Panasonic®

Operating Instructions
Plasma Television

VIEꞀʌ

VIEꞀʌ
Link

VIEꞀʌ
IMAGE VIEWER

Q Link

OWNER I.D.
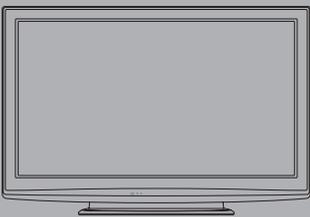
ΛVCHD™

DOLBY
DIGITAL

SD
XC™

HDMI

GUIDEplus+
GEMSTAR

DVB®
Digital Video
Broadcasting

HD
TV

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.
"B" model no. suffix denotes UK model.

English	U.K. Standard

Features

■**DVB-T tuner built-in**
  Receives DVB (Digital Video Broadcasting) digital terrestrial broadcasts
  Easily select the programme or set Timer Programming by using TV Guide. (p. 18 - 20)
  Instantly call up favourite channels with Favourites Edit. (p. 39)

■**GUIDE Plus+** (p. 20)
  This TV supports Gemstar-TV Guide sent from the GUIDE Plus+ system.

■**HD TV**
  This TV supports high definition TV signals.

■**Sharp pictures and clear sound with HDMI connection** (p. 67)
  Enjoy high definition digital picture and high quality sound by using an HDMI cable.
  ●This TV incorporates HDMI (Version 1.4 with Audio Return Channel) and HDMI (Version 1.3a with x.v.Colour™) technology.

■**VIERA IMAGE VIEWER - Media Player** (p. 50 - 53)
  Enjoy your photos or videos recorded in SD Card on the TV screen.

■**SDXC Card**
  This TV supports SDXC Card. SDXC is the latest standards of SD Card and a higher storage capacity card.

■**AVCHD**
  Possible to play the moving pictures recorded in SD Card by AVCHD format.
  AVCHD is a high definition video recording format. (p. 52)

■**Dolby Digital decoder**
  Possible to decode Dolby Digital audio track (multi-channel sound) and output as Dolby Digital multi-channel sound signal from DIGITAL AUDIO OUT terminal.

■**Link up and control the connected equipment with "Q-Link" and "VIERA Link"** (p. 54 - 61)
  Easy recording and playback, create home theatre without complicated settings, etc.

■**VIERA TOOLS - Display special feature icons for easy accessibility** (p. 26)
  VIERA TOOLS is the easy way to access the special features with the VIERA TOOLS button.

■**Owner ID** (p. 47)
  Owner ID is an anti-theft function. Entering the PIN number and owner's personal information will help the Police to determine the owner.

■**Supports Audio Description signal** (p. 15 and p. 29)
  This function can add an additional sound track to describe events on screen (narration) and aids understanding and enjoyment, particularly for visually-impaired viewers.
  You can switch Audio Description service Auto or Off, and adjust the volume of the description sound track.

Digital Switchover for Terrestrial broadcasts

Starting in late 2007 and ending in 2012, TV services in the UK will go completely digital, TV region by TV region.
If you have any questions, please call Digital UK on **08456 50 50 50** or visit **www.digitaluk.co.uk**
Digital Switchover will cover a period of several weeks. When it starts you will lose all Analogue TV channels and some Digital TV channels will be missing.
You will need to retune your TV each time this happens to recover your digital channels.
●To retune your TV ➡ "Auto Setup" in "DVB Tuning Menu"-DVB mode (p. 36)
Users of cable or satellite boxes should still retune the TV to continue to receive Freeview channels via their aerial. (Your Analogue channel for viewing Cable or Satellite services will change to a new position.)

●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.

Contents

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

0.001 msec Panel Response Time
Extremely fast response time to minimise picture lag.

2,000,000:1 Dynamic Contrast
A wide contrast ratio will deliver pictures with a deep black level and a brighter white level for greater image depth.

Provides suitable images for playing games
Selecting "Game" in Viewing Mode provides fast response to the input signal and you can enjoy playing games. (p. 28)

V-Audio Surround
Utilises Panasonic's advanced digital amplification technology. (p. 29)

digital tick
The digital tick logo indicates that a digital tuner is built-in.

Freeview
Freeview is the way to enjoy digital TV for free. There are up to 48 digital TV channels.

■**Do not display a still picture for a long time**

This causes the image to remain on the plasma screen ("image retention").
This is not considered a malfunction and is not covered by the warranty.

Typical still images
● Channel number and other logos
● Image displayed in 4:3 mode
● Video game
● Computer image

To prevent image retention, contrast is lowered automatically after a few minutes if no signals are sent or no operations are performed. (p. 68)

■**Keep the TV away from these types of equipment**
● Electronic equipment
In particular, do not place video equipment near the TV. Electromagnetic interference may distort images / sound.
● Equipment with an infrared sensor
This TV also emits infrared rays. This may affect operation of other equipment.

Be Sure to Read

Quick Start Guide

Enjoy your TV!

Basic Features

Advanced Features

FAQs, etc.

Safety Precautions

■**Mains plug and lead**

To help avoid risk of electrical shock, fire, damage or injury, please follow the warnings below:

● This TV is designed to operate on AC 220-240 V, 50 / 60 Hz.
● Insert the mains plug fully into the socket outlet.
● Ensure that the mains plug is easily accessible.
● Remove the mains plug when cleaning the TV.

● Do not touch the mains plug with a wet hand.

● Do not damage the mains lead.

 • Do not place a heavy object on the lead.

 • Do not place the lead near a high temperature object.

