analogue channels.
- Turn the TV off with the Mains power On / Off switch, and then on again.
- If problem persists, consult your local dealer or service provider for the availability of services.

DVB-S Auto Setup cannot be done completely

- Check connections and dish alignment. (p. 41)
- If the problem persists, consult your local dealer.

Neither image nor sound is produced

- Is the TV in AV mode?
- Check the correct AV input mode is selected.
- Check the mains lead is plugged into the socket outlet.
- Has the TV been turned On?
- Check the Picture Menu (p. 34) and volume.
- Check all required cables and connections are firmly in place.

Auto aspect

- Auto aspect is designed to provide you with the best ratio to fill the screen. (p. 94)
- Press the ASPECT button if you would like to change the aspect ratio manually (p. 18).

S-Video / black and white picture

- Check that the output of the external equipment matches the input of the TV. If the output of the external equipment is set to S-Video, the TV must also be set to S-Video (p. 24).
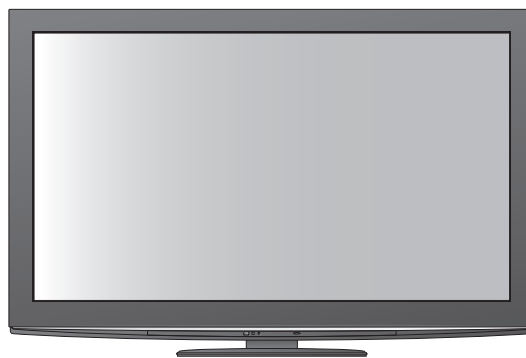
No programmes shown on TV Guide

- Check the digital transmitter.
- Adjust the direction of the aerial or dish to another transmitter installed nearby.
- Check the analogue broadcast.
  If the image quality is poor, check the aerial and consult your local dealer.

Input mode, i.e. EC/AV1 remains on the screen

- Press the *i* button to clear these.
  Press again to redisplay.

Q-Link function does not work

- Confirm SCART cable and connection.
  Also set "AV1 / AV2 out" in the Setup Menu (p. 36).

"VIERA Link" function does not work and an error message appears

- Confirm the connection. (p. 84 and p. 85)
- Turn the connected equipment on and then switch the TV on. (p. 87)

Recording does not start immediately

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

Contrast is reduced

- Contrast is lowered in the following conditions without any user operation for a few minutes:
  • no signal in DVB or AV mode
  • selected locked channel
  • selected invalid channel
  • selected radio channel
  • displayed menu
  • Thumbnail, list or still picture in Media Player or DLNA operations

