Panasonic®

Operating Instructions
Plasma Television

VIEɾA

VIEɾA Link

VIEɾA IMAGE VIEWER

Link

AVCHD™

dts Digital Out

DOLBY DIGITAL PLUS

SD XC™

HDMI

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
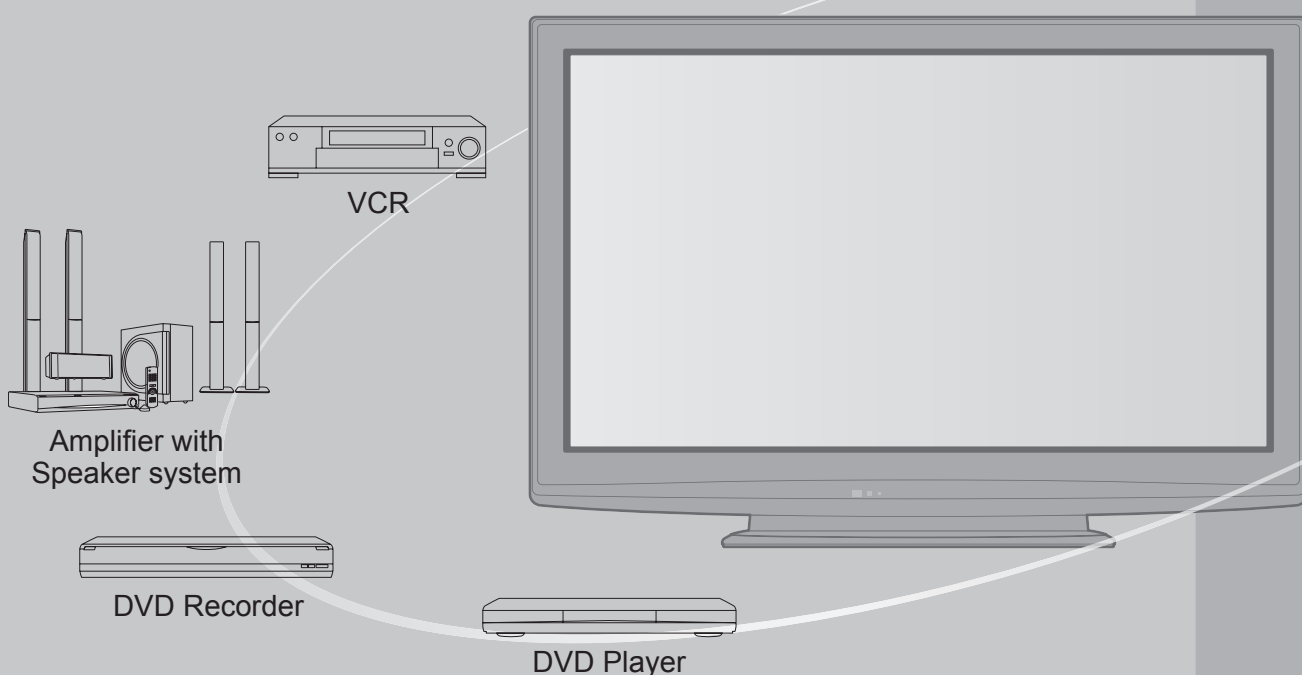for assistance.

English

Experience an amazing level of multimedia excitement

Enjoy rich multimedia

VCR

Amplifier with
Speaker system

DVD Recorder

DVD Player

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 and DVB-C (MPEG2 and
MPEG4-AVC(H.264)) digital cable services.
Consult your local dealer for availability of DVB-T 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
   or DVB-C.
● Not all the features are available depending on the country, area, broadcaster and service
   provider.
● 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/

SD Card

Camcorder

Set top box

Contents

Be Sure to Read

Quick Start Guide

Enjoy your TV!

Basic Features

Advanced Features

FAQs, etc.

Quick Start Guide

Basic

Advanced

FAQs, etc.

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!
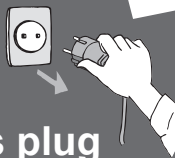
**AC 220-240 V
50 / 60 Hz**

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.

Caution

■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
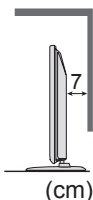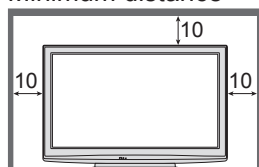- ●This TV will still consume some power even in the Off mode, as long as the mains plug is still connected to a live socket outlet.

■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.
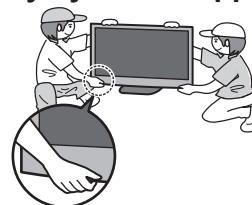
Notes

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. 64)

■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. 17)
  - • no operation is performed for the period selected in "Auto Standby" (p. 31)
- ●This function does not affect Timer Programming.

■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
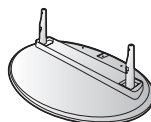- N2QAYB000487

☐ Batteries for the Remote Control (2)
- R6

☐ Mains Lead
➡ p. 11

☐ Operating Instructions

☐ Pedestal
➡ p. 7

☐ Pan European Guarantee Card

- 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 wall-hanging bracket. For additional details, please refer to the wall-hanging bracket installation manual.

Wall-hanging bracket
- TY-WK4P1RW

Rear of the TV

400 mm

300 mm
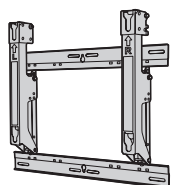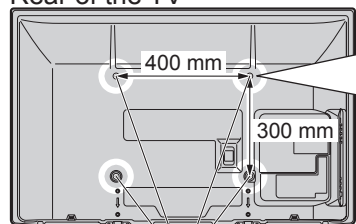
Holes for wall-hanging bracket installation

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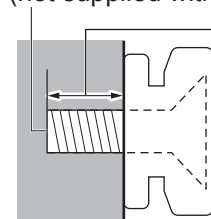
**Depth of screw:
minimum 15 mm, maximum 30 mm**

(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.

Installing / removing remote's batteries

1

Pull open

Hook

2

Close
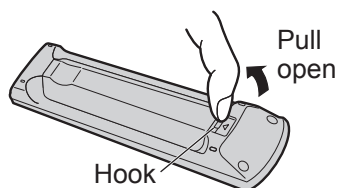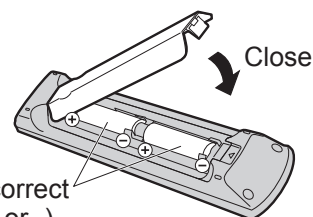
Note the correct polarity (+ or -)

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.

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.

Ⓐ Assembly screw (4) (silver)

Ⓑ Assembly screw (4) (black)

Ⓒ Pole (2)
●R :TBLA3689 (TX-PF42S20)
TBLA3679 (TX-PF46S20, TX-PF50S20)
●L :TBLA3690 (TX-PF42S20)
TBLA3680 (TX-PF46S20, TX-PF50S20)

Ⓓ Base
●TBLX0138 (TX-PF42S20)
●TBLX0139 (TX-PF46S20, TX-PF50S20)

M5 × 18

M5 × 30

Ⓛ　Ⓡ
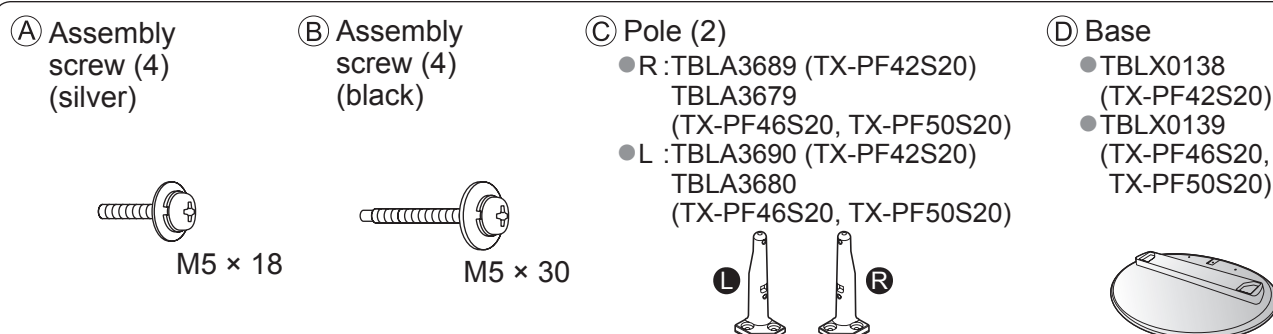
■Assembling the pedestal

Use the assembly screws Ⓐ to fasten the left and right poles Ⓒ to the base Ⓓ securely.
●Make sure that the screws are securely tightened.
●Forcing the assembly screws the wrong way will strip the threads.
●"L" or "R" mark is stamped on the bottom of the pole.

Ⓒ-Ⓡ　Ⓐ

Ⓓ

Front

Ⓒ-Ⓛ

■Securing the TV

Use the assembly screws Ⓑ to fasten securely.
●Make sure that the screws are securely tightened.
●Carry out the work on a horizontal and level surface.

Ⓑ

Arrow mark

View from the bottom

Hole for pedestal installation

Ⓓ

Quick Start Guide ● Accessories / Options

7

Identifying Controls

Media Player (p. 46)
- Switches to SD Card viewing mode (VIERA IMAGE VIEWER)

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

Main Menu (p. 25)
- Press to access Picture, Sound and Setup Menus

Aspect (p. 16)
- Changes aspect ratio from Aspect Selection list
- Also possible by pressing this button repeatedly until you reach the desired aspect

Channel / Programme Information (p. 15)
- Displays channel and programme information

VIERA Link Menu (p. 54)
- 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. 17)
- Easy setting for viewing and sound options

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

Teletext (p. 20)
- Switches to teletext mode

Subtitles (p. 16)
- 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-C / DVB-T / Analogue mode (p. 14)
- AV - switches to AV input mode from Input Selection list (p. 22)

Direct TV Recording (p. 52 and p. 54)
- Records programme immediately in DVD Recorder / VCR with Q-Link or VIERA Link connection

Normalise (p. 25)
- Resets picture and sound settings to their default levels

Exit
- Returns to the normal viewing screen

VIERA TOOLS (p. 24)
- Displays some special feature icons and accesses easily

TV Guide (p. 18)
- Displays TV Guide

Cursor buttons
- Makes selections and adjustments

Return
- Returns to the previous menu / page

Hold
- Freeze / unfreeze picture (p. 15)
- Holds the current teletext page (teletext mode) (p. 20)

Index (p. 21)
- Returns to the teletext index page (teletext mode)

Last view (p. 17)
- Switches to previously viewed channel or input mode

Channel Up / Down
- Selects channel in sequence

Connected equipment operations (p. 23 and p. 56)

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. 26)

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

Common Interface

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. 32 and p. 33)

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).

CI slot (p. 43)

SD CARD

SD Card slot (p. 46)

HDMI3 terminal (p. 59)

HDMI 3

Headphones jack (p. 59)

AV 3

AV3 terminals (p. 59)

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

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

OK — Move the cursor / select the menu item

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

OK — Access the menu / store settings after adjustments have been made or options have been set
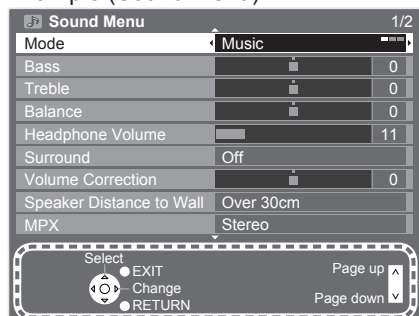
RETURN — Return to the previous menu

MENU — Open the main menu

EXIT — Exit the menu system and return to the normal viewing screen

■ON SCREEN HELP Instructions box - Operation guide

Example (Sound Menu):

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

Select
EXIT
Change
RETURN
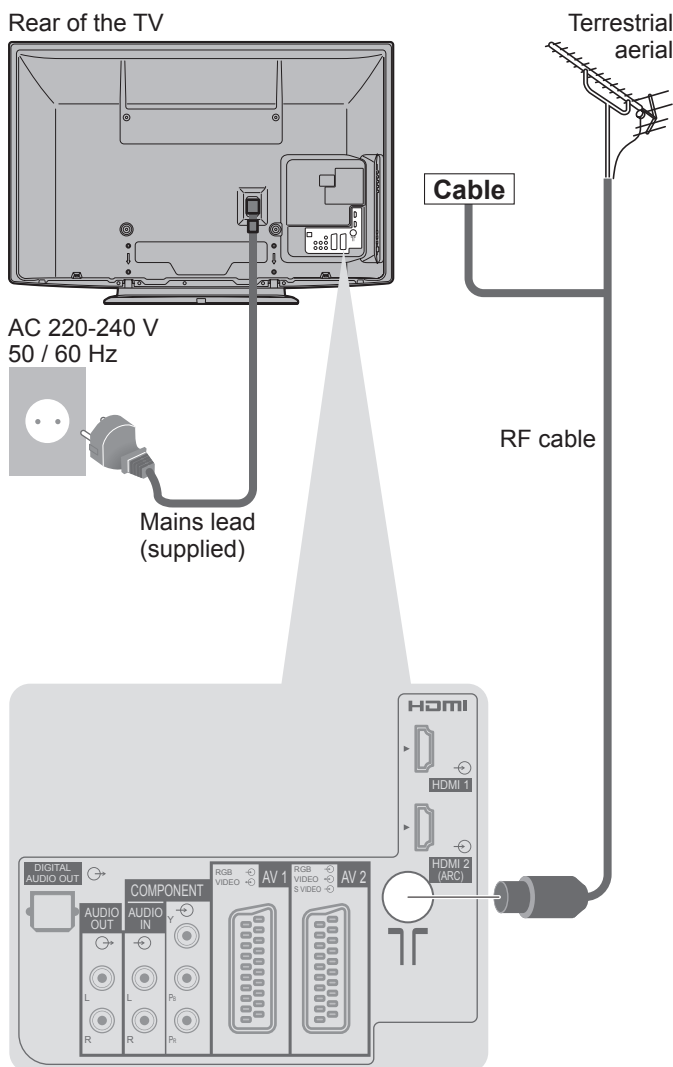Page up
Page down

Operation guide will help you.