 • Do not pull on the lead. Hold onto the mains plug body when disconnecting the plug.
 • Do not move the TV with the lead plugged into a socket outlet.
 • Do not twist the lead, bend it excessively or stretch it.
 • Do not use a damaged mains plug or socket outlet.
 • Ensure the TV does not crush the mains lead.
● Do not use any mains lead other than that provided with this TV.
● Ensure the earth pin on the mains plug is securely connected to prevent electrical shock.
 • An apparatus with CLASS I construction shall be connected to a mains socket outlet with a protective earthing connection.
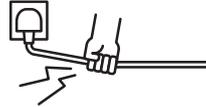
mains supply switch

If you detect anything unusual, immediately switch off the mains supply switch and remove the mains plug
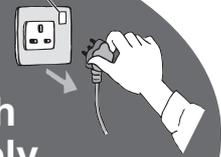
AC 220-240 V 50 / 60 Hz

IMPORTANT: THE MOULDED MAINS PLUG
FOR YOUR SAFETY, PLEASE READ THE FOLLOWING TEXT CAREFULLY.

This TV is supplied with a moulded three pin mains plug for your safety and convenience. A 10 amp fuse is fitted in this mains plug. Shall the fuse need to be replaced, please ensure that the replacement fuse has a rating of 10 amps and that it is approved by ASTA or BSI to BS1362.
Check for the ASTA mark ⬦ or the BSI mark ▽ on the body of the fuse.

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

Do not cut off the mains plug.
Do not use any other type of mains lead except the one supplied with this TV.
The supplied mains lead and moulded plug are designed to be used with this TV to avoid interference and for your safety.
If the socket outlet in your home is not suitable, get it changed by a qualified electrician.
If the plug or mains lead becomes damaged, purchase a replacement from an authorized dealer.
WARNING: – THIS TV MUST BE EARTHED.

How to replace the fuse.
Open the fuse compartment with a screwdriver and replace the fuse.
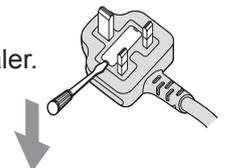
■**Take care**

To help avoid risk of electrical shock, fire, damage or injury, please follow the warnings below:

● Do not remove covers and never modify the TV yourself as live parts are accessible when they are removed. There are no user serviceable parts inside.

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

● Do not expose the TV to direct sunlight and other sources of heat. To prevent fire never place any type of candle or naked flame on top or near the TV.

● Do not place the TV on sloped or unstable surfaces.

● Do not insert foreign objects into the TV through the air vents.
● Do not use an unapproved pedestal / mounting equipment. Be sure to ask your local Panasonic dealer to perform the setup or installation of approved pedestals / wall-hanging brackets.
● Do not apply strong force or impact to the display panel.
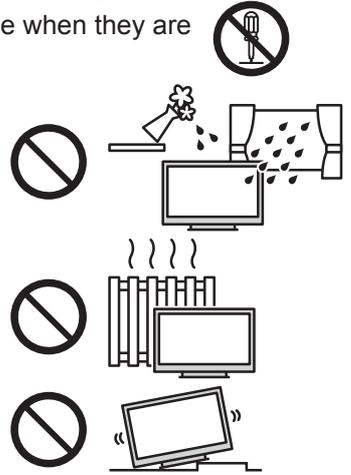
To prevent the spread of fire, keep candles or other open flames away from this product at all times

■**Small object**

This product contains possibly dangerous parts that can be breathed in or swallowed by young children accidentally.

● Keep the dangerous parts out of reach of young children.
● Do not allow children to handle SD Card. As with any small object, the SD Card could be swallowed by young children. Please remove SD Card immediately after use and store out of reach of young children.

Caution

■**Ventilation**

Allow sufficient space around the TV in order to help prevent excessive heat, which could lead to early failure of some electronic components.

● Ventilation should not be impeded by covering the ventilation openings with items such as newspapers, table cloths and curtains.
● Whether you are using the pedestal or not, always ensure the vents in the bottom of the TV are not blocked and there is sufficient space to enable adequate ventilation.

Minimum distance

10

10   10   7

(cm)
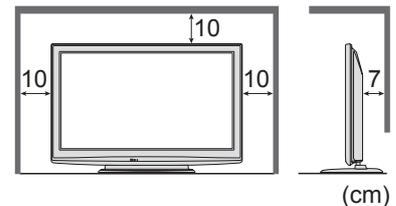
■**Moving the TV**

Before moving the TV, disconnect all cables.

● The TV is heavy. Move the TV with at least two people. Support as shown to avoid injury by the TV tipping or falling.
● Transport only in upright position. Transporting the TV with its display panel facing upward or downward may cause damage to the internal circuitry.
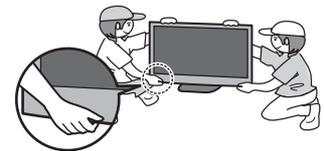
■**When not in use for a long time**

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

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

■**Excessive volume**

Do not expose your ears to excessive volume from the headphones.
Irreversible damage can be caused.

Accessories / Options

Standard accessories

Check that you have the accessories and items shown ☑

☐ Remote Control
  ● N2QAYB000487

☐ Batteries for the Remote Control (2)
  ● R6

☐ Mains Lead
  ● K2CT3YY00021
  ➡ p. 11
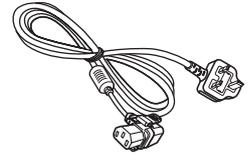
☐ Operating Instructions

☐ Product Registration Leaflet

☐ Pedestal

TX-P37X20B:	TX-P42X20B:	TX-P50X20B:
● TBLX0148	● TBLX0138	● TBLX0139
● TXFBL01LNUU	● TXFBL01LGUE	● TXFBL01LNUU

➡ p. 7

Optional accessories

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

Wall-hanging bracket
● TY-WK4P1RW

Rear of the TV

400 mm

300 mm
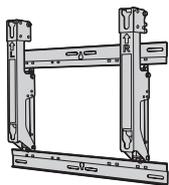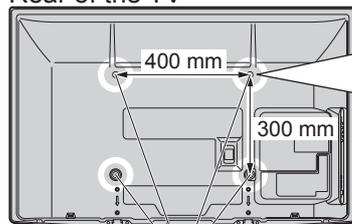
Holes for wall-hanging bracket installation

