Panasonic

Operating Instructions
Plasma Television

Model No. **TH-42PZ700BA**
TH-42PZ700B
TH-50PZ700B
TH-58PZ700B

VIERA





VIERA Link · Q-Link · DVB · OWNER I.D. · AVCHD · DOLBY DIGITAL

SD HC · SRS TruSurround XT · FULL HD 1080p · HD ready · HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE

U.K. Standard

English

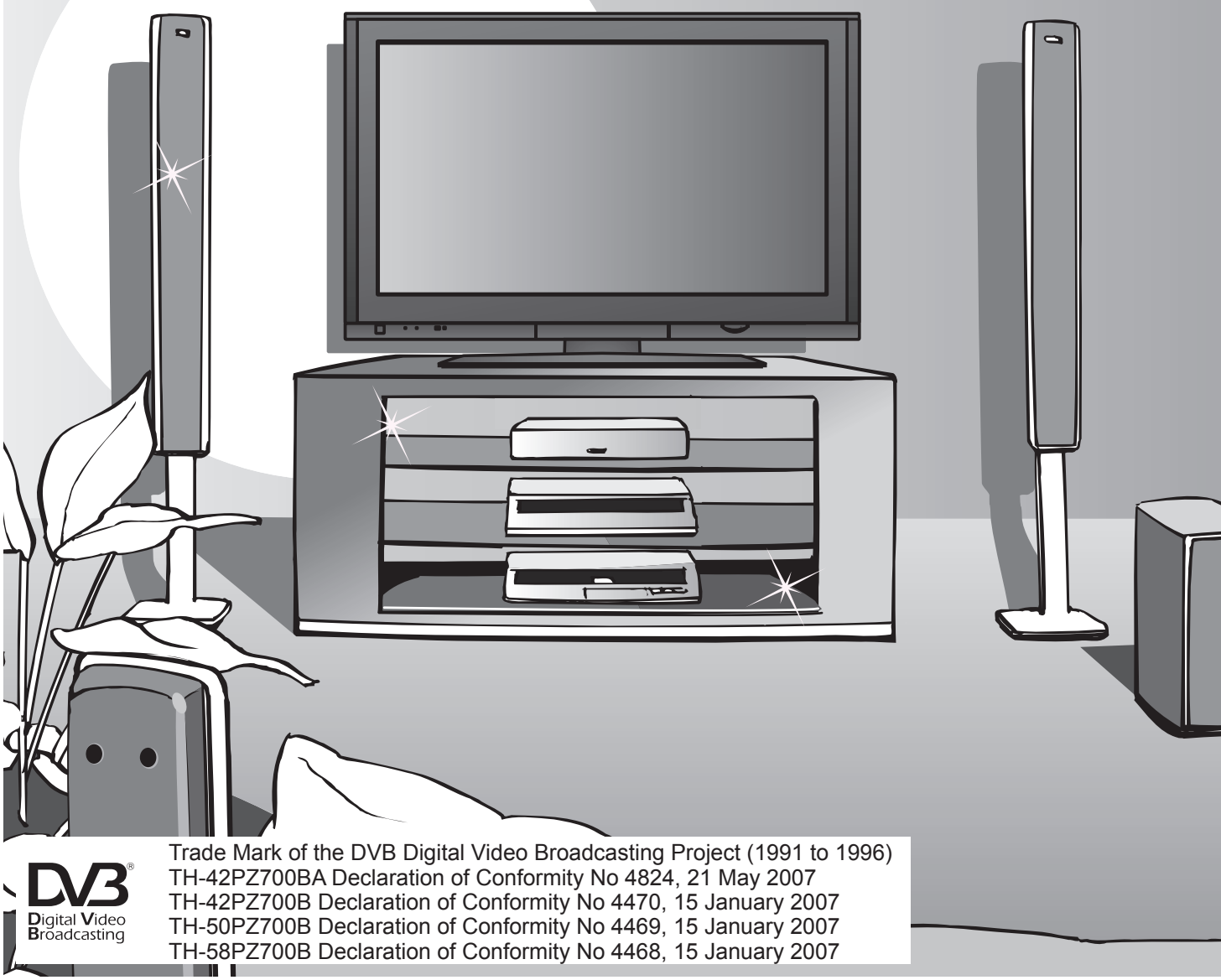
Please read these instructions before operating your set and retain them for future reference.
The images shown in this manual are for illustrative purposes only.

TQB0E0387-2

Turn your living room into a home theatre!

Experience an amazing level of multi-media excitement

- **Receive digital terrestrial broadcastings using an integrated (Digital Video Broadcasting) tuner**
  (Display DVB programmes with TV Guide (p. 14) / Timer recording (p. 36) /
  Register and instantly call up favourite programmes with Profile Edit (p. 29))
- **Sharp pictures with HDMI terminal**
- **Control DVD recorder / VCR via TV with Q-Link connection** (p. 40)
- **Create home theatre and Panasonic equipment link-ups with "VIERA Link" without complicated settings!** (p. 42)
- **Support Audio Description signal** (p. 12 and p. 22)
  Audio description (AD) is an ancillary component associated with a broadcast which delivers a verbal description of the visual scene as an aid to understanding and enjoyment particularly for visually-impaired viewers.



DVB Digital Video Broadcasting

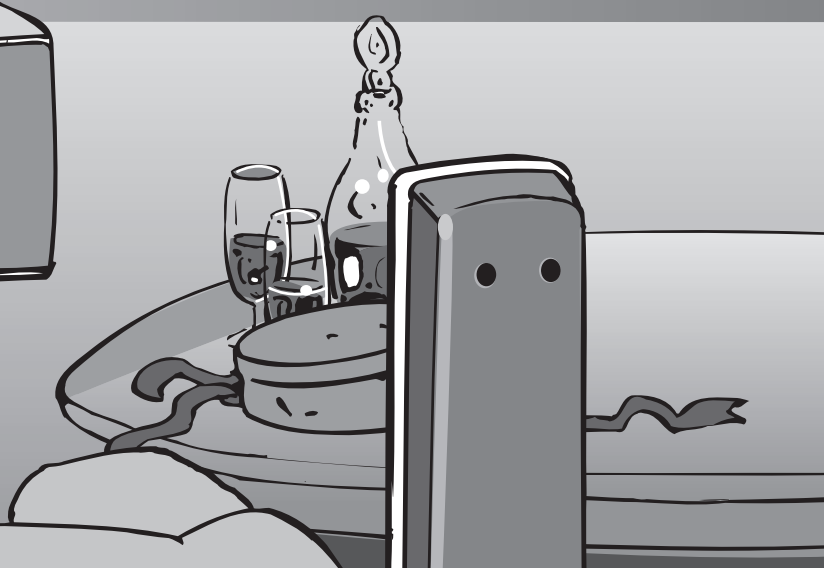
Trade Mark of the DVB Digital Video Broadcasting Project (1991 to 1996)
TH-42PZ700BA Declaration of Conformity No 4824, 21 May 2007
TH-42PZ700B Declaration of Conformity No 4470, 15 January 2007
TH-50PZ700B Declaration of Conformity No 4469, 15 January 2007
TH-58PZ700B Declaration of Conformity No 4468, 15 January 2007

FULL HD
This TV uses a high definition plasma panel (1920 × 1080 pixels) to produce high definition pictures close to their original resolution.

V-real Pro 2
V-real Pro 2 technology is the collective name for original technologies developed by Panasonic to enhance total Full HD (1080p) image quality:
V-real Pro 2 PROCESSOR: Enhance and output the incoming video signals as high-image-quality signals. The resulting video signals deliver the kind of high resolution that large screens require.
V-real Pro 2 DRIVER: Precisely controls panel drive to optimise its performance. Achieves high image quality with the equivalent of high steps of gradation.
V-real Pro 2 PANEL: Provide clear, vivid display of the video signal after processing by the V-real Pro 2 Processor and Driver. The high resolution of 1,920 × 1,080 pixels ensures beautiful images with clearer, sharper details.

High gradation
Gradation refers to the smoothness of colour expression.
Rich, fine gradation is extremely important for maximising the high resolution panel. Uses maximum 16-bit signal processing to provide the equivalent of 4,096 steps of gradation.

Lead-free display
All VIERA plasma display panels are lead-free. This reduces the impact on the environment when recycling or disposing of them in the future.



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Safety Precautions

Warning & Caution

Handling the mains plug

- Ensure that the mains plug is easily accessible at all times. The On / Off switch on this model does not fully disconnect the TV from the mains supply. Remove the mains plug from the wall socket when the TV is not used for a prolonged period of time.
- Ensure the grounding 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 use any mains lead other than that provided with this TV. (This may cause fire or electrical shock.)

Power source

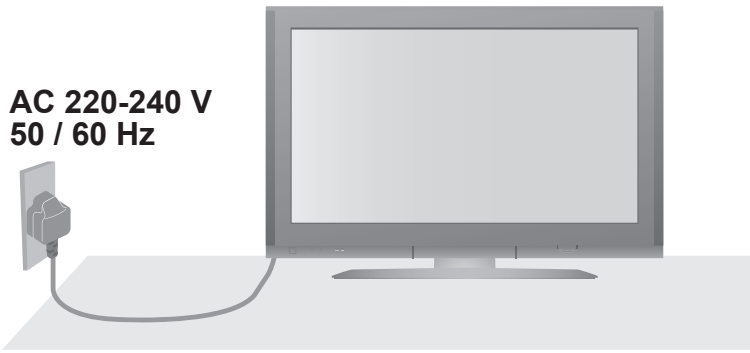
- This TV is designed to operate on 220-240 V, 50 / 60 Hz AC.

Do not remove the cover

- Do not remove the rear cover as live parts are accessible when it is removed. There are no user serviceable parts inside.

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 fire never place any type of candle or naked flame on top or near the TV.



Transport only in upright position

- Transporting the TV with its display panel facing upright or downward may cause damage to the internal circuitry.

IMPORTANT: THE MOULDED MAINS PLUG

FOR YOUR SAFETY, PLEASE READ THE FOLLOWING TEXT CAREFULLY.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience. A 5 amp (TH-42PZ700BA, TH-42PZ700B) / 10 amp (TH-50PZ700B, TH-58PZ700B) fuse is fitted in this mains plug. Shall the fuse need to be replaced, please ensure that the replacement fuse has a rating of 5 amps (TH-42PZ700BA, TH-42PZ700B) / 10 amps (TH-50PZ700B, TH-58PZ700B) and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark or the BSI mark on the body of the fuse.

If the mains plug contains a removable fuse cover, you must ensure that it is refitted when the fuse is replaced. If you lose the fuse cover the mains plug must not be used until a replacement cover is obtained.
A replacement fuse cover may be purchased from your local Panasonic Dealer.

If the fitted moulded mains plug is unsuitable for the socket outlet in your home, then the fuse shall be removed and the mains plug cut off and disposed of safety. There is a danger of severe electrical shock if the cut off mains plug is inserted into any 13 amp socket.

If a new mains plug is to be fitted, please observe the wiring code as shown below.
If in any doubt, please consult a qualified electrician.

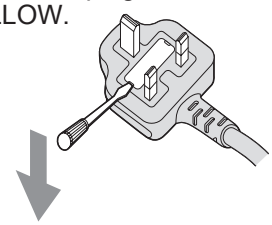
WARNING: – THIS APPARATUS MUST BE EARTHED.

IMPORTANT: – The wires in this mains lead are coloured in accordance with the following code: –
Green-and-Yellow: Earth Blue: Neutral Brown: Live

As the colours of the wire in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your mains plug, proceed as follows.

The wire which is coloured GREEN-AND-YELLOW must be connected to the terminal in the mains plug which is marked with the letter E or by the Earth symbol ⏚ or coloured GREEN or GREEN-AND-YELLOW.
The wire which is coloured BLUE must be connected to the terminal in the mains plug which is marked with the letter N or coloured BLACK.
The wire which is coloured BROWN must be connected to the terminal in the mains plug which is marked with the letter L or coloured RED.

How to replace the fuse.
Open the fuse compartment with a screwdriver and replace the fuse.



Notes

Do not expose to rain or excessive moisture

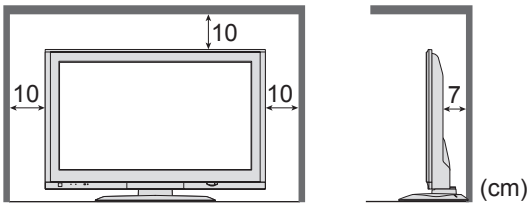
- To prevent damage which might result in electric shock or fire, do not expose this TV to rain or excessive moisture.
  This TV must not be exposed to dripping or splashing water and objects filled with liquid, such as vases, must not be placed on top of or above the TV.

Do not block the rear ventilation openings

- Ventilation should not be impeded by covering the ventilation openings with items such as newspapers, tablecloths and curtains.

Allow sufficient space around the TV for radiated heat

Minimum distance



Do not place the TV on sloped or unstable surfaces

- The TV may fall off or tip over.

Use only the dedicated stands / mounting equipment

- Using an unauthorized stand or other fixtures may make the TV shaky, risking injury. Be sure to ask your local Panasonic dealer to perform setup.
- Use optional stands / mounts (p. 6).

Do not allow children to handle SD card

- As with a small object, SD card can be swallowed by young children. Please remove SD card immediately after use.

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. 50)

Auto power standby function

- If no signal is received and no operation is performed in Analogue TV mode for 30 minutes, the TV will automatically go to standby mode.

Keep the TV away from these 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

Regular care: Gently wipe the surface clean of dirt by using a soft cloth.
Major contamination: Wipe the surface clean using a soft cloth dampened with clean water or diluted neutral detergent by 100 times of water. Then, using a soft dry cloth, evenly wipe the surface clean until it is dry.

Caution

- The surface of the display panel has been specially treated and may be easily damaged.
  Do not tap or scratch the surface with your fingernail or other hard object.
- Use care not to subject the surface to insect repellent, solvent, thinner, or other volatile substances
  (this may degrade surface quality).

Cabinet

Regular care: Wipe the surface clean using a soft dry cloth.
Major contamination: Dampen a soft cloth with clean water or water containing a small amount of neutral detergent. Then, wring the cloth and wipe the surface clean with it. Finally, wipe the surface clean with a dry cloth.

Caution

- Use care not to subject the TV’s surfaces to detergent.
  (A liquid inside the TV could lead to product failure.)
- Use care not to subject surfaces to insect repellent, solvent, thinner, or other volatile substances
  (this may deteriorate the surface by peeling the paint).
- Do not allow the cabinet to make contact with a rubber or PVC substance for a long time.

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 ☑

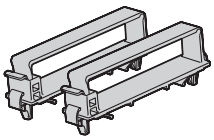
☐Remote Control Transmitter
- N2QAYB000114



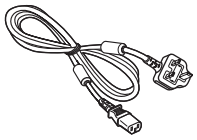
☐Batteries for the Remote Control Transmitter (2)
- R6 (UM3)



☐Clamper (2)
- TMME258



☐Mains Lead
- K2CT3DH00018 (TH-42PZ700BA, TH-42PZ700B)
- K2CT3DH00025 (TH-50PZ700B, TH-58PZ700B)



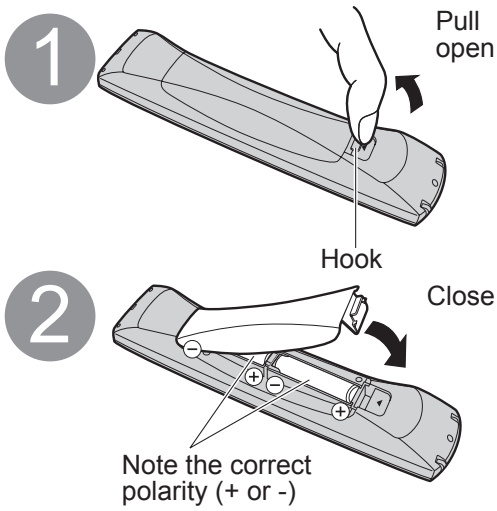
☐Operating Instructions

☐1 Year Guarantee Registration

☐Pan European Guarantee Card

☐CRM (Customer Relationship Management)

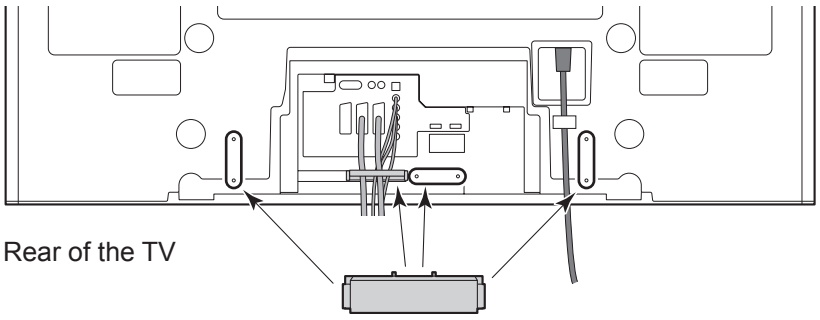
Installing remote's batteries

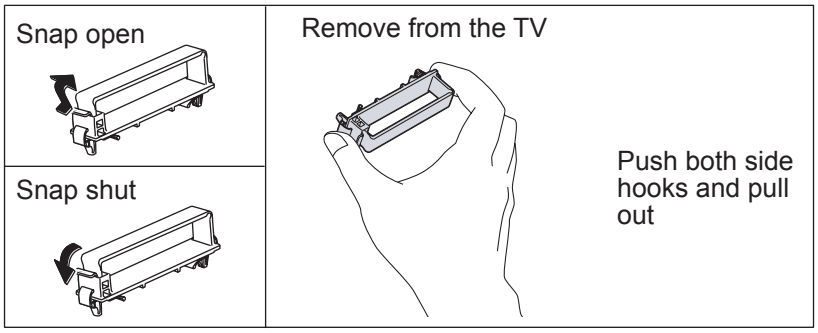


Caution

- 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.

Using the clamper





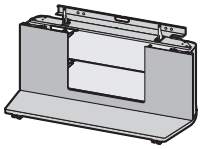
- Do not bundle the RF cable and mains lead together (could cause distorted image).
- Fix cables with clampers as necessary.
- When using the optional accessory, follow the option's assembly manual to fix cables.

Optional accessories

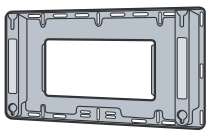
Pedestal
- TY-ST42D1-WG
- TY-ST42D1-WK
- TY-ST42D2-WG
- TY-ST42D2-WK (TH-42PZ700BA, TH-42PZ700B)
- TY-ST50D1-WG
- TY-ST50D1-WK
- TY-ST50D2-WG
- TY-ST50D2-WK (TH-50PZ700B)
- TY-ST58D2-WG
- TY-ST58D2-WK (TH-58PZ700B)



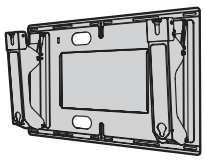
Plasma TV stand
- TY-S42PZ700W (TH-42PZ700BA, TH-42PZ700B)
- TY-S50PZ700W (TH-50PZ700B)
- TY-S58PZ700W (TH-58PZ700B)



Wall-hanging bracket (vertical)
- TY-WK42PV3W



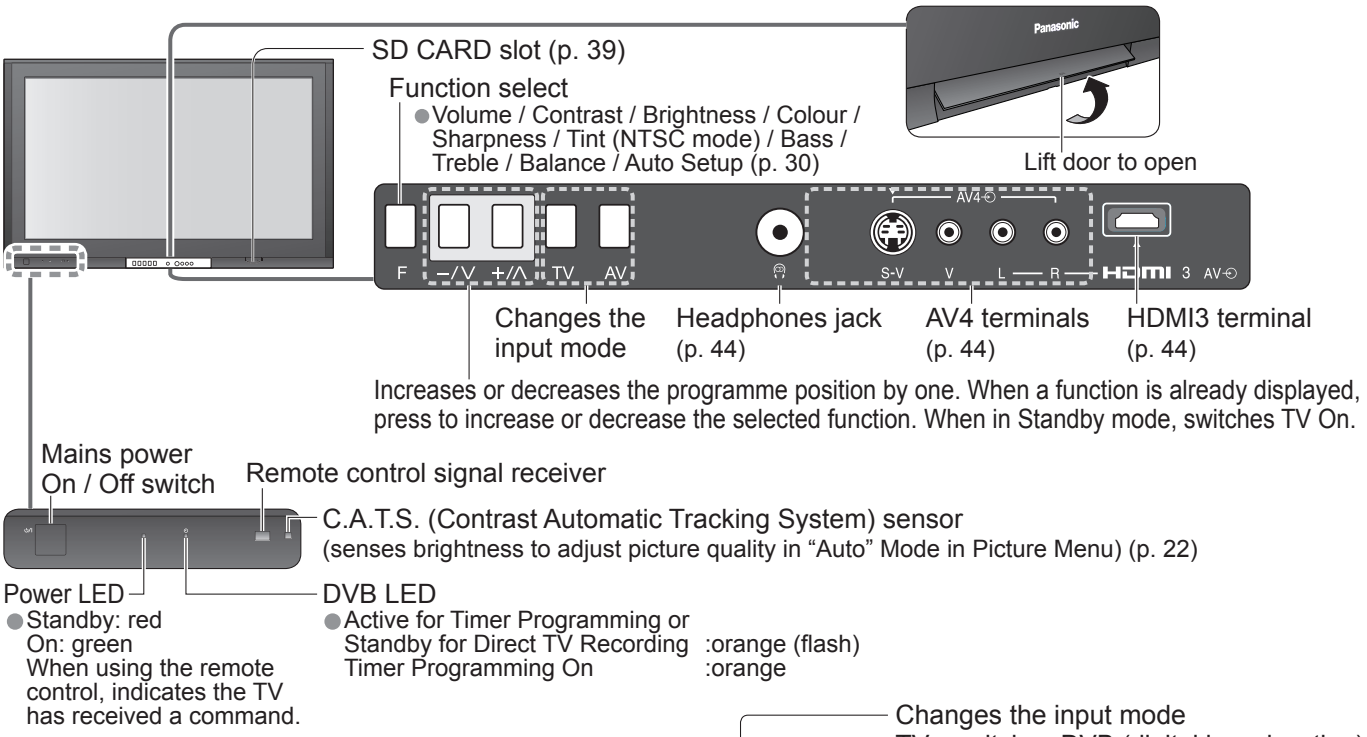
(angle)
- TY-WK42PR3W (TH-42PZ700BA, TH-42PZ700B, TH-50PZ700B)



Caution

- 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.
- Carefully read the instructions accompanying the plasma TV stand or pedestal, and be absolutely sure to take steps to prevent the TV from tipping over.
- Handle the TV carefully during installation since subjecting it to impact or other forces may cause product damage.