Basic Connection

External equipment and cables shown are not supplied with this TV.
Please ensure that the unit is disconnected from the mains socket before attaching or disconnecting any leads.
When disconnecting the mains lead, be absolutely sure to disconnect the mains plug at the socket outlet first.
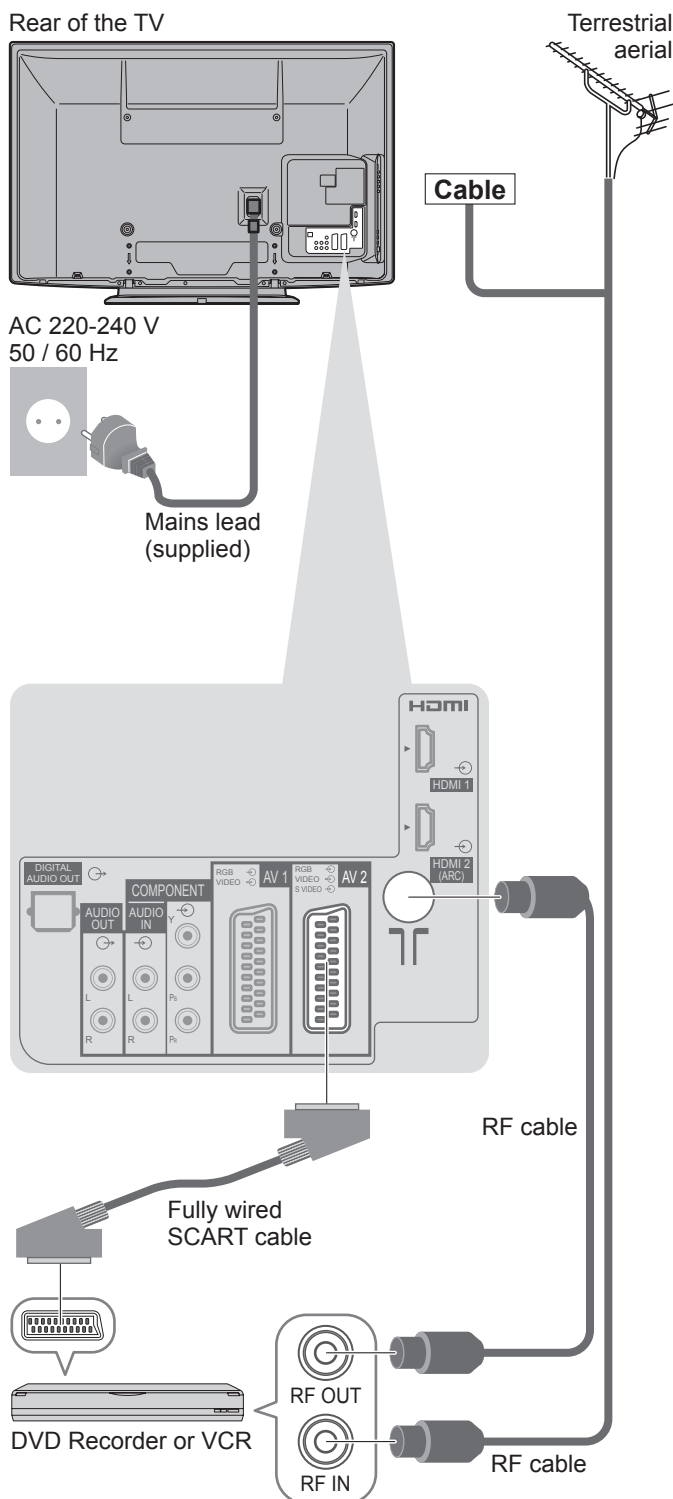
Example 1
Connecting aerial

TV only

Rear of the TV

Terrestrial aerial

Cable

AC 220-240 V
50 / 60 Hz

RF cable

Mains lead
(supplied)

HDMI

HDMI 1

HDMI 2
(ARC)

DIGITAL
AUDIO OUT

COMPONENT

RGB
VIDEO   AV 1

RGB
VIDEO   AV 2
S VIDEO

AUDIO
OUT

AUDIO
IN   Y

L   L   PB

R   R   PR

Example 2
Connecting DVD Recorder / VCR

TV, DVD Recorder or VCR

Rear of the TV

Terrestrial aerial

Cable

AC 220-240 V
50 / 60 Hz

Mains lead
(supplied)

HDMI

HDMI 1

HDMI 2
(ARC)

DIGITAL
AUDIO OUT

COMPONENT

RGB
VIDEO   AV 1

RGB
VIDEO   AV 2
S VIDEO

AUDIO
OUT

AUDIO
IN   Y

L   L   PB

R   R   PR

RF cable

Fully wired
SCART cable

RF OUT

DVD Recorder or VCR

RF IN
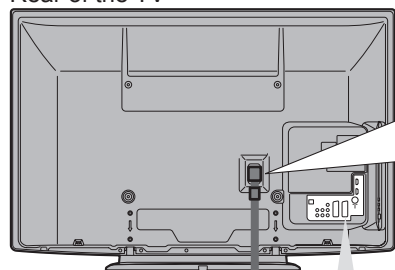
RF cable

RF cable

Note

- Connect to the TV's AV1 / AV2 for a DVD Recorder / VCR supporting Q-Link (p. 52).
- For HDMI-compatible equipment, possible to connect to HDMI terminals (HDMI1 / HDMI2 / HDMI3) by using HDMI cable (p. 58).
- Q-Link connection ➡ p. 50
- VIERA Link connection ➡ p. 50 and p. 51
- Please also read the manual of the equipment being connected.

Example 3
Connecting DVD Recorder / VCR and Set top box
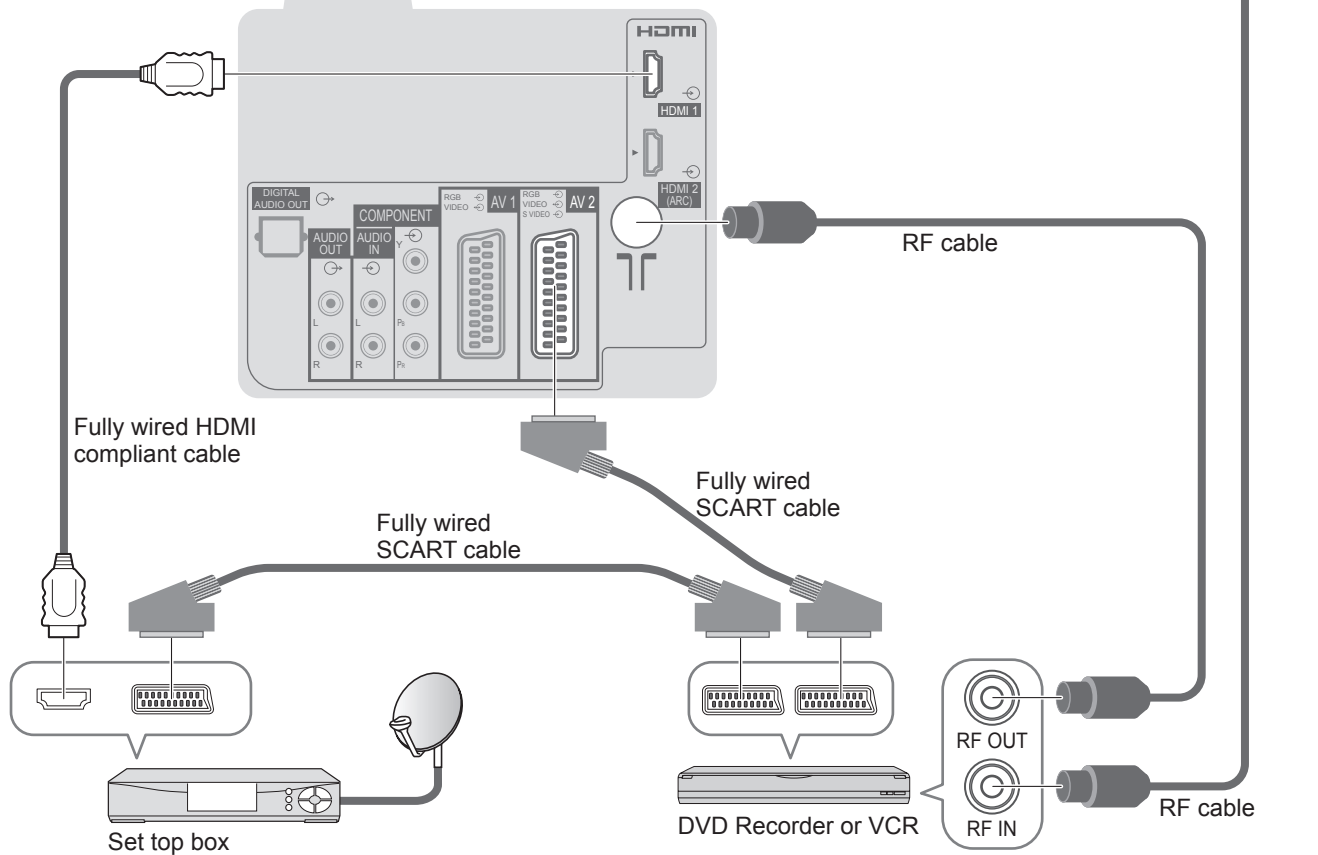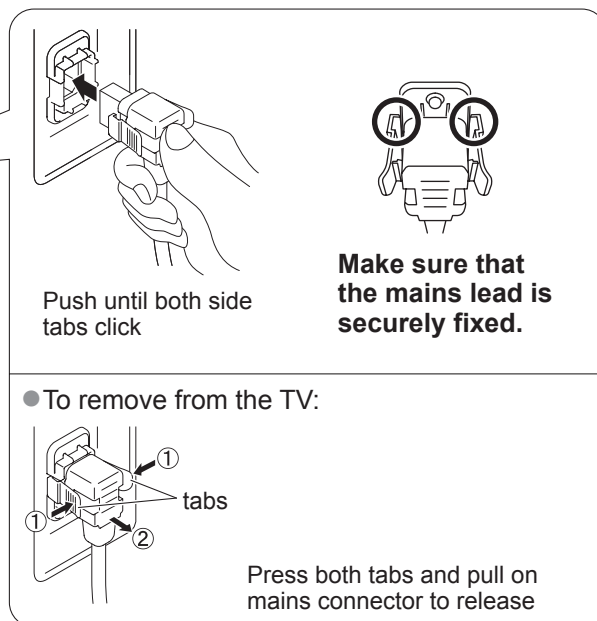
TV, DVD Recorder / VCR and Set top box

Rear of the TV

AC 220-240 V
50 / 60 Hz

Mains lead
(supplied)

Push until both side
tabs click

**Make sure that
the mains lead is
securely fixed.**

- To remove from the TV:

① ①

tabs

②

Press both tabs and pull on
mains connector to release

Terrestrial
aerial

Cable

HDMI

HDMI 1

HDMI 2
(ARC)

DIGITAL
AUDIO OUT

COMPONENT

AUDIO
OUT

AUDIO
IN

Y

L

L

P_B

R

R

P_R

RGB
VIDEO

AV 1

RGB
VIDEO
S VIDEO

AV 2

RF cable

Fully wired HDMI
compliant cable

Fully wired
SCART cable

Fully wired
SCART cable

Set top box

DVD Recorder or VCR

RF OUT

RF IN

RF cable

RF cable

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.
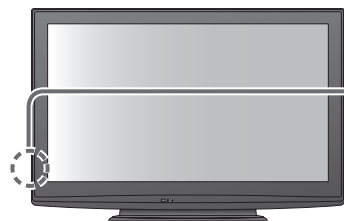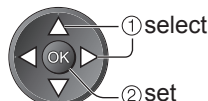
1 Plug the TV into mains socket and switch On
(Takes a few seconds to be displayed)
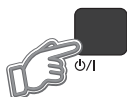
2 Select the language

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	
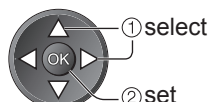
① select
② set

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

4 Select the mode you want to tune

TV Signal Selection

☑ DVB-C
☑ DVB-T
☑ DVB-T support for HD services
☑ Analogue
Start Auto Setup

② tune / skip tuning
① select
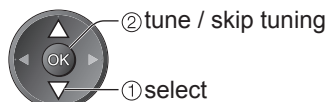
☑ : tune (the mode will be tuned and searched for the available channels)
☐ : skip tuning

- "DVB-C" may not appear depending on the country you select (p. 67).

5 Select "Start Auto Setup"

TV Signal Selection

☑ 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.
- If tuning has failed, check the connection of the RF cable, and then, follow the on screen instructions.

