

## Operating Instructions LCD Television

Model No. **TX-L32G10B TX-L37G10B** 

# VIECA













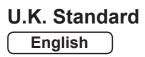








Please read these instructions before operating your set and retain them for future reference. The images shown in this manual are for illustrative purposes only.





## Features

■ freesat HD tuner built-in
Receives freesat - free digital satellite broadcasts in the UK
This TV has a built-in freesat HD tuner.
freesat is a brand new free digital TV service which broadcasts via satellite so you can receive TV, radio,
interactive TV, and HD TV with crystal clear reception.
You can enjoy sharp pictures, vivid colours, multi-channel sound, and various services with the interactive content.
Receives DVB digital terrestrial broadcasts Select the programme or set Timer Programming easily by using TV Guide. (p. 19 and p. 20)
Register and instantly call up favourite channels with Favourites Edit. (p. 39)
• DVB - Digital Video Broadcasting
■ VIERA TOOLS-Display special feature icons for easy accessibility (p. 14)
VIERA TOOLS is the easy way to access the special features with the VIERA TOOLS button.
HD TV 1080p
This TV supports high definition TV signals.
Sharp pictures with HDMI connection (p. 70)
Enjoy high-definition digital picture and high-quality sound by using an HDMI cable.
<ul> <li>This TV incorporates HDMI<sup>™</sup> (Version 1.3a with x.v.Colour<sup>™</sup>) technology.</li> </ul>
Dolby Digital Plus decoder
Possible to decode Dolby Digital Plus audio track (multi-channel sound) and output as Dolby Digital
multi-channel sound signal from DIGITAL AUDIO OUT terminal.
GUIDE Plus+ (p. 19)
This TV supports Gemstar-TV Guide sent from the GUIDE Plus+ system.
Owner ID (p. 51)
Owner ID is an anti-theft function. Entering the PIN number and owner's personal information will help the Police to determine the owner.
• • • • • • • • • • • • • • • • • • •
SDHC Card This TV supports SDHC Card, SDHC is a high storage capacity card (more than 4 CP)
This TV supports SDHC Card. SDHC is a high storage capacity card (more than 4 GB).
AVCHD Possible to play the moving pictures recorded in SD Card by AVCHD format.
AVCHD is a high definition recording format (p. 56)
<b>SD Card viewer - VIERA IMAGE VIEWER</b> (p. 54 - 56)
Enjoy your photos or movies recorded in SD Card on the TV screen.
Links up and controls the connected equipment with "Q-Link" and "VIERA Link" (p. 58 - 65)
Easy recording and playback, create home theatre without complicated settings, etc.
Provides suitable images for playing games (p. 30)
Selecting "Game" in Viewing Mode provides fast response to the input signal and you can enjoy playing
games.
Supports Audio Description signal (p. 16 and p. 31)
This function can add an additional sound track to describe events on-screen (narration) and aids
understanding and enjoyment, particularly for visually-impaired viewers.
You can switch Audio Description service Auto or Off, and adjust the volume of the description sound track

#### **Digital Switchover for Terrestrial broadcasts**

Starting in late 2007 and ending in 2012, TV services in the UK will go completely digital, TV region by TV region.

If you have any questions, please call Digital UK on **08456 50 50 50** or visit **www.digitaluk.co.uk** Digital Switchover will cover a period of several weeks. When it starts you will lose all Analogue TV channels and some Digital TV channels will be missing.

You will need to retune your TV each time this happens to recover your digital channels.

● To retune your TV → "Auto Setup" in "DVB Tuning Menu"-DVB mode (p. 35)

Users of cable or satellite boxes should still retune the TV to continue to receive Freeview channels via their aerial. (Your Analogue channel for viewing Cable or Satellite services will change to a new position.)

FULL HD This TV uses a high definition panel to produce	Contents
high definition pictures close to their original resolution.	Be Sure to Read
lasta ll'accest Escara d'Arcatica	Safety Precautions4
Intelligent Frame Creation This increases the frame count and allows	(Warning & Caution)
natural frame-to-frame transitions, for flicker-less	• Notes 5
motion images with high resolution.	• Maintenance 5
Wide Viewing Angle	
Wide Viewing Angle This LCD panel offers 178-degree viewing angle.	Quick Start Guide
This delivers beautiful images regardless of the	
viewing angle.	Accessories / Options6
In Plane Switching IPS panel	Identifying Controls
PANEL   This TV uses IPS (In Plane Switching)	Basic Connection
by IPS Alpha Technology. Ltd. panel.	
24p Smooth Film	• Auto Setup 12
Smooth Produces smoother playback of 24p source	
movies.	Enjoy your TVI
10-Bit Panel	Enjoy your TV!
<b>10-Bit</b> Provides rich gradation and gives images with	Basic Features
Panel naturally smooth shading.	• How to Use VIERA TOOLS ······ 14
Eco Mode	• Watching TV
Adjusts picture settings automatically dependent	Using TV Guide 18
on ambient lighting conditions.	Viewing Teletext 21
V-Audio Surround	Watching External inputs     24
Utilises Panasonic's advanced digital	<ul> <li>How to Use Menu Functions 26 (picture, sound quality, etc.)</li> </ul>
SURROUND amplification technology.	(picture, sound quanty, etc.)
Up to 60,000 hours LCD Panel Lifetime	Advanced Features
The LCD display panel used in the 2009 VIERA	Retuning from Setup Menu
TV range is rated for up to 60,000 hours.*	Tuning and Editing Channels (freesat) 36
Panet Lifetime *This measurement is based on the time taken for the brightness of the panel to reduce to half of it's maximum	Tuning and Editing Channels (DVB)············38
level.	Tuning and Editing Channels (Analogue) 40
The time taken to reach this level may vary depending on the image content and the environment where the TV is	Tuning and Editing Channels (Other Sat.) 42
used.	• Child Lock 45
Malfunctions are not taken into account.	Network Settings 46
digital tick	Input Labels     48     Objecting Condition
<b>digital</b> The digital tick logo indicates that a digital	Shipping Condition     49     Advanced Settings     50
Approved product tuner is built-in.	<ul> <li>Advanced Settings 50</li> <li>Recording Controls 52</li> </ul>
Freeview	Viewing from SD Card
<b>Freeview</b> Freeview is the way to enjoy digital TV for free.	(VIERA IMAGE VIEWER)
There are up to 48 digital TV channels.	Displaying PC Screen on TV57
Turn your living room into a	•Link Functions
	(Q-Link / VIERA Link)
home theatre!	●External Equipment ······66
Enjoy rich multi-media	
SD Card	FAQs, etc.
	Technical Information68
Camcorder	• FAQs73
	On screen messages ······76     Ohennen
Personal	• Glossary ····································
computer	Licence 78     Index 78
	■ Index

Cable TV box

DVD player

VCR

4:0

Amplifier with Speaker system

DVD Recorder

**Quick Start Guide** 

FAQs, etc.

## **Safety Precautions**

#### Warning & Caution

## Handling the mains plug and lead

• Ensure that the mains plug is easily accessible at all times. The On / Off switch on this model does not fully disconnect the TV from the mains supply. Remove the mains plug from the wall socket when the TV is not used for a prolonged period of time.

# 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 the TV on sloped or unstable surfaces

The TV may fall off or tip over.

#### Power source

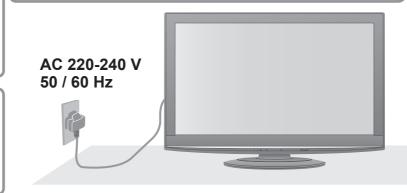
This TV is designed to operate on 220-240 V, 50 / 60 Hz AC.

#### Do not remove the cover

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

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

Irreversible damage can be caused.



#### IMPORTANT: THE MOULDED MAINS PLUG

FOR YOUR SAFETY, PLEASE READ THE FOLLOWING TEXT CAREFULLY. This TV is supplied with a moulded three pin mains plug for your safety and convenience. A 5 amp fuse is fitted in this mains plug. Shall the fuse need to be replaced, please ensure that the replacement fuse has a rating of 5

amps and that it is approved by ASTA or BSI to BS1362.

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

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

A replacement fuse cover may be purchased from your local Panasonic dealer.

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

If a new mains plug is to be fitted, please observe the wiring code as shown below.

If in any doubt, please consult a qualified electrician.

**IMPORTANT:** – The wires in this mains lead are coloured in accordance with the following code: – Blue: Neutral Brown: Live

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

The wire which is coloured BLUE must be connected to the terminal in the mains plug which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal in the mains plug which is marked with the letter L or coloured RED.

Under no circumstances should either of these wires be connected to the Earth terminal of the three pin mains plug, marked with the letter E or the earth symbol . <u>How to replace the fuse</u>

For plug type shown in example 1:

Lift out the removable fuse compartment with a screwdriver and replace the fuse, then refit securely into the mains plug (see example 1).

#### For plug type shown in example 2:

Lift open the fuse compartment, in the mains plug, with a screwdriver, and replace the fuse, then press the fuse cover down securely (see example 2).

Example 1





## Notes

#### 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.)

# Do not expose to rain or excessive moisture

• To prevent damage which might result in electric shock or fire, do not expose this TV to rain or excessive moisture.

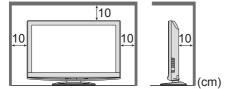
This TV must not be exposed to dripping or splashing water and objects filled with liquid, such as vases, must not be placed on top of or above the TV.

## Do not block the rear ventilation openings

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

#### Allow sufficient space around the TV for radiated heat

Minimum distance



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

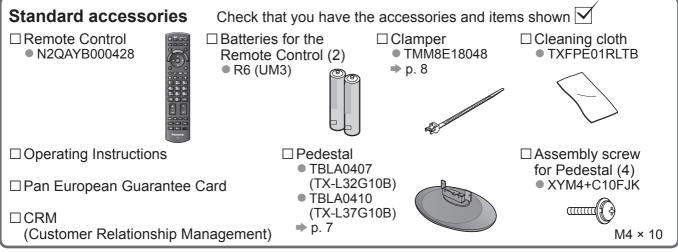
# Use only the dedicated pedestals / mounting equipment

- 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.

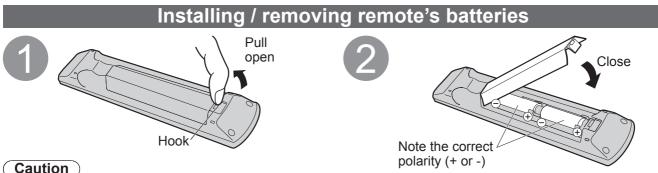
# **Accessories / Options**



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.

#### Please contact your nearest Panasonic dealer to purchase the **Optional accessories** recommended wall-hanging bracket. For additional details, please Wall-hanging bracket refer to the wall-hanging bracket installation manual. TY-WK3L2ŘW Screw for fixing the TV onto the wall-hanging bracket Rear of the TV (not supplied with the TV) Depth of screw: 🖻 200 mm 🖻 minimum 9 mm, maximum 12 mm 200 mm Holes for wall-hanging (View from the side) bracket installation

- 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.
- When using the angled-type wall hanging bracket, please ensure that there is sufficient space for the connecting cables not to press against the wall when the TV is tilted forward.
- To prevent fall and injury, remove the TV from its fixed wall position when it is no longer in use.



#### 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.

#### Attaching the pedestal

#### Warning

#### Do not disassemble or modify the pedestal.

• Otherwise the TV may fall over and become damaged, and personal injury may result.

#### **Caution**

#### Do not use any other TV and displays.

• Otherwise the TV may fall over and become damaged, and personal injury may result.

- Do not use the pedestal if it becomes warped or physically damaged.
- If you use the pedestal while it is physically damaged, personal injury may result. Contact your nearest Panasonic dealer immediately.
- During set-up, make sure that all screws are securely tightened.
- If insufficient care is taken to ensure screws are properly tightened during assembly, the pedestal will not be strong enough to support the TV, and it might fall over and become damaged, and personal injury may result.

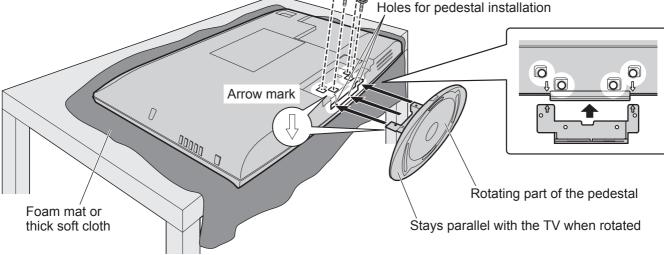
#### Ensure that the TV does not fall over.

- If the TV is knocked or children climb onto the pedestal with the TV installed, the TV may fall over and personal injury may result.
- Two or more people are required to install and remove the TV.
- If two or more people are not present, the TV may be dropped, and personal injury may result.

#### Securing the TV

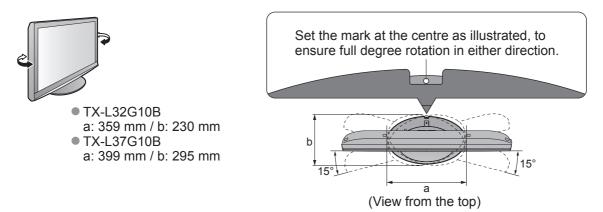
- Use the assembly screws to fasten securely.
- Make sure that the screws are securely tightened.





#### Adjust the panel to your desired angle

Ensure that the pedestal does not hang over the edge of the base even if the TV swivels to the full rotation range.
Do not place any objects or hands within the full rotation range.



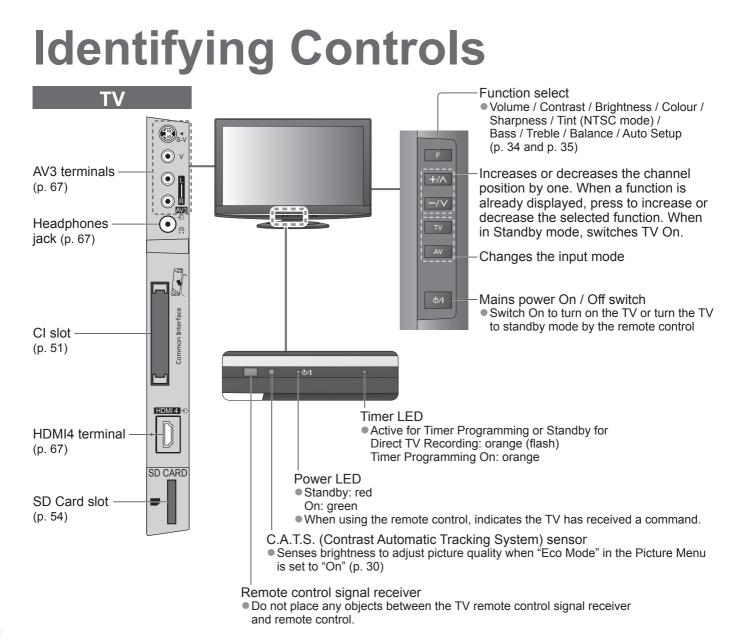
### Note Visible part of the pedestal will remain parallel to the TV even when rotated.

## **Accessories / Options**

# Using the clamper

• Do not bundle the Satellite cable, RF cable and mains lead together (could cause distorted image).

- Fix cables with clampers as necessary.
- When using the optional accessory, follow the option's assembly manual to fix cables.



8

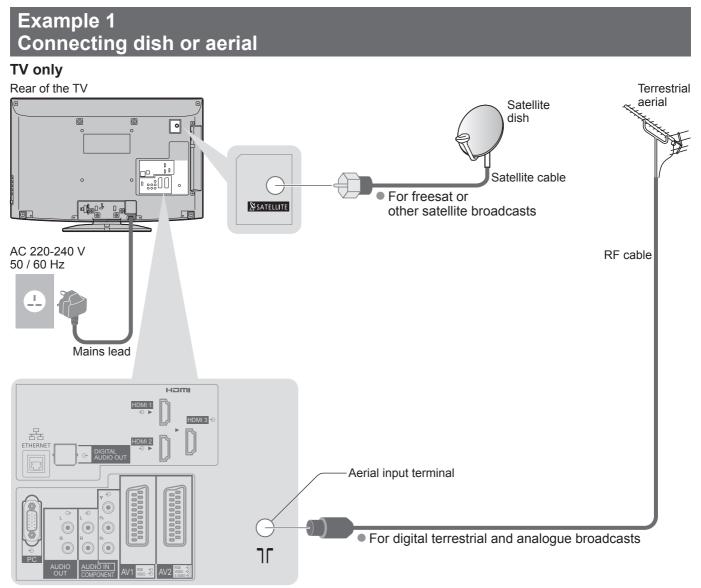
# **Identifying Controls**

#### Remote Control

<ul> <li>VIERA IMAGE VIEWER (p. 54)</li> <li>● Switches to SD Card viewing mode</li> </ul>	Input mode selection     TV - switches freesat / DVB / Analogue /
Standby On / Off switch Switches TV On or Off standby	Other Sat. mode (p. 15) • AV - switches to AV input mode from Input Selection list (p. 24)
Also possible by pressing this button	Direct TV Recording (p. 60 and p. 62) • Records programme immediately in DVD Recorder / VCR with Q-Link or
repeatedly until you reach the desired aspect	
Main Menu (p. 26) • Press to access Picture, Sound and Setup Menus	EXIT Normalise (p. 26) • Resets picture and sound settings to their default levels
Channel / Programme Information (p. 16) — • Displays channel and programme information VIERA Link Menu (p. 62) —	Exit     Returns to the normal viewing screen
	BACK     BACK     Displays some special feature icons and accesses easily
Confirms selections and choices     Press after selecting channel positions     to quickly change channel	Guide (p. 18) • Displays TV Guide
	Cursor buttons OMakes selections and adjustments
Converting for viewing and	Return     Returns to the previous menu / page
Coloured buttons	<b>2</b> <sub>abc</sub> <b>3</b> <sub>def</sub> Hold • Freeze / unfreeze picture (p. 15)
operation of various functions	• Holds the current teletext page (teletext mode) (p. 22)
Teletext (p. 21) • Switches to teletext mode / interactive services	8 tuv 9 wyz I Index (p. 23) • Returns to the teletext index page (teletext mode)
Subtitles (p. 16)	Surround (p. 31) • Switches Surround sound
Numeric buttons ————————————————————————————————————	Channel Up / Down
<ul> <li>Sets characters</li> <li>When in Standby mode, switches TV On</li> </ul>	Selects channel in sequence
Sound Mute — On or Off	
Volume Up / Down	Connected equipment operations (p. 25 and p. 64)
Pa	nasonic
	TV

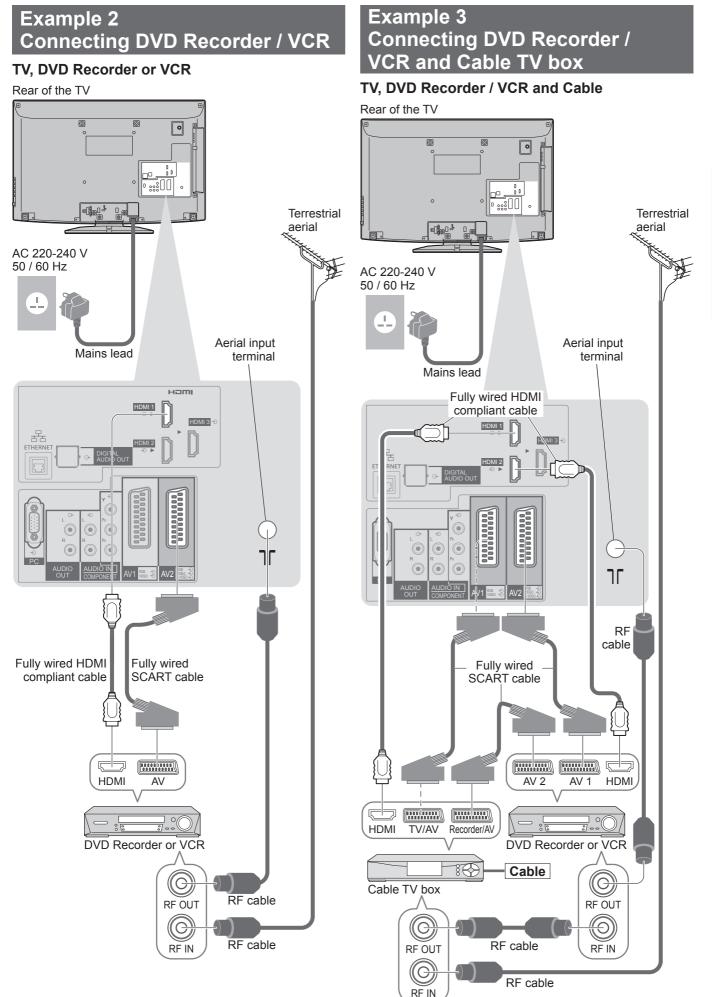
## **Basic Connection**

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.



Note

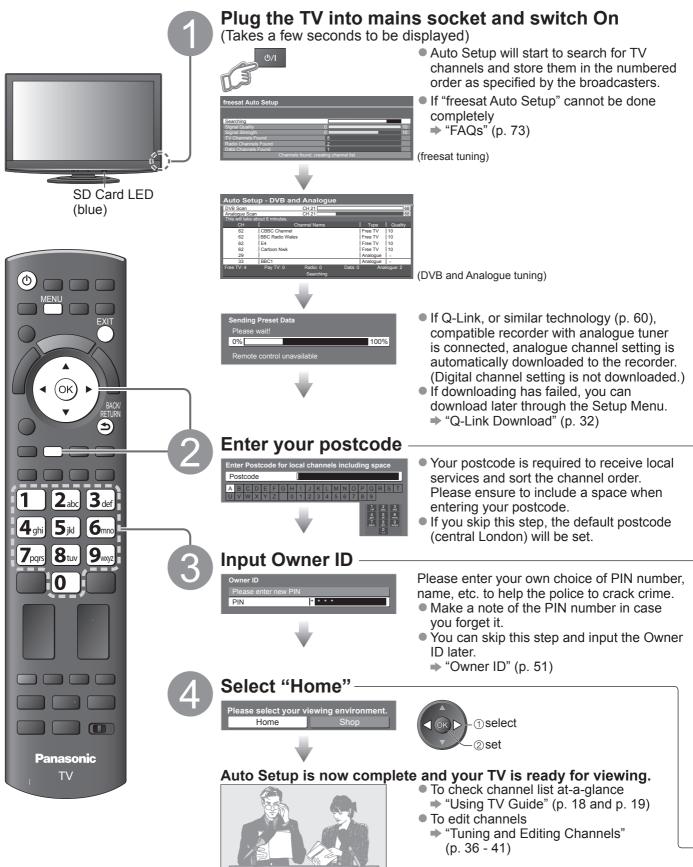
- The freesat channel uses Astra 2 at 28.2° East, and Eurobird 1 at 28.5° East satellites. To ensure your satellite
  dish is correctly installed please consult your freesat registered dealer.
- Connect to the TV's AV2 for a DVD Recorder / VCR supporting Q-Link (p. 60).
- Connect to the TV's AV1 for a Cable TV box.
- For HDMI-compatible equipment, possible to connect to HDMI terminals (HDMI1 / HDMI2 / HDMI3 / HDMI4) by using HDMI cable (p. 66).
- Q-Link connection p. 58
- VIERA Link connection → p. 58 and p. 59
- Read the manual of the equipment too.



## Auto Setup

Search and store TV channels automatically.

- These steps are not necessary if the setup has been completed by your local dealer.
- Please complete connections (p. 10 and p. 11) and settings (if necessary) of the connected equipment before starting Auto Setup. For details of settings for the connected equipment, read the appropriate manual.



