

Model No. TX-L32U3E TX-L37U3E TX-L42U3E

## Operating Instructions LCD Television



# VIEſA

Thank you for purchasing this Panasonic product. Please read these instructions carefully before operating this product and retain them for future reference. The images shown in this manual are for illustrative purposes only. Please refer to Pan European Guarantee Card if you need to contact your local Panasonic dealer for assistance.



English

# Experience an amazing level of multimedia excitement



#### Notice for DVB functions

This TV is designed to meet the standards (as of August, 2009) of DVB-T (MPEG2 and MPEG4-AVC(H.264)) digital terrestrial services and DVB-C (MPEG2 and MPEG4-AVC(H.264)) digital cable services. Consult your local dealer for availability of DVB-T services in your area.

Consult your cable service provider for availability of DVB-C services with this TV.

- This TV may not work correctly with the signal which does not meet the standards of DVB-T or DVB-C.
- Not all the features are available depending on the country, area, broadcaster and service provider.
- Not all CI modules work properly with this TV. Consult your service provider about the available CI module.
- This TV may not work correctly with CI module that is not approved by the service provider.
- Additional fees may be charged depending on the service provider.
- The compatibility with future DVB services is not guaranteed.

Check the latest information on the available services at the following website. (English only)
 http://www.servicest

http://panasonic.jp/support/global/cs/tv/

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# **Safety Precautions**

### Warning

#### Handling the mains plug and lead

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



#### Caution

#### When cleaning the TV remove the mains plug

• Cleaning an energized TV may cause electrical shock.

#### Remove the mains plug from the wall socket when TV is not in use for a prolonged period of time

- The TV will still consume some power even in the off mode, as long as the mains plug is still connected.
- Remove the mains plug from the wall socket before connecting or disconnecting leads.

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

Irreversible damage can be caused.

# Do not apply strong force or impact to the display panel

• This may cause damage resulting in injury.

#### Transport TV set in upright position

#### Do not block the rear air vents

- Adequate ventilation is essential to prevent failure of electronic components.
- Ventilation should not be impeded by covering the ventilation openings with items such as newspapers, table cloths and curtains.
- We recommend that a gap of at least 10 cm is left all around this television receiver even when placed inside a cabinet or between shelves.
- When using the pedestal, keep the space between the bottom of the TV and the surface where the TV is set. If pedestal is not used, ensure the vents in the bottom of the TV set are not blocked.

Minimum distance



# Maintenance

#### First, remove the mains plug from the socket outlet.

#### **Display panel, Cabinet, Pedestal**

#### Regular care :

Gently wipe the surface of the display panel, cabinet, or pedestal by using a soft cloth to clean the dirt or fingerprints.

#### For stubborn dirt :

Dampen a soft cloth with clean water or diluted neutral detergent (1 part detergent to 100 parts water). Then wring the cloth and wipe the surface. Finally, wipe away all the moisture.

#### Caution

- Do not use a hard cloth or rub the surface too hard. This may cause scratches on the surface.
- Take care not to subject the TV's surfaces to water or detergent. A liquid inside the TV could lead to product failure.
- Take care not to subject the surfaces to insect repellent, solvent, thinner or other volatile substances. This may degrade surface quality or cause peeling of the paint.
- Take care not to tap or scratch the surface with your fingernail or other hard objects.
- Do not allow the cabinet and pedestal to make contact with a rubber or PVC substance for a long time. This may degrade surface quality.

#### Mains plug

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

# Accessories / Options

#### Standard accessories

#### **Remote Control**

N2QAYB000487



Ratteries for the





Pan European Guarantee Card

#### **Operating Instructions**

- Accessories may not be placed all together. Take care not to throw them away unintentionally.
- This product contains possibly dangerous parts (such as plastic bags), that can be breathed in or swallowed by young
- children accidentally. Keep these parts out of reach of young children.

#### **Optional accessories**

Please contact your nearest Panasonic dealer to purchase the recommended optional accessories. For additional details, please refer to the manual of the optional accessories.

#### Wall-hanging bracket





#### Warning

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

2

To prevent fall and injury, remove TV from its fixed wall position when no longer in use.

### Installing / removing remote's batteries



Note the correct polarity (+ or -)

#### Caution

1

- Incorrect installation may cause battery leakage and corrosion, resulting in damage to the remote control.
- Do not mix old and new batteries.
- Replace only with same or equivalent type. Do not mix different battery types (such as alkaline and manganese batteries).
- Do not use rechargeable (Ni-Cd) batteries.
- Do not burn or break up batteries.
- Do not expose batteries to excessive heat such as sunshine, fire or the like.
- Make sure you dispose of batteries correctly.
- Ensure batteries are replaced correctly, there is danger of explosion and fire if battery is reversed.
- Do not disassemble or modify the remote control.

#### 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 pedestal other than that provided with this TV.

• 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 assembly, use only screws supplied and make sure that all screws are securely tightened.

 If sufficient care is not taken to ensure screws are properly tightened during assembly, the pedestal will not be strong enough to support the TV. 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.



# **Identifying Controls**

#### **Remote Control**



- 1 Standby On / Off switch Switches TV On or Off standby
- 2 [Media Player] → (p. 49) Switches to SD Card viewing / listening mode
- 3 [Main Menu] (p. 26) Press to access Picture, Sound and Setup Menus
- 4 Aspect → (p. 17)
  - Changes aspect ratio from [Aspect Selection] list
  - Also possible by pressing this button repeatedly until you reach the desired aspect
- 5 Information 
  (p. 15)
  - Displays channel and programme information
- 6 VIERA TOOLS → (p. 25)
  - Displays some special feature icons and accesses easily
- 7 [VIERA Link Menu] → (p. 61)
  - Accesses VIERA Link Menu

#### 8 OK

- Confirms selections and choices
- Press after selecting channel positions to guickly
- change channel
- Displays the Channel List
- 9 [Option Menu] (p. 16) Easy optional setting for viewing, sound, etc.
- 10 Teletext (p. 21)
  - Switches to teletext mode
- 11 Subtitles (p. 15) Displays subtitles
- 12 Numeric buttons
  - Changes channel and teletext pages
  - Sets characters
  - When in Standby mode, switches TV On (Press for about 1 second)
- 13 Sound Mute
  - Switches sound mute On or Off
- 14 Volume Up / Down
- 15 Input mode selection
  - TV switches DVB-C / DVB-T / Analogue mode (p. 14)
  - AV switches to AV input mode from Input Selection list 🔿 (p. 23)
- 16 Direct TV Recording 
  (p. 59, 61)
  - Records programme immediately in DVD Recorder / VCR with Q-Link or VIERA Link connection
- 17 Normalise 🔿 (p. 26)
  - Resets picture and sound settings to their default levels
- 18 Exit
  - Returns to the normal viewing screen
- 19 TV Guide 🔶 (p. 18) Displays TV Guide
- 20 Cursor buttons
  - Makes selections and adjustments
- 21 Return
  - Returns to the previous menu / page
- 22 Coloured buttons (red-green-yellow-blue) Used for the selection, navigation and operation of various functions
- 23 Hold

  - Holds the current teletext page (teletext mode)
- 24 Index (p. 21)

Returns to the teletext index page (teletext mode)

- 25 Last view (p. 17) Switches to previously viewed channel or input mode 26 Channel Up / Down
  - Selects channel in sequence
- 27 Connected equipment operations (p. 24, 54, 64)

тν



- 1 CI slot 🔿 (p. 46)
- 2 SD Card slot 🔿 (p. 49)
- 3 Headphones jack → (p. 67)
- 4 Function select
  - [Volume] / [Contrast] / [Brightness] / [Colour] / [Sharpness] / [Tint] (NTSC signal) / [Bass]\* / [Treble]\* / [Balance] / [Auto Setup] (p. 34, 35)
    - \*[Music] or [Speech] mode in the Sound Menu

5 Channel Up / Down, Value change (when using the F button), Switching the TV On (press either button for about 1 second when in Standby mode)

#### 6 Changes the input mode

#### 7 Mains power On / Off switch

 Use to switch the mains power.
 If you turned the TV Off during Standby mode by the remote control last time, the TV will be in Standby mode when you turn the TV On with Mains power On / Off switch.

#### 8 Remote control signal receiver

• Do not place any objects between the TV remote control signal receiver and remote control.

- 9 C.A.T.S. (Contrast Automatic Tracking System) sensor
  - Senses brightness to adjust picture quality when [Eco Mode] in the Picture Menu is set to [On] 
     (p. 27)

#### 10 Power and Timer LED

- Red : Standby Green : On
  - Green: On

Orange : Timer Programming On Orange (flash) : Recording of Timer Programming or Direct TV Recording in progress Red with orange flash : Standby with Timer

Programming On or Direct TV Recording

• The LED blinks when the TV receives a command from the remote control.

#### Using the On Screen Displays - Operation guide

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

#### **Operation guide**

Operation guide will help you to operate by using the remote control.

#### Example : [Sound Menu]



Operation guide

#### How to use remote control

MENU Open the main menu



RETURN

EXIT

Move the cursor / select the menu item

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 to the previous menu

Exit the menu system and return to the normal viewing screen

#### Auto power standby function

The TV will automatically go to Standby mode in the following conditions :

- $\boldsymbol{\cdot}$  no signal is received and no operation is performed for 30 minutes in Analogue TV mode
- [Off Timer] is active in the Setup Menu (p. 16)
- $\boldsymbol{\cdot}$  no operation is performed for the period selected in [Auto Standby] (p. 33)
- This function does not affect the recording of Timer Programming and Direct TV Recording.

# **Basic Connection**

External equipment and cables shown are not supplied with this TV. Please ensure that the unit is disconnected from the mains socket before attaching or disconnecting any leads.

# Example 1

### **Connecting aerial**

#### TV only



### Example 2 Connecting DVD Recorder / VCR

### TV, DVD Recorder or VCR



#### Note

- Connect to the TV's AV1 for a DVD Recorder / VCR supporting Q-Link (p. 59).
- For HDMI-compatible equipment, possible to connect to HDMI terminals (HDMI1 / HDMI2) by using HDMI cable (p. 67).
- Please also read the manual of the equipment being connected.

#### Connecting DVD Recorder / VCR and Set top box

### TV, DVD Recorder / VCR and Set top box



# Auto Setup

Search and store TV channels automatically.

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



following the on screen instructions

following the on screen instructions.				
DVB-C Network Se	ttings			
Frequency Auto				
Network ID	Auto			
5	tart Auto Setup			



4 m 5 m 6 m 7....8...9... 0

Normally set [Frequency] and [Network ID] to [Auto].

If [Auto] is not displayed or if necessary, enter [Frequency] and [Network ID] specified by your cable provider with numeric buttons.

#### 2 [DVB-C Auto Setup]

4 [Analogue Auto Setup]

Analogue Auto Setup

CH 33 IBBC1

6

DVB-C A	uto Setup		
Progress	0%		1009
	Channel Name	Type	Quality
1	CBBC Channel	Free TV	100
2	BBC Radio Wales	Free TV	100
3	E4	Free TV	100
			1
Free TV- 3	0	Radio	
mee rv: 3	Pay TV: 0 Searching	Radio	0
	Searching		

#### 3 [DVB-T Auto Setup]

DVB-T Auto Setup						
Progress		CH 5		69		
This will take about 3 minutes.						
CH	Channel Name	2	Туре	Quality		
62	CBBC Channel		Free TV	100		
62	BBC Radio Wales		Free TV	100		
62	E4		Free TV	100		
62	Cartoon Nwk		Free TV	100		
Free TV: 4	Pay TV: 0		Radio:	0		
Searching						

 Depending on the country you select, the channel selection screen will be displayed after DVB-T Auto Setup if multiple channels have the same logical channel number. Select your preferred channel or exit the screen for automatic selections.

