Panasonic

Operating Instructions
LCD Television

Model No. **TX-32LXD80F**

VIERA

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.
Please refer to Pan European Guarantee Card if you need to contact your local Panasonic dealer for assistance.

English

TQB0E0556U

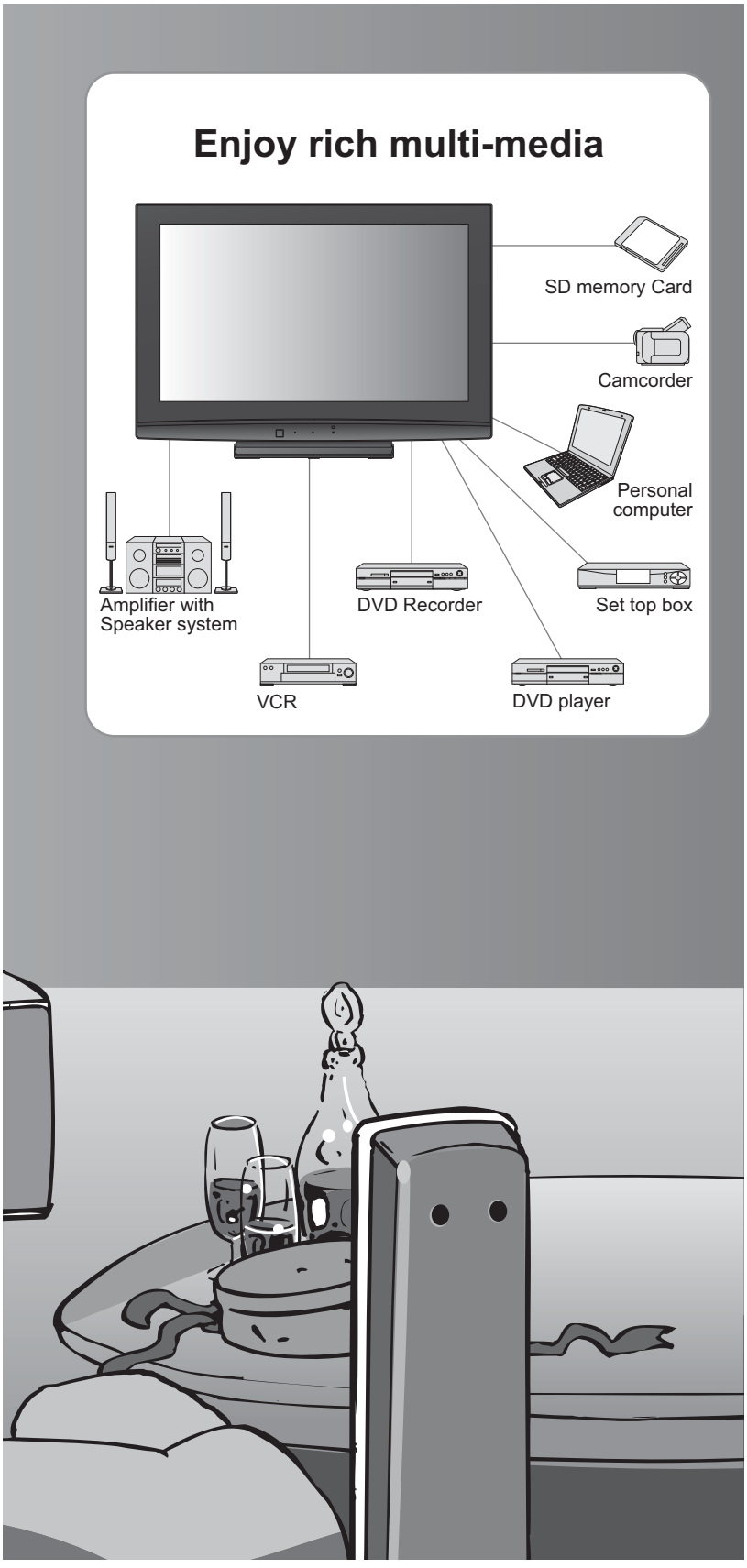
Turn your own living room into a movie theatre!

Experience an amazing level of multi-

Notice for DVB functions

- Any functions related to DVB (Digital Video Broadcasting) will work in areas where DVB-T (MPEG2) digital terrestrial broadcasting are received. Consult your local Panasonic dealer with coverage areas.
- DVB functions may not be available in some countries.
- Some functions may not be available in some countries.
- This TV has the capability for DVB specifications. But future DVB services cannot be guaranteed.

media excitement



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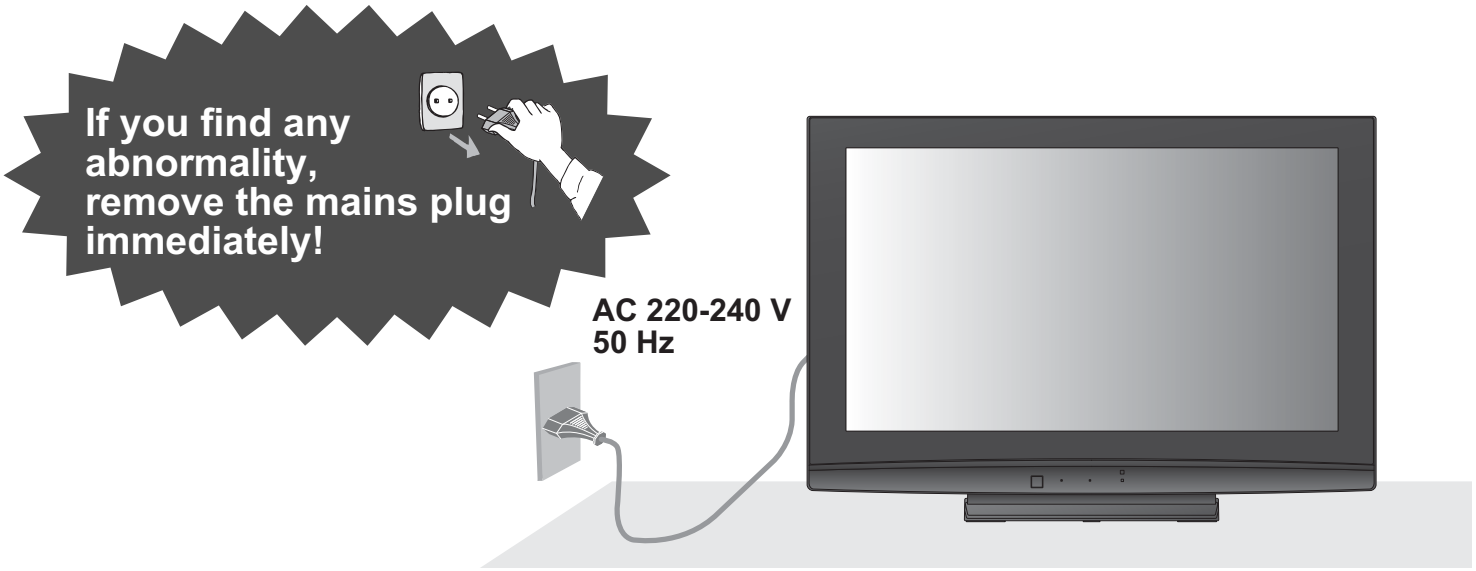
Safety Precautions

Warning

Handling the mains plug and lead

- Insert the mains plug fully into the socket outlet. (If the mains plug is loose, it could generate heat and cause fire.)
- Ensure that the mains plug is easily accessible.
- Do not touch the mains plug with a wet hand. (This may cause electrical shock.)
- Do not damage the mains lead. (A damaged lead may cause fire or electrical shock.)
  - Do not move the TV with the lead plugged in the socket outlet.
  - Do not place a heavy object on the lead or place the lead near a high-temperature object.
  - Do not twist the lead, bend it excessively, or stretch it.
  - Do not pull on the lead. Hold onto the mains plug body when disconnecting lead.
  - Do not use a damaged mains plug or socket outlet.



Power source

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

Do not remove covers NEVER modify the TV yourself

(High-voltage components may cause serious electrical shock.)

- Have the TV checked, adjusted, or repaired at your local Panasonic dealer.

Keep liquids away from the TV

- To prevent damage which may result in fire or shock hazard, do not expose this appliance to dripping or splashing.
- Do not place containers with water (flower vase, cups, cosmetics, etc.) above the TV. (including on shelves above, etc.)

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.

Do not place foreign objects inside the TV

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

Do not place the TV on sloped or unstable surfaces

- The TV may fall off or tip over.

Use only the dedicated pedestals / mounting equipment

- Using an unapproved pedestal or other fixtures may make the TV unstable, risking injury. Be sure to ask your local Panasonic dealer to perform setup.
- Use approved pedestals / 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.

Notes

Caution

■When cleaning the TV, remove the mains plug

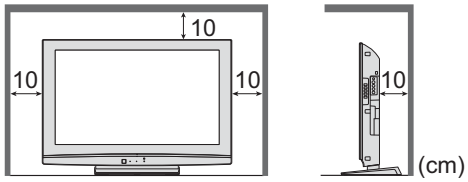
- Cleaning an energized TV may cause electrical shock.

■When the TV is not going to be used for a long period of time, remove the mains plug

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

■Allow sufficient space around the TV for radiated heat

Minimum distance



- When using the pedestal, keep the space between the bottom of the TV and the floor surface.
- In case of using Wall-hanging bracket, follow the manual of it.

■Do not block the rear air vents

- Blocked ventilation by newspapers, table cloths, curtains, etc. may cause overheating, fire or electrical shock.

■Do not expose your ears to excessive volume from the headphones

- Irreversible damage can be caused.

■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 types of equipment

- Electronic equipment

  In particular, do not place video equipment near the TV (electromagnetic interference may distort images / sound).
- Equipment with an infrared sensor

  This TV also emits infrared rays (this may affect operation of other equipment).

■Transport only in upright position

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 (1 part detergent to 100 parts 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.
- Take care not to subject the surface to insect repellent, solvent, thinner, or other volatile substances (this may degrade surface quality).

Cabinet, Pedestal

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

- Take care not to subject the TV's surfaces to detergent. (A liquid inside the TV could lead to product failure.)
- Take 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 and pedestal 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.)

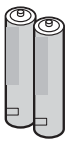
Accessories / Options

Standard accessories

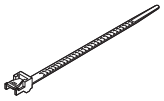
Check that you have the accessories and items shown ☑

☐ Remote Control
- N2QAYB000239

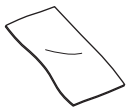
☐ Batteries for the Remote Control (2)
- R6 (UM3)



☐ Clamper



☐ Cleaning cloth

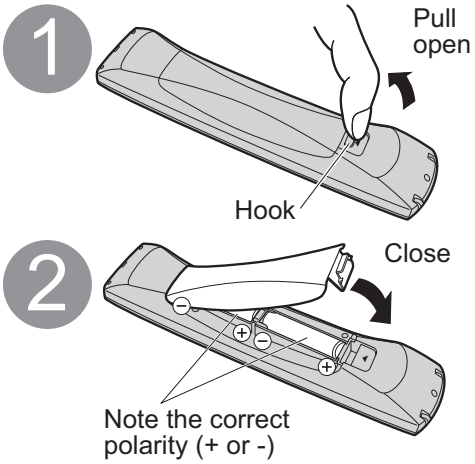


☐ Operating Instructions

☐ Pan European Guarantee Card

- This product contains possibly dangerous parts (such as plastic bags), that can be breathed in or swallowed by young children accidentally. Keep these parts out of reach of young children.

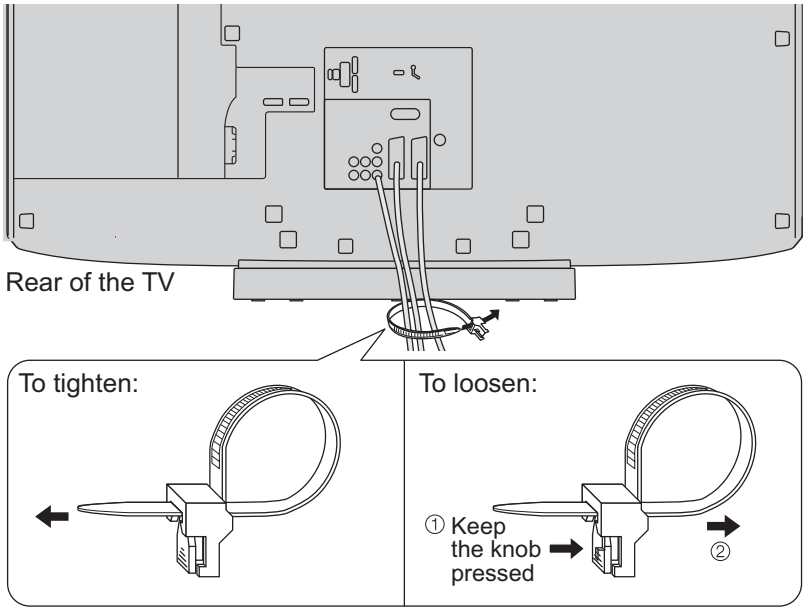
Installing remote's batteries



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

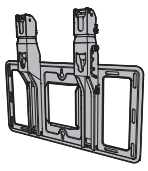
Using the clamper



- 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

Wall-hanging bracket
- TY-WK32LR2W



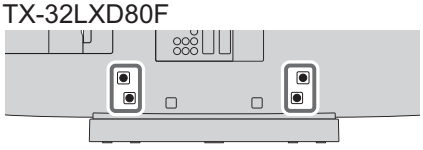
Please contact your nearest Panasonic dealer to purchase the recommended wall-hanging bracket. For additional details, please refer to the wall-hanging bracket installation manual.

WARNING!

- Failure to use a Panasonic bracket or choosing to mount the unit yourself will be done at the risk of the consumer. Any damage resulting from not having a professional installer mount your unit will void your warranty.
- Always be sure to ask a qualified technician to carry out set-up. Incorrect fitting may cause equipment to fall, resulting in injury and product damage.
- Do not mount the unit directly below ceiling lights (such as spotlights, floodlights or halogen lights) which typically give off high heat. Doing so may warp or damage plastic cabinet parts.
- Take care when fixing wall brackets to the wall. Always ensure that there are no electrical cables or pipes in the wall before hanging bracket.