#### Using the On Screen Displays

Many features available on this TV can be accessed via the On Screen Display menu. **How to use remote control** 



Move the cursor / select the menu item

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



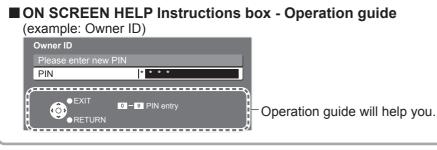
Open the main menu

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



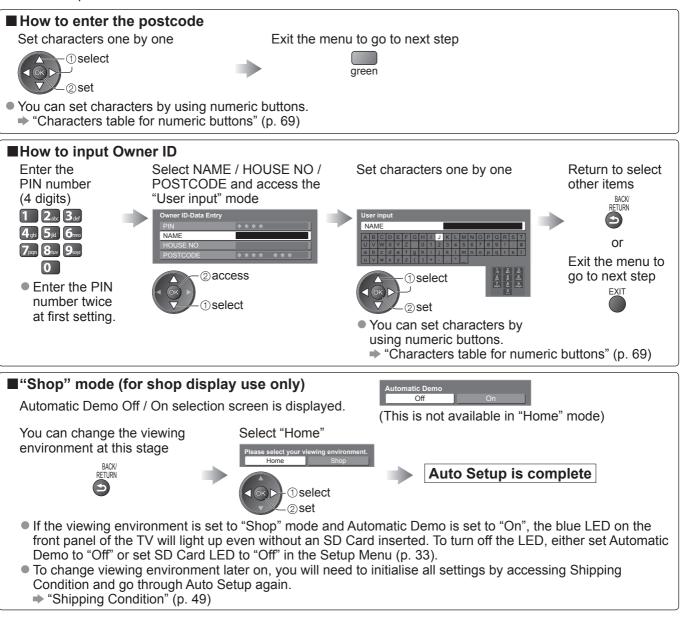
Return to the previous menu

Exit the menu system and return to the normal viewing screen



#### Note

- If you wish to tune in other satellite channels → "Auto Setup" in "Other Sat. Tuning Menu" (p. 43)
- To initialize all settings → "Shipping Condition" (p. 49)
- 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.

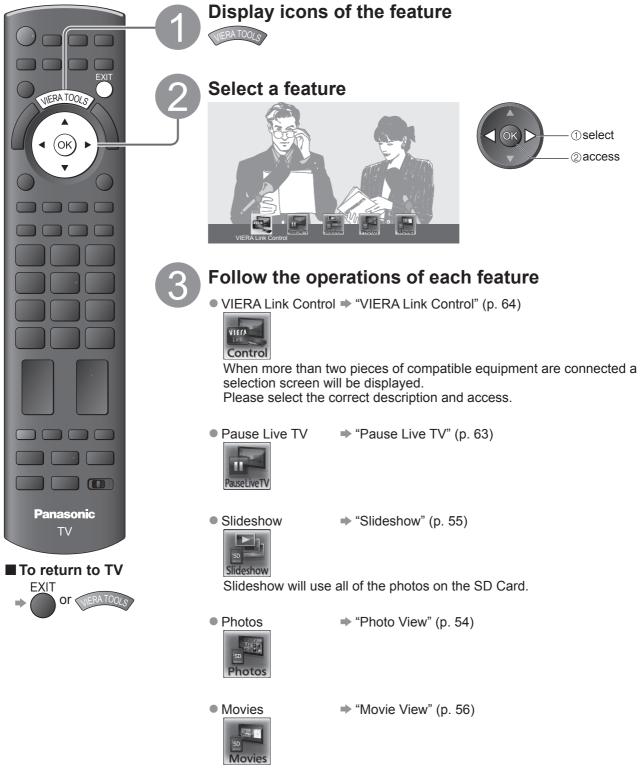


# How to Use VIERA TOOLS

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

• For "VIERA Link Control" and "Pause Live TV" functions to operate correctly, ensure the connections and settings are completed.

➡ "Summary of Q-Link and VIERA Link features" (p. 58 and p. 59), "Preparations" (p. 61) After connection, turn the equipment on and then switch the TV on.



#### Watching TV Turn power on (Press for about 1 second) Mains power On / Off switch should be On. (p. 8) $(\mathbf{I})$ Select the mode (freesat, DVB, Analogue or INPUT. (၂) TV Other Sat.) ertECI E 2) watch **TV Selection** (i)freesat ΤV 1) select DVB Analogue Other Sat Displayed if Other Satellite (ok channels are tuned (p. 43) side panel of the TV. (p. 8)

in the ion on

Watching TV
 How to Use VIERA TOOLS

#### Also possible by pressing the TV button repeatedly on the remote control or Information banner appears whenever you select a channel For details p. 16 4<sub>ahi</sub> **5**<sub>ikl</sub> **6**m Select a channel **8**tuv **7**pqrs 9 1 2abc 3def freesat channel position numbers run in the un 0 ranges 100 - 999 and 0100 - 0999. 4ghi 5jk 6mm or To select a three-digit channel position 7pqrs 8tuv 9wyz down number, e.g. 133 ۸ 0 ➡ 1 ➡ 3<sub>def</sub> ➡ 3<sub>def</sub> To select a four-digit channel position number, e.g. 0246 -Volume $\Rightarrow$ 0 $\Rightarrow$ 2<sub>abc</sub> $\Rightarrow$ 4<sub>ghi</sub> $\Rightarrow$ 6<sub>mno</sub> DVB and Other Sat. channel position numbers run from 1 onwards. Analogue channel position numbers run in the ranges 0 - 99. To select a two or three-digit channel Panasonic position number, e.g. 39 ΤV Select a channel using Information banner (p. 16) Possible to confirm the channel name and programme before changing channels. Note While the banner is displayed, Display Information banner if it is not To watch pay-TV displayed select the channel "Common Interface" Delect channel (p. 51) i Possible to set display timeout in 2 watch "Banner Display Timeout" (p. 33). Select a channel using TV Guide (p. 18) Possible to confirm the TV Guide (EPG) before changing channels. Display TV Select the programme Select "View" Guide now on the air (freesat or DVB mode) ①select ±astender 19:30- 20:00 2) access select 2 watch

#### ■ Other useful functions



# Watching TV

Display Information banner	
Display Information banner     Also appears when changing a channel     Channel position	
TV mode and name Channel	
	adio or Data channel) Current time
FS 103 ITV Wales	Radio 19:35 freesat Channel List
Programme — Coronation Street — 19 : 30 - 20 : 00	Now ► For info press i
Mute Encrypted	· · · · · · · · · · · · · · · · · · ·
Programme Start / Finish time	Features available / Message meanings
"All DVB Channels" or "Favourites1-4" (p. 39)	Mute Sound mute On
● To switch → □	Bad signal
Example (DVB):	Poor TV signal quality
D 103 ITV Wales Radio 19:35 All DVB Channels Coronation Street Select favourites	Encrypted
19:30-20:00 ◀ Now ► For info press i Mute Encrypted AD Subtitles TXT Multi Audio 45	Scrambled programme
Mule Encrypted AD Sublities IXT Multi Audio 43	AD
	<ul> <li>Audio Description service available</li> <li>This function can aid visually-impaired viewers by</li> </ul>
Example (Analogue):	adding an additional audio track to describe events
A 3 ITV 19:35 All Analogue Channels	on-screen.
CH23 Mute TXT NICAM 45	● For settings ➡ p. 31 Subtitles
Channel number	Subtitle service available
	TXT
	Teletext service available
"All Other Sat. Channels" or "Favourites1-4" (p. 44)	Multi Audio
● To switch → □ blue	Multiple audio available
	Stereo, Mono, NICAM Audio mode
Example (Other Sat.): S 103 ITV Wales Radio 19:35 All Other Sat. Channels	1 - 90
Coronation Street     Select favourites       19 : 30 - 20 : 00     ◀ Now ▶     For info press i	Off Timer remaining time
Mute Encrypted Subtitles TXT Multi Audio 45	●For settings ➡ p. 17
<ul> <li>To confirm another tuned</li> </ul>	To watch the channel listed in the banner and the banner.
channel name	EXIT
	■ To hide ⇒
<ul> <li>Information on the next programme ⇒ (&lt; ○</li> </ul>	To set display timeout
(freesat, DVB, Other sat.)	<ul> <li>"Banner Display Timeout" (p. 33)</li> </ul>
Extra information	ner)
(freesat, DVB, Other sat.)	Example:
<ul> <li>"AD", "Subtitles", "TXT", "Multi Audio" indications are available on particular programmes, but may not be</li> </ul>	
individual programmes being broadcast.	
Display the extra information to confirm availability o	f these functions.
Display subtitles	
■ freesat, DVB or Other Sat. mode	
<b>Display / hide subtitles</b> (if available)	
<ul> <li>To change the language for digital channel (if availing "Preferred Subtitles" (p. 33)</li> </ul>	ilable) 😥
Analogue mode Display subtitles	STTL
To hide subtitles      →	
Note	
	t service and selecting "P888" (subtitle service). (p. 23)
You cannot change the channel when this function	n is active.

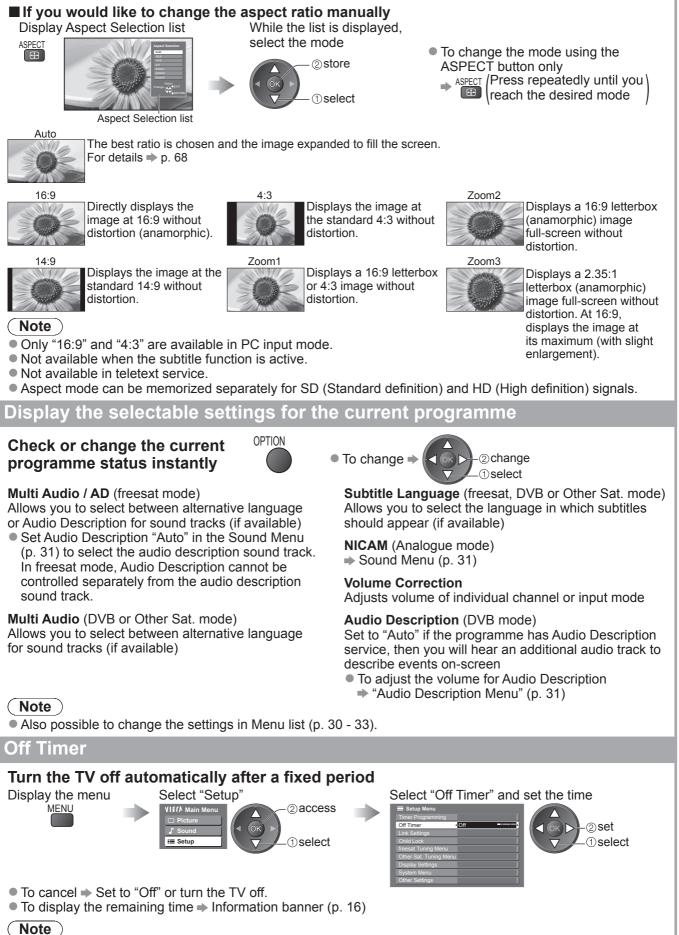


#### Change the aspect ratio (image size)



Enjoy viewing the image at its optimum size and aspect.

Normally programmes have the Aspect Control Signal (Widescreen signal, etc.), and the TV will choose the aspect ratio automatically according to the Aspect Control Signal (p. 68).



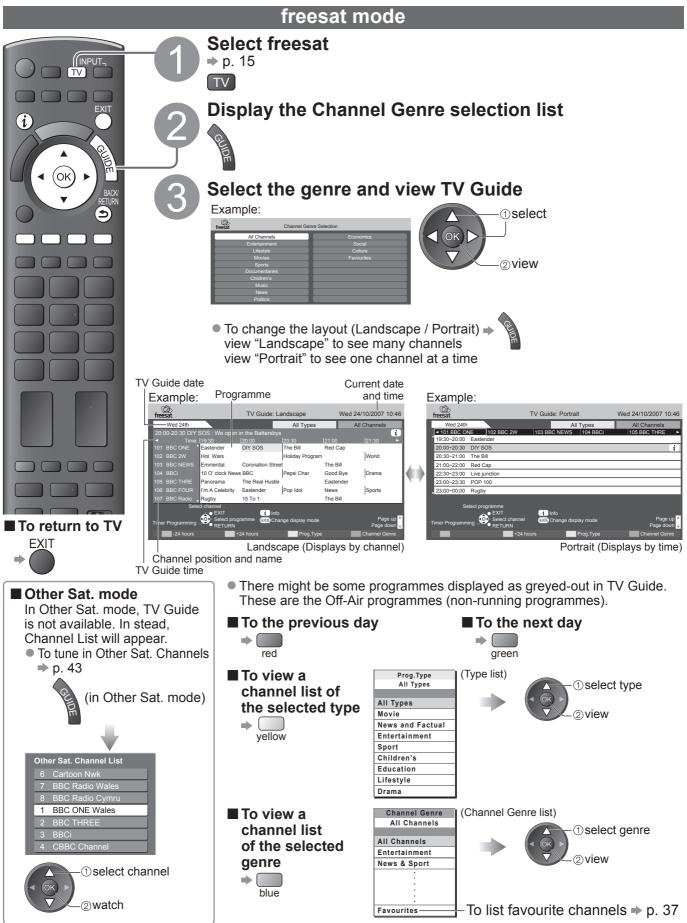
• When the remaining time is within 3 minutes, the remaining time will flash on the screen.

Viewing

# **Using TV Guide**

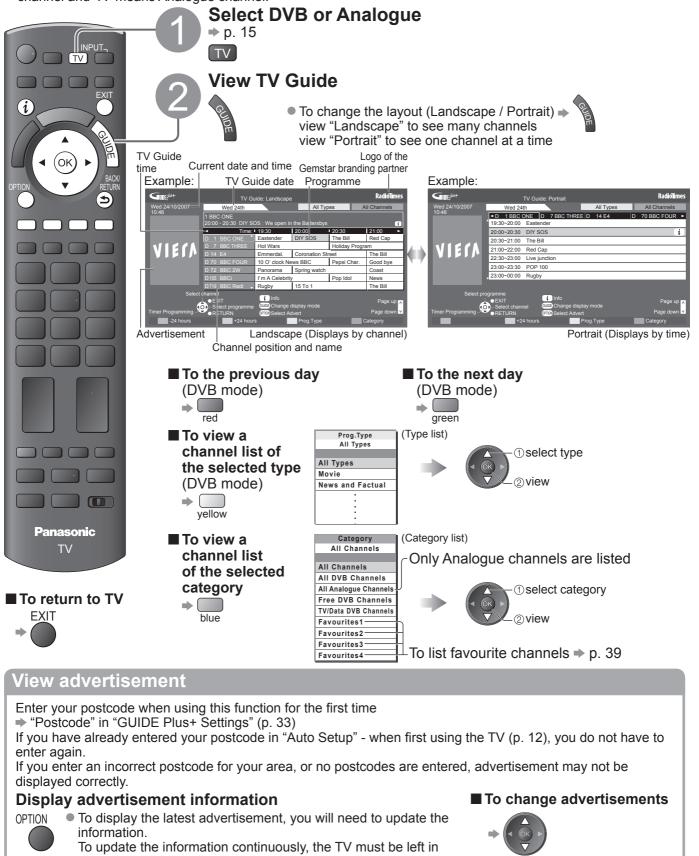
TV Guide—Electronic Programme Guide (EPG) provides an on-screen listing of the programmes currently broadcast and the forthcoming broadcasts over the next seven days (depending on the broadcasters).

 When this TV is turned on for the first time, or the TV is switched off for more than a week, it may take some time before the TV Guide is completely shown.



#### **DVB or Analogue mode**

- This TV supports the GUIDE Plus+ system in DVB or Analogue mode.
- The Gemstar branding partner will supply the rating informations in the programme information and the recommended group in the Prog.Type list.
- Analogue channels will be listed after DVB channels but there will be no programme listings. "D" means DVB channel and "A" means Analogue channel.



Standby mode at night.

## To return to TV Guide

TURN

#### Note

• Some advertisements are for future programmes.

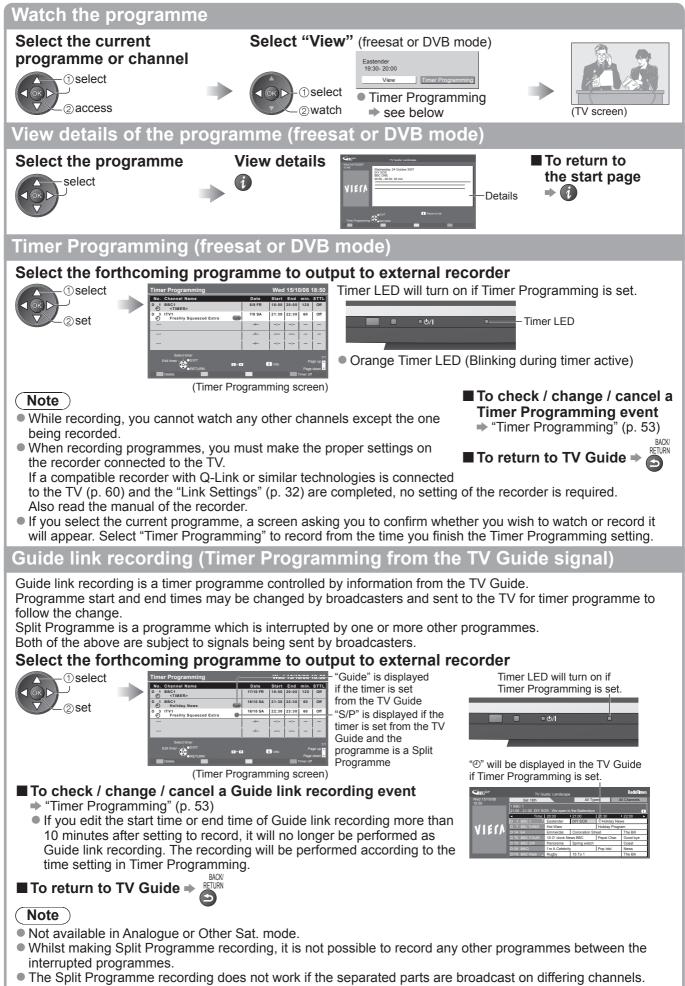
- In this case it is possible to use the Guide link recording function (p. 20).
- The advertisements displayed on the TV Guide are sent from the GUIDE Plus+ system so that they cannot be deleted manually or will not be lost even when the TV is turned Off with Mains power On / Off switch.

Viewing

Using TV Guide

# Using TV Guide

Other useful functions (Operate whilst viewing TV Guide)



## Viewing Teletext

You can enjoy news, weather forecasts and subtitles, etc. (depending on the broadcaster) The availability of teletext services for a programme is indicated by "TXT" in the information banner.



Information banner (p. 16)

Displayed if programme has teletext service

#### Digital teletext (MHEG

#### **Digital teletext services**

Digital teletext services differ greatly from analogue teletext.

When you switch to a digital teletext service, the images you see can contain graphics and text, laid out and controlled in a manner decided by the broadcaster.

## TV INPUT\_ (TV) TEXT i (ok 2 3 **4**<sub>ahi</sub> 5<sub>ikl</sub> 9, 8tuv **7**pgrs 0 **Panasonic** TV

#### Select freesat or DVB

▶ p. 15

freesat and DVB programmes have digital teletext services (MHEG).

#### Switch to Teletext

17:51 28 Feb

#### How to use

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

1 2abc 3def

7pqrs 8tuv 9myz 0

For example:

When "select" or "go" is displayed - OK

- When "◀ "▼" symbol is displayed →
- When "back key" is displayed

• When the key words are displayed on colour bar + red green yellow blue

- When options with numbers are displayed 4. 5. 6.
- When "i" is displayed 
   (information)

**To return to TV** 
$$\Rightarrow$$

#### Note

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

## **Viewing Teletext**

#### Analogue teletext

#### Analogue teletext services

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

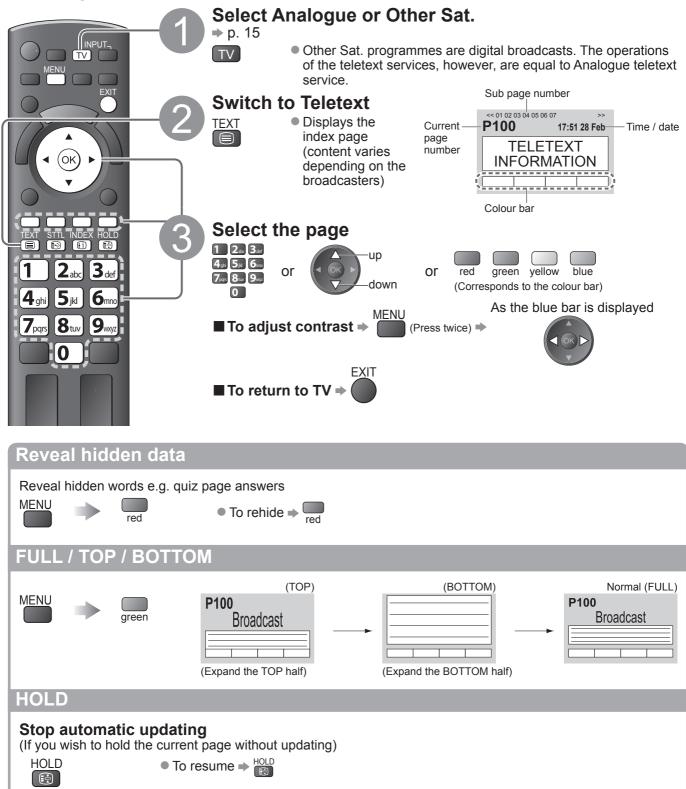
#### What is FASTEXT mode?

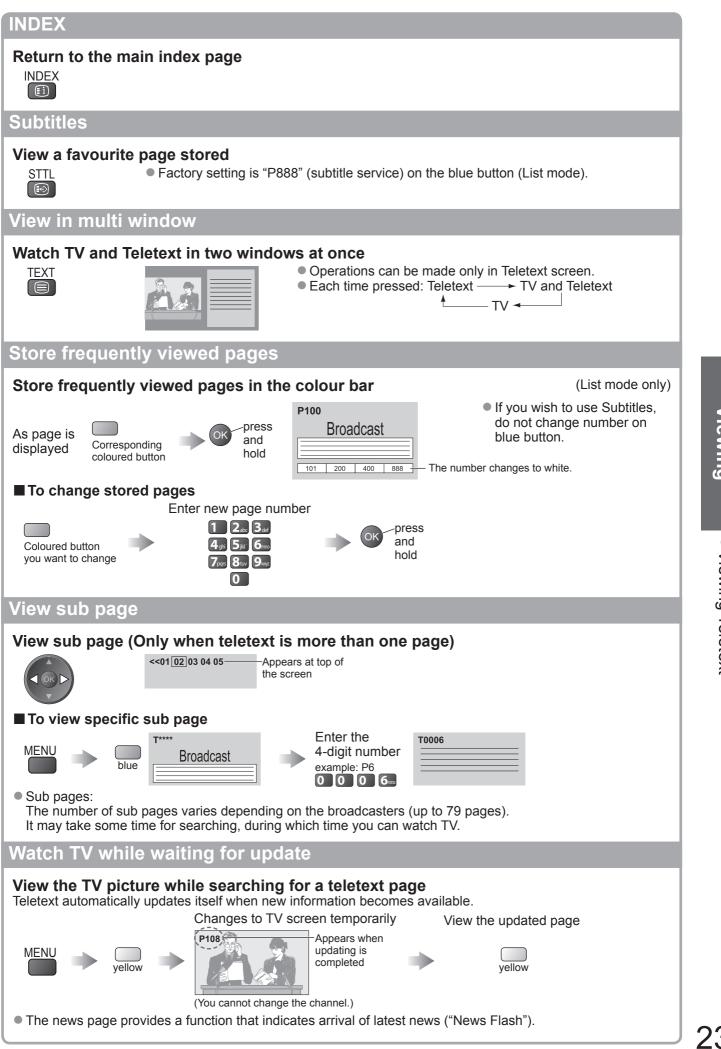
In FASTEXT mode, four differently coloured subjects are situated at the bottom of the screen. To access more information about one of these subjects, press the appropriately coloured button. This facility enables fast access to information on the subjects shown.