#### 5 Preset Download

If Q-Link, VIERA Link or similar technology (p. 59, 60) compatible recorder is connected, channel, language, country / region settings are automatically downloaded to the recorder.



 If downloading has failed, you can download later through the Setup Menu. 
 [Download] (p. 30)

### Select [Home]

Select [Home] viewing environment to use in your home environment.

Please select your viewing environm



#### [Shop] viewing environment (for shop display only)

[Shop] viewing environment is the demonstration mode to explain main features of this TV.

#### Select [Home] viewing environment to use in your home environment.

• You can return to viewing environment selection screen at the stage of Shop confirmation screen and Automatic Demo Off / On selection screen.

1 Return to viewing environment selection screen



#### 2 Select [Home]



To change viewing environment later on, you will need to initialise all settings by accessing Shipping Condition. Fishipping Condition] (p. 47)

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

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

To check channel list at-a-glance 
 "Using TV Guide" (p. 18)

- To edit or hide (skip) channels > "Tuning and Editing Channels" (p. 36 40)
- To add the available TV mode later 
   — [Add TV Signal] (p. 31, 32)

# Watching TV



Note

Watching TV

#### Other useful functions





#### **Display subtitles**

Display / hide subtitles (if available)



To change the language for DVB (if available)

 [Preferred Subtitles] (p. 32)

#### Note

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

#### Hold

#### Freeze / unfreeze picture



#### Display the selectable settings for the current status

#### Check or change the current status instantly



① select ② change

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

 This setting is not memorized and it will return to the default setting once you exit the current programme.

#### [Multi Audio] (DVB mode)

Allows you to select between alternative language for sound tracks (if available)

 This setting is not memorized and it will return to the default setting once you exit the current programme. [Dual Audio] (DVB mode) Allows you to select stereo / monaural (if available)

[Sub Channel] (DVB mode) Allows you to select the multifeed programme - sub channel (if available)

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

[Teletext Character Set] Sets the teletext language [Setup Menu] (p. 32)

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

[MPX] (Analogue mode) Selects multiplex sound mode (if available) Sound Menu] (p. 29)

#### [Volume Correction]

Adjusts volume of individual channel or input mode

#### **Off Timer**

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

#### 1 Display the menu

MENU

#### 2 Select [Setup]

VIECA Main Menu
Picture
් Sound
🕸 Setup



#### 3 Select [Off Timer] and set the time

Setup Menu Timer Programming		1/2
Off Timer	< Off	, <u> </u>
Eco Navigation		
Link Settings		
Child Lock		
DVB-T Tuning Menu		
Language		
Display Settings		
Common Interface		



- To cancel Set to [Off] or turn the TV off.
- To confirm the remaining time **\* "Display Information banner" (p. 15)**
- When the remaining time is within 3 minutes, the remaining time will flash on the screen.

#### Aspect

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



ASPEC

Enjoy viewing the image at its optimum size and aspect.

Programmes usually contain an "Aspect Control Signal" (Widescreen signal, etc.), and the TV will choose the aspect ratio automatically according to the "Aspect Control Signal" (p. 68).

2 While the list is displayed, select the mode

(1) select

2) store

#### ■ If you would like to change the aspect ratio manually

#### 1 Display Aspect Selection list



Aspect Selection list

[Auto]

The best ratio is chosen and the image expanded to fill the screen. For details (**p. 68**)

[16:9]



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



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



[Just]

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



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

You can also change the mode only

the desired mode)

(Press repeatedly until you reach

using the ASPECT button.

ASPECT

E H



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



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

Stretching is only noticeable at the left

Displays a 4:3 image full-screen.

and right edges.



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

#### Note

- Aspect is fixed to [16:9] when [Viewing Mode] is set to [Game] in the Picture Menu.
- Not available in teletext service.
- Aspect mode can be memorized separately for SD (Standard definition) and HD (High definition) signals.

#### Last view

#### Switch to previously viewed channel or input mode easily



Press again to return to the present view.

#### Note

- Switching channel is not available while the recording of Timer Programming or Direct TV Recording is in progress.
- Watching less than 10 seconds is not regarded as the previously viewed channel or input mode.

# **Using TV Guide**

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

- This function varies depending on the country you select (p. 12).
- The postcode entry or update may be required to use the GUIDE Plus+ system depending on the country you select.
- "View advertisement" (p. 19)
- DVB-T and Analogue channels are displayed on the same TV Guide screen. [D] means DVB-T channel and [A] means Analogue channel. There will be no programme listings for Analogue channels.
- 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 TV Guide is completely shown.



Using TV Guide

2 Select [View] (DVB mode)



To watch the programme

1 Select the current programme or

Das Erste 19:30- 20:00		1) select 2) watch
View	Timer Programming	<ul> <li>To use Timer Programming</li></ul>

18



#### Other useful functions

#### View details of the programme (DVB mode)

#### 1 Select the programme







#### **View advertisement**

#### Depending on the country you select, this TV supports the GUIDE Plus+ system in DVB-T or Analogue mode

The postcode entry or update is required. Follow the on screen instructions.

Also possible to setup manually from the Setup Menu

#### [Update] / [Postcode] in [GUIDE Plus+ Settings] (p. 33)

• Enter your postcode when using this function for the first time. If you enter an incorrect postcode for your area, or no postcode is entered, advertisements may not be displayed correctly.

#### **Display advertisement information**



## To display the latest advertisement [Update] in [GUIDE Plus+ Settings] (p. 33)

To change advertisements



#### To return to TV Guide



### (Note

To update the information continuously, the TV must be left in Standby mode.

#### **Timer Programming (DVB mode)**

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

#### 1 Select the forthcoming programme



LED will turn to orange if Timer Programming is set. (Orange LED will flash if the recording of Timer Programming is in progress.)





#### [Ext Rec.]:

to record the programme to the external recorder

To return to TV Guide

2 Select the function ([Ext Rec.] or [Reminder])

When the start time comes, the channel will be switched automatically and the video and audio signals will be output. 2 minutes before the starting time, a reminder message appears if you are watching TV.

① select

2) store

#### [Reminder]:

to remind watching the programme

When you are watching TV, a reminder message appears 2 minutes before the start time. Press the OK button to switch to the programmed channel.

To check / change / cancel a timer programming event

"Timer Programming" (p. 41 - 43)

# RETURN

#### If you select the current programme

A confirmation screen whether you wish to watch or record it will appear. Select [Timer Programming] and set [Ext Rec.] to record from the time you finish the timer programming event setting.

(1) select

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

#### Note

• This function is not available in Analogue mode.

- Timer Programming only works reliably if correct time information is received via the signal from the broadcaster or service provider.
- No other channel can be selected while the recording of Timer Programming is in progress.
- When recording programmes to the external recorder, be sure to make the proper settings on the recorder connected to the TV.

If a compatible recorder with Q-Link, VIERA Link or similar technologies is connected to the TV (p.59, 60) and the [Link Settings] (p. 30) are completed, no setting of the recorder is required. Also read the manual of the recorder.

# **Viewing Teletext**

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

#### What is FLOF (FASTEXT) mode?

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

What is TOP mode? (in case of TOP text broadcasting)

TOP is a particular improvement of the standard teletext service that results in an easier search and effective guide.

- Fast overview of the teletext information available
- Easy to use step-by-step selection of the topical subject
- Page status information at the bottom of the screen

Available page up / down To select among subject blocks

(red) (green)

(blue)

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

(vellow)

#### 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. 22)

#### To change mode

[Teletext] in the Setup Menu (p. 32)



Call up a favourite page

#### View a favourite page stored

Call up the page stored on the blue button (List mode).

STTI • Factory setting is "P103".



HOLD

HOLD • Press again to resume.

Stop automatic updating

### FULL / TOP / BOTTOM

MENU (green)
(TOP) (BOTTOM) Normal (FULL)
P100 P100
Broadcast
(Expand the TOP half) (Expand the BOTTOM half)
View in multi window
Watch TV and Teletext in two windows at once
MENU Select Picture and text On or Off
(Press twice)
Operations can be made only in teletext screen.
Store frequently viewed pages
Store frequently viewed pages in the colour bar (List mode only)
As page is displayed
P100
(Corresponding press and hold Broadcast
coloured button)
101 200 400 888 The number changes to white.
■ To change stored pages
Enter new page number
press and hold
Coloured button you Am S G
Want to change 7.8 8.9
want to change
Want to change 7.8 8.9
want to change
want to change       Image: Imag
want to change       Image: Imag
want to change       Image: Imag
want to change       Image: Imag
want to change          View sub page         View sub page (Only when Teletext is more than one page)         Image: Control of the screen is a control of
want to change          View sub page         View sub page (Only when Teletext is more than one page)         Image: Control of the screen is a control of
<ul> <li>want to change</li> <li>View sub page</li> <li>View sub page (Only when Teletext is more than one page)</li> <li>Wiew sub page (Only when Teletext is more than one page)</li> <li>Appears at top of the screen</li> <li>The number of sub pages varies depending on the broadcasters (up to 79 pages).</li> <li>It may take some time for searching, during which time you can watch TV.</li> <li>To view specific sub page</li> <li>MENU</li> <li>(blue)</li> <li>T****</li> <li>Broadcast</li> <li>Enter the 4-digit number</li> <li>Example : P6</li> </ul>
want to change          View sub page         View sub page (Only when Teletext is more than one page)         Image: Control of the screen is a control of
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• The news page provides a function that indicates arrival of latest news ("News Flash").

Viewing Teletext

# Watching External Inputs

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

To connect the equipment 
 (p. 10, 11, 66, 67)

The remote control is capable of operating some functions of selected external equipment.

"Operating the equipment with the TV remote control" (p. 24)

2

3

## Turn the TV on

# ወ TV AV (ok) 2abr 3def 4 ahi 5 iki 6 mm 7pars 8tuv 9ww 0 Λ \*\* ■ **Ⅱ**/▶ • Panasonic

To return to TV TV



### When connecting with SCART as example 2 or 3 (p. 10, 11)

Receives input signals automatically when playback starts

- Input signals are automatically identified by the SCART (pin 8) terminal.
- This function is also available for HDMI connections (p. 66).

#### If input mode is not switched automatically

Perform 2 and 3

Check the setup of the equipment.

### Display the input selection menu AV

### Select the input mode connected to the equipment

AV1		
HDMI1		
HDMI2		
TV		
SD Card		

### ① select 2 watch

- You can also select the input using the AV button on the remote control or the side panel of the TV (except [SD Card]).
- Press the button repeatedly until the desired input is selected.
- Skipped inputs will not be displayed when the AV button is pressed.

#### View Δ



#### Note

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

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

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

٢	Standby Set to Standby mode / Turn on
	Play Playback videocassette / DVD / video content
	Stop Stop the operations
¥	Rewind / Skip / Search VCR : Rewind, view the picture rapidly in reverse DVD / video content : Skip to the previous track or title Press and hold to search backward
<b>&gt;</b>	Fast-forward / Skip / Search VCR : Fast-forward, view the picture rapidly forward DVD / video content : Skip to the next track or title Press and hold to search forward
	Pause       Pause / Resume       DVD : Press and hold to play at slow speed
PROGRAMME	Channel Up / Down Select channel
REC	Record Start recording

#### How to change the code for the type of the equipment

Each type of the Panasonic equipment has its own remote control code.

Please change the code according to the equipment you want to operate.