■How to remove the Pedestal

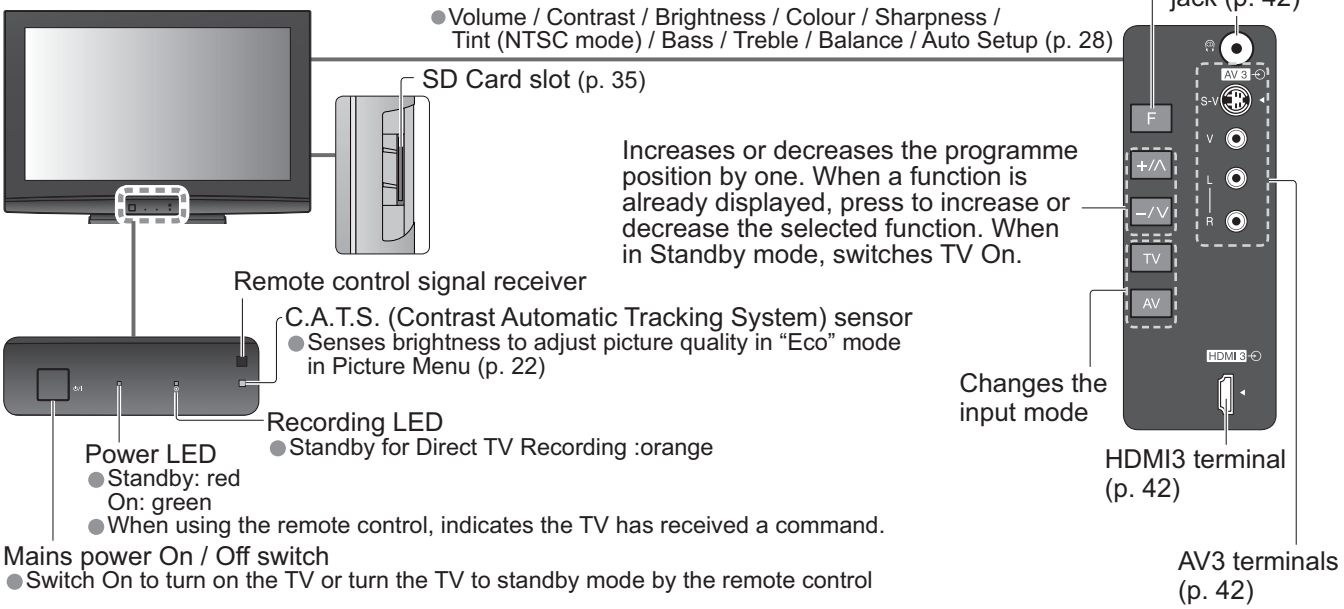
Remove four screws.
- TX-32LXD80F



Rear of the TV

Identifying Controls

TV



Remote Control

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

Aspect (p. 14)
● Changes aspect ratio from Aspect Selection list
● Also possible by pressing this button repeatedly until you reach the desired aspect

VIERA Link Menu (p. 39)
● Press to access VIERA Link Menu directly

Guide (p. 15)
● Displays Programme Guide or Programme List

OK
● Confirms selections and choices
● Press after selecting programme positions to quickly change programme

Main Menu (p. 20)
● Press to access VIERA Link, Picture, Sound and Setup Menus

Teletext (p. 16)
● Switches to teletext mode

Subtitles (p. 12)
● Displays subtitles

Numeric buttons
● Changes programme and teletext pages
● When in Standby mode, switches TV On

Programme Information (p. 13)
● Displays programme information

Programme Up / Down
● Selects programme in sequence

VCR / DVD Panasonic equipment operations (p. 19)

Normalize (p. 20)
● Resets picture and sound settings to their default levels

Input mode selection
● TV - switches DVB / Analogue mode (p. 12)
● AV - switches to AV input mode from Input Selection list (p. 18)

SD Card (p. 34)
● Switches to SD Card viewing mode

Option Menu (p. 13)
● Easy setting for viewing and sound options

Exit
● Returns to the normal viewing screen

Cursor buttons
● Makes selections and adjustments

Return
● Returns to the previous menu

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

Hold
● Freeze / unfreeze picture (p. 12)
● Holds the current teletext page (teletext mode) (p. 17)

Index (p. 17)
● Returns to the teletext index page (teletext mode)

Sound Mute
● Switches sound mute On or Off

Volume Up / Down

Direct TV Recording (p. 37 and p. 39)
● Records programme immediately in DVD Recorder / VCR with Q-Link or VIERA Link connection

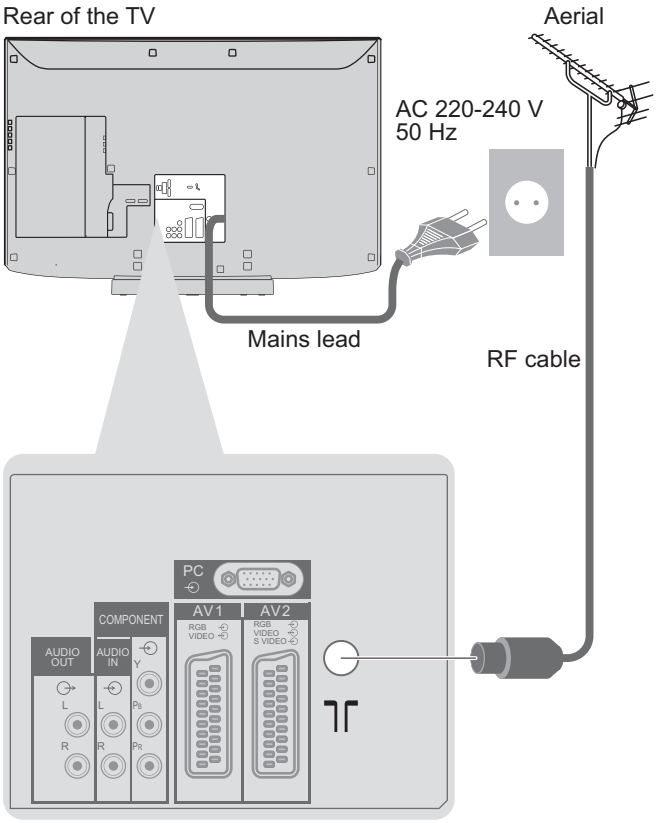
Surround (p. 22)
● Switches Surround sound

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.

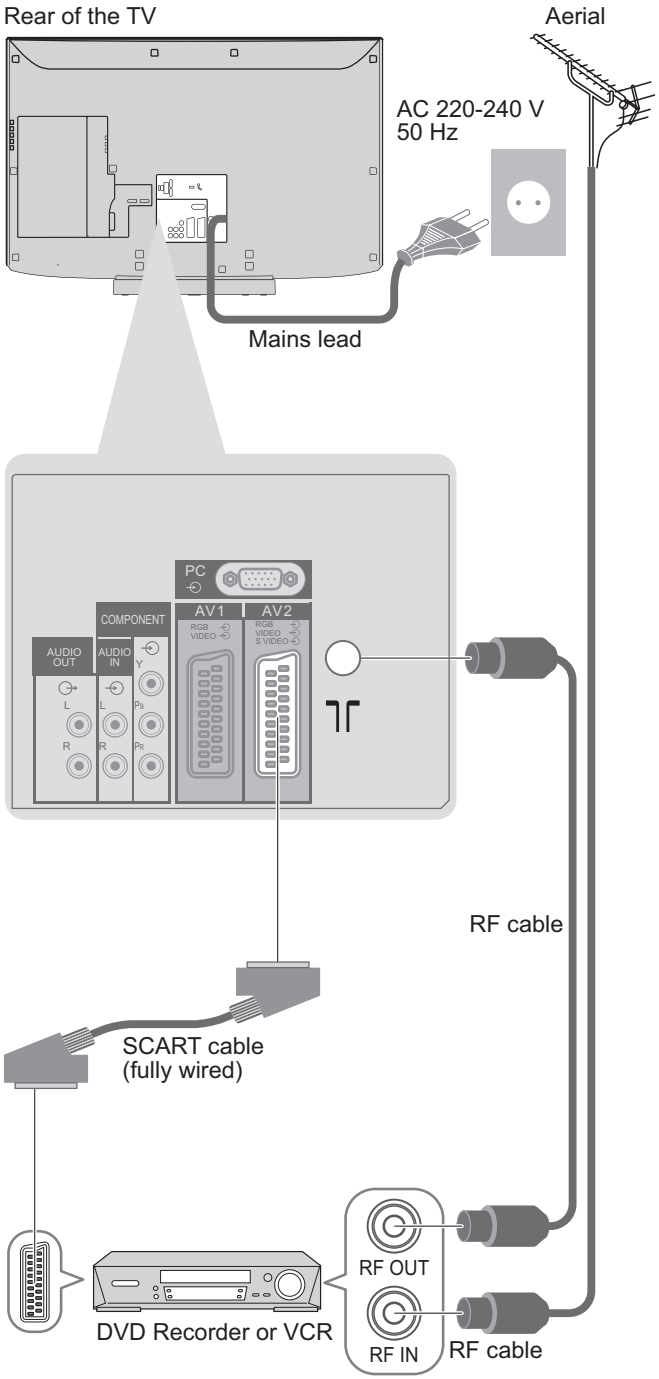
Example 1
Connecting aerial

TV only



Example 2
Connecting DVD Recorder / VCR

TV, DVD Recorder or VCR

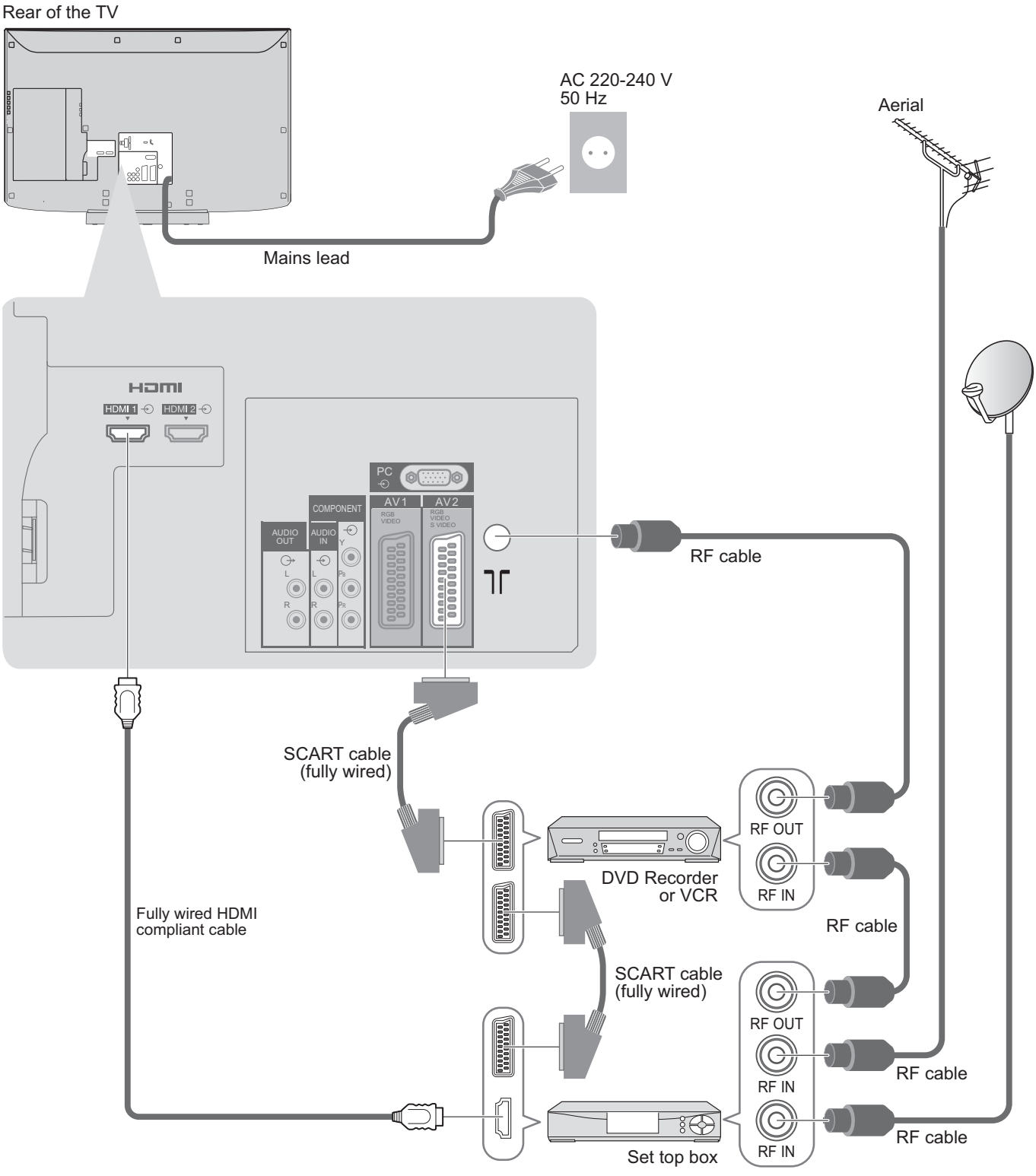


Note

- Connect to AV1 / AV2 for a DVD Recorder / VCR supporting Q-Link (p. 37).
- For HDMI-compatible equipment, possible to connect to HDMI terminals (HDMI1 / HDMI2 / HDMI3) by using HDMI cable (p. 42).
- Q-Link connection ➡ p. 36
- VIERA Link connection ➡ p. 36
- Read the manual of the equipment too.

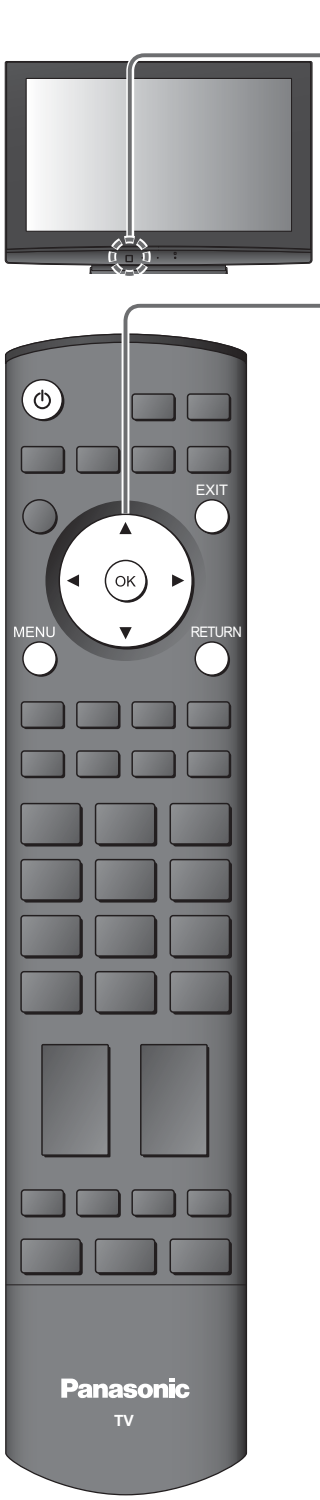
Example 3
Connecting DVD Recorder / VCR and Set top box

TV, DVD Recorder / VCR and Set top box



Auto Setup

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

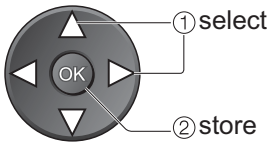


1 Plug the TV into mains socket and switch On

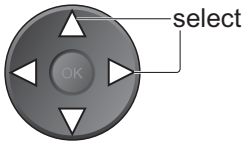
(Takes a few seconds to be displayed)

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

2 Select the language

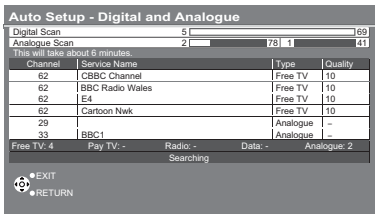


3 Select your country

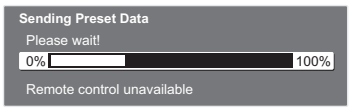


- Depending on the selected countries, you may also be required to select the region.

4 Start Auto Setup



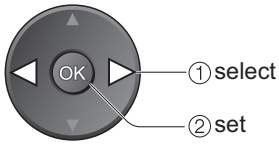
- Auto Setup will start to search for TV programmes and store them. The sorted programme order depends upon the TV signal, the broadcasting system and reception conditions.



- If Q-Link, VIERA Link or similar technology (p. 36), compatible recorder is connected, programme, language, country / region settings are automatically downloaded to the recorder.

5 Select the picture setting

- "Shop" and "Home" are equal to "Dynamic" and "Normal" respectively - "Viewing Mode" in "Picture Menu" (p. 22)



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

- To edit programmes
  ➡ "Editing Programmes" (p. 26)

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

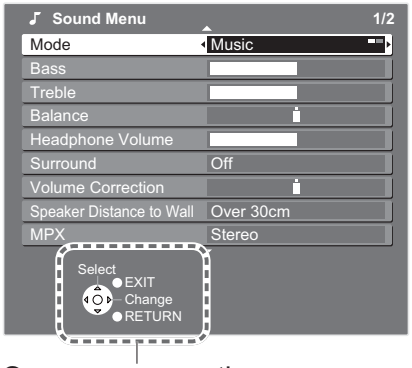
OK
Access the menu / store settings after adjustments have been made or options have been set

RETURN
Return to the previous menu

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

■ ON SCREEN HELP Instructions box

(example: Sound Menu)



On-screen operation guide will help you.