#### What is List mode?

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

■ To change mode → "Teletext" in the Setup Menu (p. 33)



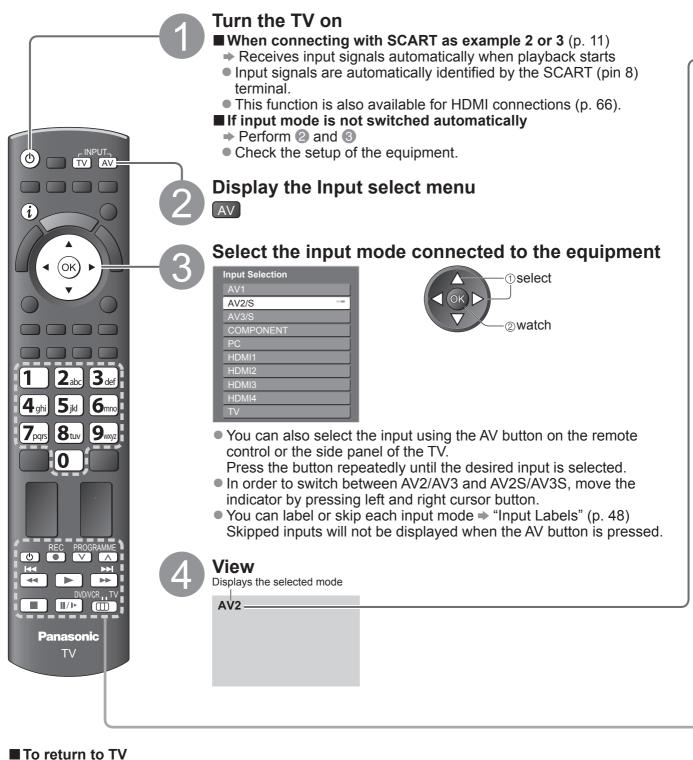


Viewing

## Watching External inputs

Connect the external equipment (VCRs, DVD equipment, etc.) and you can watch through the input. ● To connect the equipment ⇒ p. 11 and p. 66

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





(Note)

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

Screen display

Terminal	AV1	AV2	AV3	COMPONENT	PC	HDMI1	HDMI2	HDMI3	HDMI4
Manual input (default setting in "Input Labels")	AV1 AV1-RGB	AV2 AV2-S-Video AV2-RGB	AV3 AV3-S-Video	COMPONENT	PC	HDMI1	HDMI2	HDMI3	HDMI4
Auto input (EC mode or) (VIERA Link)	EC/AV1 EC/AV1-RGB	EC/AV2 EC/AV2-S-Video EC/AV2-RGB	_	_	_	EC/HDMI1 • Applicable for EC mode and VIERA Link	EC/HDMI2 • Applicable for VIERA Link	EC/HDMI3 • Applicable for VIERA Link	EC/HDMI4 • Applicable for VIERA Link

• If the above information is permanently displayed on the top left of the screen, press the *i* button to clear.

#### Operating the equipment with the TV remote control

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

	Selection Switch for operating the connected equipment
	Select "DVD/VCR" to operate Panasonic DVD Recorder, DVD Player, Player theatre, Blu-ray Disc theatre or VCR → "How to change the code for the type of the equipment" (see below)
	Select "TV" to operate the connected equipment in VIERA Link → "VIERA Link Control" (p. 64)
٢	Standby Set to Standby mode / Turn on
	<b>Play</b> 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
II/Þ	Pause Pause / Resume DVD: Press and hold to play at slow speed
PROGRAMME	Channel Up / Down Select channel
REC	Record Start recording

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

- ① Set the position to "DVD/VCR"
- 2 Press and hold C during the following operations

Enter the appropriate see table below	7pqs 8tuv 9wyz	•	Press
	0		

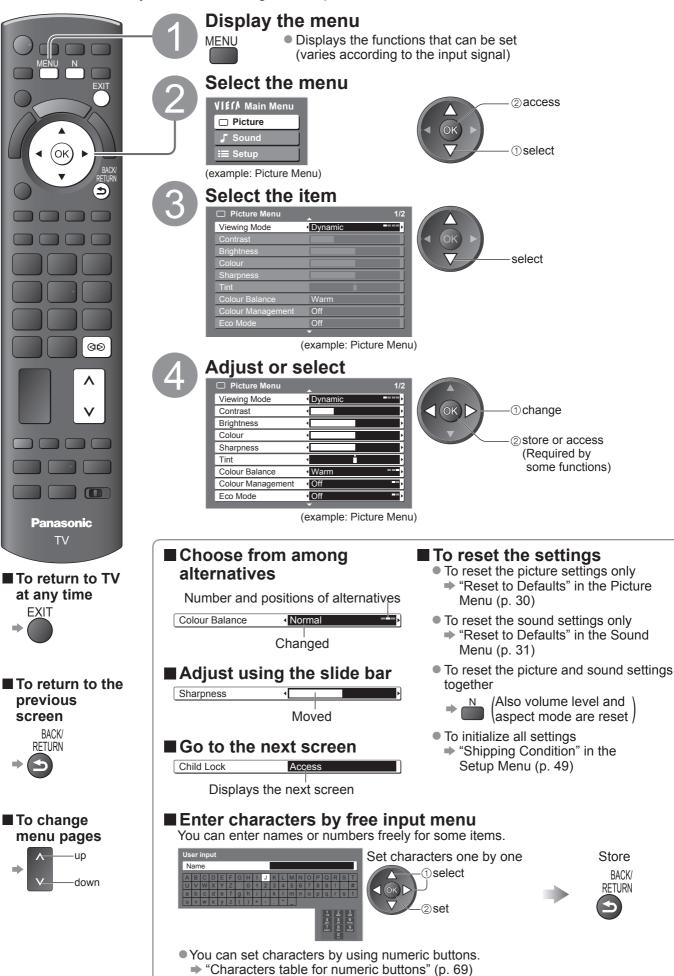
Type of the equipment	Code
DVD Recorder, DVD Player	70 (default)
Player theatre, Blu-ray Disc theatre	71
VCR	72

#### Note

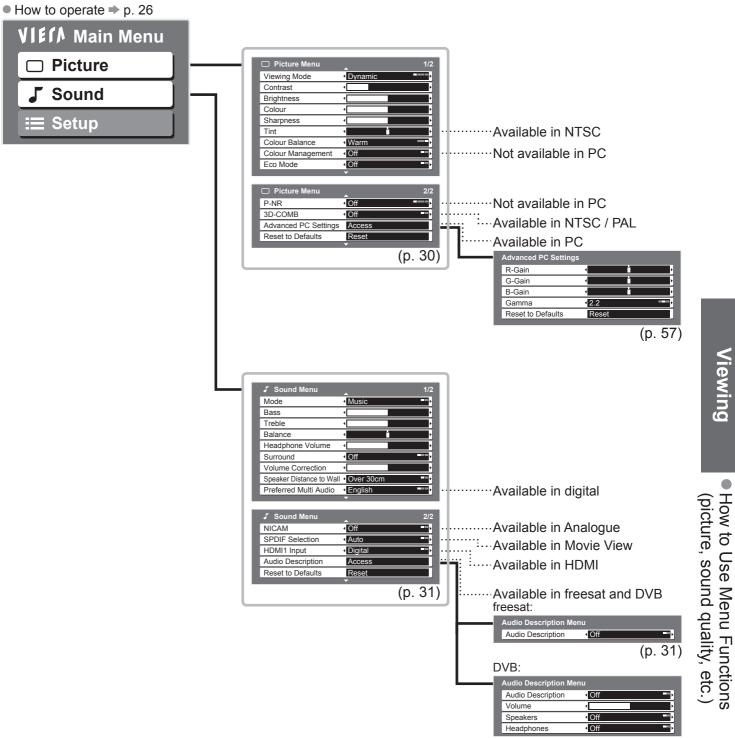
- Confirm if the remote control works correctly after changing the code.
- The codes may be reset to default values if batteries are replaced.
- Some operations may not be possible on some equipment models.

## **How to Use Menu Functions**

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



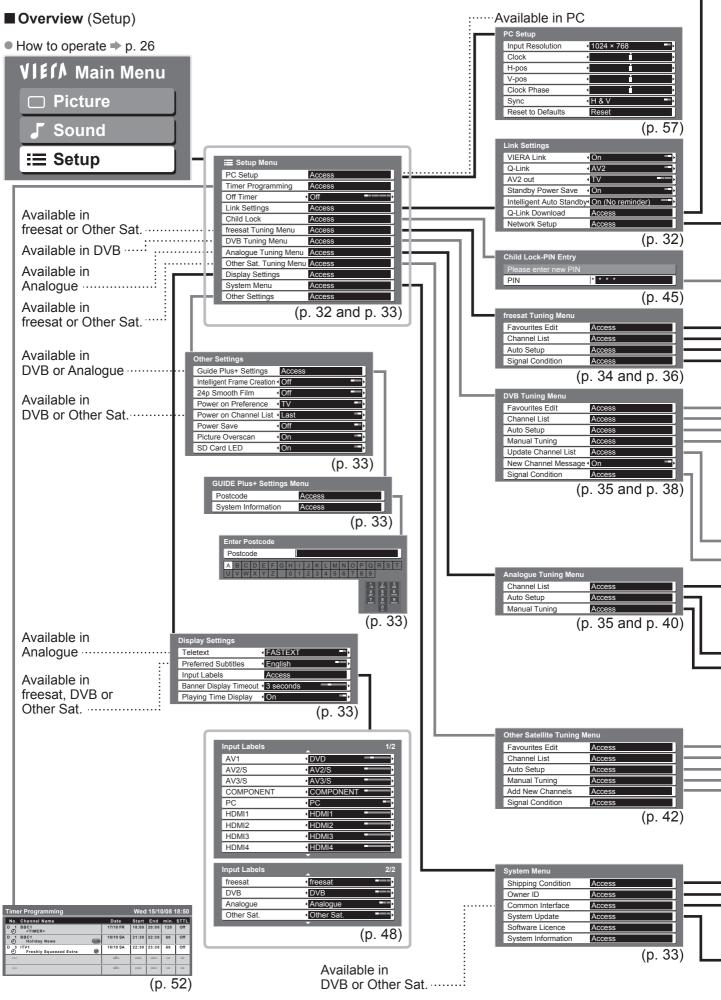
#### ■ Overview (Picture, Sound)

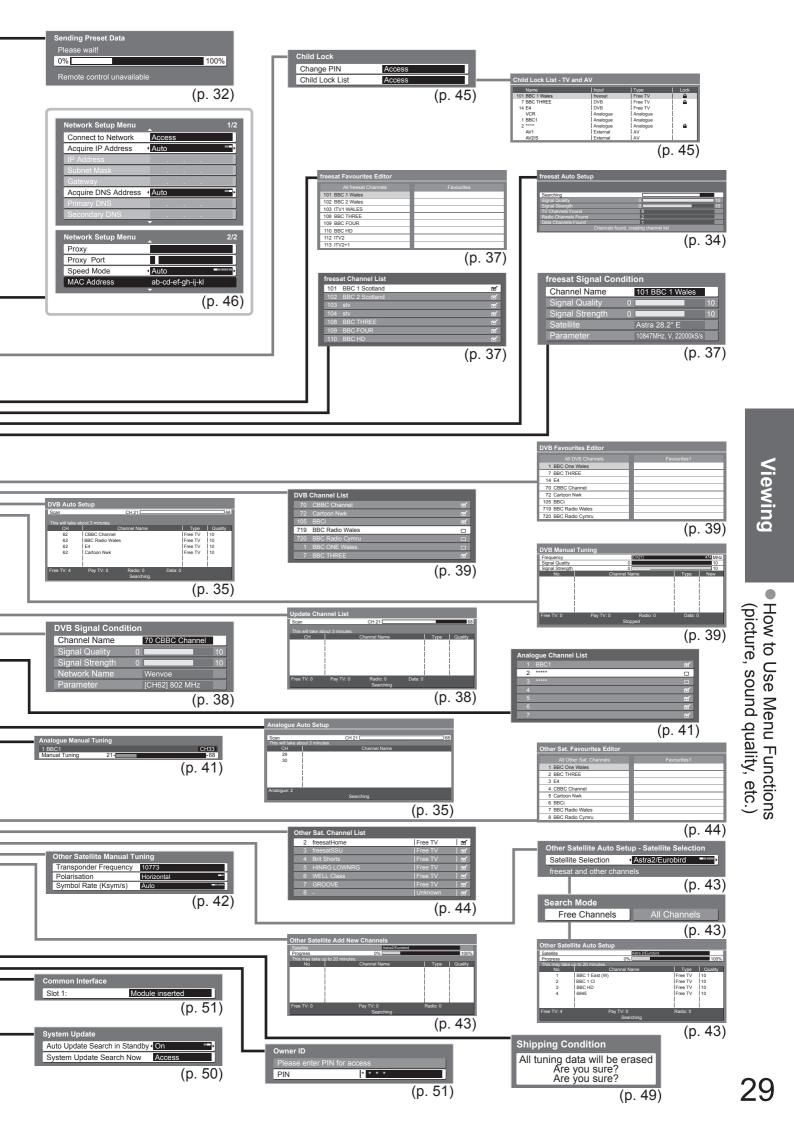


(p. 31)

Viewing

## **How to Use Menu Functions**





## How to Use Menu Functions

#### Menu list

Menu	Item	Adjustments / Configurations (alternatives)
	Viewing Mode	<ul> <li>Selects four different screen settings (Dynamic / Normal / Cinema / Game) <ul> <li>In each Viewing Mode setting, Contrast, Brightness, Colour, Sharpness, Tint, Colour</li> <li>Balance, Colour Management, Eco Mode and 3D-COMB can be adjusted and stored to suit your particular viewing requirement (e.g., you may require different settings for viewing sports, films, news etc.)</li> <li>Set for each input signal</li> <li>Changes will be stored automatically</li> <li>Dynamic : Provides enhanced picture contrast and sharpness when viewing in a bright room</li> <li>Normal : Recommended for viewing under normal ambient room lighting conditions</li> <li>Cinema : For watching movies in a darkened room producing a cinema-like picture</li> <li>Game : Fast response signal specifically to provide suitable images for playing games</li> <li>Not valid on TV mode</li> <li>A continuous record of time spent using Game mode can be displayed in the top right of the screen.</li> <li>* "Playing Time Display" (p. 33)</li> </ul> </li> </ul>
	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
Picture	Colour Balance	Allows you to set the overall colour tone of the picture (Cool / Normal / Warm)
e	Colour Management	Automatically adjusts colours to vivid ones <b>(Off / On)</b> ● Not valid on PC signal
	Eco Mode	Adjusts picture settings automatically dependent on ambient lighting conditions (Off / On)
	P-NR	Picture Noise Reduction Automatically reduces unwanted picture noise and flicker noise in the contoured parts of a picture (Off / Min / Mid / Max) • Not valid on PC signal
	3D-COMB	Occasionally, whilst viewing still or slow moving pictures, colour patterning may be seen Set to "On" to display sharper and more accurate colours <b>(Off / On)</b> ● For PAL or NTSC signal reception only ● Not valid on RGB, S-Video, Component, PC, HDMI and SD Card
	Reset to Defaults	Press the OK button to reset the present Picture Viewing Mode to the default settings

Menu		ltem	Adjustments / Configurations (alternatives)
	Мо	de	Select two different sound settings (Music / Speech) In each Sound Mode setting, Bass and Treble can be adjusted and stored to suit your particular sound requirement • Changes to any settings in a mode will affect all signal sources • Sound quality can be improved
	Ba	SS	Increases or decreases level to enhance or minimise lower, deeper sound output
	Tre	ble	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		<ul> <li>Surround sound settings (Off / V-Audio / V-Audio Surround)</li> <li>V-Audio: Provides a dynamic enhancer of width to simulate improved spatial effects</li> <li>V-Audio Surround: Provides a dynamic enhancer of width and depth to simulate improved spatial effects</li> <li>Switching is also possible by the Surround button on the remote control (p. 9).</li> </ul>
	Vol	lume Correction	Adjusts the volume of individual channel or input mode
	Speaker Distance to Wall		<ul> <li>Adjusts the low frequency sound (Over 30cm / Up to 30cm)</li> <li>If the back space between the TV and wall is over 30 cm, "Over 30cm" is recommended.</li> <li>If the back space between the TV and wall is within 30 cm, "Up to 30cm" is recommended.</li> </ul>
Sot	Preferred Multi Audio		Selects the preferred language for digital channel multi audio (depending on the broadcaster)
Sound	NICAM		NICAM (Near Instantaneous Companded Audio Multiplex) A format for digital sound over television Reproduces stereo sound <b>(Off / On)</b> • Off if reception is poor (FM monaural sound) • Analogue mode only
	HDMI1 / 4 Input		Select to fit the input signal <b>(Digital / Analogue)</b> (p. 70) Digital : HDMI cable connection Analogue : HDMI-DVI adapter cable connection • HDMI input mode only • HDMI2 / 3 terminals are for digital signal only • No setting for HDMI2 / 3 available
	Audio D	Audio Description	Useful for visually-impaired viewers <b>(Off / Auto)</b> Set to "Auto" to activate the description sound track if available • freesat or DVB mode only • The availability of audio description sound track is indicated by "AD" in the information banner (p. 16).
	<b>Description Menu</b>	Volume	Adjusts the volume for Audio Description ● DVB mode only
	tion Me	Speakers	Set to "On" to activate the description sound track from TV speakers (Off / On) ● DVB mode only
	enu	Headphones	Set to "On" to activate the description sound track from headphones (Off / On) ● DVB mode only
	Reset to Defaults		Press the OK button to reset the present Sound Mode to the default settings • Effective to Bass, Treble, Balance, Headphone Volume and Surround

A different menu will be displayed while PC or SD Card is used. (p. 55 - 57)
Only available items can be selected.

## How to Use Menu Functions

#### Menu list

Menu	ltem		Adjustments / Configurations (alternatives)					
	Timer Programming		Records forthcoming channels (p. 52)					
	Off	Timer	Sets the time the TV automatically turns Off (Off / 15 / 30 / 45 / 60 / 75 / 90 minutes)					
		VIERA Link	Sets to use VIERA Link functions (Off / On) (p. 61)					
		Q-Link	Selects which AV terminal is to be used for data communication between this TV and a compatible recorder <b>(AV1 / AV2)</b> (p. 60) Select the connected terminal to the recorder even it is not compatible with Q-Link.					
	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.					
	Link Settings	Standby Power Save	Controls the power consumption in Standby mode of the connected equipment to reduce the consumption <b>(Off / On)</b> (p. 62) This function is available when "VIERA Link" is set to "On".					
	S	Intelligent Auto Standby	Makes non-watched or non-used connected equipment go into Standby mode to reduce the power consumption <b>(Off / On (With reminder) / On (No reminder))</b> (p. 62) This function is available when "VIERA Link" is set to "On".					
		Q-Link Download	Downloads analogue channel information to a Q-Link compatible equipment connected to the TV					
		Network Setup	Sets the network setting to use in your Broadband environment (p. 46)					
	Ch	ild Lock	Locks a channel / AV input to prevent access to it (p. 45)					
	frees	Favourites Edit	Creates list of favourite freesat channels (p. 37)					
	freesat Tuning Menu	Channel List	Skips the unwanted freesat channels (p. 37)					
	ing M	Auto Setup	Automatically sets the freesat channels received in the area (p. 34)					
Setup	lenu	Signal Condition	Checks the freesat signal condition (p. 37)					
tu		Favourites Edit	Creates list of favourite DVB channels (p. 39)					
σ	DVB	Channel List	Skips the unwanted DVB channels or edits DVB channels (p. 39)					
		Auto Setup	Automatically sets the DVB channels received in the area (p. 35)					
	Tuning	Manual Tuning	Sets the DVB channels manually (p. 39)					
		Update Channel List	Updates DVB Channel List with keeping your settings (p. 38)					
	Menu	New Channel Message	Selects whether to give a notification message when a new DVB channel is found (p. 38)					
		Signal Condition	Checks the DVB signal condition (p. 38)					
	Analogu	Channel List	Skips the unwanted Analogue channels or edits Analogue channels (p. 41)					
	Analogue Tuning Menu	Auto Setup	Automatically sets the Analogue channels received in the area (p. 35)					
	g Menu	Manual Tuning	Sets the Analogue channels manually (p. 41)					
	ç	Favourites Edit	Creates list of favourite Other Satellite channels (p. 44)					
	her	Channel List	Skips the unwanted Other Satellite channels or edits Other Satellite channels (p. 44)					
	Sat	Auto Setup	Automatically sets the Other Satellite channels received in the area (p. 43)					
	t. Tun	Manual Tuning	Sets the Other Satellite channels manually (p. 42) Please consult the received satellite broadcasting companies for the setting.					
	Other Sat. Tuning Menu	Add New Channels	Adds new Other Satellite channels to Channel List (p. 43)					
	enu	Signal Condition	Checks the condition of Other Satellite signals (p. 42)					
		-						