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TV

12

Auto Setup varies depending on the country you select.

● 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

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

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			

● Analogue Auto Setup

Analogue Auto Setup	
Scan	CH 2 99 H: 21 41
This will take about 3 minutes.	
CH	Channel Name
CH 29	
CH 33	BBC1
Analogue: 2	
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.

Sending Preset Data	
Please wait!	
0%	100%
Remote control unavailable	

● If Q-Link, VIERA Link or similar technology (p. 52 and p. 53) 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. 28)

6 Select "Home"

Please select your viewing environment.	
Home	Shop

① select
② set

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

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

● To check channel list at-a-glance
➡ "Using TV Guide" (p. 18)
● To edit or hide (skip) channels
➡ "Tuning and Editing Channels" (p. 34 - 37)

■ **"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	

RETURN

Automatic Demo	
Off	On

② Select "Home"

Please select your viewing environment.	
Home	Shop

① select
② set

Auto Setup is complete

● To change viewing environment later on, you will need to initialise all settings by accessing Shipping Condition.
➡ "Shipping Condition" (p. 44)

(**Note**)
● If tuning has failed or to retune all channels ➡ "Auto Setup" (p. 32 and p. 33)
● To add the available TV mode later ➡ "Add TV Signal" (p. 29)
● To initialise all settings ➡ "Shipping Condition" (p. 44)
● 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.

13

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 ➡

TV Selection
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.

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

Information banner appears whenever you select a channel
●For details ➡ p. 15

●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

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

Volume

●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

Panasonic
TV

Note
●To watch pay-TV
➡ "Using Common Interface" (p. 43)

■Select a channel using Information banner (p. 15)
Possible to confirm the channel name and programme before changing channels.

Display Information banner if it is not displayed

ⓘ

While the banner is displayed, select the channel

①select channel
②watch

●Possible to set display timeout in "Banner Display Timeout" (p. 30).

■Select a channel using TV Guide (p. 18)
Possible to confirm the TV Guide (EPG) before changing channels.

Display TV Guide

GUIDE

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. 19

●The postcode entry or update maybe required depending on the country you select (p. 12). Follow the message's instructions.

◾Other useful functions

Hold

Freeze / unfreeze picture

HOLD

Display Information banner

Display Information banner

●Also appears when changing a channel

Channel position and name

Category
●To change the category ➡ blue

Channel type (if it is Radio or Data channel)

Current time

Example (DVB):

1 ZDF		Radio	20:35	All DVB-T Channels
Coronation Street				Change category
20:00 - 20:55		◀ Now ▶		For info press [i]
🔇	Encrypted	Dolby D +	[⇨] [≣] MULTI	45

Programme

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
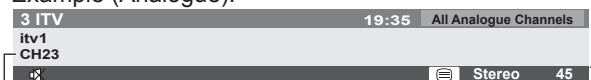
Channel number

●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. 30)

🔇
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. 17

Basic

●Watching TV

15

Watching TV

Display subtitles

Display / hide subtitles (if available)
- To change the language for DVB (if available)
  ➡ "Preferred Subtitles" (p. 30)

STTL

[⊞→]

Note
- If you press the STTL button in Analogue mode, it switches to teletext service and calls up a favourite page (p. 21). Press the EXIT button to return to TV mode.

Aspect

Change the aspect ratio (image size)
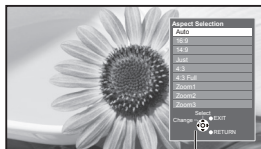
ASPECT
[⊞]

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. 60).

■If you would like to change the aspect ratio manually

Display Aspect Selection list
While the list is displayed, select the mode

ASPECT
[⊞]

Aspect Selection
Auto
16:9
14:9
Just
4:3
4:3 Full
Zoom1
Zoom2
Zoom3
Select
Change · EXIT
· RETURN

Aspect Selection list

② store
OK
① select
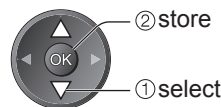
- To change the mode using the ASPECT button only

  ➡ 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. 60

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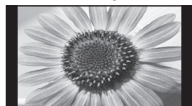
14:9
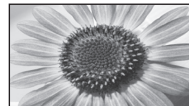Displays the image at the standard 14:9 without distortion.

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.
- Not available in teletext service.
- Aspect mode can be memorized separately for SD (Standard definition) and HD (High definition) signals.
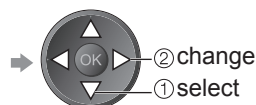
Display the selectable settings for the current programme

Check or change the current programme status instantly

OPTION

Multi Video (DVB mode)
Allows you to select the image (if available)

Multi Audio (DVB mode)
Allows you to select between alternative language for sound tracks (if available)

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)

● To change

② change
① select

Teletext Character Set
Sets the teletext language
➡ Setup Menu (p. 30)

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. 27)

Volume Correction
Adjusts volume of individual channel or input mode

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 Timer Programming or Direct TV Recording is in progress.
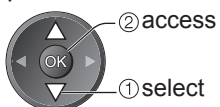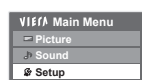● Watching less than 10 sec. is not regarded as the previously viewed channel or input mode.

Off Timer

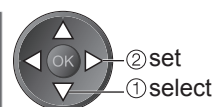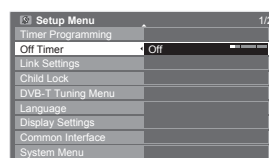### Turn the TV to Standby mode automatically after a fixed period

Display the menu

MENU

Select "Setup"

VIErA Main Menu
≡ Picture
Sound
Setup

② access
① select

Select "Off Timer" and set the time

Setup Menu   1/2
Timer Programming
Off Timer   Off
Link Settings
Child Lock
DVB-T Tuning Menu
Language
Display Settings
Common Interface
System Menu

② set
① select

● To cancel ➡ Set to "Off" or turn the TV off.
● To display the remaining time ➡ Information banner (p. 15)

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

Basic

● Watching TV

17

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. 19)
- DVB-T and Analogue channels are displayed on the same TV Guide screen.
  Analogue channels will be listed after DVB-T channels but there will be no programme listings. "D" means DVB-T channel and "A" means Analogue channel.
- 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. 14

TV

2 View TV Guide

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

TV Guide time
Current date and time
Example:
TV Guide date   Programme

	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

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

Advertisement
Channel position and name
Landscape (Displays by channel)

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
● RETURN
Timer Programming
i Info
GUIDE Change display mode
OPTION Select Advert
Page up ∧
Page down ∨
+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. 19

■ To return to TV

EXIT ➡

■ Depending on the country you select, you can select the TV Guide type

➡ "Default Guide" in "Display Settings" (p. 30)

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

■ To the previous day (DVB mode)
➡ red

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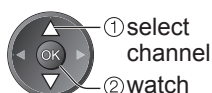
■ To view a channel list of the selected type (DVB mode)
➡ yellow

(Type list)

Prog.Type
All Types
All Types
Movie
News
⋮

① select type
② view

■ To view a channel list of the selected category
➡ blue

(Category list)

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

Only Analogue channels are listed

① select category
② view

- To list favourite channels ➡ p. 35

18

■**Other useful functions**

## View details of the programme (DVB mode)

Select the programme

△▽◁OK▷ select

View details

ⓘ

Wed 28.10.2009 10:46	TV Guide: Landscape
VIErA	Wed 28.10.2009 DIY SOS BBC ONE 20.00 - 20.30, 30 min.
	────────── Details
EXIT / Return to list	
Timer Programming RETURN	

●Press again to return to TV Guide.

Timer Programming (DVB mode)

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

Select the forthcoming programme

△▽◁OK▷ ①select ②set
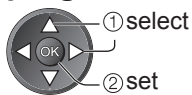
Select the function (Reminder or Ext Rec.)

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

(Timer Programming screen)

△▽◁OK▷ ②store ①select

[TV and recorder illustration]
LED
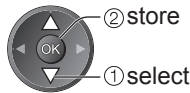
●LED will turn to orange if Timer Programming is set. (Orange LED will flash if Timer Programming is in progress.)

Ext Rec. : to record the programme to the recorder
　　　　　　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. 39)

■**To return to TV Guide** ⇒ 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." to record from the time you finish the timer programming event setting.

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

△▽◁OK▷ ①select ②access
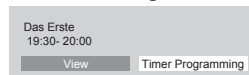
Note
●This function is not available in Analogue mode.
●Timer Programming only works reliably if correct time information is received via the signal from the broadcaster or service provider.
●No other channel can be selected while Ext Rec. of Timer Programming is in progress.
●When recording programmes, 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. 52 and p. 53) and the "Link Settings" (p. 28) are completed, no setting of the recorder is required. Also read the manual of the recorder.

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. 31)
●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. 31)

■**To change advertisements** ⇒ △▽◁OK▷

■**To return to TV Guide** ⇒ OPTION or RETURN ↩

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

●Using TV Guide

19

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

To select among subject blocks ➡ blue

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

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. 21)

■**To change mode** ➡ "Teletext" in the Setup Menu (p. 30)

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   >>
Current page number — **P100**   **17:51 28 Feb** — Time / date
TELETEXT INFORMATION
Colour bar

2 **Select the page**
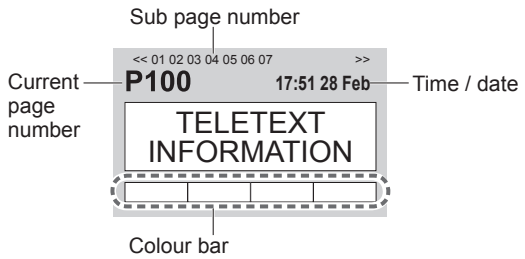
or   up / down   or   red green yellow blue
(Corresponds to the colour bar)

As the blue bar is displayed

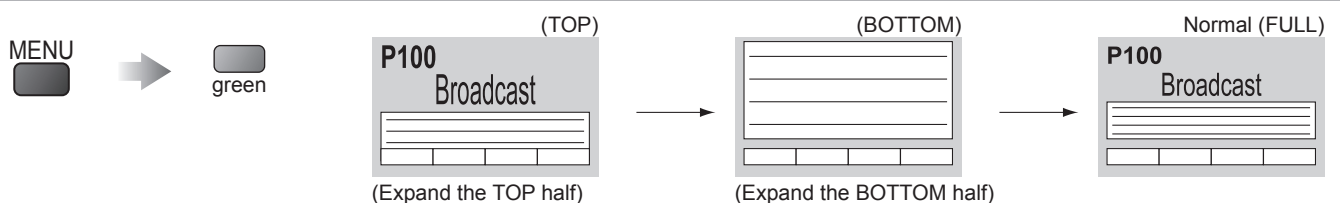■**To adjust contrast** ➡ MENU (press three times) ➡

■**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 |
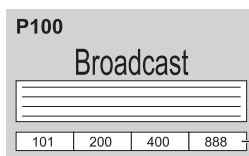
— The number changes to white.

■To change stored pages

Coloured button you want to change ➡ Enter new page number

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

➡ OK press and hold

View sub page

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

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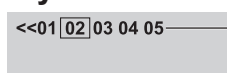
<<01 02 03 04 05 — Appears at top of the screen

■To view specific sub page

MENU ➡ blue

T****

Broadcast

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

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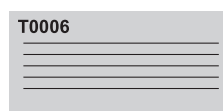
●Sub pages:
The number of sub pages varies depending on the broadcasters (up to 79 pages).
It may take some time for searching, during which time you can watch TV.

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.

Changes to TV screen temporarily

View the updated page

MENU ➡ yellow ➡

P108 — Appears when updating is completed

(You cannot change the channel.)

➡ yellow

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

●Viewing Teletext

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. 58
The Remote Control is capable of operating some functions of selected external equipment.

1 **Turn the TV on**
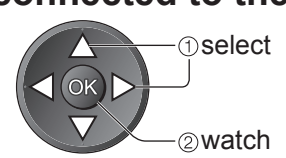■**When connecting with SCART as example 2 or 3** (p. 10 and p. 11)
➡ Receives input signals automatically when playback starts
●Input signals are automatically identified by the SCART (pin 8) terminal.
●This function is also available for HDMI connections (p. 58).
■**If input mode is not switched automatically**
➡ 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
HDMI1
HDMI2
HDMI3
TV

①select
②watch

●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.
●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. 42)
 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.

⏻	**Standby** Set to Standby mode / Turn on
▶	**Play** Playback videocassette / DVD
■	**Stop** Stop the operations
◄◄	**Rewind / Skip / Search** VCR: Rewind, view the picture rapidly in reverse DVD: Skip to the previous track or title 　　　Press and hold to search backward
►►	**Fast-forward / Skip / Search** VCR: Fast-forward, view the picture rapidly forward DVD: Skip to the next track or title 　　　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.
If you operate the connected equipment in VIERA Link (p. 56), select the code "73".

Press and hold ⏻ during the following operations

Enter the appropriate code,
see table below ➡ Press ■

Type of the equipment	Code
DVD Recorder, DVD Player	70 (default)
Player theatre, Blu-ray Disc theatre	71
VCR	72
The equipment using in VIERA Link ➡ "VIERA Link Control" (p. 56)	73

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.