Screw for fixing the TV onto the wall-hanging bracket (not supplied with the TV)
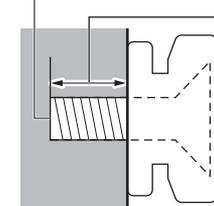
Depth of screw: minimum 15 mm, maximum 30 mm

(View from the side)

Warning

● Using other wall-hanging brackets, or installing a wall-hanging bracket by yourself have the risk of personal injury and product damage. In order to maintain the unit's performance and safety, be absolutely sure to ask your dealer or a licenced contractor to secure the wall-hanging brackets. Any damage caused by installing without a qualified installer will void your warranty.
● Carefully read the instructions accompanying optional accessories, and be absolutely sure to take steps to prevent the TV from falling off.
● Handle the TV carefully during installation since subjecting it to impact or other forces may cause product damage.
● Take care when fixing wall brackets to the wall. Always ensure that there are no electrical cables or pipes in the wall before hanging bracket.
● To prevent fall and injury, remove the TV from its fixed wall position when it is no longer in use.

Installing / removing remote's batteries

1 Pull open

Hook

2 Close

Note the correct polarity (+ or -)
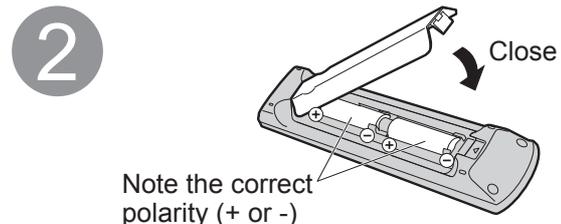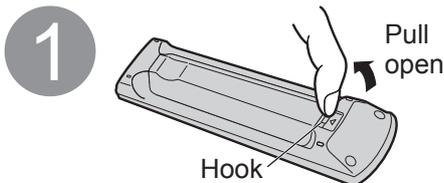
Caution

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

Attaching the pedestal

To help avoid risk of damage or injury by the TV tipping or falling, please follow the warnings and cautions below:

Warning

● Do not disassemble or modify the pedestal.

Caution

● Do not use any other TV and displays.
● Do not use the pedestal if it becomes warped or physically damaged. If it occurs, contact your nearest Panasonic dealer immediately.
● During setup, make sure that all screws are securely tightened.
● Ensure that the TV is not knocked.
● Ensure that children do not climb onto the pedestal with the TV installed.
● Install or remove the TV with at least two people.

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

Ⓑ Assembly screw (4) (black)
  ● THEL080N
    (TX-P37X20B / TX-P50X20B)
  ● THEL079N
    (TX-P42X20B)

Ⓒ Pole (2)
  ● R : TBLA3679
    (TX-P37X20B / TX-P50X20B)
    TBLA3689
    (TX-P42X20B)
  ● L : TBLA3680
    (TX-P37X20B / TX-P50X20B)
    TBLA3690
    (TX-P42X20B)
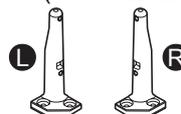
Ⓓ Base
  ● TBLX0148
    (TX-P37X20B)
  ● TBLX0138
    (TX-P42X20B)
  ● TBLX0139
    (TX-P50X20B)

M5 × 18   M5 × 30   Ⓛ   Ⓡ

■ Assembling the pedestal

Use the assembly screws Ⓐ to fasten the left and right poles Ⓒ to the base Ⓓ securely.
● Make sure that the screws are securely tightened.
● Forcing the assembly screws the wrong way will strip the threads.
● "L" or "R" mark is stamped on the bottom of the pole.

Ⓒ-Ⓡ   Ⓐ   Front   Ⓒ-Ⓛ   Ⓓ

■ Securing the TV

Use the assembly screws Ⓑ to fasten securely.
● Make sure that the screws are securely tightened.
● Carry out the work on a horizontal and level surface.

Ⓑ

Arrow mark

View from the bottom

Hole for pedestal installation

Ⓓ

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Identifying Controls

Remote Control

Media Player (p. 50)
● Switches to SD Card viewing mode (VIERA IMAGE VIEWER)

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

Main Menu (p. 27)
● Press to access Picture, Sound and Setup Menus

Aspect (p. 16)
● Changes aspect ratio from Aspect Selection list
● Also possible by pressing this button repeatedly until you reach the desired aspect

Channel / Programme Information (p. 15)
● Displays channel and programme information

VIERA Link Menu (p. 58)
● Accesses VIERA Link Menu

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

Option Menu (p. 17)
● Easy setting for viewing and sound options

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

Teletext (p. 21)
● Switches to teletext mode

Subtitles (p. 15)
● Displays subtitles

Numeric buttons
● Changes channel and teletext pages
● Sets characters
● When in Standby mode, switches TV On (Press for about 1 second)

Sound Mute
● Switches sound mute On or Off

Volume Up / Down

Input mode selection
● TV - switches DVB / Analogue mode (p. 14)
● AV - switches to AV input mode from Input Selection list (p. 24)

Direct TV Recording (p. 56 and p. 58)
● Records programme immediately in DVD Recorder / VCR with Q-Link or VIERA Link connection

Normalise (p. 27)
● Resets picture and sound settings to their default levels

Exit
● Returns to the normal viewing screen

VIERA TOOLS (p. 26)
● Displays some special feature icons and accesses easily

TV Guide (p. 18)
● Displays TV Guide

Cursor buttons
● Makes selections and adjustments

Return
● Returns to the previous menu / page

Hold
● Freeze / unfreeze picture (p. 14)
● Holds the current teletext page (teletext mode) (p. 22)

Index (p. 23)
● Returns to the teletext index page (teletext mode)

Last view (p. 17)
● Switches to previously viewed channel or input mode

Channel Up / Down
● Selects channel in sequence

Connected equipment operations (p. 25 and p. 60)

Panasonic

TV

TV

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

C.A.T.S. (Contrast Automatic Tracking System) sensor
●Senses brightness to adjust picture quality when "C.A.T.S." in the Picture Menu is set to "On" (p. 28)

Power and Timer LED
●**Red**: Standby
Green: On
Orange: Timer Programming On
Orange (flash): Ext Rec. 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.