Opposite         Participant         Analogue teletext display mode (FASTEXT / List) (p. 22)           Preferred Subtitles         Selects the preferred language for digital channel subtitles (depending on the productaster)	Menu	nu Item			Adjustments / Configurations (alternatives)
Open Preferred Subtities         broadcaster) To display subtities * p. 16           Input Labels         Labels or skips each input terminal (p. 48)           Banner Display         Sets how long the Information banner (p. 16) stays on screen (0 (No display) / 1/ 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 seconds)           Playing Time Display         Sets how long the Information banner (p. 16) stays on screen (0 (No display) / 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 seconds)           Stipping Condition         Resets all settings, for example, when moving house (p. 49)           Owner ID         Inputs the owner ID (p. 51)           Common Interface         Uses include to watch pay-TV (p. 51)           System Update         Downloads new software to TV (p. 50)           System Licence         Displays the software licence information System Information           System Elcence         Displays the system information of this TV           System Information         Displays the system information of the GUIDE Plus+ system (p. 19)           System Information         Displays the system information of the screen.           Automatically compensates the picture frame rate to make the image smooth (Of / Mid / Max)           System Information         Displays the system information on tree seree.           24p Smooth Film         Automatically compensates the picture frame rate to make the image smooth (Of / Mid / Max)           Systet Off finoise is generated on the screen. <t< td=""><td rowspan="13">Se</td><td></td><td colspan="2">Teletext</td><td>Analogue teletext display mode (FASTEXT / List) (p. 22)</td></t<>	Se		Teletext		Analogue teletext display mode (FASTEXT / List) (p. 22)
Operation         Description         Description <thdescription< th=""> <thdescription< th="">         &lt;</thdescription<></thdescription<>		Settings	Preferred Subtitles		broadcaster)
Playing Time Display         Corr (on)         Construction of selection of the spectration of the cycle of the image structure of the cycle of the image. The cycle of the image structure of the image structure of the image structure of the image. The cycle of the image struce			Input Labels		Labels or skips each input terminal (p. 48)
Playing Time Display         Corr (on)         Construction of selection of the spectration of the cycle of the image structure of the cycle of the image. The cycle of the image structure of the image structure of the image structure of the image. The cycle of the image struce					
Owner ID         Inputs the owner ID (p. 51)           Common Interface         Uses include to watch pay-TV (p. 51)           System Update         Downloads new software to TV (p. 50)           Software Licence         Displays the software licence information           System Information         Displays the system information of this TV           System Information         Displays the system information of this TV           System Information         Displays the system information of the GUIDE Plus+ system (p. 19)           System Information         Displays the system information of the GUIDE Plus+ system (p. 19)           System Information         Displays the system information of the GUIDE Plus+ system (p. 19)           System Creation         Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max) = Not valid on 24p signal = Set to "Off I noise is generated on the screen.           Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max) = 24p signal input on) = 24p signal on) (Off / On) D : Enlarge			Playing Time Display		(Off / On)
System Information         Displays the system information of this TV           Image: System Information         Displays the system information of this TV           System         Postcode         Sets your postcode to display advertisements in the GUIDE Plus+ system (p. 19)           System         Displays the system information of the GUIDE Plus+ system           Intelligent Frame Creation         Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max)           24p Smooth Film         Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max)           Set to "Off" if noise is generated on the screen.           Automatically selects the input when the TV is turned on (TV / AV) Set to TV to view input from an external equipment connected to a SCART term in the switched on and sending a control signal for automatic switching at power on to cocur.           Power on Channel List         Power on Channel Contractic Switching at power on on cocur.         Automatically selects All Channels or Favourites list in the Information banner (p. 16) when the TV is turned on (All Channel List / Last) Set to "All Channel List" od isplay the one you selected last time.           Power Save         Reduces brightness of picture to economise on power consumption (Off / On) Or : Enlarged the image to hide the edge of the screen.           Picture Overscan         Sel to "Or "In oise is generated on the screen.           This function is available when aspect is set to Auto (16:9 signal only) or 16:9.           This function is non			Shipping Condition		Resets all settings, for example, when moving house (p. 49)
System Information         Displays the system information of this TV           Image: System Information         Displays the system information of this TV           System         Postcode         Sets your postcode to display advertisements in the GUIDE Plus+ system (p. 19)           System         Displays the system information of the GUIDE Plus+ system           Intelligent Frame Creation         Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max)           24p Smooth Film         Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max)           Set to "Off" if noise is generated on the screen.           Automatically selects the input when the TV is turned on (TV / AV) Set to TV to view input from an external equipment connected to a SCART term in the switched on and sending a control signal for automatic switching at power on to cocur.           Power on Channel List         Power on Channel Contractic Switching at power on on cocur.         Automatically selects All Channels or Favourites list in the Information banner (p. 16) when the TV is turned on (All Channel List / Last) Set to "All Channel List" od isplay the one you selected last time.           Power Save         Reduces brightness of picture to economise on power consumption (Off / On) Or : Enlarged the image to hide the edge of the screen.           Picture Overscan         Sel to "Or "In oise is generated on the screen.           This function is available when aspect is set to Auto (16:9 signal only) or 16:9.           This function is non			Owner ID		Inputs the owner ID (p. 51)
System Information         Displays the system information of this TV           Image: System Information         Displays the system information of this TV           System         Postcode         Sets your postcode to display advertisements in the GUIDE Plus+ system (p. 19)           System         Displays the system information of the GUIDE Plus+ system           Intelligent Frame Creation         Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max)           24p Smooth Film         Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max)           Set to "Off" if noise is generated on the screen.           Automatically selects the input when the TV is turned on (TV / AV) Set to TV to view input from an external equipment connected to a SCART term in the switched on and sending a control signal for automatic switching at power on to cocur.           Power on Channel List         Power on Channel Contractic Switching at power on on cocur.         Automatically selects All Channels or Favourites list in the Information banner (p. 16) when the TV is turned on (All Channel List / Last) Set to "All Channel List" od isplay the one you selected last time.           Power Save         Reduces brightness of picture to economise on power consumption (Off / On) Or : Enlarged the image to hide the edge of the screen.           Picture Overscan         Sel to "Or "In oise is generated on the screen.           This function is available when aspect is set to Auto (16:9 signal only) or 16:9.           This function is non			Common Interface		Uses include to watch pay-TV (p. 51)
System Information         Displays the system information of this TV           Image: System Information         Displays the system information of this TV           System         Postcode         Sets your postcode to display advertisements in the GUIDE Plus+ system (p. 19)           System         Displays the system information of the GUIDE Plus+ system           Intelligent Frame Creation         Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max)           24p Smooth Film         Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max)           Set to "Off" if noise is generated on the screen.           Automatically selects the input when the TV is turned on (TV / AV) Set to TV to view input from an external equipment connected to a SCART term in the switched on and sending a control signal for automatic switching at power on to cocur.           Power on Channel List         Power on Channel Contractic Switching at power on on cocur.         Automatically selects All Channels or Favourites list in the Information banner (p. 16) when the TV is turned on (All Channel List / Last) Set to "All Channel List" od isplay the one you selected last time.           Power Save         Reduces brightness of picture to economise on power consumption (Off / On) Or : Enlarged the image to hide the edge of the screen.           Picture Overscan         Sel to "Or "In oise is generated on the screen.           This function is available when aspect is set to Auto (16:9 signal only) or 16:9.           This function is non			System Update		Downloads new software to TV (p. 50)
VICE         Postcode         Sets your postcode to display advertisements in the GUIDE Plus+ system (p. 19)           System Information         Displays the system information of the GUIDE Plus+ system           Intelligent Frame Creation         Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max) • Not valid on 24p signal • Set to 'Off' if noise is generated on the screen.           24p Smooth Film         Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max) • Set to 'Off' if noise is generated on the screen.           Power on Preference         Automatically selects the input when the TV is turned on (TV / AV) set to 'TV' to view picture from TV tuner. Set to 'TV' to view picture from TV tuner. Set to 'TV' to view picture from TV tuner. • The external equipment must be switched on and sending a control signal for automatic switching at power on to occur.           Power on Channel List         Automatically selects All Channels or Favourites list in the Information banner (p. 16) when the TV is turned on (All Channel List / Last) Set to 'Last' to display all the channel. Set to 'Last' to display all the channel. Set to 'Last' to display the one you selected last time.           Power Save         Reduces brightness of picture to economise on power consumption (Off / On) Off : Displayed the image in hide ofiginal 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 is available when aspect set set to Auto (16:9 signal only) or 16:9. • This function is available when aspect set set to Auto (16:9 signal only) or 16:9. • This function is available when aspect set set to Au			Software Licence		Displays the software licence information
Provide         Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max)           • Not valid on 24p signal         • Set to "Off" if noise is generated on the screen.           24p Smooth Film         Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max)           • 24p Smooth Film         Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max)           • 24p Signal input only         • Set to "Off" if noise is generated on the screen.           Power on Preference         Automatically selects the input when the TV is turned on (TV / AV) Set to "TV" to view input from an external equipment connected to a SCART terminal, e.g. cable TV box.           • The external equipment must be switched on and sending a control signal for automatic switching at power on to occur.           Power on Channel List         Automatically selects All Channels or Favourites list in the Information banner (p. 16) when the TV is turned on (All Channel List / Last) Set to "Last" to display all the channels. Set to "Last" to display all the channels. Set to "Last" to display the one you selected last time.           Power Save         Reduces brightness of picture to economise on power consumption (Off / On) On: Enlarged the image to hide the edge of the image. Of: 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 asperately for SD (Standard definition) and HD (High definition) signals.			System Information		Displays the system information of this TV
Provide         Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max)           • Not valid on 24p signal         • Set to "Off" if noise is generated on the screen.           24p Smooth Film         Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max)           • 24p Smooth Film         Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max)           • 24p Signal input only         • Set to "Off" if noise is generated on the screen.           Power on Preference         Automatically selects the input when the TV is turned on (TV / AV) Set to "TV" to view input from an external equipment connected to a SCART terminal, e.g. cable TV box.           • The external equipment must be switched on and sending a control signal for automatic switching at power on to occur.           Power on Channel List         Automatically selects All Channels or Favourites list in the Information banner (p. 16) when the TV is turned on (All Channel List / Last) Set to "Last" to display all the channels. Set to "Last" to display all the channels. Set to "Last" to display the one you selected last time.           Power Save         Reduces brightness of picture to economise on power consumption (Off / On) On: Enlarged the image to hide the edge of the image. Of: 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 asperately for SD (Standard definition) and HD (High definition) signals.		ther	GUIDE Plus+ Settings	Postcode	Sets your postcode to display advertisements in the GUIDE Plus+ system (p. 19)
Creation       • Not valid on 24p signal         • Set to "Off" if noise is generated on the screen.         24p Smooth Film       Automatically compensates the picture frame rate to make the image smooth (Off / Mid / Max)         • 24p signal input only       • Set to "Off" if noise is generated on the screen.         Power on Preference       Automatically selects the input when the TV is turned on (TV / AV) Set to "TV" to view input from an external equipment connected to a SCART terminal, e.g. cable TV box.         Power on Channel       C. able TV box.         Power on Channel       Automatically selects All Channels or Favourites list in the Information banner (p. 16) when the TV is turned on (All Channel List / Last)         Set to "Last" to display all the channels.         Set to "Last" to display the one you selected last time.         Power Save       Reduces brightness of picture to economise on power consumption (Off / On)         On : Enlarged the image to hide the edge of the screen.       • The ster on "i fnoise is generated on the screen.         • Displayed the image to hide the edge of the screen.       • This function is available when aspect is set to Auto (16:9 signal only) or 16:9.					Displays the system information of the GUIDE Plus+ system
24p Smooth Film       (Off / Mid / Max) • 24p signal input only • Set to "Off" if noise is generated on the screen.         Power on Preference       Automatically selects the input when the TV is turned on (TV / AV) Set to "TV" to view picture from TV tuner. Set to "AV" to view input from an external equipment connected to a SCART terminal, e.g. cable TV box. • The external equipment must be switched on and sending a control signal for automatic switching at power on to occur.         Power on Channel List       Automatically selects All Channels or Favourites list in the Information banner (p. 16) when the TV is turned on (All Channel List / Last) Set to "All Channel List" to display all the channels. Set to "Last" to display the one you selected last time.         Power Save       Reduces brightness of picture to economise on power consumption (Off / On) On : Enlarged the image to hide the edge of the image. Off : Displayed the image to hide 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.	∍tup				(Off / Mid / Max) ● Not valid on 24p signal
Power on Preference       Automatically selects the input when the TV is turned on (TV / AV) Set to "TV" to view picture from TV tuner. Set to "AV" to view input from an external equipment connected to a SCART terminal, e.g. cable TV box.         Power on Channel List       Automatically selects All Channels or Favourites list in the Information banner (p. 16) when the TV is turned on (All Channel List / Last) Set to "All Channel List" to display all the channels. Set to "Last" to display the one you selected last time.         Power Save       Reduces brightness of picture to economise on power consumption (Off / On) On : Enlarged the image to hide the edge of the image. Off : Displayed the image to hide the edge of the screen.         Picture Overscan       Set to "On" if noise is generated on the edge of the screen.         This function can be memorized separately for SD (Standard definition) and HD (High definition) signals.			24p Smooth Film		(Off / Mid / Max) ● 24p signal input only
Power on Channel ListAutomatically selects All Channels or Favourites list in the Information banner (p. 16) when the TV is turned on (All Channel List / Last) Set to "All Channel List" to display all the channels. Set to "Last" to display the one you selected last time.Power SaveReduces brightness of picture to economise on power consumption (Off / On)Picture OverscanSelects 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.			Power on Preference		Set to "TV" to view picture from TV tuner. Set to "AV" to view input from an external equipment connected to a SCART terminal, e.g. cable TV box. • The external equipment must be switched on and sending a control signal for
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.					(p. 16) when the TV is turned on <b>(All Channel List / Last)</b> Set to "All Channel List" to display all the channels.
Picture Overscan       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.			Power Save		Reduces brightness of picture to economise on power consumption (Off / On)
SD Card LED         Lights blue LED while SD Card is inserted (Off / On) (p. 54)			Picture Overscan		<ul> <li>On : Enlarged the image to hide the edge of the image.</li> <li>Off : Displayed the image in the original size.</li> <li>Set to "On" if noise is generated on the edge of the screen.</li> <li>This function is available when aspect is set to Auto (16:9 signal only) or 16:9.</li> <li>This function can be memorized separately for SD (Standard definition) and HD</li> </ul>
			SD Card LED		Lights blue LED while SD Card is inserted (Off / On) (p. 54)

• A different menu will be displayed while PC or SD Card is used. (p. 55 - 57)

• Only available items can be selected.

 If "Demo Settings" item is displayed in the Setup Menu, the TV is in "Shop" viewing environment (p. 13). To return to "Home" viewing environment initialise all settings by accessing Shipping Condition.

→ "Shipping Condition" (p. 49)

Viewing

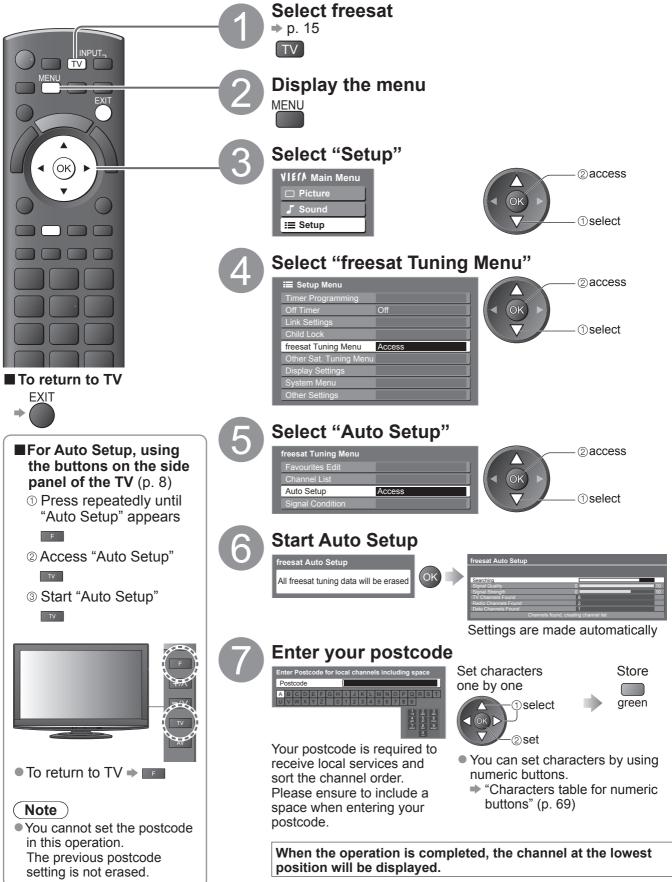
 How to Use Menu Functions (picture, sound quality, etc.)

# **Retuning from Setup Menu**

Auto Setup retunes all channels automatically.

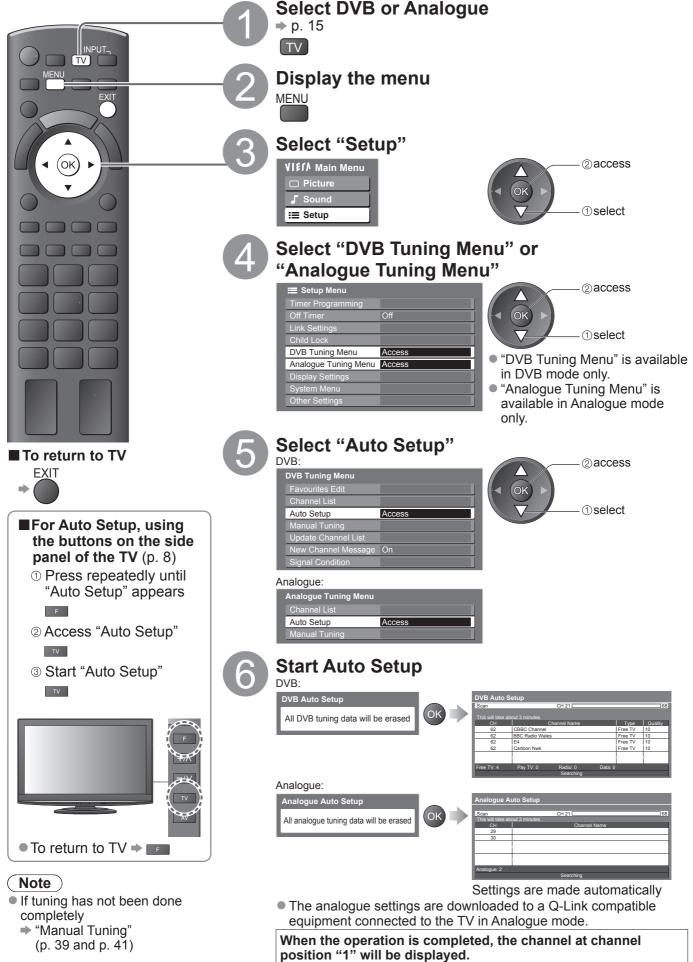
#### freesat channels

- Automatically retune all the freesat channels received in the area.
- Only freesat channels are retuned.
- All the previous tuning settings are erased.
- If a Child Lock PIN number (p. 45) has been set, it must be entered.



#### **DVB or Analogue channels**

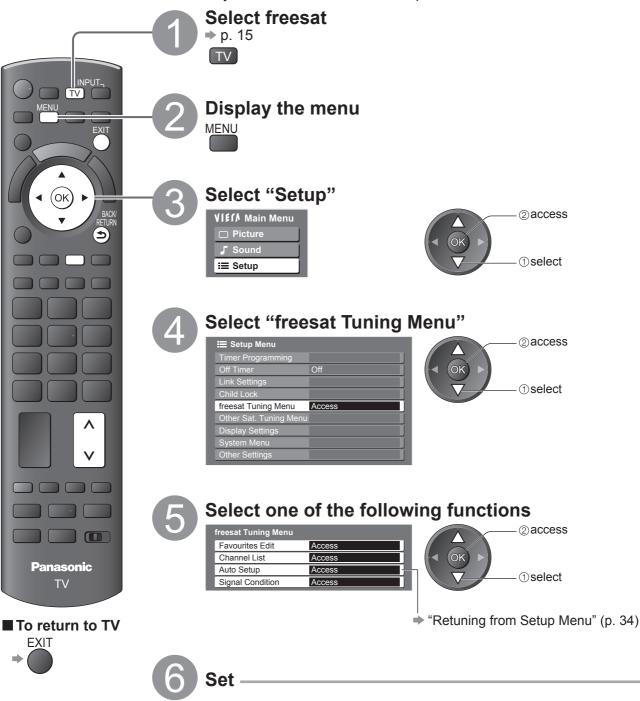
- Automatically retune all DVB or Analogue channels received in the area.
- Only DVB channels are retuned in DVB mode.
- Only Analogue channels are retuned in Analogue mode.
- All the previous tuning settings are erased.
- If a Child Lock PIN number (p. 45) has been set, it must be entered.

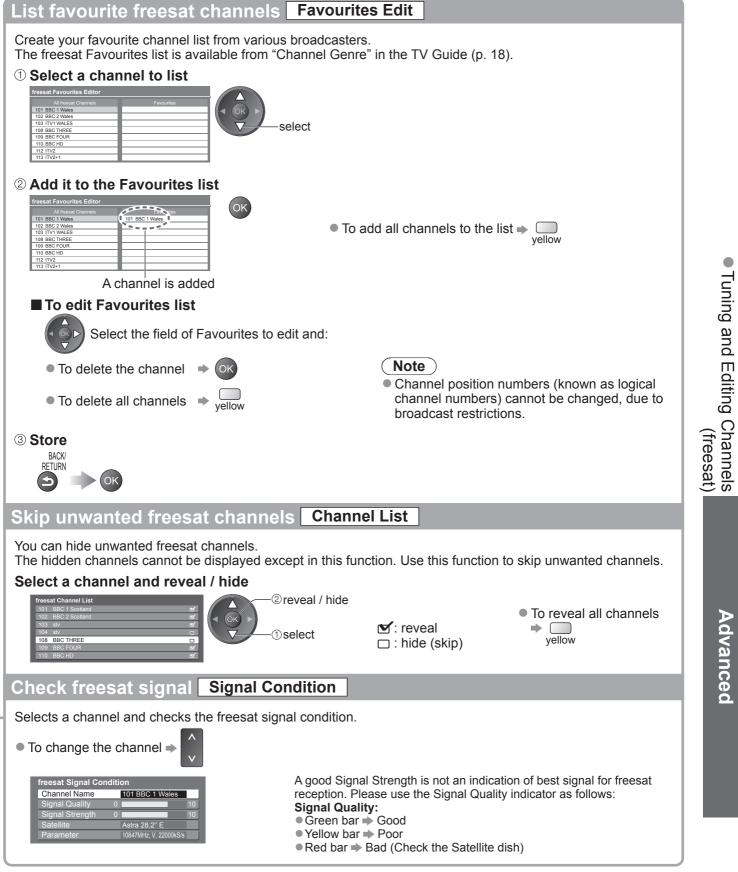


35

## Tuning and Editing Channels (freesat)

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

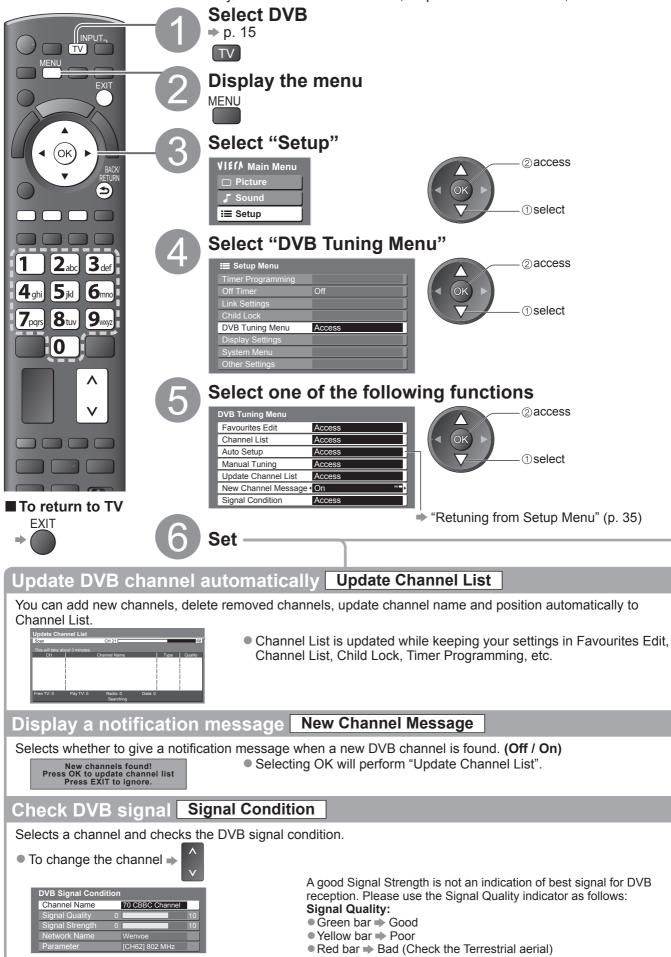


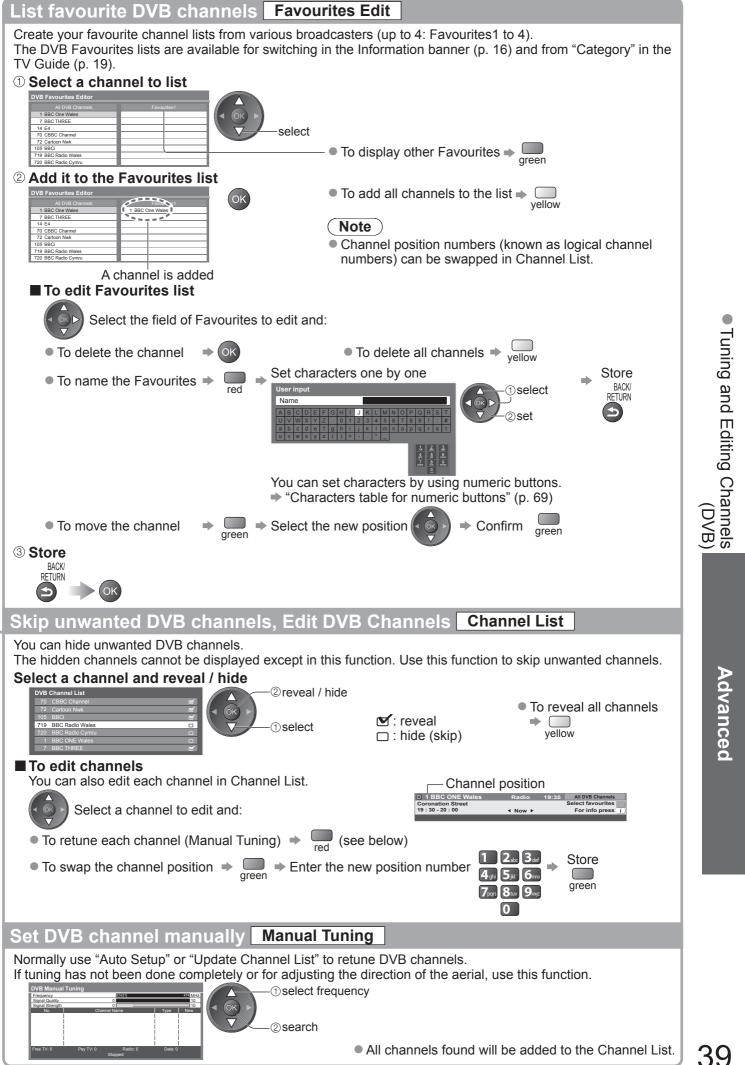


Advanced

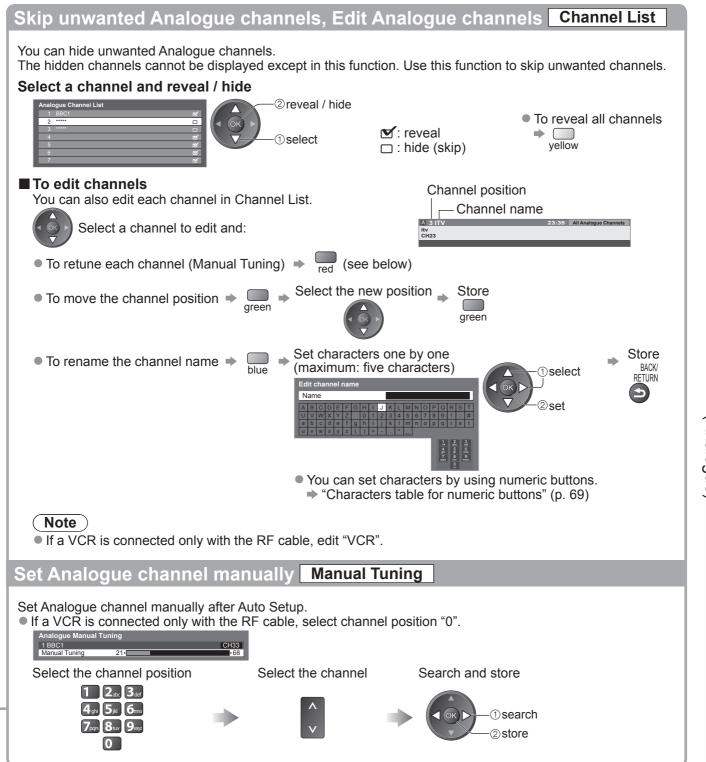
### Tuning and Editing Channels (DVB)