Note

- If tuning has failed ➡ “Auto Setup” (p. 29)
- If downloading has failed ➡ “Download” (p. 23)
- To initialize all settings ➡ “Shipping Condition” (p. 31)
- 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

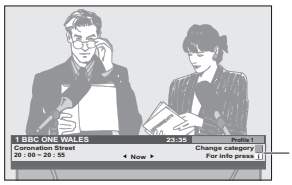
1 Turn power on

(Press for about 1 second)

- Mains power On / Off switch should be On. (p. 7)

2 Select DVB (Digital Video Broadcasting) or Analogue mode

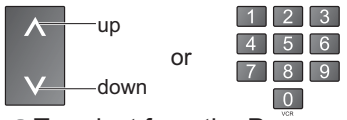
- Also possible to select the mode using the TV button on the side panel of the TV. (p. 7)



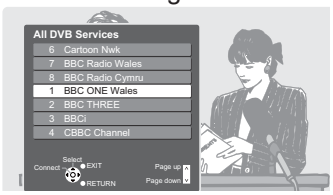
Information banner appears whenever you select a programme

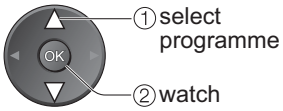
- For details ➡ p. 13

3 Select a programme



- To select the two or three-digit programme number, e.g. 39
  ➡ 3 ➡ 9 (in a short time)
- To select from the Programme List
  ➡ OK





Note

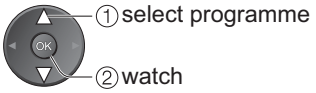
- To watch pay-TV ➡ p. 25

■ Select a programme using Information banner (p. 13)

Possible to confirm the programme name before selecting programmes.

Display Information banner if it is not displayed

While the banner is displayed, select the programme



- Possible to set display timeout in “Banner Display Timeout” (p. 23).

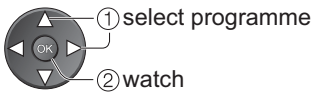
■ Select a programme using Programme Guide (p. 15)

Possible to confirm the Programme Guide or Programme List before selecting programmes.

- This function may not be available in some countries.

Display Programme Guide or Programme List

Select the programme



■ Other useful functions

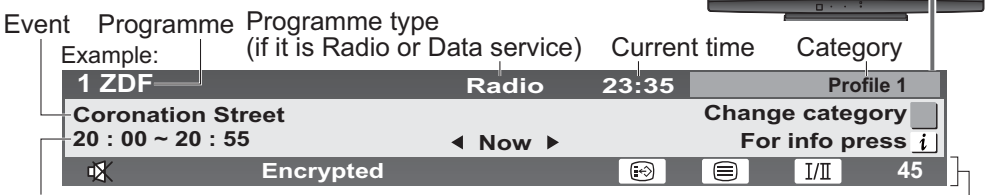
Hold	**Freeze / unfreeze picture**	HOLD
Display subtitles	**Display / hide subtitles** (if available) ● To change the language for DVB (if available) ➡ “Preferred Subtitles” (p. 23)	STTL

■ Other useful functions

Display Information banner

Display Information banner

● Also appears when changing a programme



Features available / Message meanings

Sound mute On	Teletext service available
Bad signal Poor TV signal quality	I/II Multiple audio available
Encrypted Scrambled programme	**Stereo, Mono** Audio mode
Subtitle service available	**1 - 90** Off Timer remaining time ● For settings ➡ see below

● To confirm another tuned programme name ➡ OK

● To change the category ➡ blue

● To watch the programme listed in the banner ➡ OK

● To hide ➡ EXIT

● Information on the next event ➡ OK (DVB mode)

● To set display timeout ➡ "Banner Display Timeout" (p. 23)

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

Display the selectable settings for the current programme

Check or change the current programme status instantly

OPTION

● To change ➡ OK (② change, ① select)

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

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

Teletext Character Set
Sets the teletext language
➡ Setup Menu (p. 23)

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

MPX (Analogue mode)
➡ Sound Menu (p. 22)

Volume Correction
Adjusts volume of individual programme or input mode

Note

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

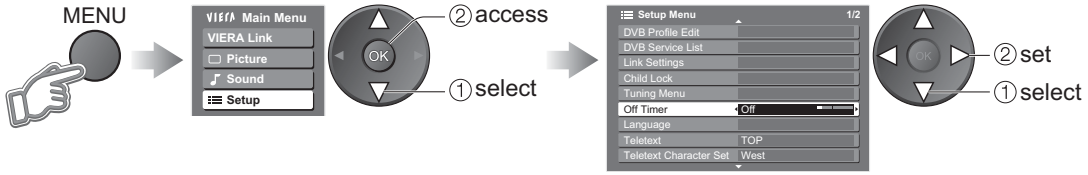
Off Timer

Turn the TV off automatically after a fixed period

Display the menu → 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 (above)
● When the remaining time is within 3 minutes, the remaining time will flash on screen.

Watching TV

■ Other useful functions

Change aspect ratio

Change the aspect ratio

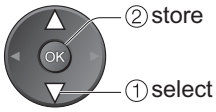
ASPECT

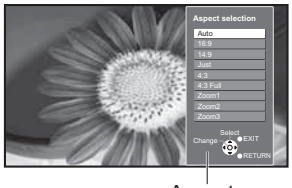
Enjoy viewing the picture at its optimum size and aspect.

Display Aspect Selection list

ASPECT

While the list is displayed, select the mode





Aspect Selection list

- To change the mode using the ASPECT button only

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

Auto

The best ratio is chosen and the picture expanded to fill the screen.
For details ➡ p. 44

16:9

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

14:9

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

Just

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

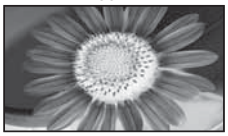
4:3

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

4:3 Full

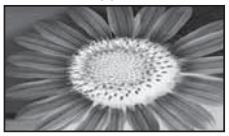
Displays a “4:3” image enlarged horizontally to fit the screen.
- HD signal only

Zoom1



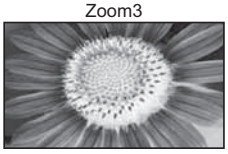
Displays a “16:9” letterbox or “4:3” image without distortion.

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).

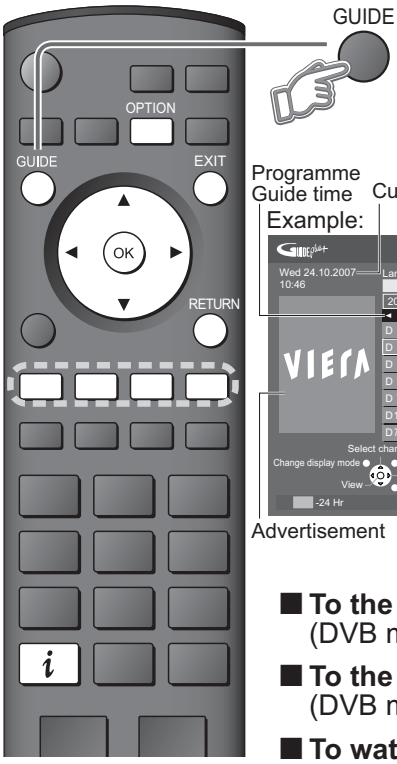
Note

- Only “16:9” and “4:3” are available in PC mode.
- Not available in teletext mode.
- Aspect mode can be memorized separately for SD (Standard definition) and HD (High definition) signals.

Using Programme Guide

Using Programme Guide enables you to select programme easily, view event informations, etc.
Programme Guide—Electronic Programme Guide (EPG) provides an on-screen listing of the programmes currently broadcast and the future broadcasts over the next seven days (depending on the broadcasters).

- This function varies depending on the country you select (p. 10).
- Analogue programmes will be listed after DVB programmes. “D” means DVB programme and “A” means Analogue programme.

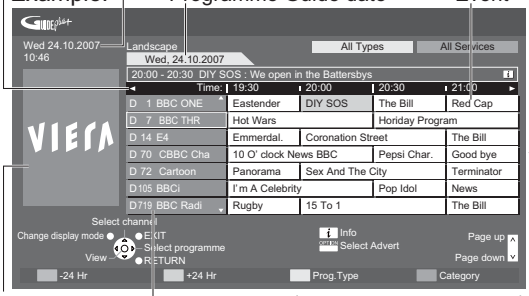


View Programme Guide

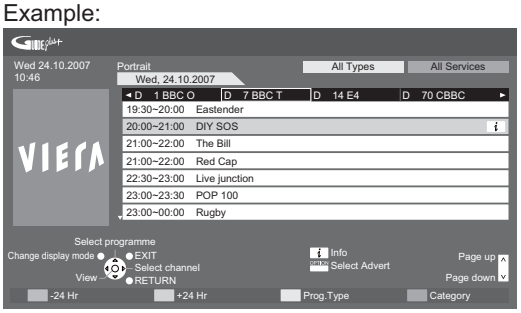
Each time pressed, the layout will be changed (Landscape / Portrait).

- Depending on the country, the postcode entry or update is required. Follow the message’s instructions.
- Also possible to setup manually from Setup Menu
  ➡ “Update” / “Postcode” in “GUIDE Plus+ Settings” (p. 23)

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



Example:



Advertisement
Programme
Landscape (Displays by programme)
Portrait (Displays by time)

■ To the previous day ➡ red (DVB mode)

■ To the next day ➡ green (DVB mode)

■ To watch the programme

Select the event or programme now on the air

➡ OK ① select ② watch

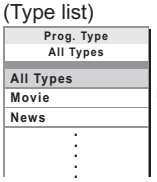
■ To return to TV

➡ EXIT

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

(Type list)

➡ yellow

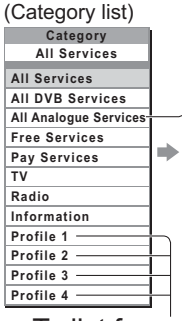


OK ① select type ② view

■ To view a programme list of the selected category

(Category list)

➡ blue



Only Analogue TV programmes are listed

OK ① select category ② view

To list favourite programmes ➡ p. 27

■ To view details of the event (DVB mode)

Select the event

➡ OK select ➡ i ● Press again to return to Programme Guide.

■ To view advertisement (Depending on the country)

If you enter an incorrect postcode for your area, or no postcodes are entered, advertisement may not be displayed correctly.

➡ OPTION ➡ OK select advertisement

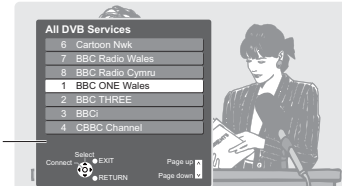
● Press the OPTION or RETURN button to return to Programme Guide.

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 Programme Guide is completely shown.

■ Depending on the country you select, Programme Guide may not be supported

In this case, Programme List will appear.



Programme List

OK ① select programme ② watch

Viewing Teletext

You can enjoy teletext broadcasting, including news, weather forecasts and subtitles, if this service is provided by the broadcasters.

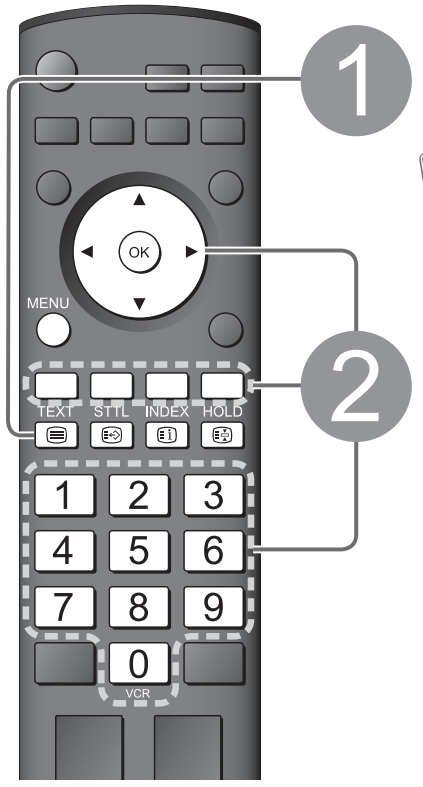
What is FLOF (FASTEXT) mode?
In FLOF mode, four differently coloured subjects are situated at the bottom of the screen. To access more information about one of these subjects, press the appropriately coloured button. This facility enables fast access to information on the subjects shown.

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

Available page up / down ➡ red green
To select among subject blocks ➡ blue
To select next subject within the subject block ➡ yellow
(After the last subject, it moves to the next subject block.)

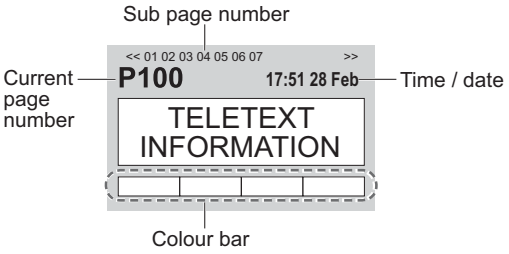
What is List mode?
In List mode, four differently coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in the TV's memory. ("Store frequently viewed pages", p. 17)

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



Switch to Teletext

TEXT ● Displays Index (content varies depending on the broadcasters)



Select the page

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

■ **To adjust contrast** ➡ MENU (Press three times) ➡ As the blue bar is displayed

■ **To return to TV** ➡ TEXT

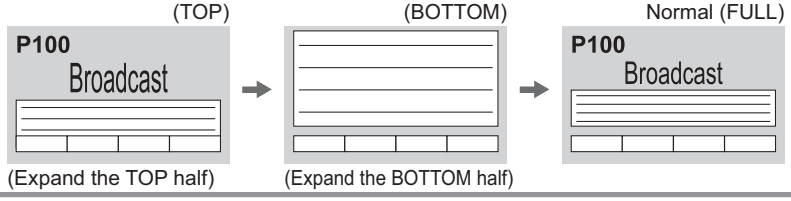
■ **Using teletext conveniently**

Reveal hidden data

Reveal hidden words e.g. quiz page answers
MENU ➡ red
■ **Re-hide** ➡ red

FULL / TOP / BOTTOM

MENU ➡ green



HOLD

Stop automatic updating

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

HOLD

■ **To resume** ➡ HOLD

INDEX

Return to the main index page

INDEX

Call up a favourite page

View a favourite page stored

STTL

- Call up the page stored in “blue”.
- Factory setting is “P103”.

View in multi window

Watch TV and Teletext in two windows at once

MENU (Press twice) ➡

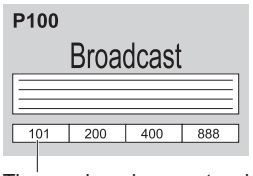
- Select Picture and text On or Off

- Operations can be made only in Teletext screen.

Store frequently viewed pages

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

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



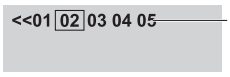
The number changes to white.

■ **To change stored pages**

➡ Colour button you want to change ➡ Enter new page number (1 2 3 / 4 5 6 / 7 8 9 / 0) ➡ OK press and hold

View sub page

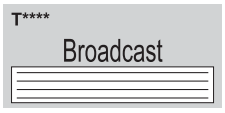
View sub page (Only when teletext is more than one page)



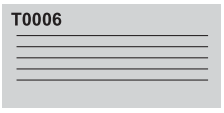
Appears at top of the screen

■ **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 ➡

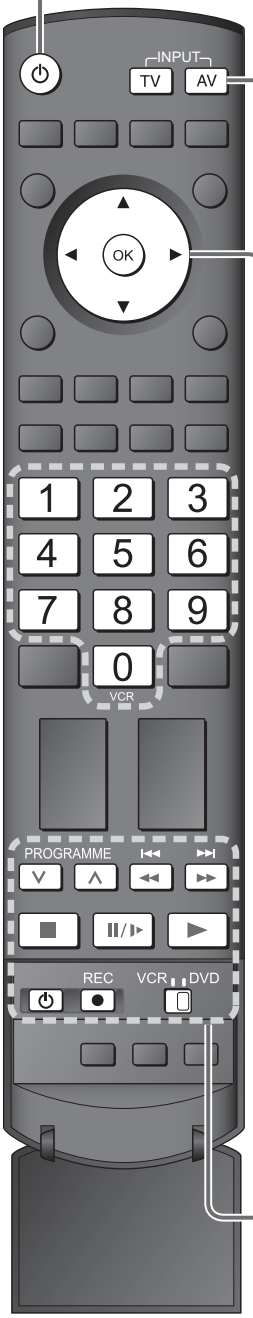
Appears when updating is completed ➡ yellow ➡ View the updated page

(You cannot change the programme.)