FAQs

Problem		Actions
Screen	**Chaotic image, noisy**	●Set "P-NR" in the Picture Menu (to remove noise). (p. 34) ●Check nearby electrical products (car, motorcycle, fluorescent lamp).
	No image can be displayed	●Is "Contrast", "Brightness" or "Colour" in the Picture Menu set to the minimum? (p. 34)
	Blurry or distorted image (no sound or low volume)	●Reset channels. (p. 40 - 43)
	Unusual image is displayed	●Turn the TV Off with Mains power On / Off switch, then turn it On again. ●If the problem persists, perform "Shipping Condition" (p. 56).
Sound	**No sound is produced**	●Is "Sound mute" active? (p. 8) ●Is the volume set to the minimum?
	Sound level is low or sound is distorted	●Sound signal reception may be deteriorated. ●Set "MPX" (p. 35) in the Sound Menu to "Mono". (Analogue only)
	Unusual sound from the TV	●When power is on, whirring sound of cooling fan or drive noise may be heard from inside the TV (not a sign of faulty operation).
3D	**Cannot see 3D images**	●Has the 3D Eyewear been switched On? ●Ensure that "3D Picture Display" in "3D Settings" is set to "3D". (p. 31) ●Some 3D image signals may not be automatically recognized as 3D images. Set "3D Picture Format" in "3D Settings" to match the picture format. (p. 31) ●Check that there are no obstacles between the infrared sensors on the TV and the 3D Eyewear. If the 3D Eyewear stops receiving the infrared signal for about 5 minutes, the 3D Eyewear will be turned off automatically. ●Check the available area to use the 3D Eyewear. (p. 29) ●Depending on the person, the 3D images may be difficult to see, or cannot be seen, especially in users that have a different level of eyesight between the left and right eyes. Take the necessary steps (wearing glasses etc.) to correct your eyesight before use.
	3D Eyewear is turned off automatically	●Check that there are no obstacles between the infrared sensors on the TV and the 3D Eyewear or that the 3D Eyewear is placed inside the coverage area (p. 29). If the 3D Eyewear stops receiving the infrared signal for about 5 minutes, the 3D Eyewear will be turned off automatically.
	There is something wrong with the 3D images	●Check the setting of "3D Picture Sequence" or "Edge Smoother". (p. 31)
	The indicator lamp does not light when pressing the power button on the 3D Eyewear	●The battery may be running low or flat. Replace it.
HDMI	**Sound is unusual**	●Set the sound setting of the connected equipment to "2ch L.PCM". ●Check the "HDMI1 / 2 / 3 / 4 Input" setting in the Sound Menu. (p. 36) ●If digital sound connection has a problem, select analogue sound connection. (p. 97)
	Pictures from external equipment are unusual when the equipment is connected via HDMI	●Check the HDMI cable is connected properly. (p. 92) ●Turn the TV and equipment Off, then turn them On again. ●Check an input signal from the equipment. (p. 98) ●Use an equipment compliant with EIA/CEA-861/861B.
Network	**Cannot connect to the network**	●Check the LAN cable or Wireless LAN Adaptor is connected properly. (p. 75) ●Check the connections and settings. (p. 75 - 79) ●Check the network equipment and network environment. ●The router may not be set to issue IP address automatically. If the network administrator prefers to allocate an IP address, set an IP address manually. (p. 77) ●The router may be using MAC address filtering (security setting). Confirm the MAC Address of this TV (p. 76) and set the router to be able to use it. ●If the problem persists, consult your Internet Service Provider or telecommunications company.
	Cannot select the file during DLNA operations	●Is media server of the connected equipment prepared? (p. 74) ●Check applicable data format. (p. 74)
	Cannot operate VIERA CAST	●Check the connections and settings. (p. 75 - 79) ●The server or connected line might be busy now.

Problem		Actions
The TV does not switch On	▶	●Check the mains lead is plugged into the socket outlet.
The TV goes into Standby mode	▶	●Auto power standby function is activated. (p. 5) ●The TV enters Standby mode about 30 mins. after analogue broadcasting ends.
The remote control does not work or is intermittent	▶	●Are the batteries installed correctly? (p. 8) ●Has the TV been switched On? ●The batteries may be running low. Replace them. ●Point the remote control directly at the front of the TV (within about 7 m and a 30 degree angle of the front of the TV). ●Situate the TV away from sunshine or other sources of bright light not to shine on the TV's remote control signal receiver.
Parts of the TV 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.
Permanently lit spots on screen	▶	●Due to production process involved in this technology this may result in some pixels which are permanently lit or unlit. This is not a malfunction.
Overcurrent error message appears	▶	●The connected USB device might cause this error. Remove the device and turn the TV Off with Mains power On / Off switch, then turn it On again. ●Check if foreign objects are inside the USB port.
An error message appears	▶	●Follow the message's instructions. ●If the problem persists, contact your local Panasonic dealer or the authorized Service Centre.

(Left vertical label: **Other**)

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 This product is covered by U.S. Patent No. 5,193,000.

●Frequently Asked Questions
●Licence
FAQs, etc.