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



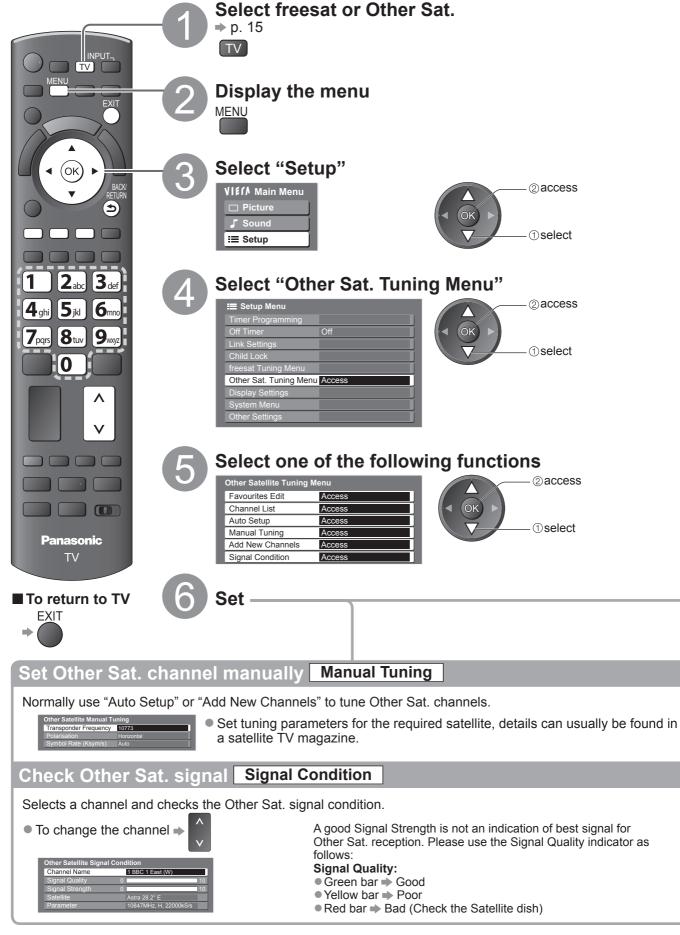


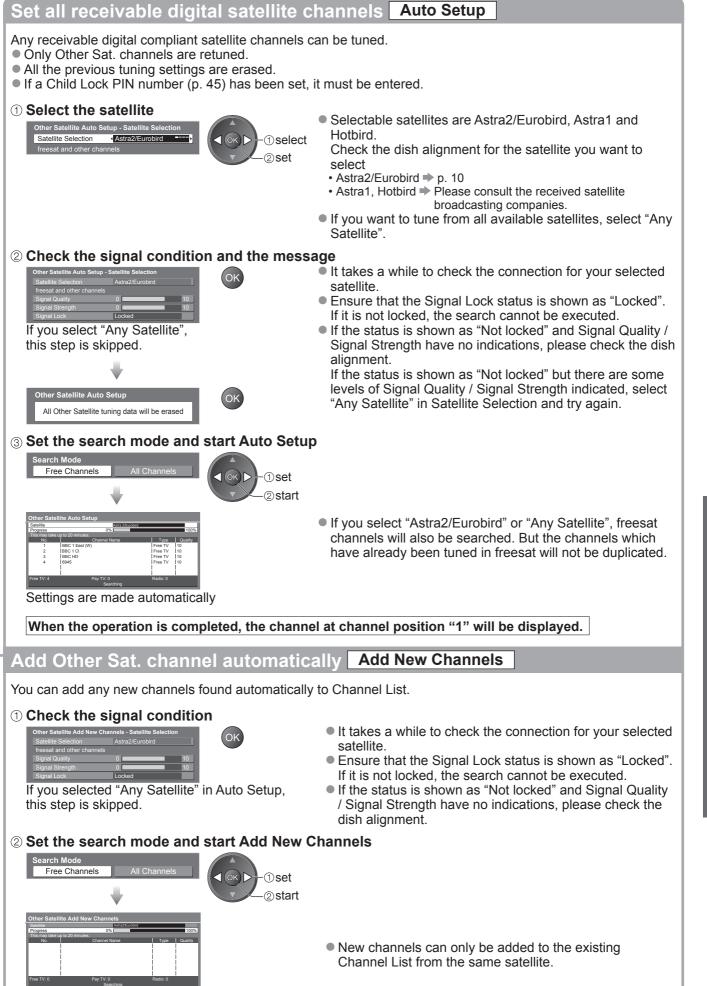
#### **Tuning and Editing Channels** (Analogue) You can retune channels or skip unwanted channels, edit channels etc. Select Analogue ▶ p. 15 TV Display the menu MENU Select "Setup" (ок) ► VIECA Main Menu 2 access ▼ ౕ Picture Sound 1) select I Setup 2abc 3def Select "Analogue Tuning Menu" **4**ghi **5**jkl **6**mno E Setup Menu 2 access 7pqrs 8tuv 9wxy OK 1) select 0 Analogue Tuning Menu Access Λ V Select one of the following functions 2 access Analogue Tuning Menu Channel List Access Auto Setup Access OK Manual Tuning Access (1)select Panasonic TV "Retuning from Setup Menu" (p. 35) ■ To return to TV EXIT Set



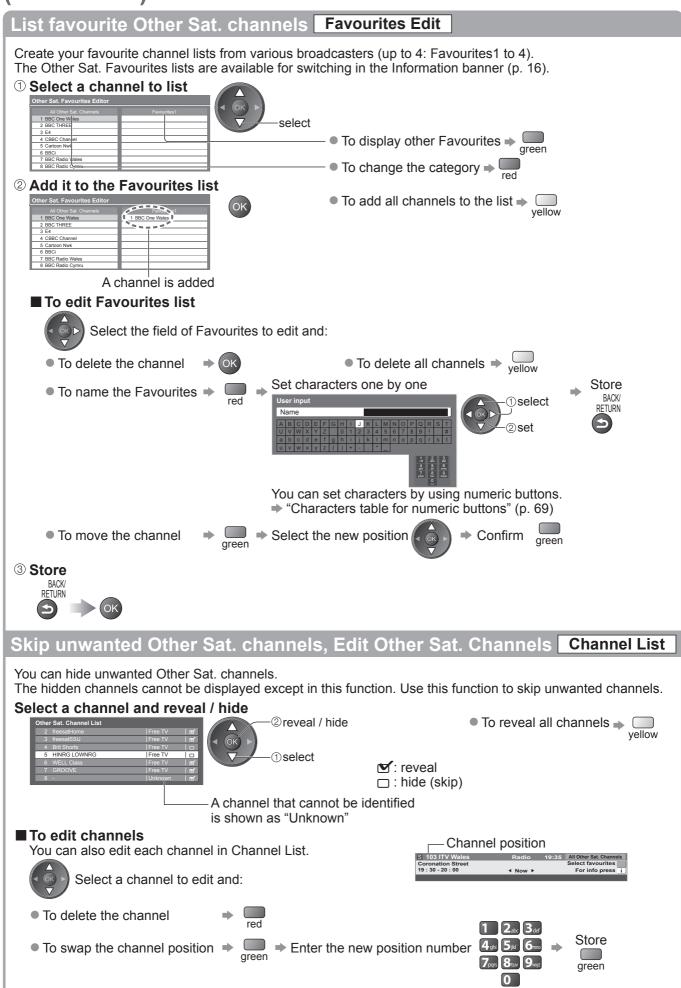
### Tuning and Editing Channels (Other Sat.)

You can tune all receivable digital satellite channels or skip unwanted channels, etc. Some of Other Sat. functions may work to differing specifications (depending on the broadcasters).



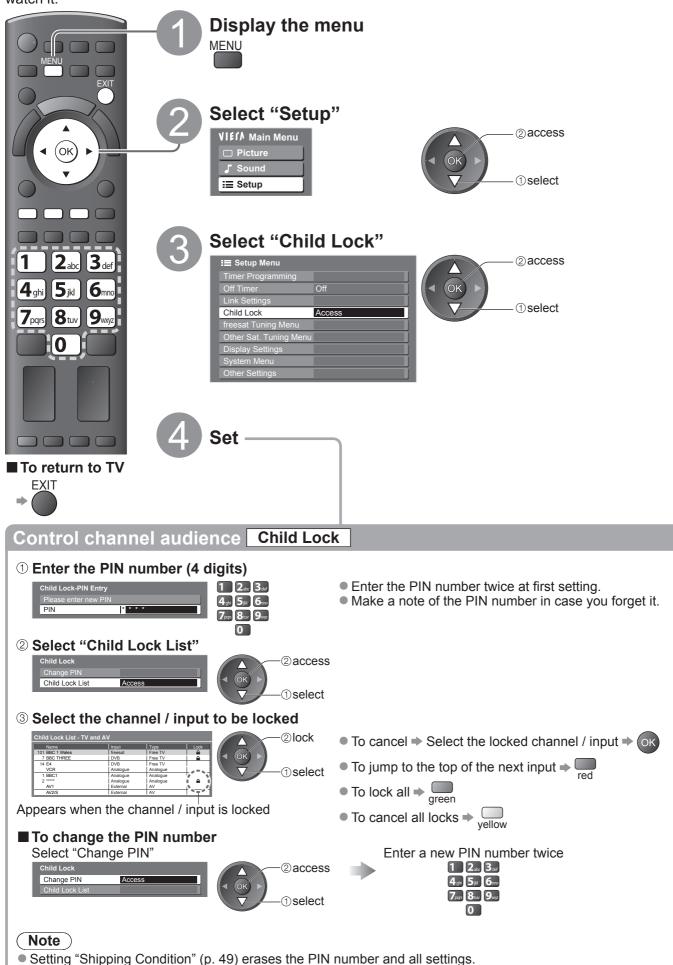


### Tuning and Editing Channels (Other Sat.)



### Child Lock

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

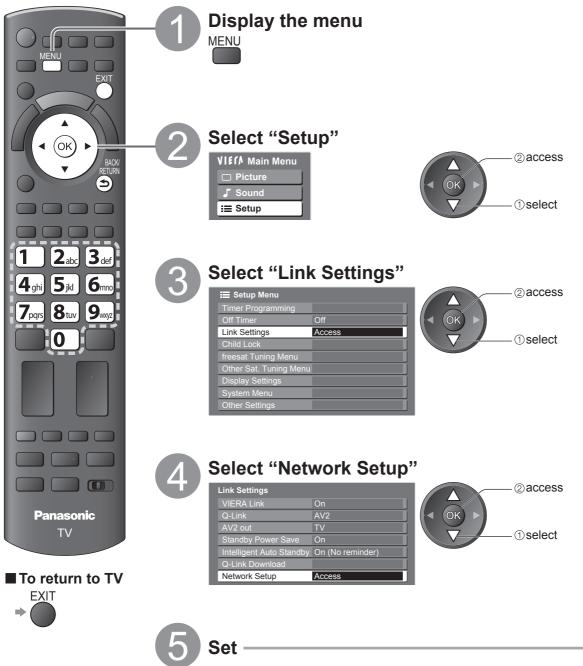


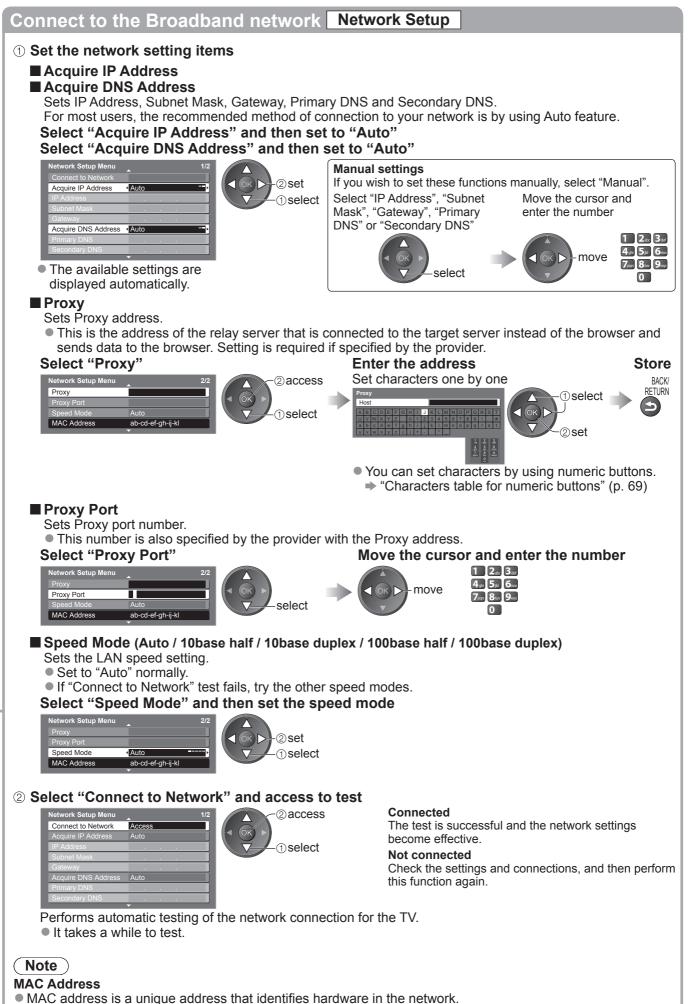
45

# **Network Settings**

Network settings are for applications from broadcasters to enable greater interactivity and added features for freesat services.

To connect to your network 
 p. 66 and p. 71





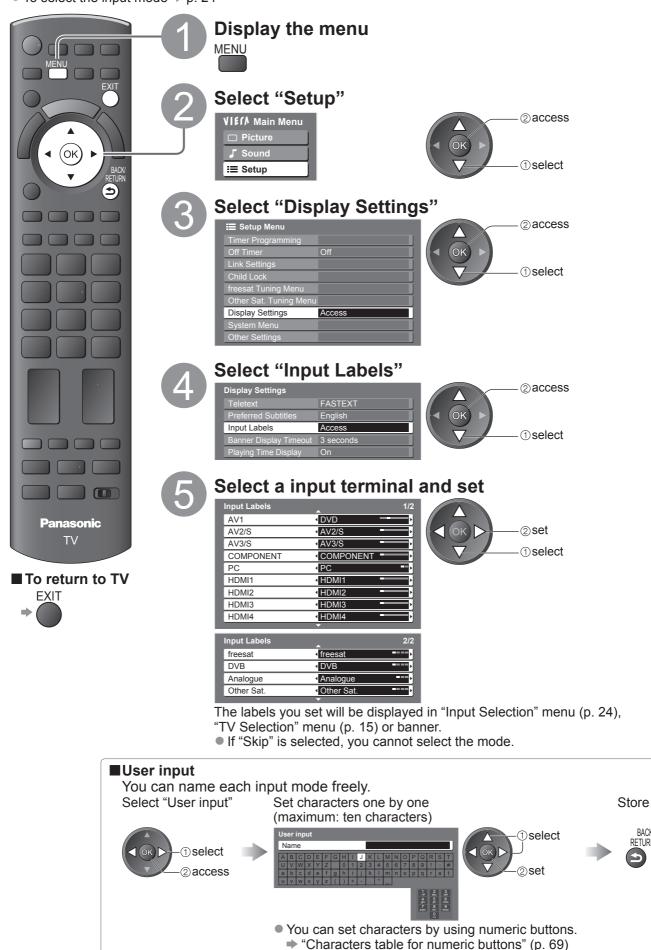
(for information only)

Network Settings

Advanced

### Input Labels

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



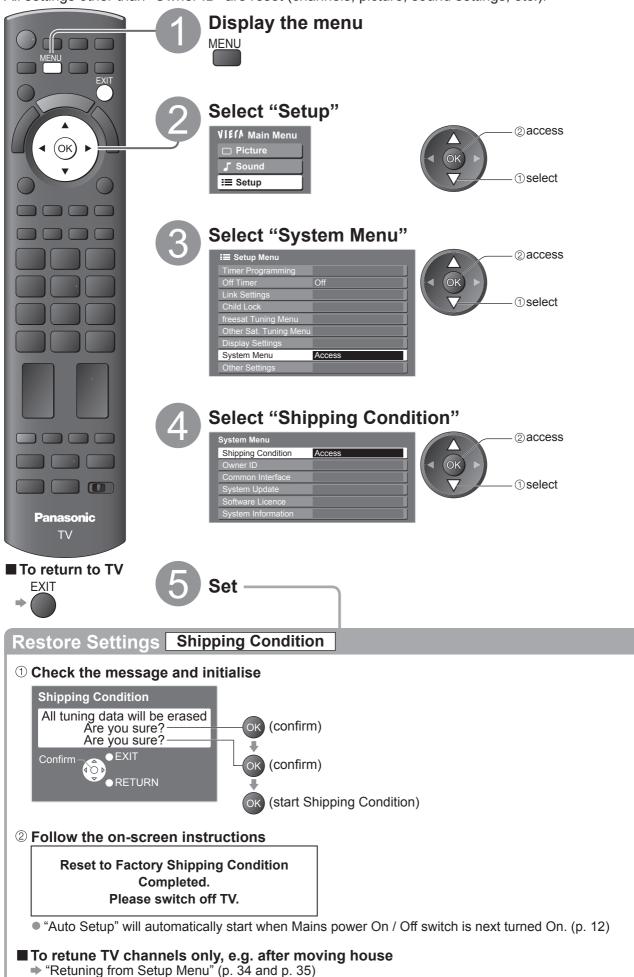
BACK/

RETURN

1

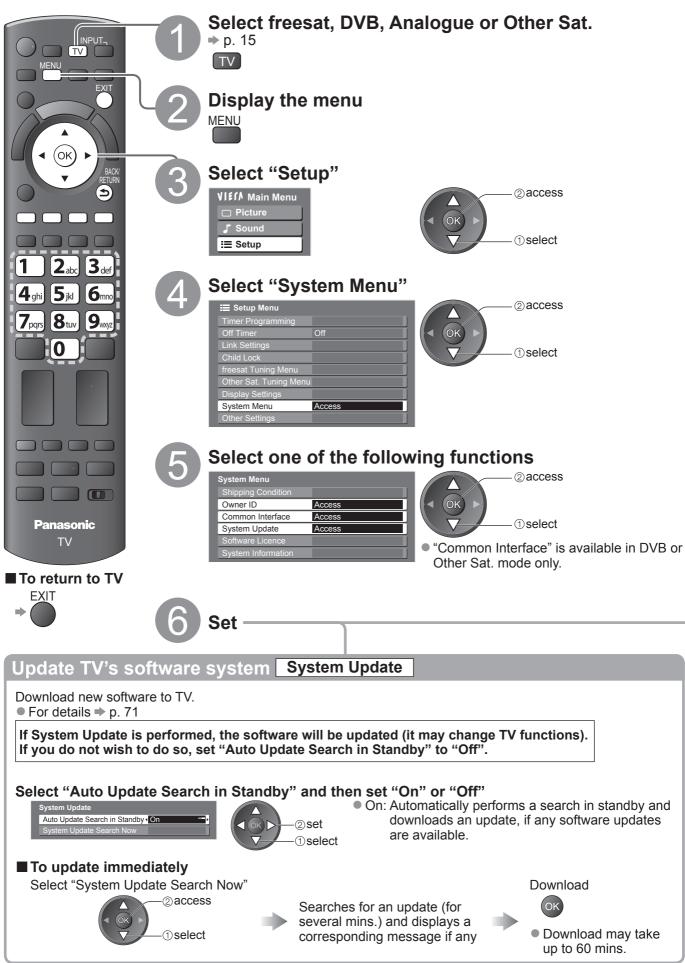
# **Shipping Condition**

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



# **Advanced Settings**

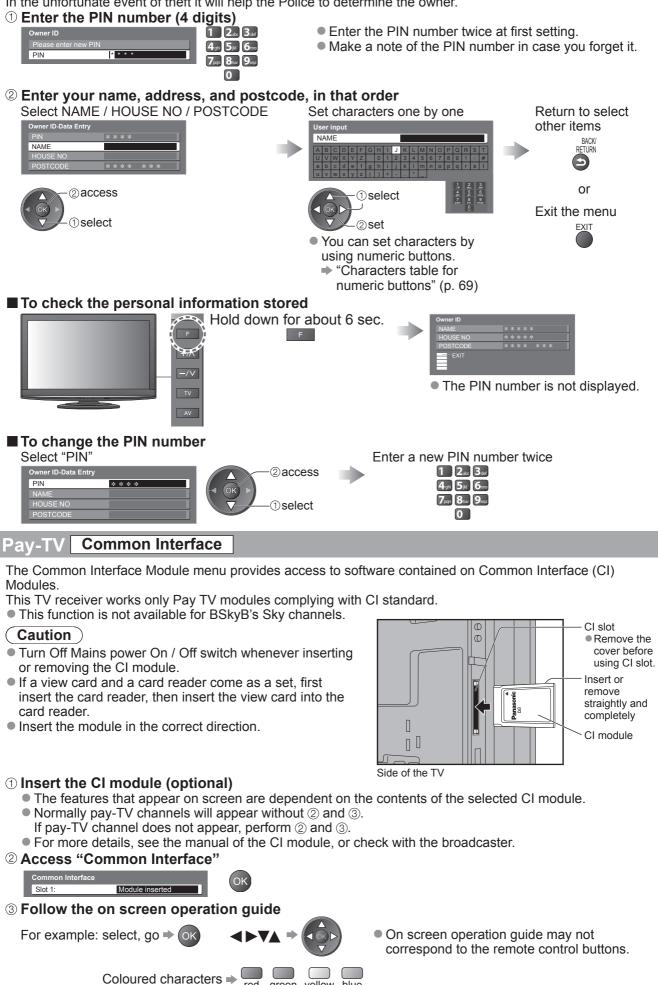
Advanced Settings provide various features.