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

Watching Videos and DVDs

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



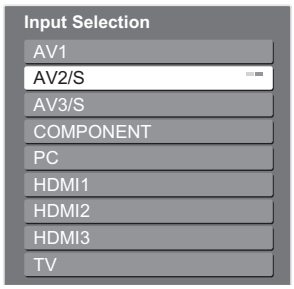
1 Turn the TV on

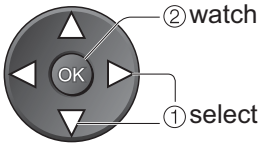
■ **When connecting with SCART as example 2 or 3** (p. 8 and p. 9)
➡ Receives input signals automatically when playback starts
● Input signals are automatically identified by the SCART (pin 8) terminal.
● This function is also available for HDMI connections (p. 42).

■ **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

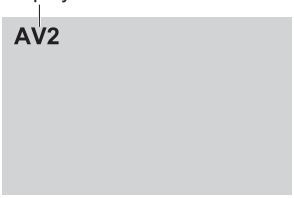




● You can also select the input using the AV button on the remote control or the side panel of the TV.
Press the button repeatedly until the desired input is selected.
● You can label or skip each input mode ➡ “Input Labels” (p. 32)

4 View

Displays the selected mode



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.

■ **To return to TV**
➡ TV

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 / Resume 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 ➡ Press ■

"VCR" position

Equipment	Code
VCR	10 (default)
DVD	11

"DVD" position

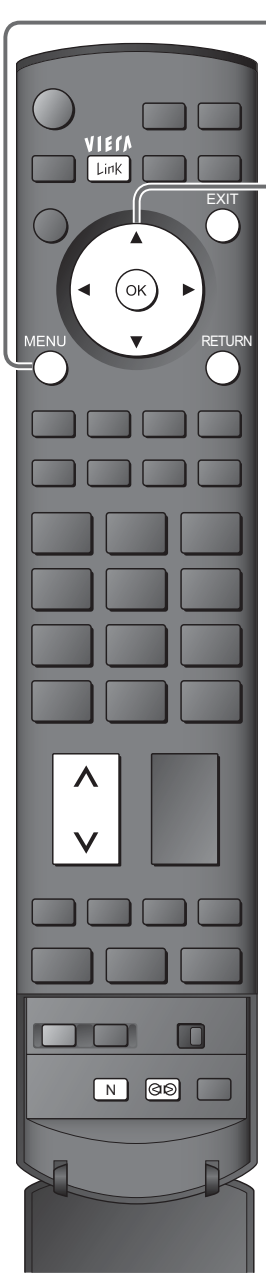
Equipment	Code
DVD	70 (default)
Player home theatre	71

Note

- Confirm if the remote control works correctly after changing the code.
- 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.

How to Use Menu Functions

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



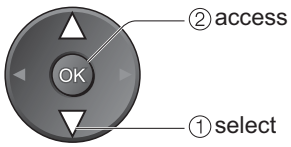
1 Display the menu

MENU

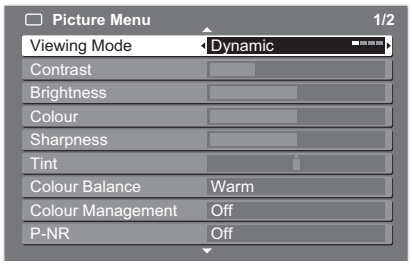
- Displays the functions that can be set (varies according to the input signal)

2 Select the menu

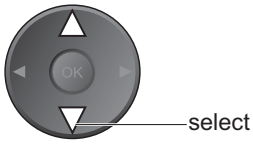
(example: Picture Menu)



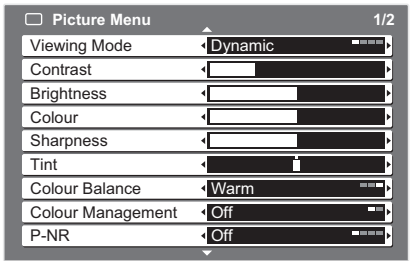
3 Select the item



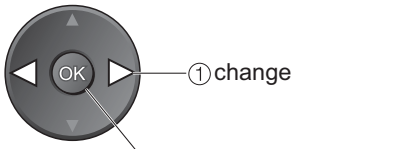
(example: Picture Menu)



4 Adjust or select



(example: Picture Menu)



■ To return to TV at any time

➡ EXIT

■ To return to the previous screen

➡ RETURN

■ To change menu pages

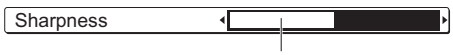
➡

■ Choose from among alternatives

Number and positions of alternatives

Changed

■ Adjust using the slide bar



Moved

■ Go to the next screen

Displays the next screen

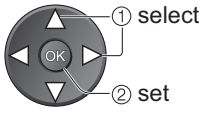
■ To reset the settings

- To reset the picture settings only
  ➡ "Reset to Default" in Picture Menu (p. 22)
- To reset the sound settings only
  ➡ "Reset to Default" in Sound Menu (p. 22)
- To reset the picture and sound settings together
  ➡ N (Also volume level and aspect mode are reset)
- To initialize all settings
  ➡ "Shipping Condition" in Setup Menu (p. 31)

■ Enter characters by free input menu

You can enter names or numbers freely for some items.

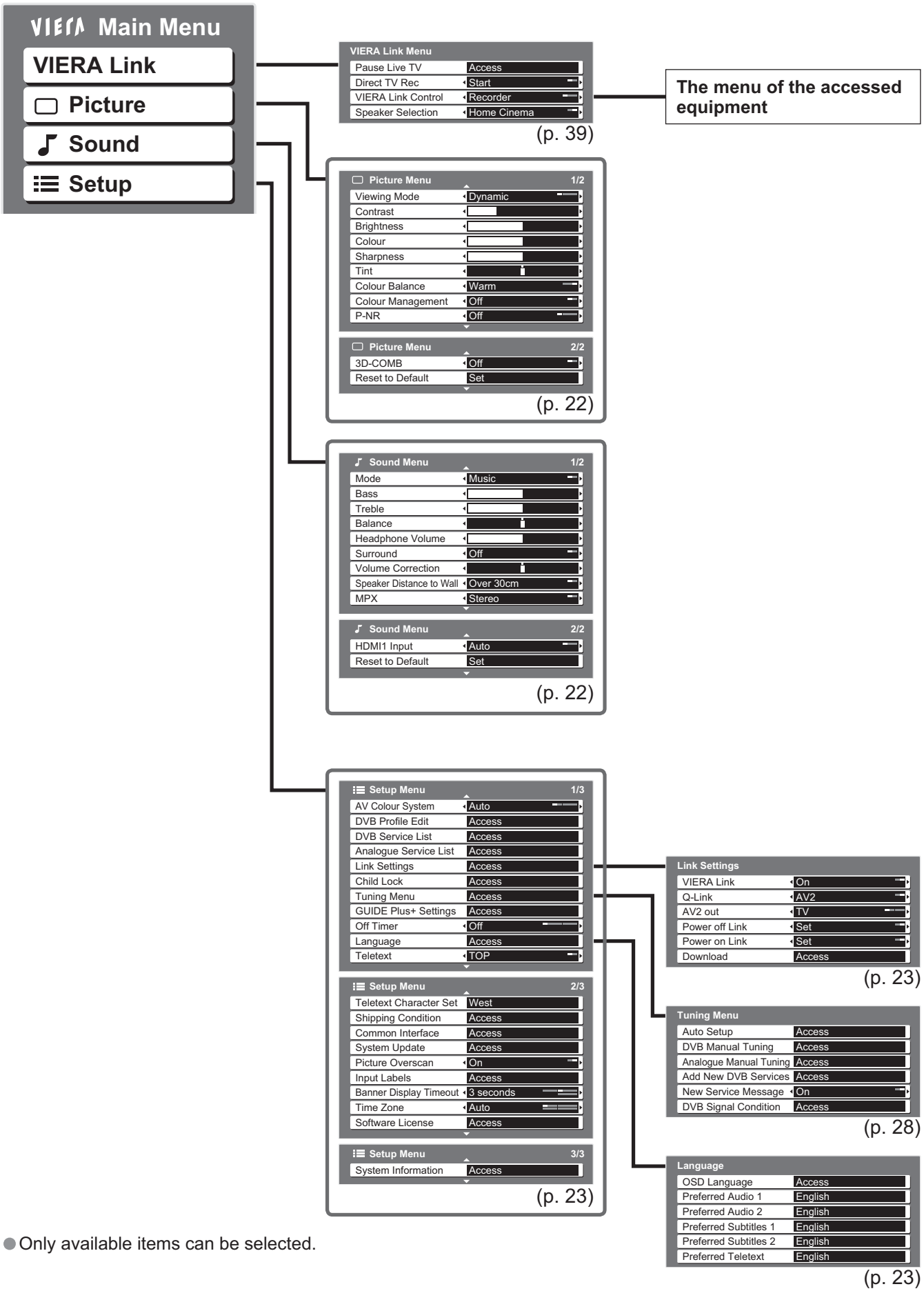
Set characters



Store

RETURN

■ Overview



● Only available items can be selected.

How to Use Menu Functions

■ Menu list

Menu	Item	Adjustments / Configurations (alternatives)
VIERA Link	**Pause Live TV**	Controls the connected equipment with VIERA Link function, and enables various convenient recording, playback, etc. (p. 39 - 41) ● You can also access VIERA Link Menu directly using the VIERA Link button on the remote control.
	Direct TV Rec	
	VIERA Link Control	
	Speaker Selection	
Picture	**Viewing Mode**	Basic picture mode **(Dynamic / Normal / Cinema / Eco)** Dynamic: Provides enhanced picture contrast and sharpness when viewing in a bright room Normal: Recommended for viewing under normal ambient room lighting conditions Cinema: For watching movies in a darkened room producing a cinema-like picture Eco: Adjusts picture settings automatically dependent on ambient lighting conditions ● Set for each input signal
	Contrast, Brightness, Colour, Sharpness	Increases or decreases the levels of these options according to your personal preference
	Tint	With an NTSC signal source connected to the TV, the picture hue can be adjusted to suit your taste ● For NTSC signal reception only
	Colour Balance	Allows you to set the overall colour tone of the picture **(Cool / Normal / Warm)**
	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, Component, PC, HDMI and SD Card
	Reset to Default	Press the OK button to reset the present Picture Mode to the default settings
Sound	**Mode**	Basic sound mode **(Music / Speech)**
	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 / On)** Provides a dynamic enhancer to simulate improved spatial effects ● Switching is also possible by the Surround button on the remote control (p. 7).
	Volume Correction	Adjusts volume of individual programme or input mode
	Speaker Distance to Wall	Adjusts the low frequency sound **(Over 30cm / Up to 30cm)** ● If the back space between the TV and wall is over 30 cm, “Over 30cm” is recommended. ● If the back space between the TV and wall is within 30 cm, “Up to 30cm” is recommended.
	MPX	Select stereo / monaural **(Mono / Stereo)** ● Normally: Stereo ● Stereo signal cannot be received: Mono ● M1 / M2: Available while mono signal is transmitted ● Analogue mode only
	HDMI1 / 3 Input	Select to fit the input signal **(Auto / Digital / Analogue)** (p. 45) 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
	Reset to Default	Press the OK button to reset the present Sound Mode to the default settings

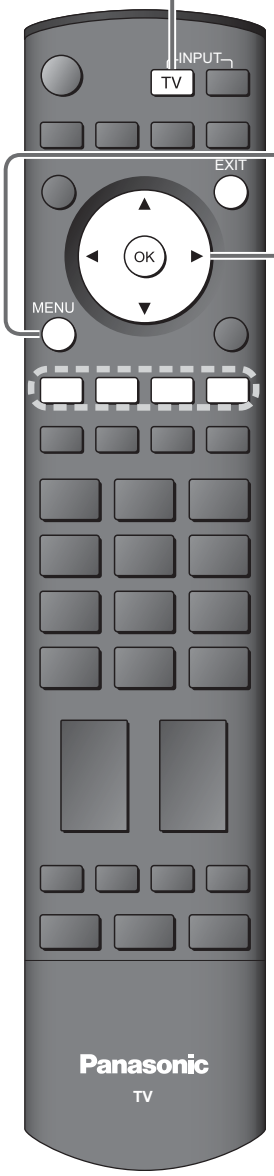
■Menu list

Menu	Item		Adjustments / Configurations (alternatives)
Setup	AV Colour System		Selects optional colour system based on video signals in AV mode **(Auto / PAL / SECAM / M.NTSC / NTSC)**
	DVB Profile Edit		Creates list of favourite programmes (p. 27)
	DVB Service List		Skips the unwanted DVB programmes (p. 27)
	Analogue Service List		Skips the unwanted Analogue programmes or edits Analogue programmes (p. 27)
	Link Settings	VIERA Link	Sets to use VIERA Link functions **(Off / On)** (p. 38)
		Q-Link	Selects which AV terminal is to be used for data communication between this TV and a compatible recorder **(AV1 / AV2)** (p. 37) ● Select the connected terminal to the recorder even it is not compatible with Q-Link.
		AV1 / AV2 out	Chooses the signal to be transmitted from the TV to Q-Link **(TV / AV1 / AV2 / AV3 / Monitor)** ● Monitor: Image displayed on screen ● Component, PC and HDMI signals cannot be outputted.
		Power off Link	Sets to use Power off Link function **(No / Set)** (p. 37 and p. 38)
		Power on Link	Sets to use Power on Link function **(No / Set)** (p. 37 and p. 38)
		Download	Downloads programme, language, country / region settings to a Q-Link or VIERA Link compatible equipment connected to the TV
	Child Lock		Locks a programme / AV input to prevent access to it (p. 30)
	Tuning Menu	Auto Setup	Automatically sets the programmes received in the area (p. 29)
		DVB Manual Tuning	Sets the DVB programmes manually (p. 29)
		Analogue Manual Tuning	Sets the Analogue programmes manually (p. 29)
		Add New DVB Services	Adds new DVB services (p. 29)
		New Service Message	Selects whether to give a notification message when a new DVB service is found (p. 29)
		DVB Signal Condition	Checks the DVB signal condition (p. 29)
	GUIDE Plus+ Settings	Update	Performs the update of the GUIDE Plus+ schedule and advertising informations for GUIDE Plus+ system
		Postcode	Sets your postcode for using GUIDE Plus+ system (p. 15)
		System Information	Displays the system information of GUIDE Plus+
	Off Timer		Sets the time the TV automatically turns Off **(Off / 15 / 30 / 45 / 60 / 75 / 90 minutes)**
	Language	OSD Language	Changes language for on-screen displays
		Preferred Audio 1 / 2	Selects the preferred language for DVB multi audio (depending on the broadcaster)
		Preferred Subtitles 1 / 2	Selects the preferred language for DVB subtitles (depending on the broadcaster) ● To display subtitles ➡ p. 12
		Preferred Teletext	Selects the preferred language for DVB teletext service (depending on the broadcaster)
	Teletext		Teletext display mode **(TOP (FLOF) / List)** (p. 16)
	Teletext Character Set		Selects teletext language **(West / East1 / East2)** ● West: English, French, German, Greek, Italian, Spanish, Swedish, Turkish, etc. ● East1: Czech, English, Estonian, Lettish, Rumanian, Russian, Ukrainian, etc. ● East2: Czech, Hungarian, Lettish, Polish, Rumanian, etc.
	Shipping Condition		Resets all settings, for example, when moving house (p. 31)
	Common Interface		Uses include to watch pay-TV (p. 25)
	System Update		Downloads new software to TV (p. 25)
	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 (16:9 signal only) or 16:9. ● This function can be memorized separately for SD (Standard definition) and HD (High definition) signals.
	Input Labels		Labels or skips each input terminal (p. 32)
	Banner Display Timeout		Sets how long the information banner (p. 13) stays on screen ● 0 (No display) to 10 sec. in 1-sec. increments
	Time Zone		Adjusts the time data (p. 25)
	Software License		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. 33 and p. 35)
● Only available items can be selected.

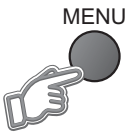
DVB Settings (DVB mode)

DVB Settings provide access to various advanced features.