Basic

● Watching External inputs

23

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

3 **Follow the operations of each feature**

●VIERA Link Control ➡ "VIERA Link Control" (p. 56)

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

●Pause Live TV ➡ "Pause Live TV" (p. 55)

●Photo ➡ "Photo mode" (p. 46)

●Video ➡ "Video mode" (p. 48)

■**To return to TV**

EXIT or VIERA TOOLS

Panasonic
TV

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

How to Use Menu Functions

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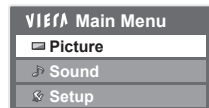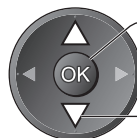
1 Display the menu

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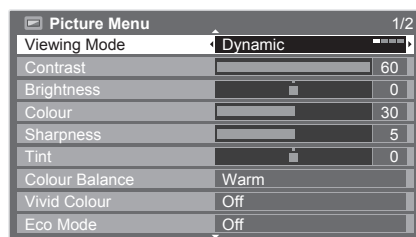
2 Select the menu

VIERA Main Menu
- ▭ Picture
- ♪ Sound
- ⚙ Setup

(example: Picture Menu)

② access
① select

3 Select the item

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

(example: Picture Menu)

select

4 Adjust or select

▭ **Picture Menu**	1/2
Viewing Mode	◄ Dynamic ►
Contrast	◄ 60 ►
Brightness	◄ 0 ►
Colour	◄ 30 ►
Sharpness	◄ 5 ►
Tint	◄ 0 ►
Colour Balance	◄ Warm ►
Vivid Colour	◄ Off ►
Eco Mode	◄ Off ►
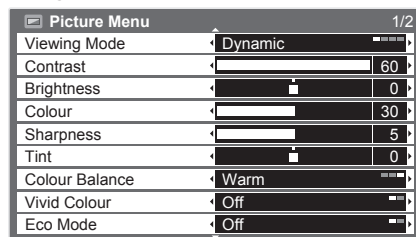
(example: Picture Menu)
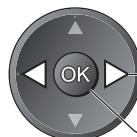
① change
② store or access (Required by some functions)

Panasonic
TV

■To return to TV at any time

EXIT
➡

■To return to the previous screen

RETURN
➡

■To change menu pages

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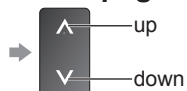
■Choose from among alternatives

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.
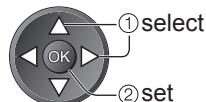
User input
Name

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
RETURN
➡

- ● You can set characters by using numeric buttons.
  ➡ "Characters table for numeric buttons" (p. 62)

■To reset the settings

- ● To reset the picture settings only
  ➡ "Reset to Defaults" in the Picture Menu (p. 26)
- ● To reset the sound settings only
  ➡ "Reset to Defaults" in the Sound Menu (p. 27)
- ● To reset the picture and sound settings together
  ➡ N (Also volume level and aspect mode are reset)
- ● To initialise all settings
  ➡ "Shipping Condition" in the Setup Menu (p. 31)

Basic

● How to Use Menu Functions
● How to Use VIERA TOOLS

How to Use Menu Functions

■Menu list

Menu	Item	Adjustments / Configurations (alternatives)

Picture	Viewing Mode	Basic picture mode **(Dynamic / Normal / Cinema / True Cinema / Game)**
		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
		True Cinema : Precisely reproduces the original quality of the image without any revision.
		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. 30)

	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)**
	Vivid Colour	Automatically adjusts colours to vivid ones **(Off / On)**
	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)**
	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, HDMI and SD Card
	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 to the default settings

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 video, etc. Speech: Improves sound quality for watching news, drama, etc. ●In Music and Speech mode, 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: 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
	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
	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) is output as DTS. MPEG is output as PCM. PCM : Digital output signal is fixed to PCM. ●For DVB mode or Video mode (p. 48)
	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 Input	Select to fit the input signal **(Digital / Analogue)** (p. 63) 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

●A different menu will be displayed in the mode of SD Card. (p. 47 and p. 49)
●Only available items can be selected.

● How to Use Menu Functions

27

How to Use Menu Functions

Menu	Item	Adjustments / Configurations (alternatives)
Setup	**Timer Programming**	Sets a timer to remind watching or record forthcoming programmes (p. 38) ●DVB mode only
	Off Timer	Sets the time the TV automatically goes to Standby mode **(Off / 15 / 30 / 45 / 60 / 75 / 90 minutes)**
	Link Settings — **VIERA Link**	Sets to use VIERA Link functions **(Off / On)** (p. 53)
	Q-Link	Selects which AV terminal is to be used for data communication between this TV and a compatible recorder **(AV1 / AV2)** (p. 52) ●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 and HDMI signals cannot be outputted.
	Power on Link	Sets to use Power on Link function **(Off / On)** (p. 52 and p. 53)
	Power off Link	Sets to use Power off Link function **(Off / On)** (p. 52 and p. 53)
	Standby Power Save	Controls the power consumption in Standby mode of the connected equipment to reduce the consumption **(Off / On)** (p. 54) ●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. 54) ●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-C channel setting cannot be downloaded.
	Child Lock	Locks a channel / AV input to prevent access to it (p. 40)

Menu	Item	Adjustments / Configurations (alternatives)
Setup / **DVB-C Tuning Menu**	**Favourites Edit**	Creates list of favourite DVB-C channels (p. 35)
	Channel List	Skips the unwanted DVB-C channels or edits DVB-C channels (p. 35)
	Auto Setup	Automatically sets the DVB-C channels supplied (p. 32)
	Manual Tuning	Sets the DVB-C channels manually (p. 35)
	Update Channel List	Updates DVB-C Channel List while keeping your settings (p. 34)
	New Channel Message	Selects whether to give a notification message when a new DVB-C channel is found **(Off / On)** (p. 34)
	Signal Condition	Checks the DVB-C signal condition (p. 34)
	Attenuator	Automatically reduces the DVB-C signal to avoid the interference **(Off / On)** (p. 34)
	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. 35)
	Channel List	Skips the unwanted DVB-T channels or edits DVB-T channels (p. 35)
	Auto Setup	Automatically sets the DVB-T channels received in the area (p. 33)
	Manual Tuning	Sets the DVB-T channels manually (p. 35)
	Update Channel List	Updates DVB-T Channel List while keeping your settings (p. 34)
	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. 34)
	Signal Condition	Checks the DVB-T signal condition (p. 34)
	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).
Analogue Tuning Menu	**Channel List**	Skips the unwanted Analogue channels or edits Analogue channels (p. 37)
	Auto Setup	Automatically sets the Analogue channels received in the area (p. 33)
	Manual Tuning	Sets the Analogue channels manually (p. 37)
	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 in the mode of SD Card. (p. 47 and p. 49)
●Only available items can be selected.

●How to Use Menu Functions

How to Use Menu Functions

Menu	Item	Adjustments / Configurations (alternatives)
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. 16
	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. 20)
	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. 18 Channel List: EPG is not available and the channel list will appear instead of it.
	Input Labels	Labels or skips each input terminal (p. 42)
	Banner Display Timeout	Sets how long the Information banner (p. 15) 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. 26).
	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 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. 43)

Menu	Item		Adjustments / Configurations (alternatives)
System Menu	**Shipping Condition**		Resets all settings, for example, when moving house (p. 44)
	System Update		Downloads new software to TV (p. 45)
	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. 19)
		Postcode	Sets your postcode to display advertisements in the GUIDE Plus+ system (p. 19)
		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".
	24p Playback Plus		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".
	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.
	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.

The whole menu column is labeled **Setup**.

●A different menu will be displayed in the mode of SD Card. (p. 47 and p. 49)
●Only available items can be selected.

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. 40 and p. 41) has been set, it must be entered.
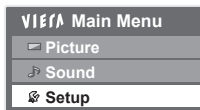
1 **Select DVB-C** TV
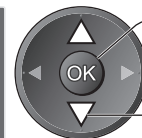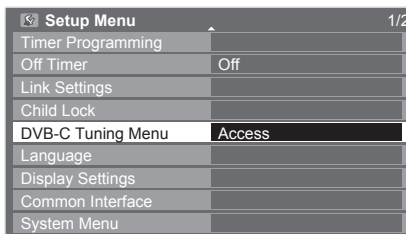➡ p. 14

2 **Display the menu** MENU

3 **Select "Setup"**

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

②access
①select

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

⚙ Setup Menu	1/2
Timer Programming	
Off Timer	Off
Link Settings	
Child Lock	
DVB-C Tuning Menu	Access
Language	
Display Settings	
Common Interface	
System Menu	

②access
①select

■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 Set the search mode and scan mode
∧+ ▮ ∨− ▮ (select the item)
TV ▮ (set)

④ Start "Auto Setup"
AV ▮

●To return to TV ➡ F ▮

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

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
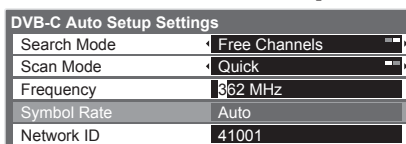
●Normally set Symbol Rate "Auto".

●Search mode, Scan mode
②set
①select

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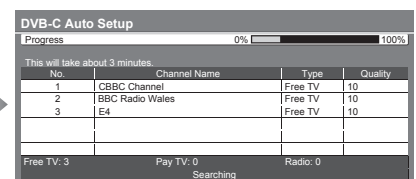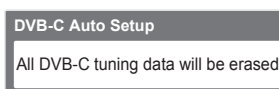4ghi 5jkl 6mno
7pqrs 8tuv 9wxyz
0
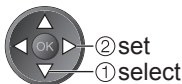
Store
OK

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

Note
●If tuning has not been done completely
➡ "Manual Tuning" (p. 35)

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

DVB-T or Analogue channels

Automatically retune all DVB-T or Analogue channels received in the area.
- DVB-T Auto Setup is available if DVB-T 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. 40 and p. 41) has been set, it must be entered.
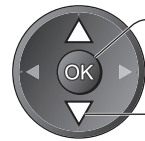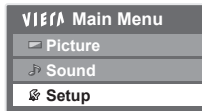
1 **Select DVB-T or Analogue**
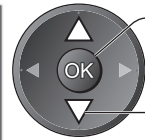➡ p. 14

TV

2 **Display the menu**

MENU

3 **Select "Setup"**

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

②access
①select

4 **Select "DVB-T Tuning Menu" or "Analogue Tuning Menu"**

Setup Menu 1/2
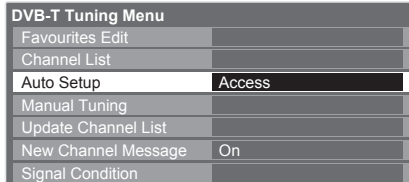|	
Timer Programming	
Off Timer	Off
Link Settings	
Child Lock	
DVB-T Tuning Menu	Access
Analogue Tuning Menu	Access
Language	
Display Settings	
Common Interface	
System Menu	

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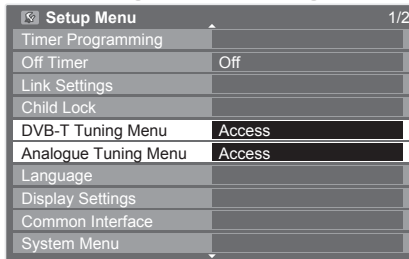
- "DVB-T Tuning Menu" is available in DVB-T mode only.
- "Analogue Tuning Menu" is available in Analogue mode only.

5 **Select "Auto Setup"**
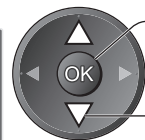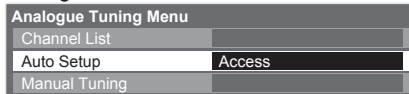
DVB-T:

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

②access
①select

Analogue:

Analogue Tuning Menu
Channel List	
Auto Setup	Access
Manual Tuning	

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 | 99 H: 21 | 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.
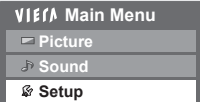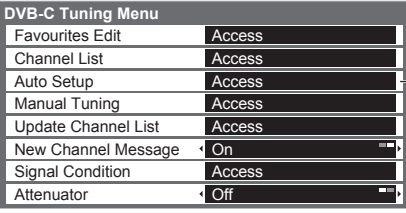
When the operation is completed, the channel at channel position "1" will be displayed.

■**To return to TV**

EXIT
➡

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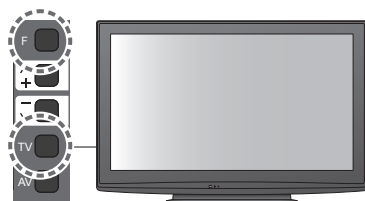① Press repeatedly until "Auto Setup" appears
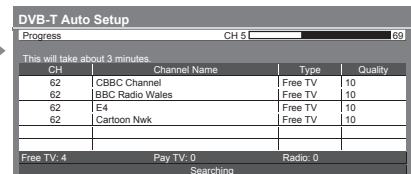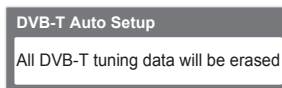F ▮
② Access "Auto Setup"
TV ▮
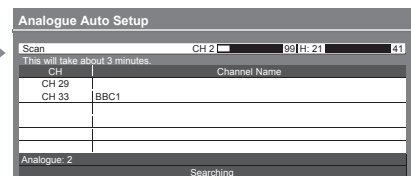③ Start "Auto Setup"
TV ▮

- To return to TV ➡ F ▮
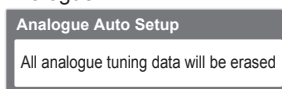
(**Note**)
- If tuning has not been done completely
  ➡ "Manual Tuning" (p. 35 and p. 37)

Tuning and Editing Channels

(DVB)

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

1 **Select DVB-C or DVB-T** TV
➡ p. 14

2 **Display the menu** MENU

3 **Select "Setup"**

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

②access
①select

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

Setup Menu	1/2
Timer Programming	
Off Timer	Off
Link Settings	
Child Lock	
DVB-C Tuning Menu	Access
DVB-T Tuning Menu	Access
Language	
Display Settings	
Common Interface	
System Menu	

②access
①select

● "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 and set**

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

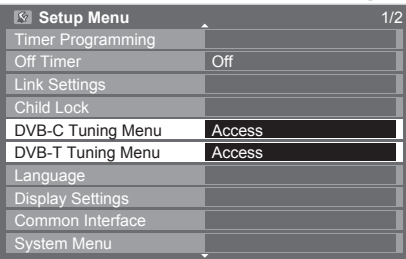● The function items vary depending on the country you select (p. 12).