#### Input owner ID Owner ID

Entry of the PIN number and personal information (your name, address and postcode).

In the unfortunate event of theft it will help the Police to determine the owner.



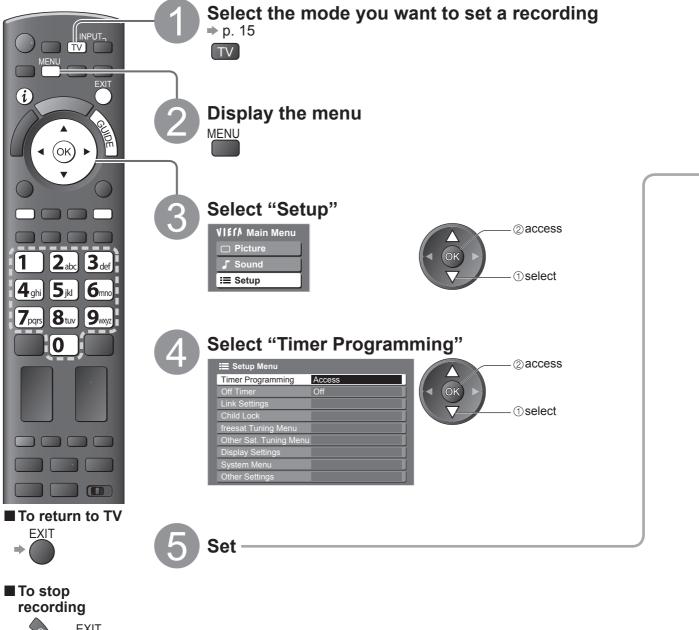
red green yellow blue

# **Recording Controls**

#### Timer Programming from Menu

The Timer programming menu allows you to choose programmes that you wish to record. At the correct time, the TV will switch on and tune to the correct channel (even if the TV is in Standby mode). TV Guide may also be used to set timer programming. (p. 20)

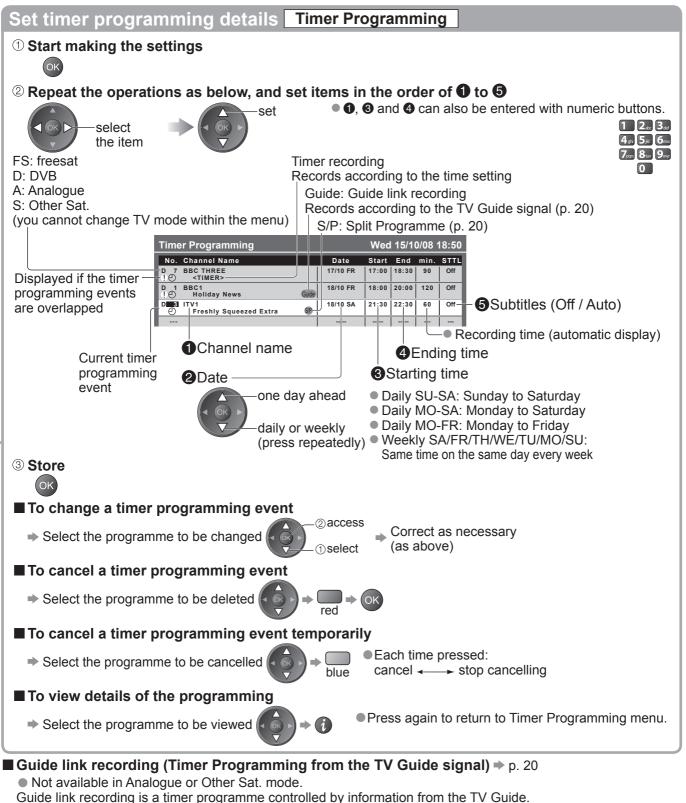
- If the recorder is compatible with Q-Link or similar technologies (p. 60), and setup / connection are done completely (p. 58 and p. 60), you do not need to programme the recorder – the TV will control the recording progress.
- If the recorder is not compatible with Q-Link or similar technologies, set "Q-Link" in the Setup Menu (p. 32) to the connected terminal (AV1 or AV2), and make timer programming of the recorder (Read the manual of the recorder).
- Recording is possible in composite video via SCART only including HD content.
- While recording, you cannot watch any other channels except the one being recorded.





#### Caution

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



Programme start and end times may be changed by broadcasters and sent to the TV for timer programme to follow the change.

Split Programme is a programme which is interrupted by one or more programmes.

Both of the above are subject to signals being sent by broadcasters.

#### ■ Direct TV Recording → p. 60 and p. 62

You can record the current programme to DVD Recorder / VCR immediately using Q-Link or VIERA Link.

#### Note

Check that the Timer LED (Orange) is lit. If not, timer programmes are not active or not stored.

• "!" will identify any timer programming events that have been set and overlap. If this occurs then the first timer programming event will start and finish as programmed. The next timer programming event can then start.

• 2 mins. before the starting time, a reminder message appears.

(To remove the message  $\Rightarrow$  or; To cancel the programming  $\Rightarrow$ 

• A Timer Programming event will automatically change to the desired channel 10 seconds before the start time.

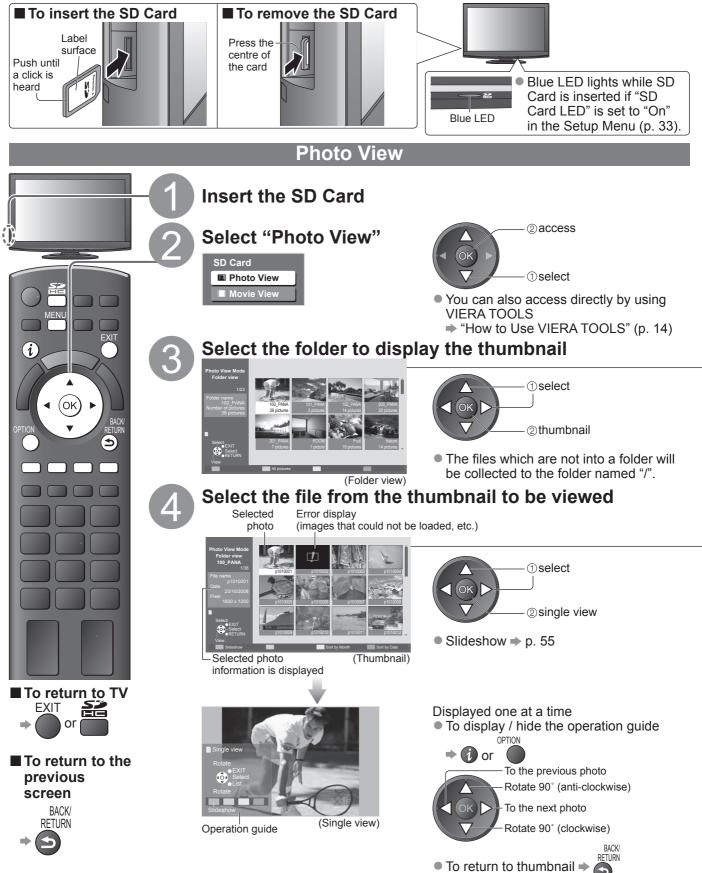
- To stop Timer Programming event directly prior to the start time, it is necessary to stop the recorder manually.
- Timer Programming will be performed even if the TV is in Pause Live TV recording (p. 63). In this case, Pause Live TV recording will be cancelled.

### Viewing from SD Card (VIERA IMAGE VIEWER)

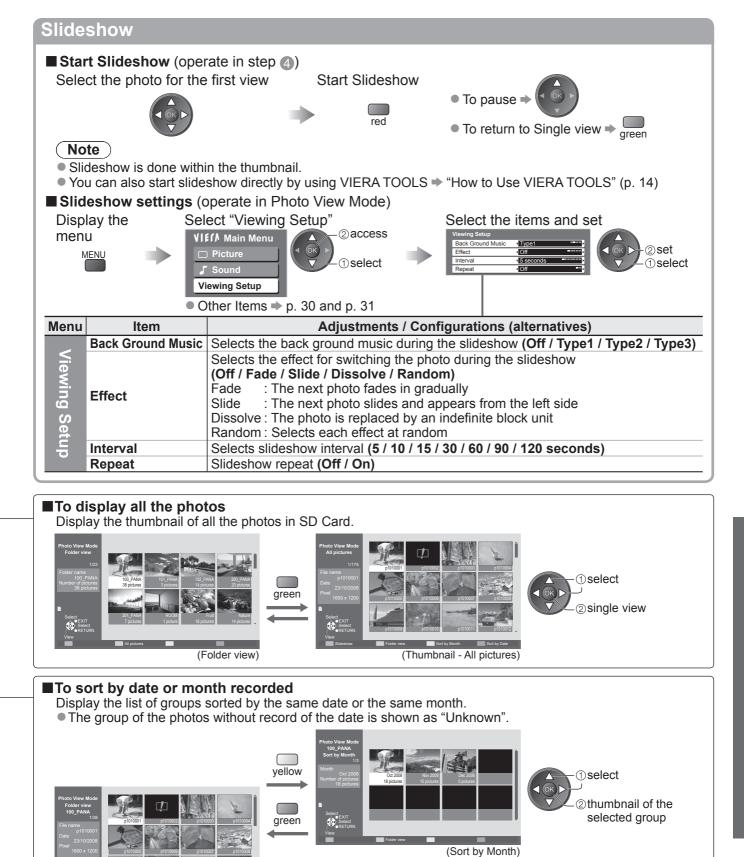
Photo View: Still images recorded by digital cameras will be displayed.

Movie View: Moving pictures recorded by digital video cameras will be played back.

- During the operation, sound signal is output from AV1, AV2, AUDIO OUT and DIGITAL AUDIO OUT terminals. But no video signals are output.
- "Date" shows the date on which the recording was made by the digital camera or digital video camera. The file without record of the date is shown "\*\*/\*\*/\*\*\*\*".
- For details on SD Cards ⇒ p. 69



Advanced



blue

green

(Thumbnail)

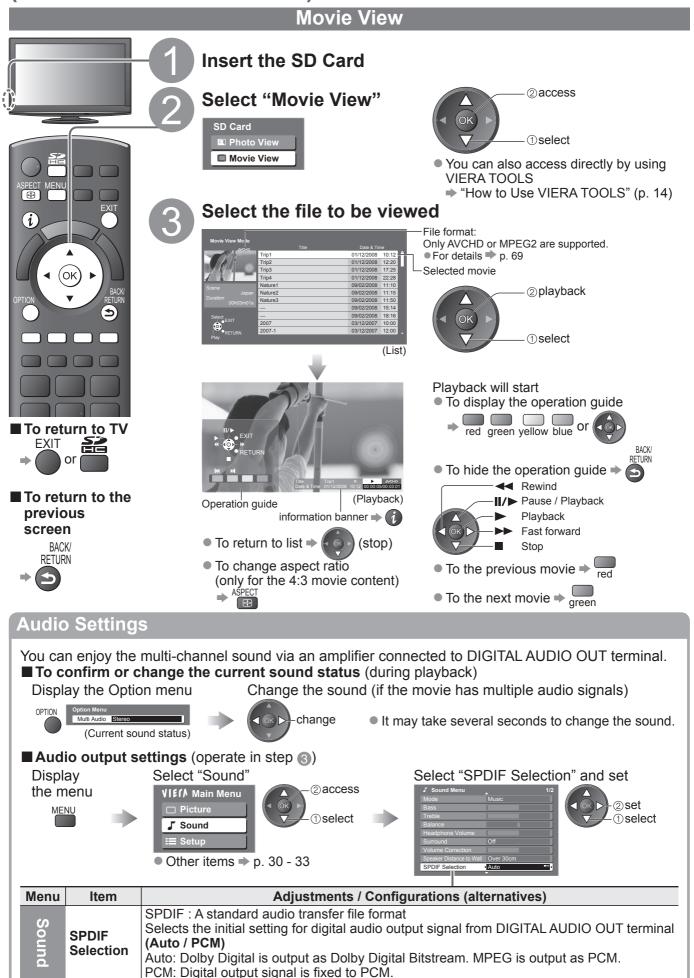
(1) select

(Sort by Date)

2 thumbnail of the

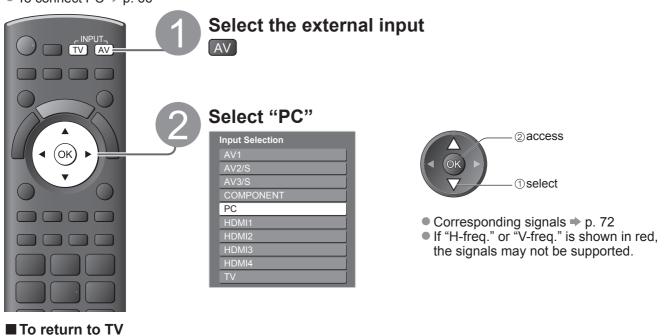
selected group

### Viewing from SD Card (VIERA IMAGE VIEWER)



# **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. 66



### ⇒ TV

#### **PC menu setting** (changed as desired)

• To make settings • "How to Use Menu Functions" 1 to 4 (p. 26)

Menu	lt	em	Adjustments / Configurations (options)
		R-Gain	Adjusts the white balance for red areas
P	A alvana a al	G-Gain	Adjusts the white balance for green areas
Picture	Advanced PC	B-Gain	Adjusts the white balance for blue areas
ur	Settings	Gamma	Switches the gamma curve (2.0 / 2.2 / 2.5)
Ð	U	Reset to Defaults	Press the OK button to reset to the default Advanced PC Settings
		Input Resolution	Switches to a wide view • VGA (640 × 480 pixels), WVGA (852 × 480 pixels), XGA (1,024 × 768 pixels), WXGA (1,280 × 768 pixels, 1,366 × 768 pixels) • Options change depending on signals
		Clock	Set to the minimum level if noise occurs
Ś		H-pos	Adjusts horizontal position
Setup	PC Setup	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 <b>(H &amp; V / On Green)</b> • H & V : by the horizontal and vertical signals from your PC On Green: by the green signal from your PC (if available)
		Reset to Defaults	Press the OK button to reset to the default PC Setup settings

● Other items ➡ p. 30 - 33

#### Note

 For HDMI-compatible PC, possible to connect to HDMI terminals (HDMI1 / HDMI2 / HDMI3 / HDMI4) by using HDMI cable (p. 70).

### Link Functions (Q-Link VIERA Link)

Q-Link connects the TV and DVD Recorder / VCR, and enables easy recording, playback, etc. (p. 60) VIERA Link (HDAVI Control<sup>™</sup>) connects the TV and the equipment with VIERA Link function, and enables easy control, convenient recording, playback, energy saving, creating home theatre, etc., without complicated setting. (p. 61 - 65)

You can use Q-Link and VIERA Link functions together.

• This TV supports "HDAVI Control 4" function. But available features are depending on the connected equipment's version of HDAVI Control. Please refer to the manual of the equipment to confirm the version.

#### Summary of Q-Link and VIERA Link features

#### Q-Link (SCART connection only)

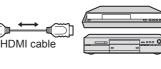
Connected equipment		Connection
Features	with Q-Link function	
Analogue channel download	0	
Easy playback	0	SCART cable DVD Recorder / VCR with Q-Link function
Power on link	0	Use fully wired SCART cable.
Power off link	0	Connect the DVD Recorder / VCR supporting Q-Link
Direct TV Recording	0	to the TV's AV1 or AV2 terminal via a SCART cable.

#### ■ VIERA Link (HDMI connection only)

Connected equipment Features	DIGA Recorder with VIERA Link function	DVD Player / Blu-ray Disc Player with VIERA Link function	HD Video Camera / LUMIX Camera with VIERA Link function
Analogue channel download	_	-	-
Easy playback	0	0	0
Power on link	0	0	0
Power off link	0	0	0
Reduce unnecessary power consumption in standby	○*3	○*3	-
Auto standby for unnecessary equipment	⊖*1	○*1	_
Pause Live TV programme	○*3	-	_
Direct TV Recording	○*3	-	_
Control the menu of the connected equipment by VIERA remote control	○*1	○*1	<b>)*</b> 1
Speaker control	-	_	-

#### Connection





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

• Use fully wired HDMI compliant cable.

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

#### ■ VIERA Link (HDMI and SCART connections)

Connected equipment	DIGA Recorder with	Connection
Features	VIERA Link function	
Analogue channel download	0	HDMI cable
Easy playback	0	DIGA Recorder
Power on link	0	with VIERA Link
Power off link	0	SCART cable function
Reduce unnecessary power consumption in standby	⊖*3	<ul> <li>Use fully wired HDMI compliant cable.</li> <li>Connect the equipment supporting VIERA Link</li> </ul>
Auto standby for unnecessary equipment	O*1	to the TV's HDMI1, HDMI2, HDMI3 or HDMI4
Pause Live TV programme	⊖ <mark>*</mark> 2 *4	terminal via an HDMI cable.
Direct TV Recording	○*2	• Use fully wired SCART cable.
Control the menu of the connected equipment by VIERA remote control	⊖*1	<ul> <li>Connect the equipment supporting VIERA Link to the TV's AV1 or AV2 terminal via a SCART cable.</li> </ul>
Speaker control	_	

#### ■ VIERA Link (HDMI and Audio out connections)

Connected equipment Features	Player theatre with VIERA Link function	Blu-ray Disc theatre with VIERA Link function	Amplifier with VIERA Link function
Analogue channel download	_	_	-
Easy playback	○*5	○*5	_
Power on link	0	0	_
Power off link	0	0	0
Reduce unnecessary power consumption in standby	_	○*3	-
Auto standby for unnecessary equipment	○*1 *6	○*1 *6	○*1
Pause Live TV programme	_	_	_
Direct TV Recording	-	-	_
Control the menu of the connected equipment by VIERA remote control	○*1	○*1	-
Speaker control	0	0	0

To use Amplifier:

HDMI

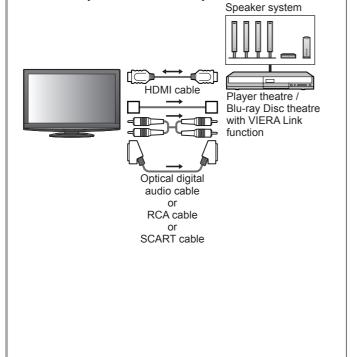
cable

HD Video Camera / LUMIX Camera with

**VIERA** Link function

#### Connection

To use Player theatre / Blu- ray Disc theatre:



- Use fully wired HDMI compliant cable.
- Connect the equipment supporting VIERA Link to the TV's HDMI2, HDMI3 or HDMI4 terminal via an HDMI cable.
- Use fully wired SCART cable.
- Connect the equipment supporting VIERA Link to the TV's AV1 or AV2 terminal via a SCART cable.
- Use any one of the optical digital audio cable, RCA cable and SCART cable for audio output from the TV.
- \*1: Available with the equipment which has "HDAVI Control 2 or later" function.
- \*2: Available with the equipment which has "HDAVI Control 3 or later" function.\*3: Available with the equipment which has "HDAVI Control 4" function.
- \*4: Available with DIGA Recorder which has HDD.
- \*5: while playingback a disc
- \*6: except for watching a disc

#### Note

• VIERA Link features may be available even with other manufacturers' equipment supporting HDMI CEC.

Speaker system

0-

Amplifier with

VIERA Link

DIGA Recorder with VIERA Link function

function

HDMI

cable

HDMI cable

Optical digital

audio cable

or

RCA cable

or

SCART cable

SCART cable

⁄∎⊃=

### Link Functions (Q-Link VIERA Link)

#### **Q-Link**

#### Preparations

Connect the DVD Recorder / VCR with the following logos:

"Q-Link", "NEXTVIEWLINK", "DATA LOGIC", "Easy Link", "Megalogic" or "SMARTLINK"

- Q-Link connection → p. 58
- Use fully wired SCART cable.
- Set up the DVD Recorder / VCR. Read the manual of the recorder.

#### Features available

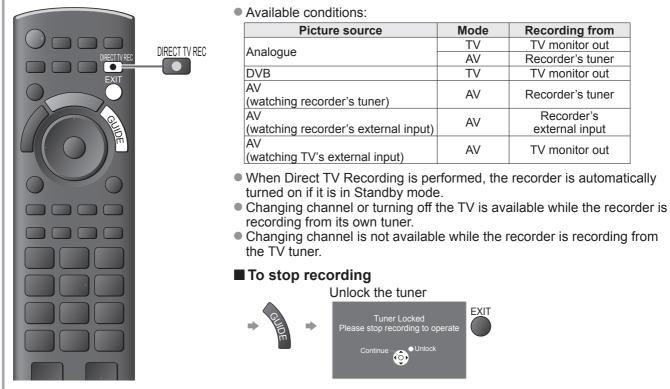
#### Analogue channel download

Analogue channel setting can be downloaded to the recorder with analogue tuner. Digital channel setting is not downloaded.

• To download Analogue channel setting • "Q-Link Download" (p. 32) or "Auto Setup" in Analogue mode (p. 35) or "Auto Setup" - when first using the TV (p. 12)

#### Direct TV Recording - What you see is What you record

Recording the current programme in DVD Recorder / VCR immediately.



#### Power on link and Easy playback

When DVD Recorder / VCR starts playback or direct navigator / function menu for the equipment are activated, the TV is turned on and input mode is switched automatically so that you can view the content. (Only when the TV is in Standby mode.)

#### Power off link

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

- This function will work even if the TV enters standby mode automatically by Off Timer function or auto power standby function.
- "DATA LOGIC" (a trademark of Metz Corporation)
- "Easy Link" (a trademark of Philips Corporation)
- "Megalogic" (a trademark of Grundig Corporation)
- "SMARTLINK" (a trademark of Sony Corporation)

Note

\*Enjoy additional HDMI Inter-Operability with Panasonic products which have "HDAVI Control" function. This TV supports "HDAVI Control 4" function.

Connections to the equipment (DIGA Recorder, HD Video Camera, Player theatre, Amplifier, etc.) with HDMI and SCART cables allow you to interface them automatically (p. 58 and p. 59).