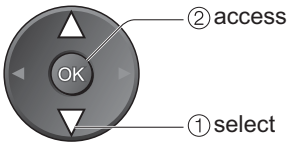


1 If in Analogue mode
Select DVB

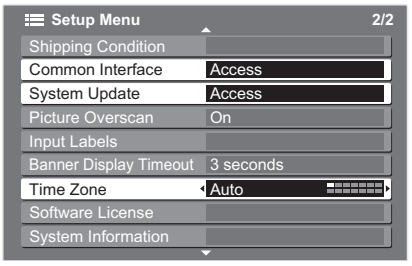
2 **Display the menu**

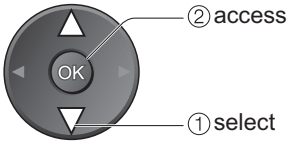


3 **Select “Setup”**



4 **Select “Common Interface”, “System Update” or “Time Zone”**





5 **Set**

■ **To return to TV**

EXIT

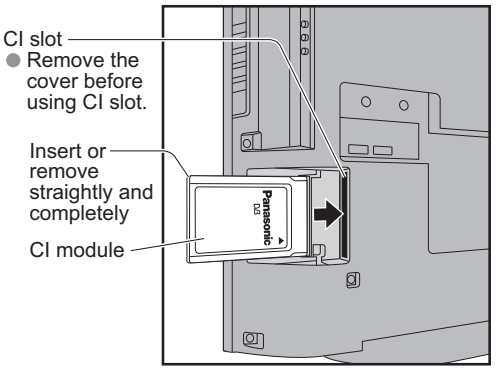
Pay-TV

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.
- Insert the module in the correct direction.



Side 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 service 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

③ Follow the on-screen instructions

example: select, go ➡ OK ◀▶▼▲ ➡

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

Coloured characters ➡ red green yellow blue

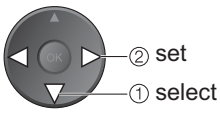
Update TV's software system

System Update

Download new software to TV.
● For details ➡ p. 45

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.

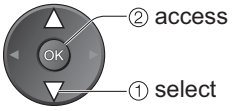
Select "Auto Update Search in Standby" and then set "On" or "Off"



- 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"



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

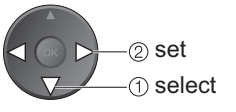
Download
OK

- Download may take for about 20 mins.

Adjust the time data automatically

Time Zone

Set the time



Auto : The time data will be adjusted according to your area automatically.
Others : The time data will be corrected based on GMT.

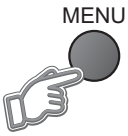
Editing Programmes

You can make your favourite programme lists and skip unwanted programmes, etc.

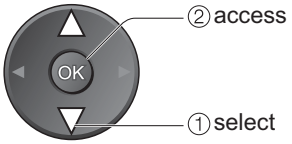
1 Select DVB or Analogue

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

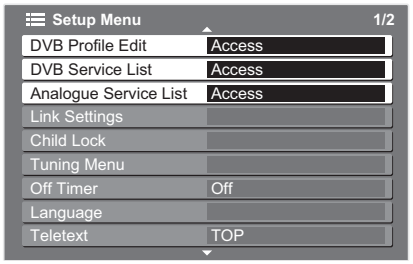
2 Display the menu

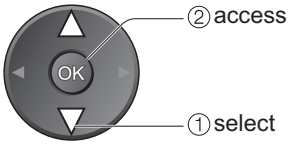


3 Select "Setup"



4 Select "DVB Profile Edit", "DVB Service List" or "Analogue Service List"





5 Set

■ **To return to TV**

EXIT

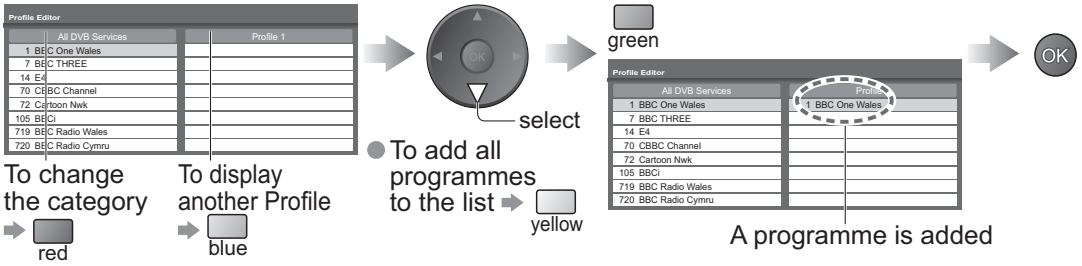
List favourite programmes

DVB Profile Edit

(DVB mode)

Create your favourite programme list (Profile) from various broadcasters (up to 4: Profile 1 to 4). The list is added to “Category” in Programme Guide (p. 15) and information banner (p. 13) and then easily accessed.

Select a programme 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 programme → green → Select the new position → Confirm green → OK
- To delete the programme → yellow → OK
- To delete all programmes → blue → OK

Skip unwanted programmes

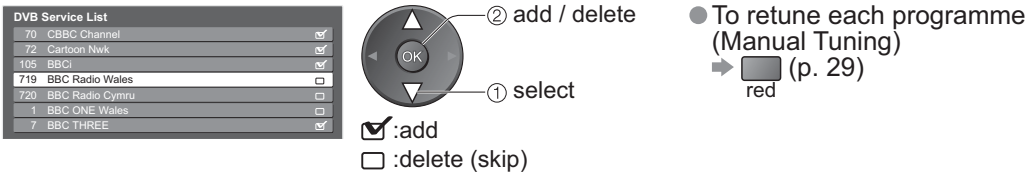
DVB Service List

Analogue Service List

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

- “DVB Service List” is listed all tuned DVB programmes in DVB mode.
- “Analogue Service List” is listed all tuned Analogue programmes in Analogue mode.

Select a service and add / delete



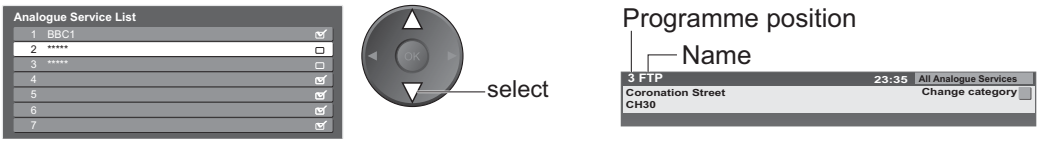
Edit analogue programmes (Change name, Move)

Analogue Service List

You can change the programme name and programme position for Analogue programmes.

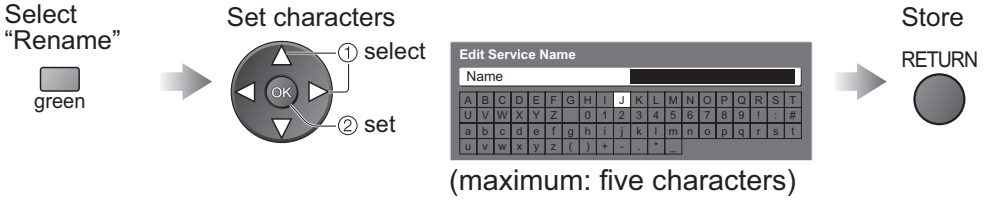
- This function is available in Analogue mode.
- If a VCR is connected only with the RF cable, edit “VCR”.

① Select the programme to edit



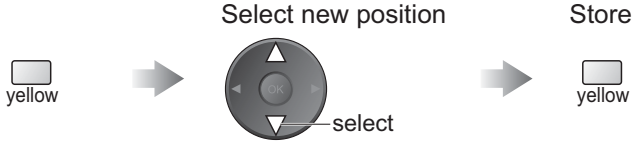
② Edit

■ To change the name displayed when selecting programmes



(maximum: five characters)

■ To move the programme position



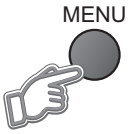
Tuning Programmes

You can retune all the TV programmes when moving house or search for new services which may have recently started broadcasting.

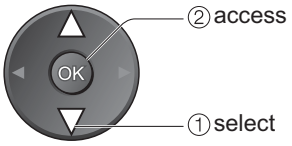
1 Select DVB or Analogue

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

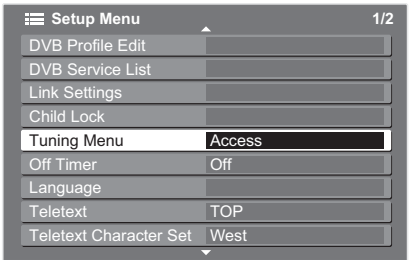
2 Display the menu

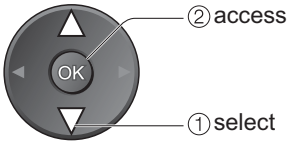


3 Select "Setup"

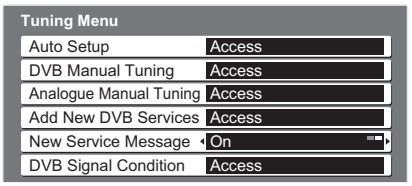


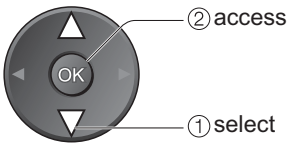
4 Select "Tuning Menu"





5 Select a function





6 Set

■ **To return to TV**

■ **For Auto Setup, using the buttons on the side of the TV** (p. 7)

① Press repeatedly until "Auto Setup" appears

F

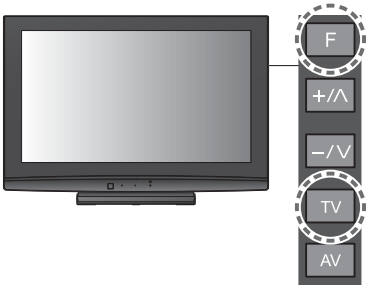
② Access "Auto Setup"

TV

③ Start "Auto Setup"

TV

- To return to TV ➡ F

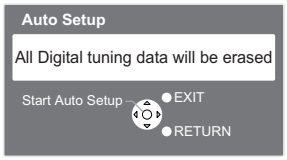


Set all DVB or Analogue programmes automatically

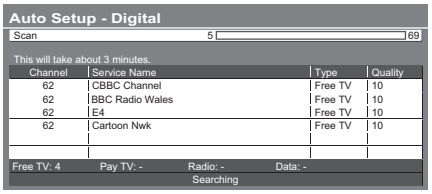
Auto Setup

Automatically retune all DVB or Analogue programmes received in the area.
- Only DVB programmes are retuned in DVB mode.
- Only Analogue programmes are retuned in Analogue mode.
- If a Child Lock PIN number (p. 30) has been set, it must be entered.

Start Auto Setup



Settings are made automatically

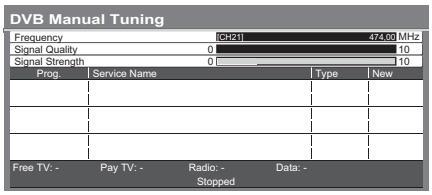


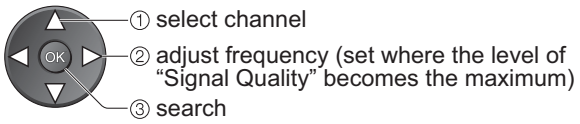
- All the previous tuning settings are erased.
- The programme, language, country / region settings are downloaded to a Q-Link or VIERA Link compatible equipment connected to the TV.
- When the operation is completed, the programme at programme position “1” will be displayed.
- If tuning has not been done completely ➡ “DVB Manual Tuning”, “Analogue Manual Tuning”

Set DVB programme manually

DVB Manual Tuning

Normally use “Auto Setup” or “Add New DVB Services” to add DVB programmes to your service list.
If tuning has not been done completely or for adjusting the direction of the aerial, use this function.





- All services found will be added to the DVB Service List.

Set Analogue programme manually

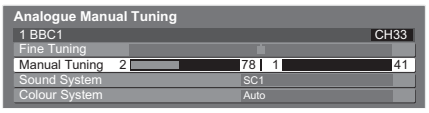
Analogue Manual Tuning

■ Fine Tuning

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

■ Manual Tuning

Set Analogue programme manually after Auto Setup.
- Set Sound System and Colour System, and then perform this function. Normally set Colour System “Auto”.
- If a VCR is connected only with the RF cable, select programme position “0”.

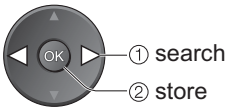


SC1: PAL B, G, H / SECAM B, G
SC2: PAL I
SC3: PAL D, K / SECAM D, K
F: SECAM L / L’

Select the programme position

Select the programme

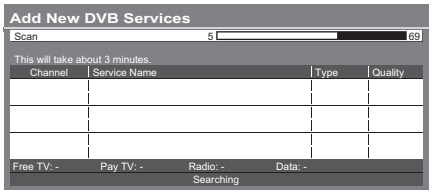
Search and store



Add DVB programme automatically

Add New DVB Services

Any new services found will be added to the DVB Service List.



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

Display a notification message

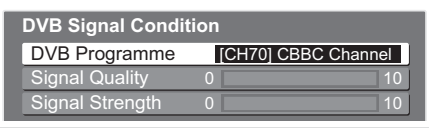
New Service Message

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

Check DVB signal

DVB Signal Condition

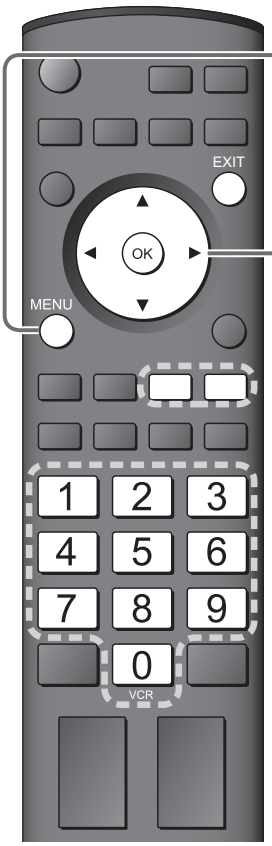
Selects a programme and checks the DVB signal condition.
- To change the programme



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)

Control Programme Audience

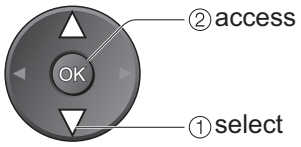
You can lock specific programmes / AV input terminals and control who watches them.
(When the locked programme / input is selected, a message appears; by entering the PIN number, you can watch it.)



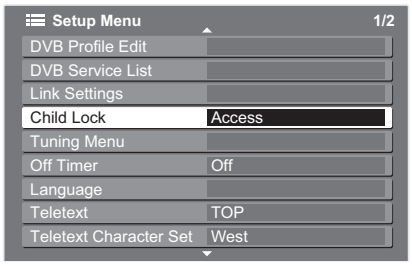
1 Display the menu

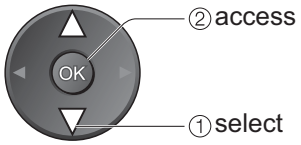
MENU

2 Select “Setup”



3 Select “Child Lock”





■ **To return to TV**

➡ EXIT

4 Set

Control programme audience

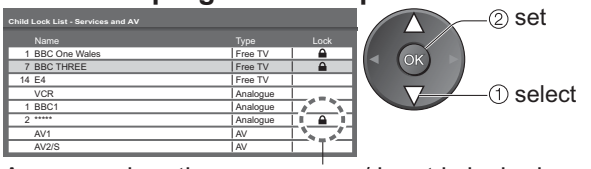
Child Lock

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 “Child Lock List”

③ Select the programme / input to be locked



Appears when the programme / input is locked

- To cancel
  ➡ Select the locked programme / input
  ➡ OK
- To lock all ➡ yellow
- To cancel all locks ➡ blue

■ **To change the PIN number**

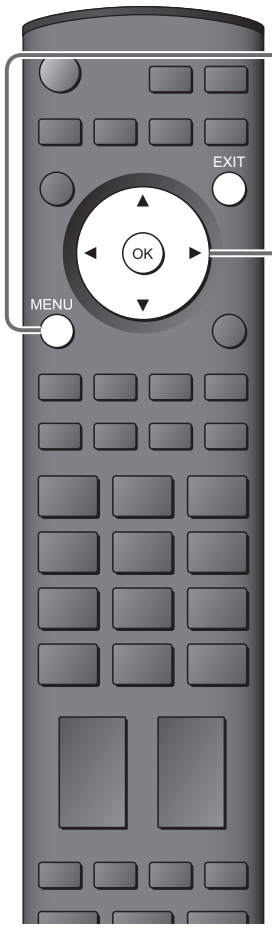
Select “Change PIN” in ② and enter a new PIN number twice.