● Auto Setup ➡ "Retuning from Setup Menu" (p. 32 and p. 33)

■ **To return to TV**
EXIT

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.
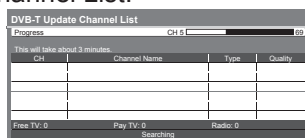

Display a notification message **New Channel Message**

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-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 or cable)

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.

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. 15) and the TV Guide (p. 18).

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

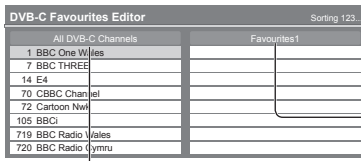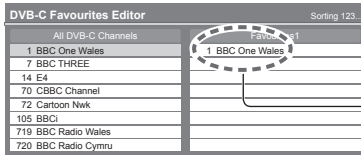- To sort channel names in alphabetical order ➡ blue
- To display other Favourites ➡ green
- To change the category ➡ red

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 RETURN
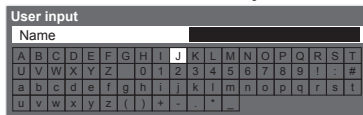
(maximum: ten characters)
You can set characters by using numeric buttons.
➡ "Characters table for numeric buttons" (p. 62)

- To move the channel ➡ green ➡ Select the new position (or numeric buttons) ➡ Confirm green
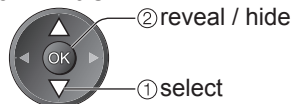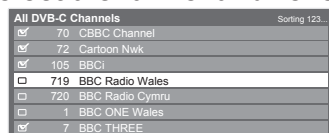
③ Store RETURN ➡ OK

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 (i)

- To change the category ➡ red
- To swap the channel position (if available) ➡ green ➡ Enter the new position number ➡ Store green
- To move the channel position (if available) ➡ green ➡ Select the new position ➡ Store green
- To sort channel names in alphabetical order ➡ blue

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, use this function.
- All channels found will be added to the Channel List.

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	
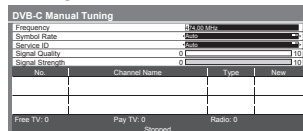
Enter the frequency ➡ Search OK
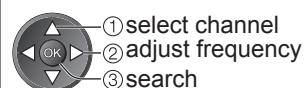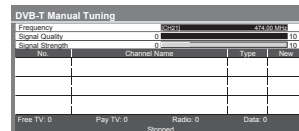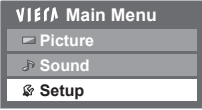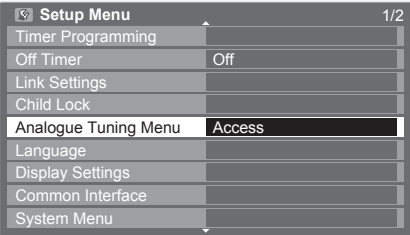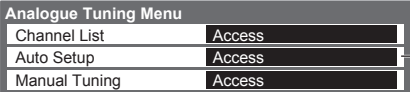
- Normally set Symbol Rate and Service ID to "Auto".

DVB-T:

DVB-T Manual Tuning	
Frequency	CH21 474.50 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	

① select channel
② adjust frequency
③ search

- Set where the level of "Signal Quality" becomes the maximum.

Tuning and Editing Channels
(Analogue)
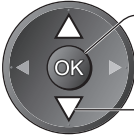
You can retune channels or skip unwanted channels, edit channels etc.

1 **Select Analogue**
➡ p. 14

TV

2 **Display the menu**

MENU

3 **Select "Setup"**

VIErA Main Menu	
▭ Picture	
♪ Sound	
⚙ Setup	

②access
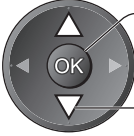
①select

4 **Select "Analogue Tuning Menu"**

⧉ Setup Menu	1/2
Timer Programming	
Off Timer	Off
Link Settings	
Child Lock	
Analogue Tuning Menu	Access
Language	
Display Settings	
Common Interface	
System Menu	

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. 33)

6 **Set**

■**To return to TV**

EXIT
➡

Panasonic
TV

36

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
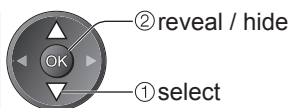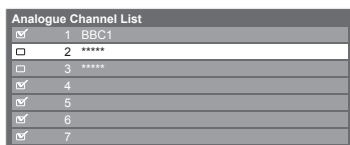
①select

☑ : 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
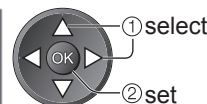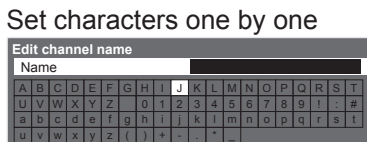
➡ Store RETURN

(maximum: five characters)
●You can set characters by using numeric buttons.
➡ "Characters table for numeric buttons" (p. 62)

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	99 21 41
Sound System		F
Colour System		Auto
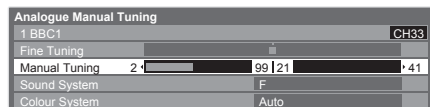
SC1:	PAL B, G, H / SECAM B, G
SC2:	PAL I
SC3:	PAL D, K / SECAM D, K
F:	SECAM L, L'

Select the channel position

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

Select the channel

∧
∨

Search and store

①search
②store
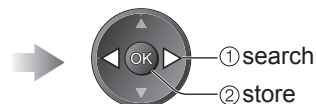
Timer Programming

Timer Programming from Menu

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

TV Guide may also be used to set timer programming (p. 19).

●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.
●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 Ext Rec. of Timer Programming is in progress.
●It may not be possible to record an encrypted programme (which is copy-protected).
●When recording programmes, 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. 52 and p. 53) and the "Link Settings" (p. 28) 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. 28) 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.
●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. 14
TV

2 | **Display the menu**
MENU

3 | **Select "Setup"**

VIEⁿA **Main Menu**
  Picture
  Sound
  Setup

②access
①select

4 | **Select "Timer Programming"**

Setup Menu	1/2
Timer Programming	Access
Off Timer	Off
Link Settings	
Child Lock	
DVB-C Tuning Menu	
Language	
Display Settings	
Common Interface	
System Menu	

②access
①select

■**To return to TV**
EXIT

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

5 | **Set**

38

Set timer programming details | Timer Programming |

① Start making the settings

OK

② Select the function (Reminder or Ext Rec.)

select

Ext Rec. : to record the programme to the recorder
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.

select the item ➡ 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

Records with subtitles (if available)
● To indicate this ➡ (press again to remove subtitles) yellow

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

C: DVB-C
D: DVB-T
(you cannot change TV mode within the menu)

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 ② access ① select ➡ Correct as necessary (as above)

■ To cancel a timer programming event

➡ Select the programme to be deleted ➡ red ➡ OK

■ To record with subtitles (if available)

➡ Select the programme to record with subtitles ➡ yellow

● Each time pressed: auto ⟷ off

■ To cancel a timer programming event temporarily

➡ Select the programme to be cancelled ➡ blue

● Each time pressed: cancel ⟷ stop cancelling

(Note)
● Check that the LED is lit (orange). If not, timer programmes are not active or not stored.
● "!" identifies that any timer programming events have overlapped. "Ext Rec." is given priority over "Reminder". As for the overlapped two or more "Ext Rec.", the first timer programming event starts and finishes as programmed. The next timer programming event can then start.
● Ext Rec. 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.
● Ext Rec. of Timer Programming will be performed even if the TV is in Pause Live TV recording (p. 55). In this case, Pause Live TV recording will be cancelled.

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.
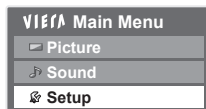
1	**Display the menu** MENU
2	**Select "Setup"** **VIE‹A Main Menu** ▭ **Picture** ♪ **Sound** ‰ **Setup** ②access OK ①select
3	**Select "Child Lock"** **Setup Menu** 1/2 Timer Programming Off Timer Off Link Settings Child Lock Access DVB-C Tuning Menu Language Display Settings Common Interface System Menu ②access OK ①select
4	**Set**
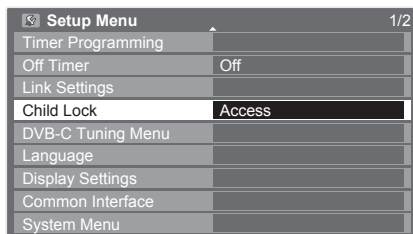
■**To return to TV**
EXIT

40

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).

② **Select "Child Lock List"**

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

②access
①select
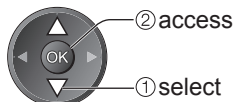
③ **Select the channel / input to be locked**

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	🔒

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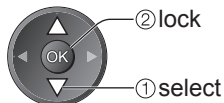
Appears when the channel / input is locked

● 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

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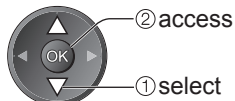
Enter a new PIN number twice
【1】【2 abc】【3 def】
【4 ghi】【5 jkl】【6 mno】
【7 pqrs】【8 tuv】【9 wxyz】
【0】

■**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 ►

②set
①select
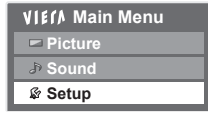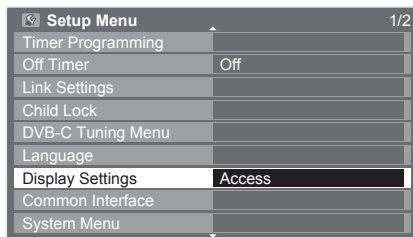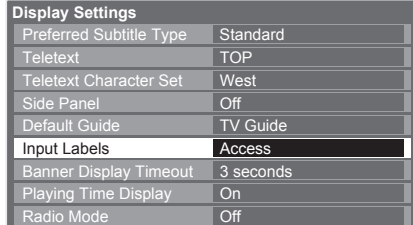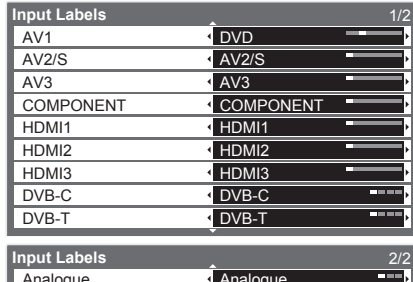
（**Note**）
● Setting "Shipping Condition" (p. 44) erases the PIN number and all settings.

● Child Lock

Advanced

41

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. 22

1 Display the menu
MENU

2 Select "Setup"

VIE∫∧ Main Menu	
▭ Picture	
♪ Sound	
⚙ Setup	

②access
①select

3 Select "Display Settings"

⚙ Setup Menu	1/2
Timer Programming	
Off Timer	Off
Link Settings	
Child Lock	
DVB-C Tuning Menu	
Language	
Display Settings	Access
Common Interface	
System Menu	

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

■To return to TV
EXIT
➡

5 Select a input terminal and set

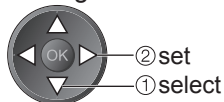| Input Labels	1/2
AV1	◄ DVD ►
AV2/S	◄ AV2/S ►
AV3	◄ AV3 ►
COMPONENT	◄ COMPONENT ►
HDMI1	◄ HDMI1 ►
HDMI2	◄ HDMI2 ►
HDMI3	◄ HDMI3 ►
DVB-C	◄ DVB-C ►
DVB-T	◄ DVB-T ►

Input Labels	2/2
Analogue	◄ Analogue ►

②set
①select

The labels you set will be displayed in "Input Selection" menu (p. 22),
"TV Selection" menu (p. 14) or banner.
●If "Skip" is selected, you cannot select the mode.

■User input
You can name each input mode freely.

Select "User input"
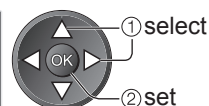
①select
②access

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	(	)	+	-	.	*	_							

(maximum: ten characters)

①select
②set

Store

RETURN
↩

●You can set characters by using numeric buttons.
➡ "Characters table for numeric buttons" (p. 62)

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.
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.

