



# Panasonic®

## Operating Instructions Plasma Television

Model No. **TH-42PZ81B**  
**TH-46PZ81B**  
**TH-50PZ81B**

# VIERA

VIERA  
Link



with **freesat HD**

DVB®

GUIDEplus+  
GEMSTAR



AVCHD™

DOLBY  
DIGITAL PLUS



FULL  
HD  
1920x1080p

HD  
TV  
1080p

HDMI™  
HIGH-DEFINITION MULTIMEDIA INTERFACE

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.

**U.K. Standard**

English



TQB0E0678-2

# Turn your living room into a home theatre!

Experience an amazing level of multi-media excitement

## ■ Receives freesat - free digital satellite broadcasts in the UK

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 digital terrestrial broadcasts using an integrated DVB (Digital Video Broadcasting) tuner

Display DVB programmes with TV Guide (p. 19) / Timer Programming (p. 46) / Register and instantly call up favourite programmes with Profile Edit (p. 40)

## ■ Sharp pictures with HDMI connection

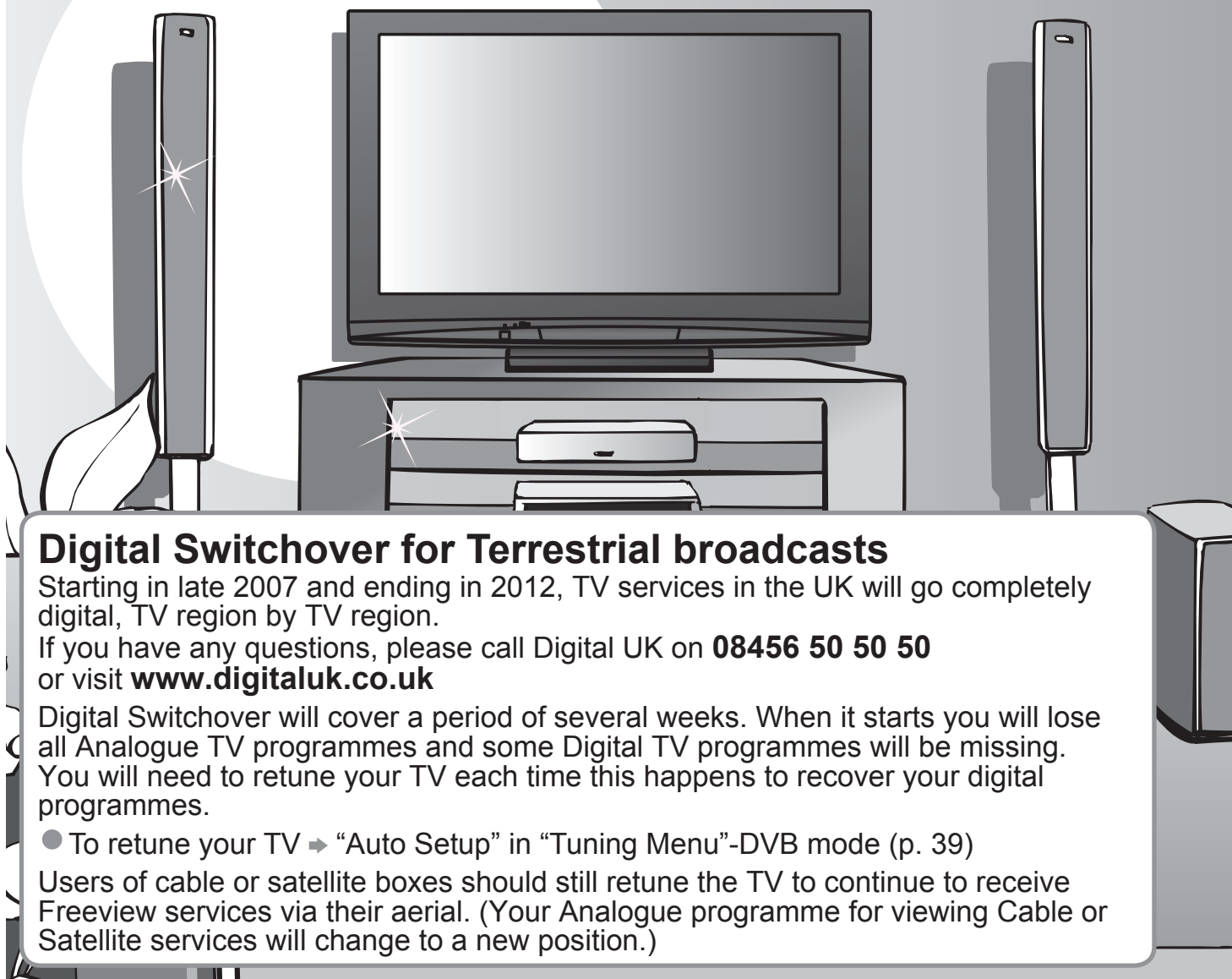
Enjoy high-definition digital picture and high-quality sound by using an HDMI cable (p. 58)  
● This TV incorporates HDMI™ (Version 1.3 with Deep Colour, x.v.Color™) technology.

## ■ Links up and controls the connected equipment with “Q-Link” and “VIERA Link”

Easy recording and playback, create home theatre without complicated settings, etc. (p. 50)

## ■ Supports Audio Description signal (p. 15 and p. 29)

This function can add an additional audio track to describe events on-screen and aids understanding and enjoyment, particularly for visually-impaired viewers.



## 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](http://www.digitaluk.co.uk)**

Digital Switchover will cover a period of several weeks. When it starts you will lose all Analogue TV programmes and some Digital TV programmes will be missing. You will need to retune your TV each time this happens to recover your digital programmes.

● To retune your TV → “Auto Setup” in “Tuning Menu”-DVB mode (p. 39)

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

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## Enjoy your TV!

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#### FULL HD

This TV uses a high definition panel to produce high definition pictures close to their original resolution.



#### 100Hz Double Scan

100Hz Double Scan is a function of this TV that reduces large area flicker.



#### Intelligent Frame Creation

This increases the frame count and allows natural frame-to-frame transitions, for flicker-less motion images with high resolution.

#### 30,000:1 Native Contrast (1,000,000:1 Dynamic Contrast)



A wide contrast ratio will deliver pictures with a deep black level and a brighter white level for greater image depth.

#### x.v.Colour

### x.v.Colour

“x.v.Colour” is a promotion name given to the products that have the capability to realize a wide colour space based on the xvYCC specifications.

“x.v.Colour” is a trademark.

#### 0.001 msec Panel Response Time



Extremely fast response time to minimise picture lag.

#### 24p Real Cinema



The 24p source data of movies is converted into a video signal with 6 frames/0.1 second. This produces smoother movie playback.

#### V-AUDIO



Utilises Panasonic's advanced Digital Amplification technology.

#### Lead-free display



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

#### Up to 100,000 hours Plasma Panel Lifetime



The Plasma display panel used in the 2008 VIERA TV range is rated for up to 100,000 hours.\*

\*This measurement is based on the time taken for the brightness of the panel to reduce to half of its maximum level.

The time taken to reach this level may vary depending on the image content and the environment where the TV is used.

Image retention and malfunctions are not taken into account.

# 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.
- Ensure the earth pin on the mains plug is securely connected to prevent electrical shock.
  - An apparatus with CLASS I construction shall be connected to a mains socket outlet with a protective earthing connection.
- Do not use any mains lead other than that provided with this TV. (This may cause fire or electrical shock.)

### 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.



### Transport only in upright position

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

### IMPORTANT: THE MOULDED MAINS PLUG

FOR YOUR SAFETY, PLEASE READ THE FOLLOWING TEXT CAREFULLY.

This TV is supplied with a moulded three pin mains plug for your safety and convenience. A 5 amp (TH-42PZ81B) / 10 amp (TH-46PZ81B, TH-50PZ81B) fuse is fitted in this mains plug. Shall the fuse need to be replaced, please ensure that the replacement fuse has a rating of 5 amps (TH-42PZ81B) / 10 amps (TH-46PZ81B, TH-50PZ81B) 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.

Do not cut off the mains plug.

Do not use any other type of mains lead except the one supplied with this TV.

The supplied mains lead and moulded plug are designed to be used with this TV to avoid interference and for your safety.

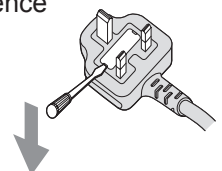
If the socket outlet in your home is not suitable, get it changed by a qualified electrician.

If the plug or mains lead becomes damaged, purchase a replacement from an authorized dealer.

**WARNING: – THIS TV MUST BE EARTHED.**

How to replace the fuse.

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



### Power source

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

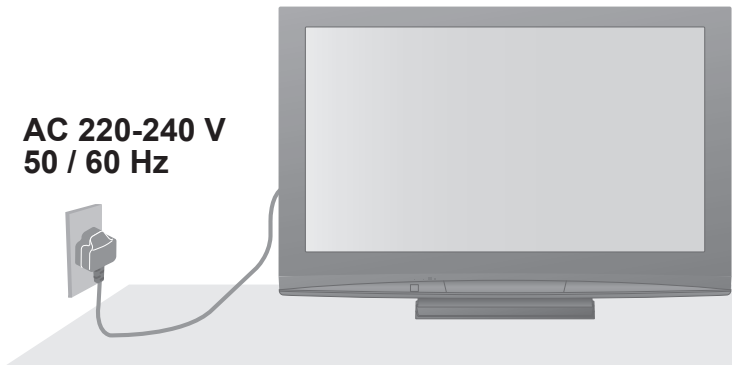
### Do not remove the cover

- 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.

AC 220-240 V  
50 / 60 Hz





# Notes

## Do not expose to rain or excessive moisture

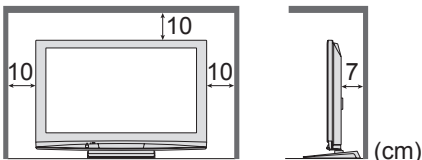
- To prevent damage which might result in electric shock or fire, do not expose this TV to rain or excessive moisture. This TV must not be exposed to dripping or splashing water and objects filled with liquid, such as vases, must not be placed on top of or above the TV.

## Do not block the rear ventilation openings

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

## Allow sufficient space around the TV for radiated heat

Minimum distance



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

## 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.

## Do not display a still picture for a long time

This causes the image to remain on the plasma screen ("image retention").

This is not considered a malfunction and is not covered by the warranty.

Typical still images

- Programme number and other logos
- Image displayed in 4:3 mode
- Video game
- Computer image



To prevent image retention, contrast is lowered automatically after a few minutes if no signals are sent or no operations are performed. (p. 62)

## 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).

# Maintenance

First, remove the mains plug from the socket outlet.

## Display panel

Regular care: Gently wipe the surface clean of dirt by using a soft cloth.  
Major contamination: Wipe the surface clean using a soft cloth dampened with clean water or diluted neutral detergent (1 part detergent to 100 parts water). Then, using a soft dry cloth, evenly wipe the surface clean until it is dry.

### Caution

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

## Cabinet, Pedestal

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

### Caution

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

## Mains plug

Wipe the mains plug with a dry cloth at regular intervals. (Moisture and dust may lead to fire or electrical shock.)

# Accessories / Options

## Standard accessories

- Remote Control
  - N2QAYB000238

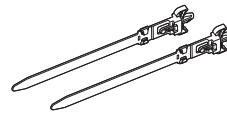


Check that you have the accessories and items shown

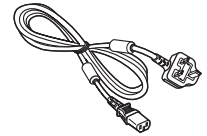
- Batteries for the Remote Control (2)
  - R6 (UM3)



- Clamper (2)
  - TMME289
  - ➔ p. 8



- Mains Lead
  - K2CT3DH00018 (TH-42PZ81B)
  - K2CT3DH00025 (TH-46PZ81B) (TH-50PZ81B)
  - ➔ p. 10

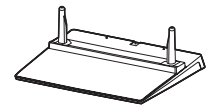


- Operating Instructions
- Pan European Guarantee Card
- 1 Year Guarantee Registration
- CRM (Customer Relationship Management)

- Cleaning cloth
  - TXFPE01RLTB



- Pedestal
  - TBLX0043 (TH-42PZ81B)
  - TBLX0045 (TH-46PZ81B) (TH-50PZ81B)
  - TXFBL01RLTD
  - ➔ p. 7



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

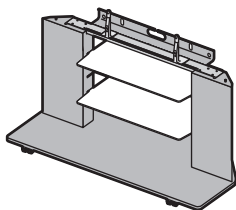
## Optional accessories

Some items may not be available locally.

Regarding the purchase of Optional accessories, please consult your local Panasonic dealer.

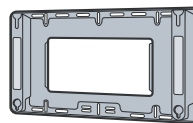
### Plasma TV stand

- TY-S42PZ80W (TH-42PZ81B)
- TY-S46PZ80W (TH-46PZ81B)
- TY-S50PZ80W (TH-50PZ81B)



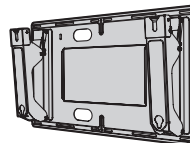
### Wall-hanging bracket (vertical)

- TY-WK42PV3W
- TY-WK42PV4W



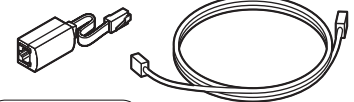
### (angle)

- TY-WK42PR3W
- TY-WK42PR4W



### LAN cable kit

- TY-DMJ100BT



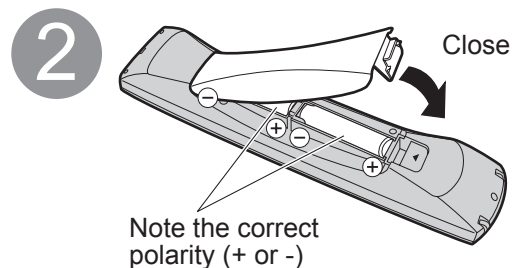
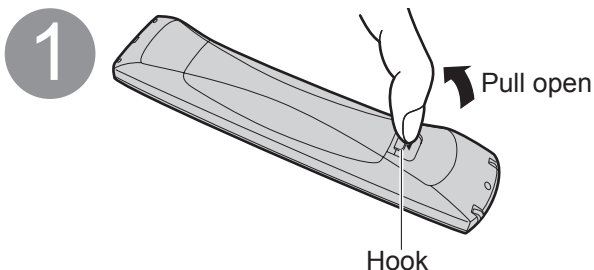
### Caution

- In order to maintain the unit's performance and safety, be absolutely sure to ask your dealer or a licenced contractor to secure the wall-hanging brackets.
- Carefully read the instructions accompanying the plasma TV stand or pedestal, and be absolutely sure to take steps to prevent the TV from tipping over.
- Handle the TV carefully during installation since subjecting it to impact or other forces may cause product damage.

### Caution

- Please use this LAN cable kit when connecting to ETHERNET terminal of the TV. (to comply with the EMC standard - EN55022)
- For the connection ➔ p. 56 and p. 57

## Installing / removing remote's batteries



### Caution

- Incorrect installation may cause battery leakage and corrosion, resulting in damage to the remote control.
  - Do not mix old and new batteries.
  - Do not mix different battery types (such as alkaline and manganese batteries).
  - Do not use rechargeable (Ni-Cd) batteries.
  - Do not burn or breakup batteries.
- Batteries must not be exposed to excessive heat such as sunshine, fire or the like.

## 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.

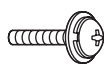
**Ensure that the TV does not fall over.**

- 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.

- Ⓐ Assembly screw (4)  
(silver)  
● XYN5+F18FN



M5 × 18

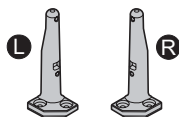
- Ⓑ Assembly screw (4)  
(black)  
● THEL060N



M5 × 25

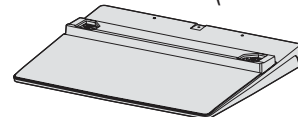
- Ⓒ Pole (2)

- R: TBLA3614
- L: TBLA3615



- Ⓓ Base

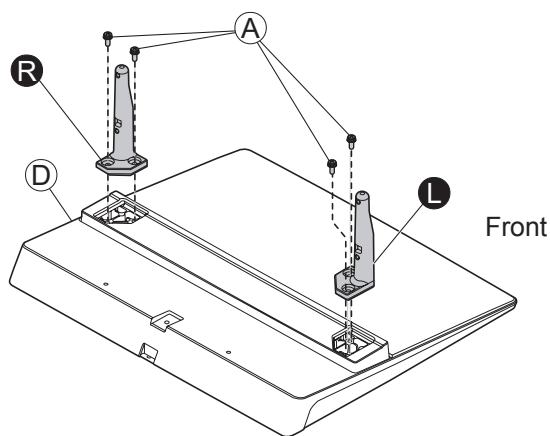
- TBLX0043 (TH-42PZ81B)
- TBLX0045 (TH-46PZ81B) (TH-50PZ81B)



### Assembling the pedestal

Use the four assembly screws Ⓐ to fasten the left and right poles to the base securely.

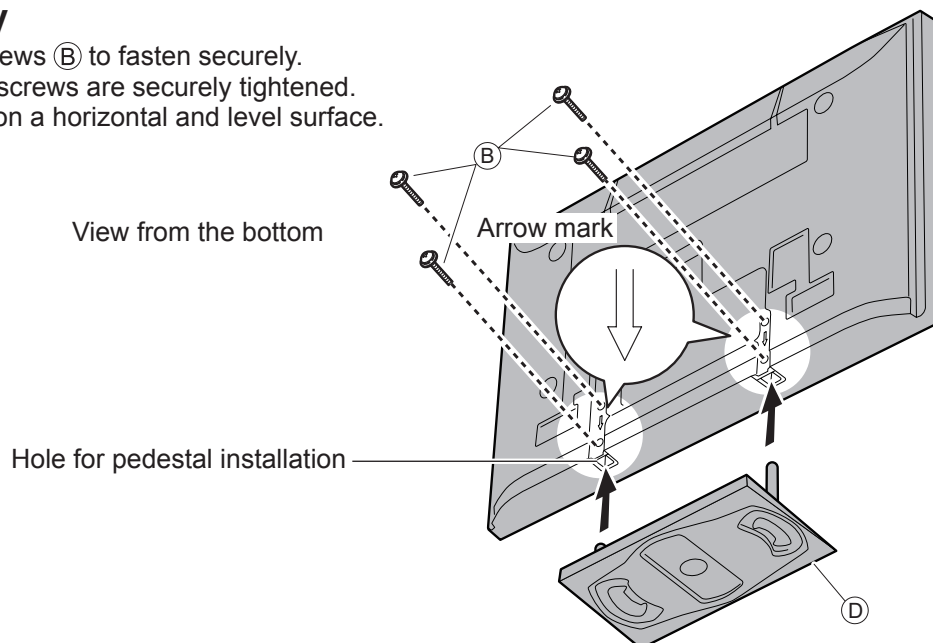
- Make sure that the screws are securely tightened.
- Forcing the assembly screws the wrong way will strip the threads.
- "L" or "R" mark is stamped on the bottom of the pole.



### Securing the TV

Use the assembly screws Ⓑ to fasten securely.

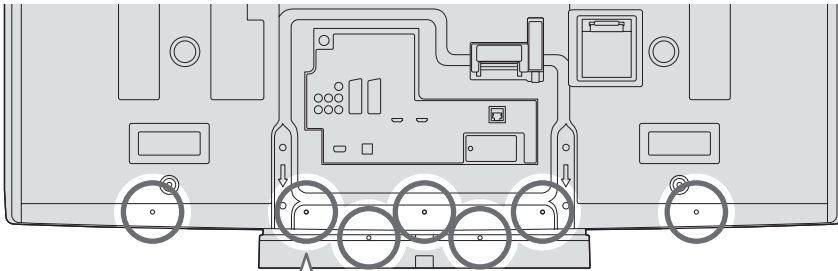
- Make sure that the screws are securely tightened.
- Carry out the work on a horizontal and level surface.



# Accessories / Options

## Using the clammer

Rear of the TV



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

**■ Attach the clammer**

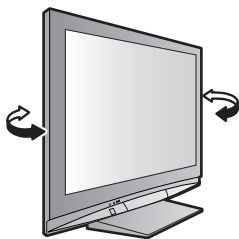
To remove from the TV:

**■ Bundle the cables**

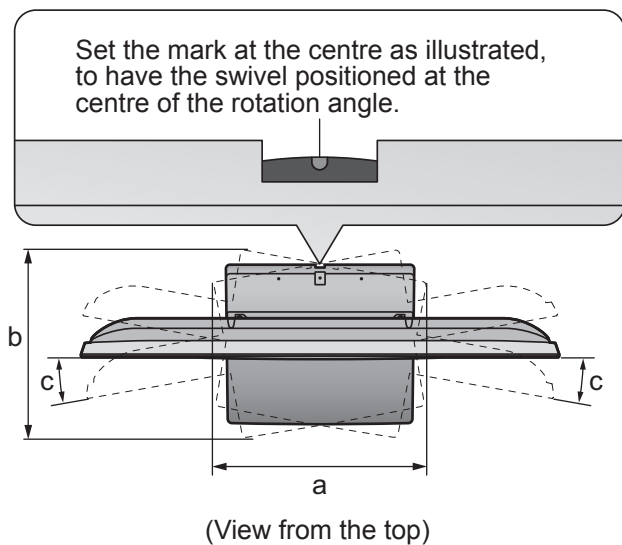
To loosen:

## 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.

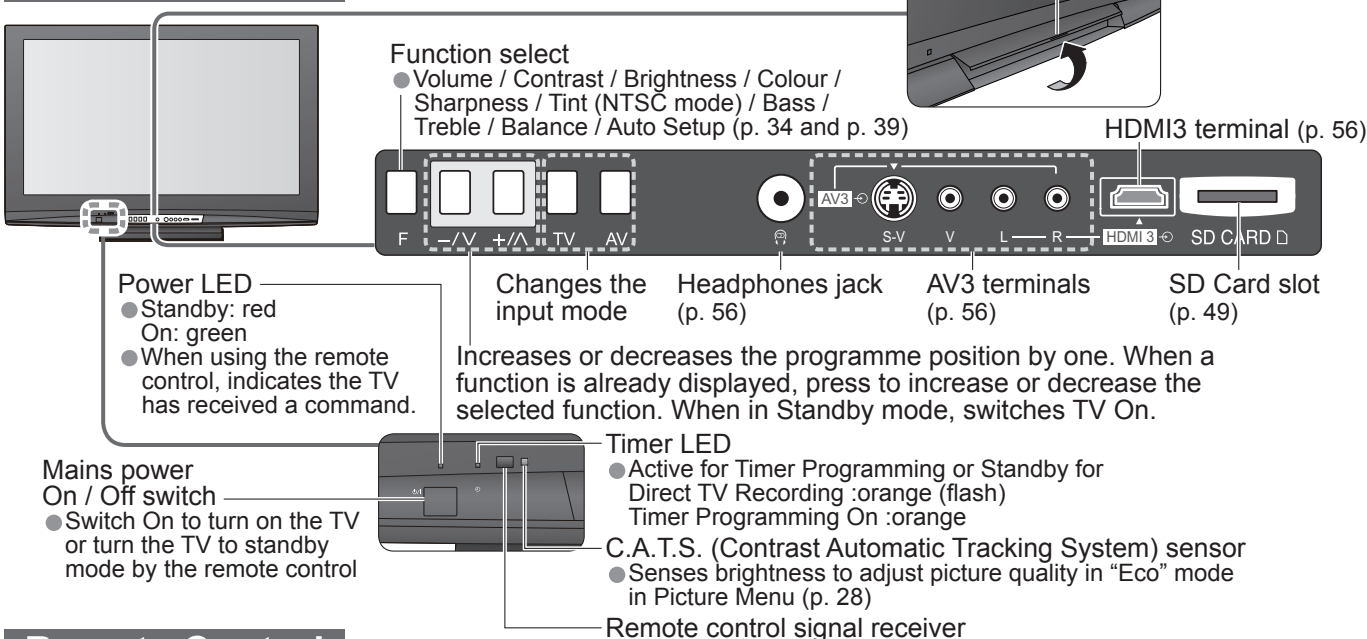


- TH-42PZ81B  
a: 521 mm / b: 425 mm / c: 15°
- TH-46PZ81B, TH-50PZ81B  
a: 513 mm / b: 453 mm / c: 10°