Note

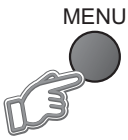
- Setting “Shipping Condition” (p. 31) erases the PIN number and all settings.

Restore Settings

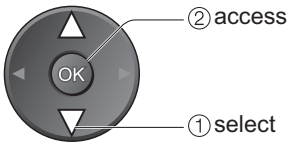
Resets the TV to its original condition, i.e. no programmes tuned in.
All settings (programmes, picture, sound quality, etc.) are reset.



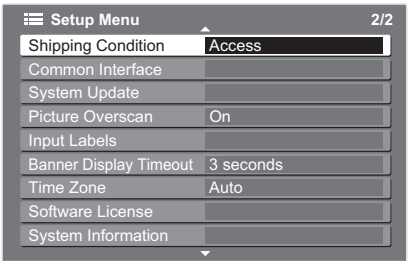
1 Display the menu

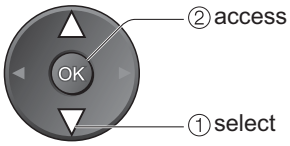


2 Select “Setup”



3 Select “Shipping Condition”





4 Set

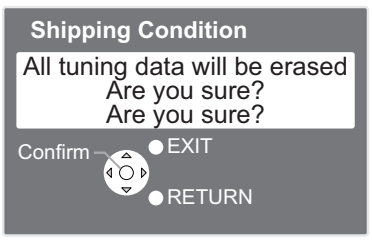
■ **To return to TV**

EXIT

Restore Settings

Shipping Condition

① Check the message and initialise



OK

② Follow the on-screen instructions

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

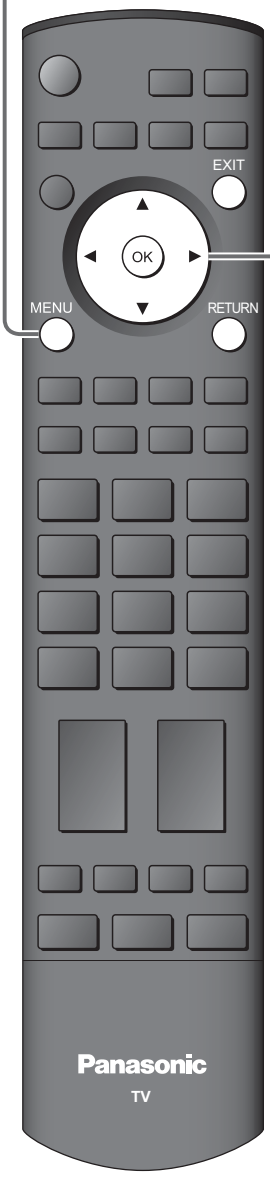
■ To retune TV programmes only, e.g. after moving house

➡ “Auto Setup” (p. 29)

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.

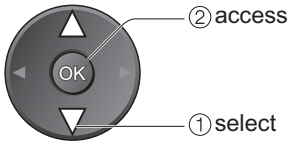
● To select the input mode ➡ p. 18



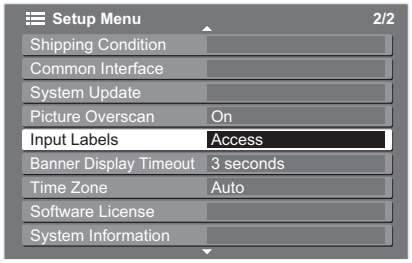
1 Display the menu

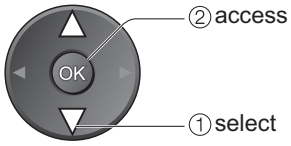
MENU

2 Select “Setup”

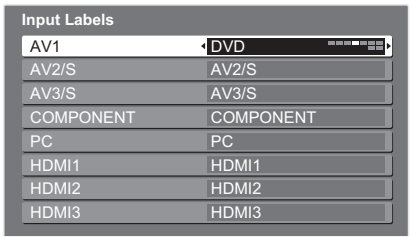


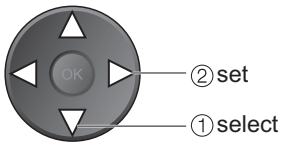
3 Select “Input Labels”





4 Select a input terminal and set





The labels you set will be displayed in “Input Selection” menu (p. 18) or banner.

● If “Skip” is selected, you cannot select the mode.

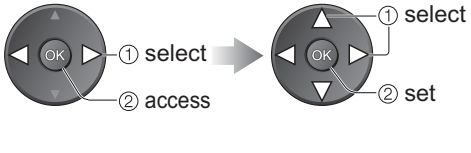
■ To return to TV

➡ EXIT

■ User input

You can name each input terminals freely.

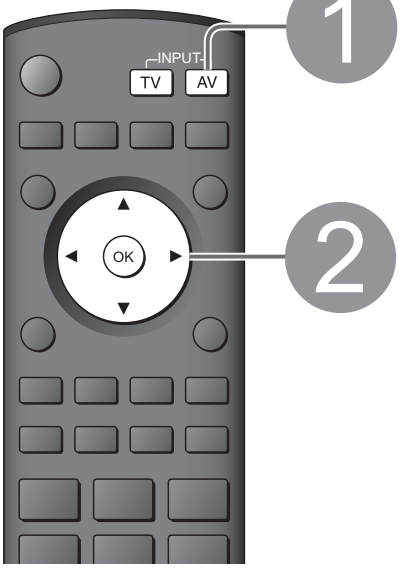
Select “User input” → Set characters → Store



(maximum: ten characters)

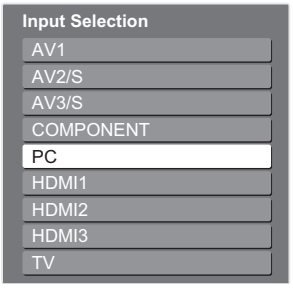
Displaying PC Screen on TV

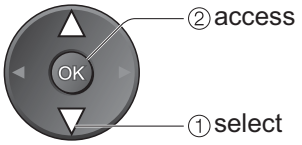
The screen of the PC connected to the TV can be displayed on the TV.
You can also listen to PC sound with the audio cable connected.
● To connect PC ➡ p. 42



Select the external input

Select "PC"

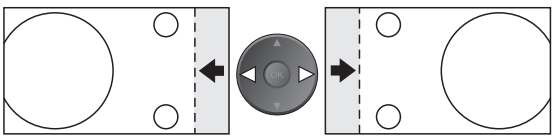
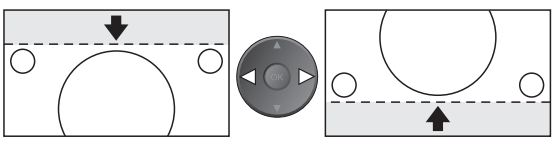




● Corresponding signals ➡ p. 47
● If "H-freq." or "V-freq." is shown in red, the signals may not be supported.

■ **To return to TV**
➡ TV

■ **PC menu setting** (changed as desired)
● To make settings ➡ "How to Use Menu Functions" 1 to 4 (p. 20)

Menu	Item		Adjustments / Configurations (options)
Picture	Advanced PC Settings	R-Gain	Adjusts the white balance for red areas
		G-Gain	Adjusts the white balance for green areas
		B-Gain	Adjusts the white balance for blue areas
		Gamma	**(2.0 / 2.2 / 2.5)**
		Reset to Default	Press the OK button to reset to the default Picture settings
Setup	PC Setup	Input Resolution	Switches to a wide view ● VGA (640 × 480 pixels), WVGA (852 × 480 pixels), XGA (1,024 × 768 pixels), WXGA (1,366 × 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)
		Reset to Default	Press the OK button to reset to the default Setup settings

● Other items ➡ p. 22 and p. 23

Viewing from SD Card

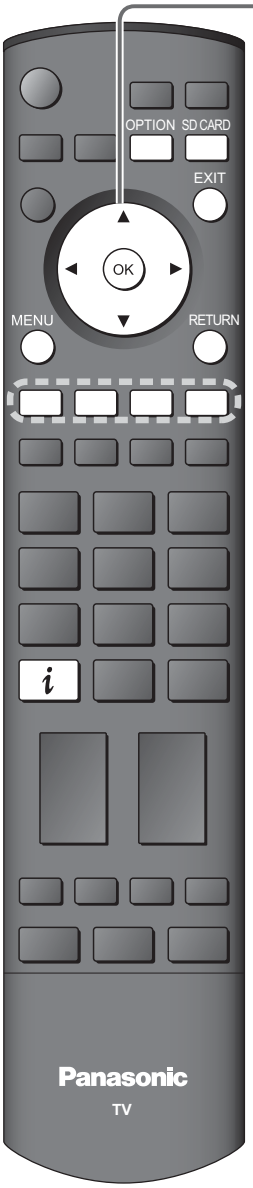
Still images recorded by digital cameras will be displayed.

1 Insert the SD Card

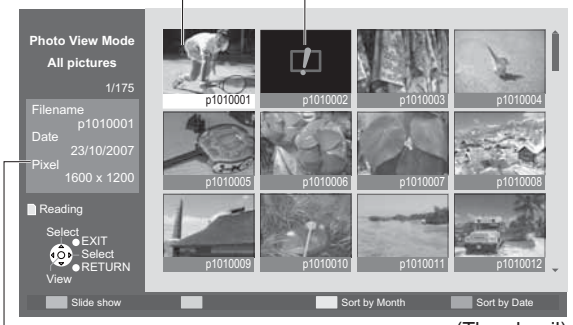
● Warning message for output signal is displayed.

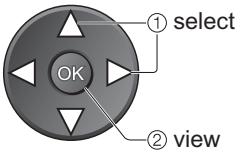
2 Enter SD mode (Photo View Mode)

● All photos in SD Card are displayed by thumbnail.



3 Select the photo to be viewed





● Slide show
➡ p. 35

Selected photo information is displayed
- The maximum number of characters for Filename is 8.
- The photo without record of the date is shown "**/**/****".

■ To sort by date or month recorded

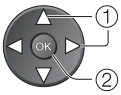
(Sort by Month / Sort by Date)

Display the thumbnail grouped by the same date or the same month

yellow (Sort by Month)

blue (Sort by Date)

Select the group to be viewed



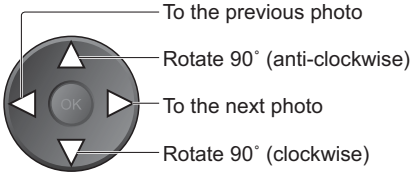
Note

● The group of the photos without record of the date is shown as "Unknown".

4 View

■ To display the operation guide ➡ i or OPTION

Displayed one at a time



● To return to thumbnail
RETURN

■ To return to TV

EXIT ➡ or SD CARD

Caution

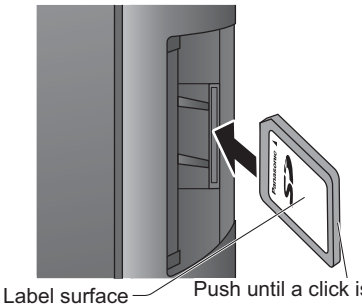
● During the operation, no signals are output from the monitor output terminals.

(Photos)

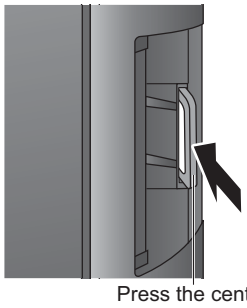
SD Card

● For details on SD Cards ➡ p. 46

■ **To insert**



■ **To remove**



Slide show

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

① Select the photo for the first view ② Start Slide show

● To pause ➡

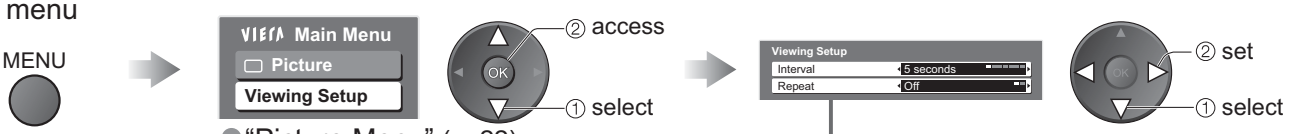
● To return to Single view ➡ green

Note

● Slide show is done within the same group if started from the view of the group.

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

① Display the menu ② Select “Viewing Setup” ③ Select the items and set



● “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)**

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.)

On screen messages

Message	Meaning / Action
Cannot read file	● The file is broken or unreadable. ● The TV does not support the format. (For the applicable formats and data, see p. 46.)
Is SD Card in?	● Insert a SD Card.
No valid file to play	● The card has no data.
Over 9999 pictures found	● Maximum valid number of photos is 9,999.

Link Functions (Q-Link VIERA Link)

Q-Link connects the TV and DVD Recorder / VCR, and enables easy recording, playback, etc. (p. 37)
VIERA Link (HDAVI Control™) connects the TV and the equipment with VIERA Link function, and enables easy control, convenient recording, playback, etc. (p. 38 - 41)
You can use Q-Link and VIERA Link functions together.

■ Summary of Q-Link and VIERA Link functions

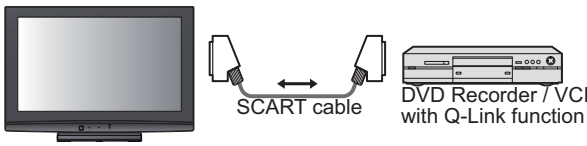
Features \ Connection	Q-Link (SCART connection)	VIERA Link (HDMI connection only)	VIERA Link (SCART and HDMI connection)
Preset download	O	O	O
Easy playback	O	O	O
Power on link	O	O	O
Power off link	O	O	O
Speaker control	–	O	O
Control the menu of the connected equipment by VIERA remote control	–	O*	O*
Direct TV Recording	O	–	O**
Pause Live TV programme	–	–	O**

* :Available with the equipment which has “HDAVI Control 2” or “HDAVI Control 3” function.
** :Available with the equipment which has “HDAVI Control 3” function.

Connections

Read the manual of the equipment, too.

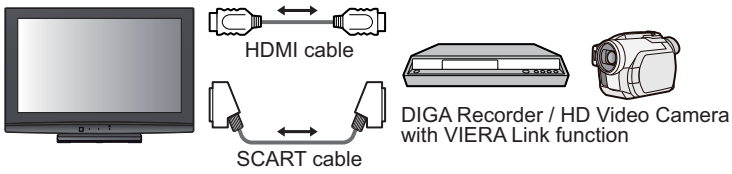
■ Q-Link



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

- SCART cable
  Use fully wired SCART cable.
- HDMI cable
  Use fully wired HDMI compliant cable.
  Non-HDMI-compliant cables cannot be utilized.
  Recommended Panasonic’s HDMI cable part number:
  • RP-CDHG10 (1.0 m)
  • RP-CDHG15 (1.5 m)
  • RP-CDHG20 (2.0 m)
  • RP-CDHG30 (3.0 m)
  • RP-CDHG50 (5.0 m)

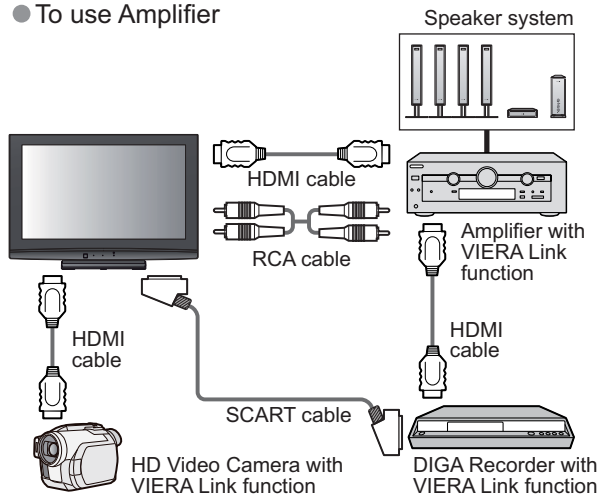
■ VIERA Link



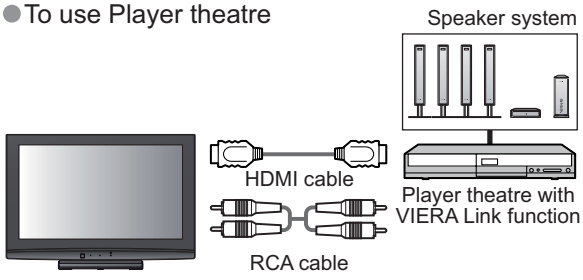
- Connect the equipment supporting VIERA Link to the TV’s AV1, AV2, HDMI1, HDMI2 or HDMI3 terminals via fully wired SCART and HDMI cables together.
- Some functions are available only with HDMI cable connection. But use both HDMI and SCART cables to support many features normally.