CI slot

Insert or remove straightly and completely

CI module

Side of the TV

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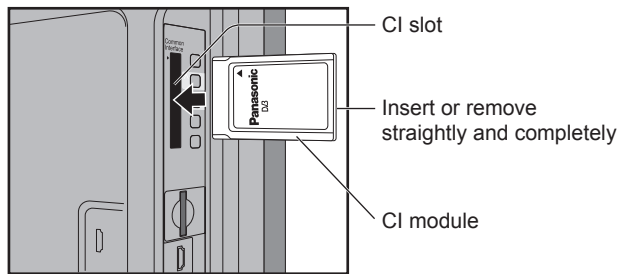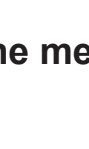
Insert the CI module (optional)
●The features that appear on screen are dependent on the contents of the selected CI module.
●Normally pay-TV channels will appear. Follow the on screen operation guide.
　If pay-TV channel does not appear, perform below.
●For more details, see the manual of the CI module,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

1 **Select DVB-C or DVB-T**
➡ p. 14
TV

2 **Display the menu**
MENU

3 **Select "Setup"**

VIEIA **Main Menu**
- Picture
- Sound
- Setup

②access
①select

4 **Select "Common Interface"**

Setup Menu		1/2
Timer Programming		
Off Timer	Off	
Link Settings		
Child Lock		
DVB-C Tuning Menu		
Language		
Display Settings		
Common Interface	Access	
System Menu		

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

◀▶▼▲ ➡

Coloured characters ➡ red　green　yellow　blue
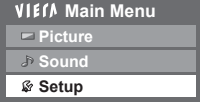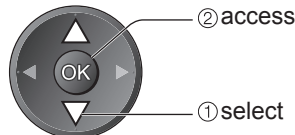
●On screen operation guide may not correspond to the remote control buttons.

■**To return to TV**
EXIT
➡
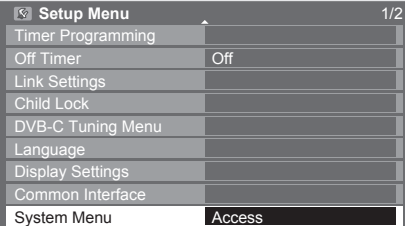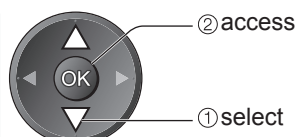
Shipping Condition
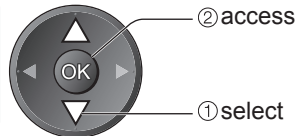
Resets the TV to its original condition, i.e. no channels tuned in.
All settings are reset (channels, picture, sound settings, etc.).

1 Display the menu

MENU

2 Select "Setup"

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

② access
① select

3 Select "System Menu"

Setup Menu	1/2
Timer Programming	
Off Timer	Off
Link Settings	
Child Lock	
DVB-C Tuning Menu	
Language	
Display Settings	
Common Interface	
System Menu	Access

② access
① select
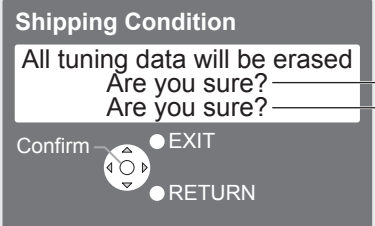
4 Select "Shipping Condition"

System Menu	
Shipping Condition	Access
System Update	
Software Licence	
System Information	

② access
① select

■**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. 32 and p. 33)

Panasonic
TV

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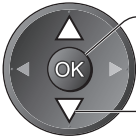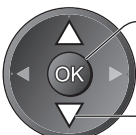
From time to time, a new version of software may become available for download to enhance the performance or operations of the TV.
If there is an update available, a notification banner is displayed when the channel has the update information.
●To download ➡ OK
●If you choose not to download ➡ EXIT ⬤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

1 **Display the menu**
MENU

2 **Select "Setup"**

VIE*A* **Main Menu**
⌨ **Picture**
♪ **Sound**
⚙ **Setup**

②access
OK
①select

3 **Select "System Menu"**

🖼 **Setup Menu** 1/2
Timer Programming
Off Timer | Off
Link Settings
Child Lock
DVB-C Tuning Menu
Language
Display Settings
Common Interface
System Menu | Access

②access
OK
①select

4 **Select "System Update"**

System Menu
Shipping Condition
System Update | Access
Software Licence
System Information

②access
OK
①select

■**To return to TV**
EXIT
➡ ⬤

5 **Set**

Advanced

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
OK
①select
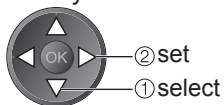
●Every time you set, the TV automatically performs a search in standby and downloads an update, if any software updates are available.
●The automatic updating is performed under the following conditions:
  • Standby (TV turned Off with the remote control)
  • Timer Programming or Direct TV Recording 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
OK
①select
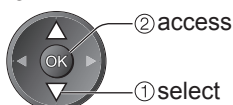
Searches for an update (for several mins.) and displays a corresponding message if any

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.

Using Media Player

Viewing from SD Card (VIERA IMAGE VIEWER)

Photo mode : Still pictures recorded by digital cameras will be displayed.
Video mode : Moving pictures recorded by digital video cameras 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. 28).
- "Date" shows the date on which the recording was made by the digital camera or digital video camera. The file without record of the date is shown "**/**/****".
- For details on SD Cards ➡ p. 61

■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
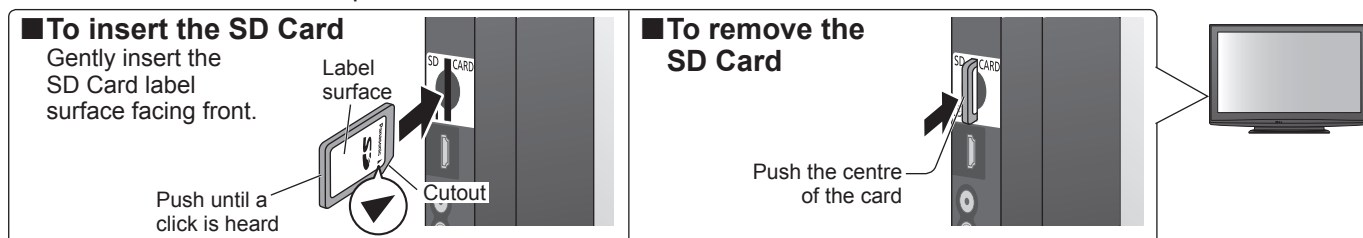
Photo mode

Photo mode will read all ".jpg" extension files in the card.
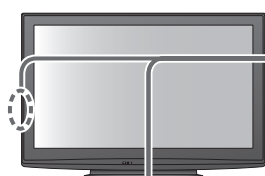
1 Insert the SD Card and start Media Player
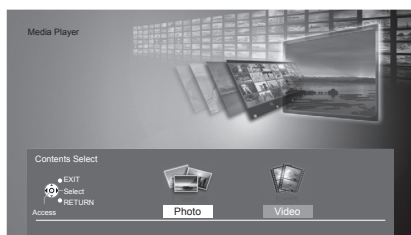
OK

2 Select "Photo"

Media Player

Contents Select
- EXIT
- Select
- RETURN
Access   Photo   Video
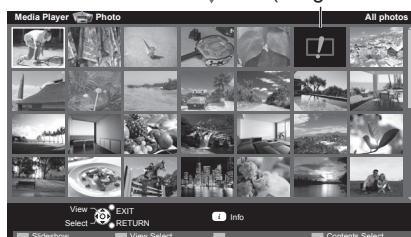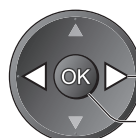
① select
② access

- You can also access Photo mode directly by using VIERA TOOLS.
  ➡ "How to Use VIERA TOOLS" (p. 24)

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

Media Player ▸ Photo   All photos

View — EXIT
Select — RETURN   ⓘ Info   Contents Select
▬ Slideshow   ▬ View Select   ▬ Contents Select

(Thumbnail - All photos)

The thumbnail of all the photos in the SD Card will be displayed.
- To change the back ground music
  ➡ "Photo Setup" (p. 47)
- To display the information of the highlighted photo
  ➡ ⓘ

```
                          1/48 ── file number /
File name  p1010001.JPG        total file number
Date       23/10/2009
Pixel      1600X1200
```
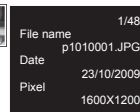
■Single view - Displayed one at a time
Select the file from the thumbnail of photos to be viewed

① select
② access

■ Single view
Rotate
- EXIT
- Select
- RETURN
Slideshow   ▮▮ Single view
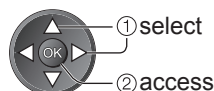
(Single view)
Operation guide

- To display / hide the operation guide
  ➡ ⓘ
- To operate Single view
  - To the previous photo
  - Rotate 90° (anti-clockwise)
  - To the next photo
  - Slideshow
  - Rotate 90° (clockwise)
- To return to thumbnail ➡ RETURN ↩

■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 ➡ ⓘ
- To pause (return to Single view) ➡ OK
- To return to thumbnail ➡ RETURN ↩

SD CARD
MENU
EXIT
ⓘ
OK
RETURN ↩

■To return to TV
EXIT or SD CARD
➡

■To return to the previous screen
RETURN
➡ ↩

46

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

②access
①select

● Other items ➡ p. 26, 27 and p. 49

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

②set
①select

Menu	Item	Adjustments / Configurations (alternatives)
Photo Setup	**Back Ground Music**	Selects the back ground music during the Photo mode **(Off / Type1 / Type2 / Type3)** ●Type1, Type2 and Type3 are the fixed music each installed in this TV.
	Frame	Selects the indication frame of the slideshow **(Off / Multi / Collage)** Multi : 9 division display like tiled design Collage: A photo is displayed at random position and random scale.
	Colour Effect	Selects the colour effect of photos on Single view and Slideshow **(Off / Sepia / Gray scale)**
	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)** ●Depending on the photo size, the photo may not be enlarged.
	Interval	Selects slideshow interval **(Short / Normal / Long)**
	Repeat	Slideshow repeat **(Off / On)**

Change to the Video mode

You can switch to the Video mode of Media Player from the thumbnail.
While the thumbnail is displayed, display the contents selection

blue

Select "Video"

Media Player Photo — **All photos**
Contents Select
Access — Photo — Video

①select
②access

●For details of the Video mode operations ➡ "Video mode" (p. 48)

■To sort by folder, recorded date or recorded month

Display the view selection

green

Select the sort type

- Folder view
- Sort by Date
- Sort by Month

②access
①select
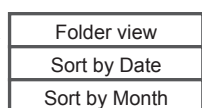
Folder view → Displays the thumbnail grouped by folder
● The files which are not into a folder will be collected to the folder named "/".

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".

● 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**
Access EXIT
Select RETURN — Info
Slideshow — View Select — Contents Select

①select
②thumbnail of the selected group

● To display the information of the highlighted group

➡ (i)
23/10/2009
Folder name 1/12
23/10/2009
Number of files 3

group number / total group number
folder name, date or month

Using Media Player
Viewing from SD Card (VIERA IMAGE VIEWER)

Video mode

Video mode supports AVCHD and MPEG2 file formats.

1 **Insert the SD Card and start Media Player**

OK

2 **Select "Video"**

Media Player

Contents Select
EXIT
Select
RETURN
Access
Photo   Video

① select
② access

- You can also access Video mode directly by using VIERA TOOLS
  ➡ "How to Use VIERA TOOLS" (p. 24)

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
Play   Contents Select

(Thumbnail - Title view)

The thumbnail of video titles in the SD Card will be displayed.
The preview will start when the title is highlighted if it supports a preview.
- To off the preview ➡ "Video Setup" (p. 49)
- To display the information of the highlighted title

➡ *i*

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

■Playback from the selected scene in the title
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
Contents Select
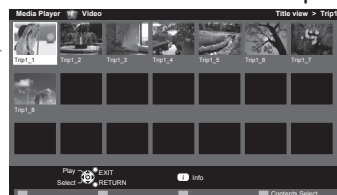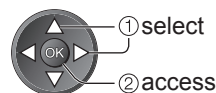
(Thumbnail - Scene view)

① select
② playback
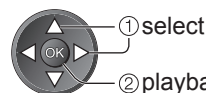
The preview will start when the scene is highlighted if it supports a preview.
- To off the preview
  ➡ "Video Setup" (p. 49)
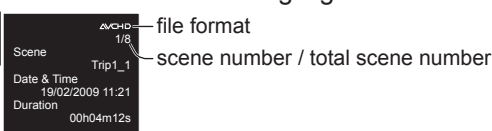
- To repeat playback
  ➡ "Video Setup" (p. 49)

- To display the information of the highlighted scene

➡ *i*

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

■How to operate in the playback

II/▶   EXIT
RETURN

Title   Trip1   ▶   AVCHD
Date & Time   19/02/2009   11:21   00:02.05 / 00:15.39
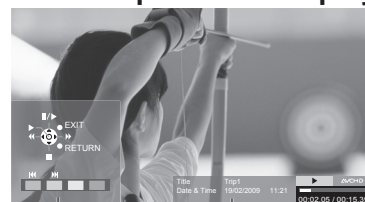
Operation guide   (Playback) information banner

- To change aspect (only for the 4:3 video content)
  ➡ ASPECT

- To return to thumbnail ➡ RETURN

- To display / hide the operation guide and information banner ➡ *i*

- To operate the playback
  ◀◀ Rewind
  II/▶ Pause / Playback
  ▶ Playback
  ▶▶ Fast forward
  ■ Stop
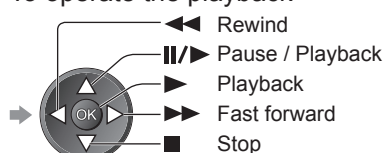
- To the previous scene ➡ red

- To the next scene ➡ green

■To return to TV
EXIT ➡ or SD CARD

■To return to the previous screen
RETURN ➡

48

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)

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

②access
①select
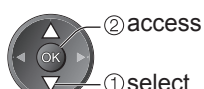
Select "SPDIF Selection" and set

♫ 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
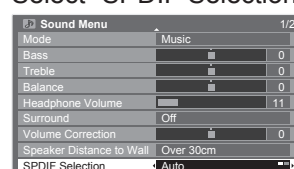
Menu	Item	Adjustments / Configurations (alternatives)
Sound	**SPDIF Selection**	SPDIF : A standard audio transfer file format Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT terminal **(Auto / PCM)** Auto: Dolby Digital is output as Dolby Digital Bitstream. MPEG is output as PCM. PCM: Digital output signal is fixed to PCM.