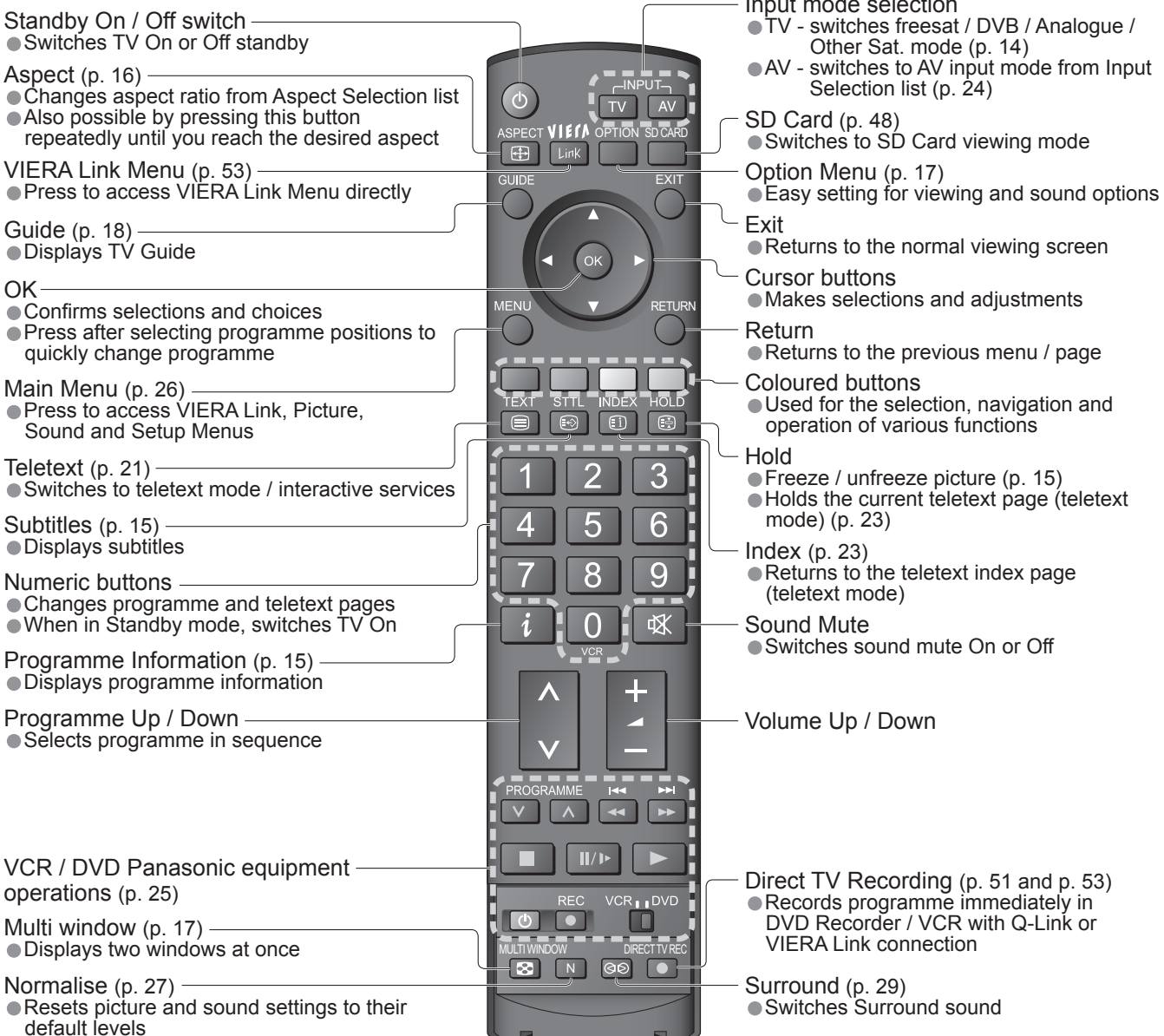


# Identifying Controls

## TV



## Remote Control





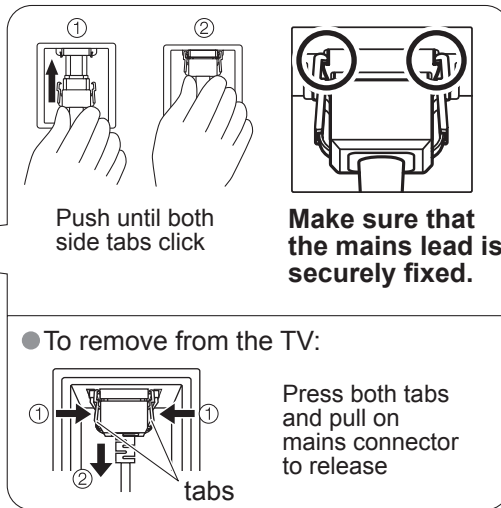
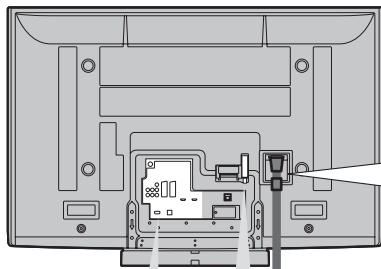
# Basic Connection

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

## Example 1 Connecting dish or aerial

### TV only

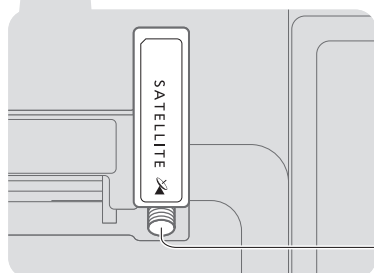
Rear of the TV



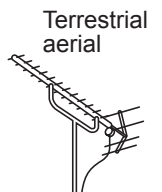
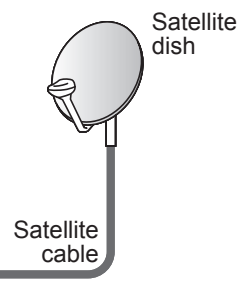
AC 220-240 V  
50 / 60 Hz



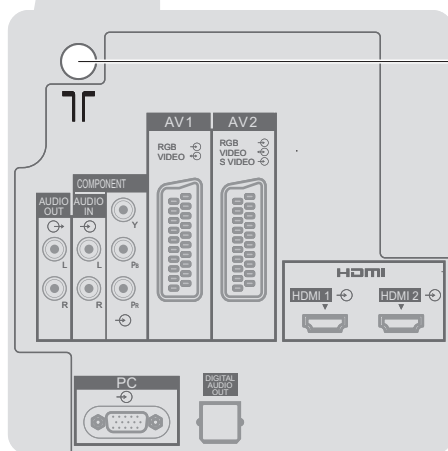
Mains lead (supplied)



● For freesat or other satellite broadcasts



RF cable



### Note

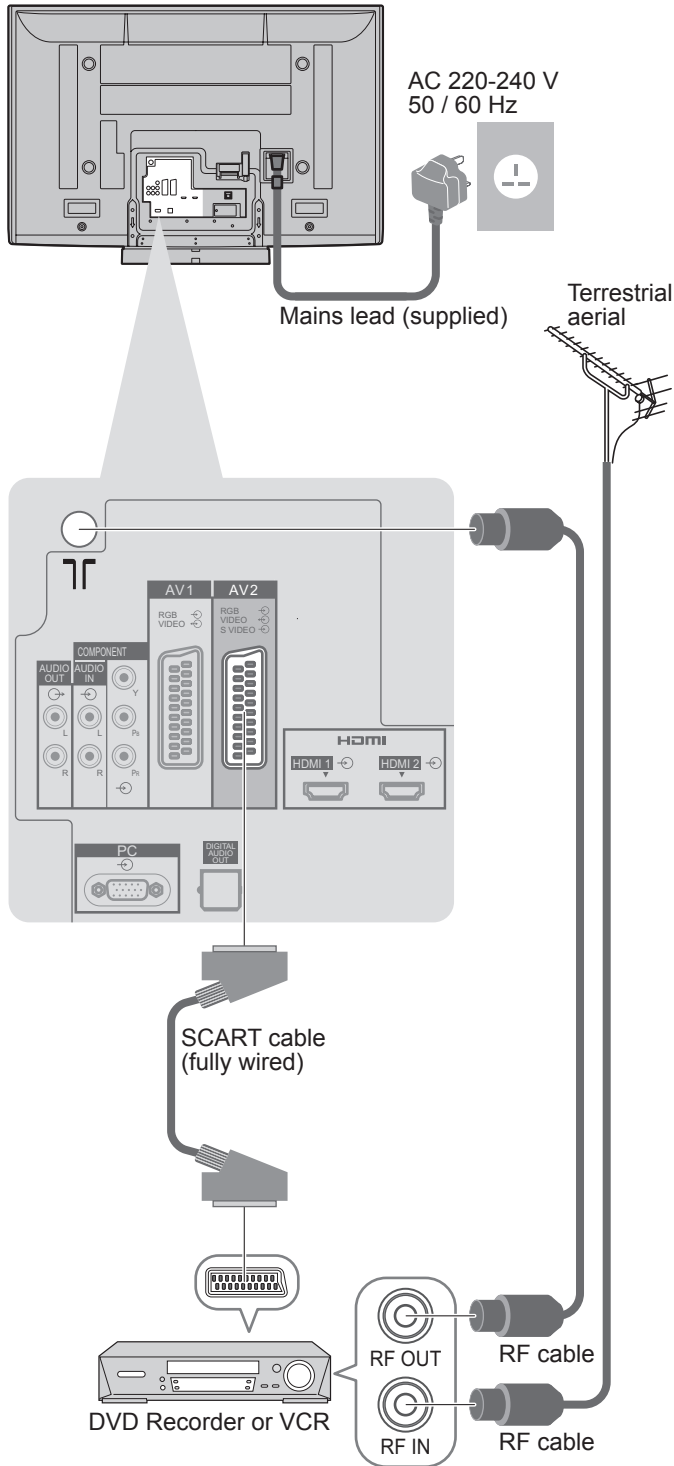
- The freesat service uses Astra 2 at 28.2° East, and Eurobird 1 at 28.5° East satellites. To ensure your satellite dish is correctly installed please consult your freesat registered dealer.
- Connect to AV2 for a DVD Recorder / VCR supporting Q-Link (p. 51).
- For HDMI-compatible equipment, possible to connect to HDMI terminals (HDMI1 / HDMI2 / HDMI3) by using HDMI cable (p. 56).
- Q-Link connection → p. 50
- VIERA Link connection → p. 50
- Read the manual of the equipment too.



## Example 2 Connecting DVD Recorder / VCR

### TV, DVD Recorder or VCR

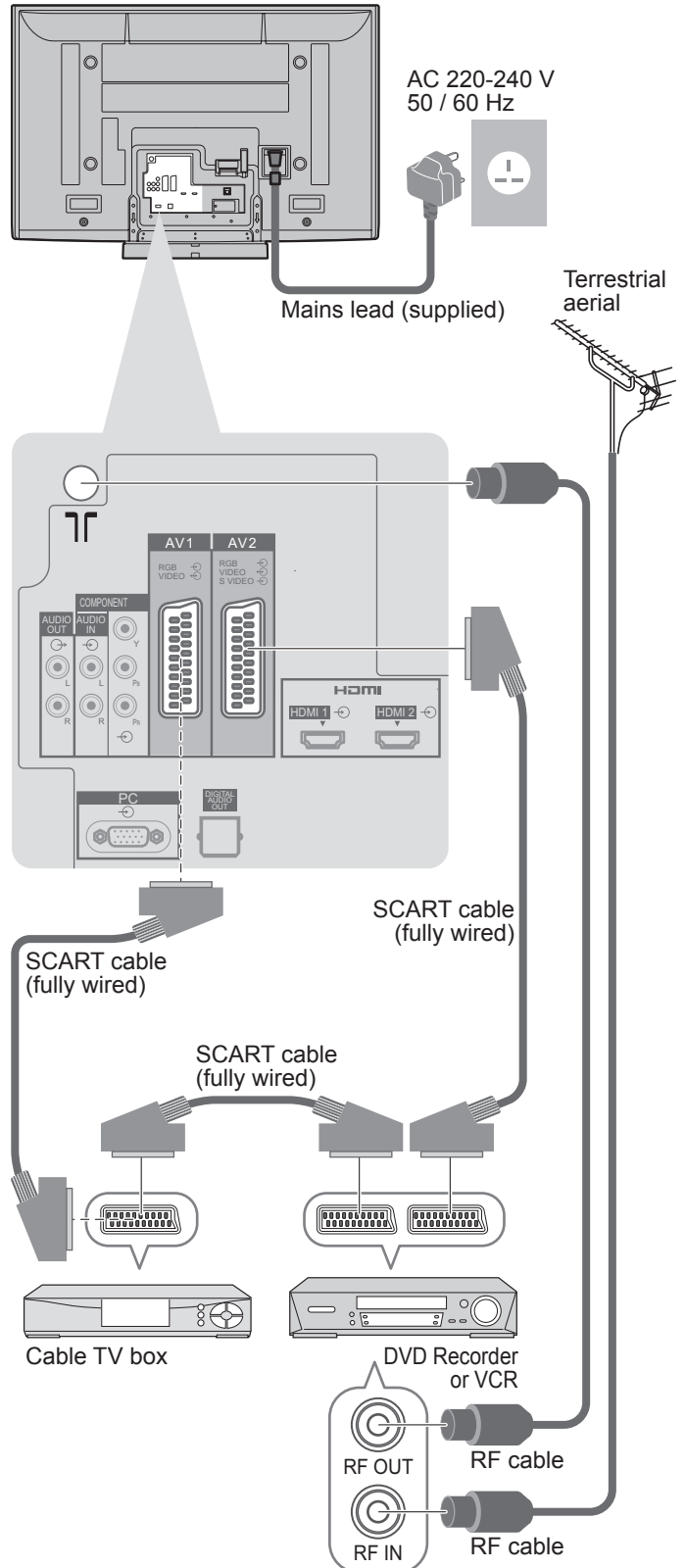
Rear of the TV



## Example 3 Connecting DVD Recorder / VCR and Cable TV box

### TV, DVD Recorder / VCR and Cable

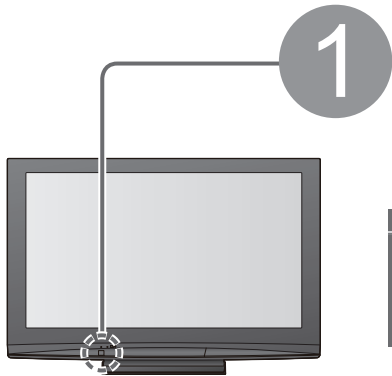
Rear of the TV



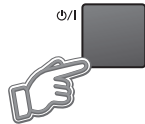
# Auto Setup

Search and store TV programmes automatically.

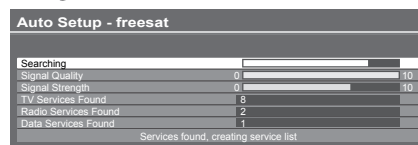
These steps are not necessary if the setup has been completed by your local dealer or freesat registered dealer.



## 1 Plug the TV into mains socket and switch On (Takes a few seconds to be displayed)

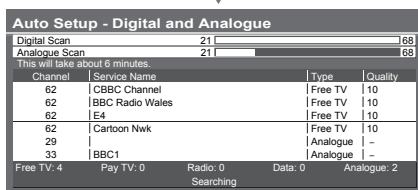
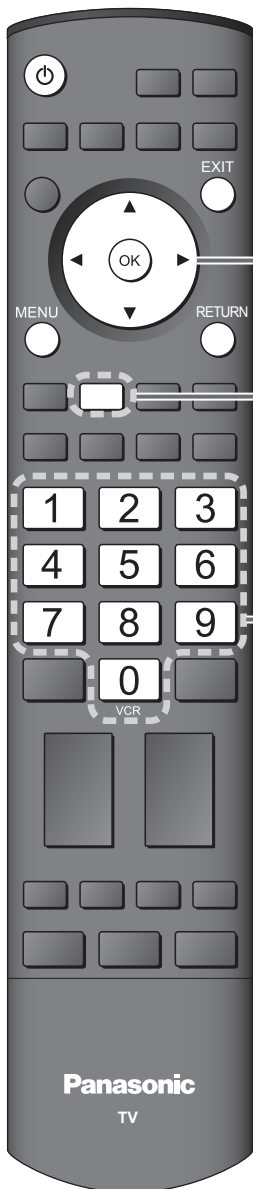


- Auto Setup will start to search for TV programmes and store them in the numbered order as specified by the broadcasters.

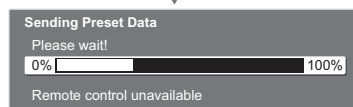


- If Auto Setup - freesat stopped  
➔ "FAQs" (p. 62)

(freesat tuning)



(DVB and Analogue tuning)

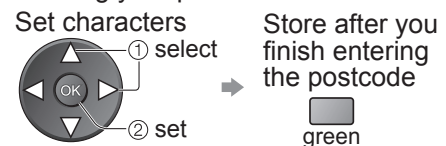


- If Q-Link, or similar technology (p. 51), compatible recorder with analogue tuner is connected, analogue programme information is automatically downloaded to the recorder. (Digital programme information is not downloaded.)

## 2 Enter your postcode

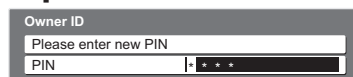


- Your postcode is required to receive local services and sort the programme order. Please ensure to include a space when entering your postcode.



- If you skip this step, the default postcode (central London) will be set.

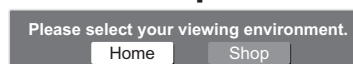
## 3 Input Owner ID



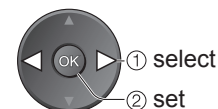
Enter your own choice of PIN number, name, etc.

- For detailed procedures  
➔ "Owner ID" (p. 43)
- Make a note of the PIN number in case you forget it.
- If you input the ID later  
➔ "Owner ID" (p. 43)

## 4 Select the picture setting



- "Home" and "Shop" are equal to "Normal" and "Dynamic" respectively - "Viewing Mode" in "Picture Menu" (p. 28)



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









- To check programme list at-a-glance  
➔ "Using TV Guide" (p. 18)
- To edit programmes  
➔ "Editing Programmes" (p. 40)

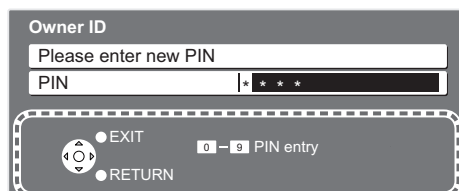
## Using the On Screen Displays

Many features available on this TV can be accessed via the On Screen Display menu.

### ■ How to use remote control

- 
 MENU Open the main menu
- 
 Move the cursor / select the menu
- 
 Move the cursor / adjust levels / select from a range of options
- 
 Access the menu / store settings after adjustments have been made or options have been set
- 
 RETURN Return to the previous menu
- 
 EXIT Exit the menu system and return to the normal viewing screen

### ■ ON SCREEN HELP Instructions box (example: Owner ID)

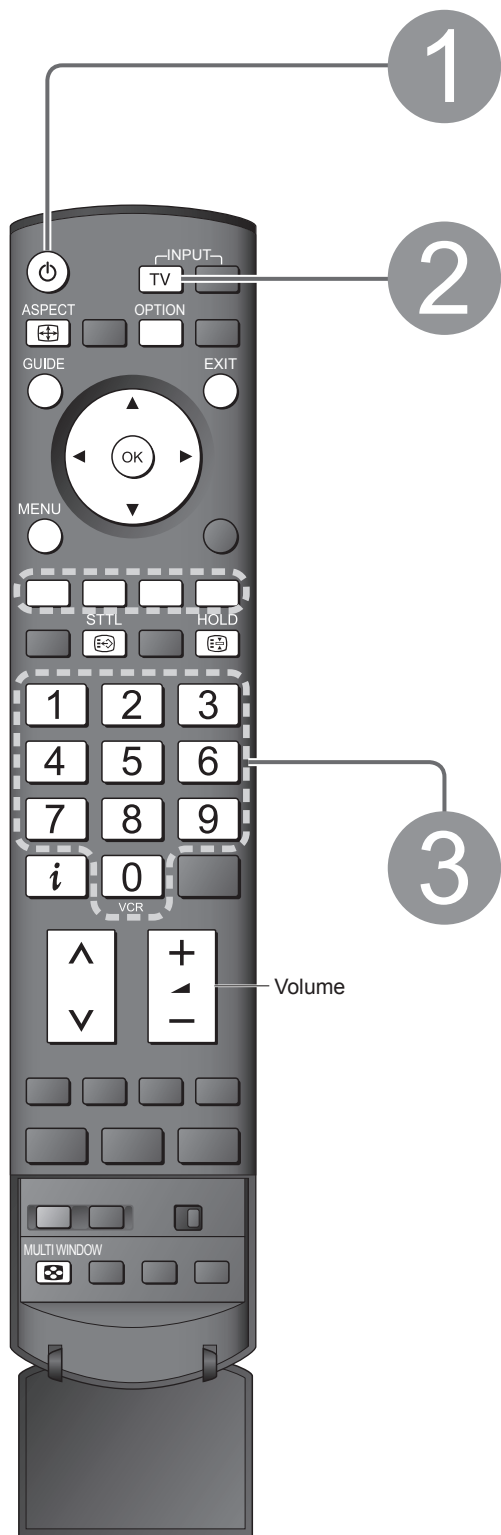


On-screen operation guide will help you.

#### Note

- If tuning has failed ➔ “Auto Setup” (p. 34 and p. 39)
- If you wish to tune in other satellite services ➔ “Add Other Sat. Services” (p. 37)
- If downloading has failed ➔ “Q-Link Download” (p. 30)
- To initialize all settings ➔ “Shipping Condition” (p. 42)
- If you turned the TV Off during Standby mode last time, the TV will be in Standby mode when you turn the TV On with Mains power On / Off switch.

# Watching TV

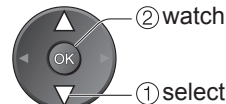
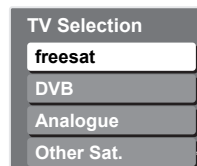


## 1 Turn power on (Press for about 1 second)



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

## 2 Select the mode (freesat, DVB, Analogue or Other Sat.)



Displayed if Other Satellite services are tuned (p. 37)

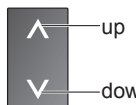
- Also possible to select the mode pressing the TV button repeatedly on the remote control or front panel of the TV. (p. 9)



Information banner appears whenever you select a programme

- For details → p. 15

## 3 Select a programme



or



freesat programme numbers run in the ranges 100 - 999 and 0100 - 0999.

- To select a three-digit programme number, e.g. 133

→ 1 → 3 → 3

- To select a four-digit programme number, e.g. 0246

→ 0 → 2 → 4 → 6

DVB and Other Sat. programme numbers run from 1 onwards. Analogue programme numbers run in the ranges 0 - 99.

- To select a two or three-digit programme number, e.g. 39

→ 3 → 9

Volume

### Note

- To watch pay-TV → p. 36

### ■ Select a programme using Information banner (p. 15)

Possible to confirm the programme name before selecting programmes.

Display Information banner if it is not displayed



While the banner is displayed, select the programme



- Possible to set display timeout in "Banner Display Timeout" (p. 31).

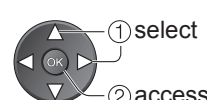
### ■ Select a programme using TV Guide (p. 18)

Possible to confirm the TV Guide (EPG) before selecting programmes.