If you operate in Video mode of Media Player (p. 54) or operate the connected equipment in VIERA Link (p. 63), select the code "73".

Press

#### Press and hold \_\_\_\_\_ during the following operations

Enter the appropriate code, see table below

Zite Stat	h.
4s 5⊭ 6m	
7m 8m 9m	
0	

Type of the equipment	Code
DVD Recorder, DVD Player, Blu-ray Disc Player	70 (default)
Player theatre, Blu-ray Disc theatre	71
VCR	72
Using in Video mode of Media Player <b>→ "Video mode" (p. 54)</b> The equipment using in VIERA Link <b>→ "VIERA Link Control" (p. 63)</b>	73

#### Note

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

• The codes may be reset to default values if batteries are replaced.

Some operations may not be possible on some equipment models.

# How to Use VIERA TOOLS

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



Note

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

# **How to Use Menu Functions**

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



#### Menu list

wenu		
Menu	ltem	Adjustments / Configurations (alternatives)
Picture	Viewing Mode	Basic picture mode [Dynamic] / [Normal] / [Cinema] / [True Cinema] / [Game] In each Viewing Mode and input, [Contrast], [Brightness], [Colour], [Sharpness], [Tint], [Colour Balance], [Vivid Colour], [Eco Mode], [P-NR] and [3D-COMB] can be adjusted and stored to suit your particular viewing requirement. • Set for each input signal. [Dynamic]: Provides enhanced picture contrast and sharpness when viewing in a bright room. [Normal]: Recommended for viewing under normal ambient room lighting conditions. [Cinema]: For watching movies in a darkened room with the improved performance of contrast, black and colour reproduction [True Cinema]: Precisely reproduces the original quality of the image without any revision. [Game]: Fast response signal specifically to provide suitable images for playing games • Not valid on TV mode • A continuous record of time spent using Game mode can be displayed in the top right of the screen.  [Playing Time Display] (p. 32)
	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> • Not valid when [Viewing Mode] is set to [True Cinema].
	Vivid Colour	Automatically adjusts colours to vivid ones [Off] / [On]
	Eco Mode	Automatic Brightness Control function Adjusts picture settings automatically dependent on ambient lighting conditions [Off] / [On]
	P-NR	Picture Noise Reduction Automatically reduces unwanted picture noise and flicker noise in the contoured parts of a picture [Off] / [Min] / [Mid] / [Max]
	3D-COMB	<ul> <li>Makes still or slow moving pictures look more vivid [Off] / [On]</li> <li>Occasionally, whilst viewing still or slow moving pictures, colour patterning may be seen. Set to [On] to display sharper and more accurate colours.</li> <li>For PAL or NTSC signal reception only</li> <li>Not valid on RGB, Component, HDMI and Media Player</li> </ul>
	Screen Display	Turns the screen off when you select [Off] [Off] / [On] • The sound is active even if the screen turns off. • Press any buttons (except Standby) to turn the screen on. • This function is effective in reducing power consumption when listening to the sound without watching the TV screen.

Menu	ltem		Adjustments / Configurations (alternatives)	
Picture	Advanced Settings	Resolution Enhancer	<ul> <li>Enhances the picture resolution to make the image sharper [Off] / [Mid] / [Max]</li> <li>This function is available for SD (Standard definition) signal.</li> <li>As for HD (High definition) signal, this function is available when aspect mode is set to [16:9] ([16:9 Overscan] is set to [On]), [4:3 Full] or [Zoom].</li> <li>Not valid on Media Player</li> </ul>	
		16:9 Overscan	<ul> <li>Selects the screen area displaying the image [Off] / [On]</li> <li>[On]: Enlarges the image to hide the edge of the image.</li> <li>[Off]: Displays the image in the original size.</li> <li>Set to [On] if noise is generated on the edge of the screen.</li> <li>This function is available when aspect is set to Auto (16:9 signal only) or 16:9.</li> <li>This function can be memorized separately for SD (Standard definition) and HD (High definition) signals.</li> </ul>	
	s	AV Colour System	Selects optional colour system based on video signals in AV mode [Auto] / [PAL] / [SECAM] / [M.NTSC] / [NTSC]	
		DVI Input Setting	Changes the black level in the image for HDMI input mode with DVI input signal manually [Normal] / [Full] • When the DVI input signal from the external equipment, especially from PC, is displayed, the black level may not be suitable. In this case, select [Full]. • The black level for HDMI input signal will be adjusted automatically. • For HDMI input mode with DVI input signal only	
	Reset to Defaults		Press the OK button to reset the present Picture Viewing Mode of the selected input to the default settings	
	М	ode	<ul> <li>Selects the basic sound mode [Music] / [Speech] / [User]</li> <li>The selected mode affects all input signals.</li> <li>[Music]: Improves sound quality for watching music videos, etc. </li> <li>[Speech]: Improves sound quality for watching news, drama, etc. In Music and Speech modes, you can adjust [Bass] and [Treble] settings, and those settings will be stored for each mode. [User]: Adjusts the sounds manually by using the equaliser to suit your favourite sound quality. For the User mode, [Equaliser] will appear on the Sound Menu instead of [Bass] and [Treble]. Select the [Equaliser] and adjust the frequency.   Equaliser] (see below)</li></ul>	
oun	Ba	ss	Increases or decreases level to enhance or minimise lower, deeper sound output	
	Tre	eble	Increases or decreases level to enhance or minimise sharper, higher sound output	
	Equaliser		<ul> <li>Adjusts the frequency level to suit your favourite sound quality</li> <li>This function is available when [Mode] is set to [User].</li> <li>Select the frequency and change the frequency level by using the cursor button.</li> <li>If you want to enhance the bass sound, raise the level of the lower frequency. If you want to enhance the treble sound, raise the level of the higher frequency.</li> <li>To reset the levels of each frequency to the default settings, select the [Reset to Defaults] by using the cursor button, and then press the OK button.</li> </ul>	
	Ba	lance	Adjusts volume level of right and left speakers	
	Headphone Volume		Adjusts the volume of the headphones	

Menu	ltem	Adjustments / Configurations (alternatives)
Sound	Surround	Surround sound settings [Off] / [V-Audio] [V-Audio] : Provides a dynamic enhancer of width to simulate improved spatial effects
	Auto Gain Control	Adjusts the current volume level if it is extremely different from the previous viewed channel or input mode [ <b>Off</b> ] / [ <b>On</b> ]
	Volume Correction	Adjusts the volume of individual channel or input mode
	Speaker Distance to Wall	<ul> <li>Adjusts the low frequency sound [Over 30cm] / [Up to 30cm]</li> <li>If the back space between the TV and wall is over 30 cm, [Over 30cm] is recommended.</li> <li>If the back space between the TV and wall is within 30 cm, [Up to 30cm] is recommended.</li> </ul>
	МРХ	Selects multiplex sound mode (if available) [Stereo] : Use this normally [Mono] : When stereo signal cannot be received [M1] / [M2] : Available while mono signal is transmitted • Analogue mode only
	Audio Preference	<ul> <li>Selects the initial setting for audio tracks [Auto] / [Multichannel] / [Stereo] / [MPEG]</li> <li>Selectable options vary depending on the country you select.</li> <li>[Auto] : Automatically selects the audio tracks if programme has more than two tracks. The priority is given in the following order - Dolby Digital Plus, HE-AAC, Dolby Digital, MPEG.</li> <li>[Multichannel] : The priority is given to multi-channel audio track.</li> <li>[Stereo] : The priority is given to stereo (2ch) audio track.</li> <li>[MPEG] : The priority is given to MPEG.</li> <li>Dolby Digital Plus and Dolby Digital are the methods of coding digital signals developed by Dolby Laboratories. Apart from stereo (2ch) audio, these signals can be multi-channel audio.</li> <li>HE-AAC is a perceptual coding method used to compress digital audio for efficient storage and transmission.</li> <li>MPEG is an audio compression method that compresses audio to the smaller size without any considerable loss of audio quality.</li> <li>Dolby Digital Plus and HE-AAC are the technologies for HD (High definition) programmes.</li> <li>DVB mode only</li> </ul>
	SPDIF Selection	<ul> <li>SPDIF : A standard audio transfer file format</li> <li>Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT and HDMI2 (ARC function) terminals [Auto] / [PCM]</li> <li>[Auto] : Dolby Digital Plus and Dolby Digital are output as Dolby Digital Bitstream. HE-AAC (48 kHz) multi-channel is output as DTS. MPEG is output as PCM.</li> <li>[PCM] : Digital output signal is fixed to PCM.</li> <li>For DVB mode or Video mode of Media Player (p. 53)</li> <li>ARC (Audio Return Channel) : A function of digital audio output using HDMI cable</li> </ul>

Menu		ltem	Adjustments / Configurations (alternatives)
menu		Item	Adjustments / Configurations (alternatives)
	PCM Optical Level		Adjusts the audio level of PCM output from DIGITAL AUDIO OUT terminal as the initial setting [-12] / [-10] / [-8] / [-6] / [-4] / [-2] / [0] (dB) • Normally, PCM sound is larger comparing with the other types of audio track. • DVB mode only
Sound	HDMI1 / 2 Input		Select to fit the input signal [ <b>Digital</b> ] / [ <b>Analogue</b> ] (p. 70) [ <b>Digital</b> ] : HDMI cable connection [ <b>Analogue</b> ] : HDMI-DVI adaptor cable connection HDMI input mode only
	SPDIF Delay		Adjusts the delay time of the sound output from DIGITAL AUDIO OUT terminal if the sound does not synchronize the image • DVB mode only
	Reset to Defaults		Press the OK button to reset the present Sound Mode, [Balance], [Headphone Volume] and [Surround] to the default settings
	Tin	ner Programming	Sets a timer to remind watching or record forthcoming programmes (p. 41) • DVB mode only
-	Off Timer		Sets the time until the TV automatically goes to Standby mode [Off] / [15] / [30] / [45] / [60] / [75] / [90] (minutes) (p. 16)
	Eco Navigation		Automatically sets the TV to the most suitable energy-saving mode ● If you press the OK button, the following items are set as below : [Eco Mode], [VIERA Link], [Power off Link], [Standby Power Save], [Power Save] → [On] [Intelligent Auto Standby] → [On (No reminder)] [Auto Standby] → [2 hours]
		VIERA Link	Sets to use VIERA Link functions [Off] / [On] (p. 60)
Ñ		AV1 out	Chooses the signal to be transmitted from the TV to Q-Link [TV] / [AV2] / [Monitor] [Monitor] : Image displayed on screen • Component and HDMI signals cannot be output.
Setup		Power on Link	Sets to use Power on Link function <b>[Off] / [On]</b> (p. 59, 60)
	<b>_</b>	Power off Link	Sets to use Power off Link function <b>[Off] / [On]</b> (p. 59, 60)
	Link Settings	Standby Power Save	Controls the power consumption in Standby mode of the connected equipment to reduce the consumption [ <b>Off</b> ] / [ <b>On</b> ] (p. 61) • This function is available when [VIERA Link] is set to [On] and [Power off Link] is set to [On].
		Intelligent Auto Standby	Makes non-watched or non-used connected equipment go into Standby mode to reduce the power consumption [Off] / [On (With reminder)] / [On (No reminder)] (p. 61) • This function is available when [VIERA Link] is set to [On].
		Download	Downloads channel, language, country / region settings to a Q-Link or VIERA Link compatible equipment connected to the TV • DVB-C channel settings cannot be downloaded.
	Chi	ild Lock	Locks a channel / AV input to prevent access to it (p. 43)
			1