Function select
●Volume / Contrast / Brightness / Colour / Sharpness / Tint (NTSC signal) / Bass ("Music" or "Speech" mode in the Sound Menu) / Treble ("Music" or "Speech" mode in the Sound Menu) / Balance / Auto Setup (p. 36 and p. 37)

Changes the input mode

Increases or decreases the channel position by one.
When a function is already displayed, press to increase or decrease the selected function.
When in Standby mode, switches TV On (Press for about 1 second).

CI slot (p. 49)

SD Card slot (p. 50)

HDMI3 terminal (p. 63)

Headphones jack (p. 63)

AV3 terminals (p. 63)

Mains power On / Off switch
●Switch On to turn on the TV or turn the TV to Standby mode by the remote control

Using the On Screen Displays

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

■**How to use remote control**

Move the cursor / select the menu item

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

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

RETURN — Return to the previous menu

MENU — Open the main menu

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

■**ON SCREEN HELP Instructions box - Operation guide**
Example (Owner ID):
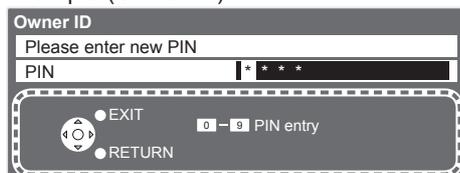
Owner ID
Please enter new PIN
PIN   * * * *
●EXIT
0 – 9 PIN entry
●RETURN
Operation guide will help you.

■Auto power standby function
●The TV will automatically go to Standby mode in the following conditions:
• 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. 17)
• no operation is performed for the period selected in "Auto Standby" (p. 32)
●This function does not affect Ext Rec. 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.
When disconnecting the mains lead, be absolutely sure to disconnect the mains plug at the socket outlet first.

Example 1
Connecting aerial

TV only

Rear of the TV

Terrestrial aerial

AC 220-240 V
50 / 60 Hz

Mains lead
(supplied)

RF cable

HDMI 1

HDMI 2
(ARC)

DIGITAL
AUDIO OUT

COMPONENT

AUDIO OUT

AUDIO IN

Y

P_B

P_R

L

R

RGB
VIDEO

AV 1

RGB
VIDEO
S VIDEO

AV 2

Aerial input
terminal
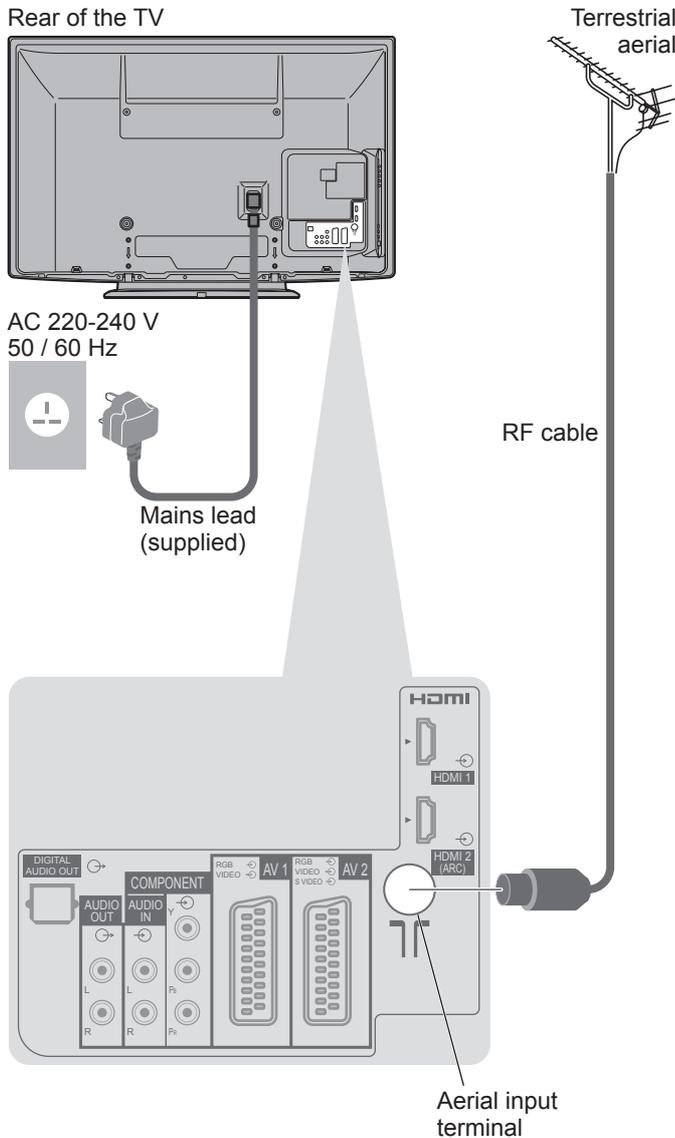
Example 2
Connecting DVD Recorder / VCR

TV, DVD Recorder or VCR

Rear of the TV

Terrestrial aerial

AC 220-240 V
50 / 60 Hz

Mains lead
(supplied)