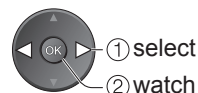
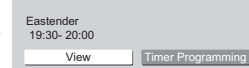
Display TV Guide




























Select the event now on the air



Select "View"



■ Other useful functions

<b>Hold</b>	<b>Freeze / unfreeze picture</b> 	HOLD																																																																																																				
<b>Display subtitles</b>	<b>Display / hide subtitles</b> (if available) ● To change the language for DVB (if available) ➔ "Preferred Subtitles" (p. 31)	STTL 																																																																																																				
<b>Display Information banner</b>	<p><b>Display Information banner</b> </p> <p>● Also appears when changing a programme</p> <p style="text-align: right;">"All freesat Services" or "Favourites" ● To switch ➔ "Using TV Guide" (p. 18)</p> <p style="text-align: center;">Programme position and name      Current time</p> <p>TV mode      Programme type (if it is Radio or Data service)</p> <p>Example (freesat):</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">FS</td> <td style="width: 45%;">103 ITV Wales</td> <td style="width: 15%;">Radio</td> <td style="width: 15%;">19:35</td> <td style="width: 10%;">All freesat Services</td> </tr> <tr> <td colspan="5"><b>Coronation Street</b></td> </tr> <tr> <td colspan="2">19 : 30 - 20 : 00</td> <td style="text-align: center;">Now ▶</td> <td colspan="2" style="text-align: right;">For info press </td> </tr> <tr> <td>Mute</td> <td>Encrypted</td> <td>AD</td> <td>Subtitles</td> <td>TXT Multi Audio 45</td> </tr> </table> <p>Event Start / Finish time</p> <p style="text-align: center;">Category ● To change the category ➔  blue</p> <p>Example (DVB):</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">D</td> <td style="width: 45%;">1 BBC ONE Wales</td> <td style="width: 15%;">Radio</td> <td style="width: 15%;">19:35</td> <td style="width: 10%;">All DVB Services</td> </tr> <tr> <td colspan="5"><b>Coronation Street</b></td> </tr> <tr> <td colspan="2">19 : 30 - 20 : 00</td> <td style="text-align: center;">Now ▶</td> <td colspan="2" style="text-align: right;">For info press </td> </tr> <tr> <td>Mute</td> <td>Encrypted</td> <td>AD</td> <td>Subtitles</td> <td>TXT Multi Audio 45</td> </tr> </table> <p style="text-align: center;">Category ● To change the category ➔  blue</p> <p>Example (Analogue):</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">A</td> <td style="width: 45%;">3 ITV</td> <td style="width: 15%;">19:35</td> <td style="width: 15%;">All Analogue Services</td> <td style="width: 10%;">Change category </td> </tr> <tr> <td colspan="5"><b>itv1</b></td> </tr> <tr> <td colspan="5">CH23</td> </tr> <tr> <td>Mute</td> <td></td> <td>TXT</td> <td>NICAM</td> <td>45</td> </tr> </table> <p>Channel number</p> <p>Example (Other Sat.):</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">S</td> <td style="width: 45%;">103 ITV Wales</td> <td style="width: 15%;">Radio</td> <td style="width: 15%;">19:35</td> <td style="width: 10%;">Other Sat Services</td> </tr> <tr> <td colspan="5"><b>Coronation Street</b></td> </tr> <tr> <td colspan="2">19 : 30 - 20 : 00</td> <td style="text-align: center;">Now ▶</td> <td colspan="2" style="text-align: right;">For info press </td> </tr> <tr> <td>Mute</td> <td>Encrypted</td> <td>Subtitles</td> <td>TXT</td> <td>Multi Audio 45</td> </tr> </table> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Mute</b> Sound mute On</p> <p><b>Bad signal</b> Poor TV signal quality</p> <p><b>Encrypted</b> Scrambled programme</p> <p><b>AD</b> Audio Description service available ● This function can aid visually-impaired viewers by adding an additional audio track to describe events on-screen. ● For settings ➔ p. 29</p> <p><b>Subtitles</b> Subtitle service available</p> <p><b>TXT</b> Teletext service available</p> <p><b>Multi Audio</b> Multiple audio available</p> <p><b>Stereo, Mono, NICAM</b> Audio mode</p> <p><b>1 - 90</b> Off Timer remaining time ● For settings ➔ p. 16</p> </div> <p>● To confirm another tuned programme name ➔ </p> <p>● Information on the next event (freesat, DVB, Other sat.) ➔ </p> <p>● Extra information ➔  (press again to hide the banner) (freesat, DVB, Other sat.)</p> <p>● "AD", "Subtitles", "TXT", "Multi Audio" indications are displayed as available on particular programmes, but may not be available for all individual programmes being broadcast. Display the extra information to confirm availability of these functions.</p> <p>● To watch the programme listed in the banner ➔ </p> <p>● To hide ➔ </p> <p>● To set display timeout ➔ "Banner Display Timeout" (p. 31)</p> <p>Example:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">FS</td> <td style="width: 45%;">103 ITV Wales</td> <td style="width: 15%;">19:35</td> <td style="width: 10%;">All freesat Services</td> </tr> <tr> <td colspan="4"><b>Coronation Street</b></td> </tr> <tr> <td colspan="2">19 : 30 - 20 : 00</td> <td style="text-align: center;">Now ▶</td> <td style="text-align: right;">Exit info </td> </tr> <tr> <td colspan="4" style="text-align: center;">[AD]</td> </tr> <tr> <td colspan="4" style="text-align: center;">AD</td> </tr> </table>		FS	103 ITV Wales	Radio	19:35	All freesat Services	<b>Coronation Street</b>					19 : 30 - 20 : 00		Now ▶	For info press 		Mute	Encrypted	AD	Subtitles	TXT Multi Audio 45	D	1 BBC ONE Wales	Radio	19:35	All DVB Services	<b>Coronation Street</b>					19 : 30 - 20 : 00		Now ▶	For info press 		Mute	Encrypted	AD	Subtitles	TXT Multi Audio 45	A	3 ITV	19:35	All Analogue Services	Change category 	<b>itv1</b>					CH23					Mute		TXT	NICAM	45	S	103 ITV Wales	Radio	19:35	Other Sat Services	<b>Coronation Street</b>					19 : 30 - 20 : 00		Now ▶	For info press 		Mute	Encrypted	Subtitles	TXT	Multi Audio 45	FS	103 ITV Wales	19:35	All freesat Services	<b>Coronation Street</b>				19 : 30 - 20 : 00		Now ▶	Exit info 	[AD]				AD			
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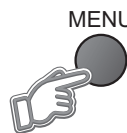
# Watching TV

## Other useful functions

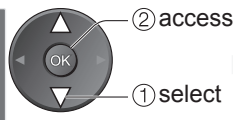
### Off Timer

#### Turn the TV off automatically after a fixed period

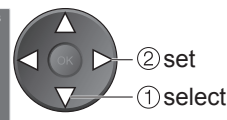
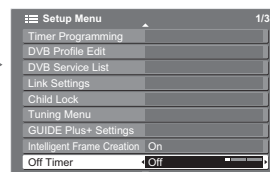
Display the menu



Select "Setup"



Select "Off Timer" and set the time



- To cancel → Set to "Off" or turn the TV off.
- To display the remaining time → Information banner (p. 15)
- When the remaining time is within 3 minutes, the remaining time will flash on the screen.

#### Change the aspect ratio

ASPECT

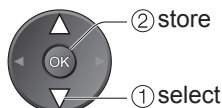


Enjoy viewing the picture at its optimum size and aspect.


Display Aspect Selection list



While the list is displayed, select the mode



Aspect Selection list

- To change the mode using the ASPECT button only  
 →  (Press repeatedly until you reach the desired mode)

Auto



The best ratio is chosen and the picture expanded to fill the screen. For details → p. 58

16:9



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

14:9



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

4:3



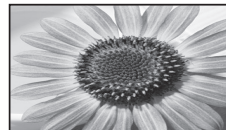
Displays the image at the standard "4:3" without distortion.

Zoom1



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

Zoom2



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

Zoom3



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

#### Note

- Only "16:9" and "4:3" are available in PC mode.
- Not available when Subtitle is active in freesat or DVB mode.
- Not available in Analogue teletext mode.
- Aspect mode can be memorized separately for SD (Standard definition) and HD (High definition) signals.

### Change aspect ratio



■ Other useful functions

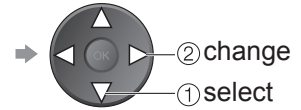
Display the selectable settings for the current programme

**Check or change the current programme status instantly**

OPTION



● To change



**Multi Audio / AD** (freesat mode)  
Allows you to select between alternative language or Audio Description for sound tracks (if available)

- Set "Audio Description" to "On" in Sound Menu (p. 29) to select the audio description sound track.  
In freesat mode, Audio Description cannot be controlled separately from the audio description sound track.

**Multi Audio** (DVB or Other Sat. mode)  
Allows you to select between alternative language for sound tracks (if available)

**Subtitle Language**  
(freesat, DVB or Other Sat. mode)  
Allows you to select the language in which subtitles should appear (if available)

**NICAM** (Analogue mode)  
➔ Sound Menu (p. 29)

**Volume Correction**  
Adjusts volume of individual programme or input mode

**Audio Description** (DVB mode)  
Select "On" if the programme has Audio Description service, then you will hear an additional audio track to describe events on-screen

**Note**

- Also possible to change the settings in Menu list (p. 28 - 31).

**View in multi window**

MULTI WINDOW



- Remote control operations apply to the main screen.

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

**Picture-in-Picture mode (PinP)**



Colour bar

**Picture-and-Picture mode (PandP)**



Main screen Sub screen

■ Operations in multi window

- To exit multi window (return to the single-screen view with main screen)

MULTI WINDOW



- To change the layout, images, first show the colour bar



- To change the layout ➔ green yellow
- To swap ➔ blue
- To exit multi window ➔ red
- To change the input mode or programme of sub screen
- ➔ Swap sub screen for main screen blue ➔ Change the input mode or programme by the remote control (p. 14 or p. 24) ➔ Swap again blue

**Note**

- Each input mode can only be displayed once (either on main screen or sub screen).
- The sound comes from only the main screen in multi window.
- You cannot change the aspect ratio in multi window.
- Multi window cannot be used with HDMI (available for main screen only), PC or SD Card.
- Some signals are reformatted for suitable viewing on your display.
- By pressing the GUIDE button and displaying the TV Guide you will exit multi window.
- If main screen has digital teletext signals, some key words may appear on the colour bar. In this case the operations can be performed by using colour buttons on the remote control except when the colour bar is displayed by pressing the **i** button.

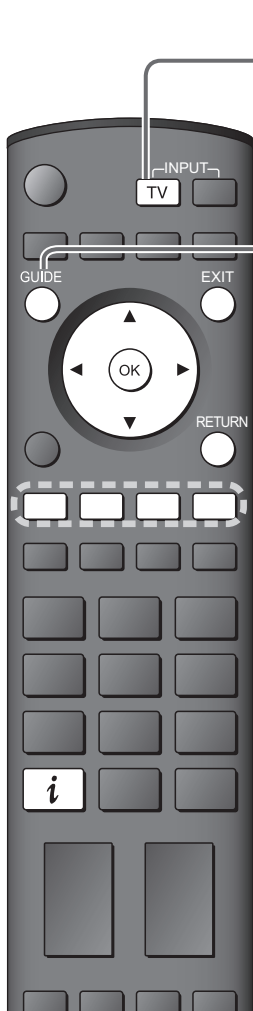
Watch TV, DVD, etc. in multi window

# 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.

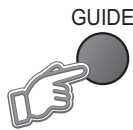
## ■ freesat mode



**1** Select freesat  
→ p. 14

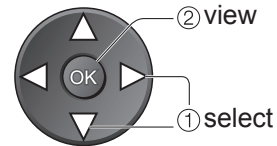
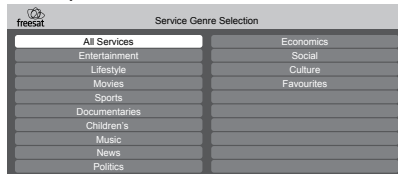


**2** Display the Service Genre selection list



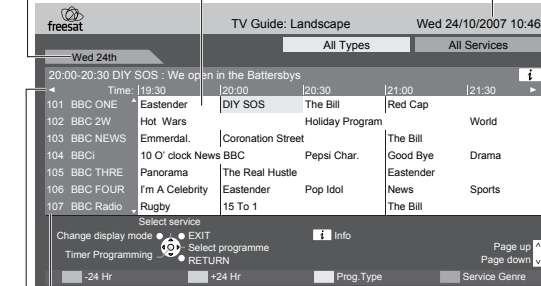
**3** Select the genre and view TV Guide

Example:



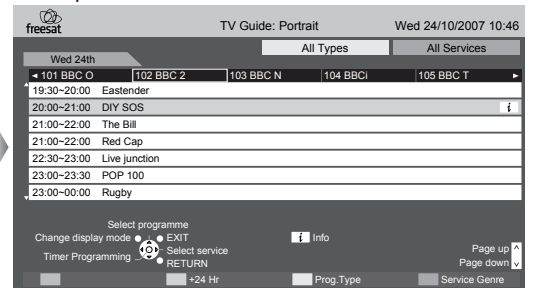
- To change the layout (Landscape / Portrait) → view "Landscape" to see many programmes  
view "Portrait" to see one programme at a time

TV Guide date  
Example:



Programme TV Guide time Landscape (Displays by programme)

Example:



Portrait (Displays by time)

## ■ To return to TV

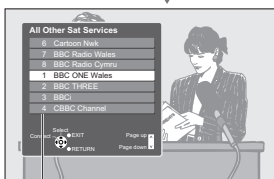


## ■ Other Sat. mode

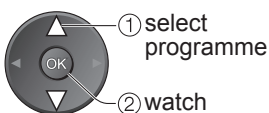
In Other Sat. mode, TV Guide is not available. In stead, Programme List will appear.

- To tune in Other Sat. Services → p. 37

GUIDE (in Other Sat. mode)



Programme List



- There might be some events displayed as grayed-out in TV Guide. These are the Off-Air events (non-running events).

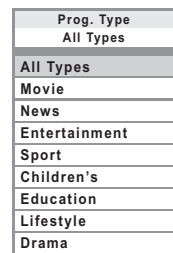
## ■ To the previous day



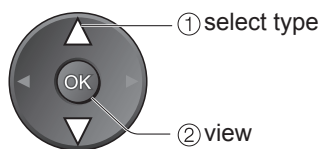
## ■ To the next day



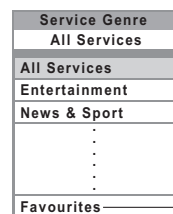
## ■ To view a programme list of the selected type



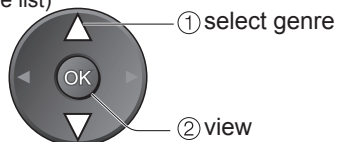
(Type list)



## ■ To view a programme list of the selected genre



(Service Genre list)



To list favourite programmes → p. 40

## ■ 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 event information and the recommended group in the Prog.Type list.
- Analogue programmes will be listed after DVB programmes. "D" means DVB programme and "A" means Analogue programme.



1

## Select DVB or Analogue

→ p. 14



2

## View TV Guide



- To change the layout (Landscape / Portrait) →
- view "Landscape" to see many programmes
- view "Portrait" to see one programme at a time

TV Guide time      Current date and time      Logo of the Gemstar branding partner

Example:      TV Guide date      Event

Time	18:30	19:30	20:30	21:00
D 1 BBC ONE	Eastender	DIY SOS	The Bill	Red Cap
D 7 BBC THREE	Hot Wars		Horiday Program	
D 14 E4	Emmerdal	Coronation Street	The Bill	
D 70 BBC FOUR	10 O' clock News BBC	Pepsi Char.	Good bye	
D 72 BBC 2W	Panorama	Spring watch	Coast	
D 105 BBCi	I'm A Celebrity	Pop Idol	News	
D 118 BBC Radi	Rugby	15 To 1	The Bill	

Advertisement      Landscape (Displays by programme) Programme

Example:

Time	19:30-20:00	20:00-21:00	21:00-22:00	22:30-23:00	23:00-00:00
D 1 BBC ONE	Eastender	DIY SOS	The Bill	Good bye	
D 7 BBC THREE			Horiday Program		
D 14 E4			The Bill		
D 70 BBC FOUR			Good bye		
D 72 BBC 2W			Coast		
D 105 BBCi			News		
D 118 BBC Radi			The Bill		

Portrait (Displays by time)

- To return to TV →

- To the previous day (DVB mode) →

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

- To view a programme list of the selected category →

- To the next day (DVB mode) →

(Type list)

Prog. Type
All Types
Movie
News
...

① select type

② view

(Category list)

Category
All Services
All DVB Services
All Analogue Services
Free Services
TV and Data Services
Profile 1
Profile 2
Profile 3
Profile 4

Only Analogue TV programmes are listed

① select category

② view

To list favourite programmes → p. 40

## View advertisement

Enter your postcode when using this function for the first time

→ "Postcode" in "GUIDE Plus+ Settings" (p. 30)

If you have already entered your postcode in "Auto Setup" - when first using the TV (p. 12), you do not have to enter again.

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

## Display advertisement information

- To display the latest advertisement, you will need to update the information. To update the information continuously, the TV must be left in Standby mode at night.

### Note

- Some advertisements are for future programmes. In this case it is possible to use the Event 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.

- To change advertisements



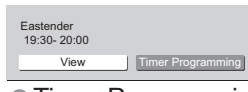




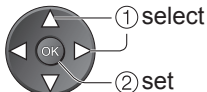
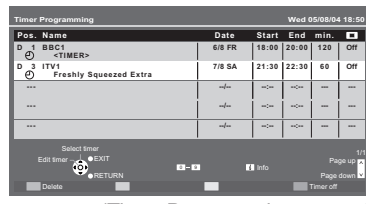


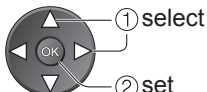
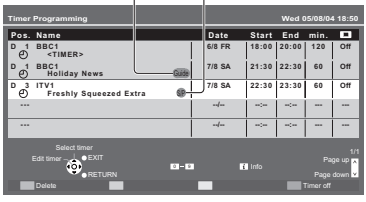




- To return to TV Guide



# Using TV Guide

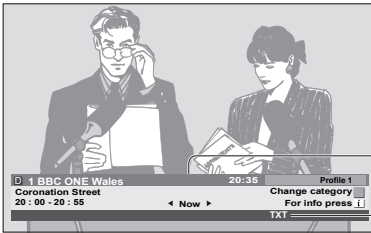
## Other useful functions (Operate after viewing TV Guide)

<p><b>Watch the programme</b></p>	<p><b>Select the current event or programme</b></p>  <p><b>Select "View"</b></p>   <p>● Timer Programming ➔ see below</p>  <p>(TV screen)</p>
<p><b>View details of the event (freesat or DVB mode)</b></p>	<p><b>Select the event</b></p>  <p><b>View details</b></p>  <p>Details</p> <p><b>To return to the start page</b></p> 
<p><b>Timer Programming</b></p>	<p><b>Select the forthcoming event to output to external recorder</b></p>   <p>(Timer Programming screen)</p> <p>Timer LED will turn on if Timer Programming is set.</p>  <p>● Orange Timer LED (Blinking during timer active)</p> <p><b>To check / change / cancel a Timer Programming event</b> ➔ "Timer Programming" (p. 47)</p> <p><b>To return to TV Guide</b> ➔ </p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>● While recording, you cannot watch any other programmes except the one being recorded.</li> <li>● When recording programmes, you must make the proper settings on the recorder connected to the TV. If a compatible recorder with Q-Link or similar technologies is connected to the TV (p. 51) and the "Link Settings" (p. 30) are completed, no setting of the recorder is required. Also read the manual of the recorder.</li> <li>● If you select the current programme, a screen asking you to confirm whether you wish to watch or record it will appear. Select "Timer Programming" to record from the time you finish the Timer Programming setting.</li> </ul>
<p><b>Event recording (Timer Programming according to the TV Guide signal)</b></p>	<p>Event recording is a timer programme controlled by information from the TV Guide. Programme start and end times may be changed by broadcasters and sent to the TV for timer programme to follow the change.</p> <p>Split Programme is a programme which is interrupted by one or more events. Both of the above are subject to signals being sent by broadcasters.</p> <p><b>Select the forthcoming event to output to external recorder</b></p>  <p>"Guide" is displayed if the timer is set from the TV Guide</p> <p>"S/P" is displayed if the timer is set from the TV Guide and the event is a Split Programme</p>  <p>(Timer Programming screen)</p> <p>Timer LED will turn on if Timer Programming is set.</p>  <p>● Orange Timer LED (Blinking during timer active)</p> <p><b>To check / change / cancel an Event recording event</b> ➔ "Timer Programming" (p. 47)</p> <ul style="list-style-type: none"> <li>● If you edit the Event recording after setting to record, it will no longer be performed as Event recording. The recording will be performed according to the time setting in Timer Programming.</li> </ul> <p><b>To return to TV Guide</b> ➔ </p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>● Not available in Analogue or Other Sat. mode.</li> <li>● Whilst making Split Programme recording, it is not possible to record any events between sections.</li> <li>● The Split Programme recording does not work if the separated parts are broadcast on differing channels.</li> </ul>

# 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. 15)

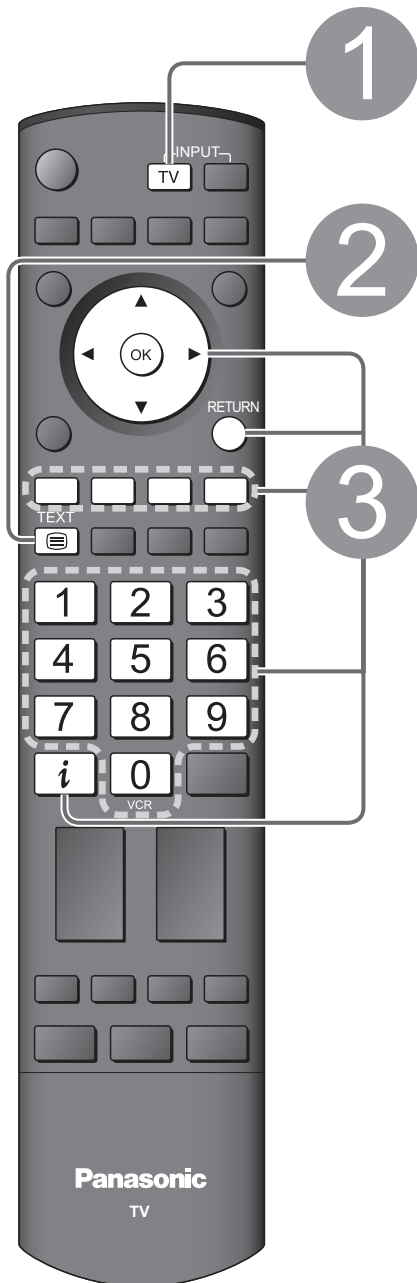
Displayed if programme has teletext service

## 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.



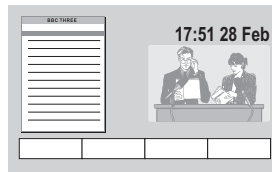
### Select freesat or DVB

→ p. 14



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

### Switch to Teletext



### 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.

For example:

- When "select" or "go" is displayed →
- When "◀", "▶", "▲", "▼" symbol is displayed →
- When "back key" is displayed →
- When the key words are displayed on colour bar →
- When options with numbers are displayed →
- When "i" is displayed → (information)

■ To return to TV →

#### Note

- As soon as you switch to a digital programme 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 programme, 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

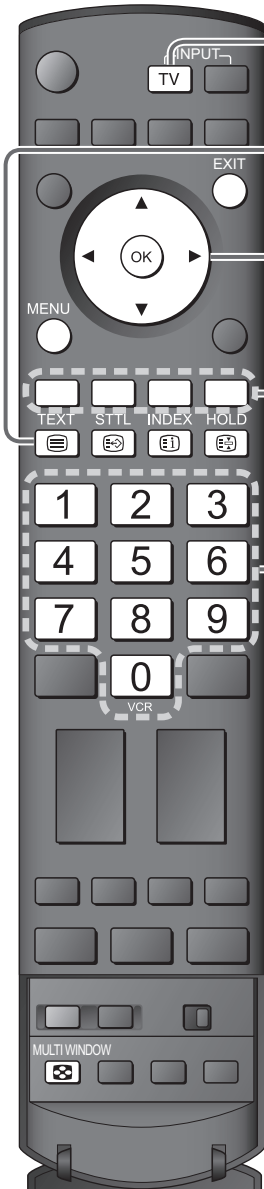
### What is FASTEXT mode?

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 Setup Menu (p. 31)



### 1 Select Analogue or Other Sat.

→ p. 14

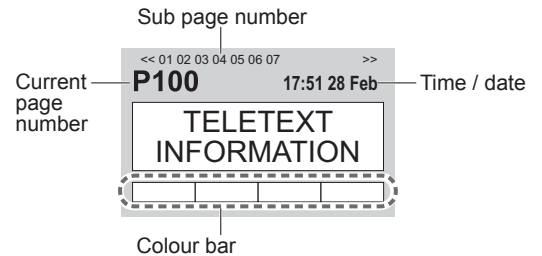


● Other Sat. programmes are digital broadcasts. The operations of the teletext services, however, are equal to Analogue teletext service.