- 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 or refer to the URL: www.panasonic.co.uk

#### ■ Preparations

- Connect the equipment supporting VIERA Link.
- ●VIERA Link connection → p. 58 and p. 59
- 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-CDHG30 (3.0 m)
  - RP-CDHG15 (1.5 m) RP-CDHG50 (5.0 m)
  - RP-CDHG20 (2.0 m)
- •Use fully wired SCART cable.
- Set up the connected equipment. Read the manual of the equipment.
- For optimal recording, the settings of the recorder may need to be changed. For details, read the manual of the recorder.
- ●Set VIERA Link On in the Setup Menu → "VIERA Link" (p. 32)
- Set up the TV
  - After connection, turn the equipment on and then switch the TV on. Select the input mode to HDMI1, HDMI2, HDMI3 or HDMI4 (p. 24), and make sure that an image is displayed correctly.
    - This setup should be done each time when the following conditions occur:
    - · for the first time
    - when adding or reconnecting equipment
    - when changing setup

#### Features available

#### Analogue channel download

Analogue channel setting can be downloaded to the recorder with analogue tuner. Digital channel setting is not downloaded.

 To download Analogue channel setting 
 "Q-Link Download" (p. 32) or "Auto Setup" in Analogue mode (p. 35) or "Auto Setup" - when first using the TV (p. 12)

#### 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

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

#### Power off link

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

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

### Link Functions (Q-Link VIERA Link)

#### Features available

#### Reduce unnecessary power consumption in standby **Standby Power Save**

#### Set Standby Power Save "On" in the Setup Menu to use this function

"Standby Power Save" (p. 32)

The power consumption in Standby mode of the connected equipment is controlled higher or lower in synchronization with the TV On / Off state to reduce the consumption.

When the TV is set to Standby mode, the connected equipment is automatically set to Standby and the power consumption in Standby mode of the connected equipment is automatically minimized.

When the TV is turned on, the connected equipment is still in Standby mode, but the power consumption is increased to make startup time early.

• This function is effective if the connected equipment can change the power consumption in Standby mode and is set to higher consumption.

Auto standby for unnecessary equipment Intelligent Auto Standby

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

"Intelligent Auto Standby" (p. 32)

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

 If you select "On (With reminder)", the on screen message will be displayed to be noticed before working this function.

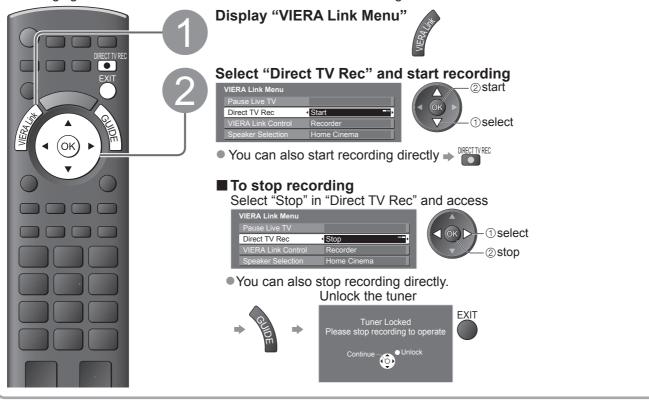
• This function may not work properly depending on the connected equipment. If required, set to "Off".

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

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

Recording the current programme in DIGA Recorder immediately.

- If you connect a variety of recorders including other manufacturers' recorders at the same time, please connect DIGA Recorder to the TV's lower HDMI terminal number. For example, if you use HDMI1 and HDMI2 for two recorders, in this case connect DIGA Recorder to HDMI1.
- If you cannot operate, check the settings and the equipment
   "Summary of Q-Link and VIERA Link features" (p. 58 and p. 59), "Preparations" (p. 61)
- Changing channel or turning off the TV is available while the recorder is recording from its own tuner.
- Changing channel is not available while the recorder is recording from the TV tuner.



#### Features available (Using VIERA Link Menu)

#### Pause Live TV programme Pause Live TV

You can pause the live TV programme and resume later.

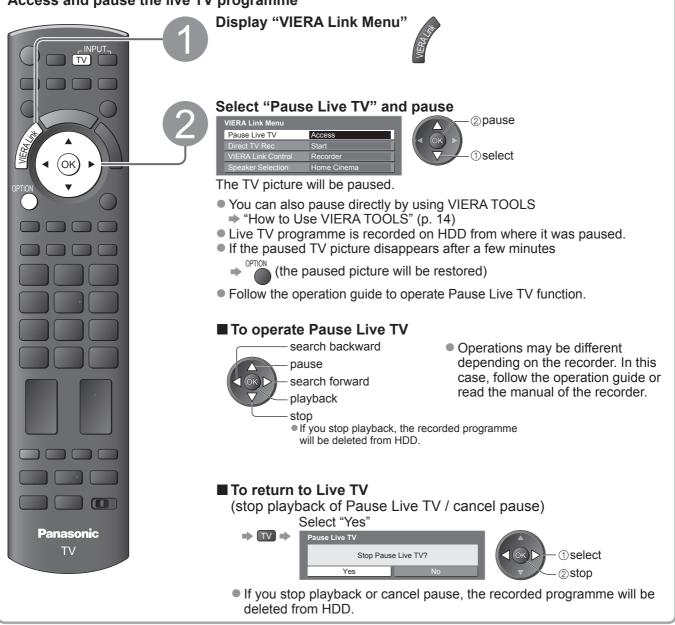
Live TV programme will be recorded on HDD of the connected DIGA Recorder.

This function is available with DIGA Recorder which has HDD.

If you connect a variety of recorders including other manufacturers' recorders at the same time, please connect DIGA Recorder which has HDD to the TV's lower HDMI terminal number. For example, if you use HDMI1 and HDMI2 for two recorders, in this case connect DIGA Recorder which has HDD to HDMI1. If you cannot operate, check the settings and the equipment

"Summary of Q-Link and VIERA Link features" (p. 58 and p. 59), "Preparations" (p. 61)

#### Access and pause the live TV programme



# ● Link Functions (Q-Link / VIERA Link)

### Link Functions (Q-Link VIERA Link)

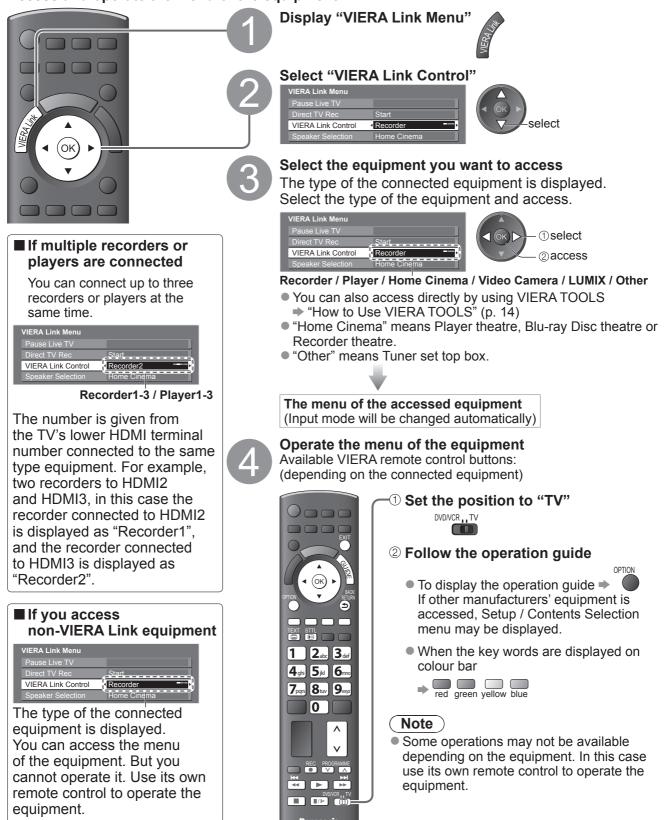
■ Features available (Using VIERA Link Menu)

### Control the menu of the connected equipment by VIERA remote control VIERA Link Control

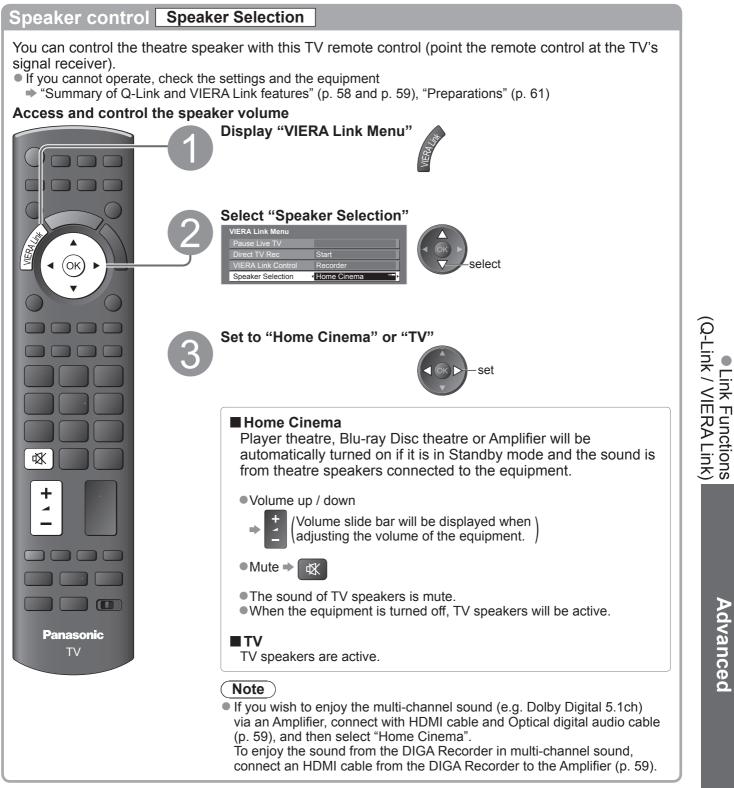
You can control some functions of the connected equipment with this TV remote control (point the remote control at the TV's signal receiver).

- If you cannot operate, check the settings and the equipment
- ◆ "Summary of Q-Link and VIERA Link features" (p. 58 and p. 59), "Preparations" (p. 61)
- For details of the operations for the connected equipment, read the manual of the equipment.

#### Access and operate the menu of the equipment



#### Features available (Using VIERA Link Menu)



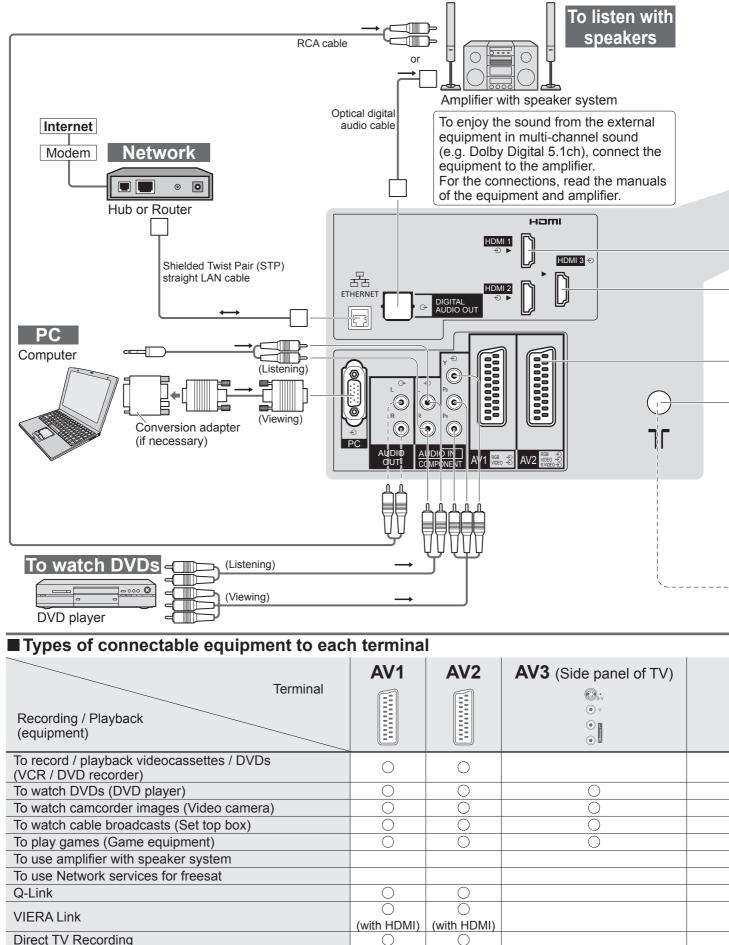
#### Note

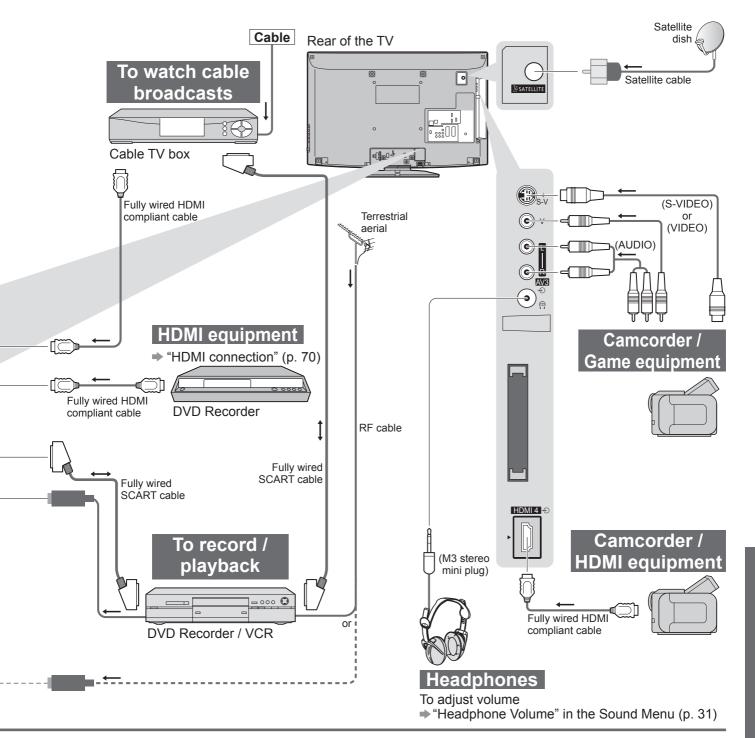
- These functions may not work properly depending on the connected equipment.
- Image or sound may not be available for the first few seconds when Input mode is switched.
- Easy playback may be available by using the remote control for Player theatre. Blu-ray Disc theatre or Amplifier. Read the manual of the equipment.
- "HDAVI Control 4" is the newest standard (current as of December, 2008) 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. 33)

Advanced

### **External Equipment**

These diagrams show our recommendations for connection of your TV to various pieces of equipment. For other connections, consult the instructions for each piece of equipment, the table below, and the specifications (p. 79).





		DIGITAL AUDIO OUT	ETHERNET	ІПСН			
	R			1	2	3	4
0				0	0	0	0
				0	0	0	0
				0			
				0	0	0	0
	0	0					
			0				
				0	0	0	0
				$\bigcirc$	0	0	0

# **Technical Information**

#### **Auto Aspect**

The optimum size and aspect can be chosen automatically, and you can enjoy finer images. (p. 17)

#### Aspect Control Signal

"WIDE" will appear in the top left of the screen if a Widescreen signal (WSS) or a Control signal through SCART / HDMI terminal is found.

The aspect will switch to the appropriate 16:9 or 14:9 widescreen ratio. This function will work in any aspect mode.

			Aspect Control Signal
Input terminal	Input signal format	Widescreen signal (WSS)	Control signal through SCART (pin8) / HDMI terminal
	DVB	0	
RF	PALI	0	
ΓΓ	PAL 525/60 6.0 MHz	_	
	M.NTSC 6.0 MHz	_	
Satellite	freesat, Other Sat.	0	
AV1 (Composite)	PAL	0	0
	PAL 525/60	_	0
AV2 (Composite or S-Video)	M.NTSC	_	0
AV3	NTSC	_	0
	525 (480) / 60i	_	
	525 (480) / 60p	_	
	625 (576) / 50i	0	
COMPONENT	625 (576) / 50p	0	
COMPONENT	750 (720) / 60p	_	
	750 (720) / 50p	_	
	1,125 (1,080) / 60i	_	
	1,125 (1,080) / 50i	_	
	525 (480) / 60i	_	0
	525 (480) / 60p	_	0
	625 (576) / 50i	_	0
HDMI1	625 (576) / 50p	_	0
	750 (720) / 60p	_	0
HDMI2	750 (720) / 50p	_	0
HDMI3	1,125 (1,080) / 60i	_	Ó
HDMI4	1,125 (1,080) / 50i	_	0
	1,125 (1,080) / 60p	_	0
	1,125 (1,080) / 50p	_	Ó
	1,125 (1,080) / 24p	_	Ö

#### Auto mode

Auto mode determines the best aspect ratio to fill the screen. It does this using a four step process (WSS, Control signal through SCART / HDMI terminal, Letterbox detection, or Justify to fill the screen) to determine. This process may take several minutes, depending on the darkness of the image.

Letterbox detection: If black bands at the top and bottom of the screen are detected, Auto mode chooses the best ratio and expands the image to fill the screen.

If no aspect signals are detected, Auto mode enhances the image for optimum viewing pleasure.

#### Note

• The ratio varies depending on the programme, etc. If the ratio is out of the standard 16:9, black bands at the top and bottom of the screen may appear.

• If the screen size looks unusual when a widescreen-recorded programme is played back on a VCR, adjust the tracking of the VCR. Read the manual of the VCR.

#### SD Card

#### Cautions in handling SD Card

- Do not remove the card while the TV is accessing data (this can damage card or TV).
- Do not touch the pins on the back of the card.
- Do not subject the card to a high pressure or impact.
- Insert the card in the correct direction (otherwise, card may be damaged).
- Electrical interference, static electricity, or erroneous operation may damage the data or card.
- Back up the recorded data at regular intervals in case of deteriorated or damaged data or erratic operation of the TV. (Panasonic is not liable for any deterioration or damage of recorded data.)

#### Data format for Card browsing

- Photo: Still images recorded with digital still cameras compatible with JPEG files of DCF\* and EXIF standards Data format - Baseline JPEG (Sub-sampling 4:4:4, 4:2:2 or 4:2:0)
  - Max. number of files 9,999
  - Image resolution 160 × 120 to 10,000,000
- Movie: SD-Video Standard Ver. 1.2 [MPEG-2 (PS format)] and AVCHD Standard compatible files with an audio format that is either MPEG-1/Layer-2 format or Dolby Digital format
   (A medified data with a Demourate be displayed correctly)
  - (A modified data with a PC may not be displayed correctly.)
- Compliant card type (maximum capacity): SDHC Card (32 GB), SD Card (2 GB), miniSD Card (2 GB) (requiring miniSD adapter)
- If miniSD Card is used, insert / remove it together with the adapter.
- Check the latest information on the card type at the following website. (English only) http://panasonic.co.jp/pavc/global/cs/

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

#### Note

- Format the card with the recording equipment.
- The picture may not appear correctly on this TV depending on the recording equipment used.
- Display may take some time when there are many files and folders.
- This function cannot display Motion JPEG and still image not DCF formatted (i.e. TIFF, BMP).
- A data modified with a PC may not be displayed.
- Images imported from a PC must be compatible with EXIF (Exchangeable Image File) 2.0, 2.1, and 2.2.
- Partly degraded files might be displayed at a reduced resolution.
- All ".JPG" extension datas in the card will be read in Photo View Mode.
- The folder and file names may be different depending on the digital camera used.
- Do not use two-byte characters or other special codes.
- The card may become unusable with this TV if the file or folder names are changed.

#### Characters table for numeric buttons

You can enter characters by using numeric buttons for free input items.

- Press the numeric button repeatedly until you reach the desired character.
- **1 2 3 •** The character is set automatically if you leave for one second.
- **4 5 6** You can also set the character by pressing the OK button or
- **7. 8. 9.** other numeric buttons within one second.



#### Characters table:

0

Characters table.											
The number of times to press Numeric buttons	1	2	3	4	5	6	7	8	9	10	11
1		1	!	:	#	+	-	*	_	(	)
2 <sub>abc</sub>	а	b	с	2	A	В	С				
<b>3</b> def	d	е	f	3	D	E	F				
4 ghi	g	h	i	4	G	Н	I				
<b>5</b> ja <sup>r</sup>	j	k	I	5	J	К	L				
<b>6</b> mno	m	n	0	6	М	N	0				
7pqrs	р	q	r	s	7	Р	Q	R	S		
8 tuv	t	u	v	8	Т	U	V				
<b>9</b> wxxyz	w	х	У	z	9	W	Х	Y	Z		
0	Space	0									

FAQs, etc.

Technical Information

# **Technical Information**

#### **HDMI** connection

HDMI (high-definition multimedia interface) is the world's first complete digital consumer AV interface complying with a non-compression standard.

HDMI allows you to enjoy high-definition digital images and high-quality sound by connecting the TV and the equipment.

HDMI-compatible equipment (\*1) with an HDMI or DVI output terminal, such as a 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. 66).

#### Applicable HDMI features

- Input audio signal : 2ch Linear PCM (sampling frequencies 48 kHz, 44.1 kHz, 32 kHz)
- Input video signal : 480i, 480p, 576i, 576p, 720p, 1080i and 1080p
  - "Input signal that can be displayed" (p. 72)

Match the output setting of the digital equipment.

Input PC signal : → "Input signal that can be displayed" (p. 72)

- Match the output setting of the PC.
- VIERA Link (HDAVI Control 4): → "VIERA Link" (p. 61)
- x.v.Colour™

#### DVI connection

If the external equipment has only a DVI output, connect to the HDMI1 / 4 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 / HDMI4: use AV3 audio terminals).

#### Note

- Audio settings can be made on the "HDMI1 / 4 Input" in the Sound Menu. (p. 31)
- HDMI2 and HDMI3 terminals are for digital audio signal only.
- If the connected equipment has an aspect adjustment function, set the aspect ratio to "16:9".
- These HDMI connectors are "type A".
- These HDMI connectors are compatible with HDCP (High-Bandwidth Digital Content Protection) copyright protection.
- An equipment having no digital output terminal may be connected to the input terminal of either "COMPONENT", "S-VIDEO", or "VIDEO" to receive analogue signals.
- This TV incorporates HDMI<sup>™</sup> (Version 1.3a with x.v.Colour<sup>™</sup>) technology.

(\*1): The HDMI logo is displayed on HDMI-compliant equipment.

(\*2): Enquire at your local digital equipment retailer shop.

#### 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

- 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.
- To listen to PC sound from the TV, connect the audio cable to COMPONENT-AUDIO terminals. (p. 66)
- When using PC, set the colour display quality of PC to the highest position.
- For details of the applicable PC signals
- "Input signal that can be displayed" (p. 72)

Max. display resolution

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

D-sub 15-pin connector signal

6	Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
	1	R	6	GND (Ground)	1	NC (not connected)
	2	G	$\bigcirc$	GND (Ground)	(12)	NC (not connected)
(3) - (13)	3	В	8	GND (Ground)	(13)	HD
$a^{(9)}$	4	NC (not connected)	9	NC (not connected)	(14)	VD
$5^{0}$	5	GND (Ground)	10	GND (Ground)	(15)	NC (not connected)

#### Updating the TV software

From time to time, a new version of software may become available for download to enhance the performance or operations of the TV.

#### ■ To download from a notification banner

A notification banner will appear when you search for a new version software by using the "System Update Search Now" function (p. 50).

In freesat mode, a notification banner will appear when the TV Guide is exited if a new available software is found.

In DVB mode, a notification banner will appear when one of the BBC

channels is tuned if a new available software is found.

To start downloading press the OK button, this may take up to 60 minutes to complete.

To ignore the new software press the EXIT button.

You can update later automatically when the TV is in Standby mode

"To download any new software automatically" (see below)

If you do not wish to update, set "Auto Update Search in Standby" to "Off", but the notification banner will keep appearing during the period of new software availability, usually 2 to 3 days.