Menu		ltem	Adjustments / Configurations (alternatives)
		Favourites Edit	Creates list of favourite DVB-C channels (p. 36)
		Channel List	Skips the unwanted DVB-C channels or edits DVB-C channels (p. 37)
	DVB-C Tuning Menu	Auto Setup	Automatically sets the DVB-C channels supplied (p. 34)
		Manual Tuning	Sets the DVB-C channels manually (p. 38)
		Update Channel List	Updates DVB-C Channel List while keeping your settings (p. 38)
		Favourite Network	Selects your favourite network for each broadcasters (only available in some countries)
		New Channel Message	Selects whether to give a notification message when a new DVB-C channel is found [Off] / [On] (p. 38)
		Service Replacement	Set to [On] to enable a message to switch to the available service (only available in some countries) [Off] / [On]
		Signal Condition	Checks the DVB-C signal condition (p. 38)
		Attenuator	Automatically reduces the DVB-C signal to avoid the interference [Off] / [On] (p. 38)
Setup		Add TV Signal	<ul> <li>Adds the TV mode</li> <li>This function is available if you skip any modes to tune in [Auto Setup] for first using the TV.</li> <li>To operate, refer to the "Auto Setup" operations for first using the TV (p. 12, 13).</li> </ul>
		Favourites Edit	Creates list of favourite DVB-T channels (p. 36)
		Channel List	Skips the unwanted DVB-T channels or edits DVB-T channels (p. 37)
		Auto Setup	Automatically sets the DVB-T channels received in the area (p. 35)
	Ð	Manual Tuning	Sets the DVB-T channels manually (p. 38)
	VB-T	Update Channel List	Updates DVB-T Channel List while keeping your settings (p. 38)
	Tunin	Favourite Network	Selects your favourite network for each broadcasters (only available in some countries)
	DVB-T Tuning Menu	New Channel Message	Selects whether to give a notification message when a new DVB-T channel is found [Off] / [On] (p. 38)
		Signal Condition	Checks the DVB-T signal condition (p. 38)
		Add TV Signal	<ul> <li>Adds the TV mode</li> <li>This function is available if you skip any modes to tune in [Auto Setup] for first using the TV.</li> <li>To operate, refer to the "Auto Setup" operations for first using the TV (p. 12, 13).</li> </ul>

Menu		ltem	Adjustments / Configurations (alternatives)
	A	Channel List	Skips the unwanted Analogue channels or edits Analogue channels (p. 39)
	nalog	Auto Setup	Automatically sets the Analogue channels received in the area (p. 35)
	Analogue Tuning Menu	Manual Tuning	Sets the Analogue channels manually (p. 40)
		Add TV Signal	<ul> <li>Adds the TV mode</li> <li>This function is available if you skip any modes to tune in [Auto Setup] for first using the TV.</li> <li>To operate, refer to the "Auto Setup" operations for first using the TV (p. 12, 13).</li> </ul>
		OSD Language	Changes language for on screen displays
	Language	Preferred Audio 1 / 2	Selects the first and second preferred language for DVB multi audio (depending on the broadcaster)
		Preferred Subtitles 1 / 2	Selects the first and second preferred language for DVB subtitles (depending on the broadcaster) • To display subtitles (p. 15)
		Preferred Teletext	Selects the preferred language for DVB teletext service (depending on the broadcaster)
		Preferred Subtitle Type	Selects the preferred subtitle type [Standard] / [Hard of Hearing] • [Hard of Hearing] provides aids in understanding and enjoyment with DVB subtitles (depending on the broadcaster). • [Preferred Subtitles 1 / 2] in [Language] are given priority.
Š	Display Settings	Teletext	Teletext display mode [TOP (FLOF)] / [List] (p. 21)
etup		Teletext Character Set	Selects teletext language [West] / [East1] / [East2] [West] : English, French, German, Greek, Italian, Spanish, Swedish, Turkish, etc. [East1] : Czech, English, Estonian, Lettish, Rumanian, Russian, Ukrainian, etc. [East2] : Czech, Hungarian, Lettish, Polish, Rumanian, etc.
		Default Guide	Selects the default TV Guide type when the GUIDE button is pressed (only available in some countries) [ <b>TV Guide</b> ] / [ <b>Channel List</b> ] [ <b>TV Guide</b> ] : Electronic Programme Guide (EPG) is available. ● To use EPG → (p. 18) [ <b>Channel List</b> ] : EPG is not available and the channel list will appear instead of it.
	ings	Input Labels	Labels or skips each input terminal (p. 45)
		Banner Display Timeout	Sets how long the Information banner (p. 15) stays on screen [0 (No display)] / [1] / [2] / [3] / [4] / [5] / [6] / [7] / [8] / [9] / [10] (seconds)
		Playing Time Display	Set to [On] to display a continuous record of time spent using Game mode every 30 minutes [Off] / [On] • This function is available when [Game] is selected in [Viewing Mode] (p. 27)
		Radio Mode	<ul> <li>Sets the timer for turning off the screen automatically when a radio channel is selected [Off] / [5] / [10] / [15] / [20] (seconds)</li> <li>The sound is active even if the screen turns off.</li> <li>Press any buttons except Standby, Volume Up / Down and Sound Mute buttons to turn the screen on.</li> <li>This function is effective in reducing power consumption when listening to a radio channel.</li> </ul>

Menu	ltem		ltem	Adjustments / Configurations (alternatives)	
	Co	Common Interface		Uses include to watch encrypted channels (p. 46)	
	System Menu	Shipping Condition		Resets all settings, for example, when moving house (p. 47)	
		System Update		Downloads new software to this TV (p. 48)	
	۱Men	Soft	ware Licence	Displays the software licence information	
		System Information		Displays the system information of this TV	
		s DD	Update	Performs the update of the GUIDE Plus+ schedule and advertising informations for the GUIDE Plus+ system (p. 19)	
		GUIDE Plus+ Settings	Postcode	Sets your postcode to display advertisements in the GUIDE Plus+ system (p. 19)	
10		lus+ gs	System Information	Displays the system information of the GUIDE Plus+ system	
Setup	Other Settings	Powe	er on Preference	Automatically selects the input when the TV is turned on [TV] / [AV] Set to [TV] to view picture from TV tuner. Set to [AV] to view input from an external equipment connected to the AV1 or HDMI1 terminal, e.g. set top box. • The external equipment must be switched on and sending a control signal for automatic switching at power on to occur.	
	tings	tings	Auto	9 Standby	<ul> <li>Sets the time the TV automatically goes to Standby mode when no operation is performed for the selected times [Off] / [2] / [4] (hours)</li> <li>Starting Timer Programming automatically does not affect this function.</li> <li>Automatic input switching with the connected equipment affects this function and time-count will be reset.</li> <li>The notification message will appear 3 minutes before going to Standby mode.</li> </ul>
		Pow	er Save	Reduces brightness of picture to economise on power consumption [Off] / [On]	
		Time	Zone	Adjusts the time data • The time data will be corrected based on GMT. • Set to [Auto] to adjust the time automatically according to your area.	

A different menu will be displayed in the mode of Media Player. (p. 49 - 56)
Only available items can be selected.

# **Retuning from Setup Menu**

Automatically retune the channels received in the area.

- This function is available if channel tuning is already performed.
- Only the selected mode is retuned.
- All the previous tuning settings are erased.
- If Child Lock PIN number (p. 44) has been set, the PIN number is required.
- If tuning has not been done completely 
   — [Manual Tuning] (p. 38, 40)



34

#### **DVB-T or Analogue channels**

To return to TV F



# **Tuning and Editing Channels (DVB)**

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



) (blue)


35 All DVB-T Channe

Now ▶

Change category For info press

1 ZDF

Coronation Street 19:30 - 20:00

#### Set DVB channel manually [Manual Tuning]

Normally use [Auto Setup] or [Update Channel List] to retune DVB channels. If tuning has not been done completely or for adjusting the direction of the aerial, use this function. All channels found will be added to the Channel List.

#### DVB-C:





Set where the level of [Signal Quality] becomes the maximum.

#### Update DVB channel automatically [Update Channel List]

You can add new channels, delete removed channels, update channel name and position automatically to Channel List.

DVB-T Update Channel List				
Progress	CH 5		69	
This will take about 3 minutes.				
СН	Channel Name	Туре	Quality	
		ļ		
		1		
		i		
Free TV: 0	Pay TV: 0 Searching	Radio: 0		
<u> </u>				

- Channel List is updated while keeping your settings in [Favourites Edit], [Channel List], [Child Lock], etc.
- Depending on the signal condition, the update may not work properly.

#### Display a notification message [New Channel Message]

Selects whether to give a notification message when a new DVB channel is found. [Off] / [On]

- New channels found! Press OK to update channel list. Press EXIT to ignore.
- Selecting OK will perform [Update Channel List].

#### Check DVB signal [Signal Condition]

Selects a channel and checks the DVB signal condition.

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
- Red bar 

   Bad (Check the Terrestrial aerial or cable)



These bars show the maximum signal value of the selected channel.

To change the channel

#### Reduce the DVB-C signal [Attenuator]

If the DVB-C signal is too strong, the interference may occur. In this case set to [On] to reduce the signal automatically. • This function is available only for DVB-C signal.

**Tuning and Editing Channels (DVB** 

# **Tuning and Editing Channels (Analogue)**

You can retune channels or skip unwanted channels, edit channels etc.



#### Select a channel and reveal / hide

Analogue Channel List				
ť		BBC1		
	2	****		
	3	****		
Ľ	4	****		
e	5	****		
e	6	****		
<b>1</b>	7	*****		



• To reveal all channels

#### To edit channels



#### Note

• If a VCR is connected only with the RF cable, edit [VCR].

#### Set Analogue channel manually [Manual Tuning]

#### [Fine Tuning]

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

#### [Manual Tuning]

Set Analogue channel manually after Auto Setup.

• Set [Sound System] and [Colour System], and then perform this function.

- Normally set [Colour System] [Auto].
- If a VCR is connected only with the RF cable, select channel position [0].

Analogue Manu 1 BBC1			CH33
Fine Tuning			
Manual Tuning	2	78 1	× 41
Sound System		SC1	
Colour System		Auto	

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

1 Select the channel position

2 Select the channel





## **Timer Programming**

#### **Timer Programming from Menu**

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

TV Guide may also be used to set timer programming event (p. 20). This function is not available in Analogue mode.

- Timer Programming can store up to 15 events.
- Timer Programming only works reliably if correct time information is received via the signal from the broadcaster or service provider.
- For recording using Timer Programming, the TV must be either On or in standby. For reminders to be displayed, the TV must be On.
- No other channel can be selected while the recording of Timer Programming is in progress.
- It may not be possible to record an encrypted programme (which is copy-protected).
- When recording programmes to the external recorder, be sure to make the proper settings on the recorder connected to the TV.
- If a compatible recorder with Q-Link, VIERA Link or similar technologies is connected to the TV (p. 59, 60) and the [Link Settings] (p. 30) are completed, no setting of the recorder is required. Also read the manual of the recorder.
- If the recorder is not compatible with Q-Link, VIERA Link or similar technologies, make timer programming of the recorder. For preparations of a recorder, read the manual of the recorder.
- Recordings are always in standard definition composite video via SCART, even if the original programme is in high definition.

EXIT

- 2 minutes before the starting time, a reminder message appears if you are watching TV.
  - To remove the message and start the programming







#### Set timer programming event details [Timer Programming]

#### 1 Start making the settings



#### 2 Select the function ([Ext Rec.] or [Reminder])



select

#### [Ext Rec.]:

to record the programme to the external recorder

When the start time comes, the channel will be switched automatically and the video and audio signals will be output. 2 minutes before the starting time, a reminder message appears if you are watching TV.