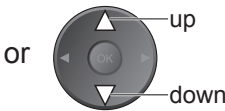
### 2 Switch to Teletext



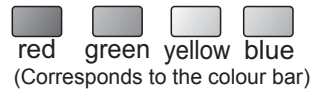
● Displays the index page (content varies depending on the broadcasters)



### 3 Select the page



or



(Corresponds to the colour bar)

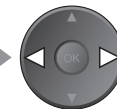
■ To adjust contrast →

MENU



(Press twice) →

As the blue bar is displayed



■ To return to TV →

EXIT



### Reveal hidden data

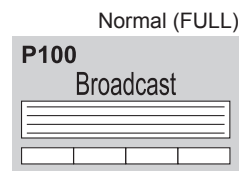
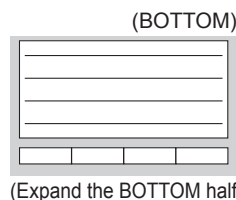
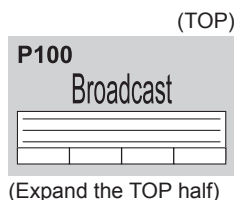
Reveal hidden words e.g. quiz page answers











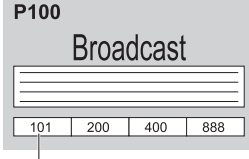








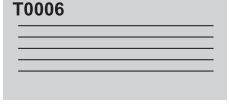




■ Re-hide →



### FULL / TOP / BOTTOM





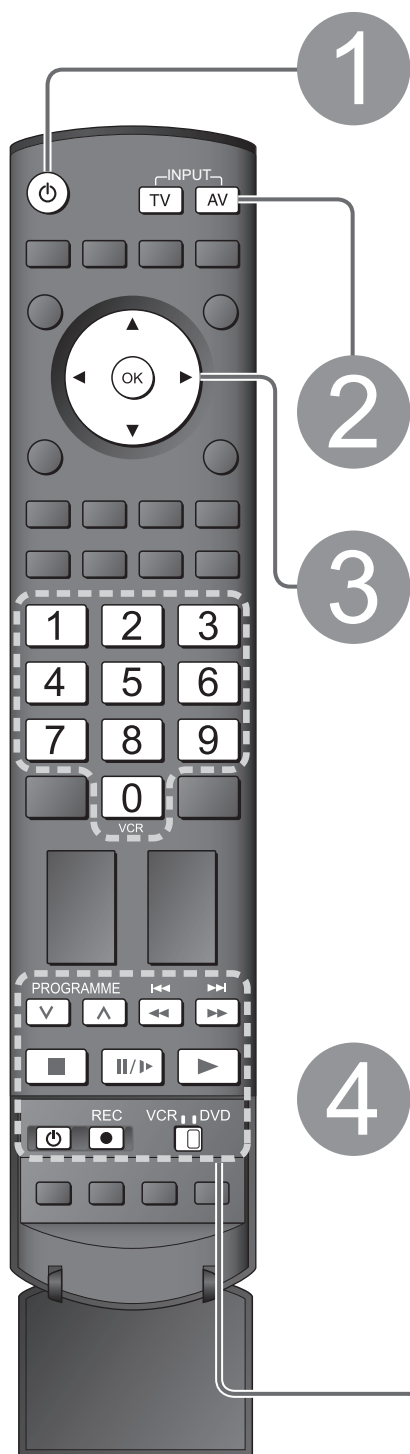
<b>HOLD</b>	<p><b>Stop automatic updating</b> (If you wish to hold the current page without updating)</p> <p>HOLD  <b>To resume</b> → HOLD </p>
<b>INDEX</b>	<p><b>Return to the main index page</b></p> <p>INDEX </p>
<b>Subtitles</b>	<p><b>View subtitles</b></p> <p>STTL  ● Factory setting is "P888" (subtitle service) on blue button (List mode).</p>
<b>View in multi window</b>	<p><b>Watch TV and Teletext in two windows at once</b></p> <p>MULTI WINDOW  </p> <p>● Operations can be made only in Teletext screen.</p>
<b>Store frequently viewed pages</b>	<p><b>Store frequently viewed pages in the colour bar</b> (List mode only)</p> <p>As page is displayed  Corresponding colour button → OK  press and hold</p> <p> P100 Broadcast 101 200 400 888</p> <p>● If you wish to use Subtitles, do not change number on blue button.</p> <p><b>To change stored pages</b></p> <p>→  Colour button you want to change → Enter new page number</p> <p></p> <p>→ OK  press and hold</p> <p>The number changes to white.</p>
<b>View sub page</b>	<p><b>View sub page (Only when teletext is more than one page)</b></p> <p> &lt;&lt;01 02 03 04 05— Appears at top of the screen</p> <p><b>To view specific sub page</b></p> <p>→ MENU  → blue </p> <p> T**** Broadcast → Enter the 4-digit number example: P6</p> <p> 0 0 0 6  T0006</p> <p>● Sub pages: The number of sub pages varies depending on the broadcasters (up to 79 pages). It may take some time for searching, during which time you can watch TV.</p>
<b>Watch TV while waiting for update</b>	<p><b>View the TV picture while searching for a teletext page</b> Teletext automatically updates itself when new information becomes available. Changes to TV screen temporarily</p> <p>MENU  → yellow  →  P108 — Appears when updating is completed → yellow  → View the updated page</p> <p>(You cannot change the programme.)</p> <p>● The news page provides a function that indicates arrival of latest news ("News Flash").</p>

# Watching External inputs

Connect the external equipment (VCRs, DVD equipment, etc.) and you can watch the input.

● To connect the equipment → p. 11

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



## 1 Turn the TV on

### ■ When connecting with SCART as example 2 or 3 (p. 11)

- Receives input signals automatically when playback starts or cable TV box is switched on
- Input signals are automatically identified by the SCART (pin 8) terminal.
- This function is also available for HDMI connections (p. 56).

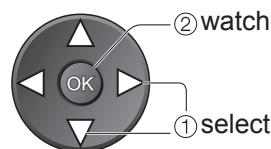
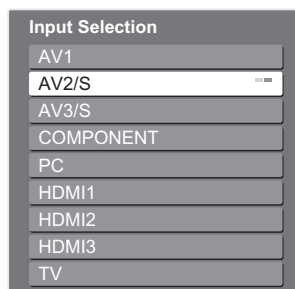
### ■ If input mode is not switched automatically

- Perform 2 and 3
- Dependant on the setup of the equipment

## 2 Display the Input select menu



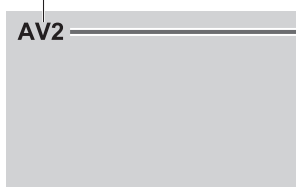
## 3 Select the input mode connected to the equipment



- You can also select the input using the AV button on the remote control or the front panel of the TV. Press the button repeatedly until the desired input is selected.
- You can label or skip each input mode → "Input Labels" (p. 44). Skipped inputs will not be displayed when AV button is pressed.

## 4 View

Displays the selected mode



### Note

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



### ■ To return to TV





## Screen display

Terminal	AV1	AV2	AV3	COMPONENT	PC	HDMI1	HDMI2	HDMI3
<b>Manual input</b> (default setting in "Input Labels")	AV1 AV1-RGB	AV2 AV2-S-Video AV2-RGB	AV3 AV3-S-Video	COMPONENT	PC	HDMI1	HDMI2	HDMI3
<b>Auto input</b> (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

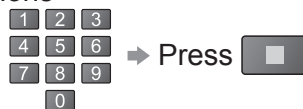
Panasonic equipment connected to the TV can be directly operated with the remote control.

	<b>VCR / DVD switch*</b> Select VCR to operate Panasonic VCR or DVD equipment Select DVD to operate Panasonic DVD equipment or Player home theatre
	<b>Standby</b> Set to Standby mode / Turn on
	<b>Play</b> Playback videocassette / DVD
	<b>Stop</b> Stop the operations
	<b>Rewind / Skip / Search</b> VCR: Rewind, view the picture rapidly in reverse DVD: Skip to the previous track or title Press and hold to search backward
	<b>Fast-forward / Skip / Search</b> VCR: Fast-forward, view the picture rapidly forward DVD: Skip to the next track or title Press and hold to search forward
	<b>Pause</b> Pause / Resume DVD: Press and hold to play at slow speed
	<b>Programme Up / Down</b> Select programme
	<b>Record</b> Start recording

### \*Setting your remote control to operate Panasonic VCR, DVD, etc.

- Set the VCR / DVD switch to the appropriate position → 
- Press and hold  during the following operations

Enter the appropriate code for the equipment to be controlled, see table below



"VCR" position

Equipment	Code
VCR	10 (default)
DVD	11

"DVD" position

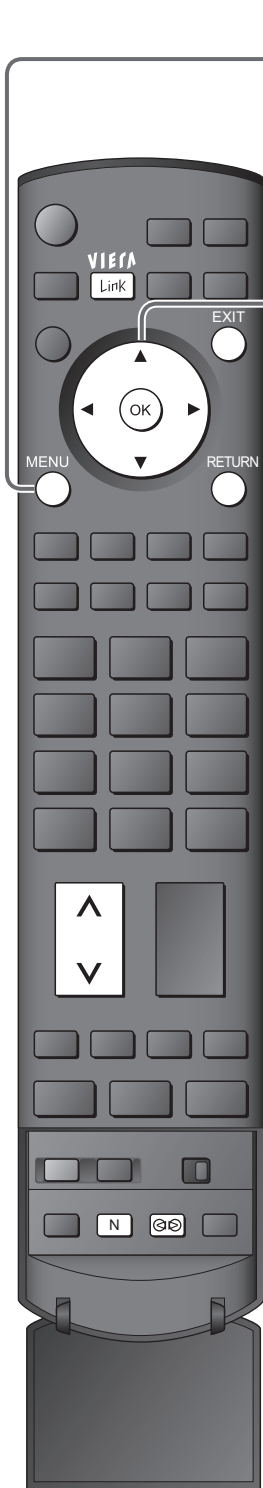
Equipment	Code
DVD	70 (default)
Player home theatre	71

### Note

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

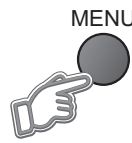
# How to Use Menu Functions

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



1

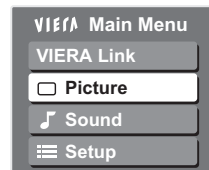
## Display the menu



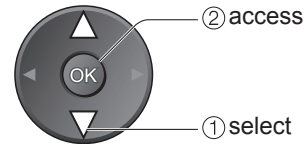
● Displays the functions that can be set (varies according to the input signal)

2

## Select the menu

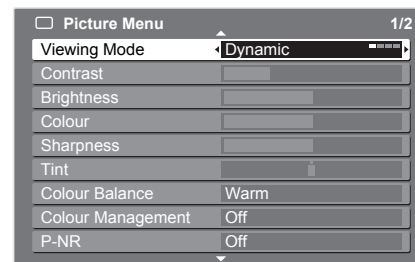


(example: Picture Menu)

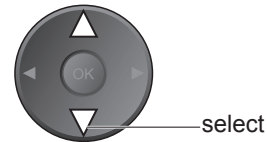


3

## Select the item

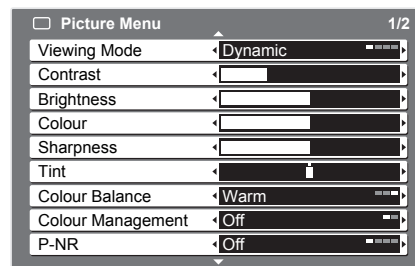


(example: Picture Menu)

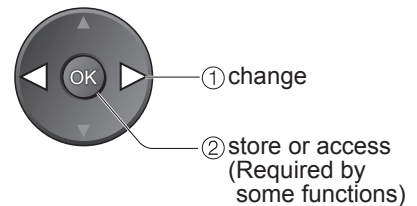


4

## Adjust or select



(example: Picture Menu)



■ To return to TV at any time

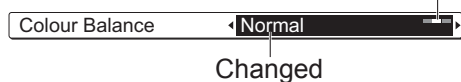


■ To return to the previous screen

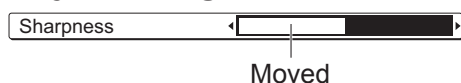


## ■ Choose from among alternatives

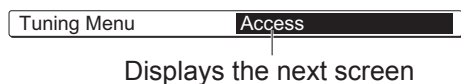
Number and positions of alternatives



## ■ Adjust using the slide bar



## ■ Go to the next screen

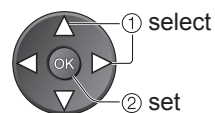


## ■ Enter characters using alpha / numeric keys

You can input information using alpha / numeric keys.



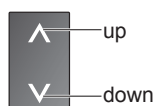
Set characters



Store



## ■ To change menu pages



## ■ To reset the settings

- To reset the picture settings only  
➔ "Reset to Default" in Picture Menu (p. 28)
- To reset the sound settings only  
➔ "Reset to Default" in Sound Menu (p. 29)
- To reset the picture and sound settings together  
➔ **N** (Also volume level and aspect mode are reset)
- To initialize all settings  
➔ "Shipping Condition" in Setup Menu (p. 42)

# How to Use Menu Functions

## ■ Menu list

Menu	Item	Adjustments / Configurations (alternatives)
VIERA Link	Pause Live TV	Controls the connected equipment with VIERA Link function, and enables various convenient recording, playback, etc. (p. 53 - 55) ● You can also access VIERA Link Menu directly using the VIERA Link button on the remote control.
	Direct TV Rec	
	VIERA Link Control	
	Speaker Selection	
Picture	Viewing Mode	Selects four different screen settings ( <b>Dynamic / Normal / Cinema / Eco</b> ) Dynamic : Provides enhanced picture contrast and sharpness when viewing in a bright room Normal : Recommended for viewing under normal ambient room lighting conditions Cinema : For watching movies in a darkened room producing a cinema-like picture Eco : Adjusts picture settings automatically dependent on ambient lighting conditions In each Viewing Mode setting, Contrast, Brightness, Colour, Sharpness, Tint, Colour Balance, Colour Management and 3D-COMB can be adjusted and stored to suit your particular viewing requirement (e.g., you may require different settings for viewing sports, films, news etc.) ● Set for each input signal ● Changes will be stored automatically
	Contrast, Brightness, Colour, Sharpness	Increases or decreases the levels of these options according to your personal preference
	Tint	With an NTSC signal source connected to the TV, the picture hue can be adjusted to suit your taste. ● For NTSC signal reception only
	Colour Balance	Allows you to set the overall colour tone of the picture ( <b>Cool / Normal / Warm</b> )
	Colour Management	Automatically adjusts colours to vivid ones ( <b>Off / On</b> ) ● Not valid on PC signal
	P-NR	Picture Noise Reduction Automatically reduces unwanted picture noise and flicker noise in the contoured parts of a picture ( <b>Off / Min / Mid / Max</b> ) ● 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 Default	Press the OK button to reset the present Picture Mode to the default settings



## ■ Menu list

Menu	Item	Adjustments / Configurations (alternatives)
Sound	<b>Mode</b>	Select two different sound settings ( <b>Music / Speech</b> ) 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
	<b>Bass</b>	Increases or decreases level to enhance or minimise lower, deeper sound output
	<b>Treble</b>	Increases or decreases level to enhance or minimise sharper, higher sound output
	<b>Balance</b>	Adjusts volume level of right and left speakers
	<b>Headphone Volume</b>	Adjusts the volume of the headphones
	<b>Surround</b>	Surround sound settings ( <b>Off / On</b> ) Provides a dynamic enhancer to simulate improved spatial effects ● Switching is also possible by the Surround button on the remote control (p. 9).
	<b>Volume Correction</b>	Adjusts volume of individual programme or input mode
	<b>Speaker Distance to Wall</b>	Adjusts the low frequency sound ( <b>Over 30cm / Up to 30cm</b> ) ● If the back space between the TV and wall is over 30 cm, "Over 30cm" is recommended. ● If the back space between the TV and wall is within 30 cm, "Up to 30cm" is recommended.
	<b>Preferred Multi Audio</b>	Selects the preferred language for DVB multi audio (depending on the broadcaster)
	<b>NICAM</b>	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
Audio Description Menu	<b>HDMI1 / 3 Input</b>	Select to fit the input signal ( <b>Auto / Digital / Analogue</b> ) (p. 58) Auto : Automatic detection of digital or analogue sound source Digital : HDMI cable connection Analogue : HDMI-DVI adapter cable connection ● HDMI input mode only ● HDMI2 terminal is for digital signal only ● No setting for HDMI2 available
	<b>Audio Description</b>	Useful for visually-impaired viewers ( <b>Off / On</b> ) Select "On" 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. 15).
	<b>Volume</b>	Adjusts the volume for audio description ● DVB mode only
	<b>Speakers</b>	Set to "On" to activate the description sound track from TV speakers ( <b>Off / On</b> ) ● DVB mode only
	<b>Headphones</b>	Set to "On" to activate the description sound track from headphones ( <b>Off / On</b> ) ● DVB mode only
	<b>Reset to Default</b>	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. 45 and p. 49)
- Only available items can be selected.

# How to Use Menu Functions

## ■ Menu list

Menu	Item	Adjustments / Configurations (alternatives)	
Setup	<b>Timer Programming</b>	Records forthcoming programmes (p. 46)	
	<b>freesat Favourites Edit</b>	Creates list of favourite freesat programmes (p. 40)	
	<b>freesat Service List</b>	Skips the unwanted freesat programmes (p. 41)	
	<b>DVB Profile Edit</b>	Creates list of favourite DVB programmes (p. 40)	
	<b>DVB Service List</b>	Skips the unwanted DVB programmes (p. 41)	
	<b>Analogue Service List</b>	Skips the unwanted Analogue programmes or edits Analogue programmes (p. 41)	
	<b>Other Sat Service List</b>	Skips the unwanted other satellite programmes or deletes other satellite programmes (p. 41)	
	<b>Link Settings</b>	<b>VIERA Link</b>	Sets to use VIERA Link functions ( <b>Off / On</b> ) (p. 52)
		<b>Q-Link</b>	Selects which AV terminal is to be used for data communication between this TV and a compatible recorder ( <b>AV1 / AV2</b> ) (p. 51) ● Select the connected terminal to the recorder even it is not compatible with Q-Link.
		<b>AV1 / AV2 out</b>	Chooses the signal to be transmitted from the TV to Q-Link ( <b>TV / AV1 / AV2 / AV3 / Monitor</b> ) ● Monitor: Image displayed on screen ● Component, PC and HDMI signals cannot be outputted.
		<b>Q-Link Download</b>	Downloads analogue programme information to a Q-Link compatible equipment connected to the TV
		<b>Child Lock</b>	Locks a programme / AV input to prevent access to it (p. 41)
	<b>freesat Setup</b>	<b>Auto Setup</b>	Automatically sets the freesat programmes received in the area (p. 34)
		<b>Signal Condition</b>	Checks the freesat signal condition (p. 35)
		<b>Network Setup</b>	Sets the network setting to use in your Broadband environment (p. 35)
	<b>Tuning Menu</b>	<b>Auto Setup</b>	Automatically sets the DVB or Analogue programmes received in the area (p. 39)
		<b>DVB Manual Tuning</b>	Sets the DVB programmes manually (p. 39)
		<b>Analogue Manual Tuning</b>	Sets the Analogue programmes manually (p. 39)
		<b>Add New DVB Services</b>	Adds new DVB services (p. 39)
		<b>New Service Message</b>	Selects whether to give a notification message when a new DVB service is found (p. 39)
		<b>DVB Signal Condition</b>	Checks the DVB signal condition (p. 39)
<b>GUIDE Plus+ Settings</b>	<b>Postcode</b>	Sets your postcode to display advertisements in the GUIDE Plus+ system (p. 19)	
	<b>System Information</b>	Displays the system information of the GUIDE Plus+ system	

## ■ Menu list

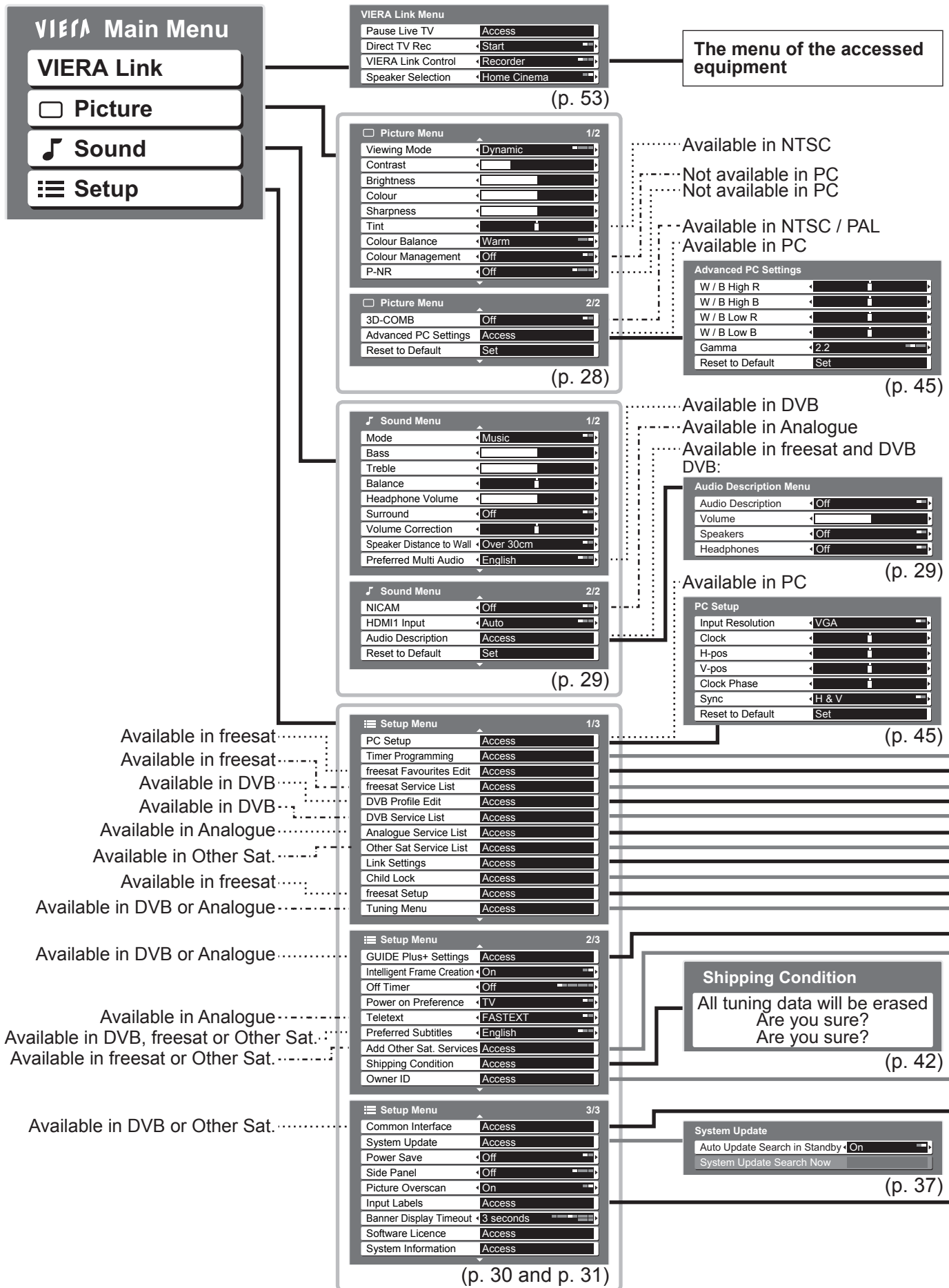
Menu	Item	Adjustments / Configurations (alternatives)	
Setup	<b>Intelligent Frame Creation</b>	Automatically compensates the picture frame rate to make the image smooth ( <b>Off / On</b> ) <ul style="list-style-type: none"> <li>● It is effective when viewing 24p input signal with this function set to "On".</li> <li>● Not valid on PC signal</li> </ul>	
	<b>Off Timer</b>	Sets the time the TV automatically turns Off ( <b>Off / 15 / 30 / 45 / 60 / 75 / 90 minutes</b> )	
	<b>Power on Preference</b>	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 ( <b>TV / AV</b> ) <ul style="list-style-type: none"> <li>● The external equipment must be switched on and sending a control signal for automatic switching at power on to occur.</li> </ul>	
	<b>Teletext</b>	Analogue teletext display mode ( <b>FASTEXT / List</b> ) (p. 22)	
	<b>Preferred Subtitles</b>	Selects the preferred language for DVB subtitles (depending on the broadcaster) <ul style="list-style-type: none"> <li>● To display subtitles → p. 15</li> </ul>	
	Add Other Sat. Services	<b>Auto Setup</b>	Automatically sets the other satellite programmes (p. 37)
		<b>Signal Condition</b>	Checks the condition of other satellite signals (p. 37)
		<b>Manual Tune</b>	Sets the other satellite programmes manually (p. 37) <ul style="list-style-type: none"> <li>● Please consult the received satellite broadcasting companies for the setting.</li> </ul>
		<b>Dish Setup</b>	Sets the Low and High band frequency for the other satellite programmes (p. 37) <ul style="list-style-type: none"> <li>● Please consult the received satellite broadcasting companies for the setting.</li> </ul>
	<b>Shipping Condition</b>	Resets all settings, for example, when moving house (p. 42)	
	<b>Owner ID</b>	Inputs the owner ID (p. 43)	
	<b>Common Interface</b>	Uses include to watch pay-TV (p. 36)	
	<b>System Update</b>	Downloads new software to TV (p. 37)	
	<b>Power Save</b>	Reduces brightness of picture to economise on power consumption ( <b>Off / On</b> )	
	<b>Side Panel</b>	Increases the brightness of the side panel ( <b>Off / Low / Mid / High</b> ) <ul style="list-style-type: none"> <li>● The recommended setting is "High" to prevent panel "image retention".</li> </ul>	
	<b>Picture Overscan</b>	Selects the screen area displaying the image ( <b>Off / On</b> ) On : Enlarged the image to hide the edge of the image. Off : Displayed the image in the original size. <ul style="list-style-type: none"> <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 (High definition) signals.</li> </ul>	
	<b>Input Labels</b>	Labels or skips each input terminal (p. 44)	
<b>Banner Display Timeout</b>	Sets how long the information banner (p. 15) stays on screen <ul style="list-style-type: none"> <li>● 0 (No display) to 10 sec. in 1-sec. increments</li> </ul>		
<b>Software Licence</b>	Displays the software licence information		
<b>System Information</b>	Displays the system information of this TV		

- A different menu will be displayed while PC or SD Card is used. (p. 45 and p. 49)
- Only available items can be selected.