Identifying Controls



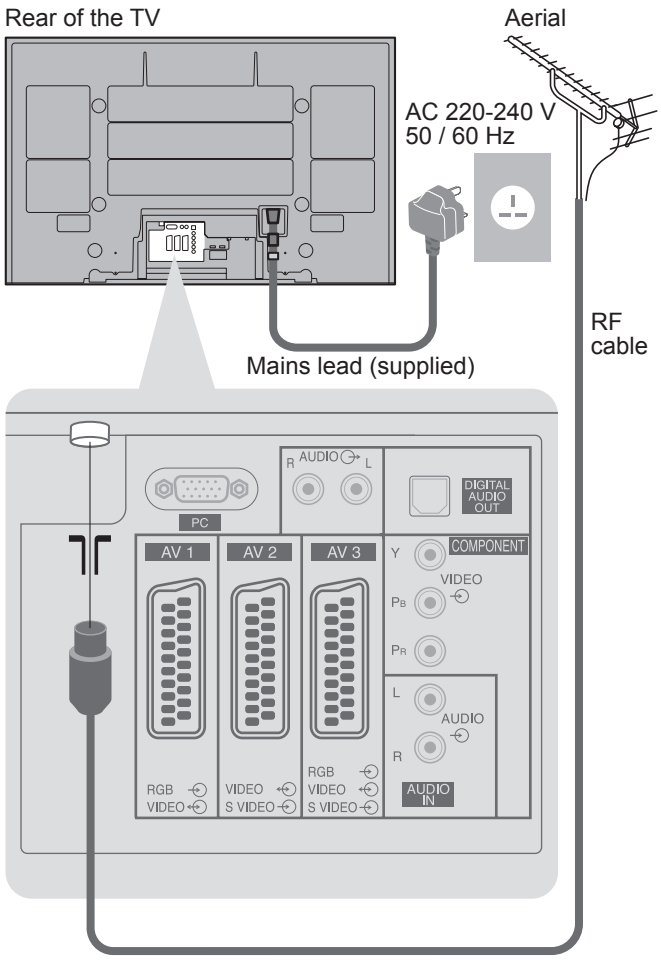


Basic Connection

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.

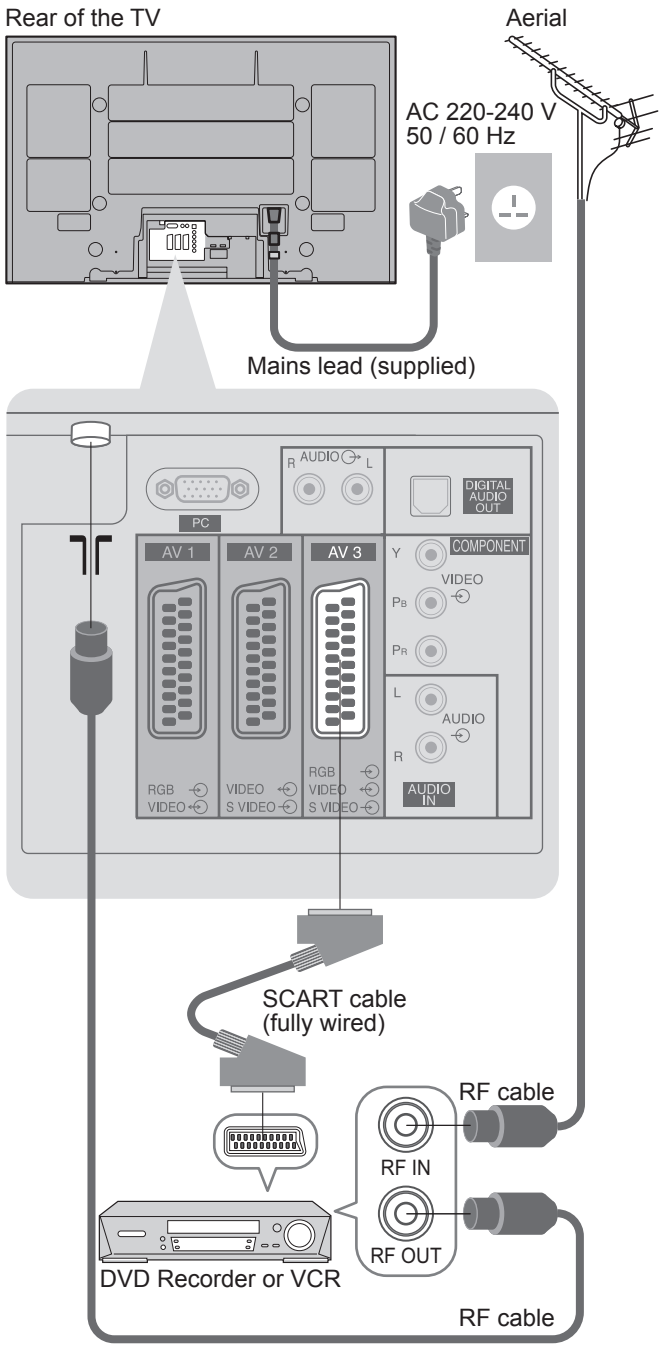
Example 1
Connecting aerial

TV only



Example 2
Connecting DVD Recorder / VCR

TV, DVD Recorder or VCR



Note

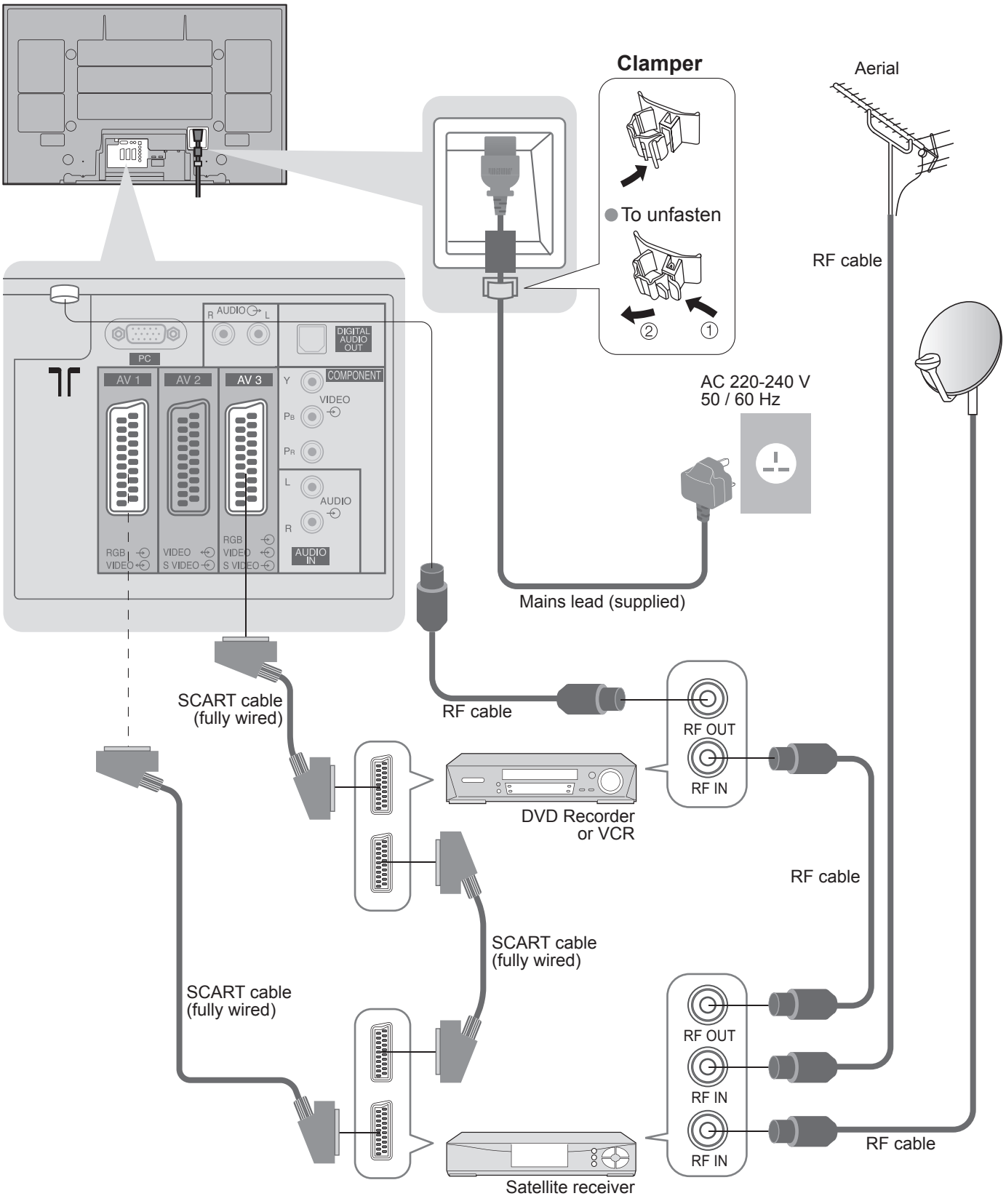
- Connect to AV3 for a DVD Recorder / VCR supporting Q-Link (p. 40).
- Connect to AV1 for a Satellite receiver.
- If connecting the TV and Satellite receiver with SCART cable, you can watch satellite broadcast by RGB input signal.

- SCART: 21 pin connection used for video, audio and switching signals (Also known as Euro SCART and Peritel)
- RF: Radio Frequency - Signal received from terrestrial aerial.
- RGB / S-Video / Video:
  Choose between these three video formats depending on personal preference and equipment requirement. (RGB - Red, Green and Blue)
- VCR: Video Cassette Recorder
- DVD: Digital Versatile Disc

Example 3
Connecting DVD Recorder / VCR and Sattelite receiver

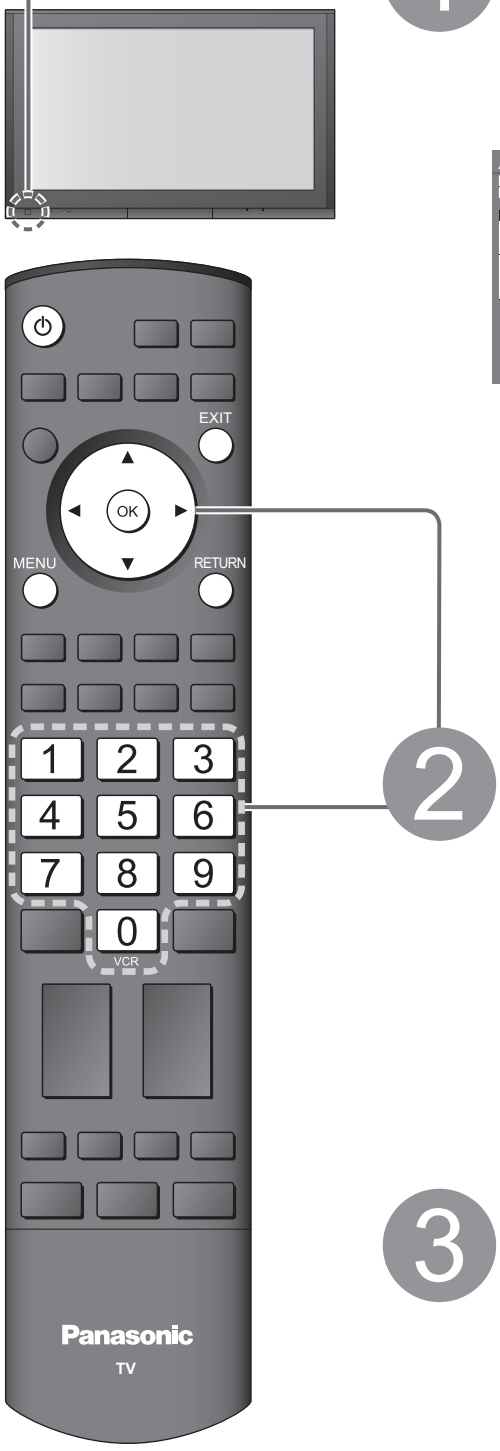
TV, DVD Recorder / VCR and Satellite

Rear of the TV



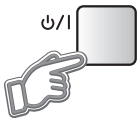
Auto Setup

Search and store TV channels automatically.
These steps are not necessary if the setup has been completed by your local dealer.

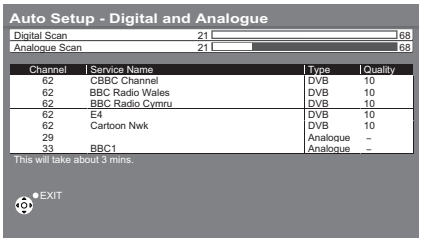


1 Plug the TV into mains socket and switch On

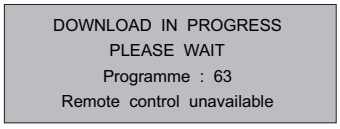
(Takes a few seconds to be displayed)



- You can now use the remote control to turn On the TV or turn the TV to standby mode. (Power LED: On)



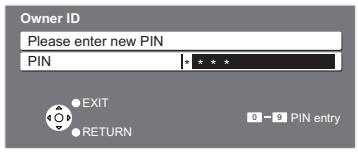
- Auto Setup will start to search for TV channels and store them in the numbered order as specified by the broadcasters.



- If a compatible recording equipment with Q-Link or similar technologies (p. 40) is connected, analogue channel information is automatically downloaded to the equipment.

2

■ When inputting owner ID



Following the on-screen operation guide, enter your own choice of PIN number, name, etc.

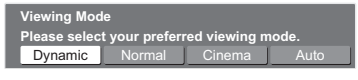
- For detailed procedures
  ➡ “Owner ID” (p. 33)
- Make a note of the PIN number in case you forget it.

■ When inputting owner ID later

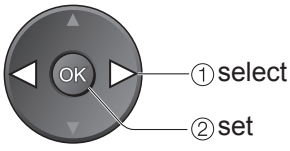


- If you input the ID later
  ➡ “Owner ID” (p. 33)

3 Select the picture setting



- Also possible to change the setting in Picture Menu (p. 22)



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



- To check programme list at-a-glance
  ➡ TV Guide (p. 14)
- To edit channels
  ➡ Editing Channels (p. 28)
  Analogue Programme Edit (p. 31)

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

MENU
Open the main menu

Move the cursor / select the menu

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

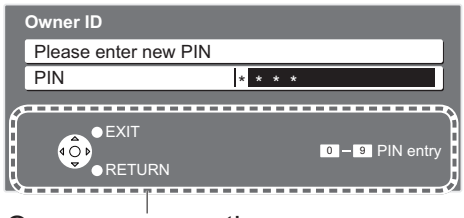
OK
Access the menu / store settings after adjustments have been made or options have been set

RETURN
Return to the previous menu

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

■ ON SCREEN HELP Instructions box

(example: Owner ID)



On-screen operation guide will help you.

Note

- If tuning has failed ➡ “Auto Setup” (p. 30).
- If downloading has failed ➡ “Download” (p. 23).
- 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.

Watching TV



1 Turn power on

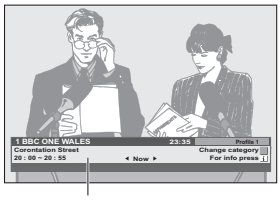


(Press for about 1 second)

- Mains power On / Off switch should be On.

2 Select DVB (Digital Video Broadcasting) or Analogue

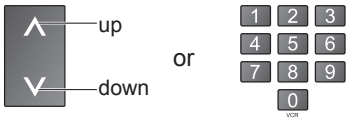




Information banner

- You can also select the mode using the TV button on the front panel of the TV.

3 Select a channel



- To select the two or three-digit programme number, e.g. 39
  ➡ 3 ➡ 9 (in a short time)
- To select programmes using TV Guide (p. 14)

Note

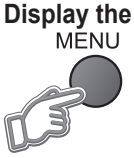
- To watch pay-TV (p. 27)

■ Other useful functions (Operate after 3)

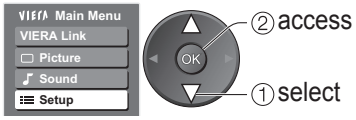
Off Timer

Turn the TV off automatically after a fixed period

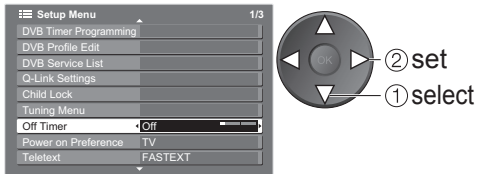
Display the menu



Select "Setup"



Select "Off Timer" and set the time



- To cancel ➡ Set to "Off" or turn the TV off
- To display the remaining time ➡ Information banner (p. 13)
- When the remaining time is within 3 minutes, the remaining time will flash on screen.

Display subtitles

Display / hide subtitles (if available)

- To change the language for DVB ➡ "Preferred Subtitles" (p. 23) (If available)

STTL



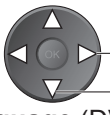
Display the current programme status

Check or change the current programme status instantly

OPTION



- To change ➡



Subtitle Language (DVB mode) ➡ Possible if the programme has some languages of subtitles
Multi Audio (DVB mode) ➡ Possible if the programme has some languages of sounds
NICAM (Analogue mode) ➡ Sound Menu (p. 22)
Volume Correction ➡ Adjusts volume of individual channel or input mode
Audio Description (DVB mode)
➡ This function can aid visually-impaired viewers by adding an additional audio track to describe events on-screen. Select "On" if the programme has this signal, then you will hear the description sound

Note

- Also possible to change the settings in Menu list (p. 22 and p. 23).

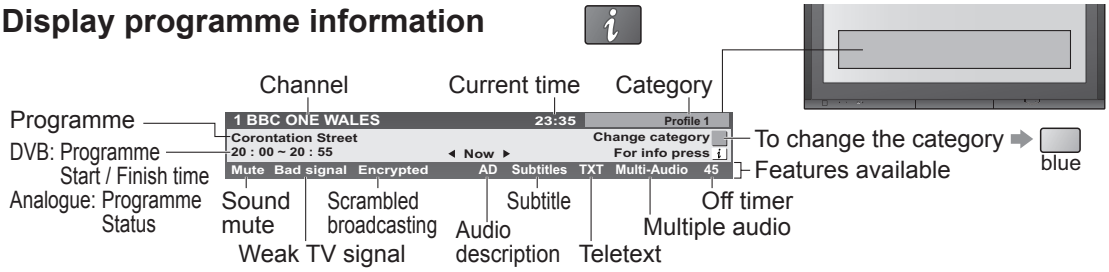
■ Other useful functions (Operate after ❸)

Hold

Freeze / unfreeze picture HOLD

Display information banner

Display programme information *i*



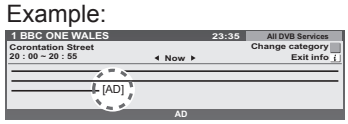
- Information of another channel ➡
- Information on next programme ➡ (DVB)
- To watch the programme listed in the banner ➡ OK
- Information banner operation ➡ *i*

1st press Display banner ➡ 2nd press Banner + programme synopsis (DVB) ➡ 3rd press Exit

- To set display timeout ➡ "Banner Display Timeout" (p. 23)
- To hide ➡ EXIT
- Appears also when changing channel.