Specifications

■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)	
Dimensions (W × H × D)	1,035 mm × 695 mm × 308 mm (With Pedestal) 1,035 mm × 656 mm × 85 mm (TV only)	1,138 mm × 763 mm × 335 mm (With Pedestal) 1,138 mm × 724 mm × 85 mm (TV only)
Mass	24.0 kg Net (With Pedestal) 21.0 kg Net (TV only)	27.5 kg Net (With Pedestal) 24.5 kg Net (TV only)
Display panel — **Aspect Ratio**	16:9	
Display panel — **Visible screen size**	106 cm (diagonal) 921 mm (W) × 518 mm (H)	117 cm (diagonal) 1,019 mm (W) × 573 mm (H)
Display panel — **Number of pixels**	2,073,600 (1,920 (W) × 1,080 (H)) [5,760 × 1,080 dots]	
Sound — **Speaker**	Full range (120 mm × 35 mm) × 2 pcs, Woofer (Φ 100 mm) × 1 pcs	
Sound — **Audio Output**	30 W (10 W × 2 + 10 W)	
Sound — **Headphones**	M3 (3.5 mm) stereo mini Jack × 1	
PC signals	VGA, SVGA, WVGA, XGA SXGA, WXGA ······ (compressed) Horizontal scanning frequency 31 - 69 kHz Vertical scanning frequency 59 - 86 Hz	

Receiving Systems / Band name	**PAL B, G, H, I, SECAM B, G, SECAM L, L'**
	   VHF E2 - E12 VHF H1 - H2 (ITALY)
	   VHF A - H (ITALY) UHF E21 - E69
	   CATV (S01 - S05) CATV S1 - S10 (M1 - M10)
	   CATV S11 - S20 (U1 - U10) CATV S21 - S41 (Hyperband)
	PAL D, K, SECAM D, K
	   VHF R1 - R2 VHF R3 - R5
	   VHF R6 - R12 UHF E21 - E69
	PAL 525/60 Playback of NTSC tape from some PAL Video recorders (VCR)
	M.NTSC Playback from M.NTSC Video recorders (VCR)
	NTSC (AV input only) Playback from NTSC Video recorders (VCR)
	DVB-T Digital terrestrial services (MPEG2 and MPEG4-AVC(H.264))
	DVB-C Digital cable services (MPEG2 and MPEG4-AVC(H.264))
	                    Countries that DVB-C is available: Germany, Switzerland, Denmark, Sweden, Norway, Finland, Netherlands
	DVB-S / S2 Digital satellite services (MPEG2 and MPEG4-AVC(H.264))
	                    Receiver frequency range - 950 MHz to 2,150 MHz
	                    LNB Power and Polarisation - Vertical: +13 V
	                                       Horizontal: +18 V
	                                       Current: Max. 500 mA
	                                           (overload protection)
	                  22 kHz Tone - Frequency: 22 kHz ± 2 kHz
	                                   Amplitude: 0.6 V ± 0.2 V
	                  Symbol Rate - Max. 30 MS/s
	                  FEC Mode - 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
	                  Demodulation - QPSK, 8PSK
	                  DiSEqC - Version 1.0
	●Check the latest information on the available services at the following website. (English only)
	   http://panasonic.jp/support/global/cs/tv/	

Satellite dish input	Female F-type 75 Ω	
Aerial input	VHF / UHF	
Operating Conditions	**Temperature** : 0 °C - 35 °C **Humidity** : 20 % - 80 % RH (non-condensing)	

Connection Terminals	AV1 (SCART terminal)		21 Pin terminal (Audio/Video in, Audio/Video out, RGB in, Q-Link)	
	AV2 (SCART terminal)		21 Pin terminal (Audio/Video in, Audio/Video out, RGB in, S-Video in, Q-Link)	
	AV3	VIDEO	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)
		AUDIO L - R	RCA PIN Type × 2	0.5 V[rms]
	COMPONENT	VIDEO	Y	1.0 V[p-p] (including synchronization)
			P_B, P_R	±0.35 V[p-p]
		AUDIO L - R	RCA PIN Type × 2	0.5 V[rms]
	Others	HDMI 1 / 2 / 3 / 4	TYPE A Connectors HDMI1 / 3 / 4 : HDMI (Version 1.4 with 3D, Content Type), Deep Colour, x.v.Colour™ HDMI2 : HDMI (Version 1.4 with 3D, Content Type, Audio Return Channel), Deep Colour, x.v.Colour™ ●This TV supports "HDAVI Control 5" function.	
		PC	HIGH-DENSITY D-SUB 15PIN R,G,B/0.7 V[p-p] (75 Ω) HD, VD/TTL Level 2.0 - 5.0 V[p-p] (high impedance)	
		Card slot	SD Card slot × 1 Common Interface slot (complies with CI Plus) × 1	
		ETHERNET	RJ45, IEEE802.3 10BASE-T / 100BASE-TX	
		USB 1 / 2	USB2.0 DC 5 V, Max. 500 mA ●For available USB devices ➡ p. 98	
	Output	AUDIO L - R	RCA PIN Type × 2	0.5 V[rms] (high impedance)
		DIGITAL AUDIO OUT	PCM / Dolby Digital / DTS, Fiber optic	