# How to Use Menu Functions

## Overview

How to operate (p. 26)



Pos.	Name	Date	Start	End	min.	Off
D 1	BBC1	6/8 FR	14:00	23:00	120	Off
D 1 <TIMER>						
D 1	BBC1	7/8 SA	21:30	22:30	60	Off
Holiday News						
D 3	ITV1	7/8 SA	22:30	23:30	60	Off
Freshly Squeezed Extra						

(p. 46)

freesat Service List	
101	BBC 1 Scotland
102	BBC 2 Scotland
103	stv
104	stv
108	BBC THREE
109	BBC FOUR
110	BBC HD

(p. 41)

DVB Service List	
70	CBBC Channel
72	Cartoon Nwk
105	BBC1
719	BBC Radio Wales
720	BBC Radio Cymru
1	BBC ONE Wales
7	BBC THREE

(p. 41)

Other Sat Service List	
2	freesatHome
3	freesatSSU
4	Brit Shorts
5	HINRG LOWNRG
6	WELL Class
7	GROOVE
8	-

(p. 41)

Child Lock	
Change PIN	Access
Child Lock List	

(p. 41)

Favourites Editor	
All freesat Services	
101	BBC 1 Wales
102	BBC 2 Wales
103	ITV1 WALES
108	BBC THREE
110	BBC HD
112	ITV2
113	ITV2+1
Favourites	

(p. 40)

Profile Editor	
All DVB Services	
1	BBC One Wales
7	BBC THREE
14	E4
70	CBBC Channel
72	Cartoon Nwk
105	BBC1
719	BBC Radio Wales
720	BBC Radio Cymru
Profile 1	

(p. 40)

Analogue Service List	
1	BBC1
2	*****
3	*****
4	
5	
6	
7	

(p. 41)

Link Settings	
VIERA Link	On
Q-Link	AV2
AV2 out	TV
Q-Link Download	Access

(p. 30)

freesat Setup Menu	
Auto Setup	Access
Signal Condition	Access
Network Setup	Access

(p. 34)

Tuning Menu	
Auto Setup	Access
DVB Manual Tuning	Access
Analogue Manual Tuning	Access
Add New DVB Services	Access
New Service Message	On
DVB Signal Condition	Access

(p. 38)

Available in DVB .....  
 Available in Analogue .....  
 Available in DVB .....  
 Available in DVB .....  
 Available in DVB .....

Auto Setup - freesat	
Searching	0
Signal Quality	0
Signal Strength	0
TV Services Found	8
Radio Services Found	2
Data Services Found	1

(p. 34)

Satellite Signal Condition	
Satellite Programme	101 BBC 1 Scotland
Signal Quality	0
Signal Strength	0
Network ID	003B
Transport Stream ID	07FF
Satellite Lock Indicator	Not Locked

(p. 35)

Network Setup Menu 1/2	
Connect to network	Access
Acquire IP address	Auto
IP address	
Subnet mask	
Gateway	
Acquire DNS address	Auto
Primary DNS	
Secondary DNS	

Network Setup Menu 2/2	
Proxy	
Proxy port	
Speed mode	Auto
MAC address	ab-cd-ef-gh-ij-kl

(p. 35)

Auto Setup - Digital			
Scan	21	68	
This will take about 3 minutes.			
Channel	Service Name	Type	Quality
62	CBBC Channel	Free TV	10
62	BBC Radio Wales	Free TV	10
62	E4	Free TV	10
62	Cartoon Nwk	Free TV	10

(p. 39)

DVB Manual Tuning			
Frequency	CH21	472 MHz	
Signal Quality	0	10	
Signal Strength	0	10	
Position	Service Name	Type	New

(p. 39)

Analogue Manual Tuning	
1 BBC1	CH33
Manual Tuning	21

(p. 39)

Add New DVB Services			
Scan	21	68	
This will take about 3 minutes.			
Channel	Service Name	Type	Quality

(p. 39)

DVB Signal Condition	
DVB Programme	[CH70] CBBC Channel
Signal Quality	0
Signal Strength	0

(p. 39)

Other Satellite Services Menu	
Auto Setup	Access
Signal Condition	
Manual Tune	
Dish Setup	

(p. 37)

GUIDE Plus+ Settings Menu	
Postcode	Access
System Information	

(p. 30)

Owner ID	
Please enter new PIN	
PIN	* * * *

(p. 43)

Common Interface	
Slot 1:	Module inserted

(p. 36)

Input Labels	
AV1	DVD
AV2/S	AV2/S
AV3/S	AV3/S
COMPONENT	COMPONENT
PC	PC
HDMI1	HDMI1
HDMI2	HDMI2
HDMI3	HDMI3

(p. 44)

Viewing

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

# Advanced Settings (freesat)

Advanced Settings provide access to various freesat features.

- 1 Select freesat**  
→ p. 14
- 2 Display the menu**
- 3 Select "Setup"**
- 4 Select "freesat Setup"**
- 5 Select a function and set**

**VIERA Main Menu**

- VIERA Link
- Picture
- Sound
- Setup**

② access

① select

**Setup Menu** 1/3

- Timer Programming
- freesat Favourites Edit
- freesat Service List
- Link Settings
- Child Lock
- freesat Setup** Access
- Intelligent Frame Creation On
- Off Timer Off
- Power on Preference TV

② access

① select

**freesat Setup Menu**

- Auto Setup** Access
- Signal Condition Access
- Network Setup Access

② access

① select

■ To return to TV  
EXIT

Automatically retune all the freesat programmes received in the area.

- Only freesat programmes are retuned.
- If a Child Lock PIN number (p. 41) has been set, it must be entered.

## ① Start Auto Setup

Settings are made automatically

## ② Enter your postcode

Set characters

Store after you finish entering the postcode

green

- All the previous tuning settings are erased.
- When the operation is completed, the programme at the lowest position will be displayed.

## ■ For Auto Setup, using the buttons on the front of the TV (p. 9)

- ① Press repeatedly until "Auto Setup" appears



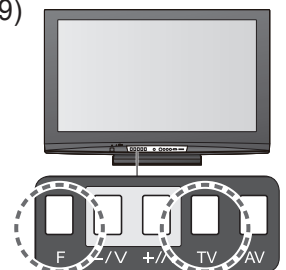
- ② Access "Auto Setup"



- ③ Start "Auto Setup"



- To return to TV → F



Set all  
freesat  
programmes  
automatically

### Auto Setup



## Check freesat signal

### Signal Condition

Selects a programme and checks the freesat signal condition.

- To change the programme →



Satellite Signal Condition	
Satellite Programme	101 BBC 1 Scotland
Signal Quality	0
Signal Strength	0
Network ID	003B
Transport Stream ID	07FF
Satellite Lock Indicator	Not Locked

A good Signal Strength is not an indication of suitable signal for freesat reception. Please use the Signal Quality indicator as follows:

#### Signal Quality:

- Green bar → Good
- Yellow bar → Poor
- Red bar → Bad (Check the Satellite dish)

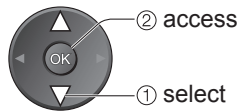
Sets the network settings for future applications from broadcasters to enable greater interactivity and added features for freesat services.

- To connect to your network → p. 56 and p. 60

### Connect to network

Performs automatic testing of the network connection for the TV.

- Set the network setting items → see below
  - Select "Connect to network" and access to test
- It takes a while to test.



#### Connected

The test is successful and the network settings become effective.

#### Not connected

Check the settings and connections, and then perform this function again.

### Acquire IP address

### Acquire DNS address

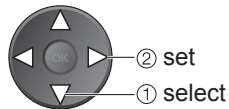
Sets IP address, Subnet mask, Gateway, Primary DNS and Secondary DNS.

For most users, the recommended method of connection to your network is by using Auto feature.

Select "Acquire IP address" and then set to "Auto"

Select "Acquire DNS address" and then set to "Auto"

- The available settings are displayed automatically.

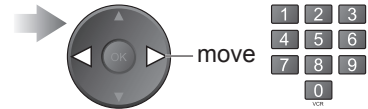


#### Manual settings

If you wish to set these functions manually, select "Manual".

Select "IP address", "Subnet mask", "Gateway", "Primary DNS" or "Secondary DNS"

Move the cursor and enter the number



## Connect to the Broadband network

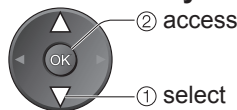
### Network Setup

### Proxy

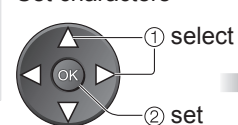
Sets Proxy address.

- This is the address of the relay server that is connected to the target server instead of the browser and sends data to the browser. Setting is required if specified by the provider.

- Select "Proxy"
- Enter the address



Set characters



Store



### Proxy port

Sets Proxy port number.

- This number is also specified by the provider with the Proxy address.

- Select "Proxy port"
- Move the cursor and enter the number

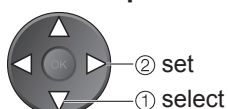


### Speed mode (Auto / 10base half / 10base duplex / 100base half / 100base duplex)

Sets the LAN speed setting.

- Set to "Auto" normally.
- If "Connect to network" test fails, try the other speed modes.

Select "Speed mode" and then set the speed mode

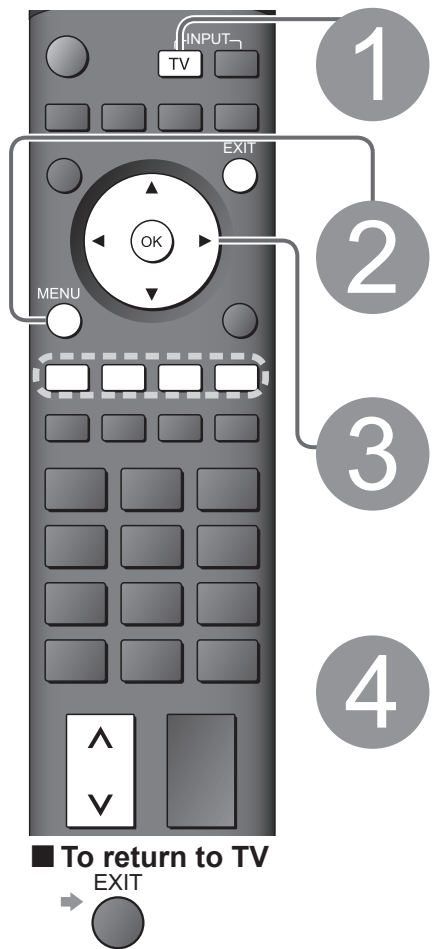


### MAC address

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

# Advanced Settings (DVB Other Sat.)

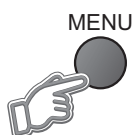
Advanced Settings provide access to various advanced DVB or Other Satellite features.  
 ● Some of Other Sat. functions may work to differing specifications (depending on the broadcasters).



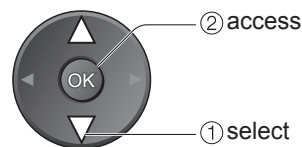
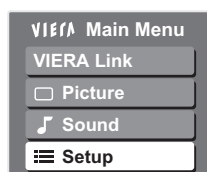
**1 Select freesat, DVB or Other Sat.**  
 → p. 14



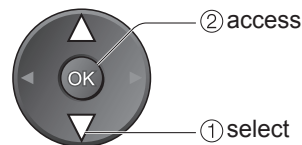
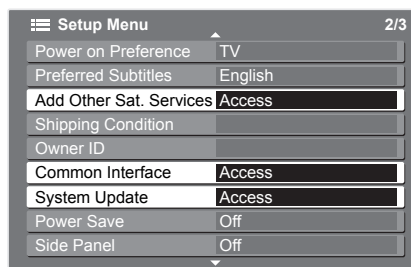
**2 Display the menu**



**3 Select "Setup"**



**4 Select one of the following functions and set**



**To return to TV**  
 EXIT

- "Add Other Sat. Services" is available in freesat or Other Sat. mode only.
- "Common Interface" is available in DVB or Other Sat. mode only.

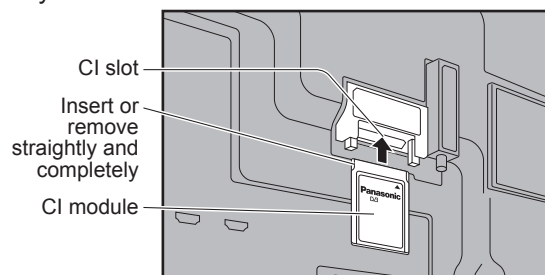
The Common Interface Module menu provides access to software contained on Common Interface (CI) Modules.

This TV receiver works only Pay TV modules complying with CI standard.

- This function is not available for BSkyB's Sky services.

**Caution**

- Turn Off Mains power On / Off switch whenever inserting or removing the CI module.
- If a view card and a card reader come as a set, first insert the card reader, then insert the view card into the card reader.
- Do not insert the module up side down.



Rear of the TV

**Pay-TV**

**Common Interface**

**① Insert the CI module (optional)**

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

**② Access "Common Interface"**



**③ Follow the on-screen instructions**



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

Coloured characters → red green yellow blue

Any receivable digital compliant satellite programmes can be tuned.

### Auto Setup

Other Sat. programmes are retuned and all the previous Other Sat. tuning settings will be erased.

Available satellite services will be searched and listed in the "Select Services to Keep" list. The tuning will be completed by selecting the services you wish to keep from the list and storing them. Up to 999 services can be stored. You can delete unwanted services later by pressing the red button in Other Sat. Service List (p. 41).

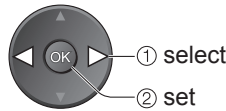
- Selectable satellites are Astra2/Eurobird, Astra1 and Hotbird.

Check the dish alignment for the satellite you want to select

• Astra2/Eurobird → p. 10

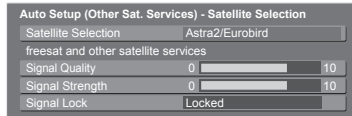
• Astra1, Hotbird → Please consult the received satellite broadcasting companies.

#### 1 Select the satellite

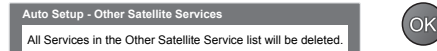


- It takes a while to check the connection for your selected satellite.

#### 2 Check the signal condition and the message

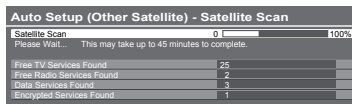


(Satellites are selected)



("All" is selected)

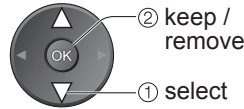
- Ensure that the Signal Lock status is shown as "Locked". If it is not locked, the search cannot be executed.
- If the status is shown as "Not locked" and Signal Quality / Signal Strength have no indications, please check the dish alignment.
- If the status is shown as "Not locked" but there are some levels of Signal Quality / Signal Strength indicated, select "All" in Satellite Selection and try again.



Auto Setup will start

#### 3 Select the services you wish to keep

Name	Type	Keep
Brit Shorts	Free TV	<input type="checkbox"/>
freesatHome	Free TV	<input checked="" type="checkbox"/>
freesatCommonC	Free TV	<input checked="" type="checkbox"/>
freesatSSU	Free TV	<input checked="" type="checkbox"/>
freesatOAD	Data	<input type="checkbox"/>
10510	Data	<input type="checkbox"/>
HINRG LOWNRG	Radio	<input type="checkbox"/>
WELL CLASS	Radio	<input type="checkbox"/>



- : keep (tune)
- : remove

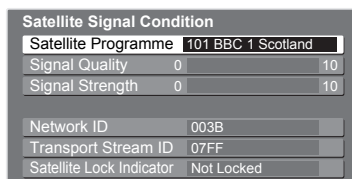
If you select "Astra2/Eurobird" or "All", freesat programmes will also be searched. But the programmes which have already been tuned in freesat will not be duplicated, and they will not be listed in the "Select Services to Keep" list.

#### 4 Store

### Signal Condition

Selects a programme and checks the received signal condition.

- To change the programme →



A good Signal Strength is not an indication of suitable signal for freesat reception. Please use the Signal Quality indicator as follows:

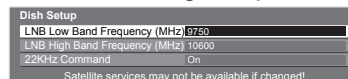
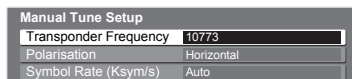
#### Signal Quality:

- Green bar → Good
- Yellow bar → Poor
- Red bar → Bad (Check the Satellite dish)

### Manual Tune

### Dish Setup

- Please consult the received satellite broadcasting companies for the setting.



Set all receivable digital satellite programmes

Add Other Sat. Services

(freesat or Other Sat. mode)

Update TV's software system

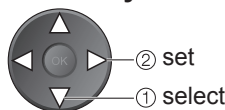
System Update

Download new software to TV.

For details → p. 59

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

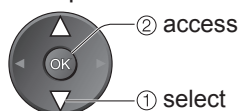
Select "Auto Update Search in Standby" and then set "On" or "Off"



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

### To update immediately

Select "System Update Search Now"



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

Download



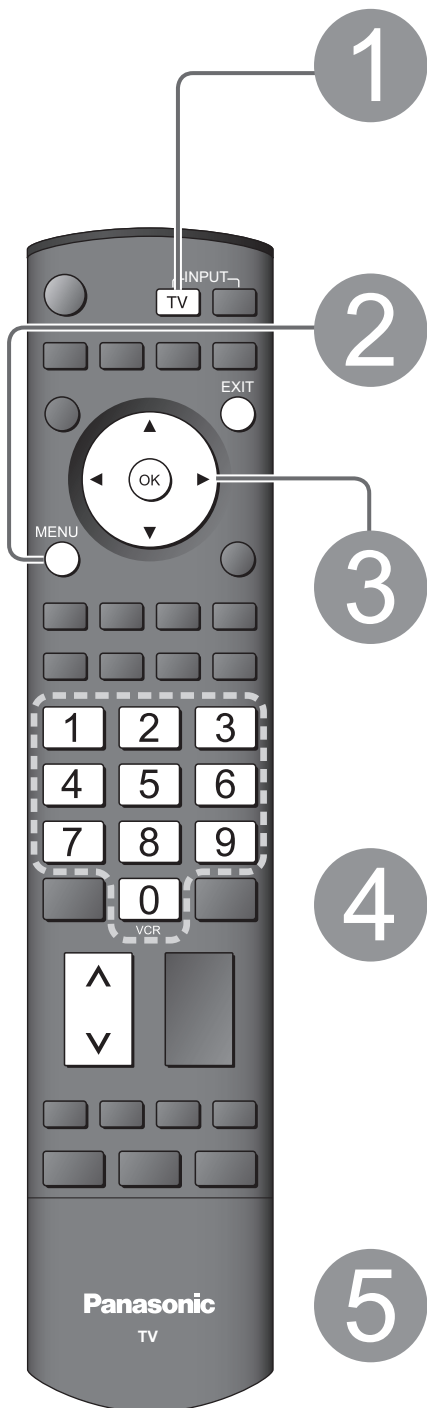
- Download may take up to 20 mins.

Advanced Settings (DVB / Other Sat.)

Advanced

# Tuning Programmes (DVB Analogue)

You can retune DVB or Analogue programmes when moving house or search for new services which may have recently started broadcasting.



1

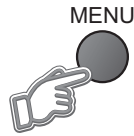
## Select DVB or Analogue

→ p. 14



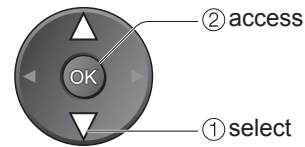
2

## Display the menu



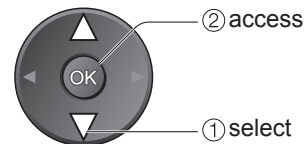
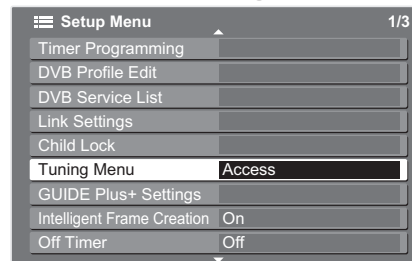
3

## Select "Setup"



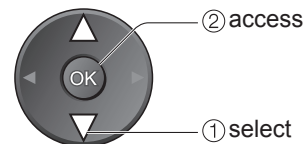
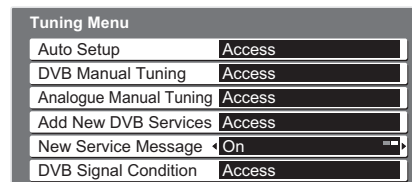
4

## Select "Tuning Menu"



5

## Select a function



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

## To return to TV



6

## Set

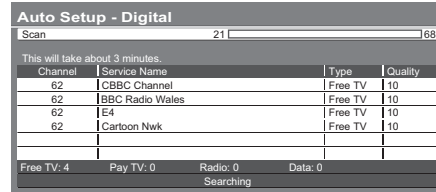
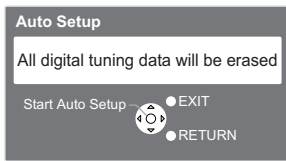
Set all DVB or Analogue programmes automatically

**Auto Setup**

Automatically retune all DVB or Analogue programmes received in the area.

- Only DVB programmes are retuned in DVB mode.
- Only Analogue programmes are retuned in Analogue mode.
- If a Child Lock PIN number (p. 41) has been set, it must be entered.

**Start Auto Setup**



Settings are made automatically

- All the previous tuning settings are erased.
- The analogue settings are downloaded to a Q-Link compatible equipment connected to the TV in Analogue mode.
- When the operation is completed, the programme at programme position "1" will be displayed.
- If tuning has not been done completely → "DVB Manual Tuning", "Analogue Manual Tuning"

**For Auto Setup, using the buttons on the front of the TV (p. 9)**

- 1 Press repeatedly until "Auto Setup" appears



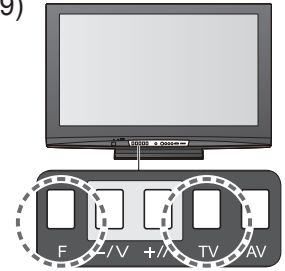
- 2 Access "Auto Setup"



- 3 Start "Auto Setup"



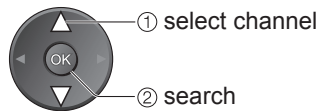
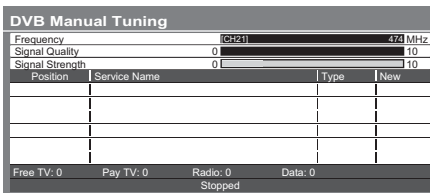
- To return to TV →



Set DVB programme manually

**DVB Manual Tuning**

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



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

Set Analogue programme manually

**Analogue Manual Tuning**

Set Analogue programme manually after Auto Setup.

- If a VCR is connected only with the RF cable, select programme position "0".



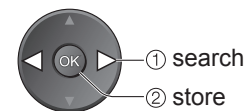
Select the programme position



Select the channel



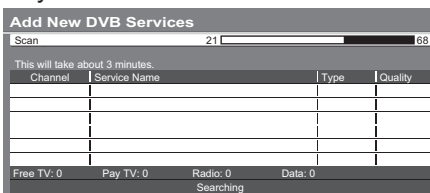
Search and store



Add DVB programme automatically

**Add New DVB Services**

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

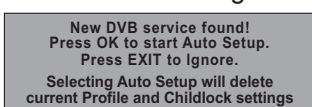


- The new service is added with the current settings saved as they are.

Display a notification message

**New Service Message**

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



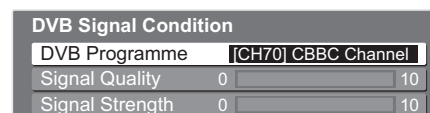
- Selecting OK (Auto Setup) will delete the current Profile and Childlock settings.