#### [Reminder]:

to remind watching the programme

When you are watching TV, a reminder message appears 2 minutes before the start time. Press the OK button to switch to the programmed channel.

#### 3 Set the channel, date and time (repeat the operations as below)

Set items in the order of 1 to 4.





• 1, 3 and 4 can also be entered with numeric



3 Starting time

4 Ending time

: Displayed if the timer programming events are overlapped



[C]: DVB-C [D]: DVB-T

• You cannot change the mode within the menu.

#### 1 Channel number

2 Date

one day ahead

daily or weekly (press repeatedly)

- [Daily Sun-Sat] : Sunday to Saturday
- [Daily Mon-Sat] : Monday to Saturday
- [Daily Mon-Fri] : Monday to Friday
- [Weekly Sat/Fri/Thu/Wed/Tue/Mon/Sun] : Same time on the same day every week





#### To change a timer programming event

Select the programme to be changed





#### To cancel a timer programming event

Select the programme to be deleted







#### To record with subtitles (if available)

Select the programme to record with subtitles



Each time pressed :
 auto - off

To cancel a timer programming event temporarily

Select the programme to be cancelled



 (blue)
 Each time pressed : cancel 
 top cancelling

#### Note

• Check that the LED is orange. If not, timer programmes are not active or not stored.

- Timer Programming reminder messages will remain displayed until one of the following occurs :
- You press the OK button to view the programme or the EXIT button to cancel the reminder.
  - The timer programming event that the reminder is set for ends.
- "!" identifies that any timer programming events have overlapped. [Ext Rec.] is given priority over [Reminder]. As for the overlapped two or more [Ext Rec.], the first timer programming event starts and finishes as programmed. The next timer programming event can then start.
- The recording of Timer Programming will automatically change to the programmed channel 10 seconds before the start time.
- To stop recording the timer programming event directly prior to the start time, it may be necessary to stop the recorder manually.
- The recording of Timer Programming will be performed even if the TV is in Pause Live TV recording (p. 62). In this case, Pause Live TV recording will be cancelled.

## **Child Lock**

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



#### Control channel audience [Child Lock]

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

Child Lock-PIN Entry		
Please enter new PIN		
PIN	* * * *	

- 1 2... 3... 4... 5... 6... 7... 8... 9... 0
  - Enter the PIN number twice at first setting.
  - Make a note of the PIN number in case you forget it.
  - "0000" may be stored as the default PIN number which depends on the country you select (p. 12).

#### 2 Select [Child Lock List]

Child Lock		(1) select
Change PIN Child Lock List	Access	
Parental Rating	No limit	@access

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

Name	Input	Type	Lock
101 BBC 1 Wales	DVB-C	Free TV	1 A
7 BBC THREE	DVB-T	Free TV	A
14 E4C	DVB-T	Free TV	1 -
VCR	Analogue	Analogue	i
1 BBC1	Analogue	Analogue	1275
2 *****	Analogue	Analogue	li ≙ i
AV1	External	AV	
AV2	External	AV	7 - 7

① select ② lock

Appears when the channel / input is locked

To cancel

Select the locked channel / input



- To sort channel names in alphabetical order
- (red)To cancel all locks

(yellow)



To jump to the top of the next input

(blue)



2. Enter a new PIN number twice



Child Lock

#### To set Parental Rating

• The availability of this function depends on the country you select (p. 12).

If the DVB programme has the rated information for over the selected age, you have to enter the PIN number to watch (depending on the broadcaster).

Select [Parental Rating] and set an age for the restriction of programmes.

Child Lock		select
Change PIN		Image: A set and a set and a set
Child Lock List Parental Rating	No limit	- @ set

#### Note

• Setting [Shipping Condition] (p. 47) erases the PIN number and all settings.

# **Input Labels**

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

• To select the input mode **(p. 23)** 



Selection] menu (p. 23), [TV Selection] menu



User input Name J





"Characters table for numeric buttons" (p. 70)

# **Using Common Interface**

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

• This function may not be available in some countries or regions.

Video and audio signals may not be output depending on broadcasts or services.

Although CI module may enable you to view some services, this TV does not guarantee all services (e.g. pay-TV). Please use only the approved CI module by the broadcaster.

Consult your local Panasonic dealer or broadcasters for more information and conditions of the services.

#### Caution

- Turn Off Mains power On / Off switch whenever inserting or removing the CI module.
- If a view card and a card reader come as a set, first insert the card reader, then insert the view card into the card reader.
- Insert the module in the correct direction.



#### Insert the CI module (optional)

• The features that appear on screen are dependent on the contents of the selected CI module.

- Normally encrypted channels will appear. Follow the on screen operation guide.
- If encrypted channel does not appear, perform below.
- For more details, see the manual of the CI module, or check with the broadcaster.



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

# **Shipping Condition**

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

• To retune TV channels only, e.g. after moving house 🗭 "Retuning from Setup Menu" (p. 34, 35)



#### **Restore Settings [Shipping Condition]**

#### 1 Check the message and initialise



#### 2 Follow the on screen instructions

Reset to Factory Shipping Condition Completed. Please switch off TV.

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

# **Updating the TV Software**

From time to time, a new version of software may become available for download to enhance the performance or operations of the TV. If there is an update available, a notification banner is displayed when the channel has the update information.

To download

If you choose not to download



EXIT

You can update any new software automatically or update manually.



## Update TV's software system [System Update]

#### To update automatically

Select [Auto Update Search in Standby]

Syste						
Auto	Upda	te S	earch	in	Standby	٩C

- Every time you set, the TV automatically performs a search in standby and downloads an update, if any software updates are available.
- The automatic updating is performed under the following conditions :
- Standby (TV turned Off with the remote control)
- Recording of Timer Programming or Direct TV Recording is not in progress.

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

① select ② set

#### To update immediately

#### 1 Select [System Update Search Now]

System Update Auto Update Search in Standby	Off	() se
System Update Search Now	Access	

- ① select ② access
- 2 Searches for an update (for several minutes) and displays a corresponding message if any

#### 3 Download



#### Note

- Download may take for about 60 minutes.
- During software download and update, DO NOT switch Off the TV.
- The message might be the notification beforehand. In this case, the schedule information (the date that the new version can be used) will appear. You can set the reservation for update. The update will not start when the TV is set to Off.

# **Using Media Player**

Media Player allows you to enjoy photo, video or music recorded on an SD Card. VIERA IMAGE VIEWER is the function of the easy viewing for photos or videos recorded on an SD Card on the TV screen by simply inserting into the SD Card slot.

Photo mode : Still pictures recorded by digital cameras will be displayed.

Video mode : Moving pictures recorded by digital video cameras will be played back.

Music mode : Digital music data will be played back.

- During the operation, audio signal is output from AV1, DIGITAL AUDIO OUT and HDMI2 (ARC function) terminals. But no video signals are output. AV1 can output audio signal if [AV1 out] is set to [Monitor] in the Setup Menu (p. 30). To use HDMI2 with ARC function, connect an amplifier that has ARC function (p. 58) and set to use theatre speakers (p. 65).
- [Date] shows the date on which the recording was made by the recording equipment. The file without record of the date is shown "\*\*/\*\*/\*\*\*\*".
- 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.
- Partly degraded files might be displayed at a reduced resolution.
- The folder and file names may be different depending on the digital camera or digital video camera used.

#### To insert or remove the SD Card



For the information of the SD Card and supported file format 
 (p. 69)

#### Starting Media Player Insert the SD Card to the TV (see above) AV/ Start Media Player 2 NERA TOOL Media Plaver Signal output from all AV terminals will be disabled during Media Player view. Also possible by pressing following buttons. (ok Press OK to proceed. Press EXIT to return to TV viewing. SD CARD S AV ⇒ "Watching External Inputs" (P. 23) Select the content 3 To return to TV Media Player (1) select SD CARD ②access [Photo] + "Photo mode" (p. 50) To return to the [Video] + "Video mode" (p. 53) previous screen [Music] + "Music mode" (p. 55) RETURN You can also access each mode directly by using VIERA TOOLS. "How to Use VIERA TOOLS" (p. 25)

#### Photo mode

Photo mode will read all ".jpg" extension files in the SD Card.





SD CARD or

previous screen



**Using Media Player** 





: Error display

• To change the back ground music + "Photo Settings" (p. 51) To display the information of the highlighted photo

The thumbnail of all the photos in the SD Card will be displayed.



File number / Total file number

• To change the size of photos on thumbnail screen display



[Change size] ②change

#### To sort by folder, recorded date or recorded month

OPTION

#### 1 Display the view selection

(areen)

#### 2 Select the sort type



#### [Folder view]:

Displays the thumbnail grouped by folder

• The files which are not into a folder will be collected to the folder named "/".

#### [Sort by Date]:

- Displays the thumbnail grouped by the same date
- The group of the photos without recorded date is shown as [Unknown].

#### [Sort by Month]:

① select

- Displays the thumbnail grouped by the same month
- The group of the photos without recorded date is shown as [Unknown].

#### 3 Select one of the sorted groups to display the thumbnail of the selected group



To return to the thumbnail of all photos





• To display the information of the highlighted group



2 thumbnail of the selected group

Group number / Total group number

Folder name, date or month

#### [Single view] - Photos are displayed one at a time. Select the file from the thumbnail of photos to be viewed



## ②access Example :



guide **i** • To return to thumbnail

To display / hide the operation



Operation guide

[Slideshow] - Slideshow will complete when all photos have been viewed within the present thumbnail.

RETURN

€



2) access [Back Ground Music]

### Note

• Picture quality may become lower depending on the slideshow settings.

• Picture setting may not work depending on the slideshow settings.

Menu	ltem	Adjustments / Configurations (alternatives)
Slideshow Settings	Frame	Selects the indication frame of the slideshow [Off] / [Multi] / [Collage] / [Drift (+ calendar)] / [Drift] / [Gallery (+ calendar)] / [Gallery] / [Cinema] [Multi] : 9 division display like tiled design [Collage] : A photo is displayed at random position and random scale. [Drift (+ calendar) / Drift] : Photos are displayed like flow images.  • You can select to display the calendar or not. The month of calendar is turned by pressing left or right cursor button. [Gallery (+ calendar) / Gallery] : The various size of photos in the frame are displayed. • You can select to display the calendar or not. The month of calendar is turned by pressing left or right cursor button. [Cinema] : Photos are displayed like old films (sepia tone)