For Speaker control (Home Cinema)

- To use Amplifier



- To use Player theatre



Q-Link

■ Preparations

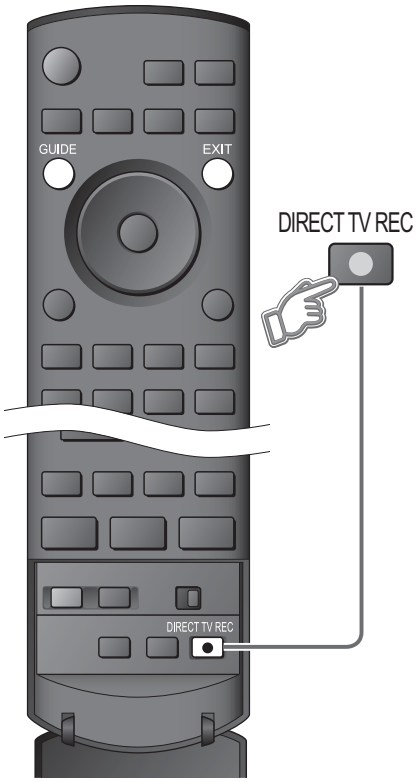
- Connect the DVD Recorder / VCR with the following logos:
  “Q-Link”, “NEXTVIEWLINK”, “DATA LOGIC”, “Easy Link”, “Megalogic” or “SMARTLINK”
- Q-Link connection ➡ p. 36
- Set up the DVD Recorder / VCR. Read the manual of the equipment.
- Q-Link terminal setup in Setup Menu ➡ “Q-Link” (p. 23), “AV1 / AV2 out” (p. 23)
- Download preset - programme, language, country / region setting (Preset download)
  ➡ “Download” (p. 23) or “Auto Setup” (p. 29) or “Auto Setup” - when first using the TV (p. 10)

■ Features available

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

Direct TV Recording - What you see is What you record

Recording the current programme in DVD Recorder / VCR immediately.



- Available conditions:

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

- When Direct TV Recording is performed, the recorder is automatically turned on if it is in Standby mode.
- Changing programme or turning off the TV is available while the recorder is recording from its own tuner.
- Changing programme is not available while the recorder is recording from the TV tuner.
- Turning off the TV will stop the recording if the recording from an AV source connected to the TV.

■ To stop recording

GUIDE EXIT

Information / Message

Recording information or if recording is not possible, a message is displayed.

Power on link and Easy playback

Set Power on Link “Set” in Setup Menu to use this function
➡ “Power on Link” (p. 23)
When DVD Recorder / VCR starts playback or direct navigator / function menu for the equipment are activated, the TV is turned on and input mode is switched automatically so that you can view the content. (Only when TV is in Standby mode.)

Power off link

Set Power off Link “Set” in Setup Menu to use this function
➡ “Power off Link” (p. 23)
When TV is set to Standby mode, the recorder 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)
- “Megalogic” (a trademark of Grundig Corporation)
- “SMARTLINK” (a trademark of Sony Corporation)

Link Functions (Q-Link VIERA Link)

VIERA Link "HDAVI Control™"*

*Enjoy additional HDMI Inter-Operability with Panasonic products which have "HDAVI Control" function. This TV supports "HDAVI Control 3" function.
Connections to the equipment (DIGA Recorder, HD Video Camera, Player theatre, Amplifier, etc.) with HDMI and SCART cables allow you to interface them automatically.
These features are limited to models incorporating "HDAVI Control" and "VIERA Link".

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

Please refer to individual manuals for other manufacturers' equipment supporting VIERA Link function. About applicable Panasonic equipment, consult your local Panasonic dealer.

■ Preparations

- Connect the equipment supporting VIERA Link.
- VIERA Link connection ➡ p. 36
- Set up the connected equipment. Read the manual of the equipment.
- For optimal recording, the settings of the recorder might be required. For details, read the manual of the recorder.
- Download preset - programme, language, country / region setting (Preset download)
  ➡ "Download" (p. 23) or "Auto Setup" (p. 29) or "Auto Setup" - when first using the TV (p. 10)
- Set VIERA Link On in Setup Menu ➡ "VIERA Link" (p. 23)
- Set up the TV
  ➡ **After connection, turn the equipment on and then switch the TV on.**
  Select the input mode to HDMI1, HDMI2 or HDMI3 (p. 18), and make sure that an image is displayed correctly.
  This setup should be done each time when the following conditions occur:
  • for the first time
  • when adding or reconnecting equipment
  • when changing setup

■ Features available

Easy playback	Automatic Input switching - When the connected equipment is operated, input mode is switched automatically. When it is stopped operating, input mode is returned.
Power on link	**Set Power on Link "Set" in Setup Menu to use this function** ➡ "Power on Link" (p. 23) When the connected 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	**Set Power off Link "Set" in Setup Menu to use this function** ➡ "Power off Link" (p. 23) When TV is set to Standby mode, the connected equipment is also automatically set to Standby. ● This function will work even if the TV enters standby mode automatically by Off Timer function or auto power standby function.

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

Pause Live TV programme

(HDAVI Control 3 and Recorder with HDD)

Pause Live TV

You can pause the live TV programme and resume later.

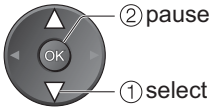
- This function is available with DIGA Recorder which has HDD and "HDAVI Control 3" function.
- Connect DIGA Recorder with both HDMI and SCART cables to use this function.
- If you cannot operate, check the settings and the equipment ➡ "Preparations" (p. 38)

Access and pause the live TV programme

① **Display "VIERA Link Menu"**

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

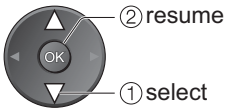
VIERA Link Menu	
Pause Live TV	Access
Direct TV Rec	Start
VIERA Link Control	Recorder
Speaker Selection	Home Cinema



- Live TV programme is recorded on HDD from where it was paused.

■ **To resume** (stop pause)

Select "Pause Live TV" and access



- About the operations after resuming, read the manual of the equipment.

■ **To return to Live TV**

(cancel pause or resumed playback)

➡ TV (change the input mode)

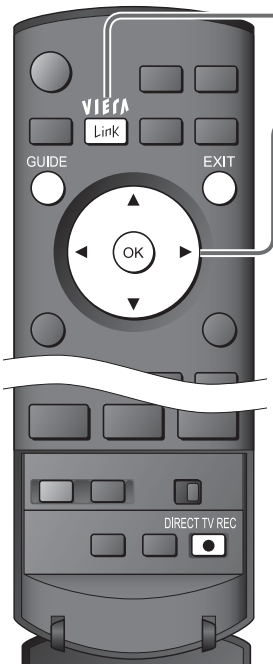
- If you cancel pause or resumed playback, the recorded programme will be deleted from HDD.

Direct TV Recording - What you see is What you record (HDAVI Control 3)

Direct TV Rec

Recording the current programme in DIGA Recorder immediately.

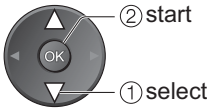
- This function is available with DIGA Recorder which has "HDAVI Control 3" function.
- Connect DIGA Recorder with both HDMI and SCART cables to use this function.
- If you cannot operate, check the settings and the equipment ➡ "Preparations" (p. 38)
- Changing programme or turning off the TV is available while the recorder is recording from its own tuner.
- Changing programme is not available while the recorder is recording from the TV tuner.
- Turning off the TV will stop the recording if the recording from an AV source connected to the TV.



① **Display "VIERA Link Menu"**

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

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

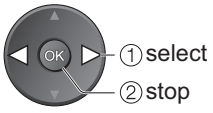


- You can also start recording directly ➡ DIRECT TV REC

■ **To stop recording**

Select "Stop" in "Direct TV Rec" and access

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



- You can also stop recording directly.

➡ GUIDE ➡ EXIT

Link Functions (Q-Link / VIERA Link)

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

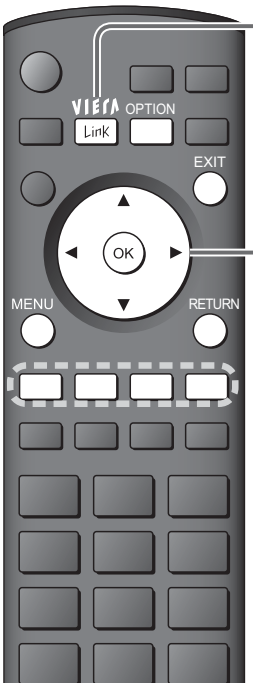
Control the menu of the connected equipment by VIERA remote control
(HDAVI Control 2 / HDAVI Control 3)

VIERA Link Control

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

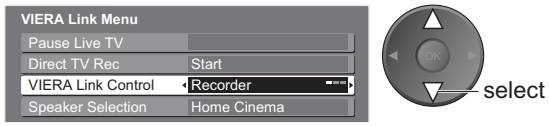
- This function is available with the equipment which has "HDAVI Control 2" or "HDAVI Control 3" function.
- If you cannot operate, check the settings and the equipment ➡ "Preparations" (p. 38)

Access and operate the menu of the equipment



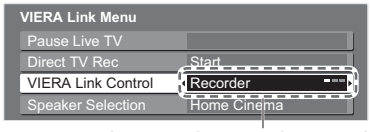
① **Display "VIERA Link Menu"**

② **Select "VIERA Link Control"**



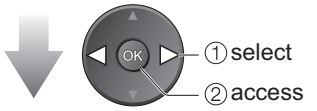
③ **Select the equipment you want to access**

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



Recorder / Player / Home Cinema / Video Camera

The type of the connected equipment is displayed.
Select the type of the equipment and access.



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

④ **Operate the menu of the equipment**

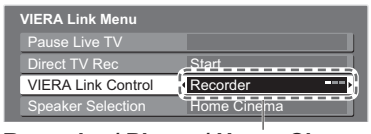
- Available VIERA remote control buttons (depending on the connected equipment):

	Move the cursor / select the menu
	Move the cursor / access / adjust
OK	Store / set / access
RETURN	Return to the previous menu
EXIT	Exit the menu
OPTION	Display the operation guide for the equipment / The same functions with the OPTION button of the equipment
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.

■ **If you access the invalid equipment**

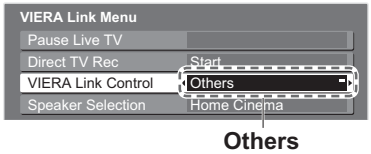
When the equipment with "HDAVI Control" function is connected



Recorder / Player / Home Cinema / Video Camera

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

When the equipment of other types or manufacturers is connected



Others

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

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

Speaker control

Speaker Selection

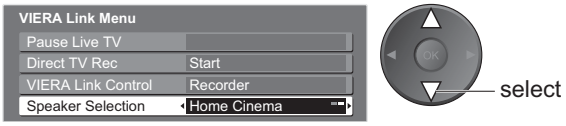
You can control the theatre speaker with this TV remote control (point the remote control at the TV's signal receiver).

- This function is available with the Amplifier or Player theatre which has "HDAVI Control" function.
- If you cannot operate, check the settings and the equipment ➡ "Preparations" (p. 38)

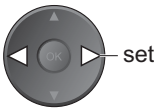
Access and control the speaker volume

① **Display "VIERA Link Menu"**

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.

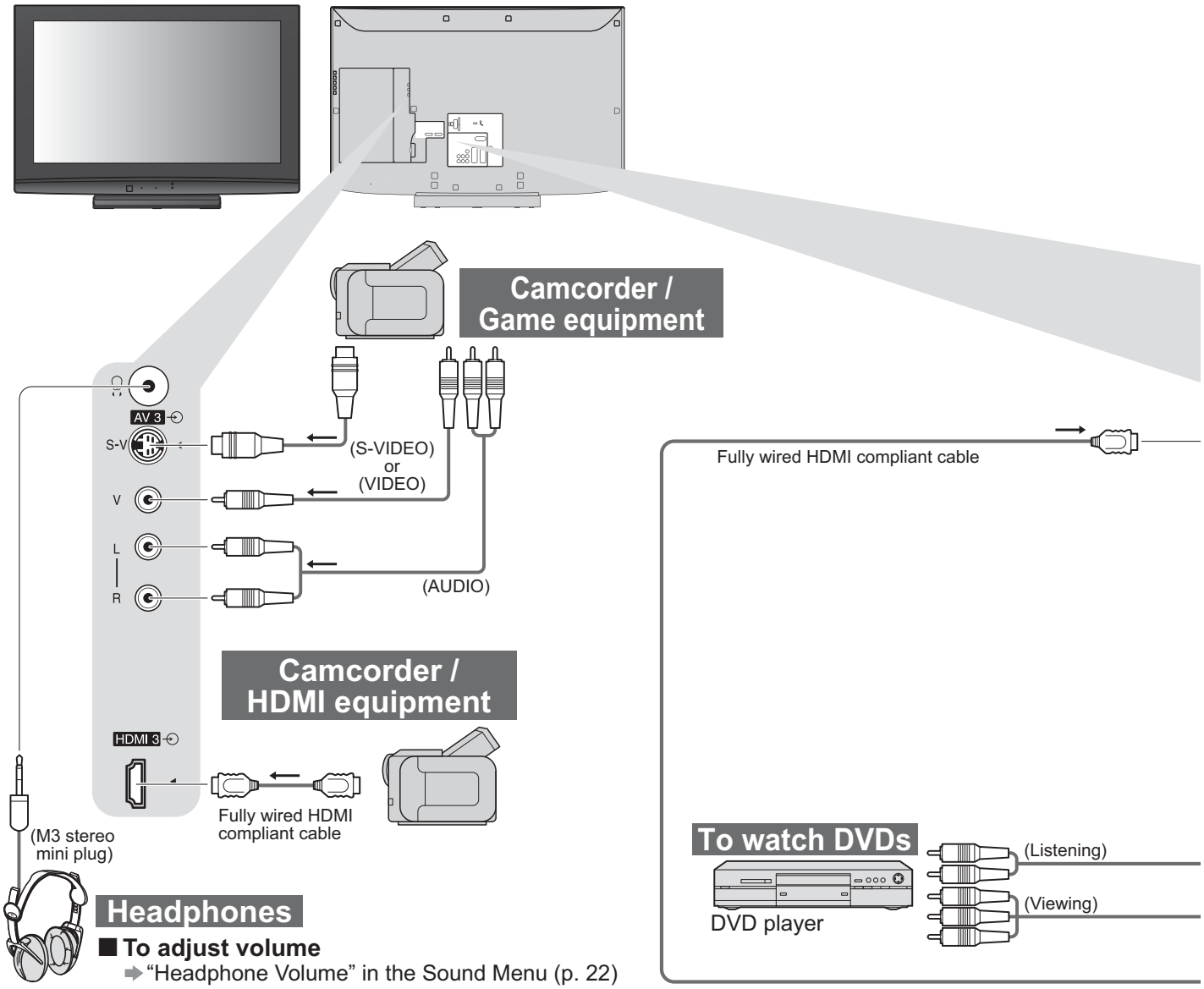
■ **TV**
TV speakers are active.

Note

- This function may not work properly depending on the connected equipment.
- 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.
- Easy playback is also available by using the remote control for Amplifier or Player theatre. Read the manual of the equipment.
- About HDMI cable for connecting Panasonic HD Video Camera, read the manual of the equipment.
- If more than one equipment of the same type are connected to the TV by HDMI cables, for example two DIGA Recorders to HDMI1 and HDMI2, VIERA Link will only be available for the lower terminal number, in this case HDMI1.
- "HDAVI Control 3" is the newest standard (current as of December, 2007) for HDAVI Control compatible equipment. This standard is compatible with conventional HDAVI equipment.
- To confirm this TV's version of HDAVI Control ➡ "System Information" (p. 23)

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. 51).