Check DVB signal

**DVB Signal Condition**

Selects a programme and checks the DVB signal condition.

- To change the programme →



A good Signal Strength is not an indication of suitable signal for DVB reception. Please use the Signal Quality indicator as follows:

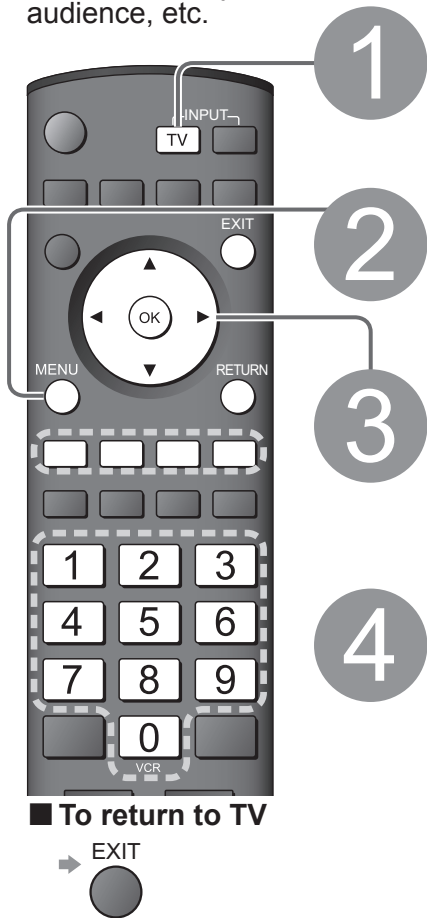
**Signal Quality:**

- Green bar → Good
- Yellow bar → Poor
- Red bar → Bad (Check the Terrestrial aerial)



# Editing Programmes

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

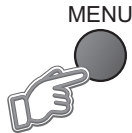


## 1 Select freesat, DVB, Analogue or Other Sat.

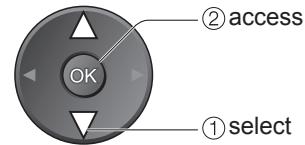
→ p. 14



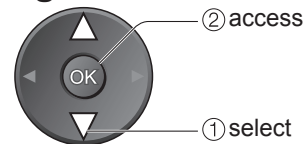
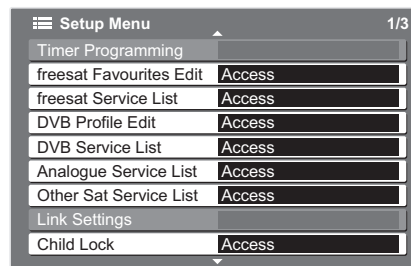
## 2 Display the menu



## 3 Select "Setup"



## 4 Select one of the following functions and set

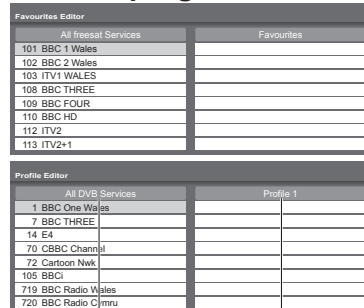


- "freesat Favourites Edit" and "freesat Service List" are available in freesat mode only.
- "DVB Profile Edit" and "DVB Service List" are available in DVB mode only.
- "Analogue Service List" is available in Analogue mode only.
- "Other Sat Service List" is available in Other Sat. mode only.

■ To return to TV  
→ EXIT

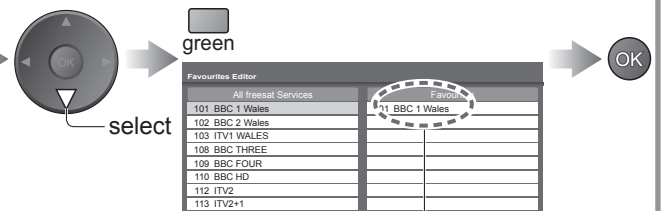
Create your favourite programme list (freesat-Favourites, DVB-Profile) from various broadcasters (DVB-up to 4: Profile 1 to 4). The freesat Favourites list is available from "Service Genre" in TV Guide (p. 18). The DVB Profile lists are available from "Category" in Information banner (p. 15) and TV Guide (p. 19).

### Select a programme and add it to the list



(freesat)

(DVB)



A programme is added

- To add all programmes to the list → yellow

List favourite programmes

**freesat Favourites Edit**

(freesat mode)

**DVB Profile Edit**

(DVB mode)

To change the category (DVB mode) → red

To display another Profile (DVB mode) → blue

### ■ To edit Profile

Select the field of Favourites or Profile to edit and:

- To name the Profile → red → Select the character → OK → RETURN
- To move the programme → green → Select the new position → Confirm → OK
- To delete the programme → yellow → OK
- To delete all programmes → blue → OK

### Note

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



## Skip unwanted programmes

freesat Service List

DVB Service List

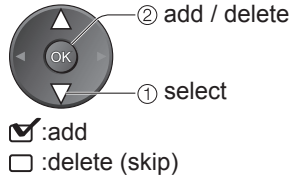
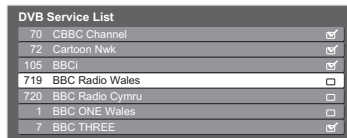
Analogue Service List

Other Sat Service List

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

- "freesat Service List" lists all the tuned freesat programmes in freesat mode.
- "DVB Service List" lists all the tuned DVB programmes in DVB mode.
- "Analogue Service List" lists all the tuned Analogue programmes in Analogue mode.
- "Other Sat Service List" lists all the tuned Other Sat. programmes in Other Sat. mode.

### Select a service and add / delete



- To retune each programme - DVB Service List or Analogue Service List (Manual Tuning) → (p. 39)
- To delete the programme - Other Sat Service List →

## Edit analogue programmes (Change name, Move)

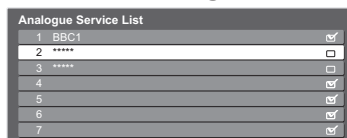
Analogue Service List

(Analogue mode)

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

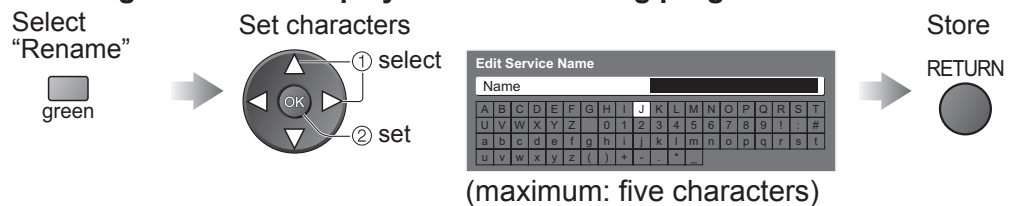
- This function is available in Analogue mode.
- If a VCR is connected only with the RF cable, edit "VCR".

### 1 Select the programme to edit



### 2 Edit

#### ■ To change the name displayed when selecting programmes



#### ■ To move the programme position



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

### 1 Enter the PIN number (4 digits)

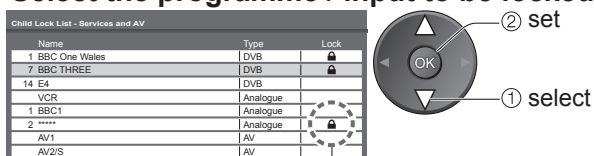


- Enter the PIN number twice at first setting.
- Make a note of the PIN number in case you forget it.

### 2 Select "Child Lock List"



### 3 Select the programme / input to be locked



Appears when the programme / input is locked

- To cancel → Select the locked programme / input →
- To jump to the top of the next type →
- To lock all →
- To cancel all locks →

#### ■ To change the PIN number

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

#### Note

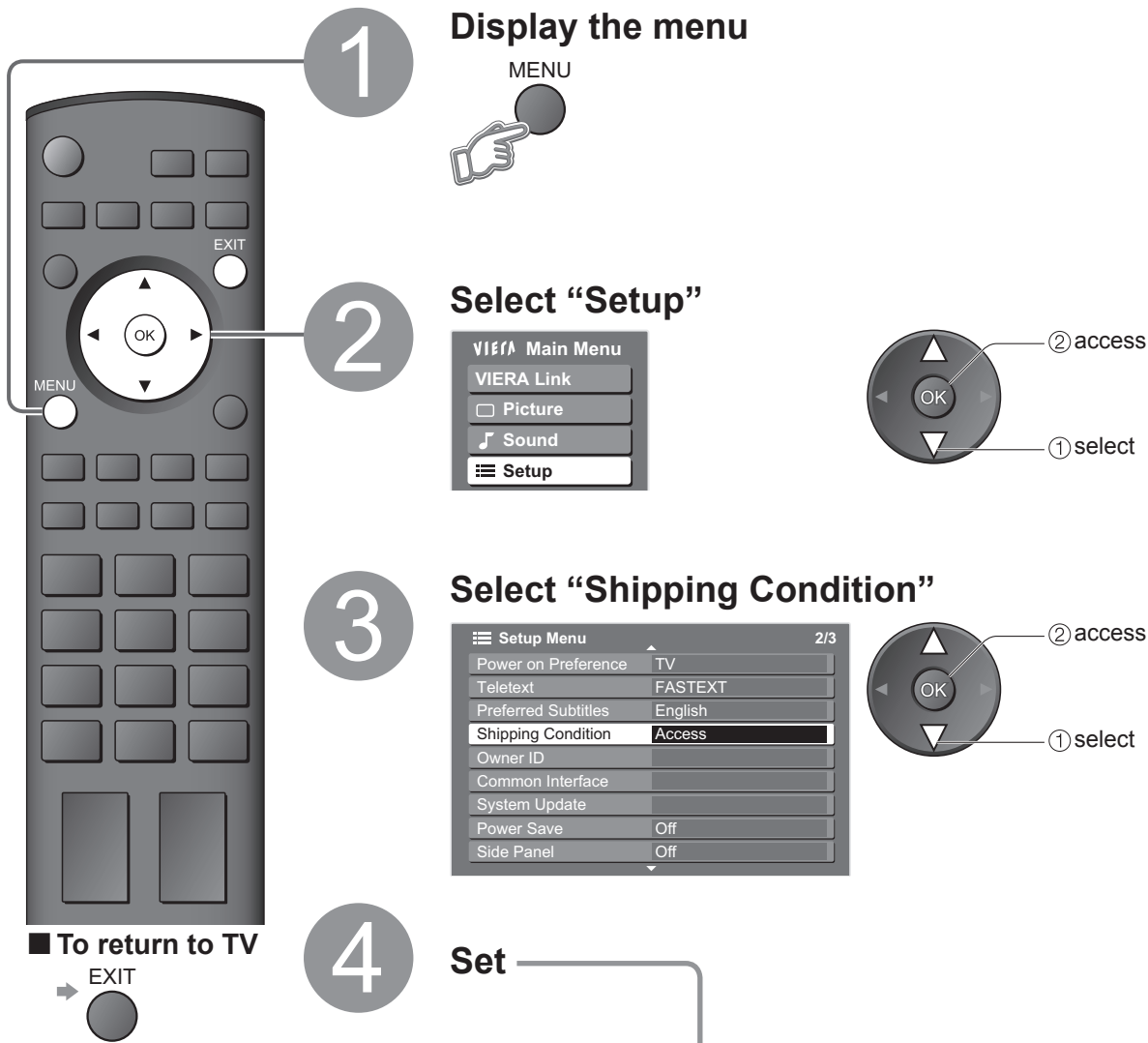
- Setting "Shipping Condition" (p. 42) erases the PIN number and all settings.

## Control programme audience

Child Lock

# Shipping Condition

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



Restore Settings  
 Shipping Condition

① **Check the message and initialise**

**Shipping Condition**

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

Confirm → ● EXIT  
● RETURN

② **Follow the on-screen instructions**

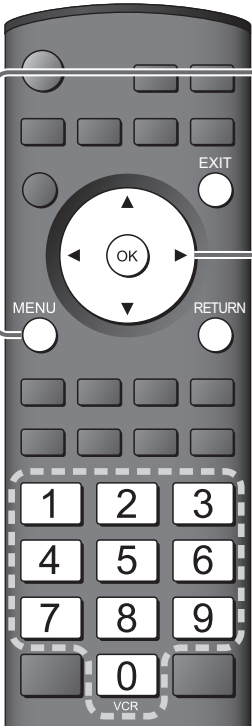
- "Auto Setup" will automatically start when Mains power On / Off switch is next turned On. (p. 12)

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

- ➔ "Auto Setup" (p. 34 and p. 39)

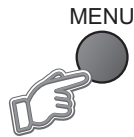
# Owner ID

Entry of the security code (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.  
 If you have skipped the Owner ID input in “Auto Setup” (p. 12), and input it later, start from ①.  
 If you input the Owner ID in “Auto Setup” (p. 12), perform ④.



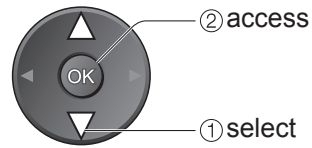
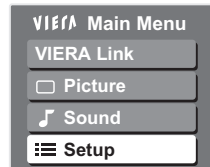
1

## Display the menu



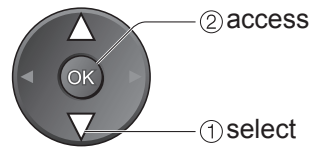
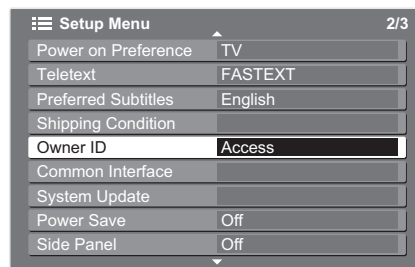
2

## Select “Setup”



3

## Select “Owner ID”



### To return to TV



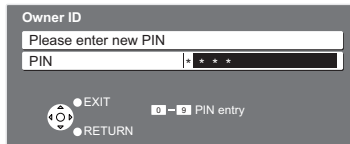
4

## Set

### Input owner ID

#### Owner ID

### ① Enter the PIN number (4 digits)



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

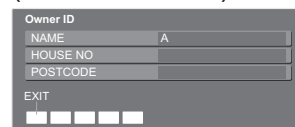
### ② Enter your name, address, and postcode, in that order

- Select the entry field
- Enter the “User input” mode
- Select the character
- Set
- Store

#### To check the “personal information” stored

Hold down for about 6 sec. F

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



- The PIN number is not displayed.

### To change the PIN number



Select the “PIN” field

➔ Enter a new PIN number twice

# Input Labels

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

- To select the input mode → p. 24

**1 Display the menu**

MENU

**2 Select "Setup"**

VIERA Main Menu	
VIERA Link	
Picture	
Sound	
Setup	

② access  
① select

**3 Select "Input Labels"**

Setup Menu 3/3	
Picture Overscan	On
Input Labels	Access
Banner Display Timeout	3 seconds
Software Licence	
System Information	

② access  
① select

**4 Select a input terminal and set**

Input Labels	
AV1	DVD
AV2/S	AV2/S
AV3/S	AV3/S
COMPONENT	COMPONENT
PC	PC
HDMI1	HDMI1
HDMI2	HDMI2
HDMI3	HDMI3

② set  
① select

The labels you set will be displayed in "Input Selection" menu (p. 24) or banner.

- If "Skip" is selected, you cannot select the mode.

**■ To return to TV**



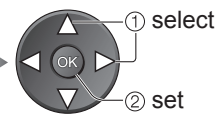
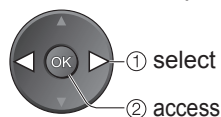
**■ User input**

You can name each input terminals freely.

Select "User input"

Set characters

Store

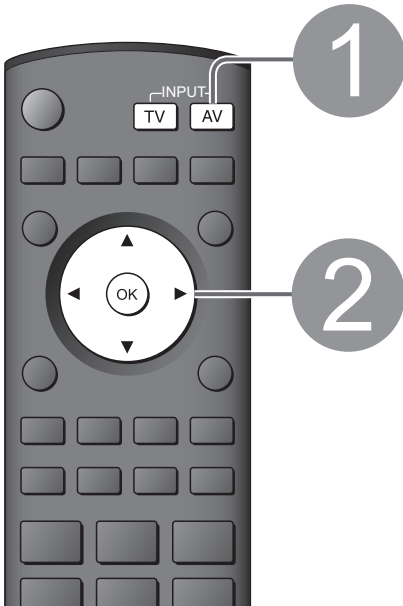


(maximum: ten characters)

# Displaying PC Screen on TV

The screen of the PC connected to the TV can be displayed on the TV.  
You can also listen to PC sound with the audio cable connected.

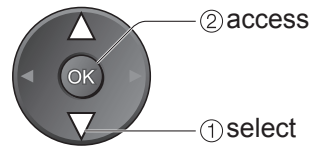
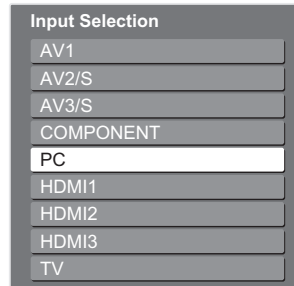
● To connect PC → p. 56



## 1 Select the external input



## 2 Select "PC"



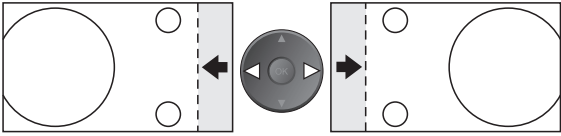
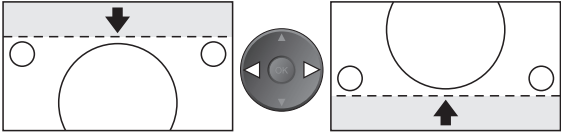
- Corresponding signals → p. 61
- If "H-freq." or "V-freq." is shown in red, the signals may not be supported.

### ■ To return to TV



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

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

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

● Other items → p. 28 - 31

# 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 programme (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. 51), and setup / connection are done completely (p. 50 and p. 51), 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 Setup Menu (p. 30) 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 programmes except the one being recorded.

**1** Select the mode you want to set a recording  
 → p. 14

**2** Display the menu

**3** Select “Setup”  
  
  
 ② access

**4** Select “Timer Programming”  
  
  
 ② access

**5** Set

**6** Store

■ To return to TV  
 EXIT

■ To stop recording  
 GUIDE EXIT

### Caution

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



## Set timer programming details

### ① Start making the settings



FS: freesat  
D: DVB  
A: Analogue  
S: Other Sat.  
(you cannot change TV mode within the menu)

### ② Repeat the operations as below, and set items in the order of ① to ⑤



select the item



set

● ①, ③ and ④ can also be entered with numeric buttons.

Displayed if the timer programming events are overlapped

Current timer programming event

Pos.	Name	Date	Start	End	min.	
D 7	BBC THREE <TIMER>	6/8 FR	17:00	18:30	90	Off
D 1	BBC1 Holiday News	6/8 FR	18:00	20:00	120	Off
D 3	ITV1 Freshly Squeezed Extra	7/8 SA	21:30	22:30	60	Off
...	...	...	...	...	...	...

Timer recording  
Records according to the time setting

Guide: Event recording  
Records according to the TV Guide signal (p. 20)

S/P: Split Programme (p. 20)

① Programme

② Date



one day ahead

daily or weekly  
(press repeatedly)

⑤ Subtitles (Off / Auto)

● Recording time  
(automatic display)

④ Ending time

③ Starting time

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

#### ■ To change a timer programming event

➔ Select the programme to be changed



② access

① select

➔ Correct as necessary  
(as above)

#### ■ To cancel a timer programming event

➔ Select the programme to be deleted



red

OK

#### ■ To cancel a timer programming event temporarily

➔ Select the programme to be cancelled



blue

● Each time pressed:  
cancel ↔ stop cancelling

#### ■ To view details of the programming

➔ Select the programme to be viewed



● Press again to return to  
Timer Programming menu.

#### ■ Event recording (Timer Programming from TV Guide-EPG) ➔ p. 20

- Not available in Analogue or Other Sat. mode.

Event recording is a timer programme controlled by information from the TV Guide.

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 events.

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

#### ■ Direct TV Recording ➔ p. 51 and p. 53

You can record the current programme to DVD Recorder / VCR immediately.

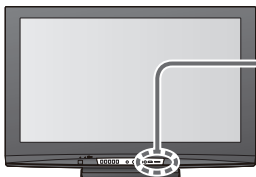
#### Note

- Check that the Timer LED (Orange) is lit. If not, timer programmes are not active or not stored.
- "!" will identify any timer events that have been set and overlap. If this occurs then the first event will start and finish as programmed. The next timer event can then start.
- 2 mins. before the starting time: a reminder message appears.  
(To remove the message ➔ OK; To cancel the programming ➔ EXIT)
- A Timer Programming event will automatically change to the desired programme 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. 53). In this case, Pause Live TV recording will be cancelled.

# Viewing from SD Card

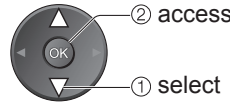
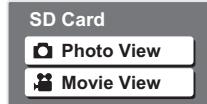
**Photo View:** Still images recorded by digital cameras will be displayed.

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



**1** Insert the SD Card

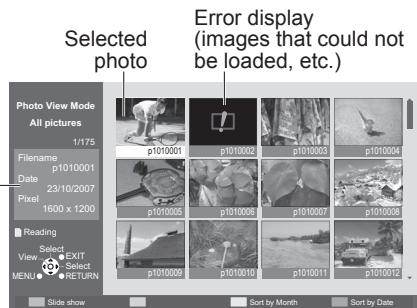
**2** Select "Photo View" or "Movie View"



**3** Select the file to be viewed



## Photo View



Selected photo information is displayed (Thumbnail)



### To sort by date or month recorded

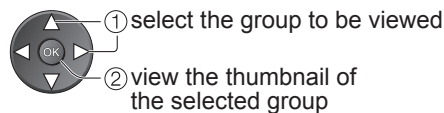
(Sort by Month / Sort by Date)

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

(Sort by Month)

(Sort by Date)

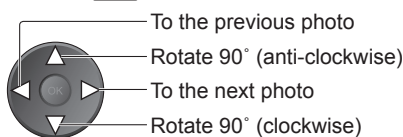
● The group of the photos without record of the date is shown as "Unknown".



## View

Displayed one at a time

● To display / hide the operation guide



● To return to thumbnail

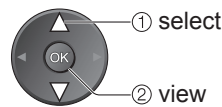
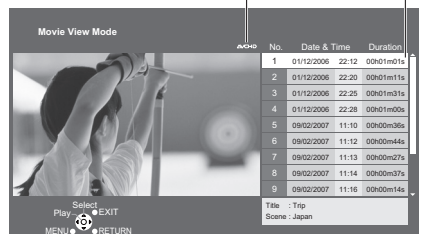


## Movie View

File format:

Only AVCHD or MPEG2 are supported. Selected movie

● For details → p. 59



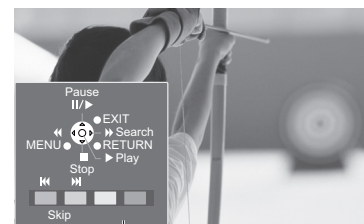
## View

Playback will start

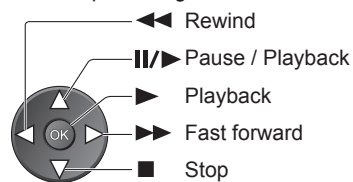
● To display the operation guide



● To hide the operation guide →



Operation guide



● To the previous movie →

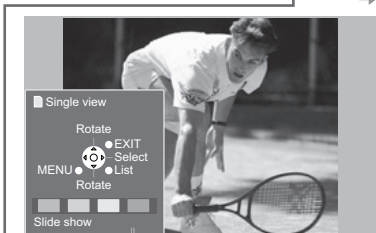
● To the next movie →

● To return to list → (stop)

● To display information banner →

● To change aspect ratio (only for the 4:3 movie content) →

## To return to TV

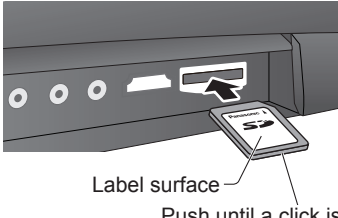


Operation guide

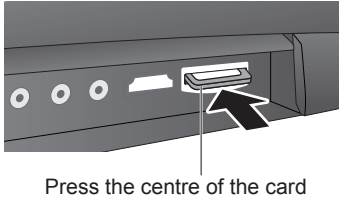
# (Photos and Movies)

SD Card

- For details on SD Cards → p. 59
- **To insert**





- **To remove**



- During the operation, no signals are output from any of the AV terminals. But the sound in Movie View can be output from AUDIO OUT and DIGITAL AUDIO OUT terminals.
- “Date” shows the date on which the recording was made by the digital camera or digital video camera. The file without record of the date is shown “\*\*/\*\*/\*\*\*\*”.