Item	Adjustments / Configu	urations (alternatives)	
Colour Effect	Selects the colour effect of photos on Singl [ <b>Off</b> ] / [ <b>Sepia</b> ] / [ <b>Gray scale</b> ] • This function is not available when [Frame		
Transition Effect	Selects the transition effect for switching th [Off] / [Fade] / [Slide] / [Dissolve] / [Motio [Fade] : The next photo fades in gradually. [Slide] : The next photo slides and appears [Dissolve] : Each photo is dissolved when s [Motion] : Each photo is displayed with an moving down. [Random] : Each transition is selected at ra • This function is available when [Frame] is	n] / [Random] from the left side. witching to the next photo. effect of enlarging, reducing, moving up or ndom.	
Screen Mode	Selects whether enlarged or normal viewin [Normal] / [Zoom] • This function is not available when [Frame [Cinema] • This function is not available when [Trans • Depending on the photo size, it may not	e] is set to [Collage], [Drift], [Gallery] or ition Effect] is set to [Motion].	
Burst Playback	Selects whether to display burst photos in a fast-paced slideshow mode [ <b>Off] / [On]</b> • This function is not available when [Frame] is set to [Drift], [Gallery] or [Cinema]. • This function is not available when [Transition Effect] is set to [Motion].		
Interval	Selects slideshow interval [5]/ [10] / [15] / [30] / [60] / [90] / [120] (seconds) <ul> <li>This function is not available when [Frame] is set to [Drift], [Gallery] or [Cinema].</li> <li>This function is not available when [Transition Effect] is set to [Motion].</li> </ul>		
Repeat	Slideshow repeat [Off] / [On]		
Back Ground Music	Selects the back ground music during Phot [Off] / [Type1] / [Type2] / [Type3] / [User] • [Type1], [Type2] and [Type3] are the fixed [User] : Music data in the SD Card registere To register the music 1 Select the music file Depending on the conditions of the SD Card, select folders until you reach the desired music file. BerRivATE DCIM MISC 002photo 00	/ [Auto] I music each installed in this TV. d by yourself will be played back. 2 Select [File] or [Folder] Register Slideshow BGM? File Folder ① select ② set [File] : The selected music file will be registered as back ground music. [Folder] : All the music in the folder which contains the selected music file will be registered as back ground music. [Folder] : All the music in the folder which contains the selected music file will be registered as back ground music. D Card which has the registered music is	
	<ul> <li>If there is no available music data, no so</li> </ul>	und will be produced.	
	Colour Effect Transition Effect Screen Mode Burst Playback Interval Repeat	Colour EffectSelects the colour effect of photos on Singl (Off) / (Sepia) / (Gray scale) 	

#### **Change the contents**

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

1 While the thumbnail is displayed, display the contents selection

(blue)

#### 2 Select the contents



① select 2) access

[Photo] 🗼 "Photo mode" (p. 50) [Video] **Wideo mode**" (p. 53) [Music] + "Music mode" (p. 55)

#### Video mode

#### Supported file formats (p. 69)



To return to TV



Note

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

The thumbnail of video titles in the SD Card will be displayed.



#### : Error display

- III : The file does not support thumbnail view.
- To view the scenes of the title

2 access

Playback from Title view

Playback of the selected title will start.

#### Select the title

Example : Thumbnail - [Scene view]



The preview will start when the scene is highlighted if it supports a preview. To turn off the preview

The preview will start when the title is

• To display the information of the highlighted

File format

Title number /

Total title number

highlighted if it supports a preview.

 To turn off the preview "Video Setup" (p. 54)

title

i

- "Video Setup" (p. 54)
- To display the information of the highlighted scene



**Using Media Player** 

Playback from the selected scene in the title (SD-Video or AVCHD)

2 Start playback

(red)

Playback will start from the selected scene to the end of the title. 

#### 2 Select the scene







**1** Select the title

1 Select the title

select



#### How to operate in the playback

Example : Playback



You can confirm or change the current status of the content. Menu items and selectable options vary depending on the content.

1 Display the option menu

#### 2 Select [Video Setup]

- during playback

#### 3 Select the items and set

OPTION Video Setup Menu Option Menu Multi Audio Stereo Video Setup Aspect Change Aspect1 (1) select ② set access

Menu	ltem	Adjustments / Configurations (alternatives)
Vid	Multi Audio	Allows you to select between selectable sound tracks (if available) It may take several seconds to change the sound.
Video Setup	Aspect Change	[Aspect1] : Displays the content full-screen [Aspect2] : Displays the content square [Original] : Displays the content original size • You can also change the aspect using the ASPECT button. • Aspect change may not work depending on the content.

#### **Audio output Settings**

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

• To confirm or change the current sound status + "Confirm or change the current status" (p. 54)

1 Display the menu	2 Select [Sound]	3 Select [SPDIF Selection] and set
MENU	VIECA Main Menu	Sound Menu 2/2 SPDIF Selection Auto
	🖙 Picture	Reset to Defaults Reset
	♪ Sound Setup	
	① select ② access	① select ② set

Menu	ltem	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 and HDMI2 (ARC function) terminals <b>[Auto] / [PCM]</b> <b>[Auto] :</b> Dolby Digital is output as Dolby Digital Bitstream. MPEG is output as PCM. <b>[PCM] :</b> Digital output signal is fixed to PCM.	

#### **Music mode**



The thumbnail of music folders in the SD Card will be displayed. Example : Thumbnail - [Folder view]



To display the information of the highlighted folder



Folder number / Total folder number

2 Start playback

(red)

#### Playback from Folder view

All the files in the selected folder will be played back.

## 1 Select the folder select

#### To return to TV









#### Playback from File view

Selected file will be played back.



#### **Music Setup**

Setup the setting for Music mode (only available in the thumbnail view).

#### **1 Display the option menu** OPTION

#### 2 Select [Music Setup]



3 Set		
Music Setup	Menu	
Repeat	<ul> <li>One</li> </ul>	
se		
S or D se	τ	

[Folder] : Playback repeat within the selected folder[One] : Playback repeat of the selected one file

# Link Functions (Q-Link / VIERA Link)

Q-Link connects the TV and DVD Recorder / VCR, and enables easy recording, playback, etc. - (p. 59)

VIERA Link (HDAVI Control<sup>™</sup>) connects the TV and the equipment with VIERA Link function, and enables easy control, convenient recording, playback, energy saving, creating home theatre, etc., without complicated setting. → (**p. 60 - 65**) You can use Q-Link and VIERA Link functions together.

- This TV supports "HDAVI Control 5" function. But available features are depending on the connected equipment's version of HDAVI Control. Please refer to the manual of the equipment to confirm the version.
- VIERA Link features may be available even with other manufacturers' equipment supporting HDMI CEC.

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

#### Q-Link (SCART connection)



#### VIERA Link (HDMI connection)

Connected equipment Features	DIGA Recorder with VIERA Link function	DVD Player / Blu-ray Disc Player with VIERA Link function	HD Video Camera / LUMIX Camera with VIERA Link function
Preset download	○*2*5	_	-
Easy playback	0	0	0
Power on link	0	0	0
Power off link	0	0	0
Reduce unnecessary power consumption in standby	○*3	○*3	-
Auto standby for unnecessary equipment	○*3	○*3	-
Pause Live TV programme	O*2 *4	-	-
Direct TV Recording	○*2	-	-
Control the menu of the connected equipment by VIERA remote control	○*1	<b>O</b> *1	O*1
Speaker control	_	-	_

#### Connection



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

• Use fully wired HDMI compliant cable.

• Connect the equipment supporting VIERA Link to the TV's HDMI1 or HDMI2 terminal via an HDMI cable.

About HDMI cable for connecting Panasonic HD Video Camera or LUMIX Camera, read the manual of the equipment.

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

Connected equipment	Player theatre with	Blu-ray Disc theatre with	Amplifier with VIERA Link
Features	VIERA Link function	VIERA Link function	function
Preset download	-	-	-
Easy playback	○*6	○*6	-
Power on link	0	0	-
Power off link	0	0	0
Reduce unnecessary power consumption		O*3	
in standby	_	0.3	_
Auto standby for unnecessary equipment	○*3 *7	○*3 *7	○*3
Pause Live TV programme	-	-	-
Direct TV Recording	-	-	-
Control the menu of the connected	*1	()*1	
equipment by VIERA remote control	0		_
Speaker control	0	0	0

#### Connection

• To use Player theatre / Blu-ray Disc theatre :



HD Video Camera / LUMIX Camera with VIERA Link function

- Use fully wired HDMI compliant cable.
- Connect the equipment supporting VIERA Link to the TV's HDMI2 terminal via an HDMI cable.
- Use fully wired SCART cable.
- If you use a SCART cable for audio output, connect the equipment supporting VIERA Link to the TV's AV1 terminal and set [AV1 out] to [Monitor] in the Setup Menu (p. 30).
- Use any one of the optical digital audio cable and SCART cable for audio output from the TV.
- \*1 : Available with the equipment which has "HDAVI Control 2 or later" function.
- \*2 : Available with the equipment which has "HDAVI Control 3 or later" function.
- \*3 : Available with the equipment which has "HDAVI Control 4 or later" function.
- \*4 : Available with DIGA Recorder which has HDD.
- \*5 : This function is available regardless of the version of HDAVI Control when the recorder supports Q-Link and is connected via SCART cable.
- \*6 : While playing a disc
- \*7 : Except for watching a disc
- \*8 : If the connected equipment has "HDAVI Control 5" function, you do not have to use this audio cable (Optical digital audio cable or SCART cable). In this case, connect the equipment to the TV's HDMI2 terminal via an HDMI cable.

#### VIERA Link Control of compatible equipment ([VIERA Link Control] > p. 63)

 Table below displays maximum number of compatible equipment that can be controlled by VIERA Link Control. This includes connections to equipment already connected to the TV.

For example, DIGA Recorder connected to Amplifier which is connected to the TV via an HDMI cable.

Type of the equipment	Maximum number
Recorder (DIGA Recorder, etc.)	2
Player (DVD Player, Blu-ray Disc Player, HD Video Camera, LUMIX Camera, Digital Camera, Player theatre, Blu-ray Disc theatre, etc.)	2
Audio system (Player theatre, Blu-ray Disc theatre, Amplifier, etc.)	1
Tuner (Set top box, etc.)	3

#### Q-Link

#### Preparations

• Connect the DVD Recorder / VCR with the following logos :

"Q-Link", "NEXTVIEWLINK", "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)"

- Q-Link connection **(p. 57)**
- Use fully wired SCART cable.
- Set up the DVD Recorder / VCR. Read the manual of the recorder.

• Available conditions :

#### Features available

#### **Preset download**

Channel, language, country settings can be downloaded to the recorder.

- DVB-C channel settings cannot be downloaded.
- To download settings

#### [Download] (p. 30) or [Auto Setup] (p. 35) or "Auto Setup" - when first using the TV (p. 12, 13)

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

Recording the current programme in DVD Recorder / VCR immediately.



Picture source	Mode	Recording from
Analogua	TV	TV monitor out
Analogue	AV	Recorder's tuner
DVB	TV	TV monitor out
AV (watching recorder's tuner)	AV	Recorder's tuner
AV (watching recorder's external input)	AV	Recorder's external input
AV (watching TV's external input)	AV	TV monitor out

• When Direct TV Recording is performed, the recorder is automatically turned on if it is in Standby mode.

- Changing channel or turning off the TV is available while the recorder is recording from its own tuner.
- Changing channel is not available while the recorder is recording from the TV tuner.

#### To stop recording

Unlock the tuner



Tuner Locked Press EXIT to unlock and stop recording



#### Power on link and Easy playback

Set Power on Link [On] in the Setup Menu to use this function → [Power on Link] (p. 30)

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

#### **Power off link**

#### Set Power off Link [On] in the Setup Menu to use this function → [Power off Link] (p. 30)

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

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

#### Note

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

#### \*Enjoy additional HDMI Inter-Operability with Panasonic products which have "HDAVI Control" function.

This TV supports "HDAVI Control 5" function.

Connections to the equipment (DIGA Recorder, HD Video Camera, Player theatre, Amplifier, etc.) with HDMI and SCART cables allow you to interface them automatically (p. 57, 58).

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

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

#### Preparations

- Connect the equipment supporting VIERA Link.
- Use fully wired HDMI compliant cable. Non-HDMI-compliant cables cannot be utilized.
- Recommended Panasonic's HDMI cable part number : • RP-CDHS15 (1.5 m) • RP-CDHS30 (3.0 m)
- RP-CDHS50 (5.0 m)

- Use fully wired SCART cable.
- Set up the connected equipment. Read the manual of the equipment.
- For optimal recording, the settings of the recorder may need to be changed. For details, read the manual of the recorder.
- Download preset channel, language, country / region settings "Preset download" (see below)
- Set up the TV
- After connection, turn the equipment on and then switch the TV on.