HDMI 1

HDMI 2
(ARC)

DIGITAL
AUDIO OUT

COMPONENT

AUDIO OUT

AUDIO IN

Y

P_B

P_R

L

R

RGB
VIDEO

AV 1

RGB
VIDEO
S VIDEO

AV 2

Aerial input
terminal

Fully wired HDMI
compliant cable

Fully wired
SCART cable

HDMI

AV

DVD Recorder or VCR

RF OUT

RF IN

RF cable

RF cable
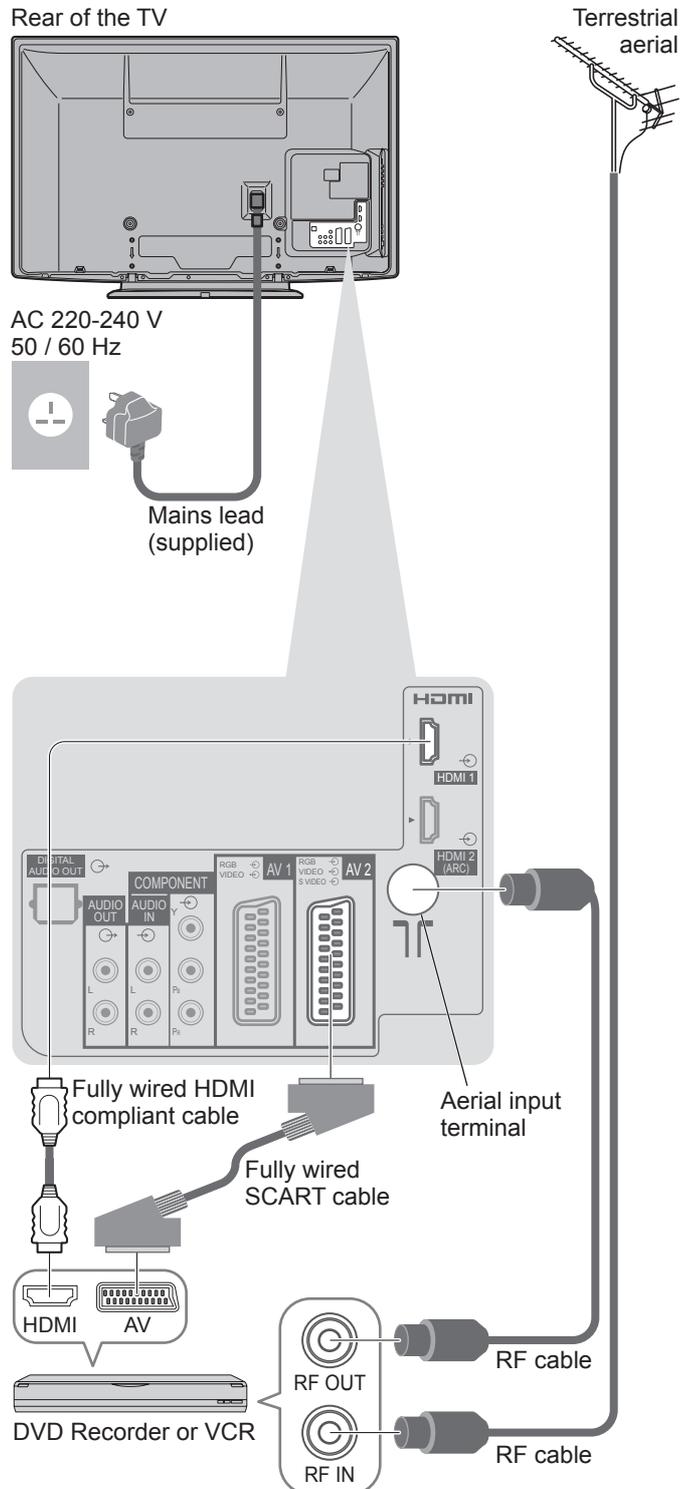
Note
- Connect to the TV's AV2 for a DVD Recorder / VCR supporting Q-Link (p. 56).
- Connect to the TV's AV1 for a Satellite receiver.
- For HDMI-compatible equipment, possible to connect to HDMI terminals (HDMI1 / HDMI2 / HDMI3) by using HDMI cable (p. 62).
- Q-Link connection ⇒ p. 54
- VIERA Link connection ⇒ p. 54 and p. 55
- Please also read the manual of the equipment being connected.

Example 3
Connecting DVD Recorder / VCR and Satellite receiver

TV, DVD Recorder / VCR and Satellite

Rear of the TV
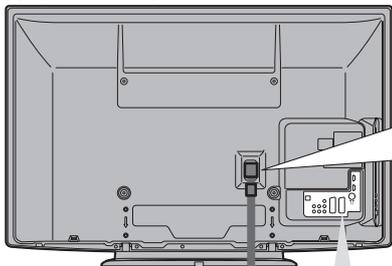
AC 220-240 V
50 / 60 Hz

Mains lead
(supplied)

Push until both side
tabs click

**Make sure that
the mains lead is
securely fixed.**

● To remove from the TV:

① tabs

①
②

Press both tabs and pull on
mains connector to release

Terrestrial
aerial

HDMI

HDMI 1

HDMI 2
(ARC)