- "AD", "Subtitles", "TXT", "Multi-Audio" indications are displayed as available on particular channels or services, but may not be available for all individual programmes being broadcast. Press the *i* button twice to confirm availability of these functions.

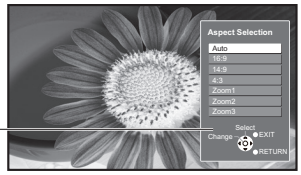
Example:



Change aspect ratio

Change the aspect ratio (p. 46) ASPECT

Enjoy viewing the picture at its optimum size and aspect.



Aspect Selection list

- To change the mode
  ➡ Display Aspect Selection list ASPECT ➡ During the list is displayed, select the mode ➡ Store OK
- To change the mode using the ASPECT button only
  ➡ ASPECT (Press repeatedly until you reach the desired mode)

Watch TV, DVD, etc. in multi window

View in multi window (p. 47) MULTI WINDOW

Enjoy viewing two images at once, such as a TV programme and a DVD.

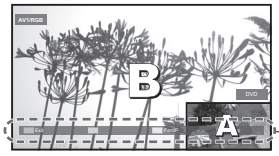
Picture-in-Picture mode (PinP)



yellow ➡

⬅ green

blue



Colour bar

Picture-and-Picture mode (PandP)



Main screen Sub screen

- Remote control operations apply to the main screen.

Operations in multi window

- To exit multi window (return to the single-screen view with main screen) ➡ MULTI WINDOW
- To change the layout, images, first show the colour bar ➡ *i*

To change the layout ➡ green yellow

To swap ➡ blue

To exit multi window ➡ red

To change the input mode or position of sub screen

➡ Swap sub screen for main screen blue ➡ Change the input mode or position by the remote control (p. 12 or p. 16) ➡ Swap again blue

Using TV Guide

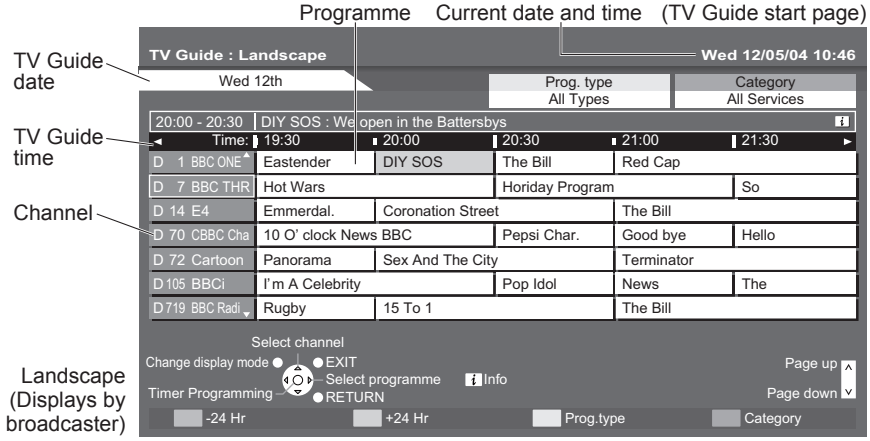
TV Guide—Electronic Programme Guide (EPG) provides an on-screen listing of programmes currently broadcast and future broadcasts over the next seven days (depending on the broadcaster). Analogue broadcasts will be listed after DVB broadcasts. “D” means DVB channel and “A” means Analogue channel.



GUIDE

View TV Guide (landscape or portrait)

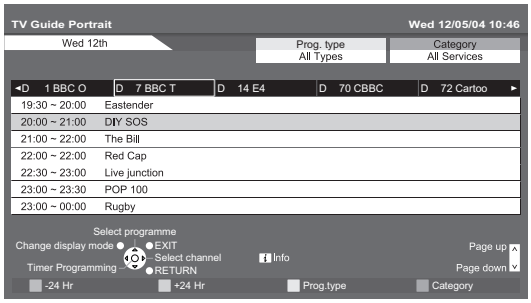
View “Portrait” to see one channel at a time
View “Landscape” to see many channels



■ To change the layout

GUIDE

(Landscape / Portrait)



Portrait (Displays by time)

■ To previous day (DVB mode)

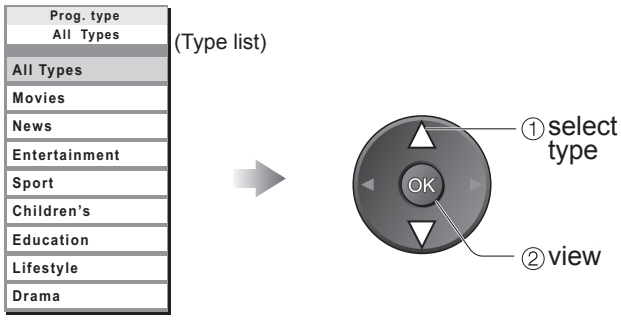
red

■ To next day (DVB mode)

green

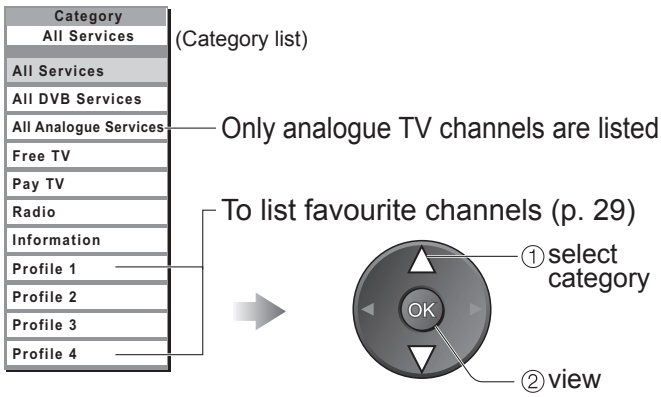
■ To view a programme list of the selected type (DVB mode)

yellow



■ To view a programme list of the selected category

blue



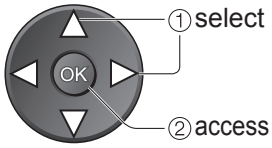
■ To return to TV

EXIT

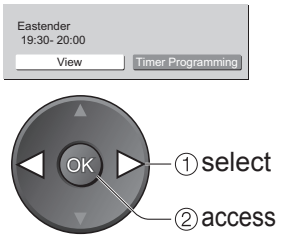
■ Other useful functions (Operate after viewing TV Guide)

Watch the programme

Select the channel or programme now on the air



Select "View"
(DVB)

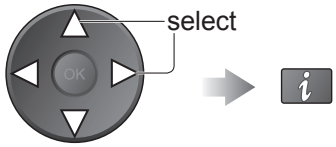




(TV screen)

View details of the programme (DVB mode)

Select the programme



View details

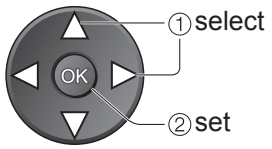


■To return to the start page

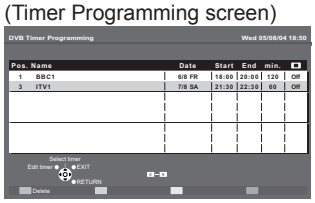
➡ i

Timer programming to record (DVB mode)

Select the programme to be broadcast



(Timer Programming screen)



DVB LED will turn on if Timer Programming is set.



- Orange DVB LED
  (Rapid blinking during recording)

■ To check / change / cancel a timer programming event

➡ "Timer Programming" (p. 36)

■ To return to TV Guide

➡ RETURN

Note

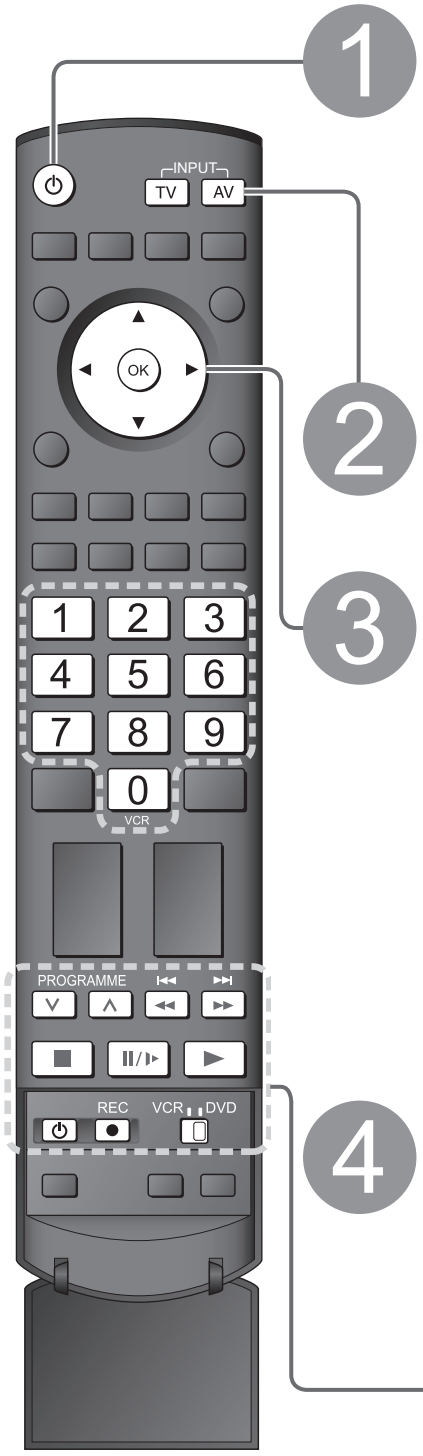
- When recording programmes, you must make the proper settings on the external recording equipment connected to the TV.
  If a compatible recording equipment with Q-Link or similar technologies is connected to the TV (p. 8) and the "Q-Link Settings" (p. 23) are completed, no setting of the equipment is required.
  Also read the manual of the recording equipment.
- If you select the programme now on the air, the confirmation screen whether watching or recording will appear. Select "Timer Programming" to record from the time you finish the Timer Programming setting.

Note

- 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.

Watching VCR, DVD and Satellites

Connect the external equipment (VCRs, DVD equipment, etc.) and you can watch the input.
Connect the Satellite receiver and you can watch satellite broadcasts.
To connect the equipment (p. 8 and p. 9)
The Remote Control is capable of operating some functions of selected Panasonic external equipment.



1 Turn the TV on

■ **When connecting with SCART as example 2 or 3** (p. 8 and p. 9)

➡ Receives input signals automatically when playback starts or satellite receiver is switched on

- Input signals are automatically identified by the SCART (pin 8) terminal.
- This function is also available for HDMI connections (p. 43).

■ **If input mode is not switched automatically**

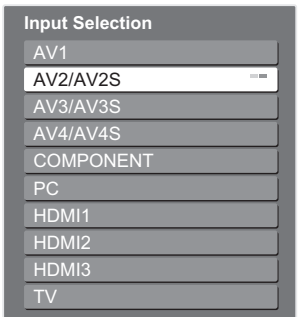
➡ Perform 2 and 3

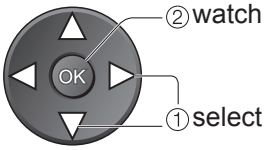
- Dependant on the setup of the equipment

2 Display the Input select menu



3 Select the input mode connected to the equipment

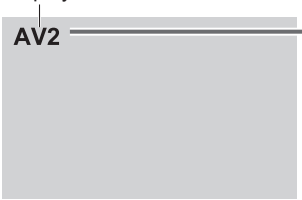




- You can also select the input using the AV button on the remote control or the front panel of the TV.
  Press the button repeatedly until the desired input is selected.
- You can label or skip each input modes ➡ “Input Labels” (p. 34)

4 View

Displays the selected mode



■ **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.

Screen display

Terminal	AV1	AV2	AV3	Component	PC	HDMI1	HDMI2	HDMI3
Manual input (default setting in "Input Labels")	AV1 AV1-RGB	AV2 AV2-S-Video	AV3 AV3-S-Video AV3-RGB	Component	PC	HDMI1	HDMI2	HDMI3
Auto input (EC mode or VIERA Link)	EC/AV1 EC/AV1-RGB	EC/AV2 EC/AV2-S-Video	EC/AV3 EC/AV3-S-Video EC/AV3-RGB	—	—	EC/HDMI1 ● Applicable for EC mode and VIERA Link	EC/HDMI2 ● Applicable for VIERA Link	EC/HDMI3 ● Applicable for VIERA Link

Panasonic equipment connected to the TV can be directly operated with the remote control.

VCR DVD	**VCR / DVD switch∗** Select VCR to operate Panasonic VCR or DVD equipment Select DVD to operate Panasonic DVD equipment or Player home theatre
	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 / Restart DVD: Press and hold to play at slow speed
PROGRAMME	**Programme Up / Down** Select programme
REC	**Record** Start recording

∗Setting your remote control to operate Panasonic VCR, DVD, etc.

① Set the VCR / DVD switch to the appropriate position ➡ VCR DVD

② Press and hold ⏻ during the following operations

Enter the appropriate code for the equipment to be controlled, see table below (1 2 3 / 4 5 6 / 7 8 9 / 0 VCR) ➡ Press ■

"VCR" position

Equipment	Code
VCR	10 (default)
DVD	11

"DVD" position

Equipment	Code
DVD	70 (default)
Player home theatre	71

Note

- Confirm correct operation after the code changed.
- The codes will be reset to default values if batteries are replaced.
- "DVD" means DVD player, DVD recorders and Recorder home theatre.
- Some operations may not be possible on some equipment models.

Viewing Teletext

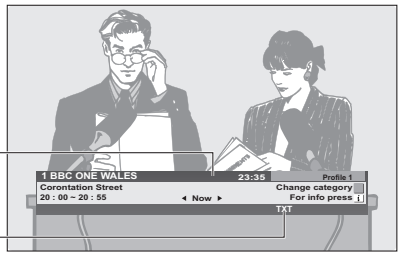
You can enjoy news, weather forecasts and subtitles, etc. (depending on the broadcaster)

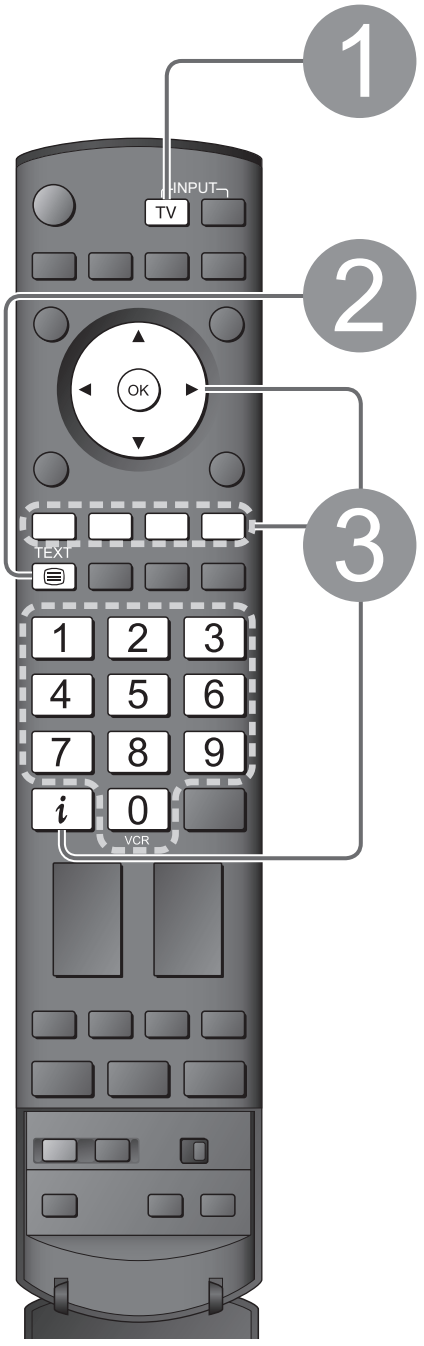
DVB (digital broadcasting) mode

DVB teletext services

DVB teletext services differ greatly from analogue teletext. When you switch to a DVB teletext service, the images you see can contain graphics and text, laid out and controlled in a manner decided by the broadcaster.

- You can check if the programme has teletext information.





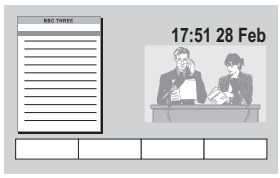
If in Analogue mode

Select DVB

TV

Switch to Teletext

TEXT



How to use

In all cases, it is possible to navigate the pages using buttons on the remote control, but because the commands available must apply to all manufacturers of DVB equipment, some on screen commands may not correspond exactly to the remote control buttons.
For example:

- When “select” or “go” is displayed ➡ OK
- When “◄”, “►”, “▲”, “▼” symbol is displayed ➡
- When the key words are displayed on colour bar ➡ red green yellow blue
- When options with numbers are displayed ➡ 1 2 3 4 5 6 7 8 9 0
- When “i” is displayed ➡ i (information)

■ To return to TV ➡ TEXT

■ To change the channel

➡

Note

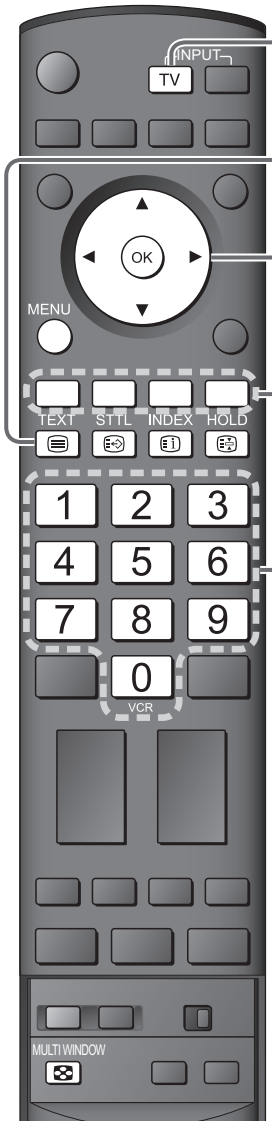
- As soon as you switch to a DVB channel with links to a teletext service, software is downloaded in the background to enable the teletext function. This means that when switching to a DVB channel, you should wait for approximately 5 seconds before pressing the TEXT button - this will allow the software to download. If you press the TEXT button before download is complete, there will be a short delay before the text screen is displayed.
- While navigating DVB teletext, you will find there is a short delay when moving between pages while the page downloads. There is often a prompt shown somewhere on the page (for example “Loading”) to let you know that this is happening.

Analogue mode

What is FASTEXT mode (default)**?**
In FASTEXT 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 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. 20)

■ **To change mode** ➡ "Teletext" in Setup Menu (p. 23)



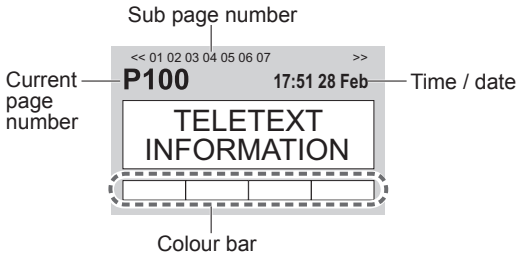
1 If in DVB mode
Select Analogue

TV

2 **Switch to Teletext**

TEXT

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



3 **Select the page**

1 2 3 4 5 6 7 8 9 0 or up down or red green yellow blue
(Corresponds to the colour bar)

As the blue bar is displayed

■ **To adjust contrast** ➡ MENU ➡ OK

■ **To return to TV** ➡ TEXT

■ **Using Analogue teletext**

Reveal hidden data

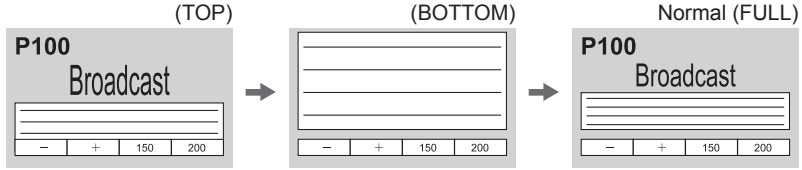
Reveal hidden words e.g. quiz page answers

MENU ➡ red

● Re-hide ➡ red

FULL / TOP / BOTTOM

MENU ➡ green



(Continued)

Viewing Teletext

■ **Using Analogue teletext (Continued)**

HOLD

If you wish to hold the current page without updating

Stop automatic updating

HOLD

■ **To resume** ➡ HOLD

INDEX

Return to the main index page

INDEX

Subtitles

View subtitles by pressing STTL button

STTL

● Factory setting is “P888” (subtitle service) on blue button (List mode).