## Slide show (Photo View)

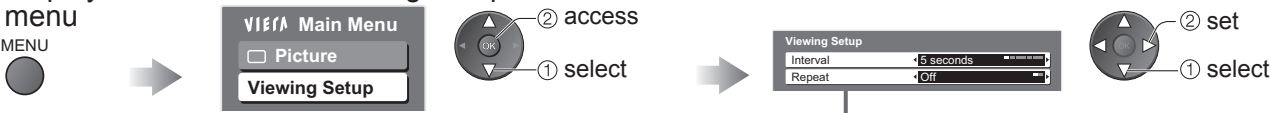
### ■ Start Slide show (operate in step ③)

- ① Select the photo for the first view
  - ② Start Slide show
- To pause → 
  - To return to Single view → 

**Note**

● A Slide show will be completed within the group from which it was started.

### ■ Slide show settings (operate in step ③)


- ① Display the menu
  - ② Select “Viewing Setup”
  - ③ Select the items and set
- 
- “Picture Menu” → p. 28

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


## Audio Settings (Movie View)

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

### ■ To confirm or change the current sound status (while viewing movies)

- ① Display the Option menu
  - ② Change the sound (if the movie has multiple audio signals)
- 
- It may take several seconds to change the sound.

### ■ Audio output settings (operate in step ③)

- ① Display the menu
  - ② Select “Sound”
  - ③ Select “SPDIF Selection” and set
- 
- Other items → p. 28 - 31

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

# Link Functions (Q-Link VIERA Link)

Q-Link connects the TV and DVD Recorder / VCR, and enables easy recording, playback, etc. (p. 51)  
 VIERA Link (HDAVI Control™) connects the TV and the equipment with VIERA Link function, and enables easy control, convenient recording, playback, etc. (p. 52 - 55)  
 You can use Q-Link and VIERA Link functions together.

## Summary of Q-Link and VIERA Link functions

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

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

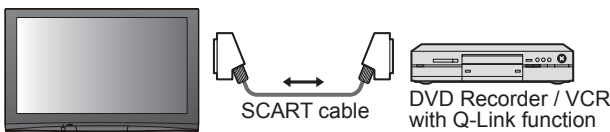
\*\* : Available with the equipment which has “HDAVI Control 3” function.

\*\*\* : These features may be available even with other manufacturers’ equipment supporting HDMI CEC.

## Connections

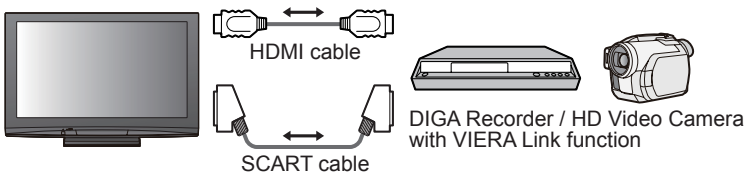
Read the manual of the equipment, too.

### Q-Link



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

### VIERA Link

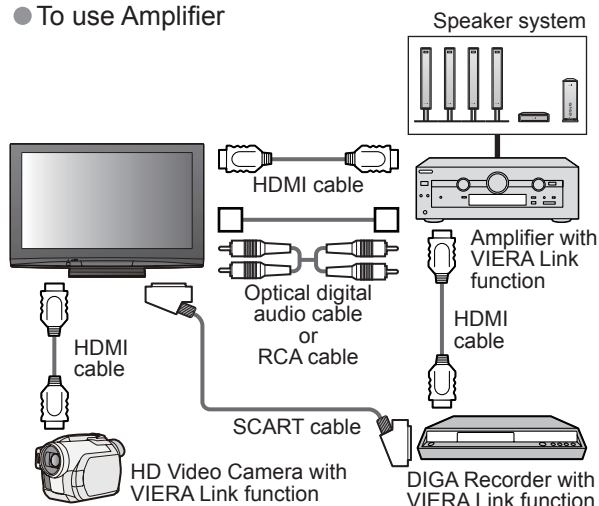


- Connect the equipment supporting VIERA Link to the TV’s AV1, AV2, HDMI1, HDMI2 or HDMI3 terminals via fully wired SCART and HDMI cables together.
- Some functions are available only with HDMI cable connection. But use both HDMI and SCART cables to support many features normally.

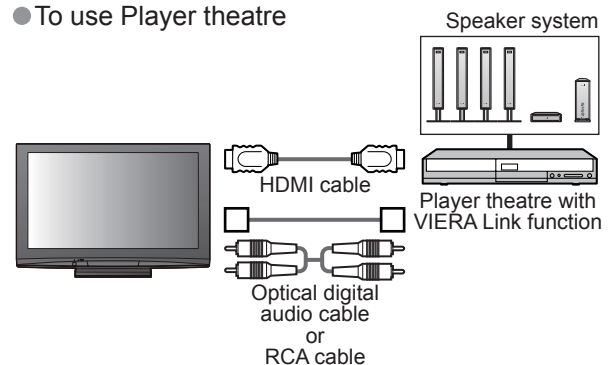
- SCART cable  
Use fully wired SCART cable.
- HDMI cable  
Use fully wired HDMI compliant cable. Non-HDMI-compliant cables cannot be utilized.  
Recommended Panasonic’s HDMI cable part number:  
 • RP-CDHG10 (1.0 m)  
 • RP-CDHG15 (1.5 m)  
 • RP-CDHG20 (2.0 m)  
 • RP-CDHG30 (3.0 m)  
 • RP-CDHG50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

### For Speaker control (Home Cinema)

- To use Amplifier



- To use Player theatre



## Q-Link

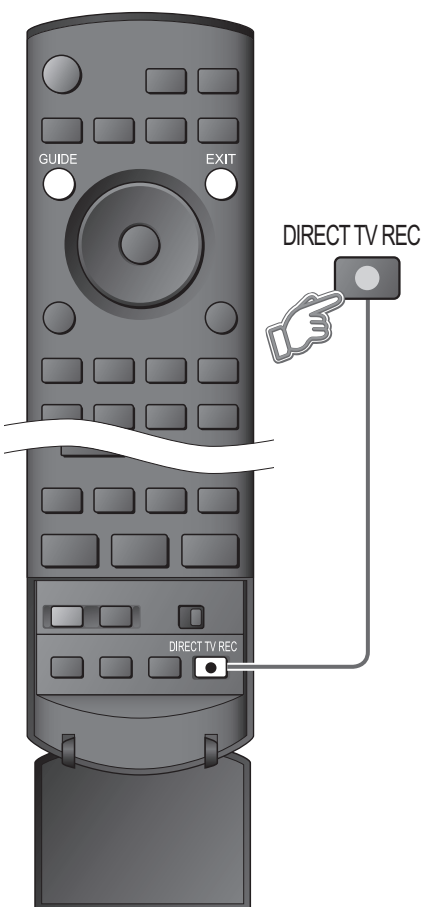
### ■ Preparations

- Connect the DVD Recorder / VCR with the following logos:  
“Q-Link”, “NEXTVIEWLINK”, “DATA LOGIC”, “Easy Link”, “Megalogic” or “SMARTLINK”
- Q-Link connection → p. 50
- Set up the DVD Recorder / VCR. Read the manual of the equipment.
- Q-Link terminal setup in Setup Menu → “Q-Link” (p. 30), “AV1 / AV2 out” (p. 30)
- Download Analogue programme setting → “Q-Link Download” (p. 30) or “Auto Setup” in Analogue mode (p. 39) or “Auto Setup” - when first using the TV (p. 12)

### ■ Features available

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

Recording the current programme in DVD Recorder / VCR immediately.

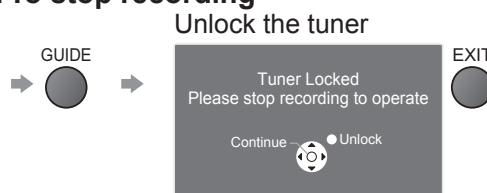


- Available conditions:

Current mode	Using tuner	How to record
Analogue	TV	TV monitor out
	Recorder	Recorder's tuner
freesat, DVB, Other Sat.	TV	TV monitor out
AV (watching recorder's tuner)	Recorder	Recorder's tuner
AV (watching recorder's external input)	—	Recorder's external input
AV (watching TV's external input)	—	TV monitor out

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

### ■ To stop recording



Direct TV Recording - What you see is What you record

Information / Message

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

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 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 DVD is not active.)

● “DATA LOGIC” (a trademark of Metz Corporation)  
● “Easy Link” (a trademark of Philips Corporation)

● “Megalogic” (a trademark of Grundig Corporation)  
● “SMARTLINK” (a trademark of Sony Corporation)



# Link Functions (Q-Link VIERA Link)

## VIERA Link “HDAVI Control™”\*

\*Enjoy additional HDMI Inter-Operability with Panasonic products which have “HDAVI Control” function. This TV supports “HDAVI Control 3” function.

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

These features are limited to models incorporating “HDAVI Control” and “VIERA Link”.

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

Please refer to individual manuals for other manufacturers’ equipment supporting VIERA Link function. About applicable Panasonic equipment, consult your local Panasonic dealer or refer to the URL: [www.panasonic.co.uk](http://www.panasonic.co.uk)

### ■ Preparations

- Connect the equipment supporting VIERA Link.
- VIERA Link connection ➔ p. 50
- Set up the connected equipment. Read the manual of the equipment.
- For optimal recording, the settings of the recorder might be required. For details, read the manual of the recorder.
- Download Analogue programme setting ➔ “Q-Link Download” (p. 30) or “Auto Setup” in Analogue mode (p. 39) or “Auto Setup” - when first using the TV (p. 12)
- Set VIERA Link On in Setup Menu ➔ “VIERA Link” (p. 30)
- Set up the TV
  - ➔ **After connection, turn the equipment on and then switch the TV on. Select the input mode to HDMI1, HDMI2 or HDMI3 (p. 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

<b>Easy playback</b>	Automatic Input switching - When the connected equipment is operated, input mode is switched automatically. When it is stopped operating, input mode is returned.
<b>Power on link</b>	When the connected equipment starts playback or direct navigator / function menu for the equipment are activated, the TV is automatically turned on. (Only when TV is in Standby mode.)
<b>Power off link</b>	When TV is set to Standby mode, the connected equipment is also automatically set to Standby. <ul style="list-style-type: none"> <li>● This function will work even if the TV enters standby mode automatically by Off Timer function or auto power standby function.</li> </ul>



■ Features available (Using VIERA Link Menu)

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

Direct TV Rec

Recording the current programme in DIGA Recorder immediately.

- This function is available with DIGA Recorder which has "HDAVI Control 3" function.
- Connect DIGA Recorder with both HDMI and SCART cables to use this function.
- If you cannot operate, check the settings and the equipment → "Preparations" (p. 52)
- Changing programme or turning off the TV is available while the recorder is recording from its own tuner.
- Changing programme is not available while the recorder is recording from the TV tuner.
- Turning off the TV will stop the recording if the recording from an AV source connected to the TV.

① Display "VIERA Link Menu"

② Select "Direct TV Rec" and start recording

VIERA Link Menu

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

● You can also start recording directly → DIRECT TV REC

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

VIERA Link Menu

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

● You can also stop recording directly.

GUIDE EXIT

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 and "HDAVI Control 3" function.
- Connect DIGA Recorder with both HDMI and SCART cables to use this function.
- If you cannot operate, check the settings and the equipment → "Preparations" (p. 52)

Access and pause the live TV programme

Pause Live TV programme (HDAVI Control 3 and Recorder with HDD)

Pause Live TV

① Display "VIERA Link Menu"

② Select "Pause Live TV" and pause

VIERA Link Menu

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

The TV picture will be paused.

- Live TV programme is recorded on HDD from where it was paused.
- If the paused TV picture disappears after a few minutes → OPTION (the paused picture will be restored)
- Follow the operation guide to operate Pause Live TV function.

● To operate Pause Live TV

search backward  
pause  
search forward  
playback  
stop

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

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

TV →

Pause Live TV

Stop Pause Live TV?	
Yes	No

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

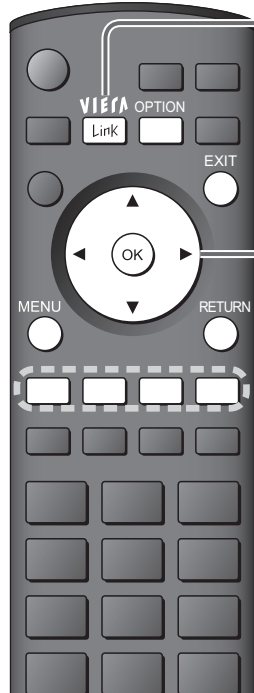
# Link Functions (Q-Link VIERA Link)

## ■ Features available (Using VIERA Link Menu)

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

- This function is available with the equipment which has "HDAVI Control 2" or "HDAVI Control 3" function.
- If you cannot operate, check the settings and the equipment → "Preparations" (p. 52)

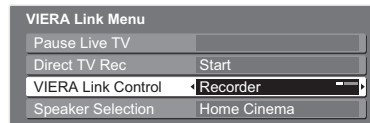
### Access and operate the menu of the equipment



① Display "VIERA Link Menu"

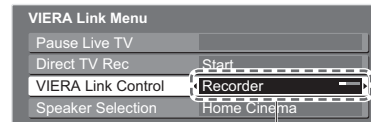


② Select "VIERA Link Control"



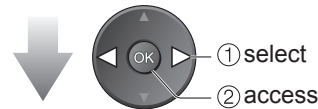
③ Select the equipment you want to access

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



Recorder / Player / Home Cinema / Video Camera

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



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

④ Operate the menu of the equipment

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

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

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

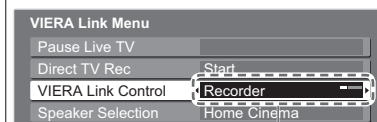
Control the menu of the connected equipment by VIERA remote control

(HDAVI Control 2)  
(HDAVI Control 3)

**VIERA Link Control**

### ■ If you access the invalid equipment

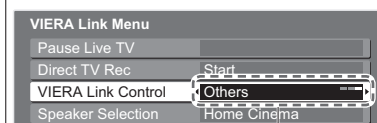
When the equipment with "HDAVI Control" function is connected



Recorder / Player / Home Cinema / Video Camera

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

When the equipment of other types or manufacturers is connected



Others

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

## ■ Features available (Using VIERA Link Menu)

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

- This function is available with the Amplifier or Player theatre which has "HDAVI Control" function.
- If you cannot operate, check the settings and the equipment → "Preparations" (p. 52)

### Access and control the speaker volume

① Display "VIERA Link Menu"

② Select "Speaker Selection"

③ Set to "Home Cinema" or "TV"

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

- Volume up / down →
- Mute →
- The sound of TV speakers is mute.
- When the equipment is turned off, TV speakers will be active.

**■ TV**  
TV speakers are active.

Speaker control

Speaker Selection

Panasonic  
TV

● Link Functions  
(Q-Link / VIERA Link)

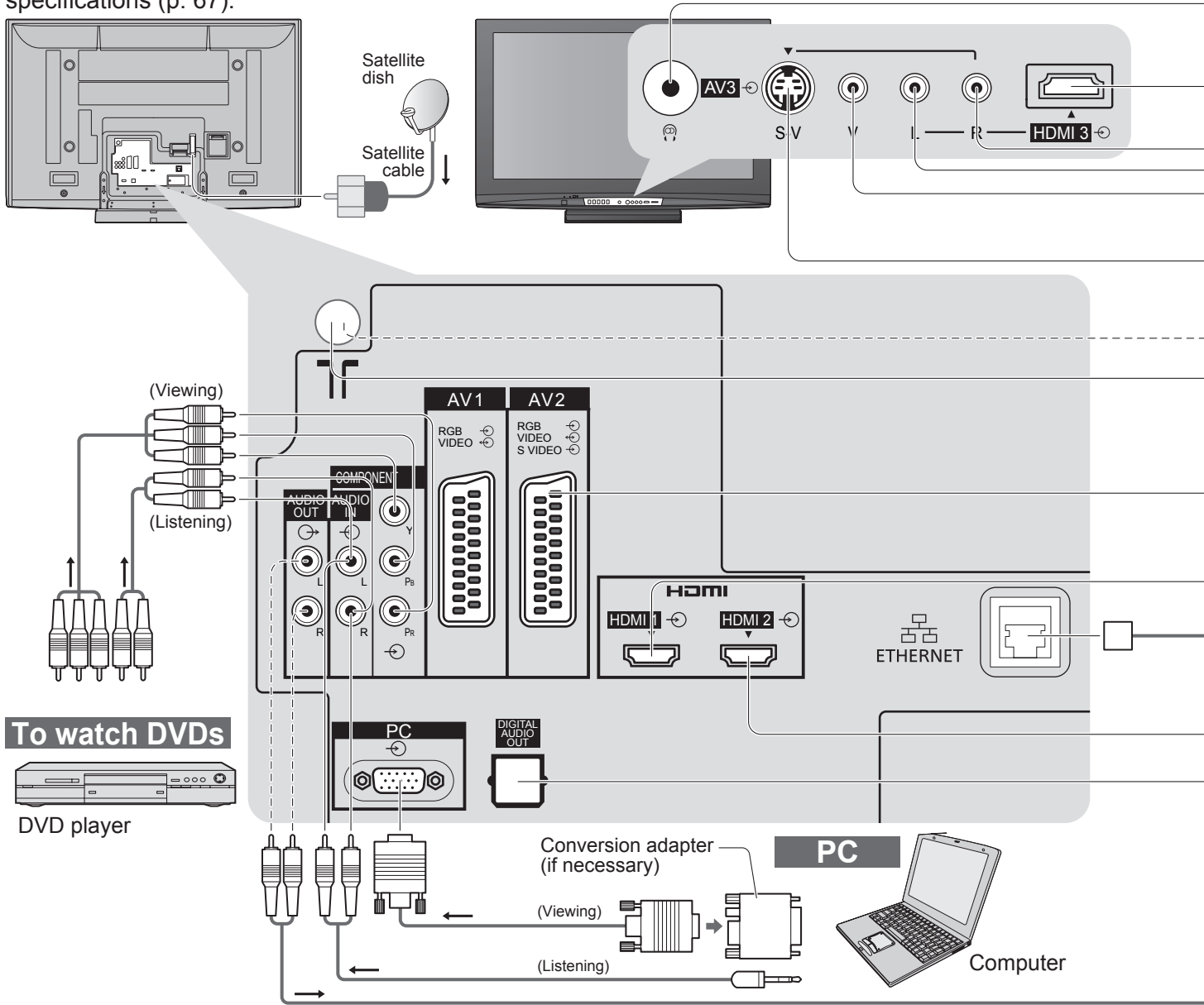
Advanced

### Note

- This function may not work properly depending on the connected equipment.
- Image or sound may not be available for the first few seconds when the playback starts.
- Image or sound may not be available for the first few seconds when Input mode is switched.
- Volume function will be displayed when adjusting the volume of the equipment.
- Easy playback is also available by using the remote control for Amplifier or Player theatre. Read the manual of the equipment.
- About HDMI cable for connecting Panasonic HD Video Camera, read the manual of the equipment.
- If more than one equipment of the same type are connected to the TV by HDMI cables, for example two DIGA Recorders to HDMI1 and HDMI2, VIERA Link will only be available for the lower terminal number, in this case HDMI1.
- "HDAVI Control 3" is the newest standard (current as of December, 2007) for HDAVI Control compatible equipment. This standard is compatible with conventional HDAVI equipment.
- To confirm this TV's version of HDAVI Control → "System Information" (p. 31)

# External Equipment

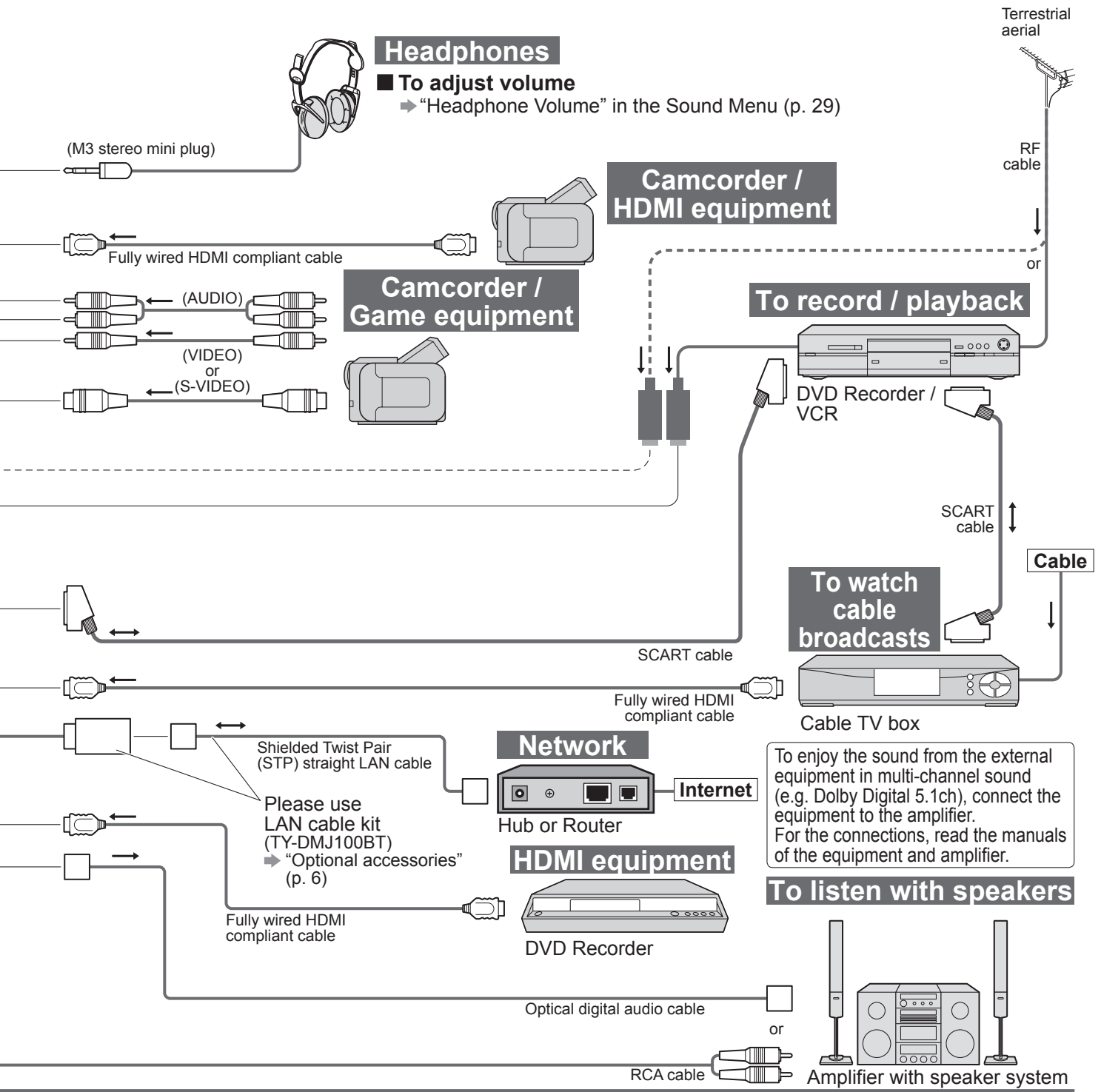
These diagrams show our recommendations for connection of your TV to various pieces of equipment. For other connections, consult the instructions for each piece of equipment, the table below, and the specifications (p. 67).



## Types of connectable equipment to each terminal

Terminal	AV1	AV2	AV3 (Front of TV)
Recording / Playback (equipment)			
To record / playback videocassettes / DVDs (VCR / DVD recorder)	○	○	
To watch DVDs (DVD player)	○	○	○
To watch camcorder images (Video camera)	○	○	○
To watch cable broadcasts (Set top box)	○	○	○
To play games (Game equipment)	○	○	○
To use amplifier with speaker system			
To use Network services for freesat			
Q-Link	○	○	
VIERA Link	○ (with HDMI)	○ (with HDMI)	
Direct TV Recording	○	○	

○: Recommended Connection



To enjoy the sound from the external equipment in multi-channel sound (e.g. Dolby Digital 5.1ch), connect the equipment to the amplifier. For the connections, read the manuals of the equipment and amplifier.

COMPONENT	AUDIO OUT	DIGITAL AUDIO OUT	ETHERNET	HDMI		
				1	2	3
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# Technical Information

## Auto Aspect

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

### ■ Auto

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

If Auto aspect detects a widescreen signal it switches into the appropriate 16:9 or 14:9 widescreen mode. If Auto aspect does not detect a widescreen signal then this advanced TV enhances the picture for optimum viewing pleasure.