DIGITAL
AUDIO OUT

COMPONENT

AUDIO
OUT

AUDIO
IN

RGB
VIDEO AV 1

RGB
VIDEO
S VIDEO AV 2

Y

L

R

L

R

PB

PR

RF cable

Aerial input terminal

Fully wired HDMI
compliant cable

Fully wired
SCART cable

Fully wired
SCART cable

Fully wired
SCART cable

Fully wired HDMI
compliant cable

HDMI   TV/AV   Recorder/AV

AV 2   AV 1   HDMI

Satellite receiver

DVD Recorder or VCR

RF OUT

RF OUT

RF IN

RF cable

RF IN

RF cable

RF IN

RF cable

Auto Setup

Search and store TV channels automatically.
- These steps are not necessary if the setup has been completed by your local dealer.
- Please complete connections (p. 10 and p. 11) and settings (if necessary) of the connected equipment before starting Auto Setup. For details of settings for the connected equipment, read the appropriate manual.
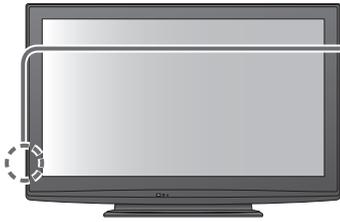
1 Plug the TV into mains socket and switch On
(Takes a few seconds to be displayed)
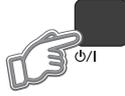
Auto Setup - DVB and Analogue

DVB Scan	CH 21		68
Analogue Scan	CH 21		88

This will take about 6 minutes.

CH	Channel Name	Type	Quality
62	CBBC Channel	Free TV	10
62	BBC Radio Wales	Free TV	10
62	E4	Free TV	10
62	Cartoon Nwk	Free TV	10
29		Analogue	–
33	BBC1	Analogue	–

Free TV: 8	Pay TV: 0	Radio: 0	Data: 0	Analogue: 2

Searching

Auto Setup will start to search for TV channels and store them in the numbered order as specified by the broadcasters.
- If tuning has failed, check the connection of the RF cable, and then, follow the on screen instructions.
- Actual number of channels may differ due to channel duplication.

Sending Preset Data
Please wait!

0% [   ] 100%

Remote control unavailable
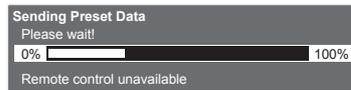
If Q-Link, or similar technology (p. 56), compatible recorder with analogue tuner is connected, analogue channel setting is automatically downloaded to the recorder. (Digital channel setting is not downloaded.)
- If downloading has failed, you can download later through the Setup Menu.
  → "Q-Link Download" (p. 30)

2 Input Owner ID

Owner ID
Please enter new PIN
PIN   ● ✱ ✱ ✱

Please enter your own choice of PIN number, name, etc. to help the police to crack crime.
- Make a note of the PIN number in case you forget it.
- You can input or change the Owner ID later.
  → "Owner ID" (p. 47)
- To skip this step → ○ EXIT
- This step will be skipped in the Auto Setup after "Shipping Condition" (p. 46) is performed.

3 Select "Home"

Please select your viewing environment.

Home	Shop
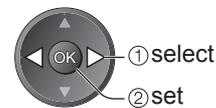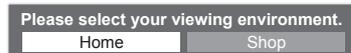
① select
② set

Select "Home" viewing environment to use in your home environment.

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

- To check channel list at-a-glance
  → "Using TV Guide" (p. 18)
- To edit or hide (skip) channels
  → "Tuning and Editing Channels" (p. 38 - 41)

Panasonic
TV

■**How to input Owner ID**

① **Enter the PIN number (4 digits)**

Owner ID
Please enter new PIN
PIN   * * * *

[1] [2 abc] [3 def]
[4 ghi] [5 jkl] [6 mno]
[7 pqrs] [8 tuv] [9 wxyz]
[0]

●Enter the PIN number twice at first setting.

② **Enter your name, address, and postcode, in that order**
Select the item (NAME / HOUSE NO / POSTCODE)
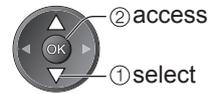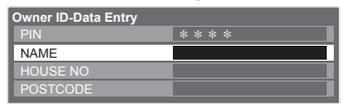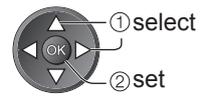
Owner ID-Data Entry
PIN   * * * *
NAME
HOUSE NO
POSTCODE

②access
①select

Set characters one by one

User input
NAME
A B C D E F G H I J K L M N O P Q R S T
U V W X Y Z   0 1 2 3 4 5 6 7 8 9 ! : #
a b c d e f g h i j k l m n o p q r s t
u v w x y z ( ) + - . * _

①select
②set

●You can set characters by using numeric buttons.
➡ "Characters table for numeric buttons" (p. 66)

Return to select other items   RETURN

●Select the other item and repeat the operations.

③ **Exit to go to next step**
EXIT

■**"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

Shop
You have selected shop mode

Automatic Demo	
Off	On

RETURN

② Select "Home"

Please select your viewing environment.	
Home	Shop

①select
②set

Auto Setup is complete

●To change viewing environment later on, you will need to initialise all settings by accessing
Shipping Condition.
➡ "Shipping Condition" (p. 46)

Note

●If tuning has failed or to retune all channels ➡ "Auto Setup" (p. 36 and p. 37)
●To initialise all settings ➡ "Shipping Condition" (p. 46)
●If you turned the TV Off during Standby mode last time, the TV will be in Standby mode when you turn the TV On
with Mains power On / Off switch.

Watching TV

1 Turn power on
(Press for about 1 second)

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

2 Select DVB or Analogue

TV
- Also possible by pressing the TV button on the side panel of the TV. (p. 9)

1 BBC ONE WALES	19:35	All DVB Channels
Coronation Street		
19:30 - 20:00	◄ Now ►	For info press i

Information banner appears whenever you select a channel
- For details ➡ p. 15

3 Select a channel

∧ — up

or

∨ — down

DVB channel position numbers run from 1 onwards.
Analogue channel position numbers run in the ranges 0 - 99.
- To select a two or three-digit channel position number, e.g. 399
  ➡ 3def ➡ 9wxyz ➡ 9wxyz

Volume

Panasonic
TV

Note

- To watch pay-TV
  ➡ "Using Common Interface"
    (p. 48)

■Select a channel using Information banner (p. 15)
Possible to confirm the channel name and programme before changing channels.