View in multi window

Watch TV and Teletext in two windows at once

MULTI WINDOW

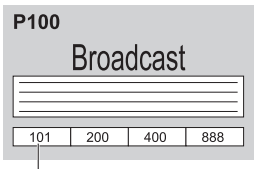


● Operations can be made only in Teletext screen.

Store frequently viewed pages

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

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



The number changes to white.

● If you wish to use Subtitles, do not change number on blue button.

■ **To change stored pages**

➡ Colour button you want to change ➡ Enter new page number

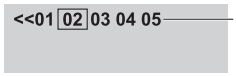


➡ OK press and hold

View sub page

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

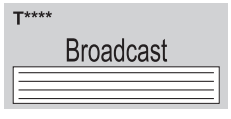




Appears at top of the screen

■ **To view specific sub page**

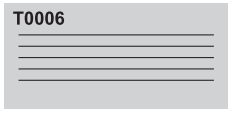
➡ MENU ➡ blue



➡ Enter the 4-digit number

example: P6

0 0 0 6



● 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

MENU ➡ yellow ➡



Appears when updating is completed ➡ yellow ➡ View the updated page

(You cannot change the channel.)

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

How to Use Menu Functions

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



1 Display the menu

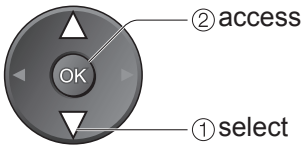
MENU

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

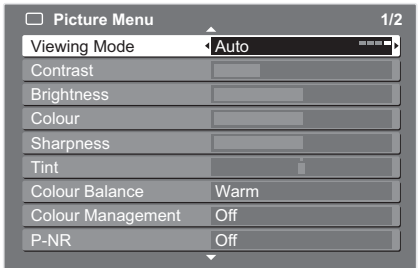
2 Select the menu



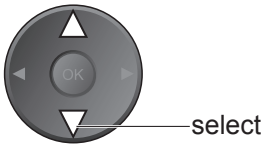
(example: Picture Menu)



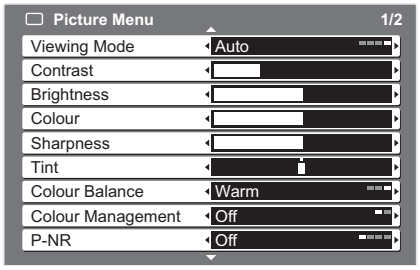
3 Select the item



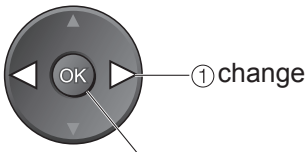
(example: Picture Menu)



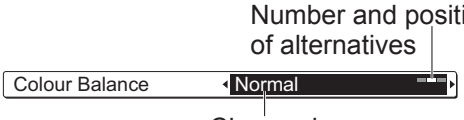
4 Adjust or select



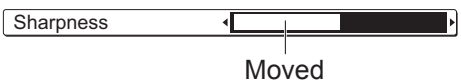
(example: Picture Menu)



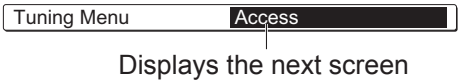
■ Choose from among alternatives



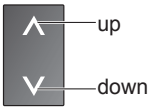
■ Adjust using the slide bar



■ Go to the next screen



■ To change menu pages



■ To return to TV at any time

EXIT

■ To return to the previous screen

RETURN

Note

● To initialize all settings
➡ "Shipping Condition" (p. 32)

How to Use Menu Functions

■ Menu list

Menu	Item	Adjustments / Configurations (alternatives)
VIERA Link	**VIERA Link Control**	Controls the connected Panasonic equipment “Access and control the connected equipment by VIERA remote control” (p. 43) “Speaker control” (p. 43) ● You can also access VIERA Link Menu directly using the VIERA Link button on the remote control.
	Speaker Selection	
Picture	**Viewing Mode**	Selects four different screen settings **(Dynamic / Normal / Cinema / Auto)** In each Viewing Mode setting, Contrast, Brightness, Colour, Sharpness, Tint (in NTSC only), Colour balance, Colour Management and 3D-COMB can be adjusted and stored to suit your particular viewing requirement (e.g., you may require different settings for viewing sports, films, news etc.) Set for each input signal Changes will be stored automatically. By analysing and processing the incoming picture, all four modes feature automatic enhancement
	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
	Colour Balance	Allows you to set the overall colour tone of the picture **(Cool / Normal / Warm)**
	Colour Management	Automatically adjusts colours to vivid ones **(Off / On)** ● Not valid on PC signal
	P-NR	Picture Noise Reduction Automatically reduces unwanted picture noise and flicker noise in the contoured parts of a picture **(Off / Min / Mid / Max)** ● Not valid on PC signal
	3D-COMB	Occasionally, whilst viewing still or slow moving pictures, colour patterning may be seen Set to “On” to display sharper and more accurate colours **(Off / On)** ● For PAL or NTSC signal reception only ● Not valid on RGB, S-Video, components, PC, HDMI and SD Card ● Analogue mode only
	Reset to Default	Press the OK button to reset the present Picture Mode to the default settings ● P-NR is reset to Off (Analogue) or Min (DVB)
Sound	**Mode**	Select two different sound settings **(Music / Speech)** In each Sound Mode setting, Bass and Treble can be adjusted and stored to suit your particular sound requirement Changes to any settings in a mode will affect all signal sources Sound quality can be improved
	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
	Balance	Adjusts volume level of right and left speakers
	Headphone Volume	Adjusts the volume of the headphones
	Surround	Surround sound settings **(Off / Simulated Surround / SRS TruSurround XT)** Simulated Surround: Provides a dynamic enhancer to simulate improved spatial effects SRS TruSurround XT: SRS TruSurround XT® creates a high quality surround sound effect using just two speakers from the source which can output surround encoded signals ● Switching is also possible by the Surround button on the remote control (p. 7)
	Volume Correction	Adjusts volume of individual channel or input mode
	Preferred Multi Audio	Selects the preferred language for DVB multi audio (depending on the broadcaster)
	NICAM	NICAM (Near Instantaneous Companded Audio Multiplex) A format for digital sound over television Reproduces stereo sound **(Off / On)** ● Off if reception is poor (FM monaural sound) ● Analogue mode only
	HDMI1 / 3 Input	Select to fit the input signal **(Auto / Digital / Analogue)** (p. 41) Auto : Automatic detection of digital or analogue sound source Digital : HDMI cable connection Analogue : HDMI-DVI adapter cable connection ● HDMI input mode only ● HDMI2 terminal is for digital signal only ● No setting for HDMI2 available
	Audio Description Menu — **Audio Description**	Useful for visually-impaired viewers **(Off / On)** Select “On” to sound the description sound if the programme has the signal
	Audio Description Menu — **Volume**	Adjusts the volume for audio description
	Audio Description Menu — **Speakers**	Set to “On” to active the description sound track from TV speakers **(Off / On)**
	Audio Description Menu — **Headphones**	Set to “On” to active the description sound track from headphones **(Off / On)**
	Reset to Default	Press the OK button to reset the present Sound Mode to the default settings ● Effective to Bass, Treble, Balance and Headphone Volume

■ Menu list

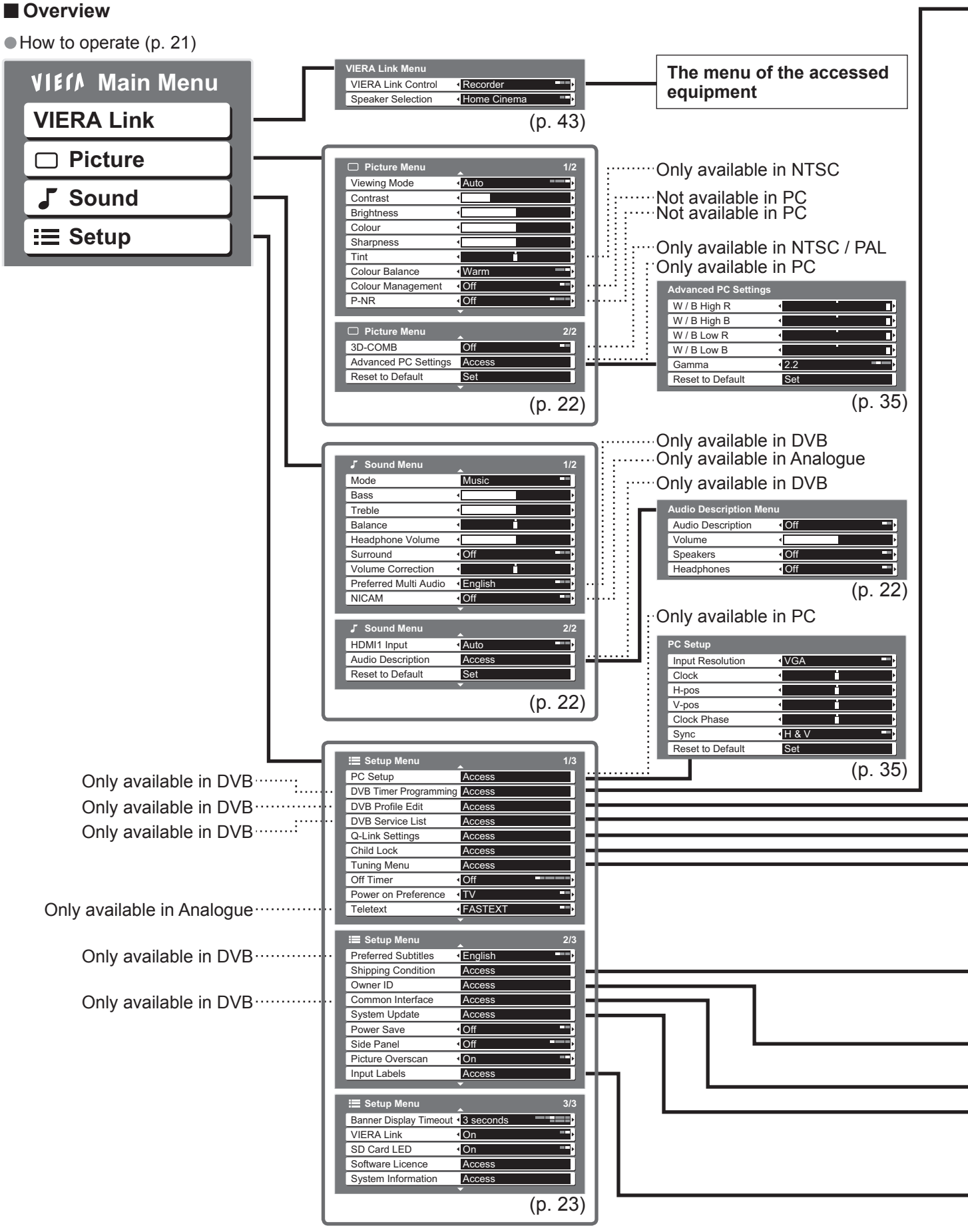
Menu	Item		Adjustments / Configurations (alternatives)
Setup	DVB Timer Programming		Records future programmes (p. 36)
	DVB Profile Edit		Creates list of favourite programmes (p. 29)
	DVB Service List		Skips the unwanted DVB channels (p. 29)
	Q-Link Settings	Q-Link	Selects which AV terminal is to be used for data communication between this TV and a compatible recording equipment **(AV2 / AV3)** (p. 40) ● Select the connected terminal to the recording equipment even it is not compatible with Q-Link.
		AV2 / AV3 out	Chooses the signal to be transmitted from the TV to Q-Link **(Analogue / DVB / AV1 / AV2 / AV3 / AV4 / Monitor)** ● Monitor: Image displayed on screen ● Component, PC and HDMI signals cannot be outputted
		Download	Downloads analogue channel information to a Q-Link compatible equipment connected to the TV
	Child Lock		Locks a programme channel to prevent access to it (p. 29)
	Tuning Menu	Auto Setup	Automatically sets the channels received in the area (p. 30)
		Analogue Programme Edit	Edits analogue channels (p. 31)
		DVB Manual Tuning	Sets the DVB channels manually (p. 31)
		Analogue Manual Tuning	Sets the analogue channels manually (p. 31)
		Add New DVB Services	Adds new DVB services (p. 31)
		New Service Message	Selects whether to give a notification message when a new DVB service is found (p. 31)
		DVB Signal Condition	Checks the DVB signal condition (p. 31)
	Off Timer		Sets the time the TV automatically turns Off **(Off / 15 / 30 / 45 / 60 / 75 / 90 minutes)**
	Power on Preference		Set to “TV” to view picture from TV tuner. Set to “AV” to view input from an external equipment connected to a SCART terminal, e.g. satellite receiver **(TV / AV)** ● The external equipment must be switched on and sending a control signal for automatic switching at power on to occur
	Teletext		Analogue teletext display mode **(FASTEXT / List)** (p. 19)
	Preferred Subtitles		Selects the preferred language for DVB subtitles (depending on the broadcaster) ● To display subtitles ➡ p. 12
	Shipping Condition		Resets all settings, for example, when moving house (p. 32)
	Owner ID		Inputs the owner ID (p. 33)
	Common Interface		Uses include to watch pay-TV (p. 27)
	System Update		Downloads new software to TV (p. 27)
	Power Save		Reduces brightness of picture to economise on power consumption **(Off / On)**
	Side Panel		Increases the brightness of the side panel **(Off / Low / Mid / High)** ● The recommended setting is “High” to prevent panel “image retention”
	Picture 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 or 16:9. ● This function can be memorized for SD (Standard definition) and HD (High definition) signals separately.
	Input Labels		Labels or skips each input terminals (p. 34)
	Banner Display Timeout		Sets how long the information banner (p. 13) stays on screen ● 0 (No display) to 10 sec. in 1-sec. increments
	VIERA Link		Sets to use VIERA Link functions **(Off / On)** (p. 42)
	SD Card LED		Lights blue LED while SD Card is inserted **(Off / On)** (p. 39)
	Software Licence		Displays the software licence information
	System Information		Displays the system information of this TV

● A different menu will be displayed while PC or SD Card is used. (p. 35 and p. 39)
● Only available items can be selected.

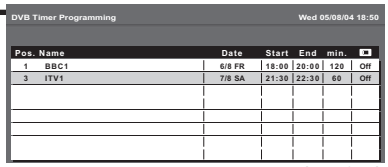
How to Use Menu Functions

■ Overview

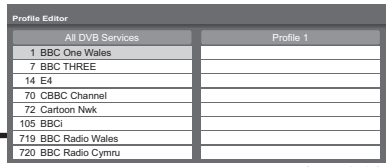
● How to operate (p. 21)



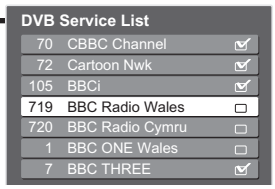
NTSC (National Television System Committee): One of television signal used in USA, etc.



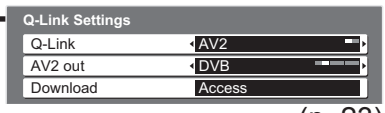
(p. 37)



(p. 29)



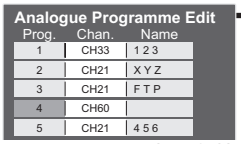
(p. 29)



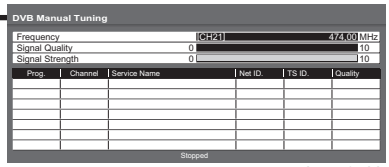
(p. 23)



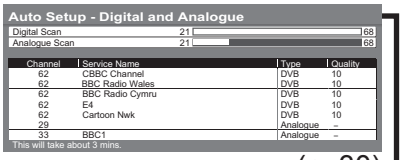
(p. 29)



(p. 31)



(p. 31)

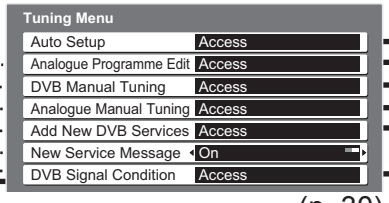


(p. 30)

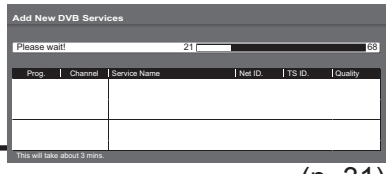


(p. 31)

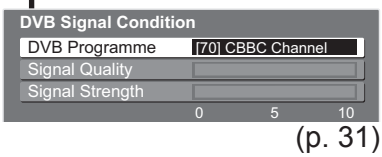
Only available in Analogue
Only available in DVB
Only available in Analogue
Only available in DVB
Only available in DVB
Only available in DVB



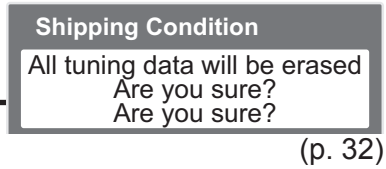
(p. 30)



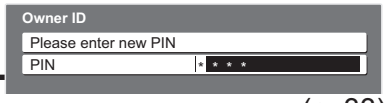
(p. 31)



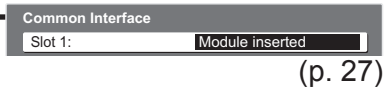
(p. 31)



(p. 32)



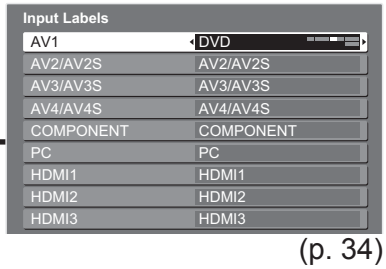
(p. 33)



(p. 27)



(p. 27)



(p. 34)

DVB Settings (DVB mode)

DVB Settings provide access to various advanced features.



1 If in Analogue mode

Select DVB



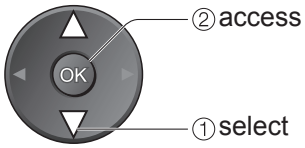
2 **Display the menu**

MENU

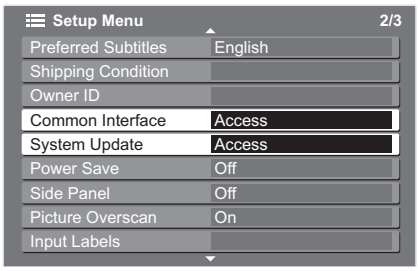


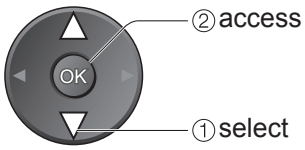
3 **Select “Setup”**





4 **Select “Common Interface” or “System Update”**





5 **Set**

■ To return to TV

EXIT



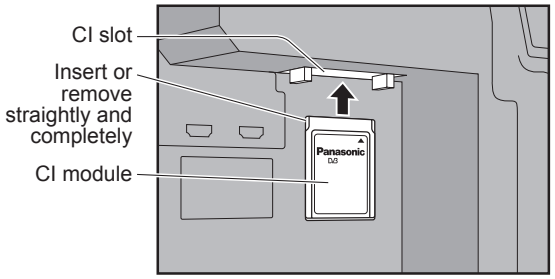
Pay-TV

Common Interface

The Common Interface Module menu provides access to software contained on Common Interface (CI) Modules.
This TV receiver works only Pay TV modules complying with CI standard.

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.
- Do not insert the module up side down.



Rear of the TV

① Insert the CI module (optional)

- The features that appear on screen are dependent on the contents of the selected CI module.
- Normally pay-TV services will appear without ② and ③.
  If pay-TV services does not appear, perform ② and ③.
- For more details, see the manual of the CI module, or check with the broadcaster.

② Access "Common Interface"



OK — access

③ Follow the on-screen instructions

example: select, go ➡ OK ◀▶▼▲ ➡

Coloured characters ➡ red green yellow blue

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

Update TV's software system

System Update

Download new software to TV.
- For details (p. 47)

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.