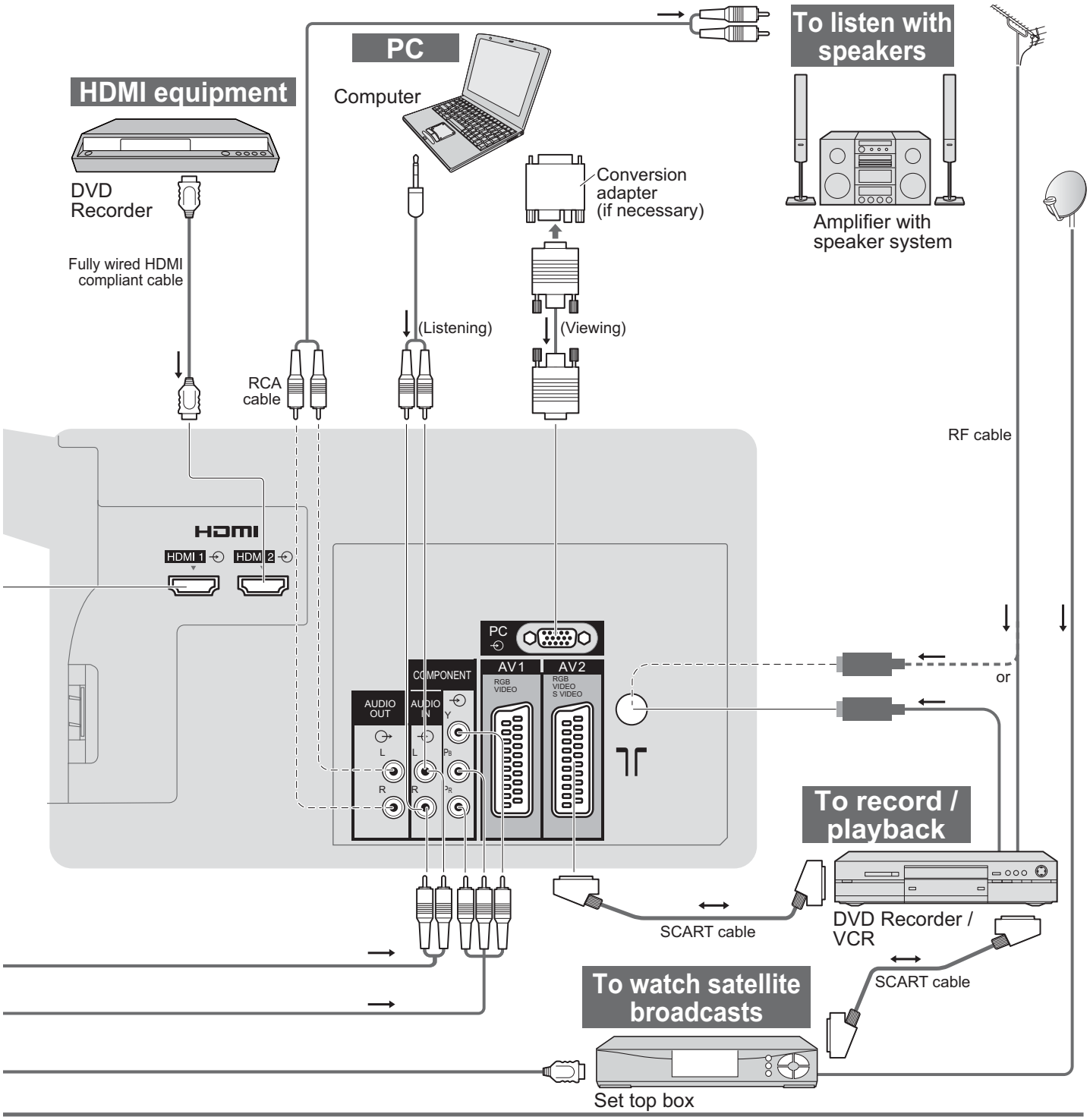
■ **To adjust volume**

➡"Headphone Volume" in the Sound Menu (p. 22)

■Types of connectable equipment to each terminal

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

○: Recommended Connection



COMPONENT	AUDIO OUT	HDMI		
		1	2	3
○		○	○	○
		○	○	○
		○	○	○
	○			
		○	○	○
		○	○	○

Technical Information

Auto Aspect

The optimum size and aspect can be chosen, and you can enjoy finer images. (p. 14)

■ 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 or HDMI 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.

		Aspect Control Signal									
		Widescreen signal (WSS)					Control signal through SCART (pin 8) or HDMI terminal				
Signal name		TV	AV1	AV2	AV3	COMPONENT	AV1	AV2	HDMI1	HDMI2	HDMI3
PAL		O	O	O	O		O	O			
PAL 525/60		–	–	–	–		O	O			
DVB		O	–	–	–		–	–			
M.NTSC		–	–	–	–		O	O			
NTSC (AV input only)		–	–	–	–		O	O			
SD	525(480)/60i					–			O	O	O
	525(480)/60p					–			O	O	O
	625(576)/50i					O			O	O	O
	625(576)/50p					O			O	O	O
HD	750(720)/50p					–			O	O	O
	750(720)/60p					–			O	O	O
	1125(1080)/50i					–			O	O	O
	1125(1080)/60i					–			O	O	O
	1125(1080)/50p					–			O	O	O
	1125(1080)/60p					–			O	O	O
	1125(1080)/24p					–			O	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.)

HDMI connection

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. 42).

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 AV3 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. 47.
- This TV incorporates HDMI™ (Version 1.3 with x.v.Color™) technology.

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

Updating the software system (DVB mode)

Update system software regularly to ensure that you have latest version software.
If there is an update available, a notification banner is displayed when the service has the update information.

- To download new software, press “OK” ➡ Downloading (approx. 20 mins.)
  If you choose not to download, press “EXIT”.

■ To update automatically

Set “Auto Update Search in Standby” to “On” (p. 25)
If there is a new version software being broadcast, the TV will download this automatically.

- The automatic updating sequence is carried out at 3:00 AM and 5:00 AM every night under the following conditions.
  Standby (TV turned Off with the remote control)
  Recording is not in progress.

■ To update manually

Perform “System Update Search Now” (p. 25)
If there is an update available, a notification banner is displayed.

- To download new software, press “OK” ➡ Downloading (approx. 20 mins.)
  If you choose not to download, press “EXIT”.

Note

- During downloading, do not turn Off the TV or touch any buttons.
  (The TV is automatically activated after downloading is completed.)
- The message might be the notification beforehand. In this case, the schedule information (the date that the new version can be used) will appear. You can set the reservation for update. The update will not start when the TV is set to Off.

Technical Information

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

- Compliant card type (maximum capacity): SDHC Card (16 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).

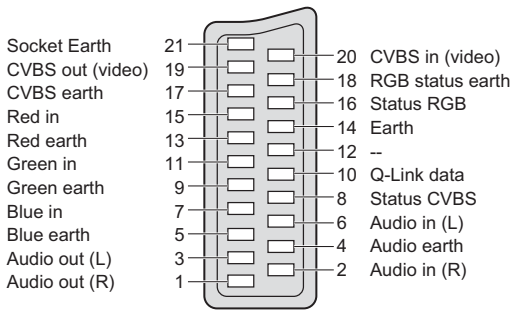
Note

- A JPEG image 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.
- Only ".JPG" extension can be read by this TV.
- 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 the file or folder names are changed.

SCART, S-VIDEO and HDMI terminal information

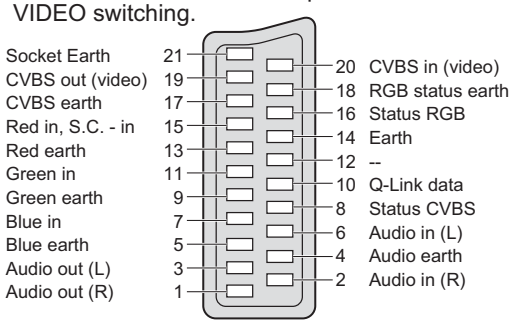
■ **AV1** SCART terminal (RGB, VIDEO, Q-Link)

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

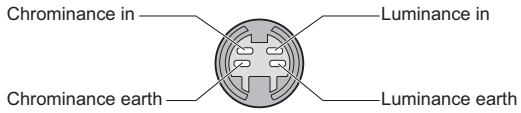


■ **AV2** SCART terminal (RGB, VIDEO, S-VIDEO, Q-Link)

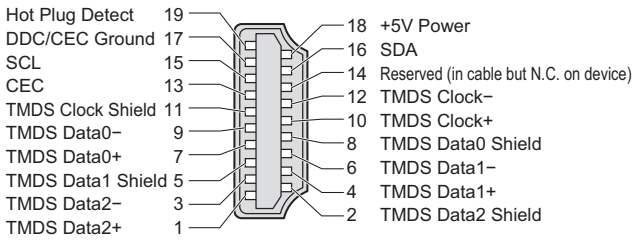
AV2 - Pins 15 and 20 are dependent on AV2 S-VHS / VIDEO switching.



■ **AV3** S-VIDEO 4 pin terminal



■ **HDMI** terminal



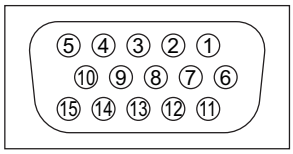
PC connection

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**	1,024 × 768 pixels
	16:9	1,366 × 768 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		∗
1,125 (1,080) / 24p		∗

PC (D-sub 15P)

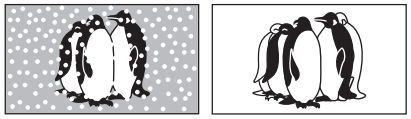
Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)
640 × 400 @70 Hz	31.47	70.07
640 × 480 @60 Hz	31.47	59.94
640 × 480 @75 Hz	37.50	75.00
800 × 600 @60 Hz	37.88	60.32
800 × 600 @75 Hz	46.88	75.00
800 × 600 @85 Hz	53.67	85.06
852 × 480 @60 Hz	31.44	59.89
1,024 × 768 @60 Hz	48.36	60.00
1,024 × 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 the problem still persists, please contact your local Panasonic dealer for assistance.

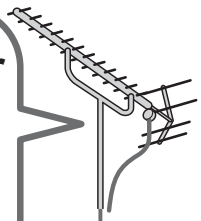
White spots or shadow images (noise)



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

To customer using indoor aerial

In order to enjoy a good quality DVB image, it is important to receive a good quality DVB signal. For this purpose check “DVB Signal Condition” in Tuning Menu (p. 29). A level of at least 5 is required in order to provide a good picture. It may be necessary to adjust the position and direction of the aerial to achieve the best possible result.



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. 44.

S-Video / black and white picture

- Using AV button please confirm your selection is S-Video I.e. AV2/S (p. 18).

On Screen messages - I.e. EC/AV1

- You can simply clear these ➡ i Press again to redisplay.

No DVB programmes shown after Auto Setup

- 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.

An error message appears

- Follow the message’s instructions.
- If the problem persists, contact the authorized Service Centre.

Q-Link function does not work

- Please confirm SCART cable and connection. Also please set “AV1 / AV2 out” in the Setup Menu (p. 23).

“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. 38)

Recording does not start immediately

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

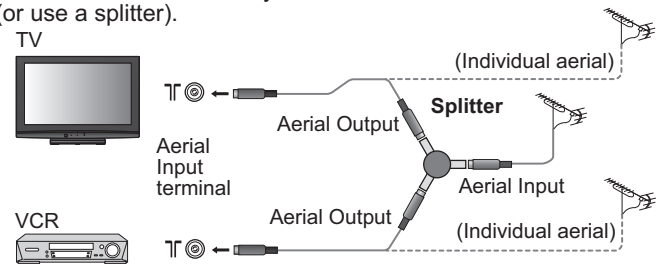
There may be red spots, blue spots, green spots and black spots on the screen

- This is a characteristic of liquid crystal panels and is not a problem. The liquid crystal panel is built with very high precision technology giving you fine picture details. Occasionally, a few non-active pixels may appear on the screen as a fixed point of red, green, blue or black. Please note this does not affect the performance of your LCD.

The LCD panel moves slightly when it is pushed with a finger

Clattered sound might be heard

- There are some looseness around the panel to prevent the damage to the panel. The panel might move slightly when it is pushed with a finger, and clattered sound might be heard. This is not a malfunction.

	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) ● Check Colour System. (p. 29)
	Blurry or distorted image (no sound or low volume)	● Reset programme. (p. 29)
	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 “MPX” (p. 22) in the Sound Menu to “Mono”. (Analogue only)
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.	
	Unable to receive signals with a high-performance aerial	● Install an aerial individually for the TV and VCR (or use a splitter). 
	Interference or frozen / disappearing image in DVB	● Check “DVB Signal Condition”. (p. 29) 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. 45)
	Pictures from external equipment are unusual when the equipment is connected via HDMI	● Is the HDMI cable connected properly? (p. 42) ● Turn Off the TV and equipment, then turn them On again. ● Check an input signal from the equipment. (p. 47) ● Use an equipment compliant with EIA/CEA-861/861B.
Other	**TV goes into “Standby mode”**	● Off Timer function is activated. ● The TV enters “Standby mode” about 30 mins. after analogue broadcasting ends.
	The remote control does not work	● Are the batteries installed correctly? (p. 6) ● Has the TV been switched On?

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- DVB is a trademark of the DVB Digital Video Broadcasting Project (1991 to 1996).
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- Macintosh is a registered trademark of Apple Inc., USA.
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Trade Mark of the DVB Digital Video Broadcasting Project (1991 to 1996)
TX-32LXD80F Declaration of Conformity No. 5422, 31 January 2008

Specifications

			TX-32LXD80F	
Power Source			AC 220-240 V, 50 Hz	
Power Consumption	**Average use**		130 W	
	Standby condition		1 W (Without monitor out recording) 17 W (With monitor out recording)	
Display panel	**Aspect Ratio**		16:9	
	Visible screen size		80 cm (diagonal) 697 mm (W) × 392 mm (H)	
	Number of pixels		1,049,088 (1,366 (W) × 768 (H))	
Sound	**Speaker**		160 mm × 42 mm × 2 pcs, 8 Ω	
	Audio Output		20 W (10 W + 10 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 B, G, H, I, SECAM B, G, SECAM L / L'** VHF E2 - E12 / VHF H1 - H2 (ITALY) VHF A - H (ITALY) / UHF E21 - E69 CATV (S01 - S05) / CATV S1 - S10 (M1 - M10) CATV S11 - S20 (U1 - U10) / CATV S21 - S41 (Hyperband) **PAL D, K, SECAM D, K** VHF R1 - R2 / VHF R3 - R5 VHF R6 - R12 / UHF E21 - E69 **PAL 525/60** Playback of NTSC tape from some PAL Video recorders (VCR) **DVB** Digital terrestrial services via VHF / UHF aerial input. **M.NTSC** Playback from M. NTSC Video recorders (VCR) **NTSC (AV input only)** Playback from NTSC Video recorders (VCR) ● TV signals may not be received in some areas.	
Aerial - Rear			VHF / UHF	
Operating Conditions			**Temperature** : 0 °C - 35 °C **Humidity** : 20 % - 80 % RH (non-condensing)	
Connection Terminals	**AV1 (Scart terminal)**		21 Pin terminal (Audio/Video in, Audio/Video out, RGB in, Q-Link)	
	AV2 (Scart terminal)		21 Pin terminal (Audio/Video in, Audio/Video out, RGB in, S-Video in, Q-Link)	
	AV3	**VIDEO**	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)
		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** **P_B, P_R**	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 3" 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)
Dimensions (W × H × D)			820 mm × 573 mm × 250 mm (With Pedestal) 820 mm × 535 mm × 110 mm (TV only)	
Mass			17 kg Net (With Pedestal) 14 kg Net (TV only)	

Note

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

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

These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries should not be mixed with general household waste.

For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points, in accordance with your national legislation and the Directives 2002/96/EC and 2006/66/EC.

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

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

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

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

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

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

Customer's Record

The model number and serial number of this product may be found on its rear panel. You should note this serial number in the space provided below and retain this book, plus your purchase receipt, as a permanent record of your purchase to aid in identification in the event of theft or loss, and for Warranty Service purposes.

Model Number _____ Serial Number _____

Matsushita Electric Industrial Co., Ltd.

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