Display Information banner if it is not displayed

𝒊

While the banner is displayed, select the channel

①select channel
②watch

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

■Select a channel using TV Guide (p. 18)
Possible to confirm the TV Guide (EPG) before changing channels.

Display TV Guide

GUIDE

Select the current programme or channel

①select
②access

Select "View" (DVB mode)

| Eastender |
| 19:30- 20:00 |
| View | Timer Programming |

①select
②watch

- To use Timer Programming ➡ p. 19

■Other useful functions

Hold

Freeze / unfreeze picture

HOLD

Display Information banner

Display Information banner
- Also appears when changing a channel

"All DVB Channels" or "Favourites1-4" (p. 39)
- To switch ➡
  blue

Channel position and name

Channel type
(if it is Radio or Data channel)

Current time

Example (DVB):

1 BBC ONE Wales	**Radio 19:35**	**All DVB Channels**
Coronation Street		**Select favourites**
19:30 - 20:00 ☐	◀ **Now** ▶	**For info press** ⓘ
Mute	Encrypted	AD STTL TEXT Multi Audio 45

Programme —

Programme Start / Finish time

Progress time indicator of the selected programme

Features available / Message meanings

Example (Analogue):

3 ITV	**19:35**	**All Analogue Channels**
itv1		
CH23		
Mute	TEXT	NICAM 45

Channel number

- To confirm another tuned channel name ➡ (△ OK ▽)

- To watch the channel listed in the banner ➡ OK

- Information on the next programme ➡ (◀ OK ▶) (DVB)

- To hide ➡ EXIT

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

- To set display timeout ➡ "Banner Display Timeout" (p. 31)

Mute
Sound mute On

Bad signal
Poor TV signal quality

Encrypted
Scrambled programme

AD
Audio Description service available
- This function can aid visually-impaired viewers by adding an additional audio track to describe events on screen.
- For settings ➡ p. 29

STTL
Subtitle service available

TEXT
Teletext service available

Multi Audio
Multiple audio available

Stereo, Mono, NICAM
Audio mode

1 - 90
Off Timer remaining time
- For settings ➡ p. 17

- "AD", "STTL", "TEXT", "Multi Audio" indications are displayed as available on particular programmes, but may not be available for all individual programmes being broadcast.
Display the extra information to confirm availability of these functions.

Example:

1 BBC ONE Wales	**19:35**	**All DVB Channels**
Coronation Street		**Select favourites**
19:30 - 20:00 ■	◀ **Now** ▶	**Exit info** ⓘ
	[AD]	
	AD	

Basic

● Watching TV

15
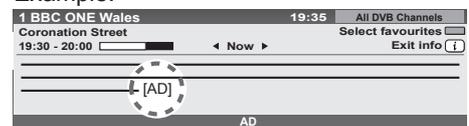
Watching TV

Display subtitles

■DVB mode
Display / hide subtitles (if available)
●To change the language for DVB (if available)
➡ "Preferred Subtitles" (p. 31)

STTL
🔳

■Analogue mode
Display subtitles

●To hide subtitles ➡ EXIT ⬤

STTL
🔳

┌─────────┐
│ Note   │
└─────────┘
●This is the same as switching to Analogue teletext service and selecting "P888" (subtitle service). (p. 23)
●You cannot change the channel when this function is active.

Aspect

Change the aspect ratio (image size)

ASPECT
🔳

Enjoy viewing the image at its optimum size and aspect.
Normally programmes have the Aspect Control Signal (Widescreen signal, etc.), and the TV will choose the aspect ratio automatically according to the Aspect Control Signal (p. 64).

■If you would like to change the aspect ratio manually
Display Aspect Selection list   While the list is displayed, select the mode

ASPECT
🔳

Aspect Selection list

②store

OK

①select
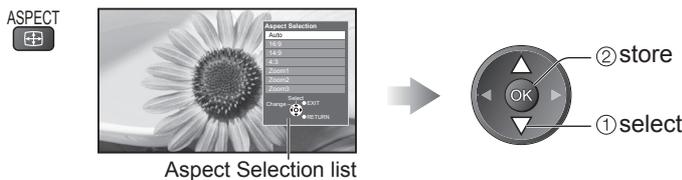
●To change the mode using the ASPECT button only
➡ ASPECT 🔳 (Press repeatedly until you reach the desired mode)

Auto
The best ratio is chosen and the image expanded to fill the screen.
For details ➡ p. 64

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

Zoom1
Displays a 16:9 letterbox or 4:3 image without distortion.

14:9
Displays the image at the standard 14:9 without distortion.
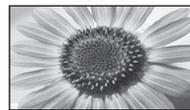
Zoom2
Displays a 16:9 letterbox (anamorphic) image full-screen without distortion.

4:3
Displays the image at the standard 4:3 without distortion.
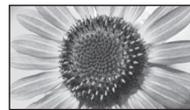
Zoom3
Displays a 2.35:1 letterbox (anamorphic) image full-screen without distortion.
At 16:9, displays the image at its maximum (with slight enlargement).

┌─────────┐
│ Note   │
└─────────┘
●Aspect is fixed to "16:9" when "Viewing Mode" is set to "Game" in the Picture Menu.
●Not available when the subtitle function is active.
●Not available in teletext service.
●Aspect mode can be memorized separately for SD (Standard definition) and HD (High definition) signals.

■**Other useful functions**

Display the selectable settings for the current programme

Check or change the current programme status instantly

OPTION

● To change

② change
① select
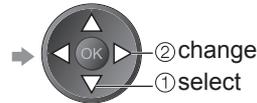
Multi Audio (DVB mode)
Allows you to select between alternative language for sound tracks (if available)
● This setting is not memorized and it will become the default setting once you exit the current programme.