Select "Auto Update Search in Standby" and then set "On" or "Off"



② set
① select

- On: Automatically performs a search in standby and downloads an update, if any software updates are available

■ To update immediately

Select "System Update Search Now"

② access
① select

➡ Searches for an update (for several min.) and displays a corresponding message if any ➡ Download OK

- Download may take for about 20 min.

Editing Channels

You can make your favourite channel lists, skip unwanted channels and control channel audience.

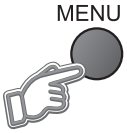


1 Select DVB or Analogue



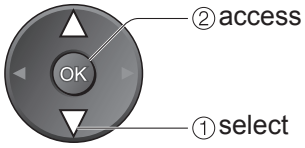
- "DVB Profile Edit" and "DVB Service List" are available in DVB mode only.

2 Display the menu

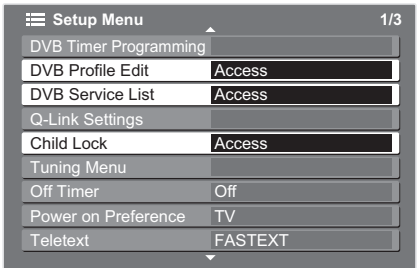


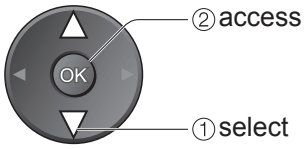
3 Select "Setup"





4 Select "DVB Profile Edit", "DVB Service List" or "Child Lock"





5 Set

■ **To return to TV**

EXIT

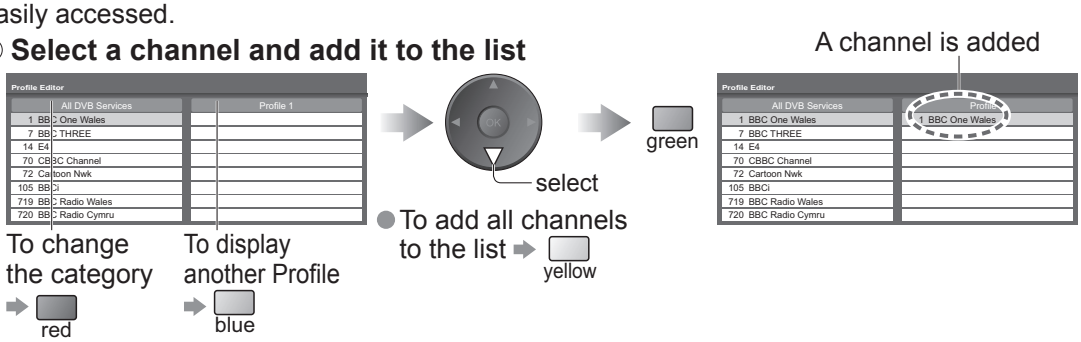
List favourite channels

DVB Profile Edit

(DVB mode)

Create your favourite channel list (Profile) from various broadcasters (up to 4: Profile 1 to 4). The list is added to “Category” in TV Guide (p. 14) and information banner (p. 13) and then easily accessed.

① Select a channel and add it to the list



■ To edit Profile

Select the field of Profile to edit and:

- To name the Profile ➡ red ➡ Select the character ➡ OK ➡ RETURN
- To move the channel ➡ green ➡ Select the new position ➡ Confirm green ➡ OK
- To delete the channel ➡ yellow
- To delete all channels ➡ blue

② Store

OK

- Channel numbers (known as logical channel numbers) cannot be changed, due to broadcast restrictions.

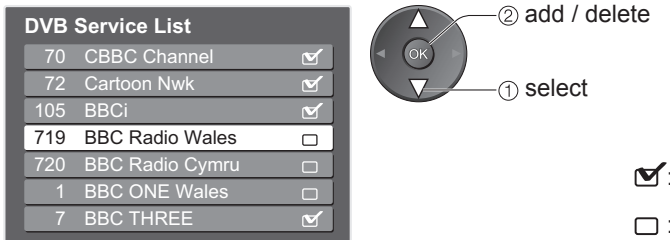
Skip unwanted channels

DVB Service List

(DVB mode)

You can hide unwanted services. The deleted services cannot be displayed except in this function. Use this function to skip unwanted services.

Select a service and add / delete



Control channel audience

Child Lock

You can lock specific channels and control who watches them.
(When a channel is selected, a message appears; by entering the PIN number, you can watch the channel.)

① Enter the PIN number (4 digits)

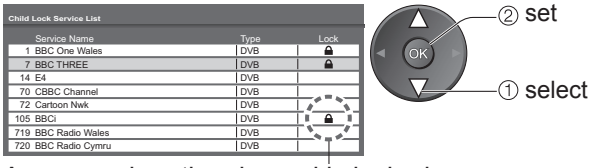


- Enter the PIN number twice at first setting.
- Make a note of the PIN number in case you forget it.

② Select “Service List”



③ Select the channel to be locked



Appears when the channel is locked

- To cancel
  ➡ Select the locked channel
  ➡ OK
- To lock all channels ➡ yellow
- To cancel all channel locks ➡ blue

■ To change the PIN number

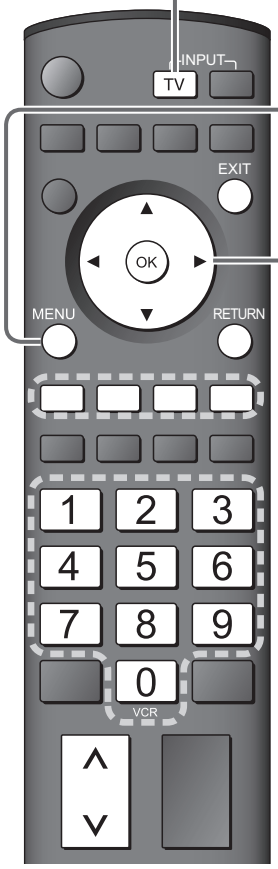
Select “Change PIN” in ② and enter a new PIN number twice.

Note

- Setting “Shipping Condition” (p. 32) erases the PIN number and all settings.

Tuning Channels

You can re-tune all TV channels when moving house or search for new services which may have recently started broadcasting.

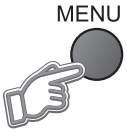


1 Select DVB or Analogue



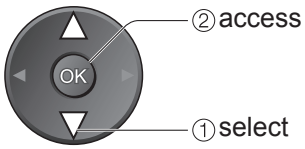
- "DVB Manual Tuning", "Add New DVB Services", "New Service Message" and "DVB Signal Condition" are available in DVB mode only.
- "Analogue Programme Edit" and "Analogue Manual Tuning" are available in Analogue mode only.

2 Display the menu

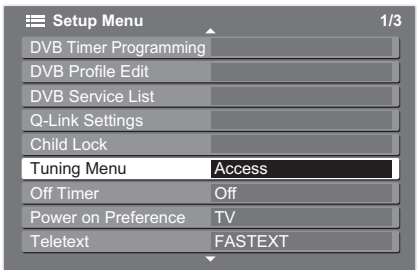


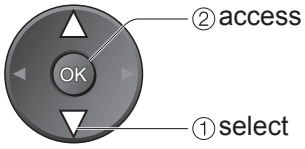
3 Select "Setup"



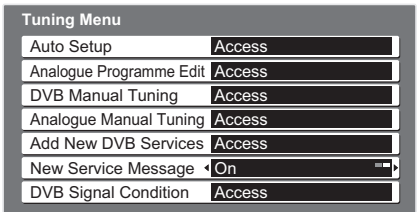


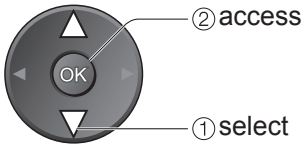
4 Select "Tuning Menu"





5 Select a function and set





■ To return to TV

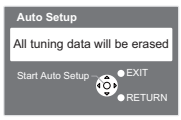
EXIT

Set DVB and Analogue channels automatically

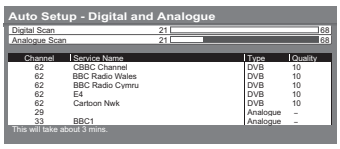
Auto Setup

Automatically set the DVB and Analogue channels received in the area.
If a Child Lock PIN number (p. 29) has been set, it must be entered.

Start Auto Setup **Settings are made automatically**



OK



- All previous settings are erased.
- The analogue settings are downloaded to a Q-Link compatible equipment connected to the TV.
- When the operation is completed, the digital service at programme position "1" will be displayed. If no DVB services are found, the first analogue service will be displayed.
- If tuning has not done completely ➡ "DVB Manual Tuning", "Analogue Manual Tuning"

For Auto Setup, using the buttons on the front of the TV

① Press repeatedly until "Auto Setup" appears

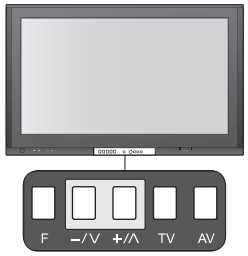
F

② Access "Auto Setup"

TV

③ Start "Auto Setup"

TV



■ To return to TV ➡ F

Edit Analogue channels

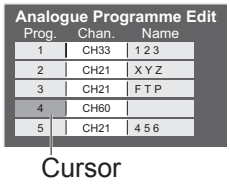
Analogue Programme Edit

- Delete
- Add
- Move
- Change name

Edit the analogue programme position settings

● To change channel number
➡ “Analogue Manual Tuning”

① **Select the channel to edit**





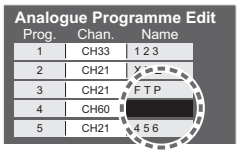
② **Edit**

■ **To delete** ➡ red
➡ After confirming, press red

■ **To add** ➡ green
➡ After confirming, press green

■ **To move** ➡ yellow
➡ Select new position ➡ yellow

■ **To change the name of the broadcaster displayed when selecting channels**

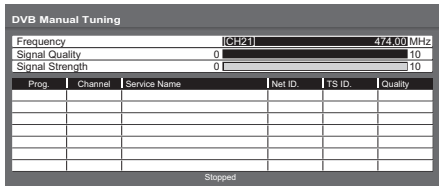


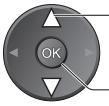
Select the “Name” field
red Enter the “User input” mode
Select the character
OK Set (Maximum: five characters)
RETURN Store

Set DVB channel manually

DVB Manual Tuning

Normally use “Auto Setup” or “Add New DVB Services” to add DVB channels to your service list.
If tuning has not done completely, use this function.





● All services found will be added to the DVB Service List (p. 29) automatically.

Set Analogue channel manually

Analogue Manual Tuning

Set Analogue channel manually after Auto Setup.
If a VCR is connected with only the RF cable, select programme position “0”.



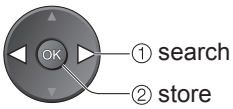
Select the programme position



Select the channel



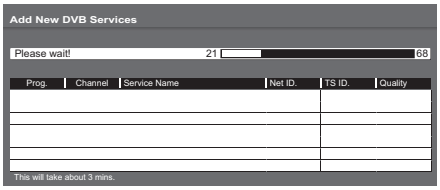
Search and store



Add DVB channel automatically

Add New DVB Services

Any new services found will be added to the DVB Service List (p. 29) automatically.



● The new service is added with the current settings saved as they are.

Display a notification message

New Service Message

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



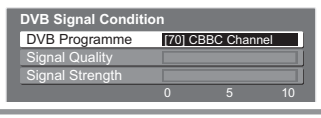
● Selecting OK (Auto Setup) will delete current Profile and Childlock settings.

Check DVB signal

DVB Signal Condition

Selects a channel and checks the DVB signal condition.
Use for adjusting the direction of the aerial.

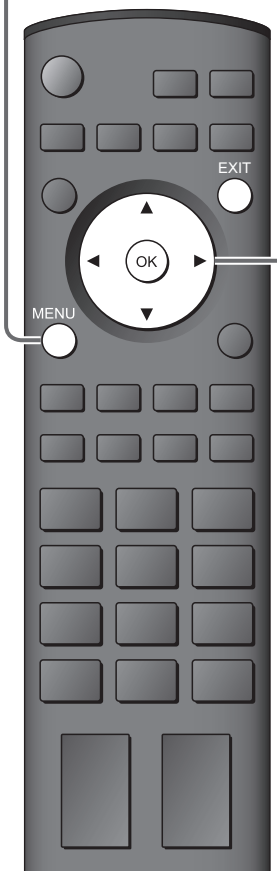
● To change the programme
➡ ^ v (during the menu appears)



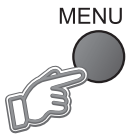
A good Signal Strength is not an indication of suitable signal for DVB reception. Please use the Signal Quality indicator as follows:
Signal Quality:
● Green bar ➡ Good
● Yellow bar ➡ Poor
● Red bar ➡ Bad (Check the aerial)

Restore Settings

Resets the TV to its original condition, i.e. no channels tuned in.
All settings other than “Owner ID” (channels, picture, sound quality, etc.) are reset.

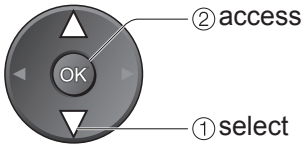


1 Display the menu

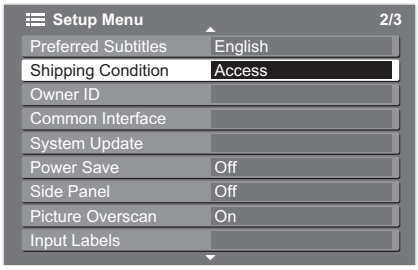


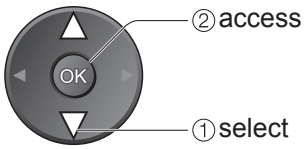
2 Select “Setup”





3 Select “Shipping Condition”





4 Set

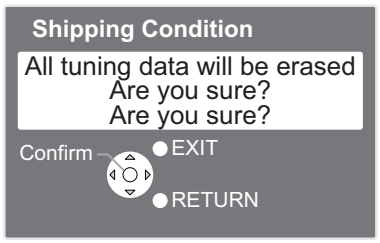
■ **To return to TV**

➡ EXIT

Restore Settings

Shipping Condition

① Check the message and initialise





② Follow the on-screen instructions

- “Auto Setup” will automatically start when Mains power On / Off switch is next turned On. (p. 10)

■ **To re-tune TV channels only, e.g. after moving house**

➡ “Auto Setup” (p. 30)

Owner ID

Entry of the security code (PIN number) and “personal information” (your name, address and post code).
In the unfortunate event of theft it will help the Police to determine the owner.
If you have skipped the Owner ID input in “Auto Setup” (p. 10), and input it later, start from ❶.
If you input the Owner ID in “Auto Setup” (p. 10), perform ❹.



■ **To return to TV**

EXIT

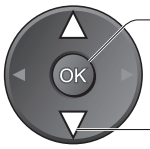
1 Display the menu

MENU



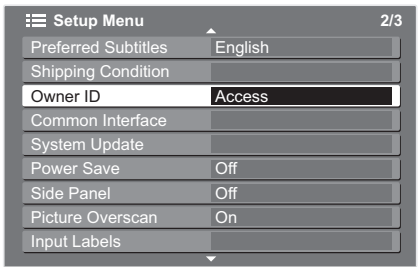
2 Select “Setup”

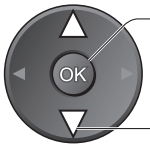




②access
①select

3 Select “Owner ID”





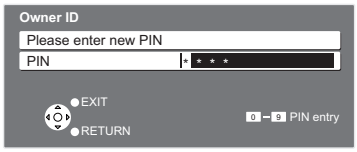
②access
①select

4 Set

Input owner ID

Owner ID

① Enter the PIN number (4 digits)





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

② Enter your name, address, and post code, in that order



Select the entry field

OK Enter the “User input” mode



Select the character

OK Set

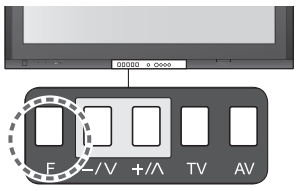
RETURN Store

To check the “personal information” stored

F Hold down for about 3 sec.

Displays the information on the screen (for several sec.)





- The PIN number is not displayed.

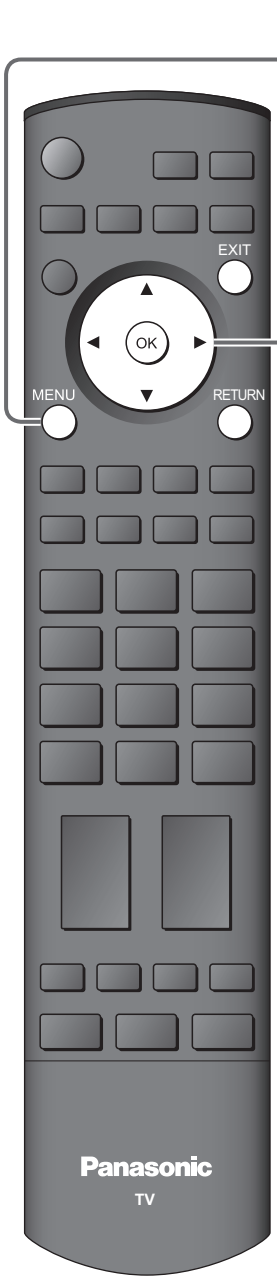
■ To change the PIN number

Select the “PIN” field 

②access
①select
➡ Enter a new PIN number twice

Input Labels

For easier identification and selection of the input mode, you can label each input terminals or skip terminal that is not connected to any equipment.
(To select the input mode ➡ p. 16)

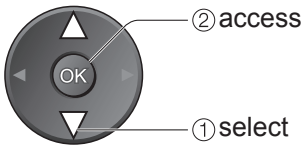


1 Display the menu

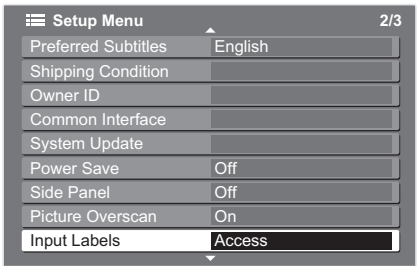
MENU

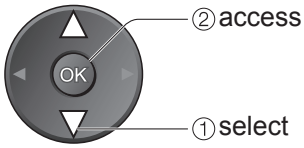
2 Select “Setup”



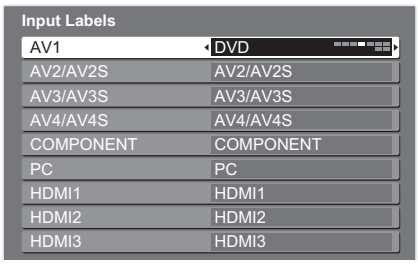


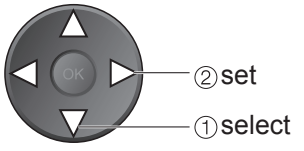
3 Select “Input Labels”





4 Select a input terminal and set





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

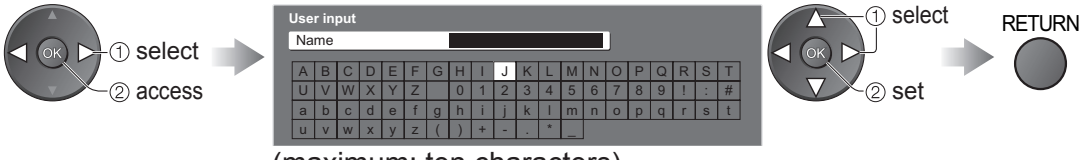
■ To return to TV

➡ EXIT

■ User input

You can name each input terminals freely.