#### To download any new software automatically

Ensure that the "Auto Update Search in Standby" function in the System Update menu is set to "On" (p. 50). The TV will then download new software automatically at night if it is left in standby without any timer programming in progress.

#### Note

• During software download and update, DO NOT switch Off the TV.

#### Network connection (ETHERNET)

If you do not have a Broadband network service, please consult your retailer for assistance.

About connections, see "External Equipment" (p. 66).

#### Preparations

- Confirm the terms and conditions of the contracts with your Internet Service Provider (ISP) or telecommunications company.
- Set up and connect any equipment required for the network environment.
- Ensure that the Broadband routers and hubs are compatible with 10BASE-T / 100BASE-TX.
- If you use the equipment compatible only with 100BASE-TX, category 5 straight LAN cables (STP) are required.
- Read the manual of the network equipment, too.

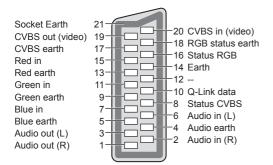
#### Note

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

#### SCART, S-VIDEO and HDMI terminal information

#### AV1 SCART terminal

(RGB, VIDEO, Q-Link) Suitable inputs for AV1 include RGB (Red / Green / Blue).

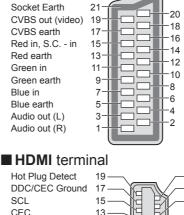


#### AV3 S-VIDEO 4 pin terminal



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

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



9

7

5

3

1

TMDS Clock Shield 11

TMDS Data1 Shield

TMDS Data0-

TMDS Data0+

TMDS Data2-

TMDS Data2+

20 CVBS in (video) 18 RGB status earth 16 Status RGB 14 Earth 12 --10 Q-Link data 8 Status CVBS 6 Audio in (L) 4 Audio earth 2 Audio in (R)



Technical Information

FAQs, etc.

Found new software version \*\*\*. Press OK to start update (may take 40 mins) or Press EXIT to ignore and you can update when TV is in standby.

# **Technical Information**

#### Input signal that can be displayed

#### COMPONENT (Y, PB, PR), HDMI

#### \* Mark: Applicable input signal

Signal name	COMPONENT	HDMI
525 (480) / 60i	*	*
525 (480) / 60p	*	*
625 (576) / 50i	*	*
625 (576) / 50p	*	*
750 (720) / 60p	*	*
750 (720) / 50p	*	*
1,125 (1,080) / 60i	*	*
1,125 (1,080) / 50i	*	*
1,125 (1,080) / 60p		*
1,125 (1,080) / 50p		*
1,125 (1,080) / 24p		*

#### **PC** (from D-sub 15P)

#### Applicable input signal for PC is basically compatible to VESA standard timing.

Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)
640 × 400 @70 Hz	31.47	70.07
640 × 480 @60 Hz	31.47	59.94
640 × 480 @75 Hz	37.50	75.00
800 × 600 @60 Hz	37.88	60.32
800 × 600 @75 Hz	46.88	75.00
800 × 600 @85 Hz	53.67	85.06
852 × 480 @60 Hz	31.44	59.89
1,024 × 768 @60 Hz	48.36	60.00
1,024 × 768 @70 Hz	56.48	70.07
1,024 × 768 @75 Hz	60.02	75.03
1,024 × 768 @85 Hz	68.68	85.00
1,280 × 768 @60 Hz	47.70	60.00
1,280 × 1,024 @60 Hz	63.98	60.02
1,366 × 768 @60 Hz	48.39	60.04
Macintosh13" (640 × 480)	35.00	66.67
Macintosh16" (832 × 624)	49.73	74.55
Macintosh21" (1,152 × 870)	68.68	75.06

#### **PC** (from HDMI terminal)

#### Applicable input signal for PC is basically compatible to HDMI standard timing.

Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)
640 × 480 @60 Hz	31.47	60.00
750 (720) / 60p	45.00	60.00
1,125 (1,080) / 60p	67.50	60.00

Note

• Signals other than above may not be displayed properly.

• The above signals are reformatted for optimal viewing on your display.

 PC signal is magnified or compressed for display, so that it may not be possible to show fine detail with sufficient clarity.

# FAQs

Before requesting service or assistance, please follow these simple guides to resolve the problem. If the problem still persists, please contact your local Panasonic dealer or Panasonic Customer Care Centre for assistance. For details (p. 80)

# White spots or shadow images (noise)





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

### Neither image nor sound is produced

- Is the TV in AV mode?
- Check the correct AV input mode is selected.
- Check the mains lead is plugged into the socket outlet.
- Has the TV been turned On?
- Check the Picture Menu (p. 30) 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 ratio to fill the screen. (p. 68)
- Press the ASPECT button if you would like to change the aspect ratio manually (p. 17).

### S-Video / black and white picture

 Check that the output of the external equipment matches the input of the TV.
 If the output of the external equipment is set to S-Video, the TV must also be set to S-Video (p. 24).

### No programmes shown on TV Guide



- Reset channels. (p. 34 and p. 35)
- Check the digital transmitter.
- Adjust the direction of the dish or aerial to another transmitter installed nearby.
- Check the analogue broadcast.
   If the image quality is poor, check the aerial and consult your nearest dealer.

# freesat Auto Setup cannot be done completely

- Check connections and dish alignment. The dish needs to be pointing at Astra 2 at 28.2° East, and Eurobird 1 at 28.5° East.
- If the problem persists, consult your freesat registered retailer or call Freesat (UK) Ltd on 0844 881 6700 or visit www.freesat.co.uk

### Remains channel number, input mode, etc. on the TV screen -I.e. EC/AV1

 Press the *i* button to clear these. Press again to redisplay.

### Q-Link function does not work

• Confirm SCART cable and connection. Also set "AV1 / AV2 out" in the Setup Menu (p. 32).

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

- Confirm the connection. (p. 58 and p. 59)
- Turn the connected equipment on and then switch the TV on. (p. 61)

### Recording does not start immediately

- Check the settings of the recorder. For details, read the manual of the recorder.
- Timer Programming might be performed.

## FAQs

	Problem		Actions
	Chaotic image, noisy		<ul> <li>Set "P-NR" in the Picture Menu (to remove noise). (p. 30)</li> <li>Check nearby electrical products (fluorescent lamp, DECT phones, mobile phones, microwave, etc.).</li> </ul>
Screen	No image can be displayed		<ul> <li>Is "Colour" or "Contrast" in the Picture Menu set to the minimum? (p. 30)</li> <li>Please also refer to "Neither image nor sound is produced" (p. 73).</li> </ul>
	Blurry or distorted image (no sound or low volume)		<ul> <li>Reset channels. (p. 34 and p. 35)</li> <li>Please also refer to "Neither image nor sound is produced" (p. 73).</li> </ul>
	Unusual image is displayed		<ul> <li>Turn the TV Off with Mains power On / Off switch, then turn it On again.</li> <li>If the problem persists, perform "Shipping Condition" (p. 49).</li> </ul>
So	No sound is produced		<ul> <li>Is "Sound mute" active? (p. 9)</li> <li>Is the volume set to the minimum?</li> <li>Please also refer to "Neither image nor sound is produced" (p. 73).</li> </ul>
Sound	Sound level is low or sound is distorted		<ul> <li>Sound signal reception may be deteriorated.</li> <li>Set "NICAM" (p. 31) in the Sound Menu to "Off". (Analogue only)</li> <li>Please also refer to "Neither image nor sound is produced" (p. 73).</li> </ul>
	<ul> <li>Due to the digital reception technologies involved, quality of the digital signals may be relatively low in some cases, despite good reception of analogue channels.</li> </ul>		
Digi	Interference or frozen / disappearing image in freesat, DVB or Other Sat. mode		<ul> <li>Check "Signal Condition" (p. 37, 38 and 42). If "Signal Quality" or "Signal Strength" are displayed in red, the signal is weak.</li> <li>Check aerial or dish.</li> <li>Check your postcode area is able to receive the Freeview channels at www.freeview.co.uk</li> <li>Digital signals may be relatively low to prevent interference with analogue signals for the period of Digital Switchover. Check the plan of Digital Switchover at www.digitaluk.co.uk</li> <li>Weather conditions will affect signal reception (heavy rain, snow, etc.), in particular in poor reception areas. Even during good weather the high pressure can cause poor reception of some channels.</li> <li>Turn the TV off with the Mains power On / Off switch, then turn it On again.</li> <li>Reset channels. (p. 34 and p. 35)</li> </ul>
Digital Channel	Some channels cannot be tuned		Check the aerial or dish.
nel	Cannot find a channel you have previously watched		<ul> <li>The channel may broadcast for part of the day.</li> <li>Check the channel in the TV Guide. (p. 18 and p. 19)</li> <li>Channel position numbers may be changed by broadcasters.</li> <li>Reset channels. (p. 34 and p. 35)</li> </ul>
	In freesat mode, not possible to adjust the volume and set Speakers / Headphones for Audio Description sound track (unlike DVB)		<ul> <li>This is due to broadcast limitations. (p. 31)</li> </ul>
	Some freesat channels do not produce the sound in English by default		• This is due to broadcasts even if they have English sound. In this case, press the OPTION button and set "Multi Audio" (p. 17). Please note that this setting cannot be memorized if the TV is turned Off with Mains power On / Off switch.

	Problem	Actions
HDMI	Sound is unusual	<ul> <li>Set the sound setting of the connected equipment to "2ch L.PCM".</li> <li>Check the "HDMI1 / 4 Input" setting in the Sound Menu. (p. 31)</li> <li>If digital sound connection has a problem, select analogue sound connection. (p. 70)</li> </ul>
	Pictures from external equipment are unusual when the equipment is connected via HDMI	<ul> <li>Check the HDMI cable is connected properly. (p. 66)</li> <li>Turn the connected equipment on and then switch the TV on. (p. 61)</li> <li>Check an input signal from the equipment. (p. 72)</li> <li>Use an equipment compliant with EIA/CEA-861/861B.</li> </ul>
Other	The TV does not switch On	<ul> <li>Press and hold the standby On / Off switch on the remote control for about 1 second if Power LED is red.</li> <li>Check the mains lead is plugged into the socket outlet.</li> <li>The fuse in the mains plug may have blown. Replace it with one of an identical rating (p. 4).</li> </ul>
	The TV goes into "Standby mode"	<ul> <li>Off Timer function is activated.</li> <li>The TV enters "Standby mode" about 30 mins. after analogue broadcasting ends.</li> </ul>
	The remote control does not work or is intermittent	<ul> <li>Are the batteries installed correctly? (p. 6)</li> <li>Has the TV been switched On?</li> <li>The batteries may be running low. Replace them.</li> <li>Point the remote control directly at the front of the TV (within a 30 degree angle of the front of the TV).</li> <li>Situate the TV away from sunshine or other sources of bright light not to shine on the TV's remote control signal receiver.</li> </ul>
	There may be red spots, blue spots, green spots and black spots on the screen	<ul> <li>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.</li> </ul>
	The LCD panel moves slightly when it is pushed with a finger Clattered sound might be heard	<ul> <li>There is some flexibility around the panel to prevent damage to the panel.</li> <li>The panel might move slightly when it is pushed with a finger, and clattered sound might be heard. This is not a malfunction.</li> </ul>
	An error message appears	<ul> <li>Follow the message's instructions.</li> <li>If the problem persists, contact the authorized Service Centre.</li> </ul>

### On screen messages

Message	Meaning / Action
All tuning data will be erased	<ul> <li>"Shipping Condition" will erase all tuning data (p. 49).</li> </ul>
Are you sure ?	Confirm correct operation.
Are you sure you want to delete this timer ? Press OK to delete timer Press RETURN to return	Confirm correct operation.
Bad signal	<ul> <li>The signal is weak. Check the aerial is plugged in properly. It may be necessary to have an aerial installer check the signal and aerial alignment.</li> <li>Reset channels. (p. 34 and p. 35)</li> </ul>
Child Lock is active ! Press OK to enter PIN.	• The selected channel is locked in Child Lock (p. 45). You must enter the PIN number before the channel will be displayed.
Ethernet cable not connected	<ul> <li>Check the connection of the LAN cable. If you use a hub, also check the light on the hub is lit.</li> <li>The LAN cable might be defective.</li> </ul>
Faulty dish	<ul> <li>The satellite cable might be short-circuited or there might be connection problems of the cable. Check the cable and connection and then turn the TV Off with the Mains power On / Off switch, and turn it On again.</li> <li>If the message still persists, it may be necessary to have a dish installer check the dish and cable.</li> </ul>
Feature not available	<ul> <li>It is not possible to record from COMPONENT, HDMI or PC. Connect the recorder to the TV using a fully wired SCART cable for recording from the TV tuner.</li> <li>Confirm Q-Link or VIERA Link settings (p. 58 - 61).</li> </ul>
Found new software version ***. Press OK to start update (may take 40 mins) or Press EXIT to ignore and you can update when TV is in standby.	<ul> <li>There is a new software available.</li> </ul>
Gateway does not answer. Please confirm connection and setting of router.	<ul> <li>A connection failure has occurred and the gateway is not responding. Check the settings and connections of the router.</li> <li>Turn the TV and the router Off with the Mains power On / Off switch, and turn them On again.</li> </ul>
Invalid operation - Please check settings and connections.	Check the Q-Link or VIERA Link connection and setting (p. 58 - 61).
Invalid system time. Please exit !	• Cannot get the time information. Check the connection of the RF cable.
IP address conflict	<ul> <li>Duplicate IP address has been detected. Check the IP address of other equipment such as computers, routers and ensure that there are no duplicate IP address.</li> </ul>
IP address not set	<ul> <li>An IP address is required to use interactive content through the internet. Enter an IP address.</li> </ul>
Manual IP setting not correct	<ul> <li>The system is unable to set the IP address. Consult your Internet Service Provider or telecommunications company.</li> </ul>
Max. number of Timers already set !	• The maximum number of timer programming events is 15.
New channels found! Press OK to update channel list Press EXIT to ignore.	<ul> <li>There may be new channels available.</li> <li>This message will appear each time a change is made by the broadcasters. This message can be deactivated by setting "New Channel Message" to Off in "DVB Tuning Menu".</li> <li>Selecting OK will perform "Update Channel List".</li> </ul>
No channel found. Please check aerial or local signal availability. Press OK to start Auto Setup.	<ul> <li>Please follow the message.</li> <li>If it is still failed, consult your local Panasonic dealer.</li> </ul>
No module inserted	Check the CI module inserted completely (p. 51).
No recording - Check media	• The tape or disc may be "write protected", missing or damaged.
No recording - Already recording	The equipment may already be recording.
No recording - Unknown reason	<ul> <li>The recording may not be performed. Check the equipment.</li> <li>Disc or tape may be full.</li> </ul>
No service	<ul> <li>The broadcaster has stopped the service. Check the channel in the TV Guide. (p. 18 and p. 19)</li> </ul>
No signal	• The TV cannot detect the signal. Check the connection of the RF cable.

Message	Meaning / Action
PIN incorrect!	• The PIN number you entered is wrong.
Please check settings and connections on HDMI devices.	• Communication error in VIERA Link function (p. 61).
Please enter a frequency between 10700 and 12750 MHz	• The frequency you entered is out of range. Consult the received satellite broadcasting company. (p. 42)
Please wait.	• A function is in progress.
Recording this channel now	• The recorder is recording the programme from its own tuner. You can turn the TV off and leave the equipment recording in the normal way.
Reset to Factory Shipping Condition Completed. Please switch off TV.	<ul> <li>"Auto Setup" will automatically start when Mains power On / Off switch is next turned On. (p. 12)</li> </ul>
Sending Preset Data Please wait!	<ul> <li>Q-Link or VIERA Link channel download is in progress.</li> </ul>
Software successfully updated. Press EXIT to continue.	• The software updating is finished.
Software update failed. Please try again later. Press EXIT to continue.	<ul> <li>Perform "System Update Search Now" in System Update (p. 50). If this is still unsuccessful, there may not be any new software available.</li> </ul>
This timer will not follow the TV Guide information Press OK to continue, RETURN to restore original timer	<ul> <li>If you edit the start time or end time of Guide link recording more than 10 minutes, it will no longer be performed as Guide link recording. The recording will be performed according to the time setting.</li> </ul>
Timer already expired !	• Starting time in Timer Programming is already past. Set correctly (p. 53).
Timer Event Due to Start DVB 1: BBC1 has been programmed for recording at **:**	<ul> <li>This message will appear 2 minutes before timer programming event due to start.</li> </ul>
Timer incorrect !	Set Start and End times in Timer Programming correctly (p. 53).
Timer overlap Press OK to keep, RETURN to edit	• Timer programming events are overlapped. If you press the OK button, the first timer programming event will start and finish, the next timer programming event can then start.
Tuner Locked Please stop recording to operate	<ul> <li>If you want to unlock, cancel Direct TV Recording (p. 60 and p. 62) or Timer Programming (p. 53).</li> </ul>
Unable to acquire IP address	<ul> <li>Unable to obtain the IP address. Check the settings and connections of the router.</li> </ul>
Unable to download, please check equipment	• The tape or disc is active. Stop the equipment and try again.
■SD Card	
Cannot read file	<ul> <li>The file is broken or unreadable.</li> <li>The TV does not support the format. (For the applicable formats and data ➡ p. 69)</li> </ul>
No SD card inserted	Confirm SD Card is inserted correctly.
No valid file to play	• The card has no data.
Over 9999 pictures found (max. is 9999)	<ul> <li>Maximum valid number of photos is 9,999.</li> </ul>
Please confirm the SD card is OK	The inserted SD Card has a problem.
This operation is not possible	<ul> <li>Your operation is not available.</li> </ul>

# Glossary

#### 

Digital Video Broadcasting

- - Digital Versatile Disc
- Digital Visual Interface
- **EPG**

Electronic Programme Guide

HDMI

High-Definition Multimedia Interface

MAC Address

Media Access Control Address

### Licence

■ NTSC

National Television System Committee One of the television signals used in USA, etc.

#### RF

Radio Frequency - Signal received from terrestrial aerial

RGB / S-Video / Video Choose between these three video formats depending on personal preference and equipment requirement (RGB - Red, Green and Blue)

#### SCART

21 pin connection used for video, audio and switching signals (Also known as Euro SCART and Peritel)

- Shop viewing environment Shop viewing environment is the demonstration mode to explain main features of this TV in an easy understandable way. This mode will work if you select "Shop" in "Auto Setup" (p. 12).

Video Cassette Recorder

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### **Specifications**

			TX-L32G10B TX-L37G10B			
Pow	er Source		AC 220-240 V, 50 / 60 Hz			
Pow	er Consumpt	tion	138 W 161 W			
Powe	er Consumpt	tion in	0.3 W (Without monitor out recording)			
	dby mode		29 W (With monitor out recording)			
Display panel	Aspect Rati	0	16:9			
Displa panel	Visible scre	on sizo	80 cm (diagonal) 94 cm (diagonal)			
,≞ lay	VISIBle Scre	ensize	697 mm (W) × 392 mm (H) 819 mm (W) × 460 mm (H)			
	Number of	oixels	2,073,600 (1,920 (W) × 1,080 (H))			
So	Speaker		160 mm × 42 mm × 2 pcs, 8 Ω			
Sound	Audio Outp	ut	20 W (10 W + 10 W), 10% THD			
bſ	Headphone	s	M3 (3.5 mm) stereo mini Jack × 1			
PC signals			VGA, SVGA, WVGA, XGA SXGA, WXGA (compressed) Horizontal scanning frequency 31 - 69 kHz Vertical scanning frequency 59 - 86 Hz			
Receiving Systems / Band name		ns /	Vertical scanning frequency 59 - 86 HZ         DVB-S / S2       : freesat services via Satellite dish input.         (freesat (Other Sat.)       : Receiver frequency range - 950 MHz to 2,150 MHz         LNB Power and Polarisation - Vertical: +13 V       Horizontal: +18 V         Current: Max. 500 mA (overload protection)       22 kHz Tone - Frequency: 22 kHz ± 2 kHz         Amplitude: 0.6 V ± 0.2 V       Symbol Rate - Max. 30 MS/s         FEC Mode - 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10       Demodulation - QPSK, 8PSK         Not available for DiSEqC control.       DVB-T         DVB-T       : Digital terrestrial services via UHF aerial input.         PAL 1       : UHF E21-68         PAL 525/60       : Playback of NTSC tape from some PAL Video recorders (VCR) or NTSC disc playback from DVD player and recorder.         M.NTSC       : Playback from M.NTSC Video recorders (VCR).         NTSC       : Playback from NTSC Video recorders (VCR).         (AV input only)       : Playback from NTSC Video recorders (VCR).			
Sate	llite dish inp	ut	Female F-type 75 $\Omega$			
Aeria	al input		UHF			
Oper	rating Condit	tions	Temperature: 0 °C - 35 °CHumidity: 20 % - 80 % RH (non-condensing)			
C	AV1 (SCAR		21 Pin terminal (Audio/Video in, Audio/Video out, RGB in, Q-Link)			
Connecti	AV2 (SCAR		21 Pin terminal (Audio/Video in, Audio/Video out, RGB in, S-Video in, Q-Link)			
lec		VIDEO	RCA PIN Type × 1         1.0 V[p-p] (75 Ω)			
tio	AV3	S-VIDEO	Mini DIN 4-pin         Y:1.0 V[p-p] (75 Ω)         C:0.286 V[p-p] (75 Ω)			
on 1		AUDIO L - R	RCA PIN Type × 2         0.5 V[rms]			
Terminals	COMPONENT	VIDEO	Y         1.0 V[p-p] (including synchronization)           Pв, PR         ±0.35 V[p-p]			
na		AUDIO L - R				
S		HDMI	TYPE A Connectors HDMI <sup>™</sup> (Version 1.3a with x.v.Colour <sup>™</sup> )			
	1 / 2 / 3 / 4OthersPCCard slot	This TV supports "HDAVI Control 4" function.				
			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)			
			SD Card slot × 1			
		ETHEDNET	RJ45, IEEE802.3 10BASE-T / 100BASE-TX			
		ETHERNET				
	Output	AUDIO L - R DIGITAL	RCA PIN Type × 2     0.5 V[rms] (high impedance)			
Dir		AUDIO L - R DIGITAL AUDIO OUT	PCM / Dolby Digital, Fiber optic			
Dime	Output	AUDIO L - R DIGITAL AUDIO OUT				
Dime	ensions ( W >	AUDIO L - R DIGITAL AUDIO OUT	PCM / Dolby Digital, Fiber optic 777 mm × 541 mm × 217 mm (With Pedestal) 894 mm × 611 mm × 287 mm (With Pedestal)			

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.

FAQs, etc.

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



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



#### By disposing of these products and batteries correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. For more information about collection and recycling of old products and batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

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

#### For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

# Cd

#### [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.

### **Sales and Support Information**

#### **Customer Care Centre**

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

#### **Direct Sales at Panasonic UK**

- For customers: 0844 844 3856
- Order accessory and consumable items for your product with ease and confidence by phoning our Customer Care Centre Monday - Thursday 9:00am - 5:30pm, Friday 9:30am - 5:30pm (Excluding public holidays).
- Or go on line through our Internet Accessory ordering application at www.panasonic.co.uk.
- Most major credit and debit cards accepted.
- All enquiries transactions and distribution facilities are provided directly by Panasonic UK Ltd.
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Interested in purchasing an extended guarantee? Please call 0870 240 6284 or visit www.panasonic.co.uk/guarantee.

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Trade Mark of the DVB Digital Video Broadcasting Project (1991 to 1996) TX-L32G10B Declaration of Conformity No. 6236, 9 December 2008 TX-L37G10B Declaration of Conformity No. 6235, 9 December 2008

#### Customer's Record

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

Model Number

Serial Number

### Panasonic (U. K.) Ltd.

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