Video Setup

Setup the settings for Video mode.

Display the menu

MENU

Select "Video Setup"

VIErA Main Menu
◻ **Picture**
♪ **Sound**
Photo Setup
Video Setup

●Other items
➡ p. 26, 27 and p. 47

Select "Other Settings"

Video Setup Menu
Display Settings
Other Settings   Access

②access
①select

●Display Settings
➡ p. 30

Select the items and set

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

②set
①select
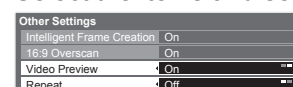
●Other items
➡ p. 31

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)**

Change to the Photo mode

You can switch to the Photo mode of Media Player from the thumbnail.

While the thumbnail is displayed, display the contents selection

blue

Select "Photo"

Media Player 🎞 Video   Title view
Trip1 Trip2 Trip3 Trip4 Trip5 Room Nature1
Nature2 Nature3 Nature4 Nature5 Nature6 2009_4 2009_7
Contents Select
2009 EXIT Select RETURN
Access   Photo   Video

◀OK▶ ①select
②access
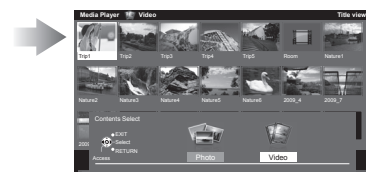
●For details of the Photo mode operations
➡ "Photo mode" (p. 46)

Note

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

● Using Media Player

Advanced

49

Link Functions (Q-Link / VIERA Link)
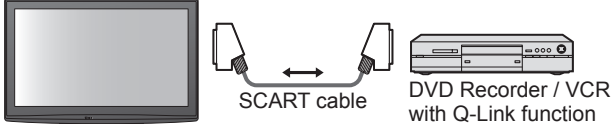
Q-Link connects the TV and DVD Recorder / VCR, and enables easy recording, playback, etc. (p. 52)
VIERA Link (HDAVI Control™) connects the TV and the equipment with VIERA Link function, and enables easy control, convenient recording, playback, energy saving, creating home theatre, etc., without complicated setting. (p. 53 - 57)
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

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

- 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.

■VIERA Link (HDMI connection only)
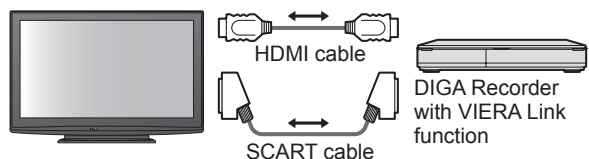
Features / Connected equipment	DIGA Recorder with VIERA Link function	DVD Player / Blu-ray Disc Player with VIERA Link function	HD Video Camera / LUMIX Camera with VIERA Link function
Preset download	○*2	–	–
Easy playback	○	○	○
Power on link	○	○	○
Power off link	○	○	○
Reduce unnecessary power consumption 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	–	–	–
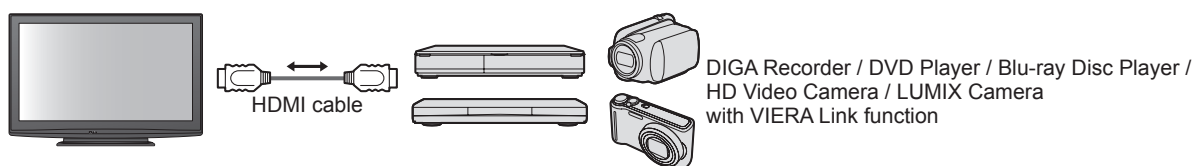
Connection

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 or HDMI3 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 or HDMI3 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:
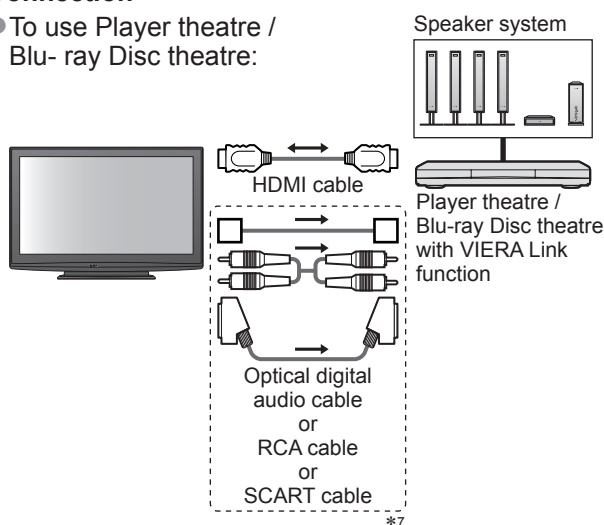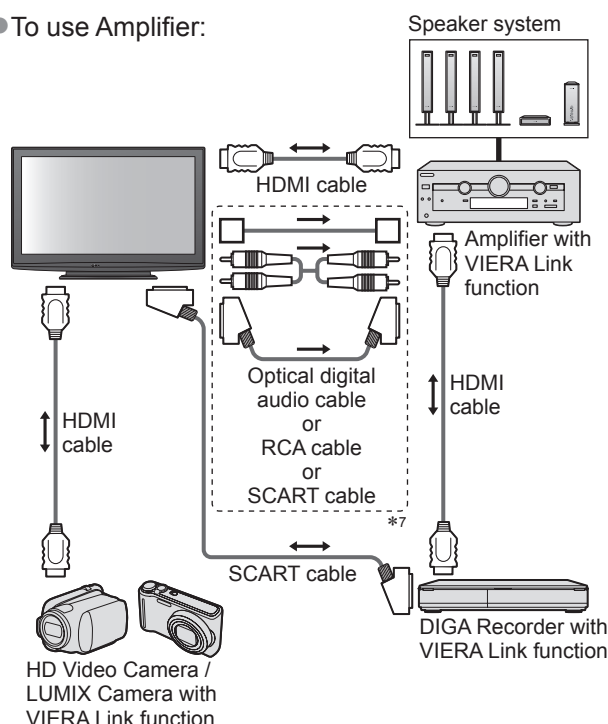
Speaker system

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

HD Video Camera / LUMIX Camera with VIERA Link function

SCART cable

HDMI cable

DIGA Recorder with VIERA Link function

● Use fully wired HDMI compliant cable.
● Connect the equipment supporting VIERA Link to the TV's HDMI1, HDMI2 or HDMI3 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. 28).
● 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 playingback 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. 56)
● 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 (Q-Link VIERA Link)

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. 50
- 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. 28), "AV1 / AV2 out" (p. 28)
- 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-C channel setting cannot be downloaded.
- To download settings ➡ "Download" (p. 28) or "Auto Setup" (p. 33) 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.

DIRECT TV REC

- 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

GUIDE ➡

Tuner Locked
Please stop recording to operate

Continue — Unlock

EXIT
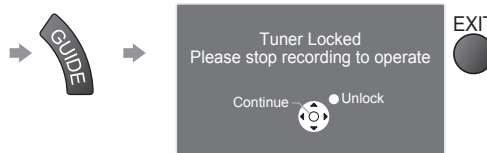
Power on link and Easy playback

Set Power on Link "On" in the Setup Menu to use this function ➡ "Power on Link" (p. 28)
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. 28)
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.

52

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. 50 and p. 51).
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. 50 and p. 51
●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. 28)
●Set up the TV
  ➡ **After connection, turn the equipment on and then switch the TV on.**
    Select the input mode to HDMI1, HDMI2 or HDMI3 (p. 22), 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-C channel setting cannot be downloaded.
●To download settings ➡ "Download" (p. 28) or "Auto Setup" (p. 33) 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. 28)
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. 28)
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

53

Link Functions (Q-Link / VIERA Link)

■**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. 28)

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. 28)

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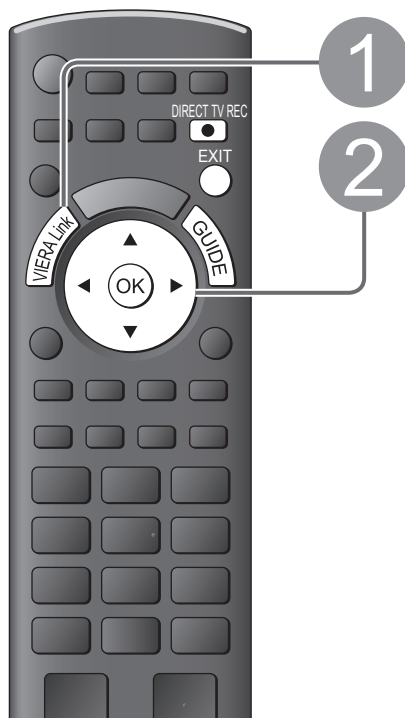
●If you select "On (With reminder)", the on screen message will be displayed to be noticed before working this function.
●This function may not work properly depending on the connected equipment. If required, set to "Off".

■**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. 50 and p. 51), "Preparations" (p. 53)
●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. 52).
●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
Please stop recording to operate

Continue   ●Unlock

EXIT

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. 50 and p. 51), "Preparations" (p. 53)

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
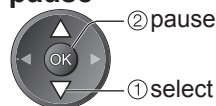
②pause
①select

The TV picture will be paused.

●You can also pause directly by using VIERA TOOLS
 ➡ "How to Use VIERA TOOLS" (p. 24)
●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.
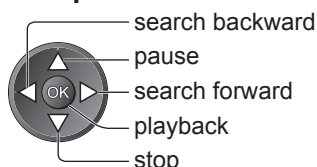
●Operations may be different depending on the recorder. In this case, follow the operation guide or read the manual of the recorder.

■**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

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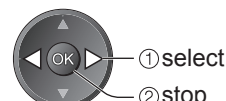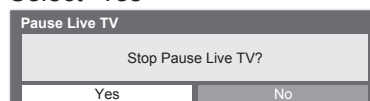
●If you stop playback or cancel pause, the recorded programme will be deleted from HDD.

Panasonic
TV

●Link Functions
(Q-Link / VIERA Link)

Advanced

55

Link Functions $\begin{pmatrix} \text{Q-Link} \\ \text{VIERA Link} \end{pmatrix}$

■**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. 50 and p. 51), "Preparations" (p. 53)
●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

① select
② access
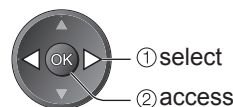
Recorder / Player / Home Cinema / Video Camera / LUMIX / Digital Camera / Other
●You can also access directly by using VIERA TOOLS
 ➡ "How to Use VIERA TOOLS" (p. 24)
●The displayed item may vary depending on the connected equipment.
●"Home Cinema" means Player theatre, Blu-ray Disc theatre or Recorder 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 code of the remote control to "73"**
 ➡ "How to change the code for the type of the equipment" (p. 23)

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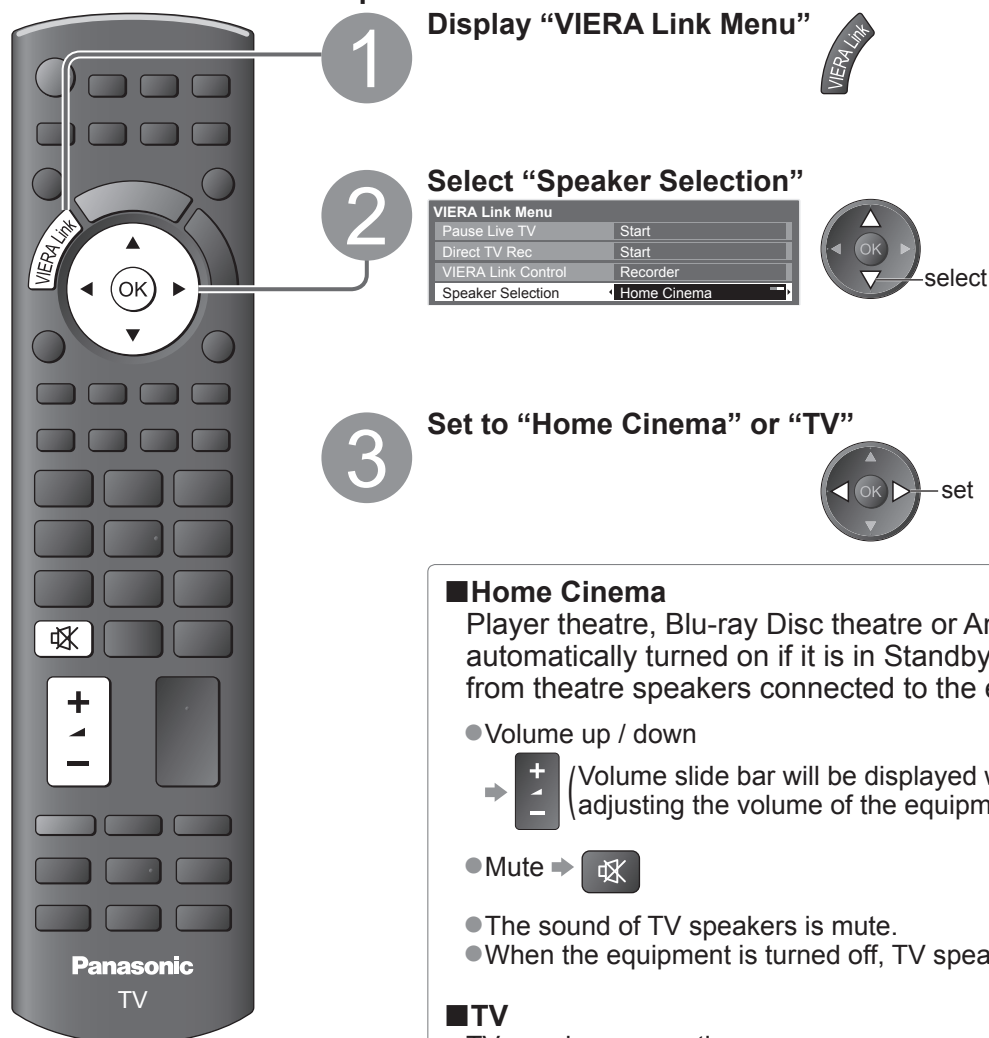
■**Features available** (Using VIERA Link Menu)

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. 50 and p. 51), "Preparations" (p. 53)

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

➡ Volume slide bar will be displayed when adjusting the volume of the equipment.