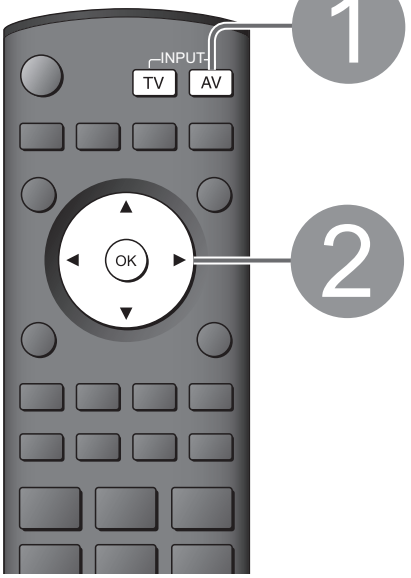
Select “User input” → Set characters → Store



(maximum: ten characters)

Displaying PC Screen on TV

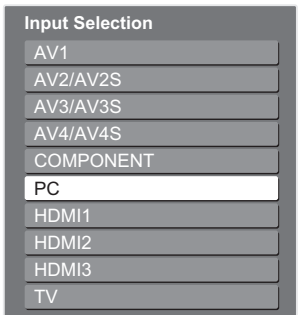
The screen of the PC connected to the TV can be displayed on the TV.
You can also listen to PC sound with the audio cable connected. To connect PC (p. 44)

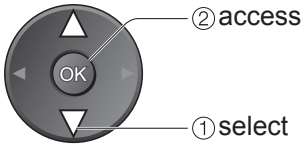


Select the external input



Select "PC"





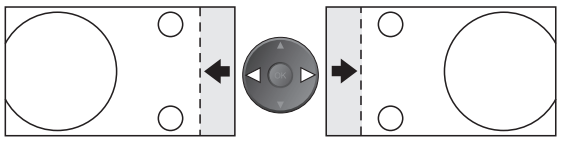
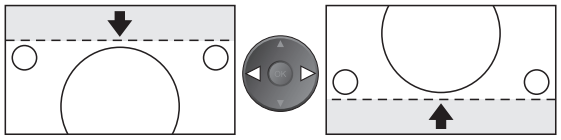
- Corresponding signals (p. 49)
- If "H-freq." or "V-freq." is shown in red, the signals may not be supported.

■ To return to TV

➡ TV

■ PC menu setting (changed as desired)

- To make settings ➡ "How to Use Menu Functions" 1 to 4 (p. 21)

Menu	Item		Adjustments / Configurations (options)	
Picture	Advanced PC Settings	W/B High R	White balance of bright red area	①
		W/B High B	White balance of bright blue area	
		W/B Low R	White balance of dark red area	① and ② repeatedly adjusted
		W/B Low B	White balance of dark blue area	②
		Gamma	**(2.0 / 2.2 / 2.5 / S Curve)**	
Setup	PC Setup	Input Resolution	Switches to a wide view ● VGA (640 × 480 pixels), WVGA (852 × 480 pixels), XGA (1,024 × 768 pixels), WXGA (1,366 × 768 pixels) ● Options change depending on signals	
		Clock	Set to the minimum level if noise occurs	
		H-pos	Adjusts horizontal position 	
		V-pos	Adjusts vertical position 	
		Clock Phase	Eliminates flicker and distortion ● Adjust after Clock adjustment ● Set to the minimum level if noise occurs	
		Sync	Chooses another synchronous signal if the image is distorted **(H & V / On G)** ● H & V : by the horizontal and vertical signals from your PC On G : by the green signal from your PC (if available)	

● Other items ➡ p. 22 and p. 23

Recording Controls (DVB mode)

Timer Programming from Menu

The Timer programming menu allows you to choose programmes that you wish to record. At the correct time, the DVB system will switch on and tune to the correct station (even if the TV is in Standby mode). TV Guide may also be used to set timer programmes. (p. 14)

- If the recording equipment is compatible with Q-Link or similar technologies (p. 40), and setup / connection are done completely (p. 40 and p. 44), you do not need to programme the equipment – the DVB system will control the recording progress.
- If the recording equipment is not compatible with Q-Link or similar technologies, set “Q-Link” in Setup Menu (p. 23) to the connected terminal (AV2 or AV3), and make timer programming of the recording equipment (Read the manuals of the equipment).

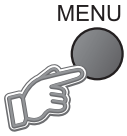


1 If in Analogue mode

Select DVB

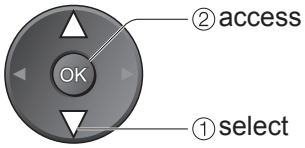


2 **Display the menu**

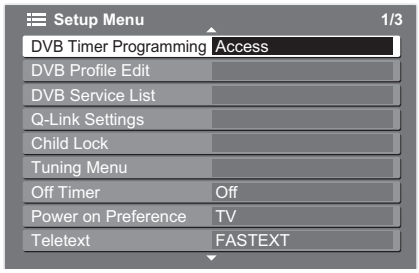


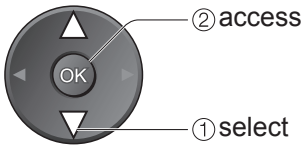
3 **Select “Setup”**





4 **Select “DVB Timer Programming”**





5 **Set**

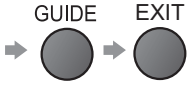
6 **Store**



■ To return to TV



■ To stop recording



Caution

- The TV must either be On or in standby.
- For preparations of a recording equipment, read the manual of equipment.
- No other DVB channel can be selected during recording. However you can watch analogue channels.
- It may not be possible to record an encrypted programme (which is copy-protected).

Set timer programming details

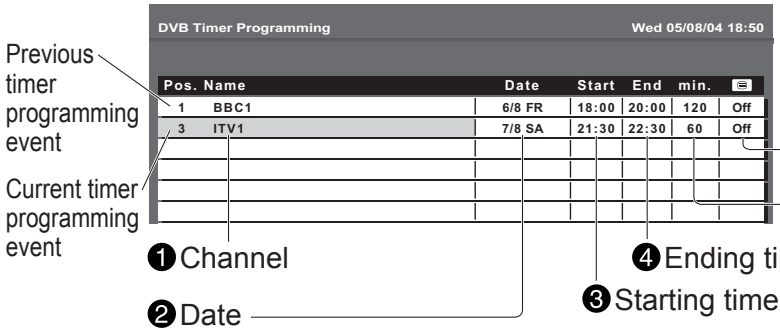
① **Start making the settings**

OK — start

② **Repeat the operations as below, and set items in the order of ❶ to ❺**

select the item → set

- ❶, ❸ and ❹ can also be entered with numeric buttons.



❷ Date: one day ahead / daily or weekly (press repeatedly)

- Daily SU-SA: Sunday to Saturday
- Daily MO-SA: Monday to Saturday
- Daily MO-FR: Monday to Friday
- Weekly SA/FR/TH/WE/TU/MO/SU: Same time on the same day every week

■To change a timer programming event

➡ Select the programme to be changed using ◀▶ and press OK
➡ Correct as necessary (as above)

■To cancel a timer programming event

➡ Select the programme to be deleted using ◀▶ and press red ➡ OK

■Direct TV recording:
You can record the current programme to DVD Recorder or VCR immediately. (p. 40)

Note

- Confirm the DVB LED lights (Orange). If not, a timer programming is not available.
- A message will appear if you try to programme a timer event which overlaps an already programmed event.
- 2 min. before the starting time: a reminder message appears.
  (To remove the message ➡ OK; To cancel the programming ➡ EXIT)
- 10 sec. before the starting time: in DVB mode, the TV automatically selects the programmed channel.
- Cancelling the programming may not be valid immediately before the starting time. In this case, directly operate the recording equipment to cancel recording.

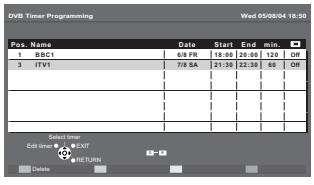
TV Guide–Electronic Programme Guide (EPG)–Timer Recording

① **View TV Guide** — GUIDE

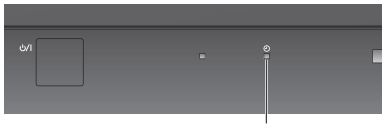
- There are two styles of display for TV Guide (Landscape / Portrait)

② **Select the programme to be broadcast**

① select
② set


(Timer Programming screen)

DVB LED will turn on if Timer Programming is set.

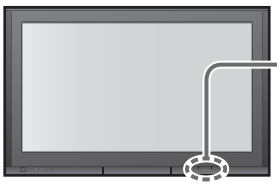


- Orange DVB LED
  (Rapid blinking during recording)

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

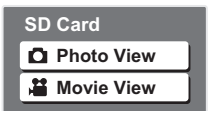
Viewing from SD Card

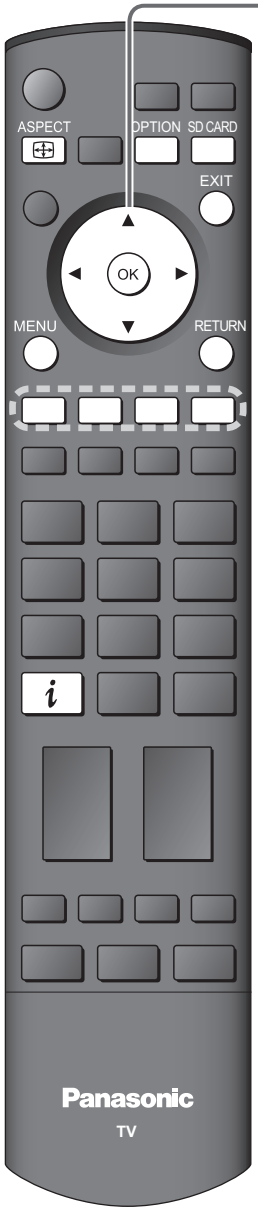
Photo View: The still images recorded by the digital camera can be displayed.
Movie View: The moving pictures recorded by the digital video camera can be played back.



1 Insert the SD Card

2 Select “Photo View” or “Movie View”

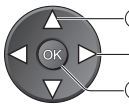




3 Select the file to be viewed

■ Photo View

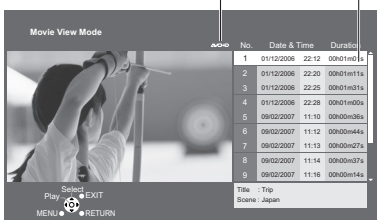


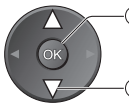


● Slide show ➡ red (p. 39)

■ Movie View

File format :
Only AVCHD or MPEG2 are supported.
● For details (p. 48)

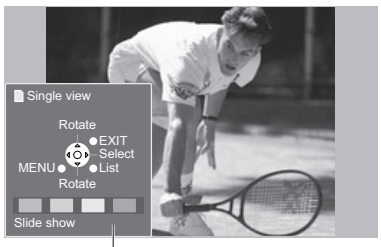


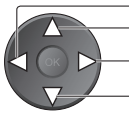


4 View

■ Photo View

Display one at a time
To display / hide the operation guide
➡ i or OPTION

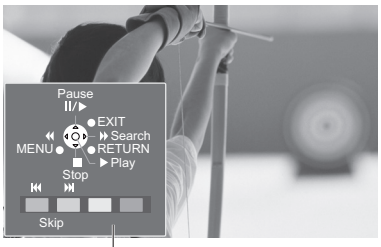


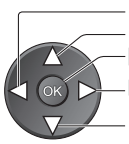


● To return to thumbnail screen
➡ RETURN

■ Movie View

Playback will start
To display the operation guide
➡ red green yellow blue or OK
● To hide the operation guide ➡ RETURN





● To previous movie ➡ red
● To next movie ➡ green
● To return to list screen ➡ OK (stop)
● To display information banner ➡ i
● To change aspect ratio (only for the 4:3 movie content) ➡ ASPECT

■ To return to TV

EXIT ➡ or SD CARD

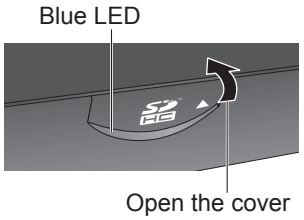
Caution

- Signal output from all AV terminals will be disabled during SD Card operations. But the sound in Movie View can be output from AUDIO out and DIGITAL AUDIO OUT terminals.
- “Date” shows the date on which the recording was made by the digital camera or digital video camera. It shows “**/**/****” when recordings are made without date signal.

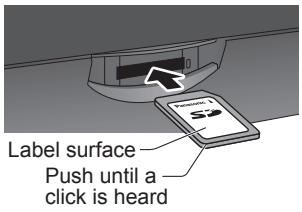
SD Card

● For details on SD Cards (p. 48)

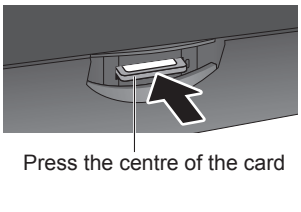
■ To open



■ To insert



■ To remove



● Blue LED lights while SD Card is inserted if set “SD Card LED” to “On” in Setup Menu (p. 23).

Slide show (Photo View)

■ Start Slide show (operate in step 3 or 4)

① Select the photo for the first view → ② Start Slide show (red)

● To pause ➡ OK

■ Slide show settings (operate in step 3 or 4)

① Display the menu (MENU) → ② Select “Viewing Setup” (② access, ① select) → ③ Select the functions and set (② set, ① select)





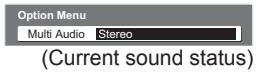
● “Picture Menu” (p. 22)

Menu	Item	Adjustments / Configurations (alternatives)
Viewing Setup	**Interval**	Select slide show interval **(5 / 10 / 15 / 30 / 60 / 90 / 120 seconds)**
	Repeat	Slide show repeat **(Off / On)**

Audio Settings (Movie View)

■ To confirm or change the current sound status (operate in step 4)

① Display the Option menu (OPTION) → ② Change the sound (if the movie has multiple audio signals) (change)



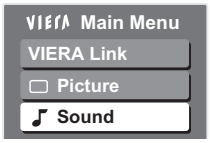
(Current sound status)

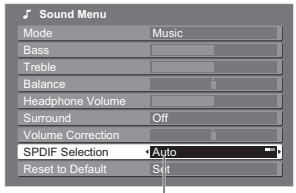
● It may take several seconds to change the sound.

■ Audio output settings (operate in step 3 or 4)

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

① Display the menu (MENU) → ② Select “Sound” (② access, ① select) → ③ Select “SPDIF Selection” and set (② set, ① select)





● “VIERA Link Menu” and “Picture Menu” (p. 22)

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: Dolby Digital is output as PCM. MPEG is output as PCM.

On screen messages

Message	Meaning / Action
Is SD Card in?	● Insert a SD card.
No valid file to play	● The card has no data.
Cannot read file	● The file is broken or unreadable. ● The TV does not support the format. (For the applicable formats and data, see p. 48.)
This operation is not possible	● Your operation is not available.
Confirm SD card	● The inserted SD card has a problem.

Q-Link Functions

Q-Link connects the TV and VCR / DVD recorder, enables easy recording and playback.

■ Condition

- Use the VCR / DVD recorder with the following logos:
  "Q-Link", "NEXTVIEWLINK", "DATA LOGIC", "Easy Link", "Megalogic", or "SMARTLINK"
- Connect the equipment to this TV's AV2 or AV3 terminal via a "fully-wired" SCART cable. (p. 44)
- Q-Link terminal setup in Setup Menu (Q-Link, AV2 / AV3 out). (p. 23)

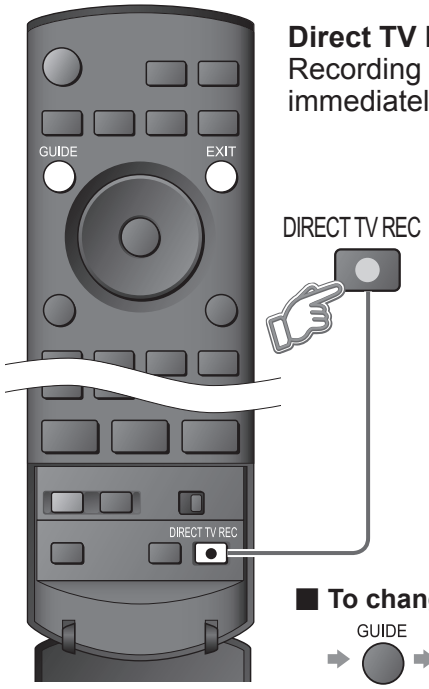
■ Download analogue channel settings

- Perform Auto Setup. (p. 30)
  When first using this TV, see "Auto Setup". (p. 10)
- Perform download to the equipment. (p. 23)

■ Features available

Some recording equipments are not applicable. Read the manuals of the equipment.

What you see is What you record



Direct TV Recording:
Recording the current programme in VCR / DVD recorder immediately.

- When Direct TV Recording is performed, the recording equipment is automatically turned on if it is in Standby mode.
- The recording equipment is recording from its own tuner. You can turn the TV off during recording (Analogue only).
- If you turn the TV off during recording from an AV source, the recording will be stopped.
- When Direct TV Recording is performed while watching DVB channel, the DVB programme position is locked and no other DVB channel can be selected. However you can watch analogue channels.

■ To change DVB channel, stop recording

Information / Message

Recording information or if recording is not possible, a message is displayed. (Only when the programme number is "0" or "AV mode" for some equipment.)

Power on link and Easy playback

When VCR or DVD recorder 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 TV is in Standby mode.)

Power off link

When TV is set to Standby mode, the recording equipment is also automatically set to Standby. (Only when the videocassette or DVD is not active.)

• "DATA LOGIC" (a trademark of Metz Corporation)
• "Easy Link" (a trademark of Philips Corporation)
Read the manuals of the equipment too.

• "Megalogic" (a trademark of Grundig Corporation)
• "SMARTLINK" (a trademark of Sony Corporation)

HDMI Functions

HDMI (high-definition multimedia interface) 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 set top box or a DVD player, can be connected to the HDMI terminal using an HDMI compliant (fully wired) cable.
About connections, see “External Equipment” (p. 44).

Note

- HDMI is the world’s first complete digital consumer AV interface complying with a non-compression standard.
- If the external equipment has only a DVI output, connect to the HDMI1 / 3 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: use COMPONENT-AUDIO terminals / HDMI3: use AV4 audio terminals).
- Audio settings can be made on the “HDMI1 / 3 Input” menu screen. (p. 22)
- Applicable audio signal sampling frequencies (2ch L.PCM): 48 kHz, 44.1 kHz, 32 kHz
- HDMI2 terminal is for digital audio signal only.
- Use with a PC is not assumed.
- 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.
- The HDMI input terminal can be used with only the following image signals:
  480i, 480p, 576i, 576p, 720p, 1080i and 1080p. Match the output setting of the digital equipment.
- For details of the applicable HDMI signals, see p. 49.

(∗1): The HDMI logo is displayed on HDMI-compliant equipment.
(∗2): Enquire at your local digital equipment retailer shop.

■ Summary of Control functions

Connecting with an HDMI cable to Panasonic equipment with VIERA Link function, you can control the equipment (p. 42). You can use VIERA Link and Q-Link functions together.

Function \ Connection	VIERA Link and Q-Link (HDMI) (SCART)	VIERA Link only (HDMI)	Q-Link only (SCART)
Easy playback	O	O	O
Power on link	O	O	O
Power off link	O	O	O
Speaker control	O (not via SCART)	O	–
Easy control only with VIERA remote control	O (not via SCART)	O	–
Direct TV Recording	O (not via HDMI)	–	O
Analogue channel download	O (not via HDMI)	–	O

HDMI Functions

VIERA Link "HDAVI Control™"*

*Enjoy additional HDMI Inter-Operability with Panasonic products which have "HDAVI Control" function. This TV supports "HDAVI Control 2" function.
Connections to some Panasonic equipment (DVD Recorder DIGA, HD Video Camera, Player theatre, Amplifier, etc.) with HDMI cables allow you to interface them automatically.
The equipment with "HDAVI Control" function enables the following operations:

- Easy playback (p. 43)
- Power on link (p. 43)
- Power off link (p. 43)
- Speaker control (p. 43)

In addition, the equipment with "HDAVI Control 2" function enables the following operation:

- Access and control the connected equipment by VIERA remote control (p. 43)

These features are limited to models incorporating Panasonic's "HDAVI Control" and "VIERA Link".
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.
Refer to individual manuals for compatibility information. About applicable equipment, consult your local Panasonic dealer or refer to the URL: www.panasonic.co.uk

■ HDMI cable

This function needs an HDMI compliant (fully wired) cable. Non-HDMI-compliant cables cannot be utilized.
It is recommended that you use Panasonic's HDMI cable. Recommended part number:

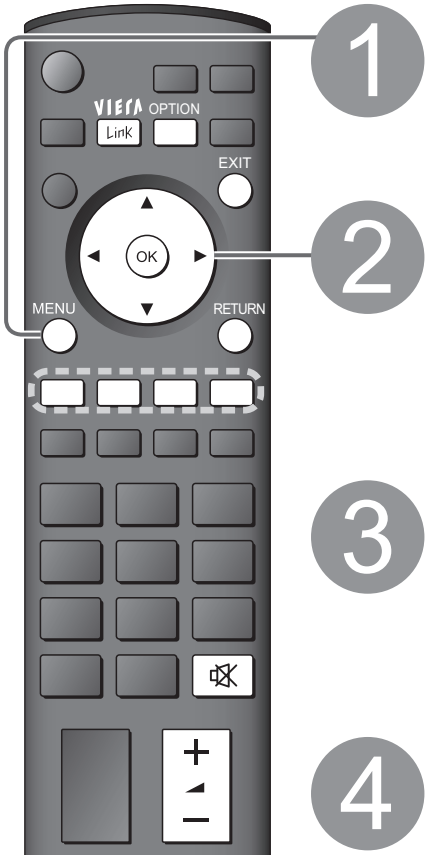
- RP-CDHG15 (1.5 m)
- RP-CDHG30 (3.0 m)
- RP-CDHG50 (5.0 m)

■ Preparations

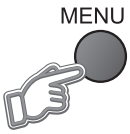
Setup the equipment to enable this function. Read the manuals of the equipment.
About connections, see "External Equipment" (p. 45). Read the manuals of the equipment too.