Select the input mode to HDMI1 or HDMI2 (p. 23), and make sure that an image is displayed correctly.

- This setup should be done each time when the following conditions occur :
- for the first time
- when adding or reconnecting equipment
- when changing setup

#### Features available

#### **Preset download**

Channel, language, country / region settings can be downloaded to the recorder.

- DVB-C channel settings cannot be downloaded.
- To download settings

[Download] (p. 30) or [Auto Setup] (p. 35) or "Auto Setup" - when first using the TV (p. 12, 13)

#### Easy playback

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

#### **Power on link**

#### Set Power on Link [On] in the Setup Menu to use this function → [Power on Link] (p. 30)

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

#### **Power off link**

#### Set Power off Link [On] in the Setup Menu to use this function ➡ [Power off Link] (p. 30)

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

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

#### Reduce unnecessary power consumption in standby [Standby Power Save]

#### Set Standby Power Save [On] in the Setup Menu to use this function 🍑 [Standby Power Save] (p. 30)

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

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

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

- This function is effective if the connected equipment can change the power consumption in Standby mode and is set to higher consumption.
- This function will work when [Power off Link] is set to [On].

#### Auto standby for unnecessary equipment [Intelligent Auto Standby]

#### Set Intelligent Auto Standby [On (With reminder)] or [On (No reminder)] in the Setup Menu to use this function [Intelligent Auto Standby] (p. 30)

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

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

#### Direct TV Recording - What you see is What you record [Direct TV Rec]

Recording the current programme in DIGA Recorder immediately.

If you connect a variety of recorders including other manufacturers' recorders at the same time, please connect DIGA Recorder to the TV's lower HDMI terminal number. For example, if you use HDMI1 and HDMI2 for two recorders, in this case connect DIGA Recorder to HDMI1.

If you cannot operate, check the settings and the equipment

2

- "Summary of Q-Link and VIERA Link features" (p. 57, 58), "Preparations" (p. 60)
- If you wish to record the programme which DIGA Recorder does not support. SCART connection is required and the programme is recorded by O-Link function (p. 59).
- Depending on the programme, SCART connection may be required to record.
- Changing channel or turning off the TV is available while the recorder is recording from its own tuner.
- Changing channel is not available while the recorder is recording from the TV tuner.



## Display [VIERA Link Menu]



 select 2 stop

① select



 You can also start recording directly. DIRECT TV REC

## To stop recording

Select [Stop] in [Direct TV Rec]

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

You can also stop recording directly.

Unlock the tuner







#### Pause Live TV programme [Pause Live TV]

You can pause the live TV programme and resume later.

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

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

2

⇒ "Summary of Q-Link and VIERA Link features" (p. 57, 58), "Preparations" (p. 60)



## Display [VIERA Link Menu]

## Select [Pause Live TV] and pause

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.



(The paused picture will be restored)

• Follow the operation guide to operate Pause Live TV function.

#### To operate Pause Live TV

pause search forward

playback

search backward



- Operations may be different depending on the recorder. In this case, follow the operation guide or read the manual of the recorder.
- stop
   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)



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

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

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

If you cannot operate, check the settings and the equipment

- "Summary of Q-Link and VIERA Link features" (p. 57, 58), "Preparations" (p. 60)
- For details of the operations for the connected equipment, read the manual of the equipment.



## Operate the menu of the equipment

Available VIERA remote control buttons :

(Depending on the connected equipment)



Λ

#### 1 Set the code of the remote control to "73"

"How to change the code for the type of the equipment" (p. 24)

#### 2 Follow the operation guide

To display the operation guide



If other manufacturers' equipment is accessed, Setup / Contents Selection menu may be displayed.

• When the key words are displayed on colour bar



#### Note

• Some operations may not be available depending on the equipment. In this case use its own remote control to operate the equipment.

#### If multiple recorders or players are connected

VIERA Link Menu	
	Start
Direct TV Rec	Start
VIERA Link Control	Recorder2
Speaker Selection	Home Cinema

The number is given from the TV's lower HDMI terminal number connected to the same type equipment. For example, two recorders to HDMI1 and HDMI2, in this case the recorder connected to HDMI1 is displayed as [Recorder1], and the recorder connected to HDMI2 is displayed as [Recorder2].

[Recorder1-2 / Player1-2]

#### If you access non-VIERA Link equipment

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

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

#### Speaker control [Speaker Selection]

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

- If you cannot operate, check the settings and the equipment
- Summary of Q-Link and VIERA Link features" (p. 57, 58), "Preparations" (p. 60)



#### Multi-channel sound

If you wish to enjoy the multi-channel sound (e.g. Dolby Digital 5.1ch) via an Amplifier, connect with HDMI cable and Optical digital audio cable (p. 58), and then select [Home Cinema]. If your Amplifier has "HDAVI Control 5" function, you can connect only with HDMI cable. In this case, connect your Amplifier to the TV's HDMI2 terminal.

To enjoy the sound from the DIGA Recorder in multi-channel sound, connect an HDMI cable from the DIGA Recorder to the Amplifier (p. 58).

#### Note

- These functions may not work properly depending on the connected equipment.
- Image or sound may not be available for the first few seconds when input mode is switched.
- Easy playback may be available by using the remote control for Player theatre, Blu-ray Disc theatre or Amplifier. Read the
  manual of the equipment.
- "HDAVI Control 5" is the newest standard (current as of December, 2010) for HDAVI Control compatible equipment. This
  standard is compatible with conventional HDAVI equipment.
- To confirm this TV's version of HDAVI Control **(p. 33)**

# **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. 74, 75).

#### Types of connectable equipment to each terminal

	Terminal				
	AV1	AV2	COMPONENT	DIGITAL AUDIO OUT	HDMI 1 - 2
Recording / Playback (equipment)		V L R	(AV2)		
To record / playback videocassettes / DVDs (VCR / DVD Recorder)	0				
To watch satellite broadcasts (Set top box)	0	0			<b>O</b> *1
To watch DVDs (DVD Player)	0	0	0		0
To watch camcorder images (Video camera)	0	0			0
To play games (Game equipment)	0	0			0
To use amplifier with speaker system				0	○*2
Q-Link	0				
VIERA Link	(with HDMI)				0
Direct TV Recording	0				0

○: Recommended Connection

\*1 : Use HDMI1 for automatic input switching.

\*2 : Use HDMl2 for connecting an amplifier. This connection is applicable when using an amplifier that has ARC (Audio Return Channel) function.







# **Technical Information**

#### **Auto Aspect**

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

#### Aspect Control Signal

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

The aspect will switch to the appropriate 16:9 or 14:9 widescreen ratio.

This function will work in any aspect mode.

		Aspect Control Signal		
Input terminal	Input signal format	Widescreen signal (WSS)	Control signal through SCART (pin8) / HDMI terminal	
	DVB-C	0		
	DVB-T	0		
	PAL B, G, H, I	0		
	PAL D, K	0		
	SECAM B, G	0		
C 11	SECAM L, L'	0		
Cable RF	SECAM D, K	0		
nr	PAL 525/60 6.5 MHz	-		
	PAL 525/60 6.0 MHz	-		
	PAL 525/60 5.5 MHz	-		
	M.NTSC 6.5 MHz	-		
	M.NTSC 6.0 MHz	-		
	M.NTSC 5.5 MHz	-		
	PAL	0	0	
AV (A ) (A) (A)	SECAM	0	0	
AV1 / AV2 (Composite)	PAL 525/60	-	0	
(composite)	M.NTSC	-	0	
	NTSC	-	0	
	525 (480) / 60i, 60p	-		
COMPONENT	625 (576) / 50i, 50p	0		
COMPONENT	750 (720) / 60p, 50p	-		
	1,125 (1,080) / 60i, 50i	-		
HDMI1 HDMI2	525 (480) / 60i, 60p	-	0	
	625 (576) / 50i, 50p	-	0	
	750 (720) / 60p, 50p	-	0	
	1,125 (1,080) / 60i, 50i	-	0	
	1,125 (1,080) / 60p, 50p, 24p		0	

# **Technical Information**

#### Auto mode

Auto mode determines the best aspect ratio to fill the screen. It does this using a four step process (WSS, Control signal through SCART / HDMI terminal, Letterbox detection, or Justify to fill the screen) to determine.

This process may take several minutes, depending on the darkness of the image.

Letterbox detection :

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

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

#### Note

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

#### **Media Player**

#### SD Card

#### Card format : SDXC Card - exFAT

SDHC Card / SD Card - FAT16 or FAT32

Compliant card type (maximum capacity) : SDXC Card (64 GB), SDHC Card (32 GB), SD Card (2 GB), miniSD Card (2 GB) (requiring miniSD adaptor)

- If miniSD Card is used, insert / remove it together with the adaptor.
- Check the latest information on the card type at the following website. (English only) http://panasonic.jp/support/global/cs/tv/
- Use an SD Card which meets SD standards. If not, it may cause the TV to malfunction.
- 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.)

#### Supported file format in Media Player

#### Photo

Format	File extension	Image resolution (pixel)	Details / Restrictions
JPEG	.jpg	8 × 8 to 30,719 × 17,279	DCF*1 and EXIF*2 standards Sub-sampling : 4:4:4, 4:2:2, 4:2:0 • Progressive JPEG is not supported.

\*1 : Design rule for Camera File system - unified standard established by Japan Electronics and Information Technology Industries Association (JEITA)

\*2 : Exchangeable Image File - image file format used by digital cameras

#### ■ Video

Container	File extension	Video codec	Audio codec	Details / Restrictions
SD-Video	.mod	MPEG1 MPEG2	MPEG Dolby Digital	<ul> <li>SD-Video Standard Ver. 1.3</li> <li>(Entertainment Video Profile)</li> <li>The data may not be available if a folder structure on the SD Card is modified.</li> </ul>
AVCHD	.mts	H.264	Dolby Digital	AVCHD Standard • The data may not be available if a folder structure on the SD Card is modified.
MP4	.mp4	H.264 BP / MP / HP	AAC MP3 Dolby Digital	<ul> <li>This TV supports this container recorded by Panasonic products. For details, read the manual of the products.</li> </ul>
MOV	.mov	MotionJPEG H.264 BP / MP / HP	Linear PCM (RAW / TWOS / SOWT) AAC MP3 Dolby Digital	<ul> <li>This TV supports Motion JPEG recorded by Panasonic LUMIX Camera*<sup>3</sup>.</li> </ul>

\*3: Some products of before the year 2004 may not be available. The compatibility with future products is not guaranteed.

#### Music

Codec	File extension	Restrictions
MP3	.mp3	-
AAC	.m4a	• Copy-protected files cannot be played back.

#### Note

Some files may not be played back even if they fulfill these conditions.

• Do not use two-byte characters or other special codes for data.



<sup>•</sup> The card may become unusable with this TV if the file or folder names are changed.

#### Characters table for numeric buttons

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

User input																			
Name																			
A	В	С	D	Е	F	G	Н	I	J	К	L	Μ	Ν	0	Ρ	Q	R	S	Т
U	V	W	Х	Y	Ζ		0	1	2	3	4	5	6	7	8	9		:	#
а	b	с	d	е	f	g	h	i	j	k	L	m	n	0	р	q	r	s	t
u	v	w	х	у	z	(	)	+			*								

ons for free input item

1 2 3... 4... 5... 6... 7... 8... 9... 0

Press the numeric button repeatedly until you reach the desired character.

- The character is set automatically if you leave for 1 second.
- You can also set the character by pressing the OK button or other numeric buttons within 1 second.