● Mute ➡ 🔇

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

■**TV**
TV speakers are active.

Panasonic
TV

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. 51), 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. 51).

● Link Functions
(Q-Link / VIERA Link)

Advanced

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. 31)

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. 67).

To watch satellite broadcasts

Set top box

Fully wired SCART cable

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

HDMI

HDMI 1

HDMI 2 (ARC)

DIGITAL AUDIO OUT

COMPONENT

RGB VIDEO AV 1

RGB VIDEO S VIDEO AV 2

AUDIO OUT

AUDIO IN

Y

L

R

P$_B$

P$_R$

or

Optical digital audio cable

RCA cable

Amplifier with speaker system

To watch DVDs

DVD Player

(Listening)

(Viewing)

Fully wired SCART cable

■Types of connectable equipment to each terminal

Recording / Playback (equipment) / Terminal	AV1	AV2	AV3 (Side panel of the TV)	V L R
To record / playback videocassettes / DVDs (VCR / DVD Recorder)	○	○		
To watch DVDs (DVD Player)	○	○	○	
To watch camcorder images (Video camera)	○	○	○	
To watch satellite broadcasts (Set top box)	○	○	○	
To play games (Game equipment)	○	○	○	
To use amplifier with speaker system				
Q-Link	○	○		
VIERA Link	○ (with HDMI)	○ (with HDMI)		
Direct TV Recording	○	○		

○ : Recommended Connection
∗1 : applicable if your amplifier has ARC (Audio Return Channel) function

Rear of the TV

HDMI equipment
➡ "HDMI connection" (p. 63)

DVD Recorder

Fully wired HDMI compliant cable

Camcorder / HDMI equipment

Fully wired HDMI compliant cable

HDMI 3

AV 3

V

L
R

Terrestrial aerial

or

RF cable

Headphones

(M3 stereo mini plug)

● To adjust volume
➡ "Headphone Volume" in the Sound Menu (p. 27)

(Listening)   (Viewing)

To record / playback

DVD Recorder / VCR

Camcorder / Game equipment

COMPONENT	AUDIO OUT	DIGITAL AUDIO OUT	HDMI		
Y, Pв, Pя, L, R	L, R		1	2	3
○			○	○	○
			○	○	○
			○		
			○	○	○
	○	○		○ *1	
			○	○	○
			○	○	○

Technical Information

Auto Aspect

The optimum size and aspect can be chosen automatically, and you can enjoy finer images. (p. 16)

■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
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	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.

2.1 mm

32 mm

24 mm
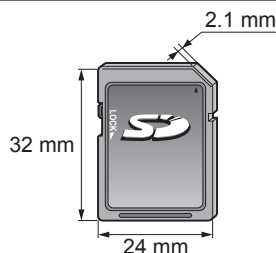
■Cautions in handling SD Card
- Do not remove the card while the TV is accessing data (this can damage card or TV).
- Do not touch the pins on the back of the card.
- Do not subject the card to a high pressure or impact.
- Insert the card in the correct direction (otherwise, card may be damaged).
- Electrical 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.)

■Data format for Card browsing
- Photo : Still images recorded with digital still cameras compatible with JPEG files of DCF* and EXIF standards
  Data format - Baseline JPEG (Sub-sampling 4:4:4, 4:2:2 or 4:2:0)
  Image resolution - 8 × 8 to 30,719 × 17,279 pixels
- Video : SD-Video Standard Ver. 1.2 [MPEG-2 (PS format)] and AVCHD Standard compatible files with an audio format that is either MPEG-1/Layer-2 format or Dolby Digital format
  (Files recorded with vertical frequency 50 Hz are applicable. A modified data with a PC may not be displayed correctly.)
- 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/
    *DCF (Design rule for camera file system): Unified standard established by Japan Electronics and Information Technology Industries Association (JEITA).

Note
- Format the card with the recording equipment.
- The picture may not appear correctly on this TV depending on the recording equipment used.
- Display may take some time when there are many files and folders.
- This function cannot display Motion JPEG and still image not 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 card may become unusable with this TV if the file or folder names are changed.

■On screen messages

Message		Meaning / Action
Cannot read file	▶	• The file is broken or unreadable. • The TV does not support the format. (For the applicable formats and data, see above.)
No SD card inserted	▶	• Confirm SD Card is inserted correctly.
No valid file to play	▶	• The card has no data.
Please confirm the SD card is OK	▶	• The inserted SD Card has a problem.
This operation is not possible	▶	• Your operation is not available.

● Technical Information

FAQs, etc.

61

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.

Characters table:

Numeric buttons \ The number of times to press	1	2	3	4	5	6	7	8	9	10	11
1	.	1	!	:	#	+	-	*	_	(	)
2 abc	a	b	c	2	A	B	C				
3 def	d	e	f	3	D	E	F				
4 ghi	g	h	i	4	G	H	I				
5 jkl	j	k	l	5	J	K	L				
6 mno	m	n	o	6	M	N	O				
7 pqrs	p	q	r	s	7	P	Q	R	S		
8 tuv	t	u	v	8	T	U	V				
9 wxyz	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	
CVBS out (video)	19	20 CVBS in (video)
CVBS earth	17	18 RGB status earth
Red in	15	16 Status RGB
Red earth	13	14 Earth
Green in	11	12 --
Green earth	9	10 Q-Link data
Blue in	7	8 Status CVBS
Blue earth	5	6 Audio in (L)
Audio out (L)	3	4 Audio earth
Audio out (R)	1	2 Audio in (R)
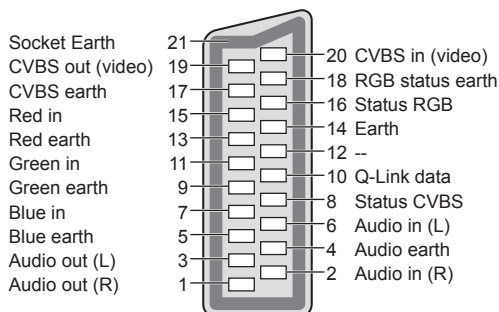
■AV2 SCART terminal
(RGB, VIDEO, S-VIDEO, Q-Link)
AV2 - Pins 15 and 20 are dependent on AV2 S-VHS / VIDEO switching.

Socket Earth	21	
CVBS out (video)	19	20 CVBS in (video)
CVBS earth	17	18 RGB status earth
Red in, S.C. - in	15	16 Status RGB
Red earth	13	14 Earth
Green in	11	12 --
Green earth	9	10 Q-Link data
Blue in	7	8 Status CVBS
Blue earth	5	6 Audio in (L)
Audio out (L)	3	4 Audio earth
Audio out (R)	1	2 Audio in (R)

■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. 58).

■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" (below)
    Match the output setting of the digital equipment.
- Input PC signal : ➡ "Input signal that can be displayed" (below)
    Match the output setting of the PC.
- VIERA Link (HDAVI Control 5) : ➡ "VIERA Link" (p. 53)
- 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: use COMPONENT-AUDIO terminals / HDMI3: use AV3 audio terminals).

Note

- Audio settings can be made on the "HDMI1 / 2 / 3 Input" in the Sound Menu. (p. 27)
- 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.

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 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.

● Technical Information

FAQs, etc.

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.
- Check "Signal Condition" (p. 34). 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.

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. 26) 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. 60)
- Press the ASPECT button if you would like to change the aspect ratio manually (p. 16).

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. 22).
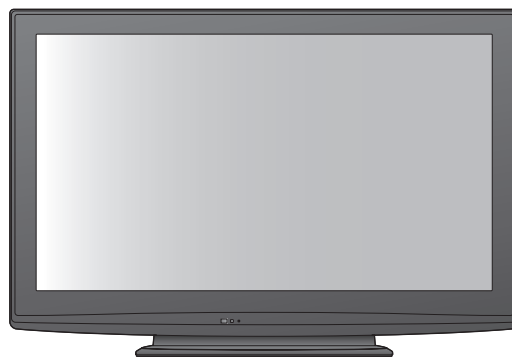
No programmes shown on TV Guide

- Check the digital transmitter.
- Adjust the direction of the aerial 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. 28).

"VIERA Link" function does not work and an error message appears

- Confirm the connection. (p. 50 and p. 51)
- Turn the connected equipment on and then switch the TV on. (p. 53)

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 or still picture in SD Card mode

Problem		Actions
Screen	**Chaotic image, noisy**	●Set "P-NR" in the Picture Menu (to remove noise). (p. 26) ●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. 26)
	Blurry or distorted image (no sound or low volume)	●Reset channels. (p. 32 and p. 33)
	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. 44).
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. 27) in the Sound Menu to "Mono". (Analogue only)
HDMI	**Sound is unusual**	●Set the sound setting of the connected equipment to "2ch L.PCM". ●Check the "HDMI1 / 2 / 3 Input" setting in the Sound Menu. (p. 27) ●If digital sound connection has a problem, select analogue sound connection. (p. 63)
	Pictures from external equipment are unusual when the equipment is connected via HDMI	●Check the HDMI cable is connected properly. (p. 58) ●Turn the TV and equipment Off, then turn them On again. ●Check an input signal from the equipment. (p. 63) ●Use an equipment compliant with EIA/CEA-861/861B.
Other	**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. 6) ●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.
	An error message appears	●Follow the message's instructions. ●If the problem persists, contact your local Panasonic dealer or the authorized Service Centre.

●Frequently Asked Questions

FAQs, etc.

65

Licence

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Specifications

	TX-PF42S20	TX-PF46S20	TX-PF50S20
Power Source	AC 220-240 V, 50 / 60 Hz		
Rated Power Consumption	275 W	285 W	320 W
On mode Average Power Consumption (based on IEC 62087 Ed.2 measurement method)	**117 W**	**136 W**	**158 W**
Standby Power Consumption	**0.40 W**		
	15.00 W (With monitor out recording)		
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)	127 cm (diagonal) 1,105 mm (W) × 622 mm (H)
Display panel — Number of pixels	2,073,600 (1,920 (W) × 1,080 (H)) [5,760 × 1,080 dots]		
Sound — Speaker	160 mm × 40 mm × 2 pcs, 6 Ω		
Sound — Audio Output	20 W (10 W + 10 W)		
Sound — Headphones	M3 (3.5 mm) stereo mini Jack × 1		
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 ● Check the latest information on the available services at the following website. (English only) http://panasonic.jp/support/global/cs/		
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)		
AV3 — 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]		
COMPONENT — AUDIO L - R	RCA PIN Type × 2 0.5 V[rms]		
Others — HDMI 1 / 2 / 3	TYPE A Connectors HDMI1 / 3 : HDMI (Version 1.3a with x.v.Colour™) HDMI2 : HDMI (Version 1.4 with Audio Return Channel) and HDMI (Version 1.3a with x.v.Colour™) ● This TV supports "HDAVI Control 5" function.		
Others — Card slot	SD Card slot × 1 Common Interface slot × 1		
Output — AUDIO L - R	RCA PIN Type × 2 0.5 V[rms] (high impedance)		
Output — DIGITAL AUDIO OUT	PCM / Dolby Digital / DTS, Fiber optic		
Dimensions (W × H × D)	1,029 mm × 704 mm × 334 mm (With Pedestal) 1,029 mm × 661 mm × 93 mm (TV only)	1,132 mm × 767 mm × 401 mm (With Pedestal) 1,132 mm × 722 mm × 93 mm (TV only)	1,218 mm × 814 mm × 401 mm (With Pedestal) 1,218 mm × 769 mm × 93 mm (TV only)
Mass	24.5 kg Net (With Pedestal) 23.0 kg Net (TV only)	28.0 kg Net (With Pedestal) 26.0 kg Net (TV only)	31.0 kg Net (With Pedestal) 29.0 kg Net (TV only)

● 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

● Specifications
● Licence

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/

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GEMSTAR

CE

Declaration of Conformity (DoC)

If you want to get a copy of the original DoC of this TV, please visit the following website:
http://www.doc.panasonic.de

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

M0110-1020

Web Site : http://panasonic.net
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