■ For the first time / When adding new equipment, reconnecting equipment or changing setup

After connection turn the equipment on and then switch the TV on.
Select the input mode to HDMI1, HDMI2 or HDMI3 (p. 16), and make sure that an image is displayed correctly.

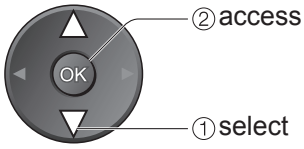


1 Display the menu

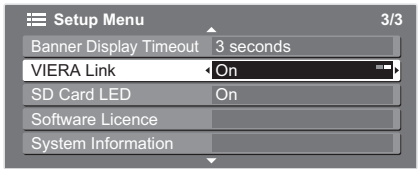


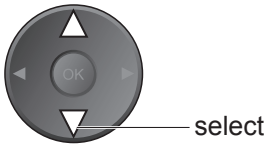
2 Select "Setup"



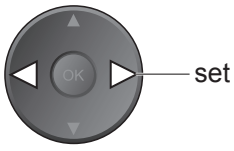


3 Select "VIERA Link"





4 Set to "On"
(default is On)



Access and control the connected equipment by VIERA remote control

You can control some functions of the connected Panasonic equipment with this TV remote control (point the remote control at the TV's signal receiver).

● If you cannot access the menu, check the settings and the equipment (p. 42).

Access and operate the menu of the equipment

① **Display "VIERA Link Menu"** ➡ VIERA Link

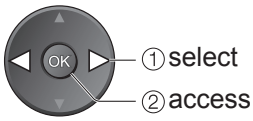
② **Select "VIERA Link Control"**



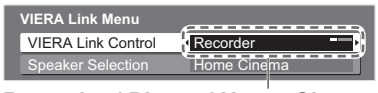


③ **Select the equipment you want to access**

● "Home Cinema" means Player theatre, Recorder theatre and Amplifier.

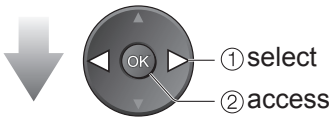


■ When the equipment with "HDAVI Control 2" function is connected



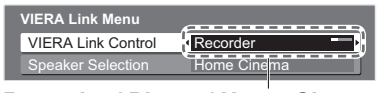
Recorder / Player / Home Cinema / Video Camera

Displayed the type of the connected equipment.
Select the type of the equipment and access.



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

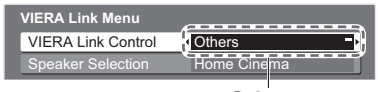
■ When the equipment with "HDAVI Control" function is connected



Recorder / Player / Home Cinema / Video Camera

Displayed the type of the connected equipment. But you cannot access it. Use its own remote control to operate the equipment.

■ When other type or other manufacturer of the equipment is connected



Others

"Others" is displayed.
You cannot access it. Use its own remote control to operate the equipment.

④ **Operate the menu of the equipment**

● Available VIERA remote control buttons (depending on the connected equipment):

	Move the cursor / select the menu	EXIT	Exit the menu
	Move the cursor / access / adjust	OPTION	Display the operation guide for the equipment The same functions with the OPTION button of the equipment
OK	Store / set / access		
RETURN	Return to the previous menu	red green yellow blue	Access when the key words are displayed on colour bar

● About the operations for the equipment, read the manual of the equipment.

Easy playback

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

Power on link

When the connected Panasonic equipment starts playback or direct navigator / function menu for the equipment are activated, the TV is automatically turned on. (Only when TV is in Standby mode.)

Power off link

When TV is set to Standby mode, the connected Panasonic equipment is also automatically set to Standby.

● This function will work even if the TV enters standby mode automatically by Off Timer function or auto power standby function.

Speaker control

You can control the theatre speaker with TV's remote control.
This function is available when Panasonic Amplifier or Player theatre is connected.

● If you cannot access the menu, check the settings and the equipment (p. 42).

① **Display "VIERA Link Menu"** ➡ VIERA Link

② **Select "Speaker Selection"**





③ **Set to "Home Cinema" or "TV"**



■ Home Cinema

Amplifier or Player theatre 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 ➡ + −

Mute ➡

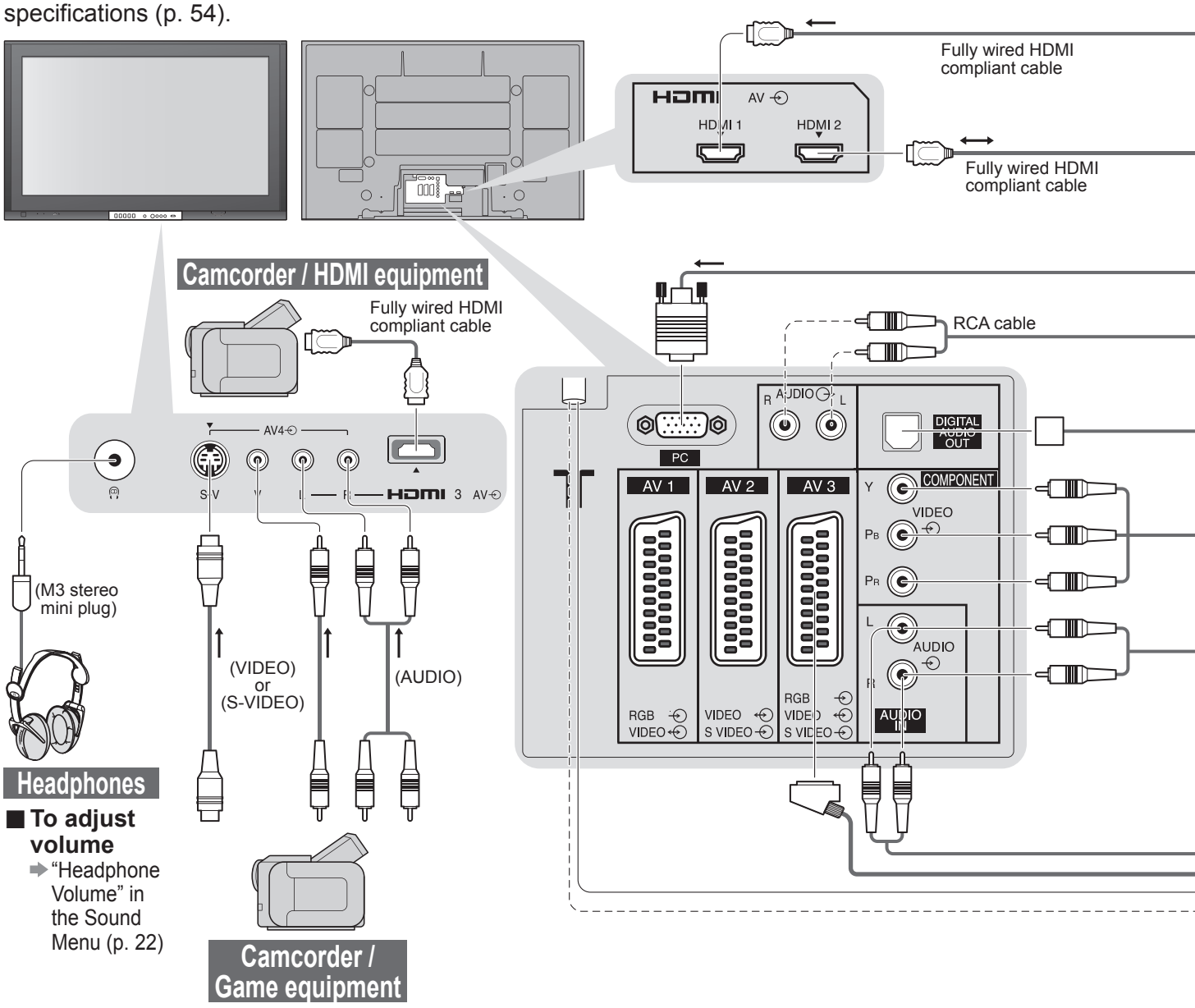
● The sound of TV speakers is mute.
● When the equipment is turned off, TV speakers will be active.

■ TV

TV speakers are active.

External Equipment

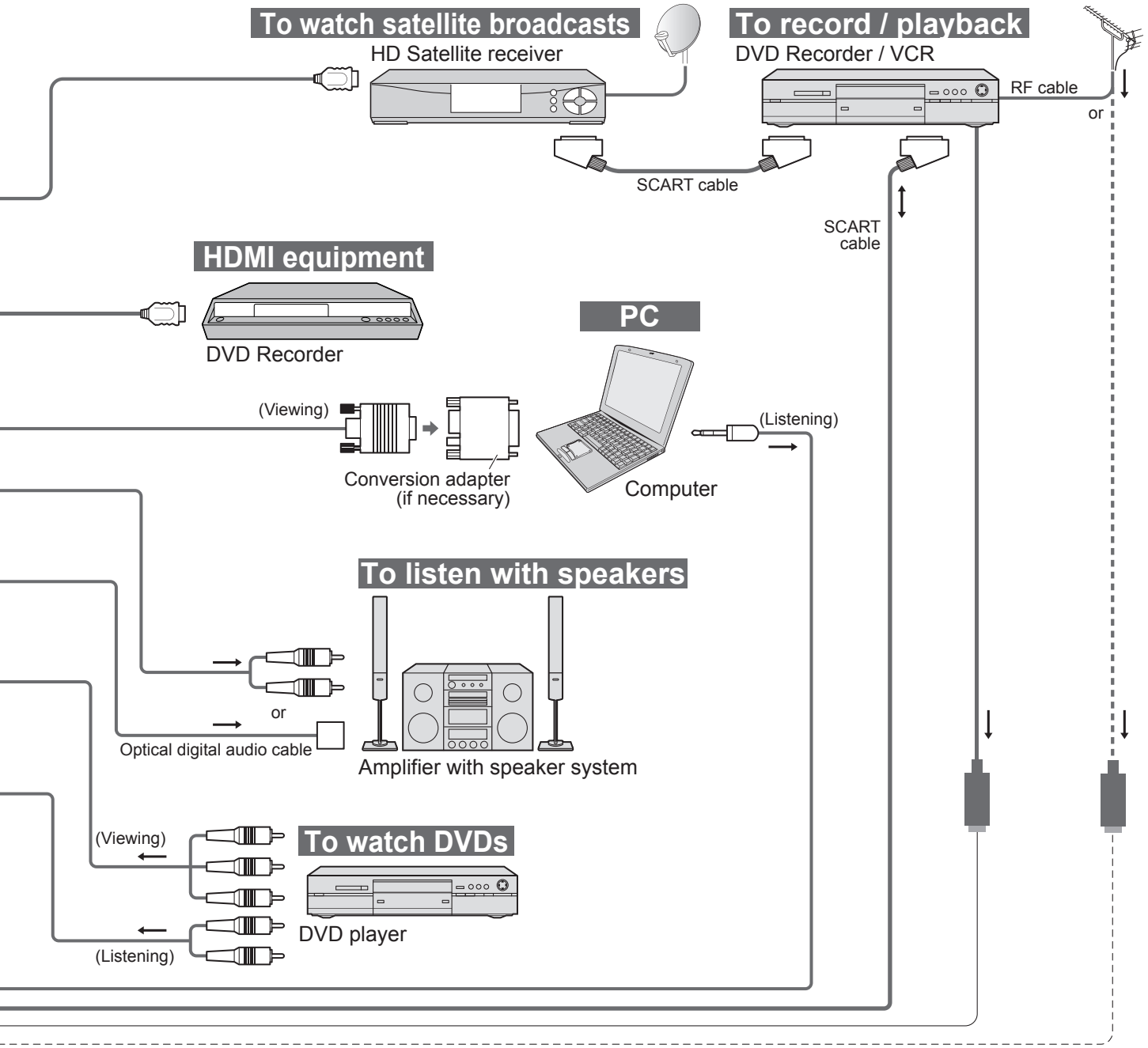
These diagrams show our recommendations for how to connect the TV to your various equipment. For other connections, consult the instructions for each piece of equipment, the table below, and the specifications (p. 54).



■Types of connectable equipment to each connector

Recording / Playback (equipment) \ Connector	AV1	AV2	AV3	AV4 (Front of TV)	COMPONENT (Y, PB, PR, L, R)	DIGITAL AUDIO OUT	HDMI 1	HDMI 2	HDMI 3
■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		○	○						
■Direct TV Recording		○	○						
■VIERA Link							○	○	○

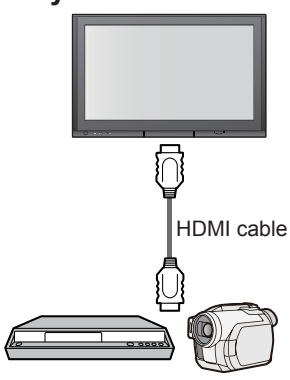
○: Recommended Connection



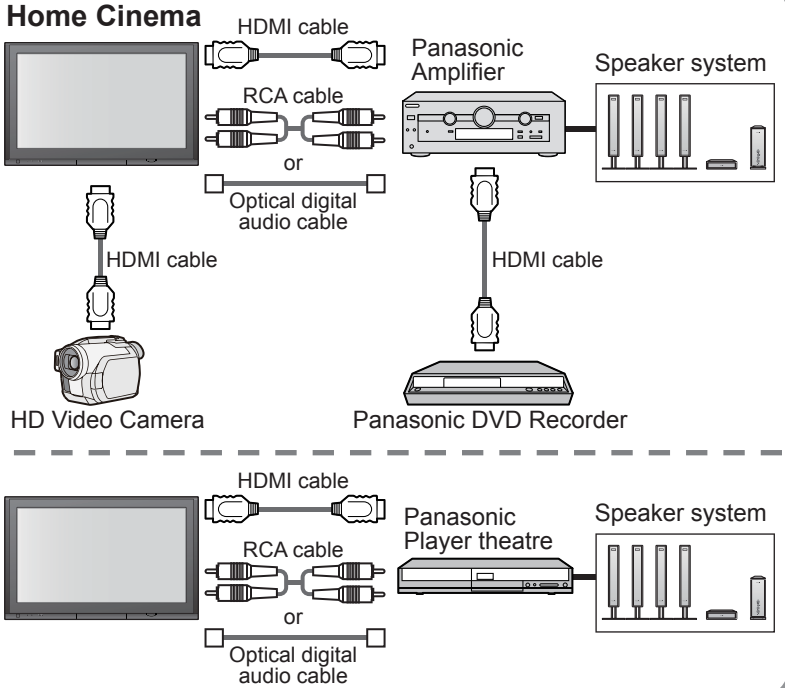
VIERA Link (p. 42)

- Use fully wired HDMI compliant cable.
- Read the manuals of the equipment too.

■ Easy playback, Easy control only with VIERA remote control



■ Home Cinema



Technical Information

Aspect Ratio

The optimum size and aspect can be chosen, and you can enjoy finer images. (p. 13)

■Auto: Auto aspect determines the best aspect ratio to use to fill your screen. It does this using a four step process to determine if the picture being viewed is a widescreen picture.

If Auto aspect detects a widescreen signal it switches into the appropriate 16:9 or 14:9 widescreen mode. If Auto aspect does not detect a widescreen signal then this advanced TV enhances the picture for optimum viewing pleasure.
The text shown on the screen indicates how Auto aspect determined which ratio to use:
"WIDE" appears in the top left of the screen if a widescreen identification signal (WSS) is found or a signal found through a SCART terminal. Auto aspect switches to the appropriate 16:9 or 14:9 widescreen ratio. This function will also work in any aspect mode. "Auto" appears in the top left of the screen if black stripes above and below the picture are detected. Auto aspect chooses the best ratio and expands the picture to fill the screen. This process can take several minutes, depending on the darkness of the picture.

Signal name		Aspect modes							Aspect Control Signal											
									Widescreen signal (WSS)						Control signal through SCART (pin 8) or HDMI terminal					
		Auto	16:9	14:9	4:3	Zoom1	Zoom2	Zoom3	TV	AV1	AV2	AV3	AV4	Component	AV1	AV2	AV3	HDMI 1	HDMI 2	HDMI 3
TV/AV1/AV2/AV3/AV4	PAL	O	O	O	O	O	O	O	O	O	O	O	O	–	O	O	O	–	–	–
	PAL 525/60	O	O	O	O	O	O	O	–	–	–	–	–	–	O	O	O	–	–	–
	DVB	O	O	O	O	O	O	O	O	–	–	–	–	–	–	–	–	–	–	–
	M.NTSC	O	O	O	O	O	O	O	–	–	–	–	–	–	O	O	O	–	–	–
	NTSC (AV input only)	O	O	O	O	O	O	O	–	–	–	–	–	–	O	O	O	–	–	–
Component/HDMI SD	525(480)/60i	O	O	O	O	O	O	O	–	–	–	–	–	–	–	–	–	O	O	O
	525(480)/60p	O	O	O	O	O	O	O	–	–	–	–	–	–	–	–	–	O	O	O
	625(576)/50i	O	O	O	O	O	O	O	–	–	–	–	–	O	–	–	–	O	O	O
	625(576)/50p	O	O	O	O	O	O	O	–	–	–	–	–	O	–	–	–	O	O	O
Component/HDMI HD	750(720)/50p	O	O	O	O	O	O	O	–	–	–	–	–	–	–	–	–	O	O	O
	750(720)/60p	O	O	O	O	O	O	O	–	–	–	–	–	–	–	–	–	O	O	O
	1125(1080)/50i	O	O	O	O	O	O	O	–	–	–	–	–	–	–	–	–	O	O	O
	1125(1080)/60i	O	O	O	O	O	O	O	–	–	–	–	–	–	–	–	–	O	O	O
	1125(1080)/50p	O	O	O	O	O	O	O	–	–	–	–	–	–	–	–	–	O	O	O
	1125(1080)/60p	O	O	O	O	O	O	O	–	–	–	–	–	–	–	–	–	O	O	O
PC input		–	O	–	O	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Note

- The ratio varies depending on the programme, etc. If the ratio is greater than the standard "16:9", black bands may appear at the top and bottom of the screen.
- If the screen size looks unusual when a widescreen-recorded programme is played back on a VCR, adjust the tracking of the VCR. (See the VCR manual.)
- Aspect mode can be memorized for SD (Standard definition) and HD (High definition) signals separately.
- To select the ratio manually: (Only "16:9" or "4:3" in PC mode)

Auto



The best ratio is chosen and the picture expanded to fill the screen.

16:9



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

14:9



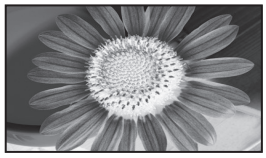
Displays the image at the standard "14:9" without enlargement.

4:3



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

Zoom1



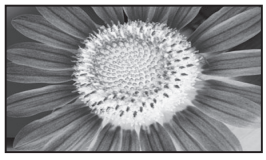
Displays a "16:9" letterbox or "4:3" image without distortion.

Zoom2



Displays a "16:9" letterbox (anamorphic) image full-screen 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).

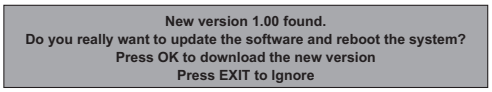
Multi Window

You can watch two images at once. (p. 13)

- The same input mode cannot be displayed at once.
- The sound is active for main screen only in multi window.
- You cannot change the aspect ratio in multi window.
- Multi window cannot be used with PC, SD card or HDMI (available for main screen only).
- Some signals are reformatted for suitable viewing on your display.
- Multi window will be exited by pressing the GUIDE button to display TV Guide.
- The display timeout for the input mode or programme position can be adjusted by “Banner Display Timeout” in Setup Menu (p. 23).
- If main screen has digital teletext signals, some key words may appear on colour bar. In this case the operations can be possible by using colour buttons on the remote control except for the colour bar is displayed by pressing the i button.