#### Characters table :

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

#### **HDMI** connection

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

HDMI allows you to enjoy high-definition digital images and high-quality sound by connecting the TV and the equipment. HDMI-compatible equipment<sup>\*1</sup> with an HDMI or DVI output terminal, such as a DVD player, a set top box or a game equipment, can be connected to the HDMI terminal using an HDMI compliant (fully wired) cable. About connections, see "External Equipment" (p. 66).

#### Applicable HDMI features

- Input audio signal :
- 2ch Linear PCM (sampling frequencies 48 kHz, 44.1 kHz, 32 kHz) Input video signal :
- 480i, 480p, 576i, 576p, 720p, 1080i and 1080p
- "Input signal that can be displayed" (p. 71)
- Match the output setting of the digital equipment. • Input PC signal :
- "Input signal that can be displayed" (p. 71)
- Match the output setting of the PC.

#### **DVI connection**

If the external equipment has only a DVI output, connect to the HDMI terminal via a DVI to HDMI adaptor cable\*<sup>3</sup>. When the DVI to HDMI adaptor cable is used, connect the audio cable to the audio input terminal (use AV2 audio terminals).

#### Note

- Audio settings can be made on the [HDMI1 / 2 Input] in the Sound Menu. (p. 30)
- 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.
- Equipment having no digital output terminal may be connected to the input terminal of "COMPONENT" or "VIDEO" to receive
  analogue signals.
- This TV incorporates HDMI<sup>™</sup> technology.
- \*1 : The HDMI logo is displayed on HDMI-compliant equipment.
- \*2 : Audio Return Channel (ARC) is a function to be able to send digital sound signals via an HDMI cable.
- \*3 : Enquire at your local digital equipment retailer shop.

 VIERA Link (HDAVI Control 5) :
 VIERA Link] (p. 60)
 Audio Return Channel<sup>\*2</sup> (HDMI2 terminal only)

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

Signal name	COMPONENT	НДМІ
525 (480) / 60i, 60p	0	0
625 (576) / 50i, 50p	0	0
750 (720) / 60p, 50p	0	0
1,125 (1,080) / 60i, 50i	0	0
1,125 (1,080) / 60p, 50p, 24p		0

O Mark : Applicable input signal

#### PC (from HDMI terminal)

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

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

#### Note

• Signals other than above may not be displayed properly.

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

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

#### **SCART and HDMI terminal information**

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



# FAQs

Before requesting service or assistance, please follow these simple guides to resolve the problem. If the problem still persists, please contact your local Panasonic dealer for assistance.

## Block noise, frozen or disappearing image occurs in DVB mode / White spots or shadow image (ghosting) occurs in Analogue mode / Some channels cannot be tuned

- Check the position, direction and connection of the aerial.
- Check [Signal Condition] (p. 38). If [Signal Quality] is displayed in red, the DVB signal is weak.
- Weather conditions will affect signal reception (heavy rain, snow, etc.), in particular in poor reception areas. Even during good weather, the high pressure can cause poor reception of some channels.
- Due to the digital reception technologies involved, quality of the digital signals may be relatively low in some cases, despite good reception of analogue channels.
- Turn the TV off with the Mains power On / Off switch, and then on again.
- If problem persists, consult your local dealer or service provider for the availability of services.

#### No programmes shown on TV Guide

- Check the digital transmitter.
- Adjust the direction of the aerial to another transmitter installed nearby.
- Check the analogue broadcast. If the image quality is poor, check the aerial and consult your local dealer.

#### Neither image nor sound is produced

- Is the TV in AV mode?
- Check the correct input mode is selected.
- Check the mains lead is plugged into the socket outlet and the TV is turned on.
- Check the Picture Menu (p. 27, 28) and volume.
- Check all required cables and connections are firmly in place.

#### Auto aspect

- Auto aspect is designed to provide you with the best ratio to fill the screen. (p. 68)
- Press the ASPECT button if you would like to change the aspect ratio manually. (p. 17)

#### **Black and white picture**

Check that the output of the external equipment matches the input of the TV.
 When connecting with SCART, ensure the output setting of the external equipment is not S-Video.

#### Input mode, i.e. EC/AV1 remains on the screen

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

#### Q-Link function does not work

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

- Confirm the connection. 
   (p. 57, 58)
- Turn the connected equipment on and then switch the TV on. (p. 60)

#### **Recording does not start immediately**

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

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

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

Please note this does not affect the performance of your LCD.

	Problem	Actions					
	Chaotic image, noisy	<ul> <li>Set [P-NR] in the Picture Menu (to remove noise). (p. 27)</li> <li>Check nearby electrical products (car, motorcycle, fluorescent lamp).</li> </ul>					
Screen	No image can be displayed	• Is [Contrast], [Brightness] or [Colour] in the Picture Menu set to the minimum? (p. 27)					
een	<b>Blurry or distorted image</b> (no sound or low volume)	• Reset channels> (p. 34, 35)					
	Unusual image is displayed	<ul> <li>Turn the TV Off with Mains power On / Off switch, then turn it On again.</li> <li>If the problem persists, initialise all settings [Shipping Condition] (p. 47)</li> </ul>					
Sound	No sound is produced	<ul> <li>Is "Sound mute" active? (p. 8)</li> <li>Is the volume set to the minimum?</li> </ul>					
Ind	Sound level is low or sound is distorted	<ul> <li>Sound signal reception may be deteriorated.</li> <li>Set [MPX] (p. 29) in the Sound Menu to [Mono]. (Analogue only)</li> </ul>					
HDMI	Sound is unusual	<ul> <li>Set the sound setting of the connected equipment to "2ch L.PCM".</li> <li>Check the [HDMI1 / 2 Input] setting in the Sound Menu. → (p. 30)</li> <li>If digital sound connection has a problem, select analogue sound connection.</li> <li>→ (p. 70)</li> </ul>					
IM	Pictures from external equipment are unusual when the equipment is connected via HDMI	<ul> <li>Check the HDMI cable is connected properly. (p. 66)</li> <li>Turn the TV and equipment Off, then turn them On again.</li> <li>Check an input signal from the equipment. (p. 71)</li> <li>Use equipment compliant with EIA/CEA-861/861D.</li> </ul>					
	The TV does not switch On	Check the mains lead is plugged into the socket outlet.					
	The TV goes into Standby mode	<ul> <li>Auto power standby function is activated. (p. 9)</li> <li>The TV enters Standby mode about 30 minutes after analogue broadcasting ends.</li> </ul>					
Other	The remote control does not work or is intermittent	<ul> <li>Are the batteries installed correctly? → (p. 6)</li> <li>Has the TV been switched On?</li> <li>The batteries may be running low. Replace them.</li> <li>Point the remote control directly at the front of the TV (within about 7 m and a 30 degree angle of the front of the TV).</li> <li>Situate the TV away from sunshine or other sources of bright light not to shine on the TV's remote control signal receiver.</li> </ul>					
her	Parts of the TV become hot	• Even when the temperature of parts of the front, top and rear panels has risen, these temperature rises will not pose any problems in terms of performance or quality.					
	The LCD panel moves slightly when it is pushed with a finger Clattered sound might be heard	<ul> <li>There is some flexibility around the panel to prevent damage to the panel.</li> <li>The panel might move slightly when it is pushed with a finger, and clattered sound might be heard. This is not a malfunction.</li> </ul>					
	An error message appears	<ul> <li>Follow the message's instructions.</li> <li>If the problem persists, contact your local Panasonic dealer or the authorized Service Centre.</li> </ul>					

# **Specifications**

		TX-L32U3E	TX-L37U3E	TX-L42U3E			
Pow	er Source	AC 220-240 V, 50Hz					
Rate	ed Power Consumption	94 W	137 W	179 W			
Ctor	dhu Dower	0.3 W	0.3 W	0.25 W			
	ndby Power sumption	11.5 W (With monitor out recording)	11.5 W (With monitor out recording)	10.0 W (With monitor out recording)			
Dim	ensions (W × H × D)	779 mm × 531 mm × 207 mm (With Pedestal) 779 mm × 497 mm × 84 mm (TV only)	1,021 mm × 666mm × 288 mm (With Pedestal) 1,021 mm × 632 mm × 106 mm (TV only)				
Mas	s	9.5 kg Net (With Pedestal) 8.5 kg Net (TV only)	13.5 kg Net (With Pedestal) 12.0 kg Net (TV only)	18.5 kg Net (With Pedestal) 16.5 kg Net (TV only)			
Dia	Aspect Ratio	16:9					
Display panel	Visible screen size	80 cm (diagonal) 697 mm (W) × 392 mm (H)	94 cm (diagonal) 819 mm (W) × 460 mm (H)	106 cm (diagonal) 930 mm (W) × 523 mm (H)			
nel	Number of pixels	2,073,600 (1,920 (W) × 1,080 (	H))				
	Speaker	(160 mm $\times$ 42 mm) $\times$ 2, 8 $\Omega$					
Sound	Audio Output	20 W (10 W + 10 W)					
	Headphones	M3 (3.5 mm) stereo mini Jack × 1					
Rece	eiving Systems /	PAL B, G, H, I, SECAM B, G, SECAM L, L'	VHF E2 - E12 VHF A - H (ITALY) CATV (S01 - S05) CATV S11 - S20 (U1 - U10)	VHF H1 - H2 (ITALY) UHF E21 - E69 CATV S1 - S10 (M1 - M10) CATV S21 - S41 (Hyperband)			
Ban	d name	PAL D, K, SECAM D, K	VHF R1 - R2 VHF R3 - R5	VHF R6 - R12 UHF E21 - E69			
on tl	he available services at the wing website.	PAL 525/60	Playback of NTSC tape from sc	ome PAL Video recorders (VCR)			
(Eng	ilish only) ://panasonic.jp/support/	M.NTSC	Playback from M.NTSC Video r	ecorders (VCR)			
	al/cs/tv/	NTSC (AV input only) Playback from NTSC Video recorders (VCR)					
		DVB-T	Digital terrestrial services (MPEG2 and MPEG4-AVC(H.264))				
		DVB-C         Digital cable services (MPEG2 and MPEG4-AVC(H.264))					
Aeri	al input	VHF / UHF					
Оре	rating Conditions	<b>Temperature :</b> 0 °C - 35 °C <b>Humidity :</b> 20 % - 80 % RH (no	on-condensing)				

	AV1 (SCART)	21 Pin terminal (Audio/Video in, Audio/Video out, RGB in, Q-Link)								
		VIDEO	RCA PIN Type $\times$ 1	1.0 V[p-p] (75 Ω)						
Con	AV2 input	AUDIO L - R	RCA PIN Type $\times$ 2	0.5 V[rms]						
Connection	COMPONENT input	Y 1.0 V[p-p] (in Рв, Рк ±0.35 V[p-p]	ncluding synchronization)							
on Terminal	HDMI 1 / 2 input	TYPE A Connectors HDMI2 : HDMI (Version 1.4 with Audio Return Channel), • This TV supports "HDAVI Control 5" function.								
als	Card slot	SD Card slot × 1 Common Interface slot (complies with Cl Plus) × 1								
	DIGITAL AUDIO OUT	PCM / Dolby Digital / DTS, Fiber optic								

#### 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

## Licence

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#### 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.



#### 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.



#### Declaration of Conformity (DoC)

Authorized Representative : Panasonic Testing Centre Panasonic Marketing Europe GmbH Winsbergring 15, 22525 Hamburg, Germany

#### **Customer's Record**

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

Model Number

Serial Number

## Panasonic Corporation

Web Site : http://panasonic.net