■3D Eyewear

Dimensions (W × H × D)	177 mm × 46 mm × 174 mm
Mass (including battery)	63 g Net
Lens type	Liquid Crystal Shutter Frame sequential type
Battery (Duration)	Coin-shaped lithium battery CR2032 (approx. 75 hours in continuous use of the battery made by Panasonic)
Materials	Main body: Resin Lens: Liquid crystal glass
Operating Conditions	0 °C - 40 °C

■Wireless LAN Adaptor

Dimensions (W × H × D)	44 mm × 27 mm × 72 mm
Mass	29 g Net
Antenna	Tx 1, Rx 2
Interface	USB2.0
Standard Compliance	IEEE802.11n / IEEE802.11a / IEEE802.11g / IEEE802.11b
Transmission system	MISO-OFDM system, OFDM system, DSSS system

Frequency Range	IEEE802.11n / IEEE802.11a:
	  5.15 GHz - 5.35 GHz
	  5.47 GHz - 5.725 GHz
	IEEE802.11g / IEEE802.11b / IEEE802.11n:
	  2.4 GHz - 2.4835 GHz

Transfer rate (standard)*	IEEE802.11n: Tx Max. 150 Mbps, Rx Max. 300 Mbps IEEE802.11g / IEEE802.11a: Max. 54 Mbps IEEE802.11b: Max. 11 Mbps
Access Mode	Infrastructure mode
Security	WPA2-PSK (TKIP / AES) WPA-PSK (TKIP / AES) WEP (64 bit / 128 bit) ●This device supports WPA and WPA2 encryption.

MAC address and Product Identification Marking are located on the bottom of the Wireless LAN Adaptor.
*Transfer rates are theoretical values; however, actual communication rate will vary according to communication environment or connected equipment.

> **Note**

●Design and Specifications are subject to change without notice. Mass and Dimensions shown are approximate.
●This equipment complies with the EMC standards listed below.
  EN55013, EN61000-3-2, EN61000-3-3, EN55020, EN55022, EN55024

●Specifications

FAQs, etc.

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

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http://www.europe.guideplus.com/

GUIDEplus+
GEMSTAR

Wireless LAN Adaptor

CE 1731 ①

Declaration of Conformity (DoC)
Hereby, "Panasonic Corporation" declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Customers can download a copy of the original DoC to our R&TTE products from our DoC server: http://www.doc.panasonic.de

Contact in the EU: Panasonic Services Europe, a Division of Panasonic Marketing Europe GmbH, Panasonic Testing Centre, Winsbergring 15, 22525 Hamburg, Germany

This product is intended to be used in the following countries.
Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Iceland, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom, Switzerland

This product is intended for general consumer. (Category 3)
The WLAN feature of this product shall exclusively be used inside buildings.
This product on purpose to connect to access point of 2.4 GHz or 5 GHz WLAN.

CE

Declaration of Conformity (DoC)
Authorized Representative:
Panasonic Testing Centre
Panasonic Marketing Europe GmbH
Winsbergring 15, 22525 Hamburg, Germany

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

Panasonic Corporation

M0610-1070

Web Site : http://panasonic.net
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