Updating the DVB software

From time to time, a new version of software for DVB mode may become available for download to enhance performance or operations of the TV.
A notification banner will appear when you tune to one of the BBC channels, or you can search for a new version software by using the “System Update Search Now” function (p. 27).



To start downloading press “OK”, this may take up to 20 minutes to complete.
To ignore the new software press “EXIT”, but this banner will keep appearing during the period of new software availability, usually 2 to 3 days.

To download any new software automatically, ensure that the “Auto Update Search in Standby” function in the System Update menu is set to “On” (p. 27).
The TV will then download new software automatically at night if it is left in standby without any timer programme in progress.

Note

- During software download and update, DO NOT switch off the TV.

VIERA Link “HDAVI Control™”

HDMI connections to some Panasonic equipment allow you to interface them automatically. (p. 42)

- This function may not work normally depending on the equipment condition.
- Image or sound may not be available for the first few seconds when the playback starts.
- Image or sound may not be available for the first few seconds when Input mode is switched.
- Volume function will be displayed when adjusting the volume of the equipment.
- If you connect the equipment that has “HDAVI Control 2” function to the TV with HDMI cable, the sound from DIGITAL AUDIO OUT terminal can support multi channel sound from the input source.
- Easy playback is also available by using the remote control for Amplifier or Player theatre. Read the manuals of the equipment.
- If more than one equipments of the same type are connected to the TV by HDMI cables, for example two DIGA DVD recorders to HDMI1 and 2, VIERA Link will only be available for the lower terminal number, in this case HDMI1.
- “HDAVI Control 2” is the newest standard (current as of February, 2007) for Panasonic’s HDAVI Control compatible equipment. This standard is compatible with Panasonic’s conventional HDAVI equipment.

Technical Information

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)
Max. number of files - 9,999
Image resolution - 160 × 120 to 10,000,000

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

- Compliant card type (maximum capacity): SDHC Card (4 GB), SD Card (2 GB), Multi Media Card (128 MB), miniSD Card (1 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.co.jp/pavc/global/cs/

*DCF (Design rule for camera file system): Unified standard established by Japan Electronics and Information Technology Industries Association (JEITA).

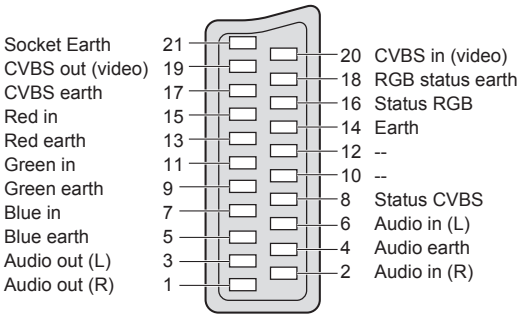
Note

- 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 DCF 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.
- All ".JPG" extension datas in the card will be read in Photo View Mode.
- The folder and file names may be different depending on the digital camera used.
- Do not use two-byte characters or other special codes.
- The card may become unusable with this TV if file or folder names are changed.

SCART, S-VIDEO and HDMI terminal information

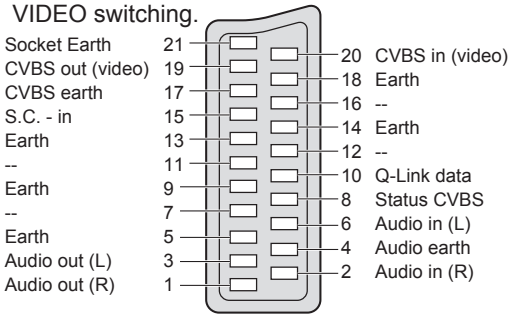
■ **AV1** SCART terminal (RGB, VIDEO)

Suitable inputs for AV1 include RGB (Red / Green / Blue).



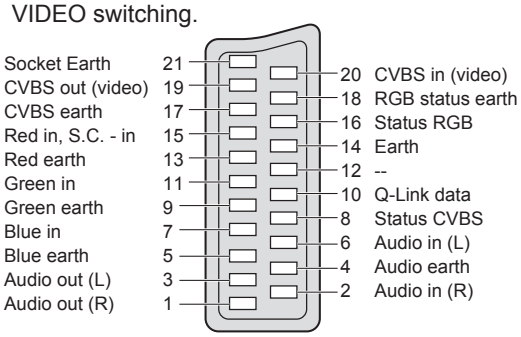
■ **AV2** SCART terminal (VIDEO, S-VIDEO, Q-Link)

AV2 - Pins 15 and 20 are dependent on AV2 S-VHS / VIDEO switching.

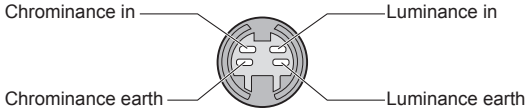


■ **AV3** SCART terminal (RGB, VIDEO, S-VIDEO, Q-Link)

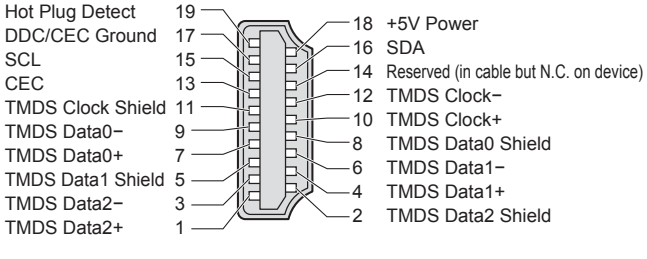
AV3 - Pins 15 and 20 are dependent on AV3 S-VHS / VIDEO switching.



■ **AV4** S-VIDEO 4 pin terminal



■ **HDMI** terminal



PC connection

A PC may be connected to this TV so that the PC screen is displayed and sound is heard from the TV.

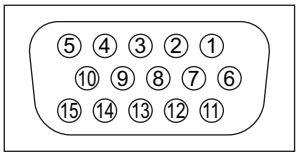
- PC signals that can be inputted: Horizontal scanning frequency 31 to 69 kHz; vertical scanning frequency 59 to 86 Hz (more than 1,024 signal lines could result in incorrect display of the image).
- A PC adapter is not necessary for the DOS/V-compliant D-sub 15-pin connector.

Note

- Some PC models cannot be connected to this TV.
- When using PC, set the colour display quality of PC to the highest position.
- For details of the applicable PC signals, see below.
- Max. display resolution

Aspect	**4:3**	1,440 × 1,080 pixels
	16:9	1,920 × 1,080 pixels

- D-sub 15-pin connector signal



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

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		∗

PC (D-sub 15P)

Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)
640 × 400 @70 Hz	31.47	70.07
640 × 480 @60 Hz	31.47	59.94
640 × 480 @75 Hz	37.50	75.00
800 × 600 @60 Hz	37.88	60.32
800 × 600 @75 Hz	46.88	75.00
800 × 600 @85 Hz	53.67	85.06
852 × 480 @60 Hz	31.44	59.89
1,024 × 768 @60 Hz	48.36	60.00
1,024 × 768 @70 Hz	56.48	70.07
1,024 × 768 @75 Hz	60.02	75.03
1,024 × 768 @85 Hz	68.68	85.00
1,280 × 1,024 @60 Hz	63.98	60.02
1,366 × 768 @60 Hz	48.39	60.04
Macintosh13” (640 × 480)	35.00	66.67
Macintosh16” (832 × 624)	49.73	74.55
Macintosh21” (1,152 × 870)	68.68	75.06

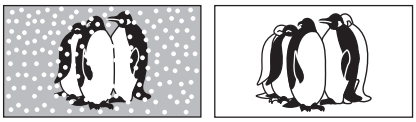
Note

- Signals other than above may not be displayed properly.
- The above signals are reformatted for optimal viewing on your display.
- Applicable input signal for PC is basically compatible to VESA standard timing.
- PC signal is magnified or compressed for display, so that it may not be possible to show fine detail with sufficient clarity.

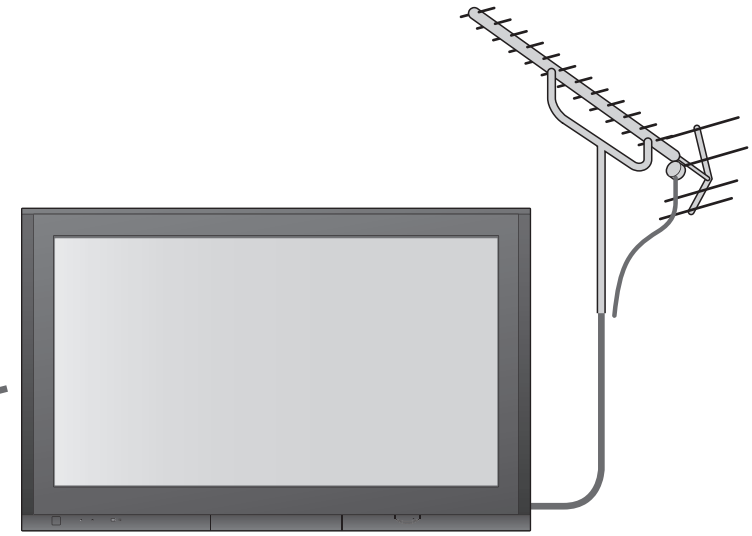
FAQs

Before requesting service or assistance, please follow these simple guides to resolve the problem.
If problem still persists, please contact your local Panasonic dealer or Panasonic Customer Care Centre for assistance. For details (p. 56)

White spots or shadow images (noise)



- Check the position, direction, and connection of the aerial.



Neither image nor sound is produced

- Is the TV in “AV mode”?
- Is the mains lead plugged into the socket outlet?
- Is the TV turned On?
- Check Picture Menu (p. 22) and volume.
- Check all required SCART cables and connections are firmly in place.

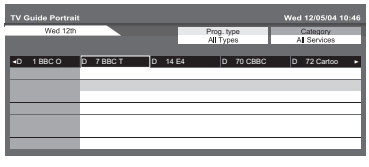
Auto aspect

- Auto aspect is designed to provide you with the best aspect ratio to use to fill your screen. For user control please see p. 46.

S-Video / black and white picture

- Using AV button please confirm your selection is S-Video I.e. AV2/AV2S (p. 16).

No programmes shown on TV Guide



- Check the DVB 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 nearest dealer.

On Screen messages - I.e. EC/AV1

- You can simply clear these by pressing the i button. Press again to redisplay.

Direct TV record / Q-Link functions not recording

- Please confirm SCART cable and connection. Also please set “AV2 / AV3 out” in the Setup Menu (p. 23).

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.

Contrast is reduced

- Contrast is lowered when 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
  - Digital teletext (no video contents)
  - Thumbnail, list or still picture in SD Card mode

	Problem	Actions
Screen	**Chaotic image, noisy**	● Set “P-NR” in the Picture Menu (to remove noise). (p. 22) ● Check nearby electrical products (car, motorcycle, fluorescent lamp).
	No image can be displayed	● Is “Colour” or “Contrast” in the Picture Menu set to the minimum? (p. 22)
	Blurry or distorted image (no sound or low volume)	● Reset channels. (p. 30)
	Unusual image is displayed	● Turn off the TV with Mains power On / Off switch, then turn it on again.
Sound	**No sound is produced**	● Is “Sound mute” active? (p. 7) ● Is the volume set to the minimum?
	Sound level is low or sound is distorted	● Sound signal reception may be deteriorated. ● Set “NICAM” (p. 22) in the Sound Menu to “Off”. (Analogue only)
	Whirling sound is heard	● The sound is from built-in cooling fan (not a sign of faulty operation).
DVB	● Due to the digital reception technologies involved, quality of the DTV signals may be relatively low in some cases, despite good reception of analogue programmes.	
	Interference or frozen / disappearing image in DVB	● Check “DVB Signal Condition”. (p. 31) If “Signal Quality” or “Signal Strength” are displayed in red, check aerial. If problem persists, consult your local Panasonic dealer. ● Turn the TV off with the Mains power On / Off switch, then turn it On again.
HDMI	**Sound is unusual**	● Set the sound setting of the connected equipment to “2ch L.PCM”. ● Check the “HDMI1 / 3 Input” setting in the Sound Menu. (p. 22) ● If digital sound connection has a problem, select analogue sound connection. (p. 41)
	Pictures from external equipment are unusual when the equipment is connected via HDMI	● Is the HDMI cable connected properly? (p. 44) ● Turn Off the TV and equipment, then turn them On again. ● Check an input signal from the equipment. (p. 49) ● Use an equipment compliant with EIA/CEA-861/861B.
	“VIERA Link” function does not work and an error message appears	● Confirm the connection. ● Turn the connected equipment on and then switch the TV on. (p. 42)
Other	**TV goes into “Standby mode”**	● Off Timer function is activated. ● The TV enters “Standby mode” about 30 min. after analogue broadcasting ends.
	The remote control does not work	● Are the batteries installed correctly? (p. 6) ● Has the TV been switched On?
	An error message appears	● Follow the message’s instructions. ● If the problem persists, contact the authorized Service Centre.

On screen messages

Message	Meaning / Action
All tuning data will be erased	● “Shipping Condition” will erase all tuning data (p. 32). ● “Auto Setup” will be erased all present DVB and Analogue tuning datas (p. 30).
Are you sure ?	● Make sure the operation is with your desire.
Are you sure you want to delete this timer ? **Press OK to delete timer** **Press Exit to return**	● Make sure the deleting programme event is with your desire.
Bad Signal	● The signal is weak. Check the aerial.
DOWNLOAD IN PROGRESS PLEASE WAIT	● Q-Link channel download is in progress.
Feature not available	● Check the Q-Link connection and setting (p. 40). ● The impossible source (Component / HDMI / PC) to be record.
Invalid DVB Channel	● Invalid DVB channel is selected.
Invalid system time. Please exit !	● Cannot get the time information. Check the connection of the RF cable.
Key not available	● You cannot select the same input source between Main and Sub screen when you are viewing in multi window. (p. 13)
Max. number of Timers already set !	● Maximum timer programming event is 8.
New DVB Service Found! **Press OK start Auto Setup** **Press EXIT to Ignore.** **Selecting Auto Setup will delete current Profile and Childlock settings**	● There is a new DVB station.
New version 1.90 found. **Do you really want to update the software and reboot the system ?** **Press OK to download the new version** **Press EXIT to Ignore**	● There is a new software available.
No DVB Service found	● No DVB signal can be found in Auto Setup.
No module inserted	● Check the CI module inserted completely (p. 27).
No Recording - Check Tape or Disc	● The tape or disc may be “write protected”, missing or damaged. The equipment may already be recording.
No Recording - UNKNOWN REASON	● The recording cannot be done by any reason. Check the equipment. ● Disc or tape may be full.
No Service	● The station stops the services.
No Signal	● Check the connection of the RF cable.

Message	Meaning / Action
No stations found Please insert the aerial	● No analogue signal can be found in Auto Setup.
PIN incorrect !	● The PIN number you entered is wrong.
Please check aerial or local DVB service availability. Press OK to start Auto Setup	● Please follow the message. If it is still failed, consult your local Panasonic dealer.
Please check settings and connections on HDMI devices.	● Communication error in VIERA Link function (p. 42).
Please wait.	● A function is in progress.
Recording in progress	● The recording equipment is recording the programme signal from its own tuner. You can turn the TV off and leave the equipment recording in the normal way.
Shipping condition completed. TV can now be switched off.	● “Auto Setup” will automatically start when Mains power On / Off switch is next turned On. (p. 10)
Software successfully updated Press EXIT to continue	● The software updating is finished.
Software Update failed. Please try again later. Press EXIT to continue	● Perform “System Update Search Now” in System Update (p. 27). If it is still failed, there may not be the new software.
This service is locked ! Press OK to enter PIN	● The selected channel is locked in Child Lock (p. 29).
Timer already expired !	● Starting time in Timer Programming is already past. Set correctly (p. 37).
Timer Event Due to Start DVB 1: BBC1 has been programmed for recording at 20:00	● This message will appear 2 minutes before timer programming event due to start.
Timer incorrect !	● Set Starting and Ending times in Timer Programming correctly (p. 37).
Timer overlap !	● The timer programme events are overlapped. Cannot record other channel at the same time. Check the Starting and Ending times in Timer Programming (p. 37).
Tuner Locked Please stop recording to operate	● If you want to unlock, cancel Direct TV Recording (p. 40) or Timer Programming (p. 36).
Unable to download, Check Equipment	● The tape or disc is active. Stop the equipment and try again.

Specifications

			TH-42PZ700BA TH-42PZ700B	TH-50PZ700B	TH-58PZ700B
Power Source			AC 220-240 V, 50 / 60 Hz		
Power Consumption	**Average use**		494 W	569 W	675 W
	Standby condition		0.5 W (Without DVB recording) 20 W (With DVB recording)	0.3 W (Without DVB recording) 20 W (With DVB recording)	0.4 W (Without DVB recording) 20 W (With DVB recording)
Display panel	**Aspect Ratio**		16:9		
	Visible screen size		106 cm (diagonal) 922 mm (W) × 518 mm (H)	127 cm (diagonal) 1,106 mm (W) × 622 mm (H)	147 cm (diagonal) 1,284 mm (W) × 723 mm (H)
	Number of pixels		2,073,600 (1,920 (W) × 1,080 (H)) [5,760 × 1,080 dots]		
Sound	**Speaker**		Woofer (Φ 80 mm) × 2 pcs, Tweeter (23 mm × 100 mm) × 2 pcs		
	Audio Output		31 W (15.5 W + 15.5 W), 10% THD		
	Headphones		M3 (3.5 mm) stereo mini Jack × 1		
PC signals			VGA, SVGA, XGA SXGA ····· (compressed) Horizontal scanning frequency 31 - 69 kHz Vertical scanning frequency 59 - 86 Hz		
Receiving Systems / Band name			**PAL I** :UHF E21-68 **PAL 525/60** :Playback of NTSC tape from some PAL Video recorders (VCR) or NTSC disc playback from DVD player and recorder. **DVB** :Digital terrestrial services via UHF aerial input. **M.NTSC** :Playback from M.NTSC Video recorders (VCR). **NTSC (AV input only)** :Playback from NTSC Video recorders (VCR).		
Aerial - Rear			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)		
	AV2 (Scart terminal)		21 Pin terminal (Audio/Video in, Audio/Video out, S-Video in, Q-Link)		
	AV3 (Scart terminal)		21 Pin terminal (Audio/Video in, Audio/Video out, RGB in, S-Video in, Q-Link)		
	AV4	**VIDEO**	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)	
		S-VIDEO	Mini DIN 4-pin	Y:1.0 V[p-p] (75 Ω) C:0.286 V[p-p] (75 Ω)	
		AUDIO L - R	RCA PIN Type × 2	0.5 V[rms]	
	COMPONENT	**VIDEO**	**Y** **PB, PR**	1.0 V[p-p] (including synchronization) ±0.35 V[p-p]	
		AUDIO L - R	RCA PIN Type × 2	0.5 V[rms]	
	Others	**HDMI1 / 2 / 3**	TYPE A Connectors	● This TV supports “HDAVI Control 2” function.	
		PC	HIGH-DENSITY D-SUB 15PIN	R,G,B/0.7 V[p-p] (75 Ω) HD, VD/TTL Level 2.0 - 5.0 V[p-p] (high impedance)	
		Card slot	SD CARD slot × 1		
	Output	**AUDIO L - R**	RCA PIN Type × 2	0.5 V[rms] (high impedance)	
		DIGITAL AUDIO OUT	PCM / Dolby Digital, Fiber optic		
Dimensions (W × H × D)			1,077 mm × 689 mm × 138 mm	1,266 mm × 802 mm × 138 mm	1,454 mm × 918 mm × 144 mm
Mass			39.0 kg Net	48.0 kg Net	65.0 kg Net

Note

- Design and Specifications are subject to change without notice. Weight and Dimensions shown are approximate.
- This equipment complies with the EMC standards listed below.
  EN55013, EN61000-3-2, EN61000-3-3, EN55020, EN55022, EN55024.

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Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)



This symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.
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Disposing of this product correctly 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. Please contact your local authority for further details of your nearest designated collection point.
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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.

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This symbol is only valid in the European Union.
If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

Sales and Support Information

Customer Care Centre

- For customers within the UK : **0844 844 3852**
- For customers within the Republic of Ireland: **01 289 8333**
- Visit our website for product information **www.panasonic.co.uk**
- E-mail: **customer.care@panasonic.co.uk**

Direct Sales at Panasonic UK

- Order accessory and consumable items for your product with ease and confidence by phoning our Customer Care Centre Monday – Thursday 9:00am – 5:30pm, Friday 9:30am – 5:30pm (Excluding public holidays).
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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 _____

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