The text shown on the screen indicates how Auto aspect determined which ratio to use:

“WIDE” appears in the top left of the screen if a widescreen identification signal (WSS) is found or a signal found through a SCART or HDMI terminal. Auto aspect switches to the appropriate 16:9 or 14:9 widescreen ratio. This function will also work in any aspect mode. “Auto” appears in the top left of the screen if black stripes above and below the picture are detected. Auto aspect chooses the best ratio and expands the picture to fill the screen.

This process can take several minutes, depending on the darkness of the picture.

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

### Note

- The ratio varies depending on the programme, etc. If the ratio is greater than the standard “16:9”, black bands may appear at the top and bottom of the screen.
- If the screen size looks unusual when a widescreen-recorded programme is played back on a VCR, adjust the tracking of the VCR. (See the VCR manual.)

## HDMI connection

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

HDMI-compatible equipment (\*1) with an HDMI or DVI output terminal, such as a set top box or a DVD player, can be connected to the HDMI terminal using an HDMI compliant (fully wired) cable.

About connections, see “External Equipment” (p. 56).

### Note

- HDMI is the world’s first complete digital consumer AV interface complying with a non-compression standard.
- If the external equipment has only a DVI output, connect to the HDMI1 / 3 terminal via a DVI to HDMI adapter cable (\*2).
- When the DVI to HDMI adapter cable is used, connect the audio cable to the audio input terminal (HDMI1: use COMPONENT-AUDIO terminals / HDMI3: use AV3 audio terminals).
- Audio settings can be made on the “HDMI1 / 3 Input” menu screen. (p. 29)
- Applicable audio signal sampling frequencies (2ch L.PCM): 48 kHz, 44.1 kHz, 32 kHz
- HDMI2 terminal is for digital audio signal only.
- Use with a PC is not assumed.
- If the connected equipment has an aspect adjustment function, set the aspect ratio to “16:9”.
- These HDMI connectors are “type A”.
- These HDMI connectors are compatible with HDCP (High-Bandwidth Digital Content Protection) copyright protection.
- An equipment having no digital output terminal may be connected to the input terminal of either “COMPONENT”, “S-VIDEO”, or “VIDEO” to receive analogue signals.
- The HDMI input terminal can be used with only the following image signals: 480i, 480p, 576i, 576p, 720p, 1080i and 1080p. Match the output setting of the digital equipment.
- For details of the applicable HDMI signals, see p. 61.
- This TV incorporates HDMI™ (Version 1.3 with Deep Colour, x.v.Color™) technology.

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



## Updating the 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

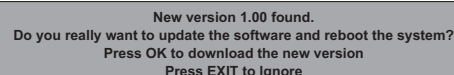
A notification banner will appear when you search for a new version software by using the "System Update Search Now" function (p. 37).

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 "OK", this may take up to 20 minutes to complete.

To ignore the new software press "EXIT", but this banner will keep appearing during the period of new software availability, usually 2 to 3 days.



New version 1.00 found.  
Do you really want to update the software and reboot the system?  
Press OK to download the new version  
Press EXIT to ignore

### ■ 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. 37).

The TV will then download new software automatically at night if it is left in standby without any timer programme in progress.

#### Note

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

## 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 modified data with a PC may not be displayed correctly.)

- Compliant card type (maximum capacity): SDHC Card (32 GB), SD Card (2 GB), Multi Media Card (128 MB), miniSD Card (1 GB) (requiring miniSD adapter)
- If miniSD Card is used, insert / remove it together with the adapter.
- Check the latest information on the card type at the following website. (English only)  
<http://panasonic.co.jp/pavc/global/cs/>

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

#### Note

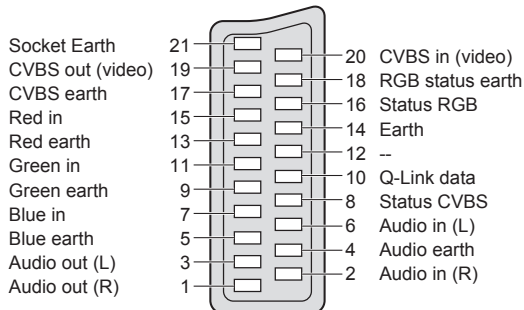
- Format the card with the recording equipment.
- The picture may not appear correctly on this TV depending on the recording equipment used.
- Display may take some time when there are many files and folders.
- This function cannot display Motion JPEG and still image not DCF formatted (i.e. TIFF, BMP).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

# Technical Information

## SCART, S-VIDEO and HDMI terminal information

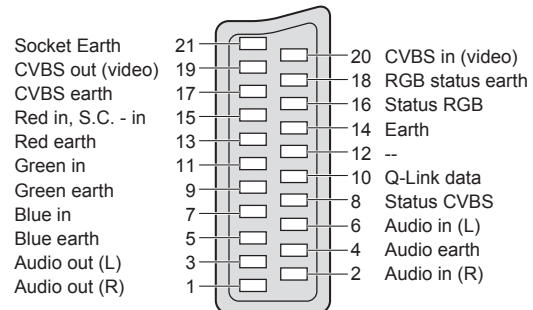
### ■ AV1 SCART terminal (RGB, VIDEO, Q-Link)

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

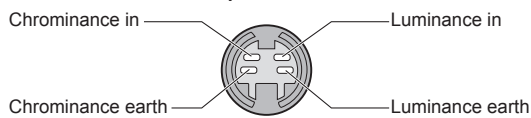


### ■ AV2 SCART terminal (RGB, VIDEO, S-VIDEO, Q-Link)

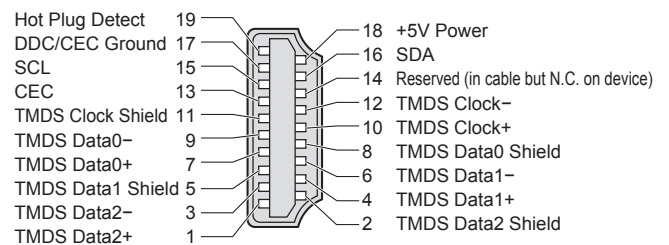
AV2 - Pins 15 and 20 are dependent on AV2 S-VHS / VIDEO switching.



### ■ AV3 S-VIDEO 4 pin terminal



### ■ HDMI terminal



## Network connection (ETHERNET)

If you do not have a Broadband network service, please consult your retailer for assistance.  
About connections, see "External Equipment" (p. 56).

### ■ 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.

## PC connection

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

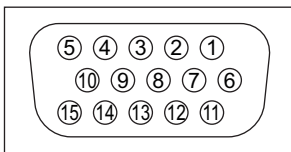
- PC signals that can be inputted: Horizontal scanning frequency 31 to 69 kHz; vertical scanning frequency 59 to 86 Hz (more than 1,024 signal lines could result in incorrect display of the image).
- A PC adapter is not necessary for the DOS/V-compliant D-sub 15-pin connector.

### Note

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

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

- D-sub 15-pin connector signal



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

## Input signal that can be displayed

### COMPONENT (Y, P<sub>B</sub>, P<sub>R</sub>), HDMI

\* Mark: Applicable input signal

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

### PC (D-sub 15P)

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

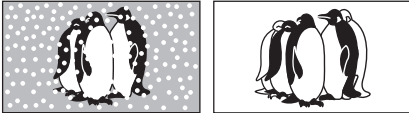
### Note

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

# FAQs

Before requesting service or assistance, please follow these simple guides to resolve the problem. If the problem still persists, please contact your local Panasonic dealer or Panasonic Customer Care Centre for assistance. For details (p. 68)

## White spots or shadow images (noise)



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

## Neither image nor sound is produced

- Is the TV in "AV mode"?
- Is the mains lead plugged into the socket outlet?
- Is the TV turned On?
- Check Picture Menu (p. 28) and volume.
- Check all required SCART cables and connections are firmly in place.

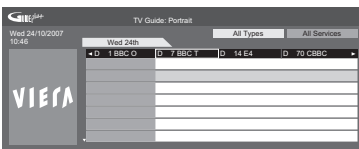
## Auto aspect

- Auto aspect is designed to provide you with the best aspect ratio to use to fill your screen. For user control please see p. 58.

## S-Video / black and white picture


- Using AV button please confirm your selection is S-Video i.e. AV2/S (p. 24).

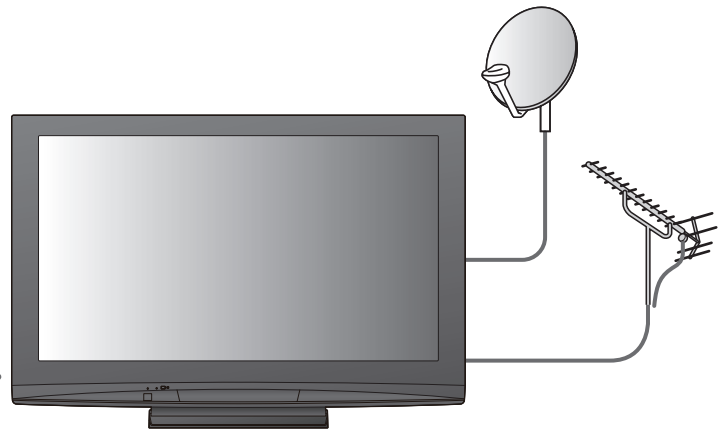
## No programmes shown on TV Guide



- 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.

## On Screen messages - i.e. EC/AV1

- You can simply clear these →  Press again to redisplay.



## Auto Setup (freesat) is stopped before it is completed

- 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](http://www.freesat.co.uk)

## Q-Link function does not work

- Please confirm SCART cable and connection. Also please set "AV1 / AV2 out" in the Setup Menu (p. 30).

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

- Confirm the connection.
- Turn the connected equipment on and then switch the TV on. (p. 52)

## Recording does not start immediately

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

## Permanently lit spots on screen

- Due to production process involved in this technology this may result in some pixels which are permanently lit or unlit. This is not a malfunction.

## Contrast is reduced

- Contrast is lowered in the following conditions without any user operation for a few minutes:
  - no signal in freesat, DVB, Other Sat. or AV mode
  - selected locked programme
  - selected invalid programme
  - selected radio service
  - displayed menu
  - Digital teletext (no video contents)
  - Thumbnail, list or still picture in SD Card mode

	Problem	Actions
Screen	Chaotic image, noisy	<ul style="list-style-type: none"> <li>● Set "P-NR" in the Picture Menu (to remove noise). (p. 28)</li> <li>● Check nearby electrical products (car, motorcycle, fluorescent lamp).</li> </ul>
	No image can be displayed	<ul style="list-style-type: none"> <li>● Is "Colour" or "Contrast" in the Picture Menu set to the minimum? (p. 28)</li> </ul>
	Blurry or distorted image (no sound or low volume)	<ul style="list-style-type: none"> <li>● Reset programmes. (p. 34 and p. 39)</li> </ul>
	Unusual image is displayed	<ul style="list-style-type: none"> <li>● Turn off the TV with Mains power On / Off switch, then turn it On again.</li> </ul>
Sound	No sound is produced	<ul style="list-style-type: none"> <li>● Is "Sound mute" active? (p. 9)</li> <li>● Is the volume set to the minimum?</li> </ul>
	Sound level is low or sound is distorted	<ul style="list-style-type: none"> <li>● Sound signal reception may be deteriorated.</li> <li>● Set "NICAM" (p. 29) in the Sound Menu to "Off". (Analogue only)</li> </ul>
	Whirring sound is heard	<ul style="list-style-type: none"> <li>● The sound is from built-in cooling fan (not a sign of faulty operation).</li> </ul>
Digital Service	<ul style="list-style-type: none"> <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 programmes.</li> </ul>	
	Interference or frozen / disappearing image in freesat, DVB or Other Sat. mode	<ul style="list-style-type: none"> <li>● The quality of image and sound may be poor due to weather conditions (heavy rain, snow etc.).</li> <li>● Check "Signal Condition" (p. 35 and p. 37) or "DVB Signal Condition" (p. 39). If "Signal Quality" or "Signal Strength" are displayed in red, check aerial or dish. If problem persists, consult your local Panasonic dealer.</li> <li>● Turn the TV off with the Mains power On / Off switch, then turn it On again.</li> </ul>
	Some programmes cannot be tuned	<ul style="list-style-type: none"> <li>● Check the aerial or dish.</li> </ul>
	Cannot find a programme you have previously watched	<ul style="list-style-type: none"> <li>● The programme may broadcast for part of the day. Check the programme in TV Guide. (p. 18 and p. 19)</li> <li>● Programme numbers may be changed by broadcasters.</li> </ul>
	In freesat mode, not possible to adjust the volume and set Speakers / Headphones for Audio Description sound track (unlike DVB)	<ul style="list-style-type: none"> <li>● This is due to broadcast limitations. (p. 29)</li> </ul>
HDMI	Sound is unusual	<ul style="list-style-type: none"> <li>● Set the sound setting of the connected equipment to "2ch L.PCM".</li> <li>● Check the "HDMI1 / 3 Input" setting in the Sound Menu. (p. 29)</li> <li>● If digital sound connection has a problem, select analogue sound connection. (p. 58)</li> </ul>
	Pictures from external equipment are unusual when the equipment is connected via HDMI	<ul style="list-style-type: none"> <li>● Is the HDMI cable connected properly? (p. 56)</li> <li>● Turn Off the TV and equipment, then turn them On again.</li> <li>● Check an input signal from the equipment. (p. 61)</li> <li>● Use an equipment compliant with EIA/CEA-861/861B.</li> </ul>
Other	TV goes into "Standby mode"	<ul style="list-style-type: none"> <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	<ul style="list-style-type: none"> <li>● Are the batteries installed correctly? (p. 6)</li> <li>● Has the TV been switched On?</li> </ul>
	An error message appears	<ul style="list-style-type: none"> <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	▶ ● "Shipping Condition" will erase all tuning data (p. 42).
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	▶ ● The signal is weak. Check the aerial.
Child Lock is active ! Press OK to enter PIN	▶ ● The selected programme is locked in Child Lock (p. 41).
Ethernet cable not connected	▶ ● Check the connection of the LAN cable. If you use a hub, also check the light on the hub is lit.
Faulty dish	▶ ● The satellite cable might be short-circuited or there might be connection problems of the cable. Please check the cable and connection and then turn the TV Off with the Mains power On / Off switch, and turn it On again.
Feature not available	▶ ● It is not possible to record these sources (COMPONENT / HDMI / PC).
Gateway does not answer. Please confirm connection and setting of router.	▶ ● A connection failure has occurred and the gateway is not responding. Check the settings and connections of the router.
Invalid operation - Please check settings and connections	▶ ● Check the Q-Link or VIERA Link connection and setting (p. 50 - 52).
Invalid system time. Please exit !	▶ ● Cannot get the time information. Check the connection of the RF cable.
IP address conflict	▶ ● 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.
IP address not set	▶ ● Please enter an IP address.
Key not available	▶ ● You cannot select the same input source between Main and Sub screen when you are viewing in multi window. (p. 17)
Manual IP setting not correct	▶ ● The system is unable to set the IP address. Please consult your Internet Service Provider or telecommunications company.
Max. number of Timers already set !	▶ ● The maximum number of timer programming events is 15.
New DVB Service Found! Press OK start Auto Setup Press EXIT to Ignore. Selecting Auto Setup will delete current Profile and Childlock settings	▶ ● There is a new DVB service or programme.
New version 1.90 found. Do you really want to update the software and reboot the system ? Press OK to download the new version Press EXIT to ignore	▶ ● There is a new software available.
No DVB Service found Please check aerial or local DVB service availability. Press OK to start Auto Setup	▶ ● Please follow the message. If it is still failed, consult your local Panasonic dealer.
No module inserted	▶ ● Check the CI module inserted completely (p. 36).
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	▶ ● The recording may not be performed. Check the equipment. ● Disc or tape may be full.
No Service	▶ ● The broadcaster has stopped the service.
No Signal	▶ ● Check the connection of the RF cable.



Message	Meaning / Action
Other Satellite Service list is full	▶ ● No more Other Satellite services can be added.
PIN incorrect !	▶ ● The PIN number you entered is wrong.
Please check settings and connections on HDMI devices.	▶ ● Communication error in VIERA Link function (p. 52).
Please choose a frequency between 9750 and 12750 MHz	▶ ● The frequency you entered is out of range. Please consult the received satellite broadcasting company.
Please wait.	▶ ● A function is in progress.
Recording this service now	▶ ● The recorder is recording the programme signal from its own tuner. You can turn the TV off and leave the equipment recording in the normal way.
Sending Preset Data Please wait !	▶ ● Q-Link or VIERA Link programme download is in progress.
Shipping condition completed. TV can now be switched off.	▶ ● "Auto Setup" will automatically start when Mains power On / Off switch is next turned On. (p. 12)
Software successfully updated Press EXIT to continue	▶ ● The software updating is finished.
Software Update failed. Please try again later. Press EXIT to continue	▶ ● Perform "System Update Search Now" in System Update (p. 37). If this is still unsuccessful, there may not be any new software available.
Timer already expired !	▶ ● Starting time in Timer Programming is already past. Set correctly (p. 47).
Timer Event Due to Start DVB 1: BBC1 has been Programmed for recording at 20:00	▶ ● This message will appear 2 minutes before timer programming event due to start.
Timer incorrect !	▶ ● Set Start and End times in Timer Programming correctly (p. 47).
Tuner Locked Please stop recording to operate	▶ ● If you want to unlock, cancel Direct TV Recording (p. 51 and p. 53) or Timer Programming (p. 46).
Unable to acquire IP address	▶ ● Unable to obtain the IP address. Check the settings and connections of the router.
Unable to download, Check Equipment	▶ ● The tape or disc is active. Stop the equipment and try again.
<b>■ SD Card</b>	
Cannot read file	▶ ● The file is broken or unreadable. ▶ ● The TV does not support the format. (For the applicable formats and data, see p. 59.)
Confirm SD card	▶ ● The inserted SD card has a problem.
Is SD Card in?	▶ ● Confirm SD Card is inserted correctly.
No valid file to play	▶ ● The card has no data.
Over 9999 pictures found	▶ ● Maximum valid number of photos is 9,999.
This operation is not possible	▶ ● Your operation is not available.

# Glossary

- **DVB**  
Digital Video Broadcasting
- **DVD**  
Digital Versatile Disc
- **DVI**  
Digital Visual Interface
- **EPG**  
Electronic Programme Guide
- **HDMI**  
High-Definition Multimedia Interface
- **MAC address**  
Media Access Control address
- **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)
- **VCR**  
Video Cassette Recorder

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# Specifications

		TH-42PZ81B	TH-46PZ81B	TH-50PZ81B	
<b>Power Source</b>		AC 220-240 V, 50 / 60 Hz			
<b>Power Consumption</b>	<b>Average use</b>	395 W	480 W	505 W	
	<b>Standby condition</b>	0.4 W (Without monitor out recording) 35 W (With monitor out recording)			
<b>Display panel</b>	<b>Aspect Ratio</b>	16:9			
	<b>Visible screen size</b>	106 cm (diagonal) 922 mm (W) × 518 mm (H)	117 cm (diagonal) 1,019 mm (W) × 573 mm (H)	127 cm (diagonal) 1,106 mm (W) × 622 mm (H)	
	<b>Number of pixels</b>	2,073,600 (1,920 (W) × 1,080 (H)) [5,760 × 1,080 dots]			
<b>Sound</b>	<b>Speaker</b>	160 mm × 42 mm × 2 pcs, 8 Ω			
	<b>Audio Output</b>	20 W (10 W + 10 W), 10% THD			
	<b>Headphones</b>	M3 (3.5 mm) stereo mini Jack × 1			
<b>PC signals</b>		VGA, SVGA, XGA SXGA ..... (compressed) Horizontal scanning frequency 31 - 69 kHz Vertical scanning frequency 59 - 86 Hz			
<b>Receiving Systems / Band name</b>		<b>Satellite (freesat (Other Sat.))</b> : freesat services via Satellite dish input. LNB Power and Polarisation - Vertical: +13 V Horizontal: +18 V Current: Max. 350 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. Max. number of Other Sat. services - 999 <b>DVB</b> : Digital terrestrial services via UHF aerial input. <b>PAL I</b> : UHF E21-68 <b>PAL 525/60</b> : Playback of NTSC tape from some PAL Video recorders (VCR) or NTSC disc playback from DVD player and recorder. <b>M.NTSC</b> : Playback from M.NTSC Video recorders (VCR). <b>NTSC (AV input only)</b> : Playback from NTSC Video recorders (VCR).			
<b>Satellite dish input</b>		Female F-type 75 Ω (950 MHz - 2,150 MHz)			
<b>Aerial input</b>		UHF			
<b>Operating Conditions</b>		<b>Temperature</b> : 0 °C - 35 °C <b>Humidity</b> : 20 % - 80 % RH (non-condensing)			
<b>Connection Terminals</b>	<b>AV1 (Scart terminal)</b>	21 Pin terminal (Audio/Video in, Audio/Video out, RGB in, Q-Link)			
	<b>AV2 (Scart terminal)</b>	21 Pin terminal (Audio/Video in, Audio/Video out, RGB in, S-Video in, Q-Link)			
	<b>AV3</b>	<b>VIDEO</b>	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)	
		<b>S-VIDEO</b>	Mini DIN 4-pin	Y:1.0 V[p-p] (75 Ω) C:0.286 V[p-p] (75 Ω)	
		<b>AUDIO L - R</b>	RCA PIN Type × 2	0.5 V[rms]	
	<b>COMPONENT</b>	<b>VIDEO</b>	<b>Y</b>	1.0 V[p-p] (including synchronization)	
		<b>AUDIO L - R</b>	<b>P<sub>B</sub>, P<sub>R</sub></b> RCA PIN Type × 2	±0.35 V[p-p] 0.5 V[rms]	
	<b>Others</b>	<b>HDMI1 / 2 / 3</b>	TYPE A Connectors	HDMI™ (Version 1.3 with Deep Colour, x.v.Color™)	
		<b>PC</b>	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)	
		<b>Card slot</b>	SD Card slot × 1		
<b>ETHERNET</b>		RJ45, IEEE802.3 10BASE-T / 100BASE-TX			
<b>Output</b>	<b>AUDIO L - R</b>	RCA PIN Type × 2	0.5 V[rms] (high impedance)		
	<b>DIGITAL AUDIO OUT</b>	PCM / Dolby Digital, Fiber optic			
<b>Dimensions ( W × H × D )</b>		1,048 mm × 727 mm × 327 mm (With Pedestal) 1,048 mm × 679 mm × 110 mm (TV only)	1,158 mm × 800 mm × 387 mm (With Pedestal) 1,158 mm × 747 mm × 110 mm (TV only)	1,244 mm × 844 mm × 387 mm (With Pedestal) 1,244 mm × 790 mm × 110 mm (TV only)	
<b>Mass</b>		34.0 kg Net (With Pedestal) 30.0 kg Net (TV only)	40.0 kg Net (With Pedestal) 35.0 kg Net (TV only)	43.0 kg Net (With Pedestal) 38.0 kg Net (TV only)	

## Note

- Design and Specifications are subject to change without notice. Mass and Dimensions shown are approximate.
- This equipment complies with the EMC standards listed below.  
EN55013, EN61000-3-2, EN61000-3-3, EN55020, EN55022, EN55024.
- Pedestal: ST-42R3-W2 / ST-50R3-W2 (For safety approval)

This product is licensed under the AVC patent portfolio license for the personal and non-commercial use of a consumer to (i) encode video in compliance with the AVC Standard ("AVC Video") and/or (ii) decode AVC Video that was encoded by a consumer engaged in a personal and non-commercial activity and/or was obtained from a video provider licensed to provide AVC Video. No license is granted or shall be implied for any other use. Additional information may be obtained from MPEG LA, LLC. See <http://www.mpegla.com>.

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



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

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

For more information about collection and recycling of old products and batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items. Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.



### For business users in the European Union

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



### [Information on Disposal in other Countries outside the European Union]

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

### Note for the battery symbol (bottom two symbol examples):

This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.

Cd

## 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.
- It couldn't be simpler!
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*Interested in purchasing an extended guarantee?  
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Trade Mark of the DVB Digital Video Broadcasting Project (1991 to 1996)  
TH-42PZ81B Declaration of Conformity No. 5263, 9 January 2008  
TH-46PZ81B Declaration of Conformity No. 5262, 9 January 2008  
TH-50PZ81B Declaration of Conformity No. 5261, 9 January 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.

Willoughby Road, Bracknell, Berks RG12 8FP Web Site : <http://www.panasonic-europe.com>

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