Dual Audio (DVB mode)
Allows you to select stereo / monaural (if available)

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

NICAM (Analogue mode)
Switches NICAM sound (if available)
➡ Sound Menu (p. 29)

Volume Correction
Adjusts volume of individual channel or input mode

Audio Description (DVB mode)
Set to "Auto" if the programme has Audio Description service, then you will hear an additional audio track to describe events on screen
● To adjust the volume for Audio Description
   ➡ "Audio Description Menu" (p. 29)

Last view

Switch to previously viewed channel or input mode easily

LAST VIEW

● Press again to return to the present view.

Note
● Switching channel is not available while Ext Rec. of Timer Programming or Direct TV Recording is in progress.
● Watching less than 10 sec. is not regarded as the previously viewed channel or input mode.

Off Timer

Turn the TV off automatically after a fixed period

Display the menu

MENU

Select "Setup"

VIErA **Main Menu**
Picture
Sound
Setup

② access
① select
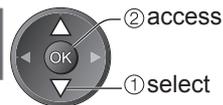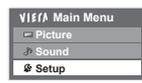
Select "Off Timer" and set the time

Setup Menu
Timer Programming
Off Timer — Off
Link Settings
Child Lock
DVB Tuning Menu
Display Settings
System Menu
Other Settings

② set
① select
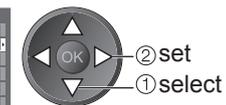
● To cancel ➡ Set to "Off" or turn the TV off.
● To display the remaining time ➡ Information banner (p. 15)

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

Basic

● Watching TV

17

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 TV supports the GUIDE Plus+ system.
●The Gemstar branding partner will supply the rating informations in the programme information and the recommended group in the Search list.
●DVB and Analogue channels are displayed on the same TV Guide screen. "D" means DVB 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 the TV Guide is completely shown.

1 Select DVB or Analogue
TV

2 View TV Guide

Example:

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

Freeview GUIDE+		TV Guide		RadioTimes
Wed 28 Oct 2009 10:46	Wed 28 Oct		Search	All Channels

1 BBC ONE
20:00 - 20:30 DIY SOS : We open in the Battersbys

Time:	19:30	20:00	20:30	21:00
D 1 BBC ONE	Eastender	DIY SOS	Holiday News	
D 7 BBC THREE	Hot Wars		Holiday Program	
D 14 E4	Emmerdal.	Coronation Street		The Bill
D 70 BBC FOUR	10 O' clock News BBC		Pepsi Char.	Good bye
D 72 BBC 2W	Panorama	Spring watch		Coast
D 105 BBCi	I'm A Celebrity		Pop Idol	News
D 719 BBC Radi	Rugby	15 To 1		Sports

Select channel

●EXIT — EXIT
●Select programme
●RETURN — RETURN

Timer Programming

ⓘ Info
GUIDE RETURN
OPTION Select Advert
Page up ︿
Page down ﹀

-24 hours   +24 hours   Search   Category

TV Guide time
Advertisement
VIEΓA
D: DVB
A: Analogue
Channel position and name

■To return to TV
EXIT or GUIDE
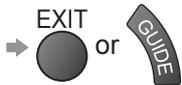
■To watch the programme
Select the current programme or channel
① select
② access

Select "View" (DVB mode)

Eastender
19:30- 20:00
View   Timer Programming
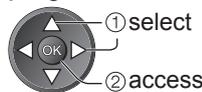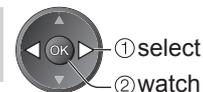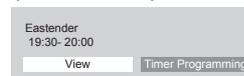
① select
② watch

●To use Timer Programming ➡ p. 19

■To view a channel list of the selected category
➡ blue

Category
All Channels
All Channels
All DVB Channels
All Analogue Channels
Free DVB Channels
TV/Data DVB Channels
Favourites1
Favourites2
Favourites3
Favourites4

(Category list)
Only Analogue channels are listed

① select category
② view

●To list favourite channels ➡ p. 39

■To search programme types and view a channel list of the searched programmes (DVB mode)
➡ yellow

Search
Search Titles...
Movie
News and Factual
Entertainment
Sport
Children's

(Search list)
① select type
② view

■To search programme titles and view a channel list of the searched programmes (DVB mode)
➡ yellow

Search
Search Titles...
Movie
News and Factual
Entertainment
Sport
Children's

(Search list)
① select "Search Titles..."
② access

Set characters one by one (maximum: 19 characters)
① select
② set

You can set characters by using numeric buttons.
➡ "Characters table for numeric buttons" (p. 66)

Search
➡ green

■To the previous day (DVB mode)
➡ red

■To the next day (DVB mode)
➡ green

●All the programme titles including the word you set will be listed.
●Searching without any characters will list all programmes including current programmes.

■Other useful functions

Timer Programming (DVB mode)

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

Select the forthcoming programme

①select

②set

Select the function (Reminder or Ext Rec.)

Function	No.	Channel Name	Date	Start	End
Ext Rec.	D 1	BBC ONE DIY SOS	Wed 28 Oct	20:00	20:30 (30 min.)
---	---		--/--	--:-- --:-- (-- min.)	
---	---		--/--	--:-- --:-- (-- min.)	
---	---		--/--	--:-- --:-- (-- min.)	
---	---		--/--	--:-- --:-- (-- min.)	

Timer Programming   Wed 28 Oct 2009 10:46

(Timer Programming screen)

②store

①select

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

LED

Ext Rec. : to record the programme to the recorder

🕐 When the start time comes, the channel will be switched automatically and the video and audio signals will be output. 2 mins. 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 mins. before the start time. Press the OK button to switch to the programmed channel. No signals will be output from any terminals.

■To check / change / cancel a timer programming event ⇒ "Timer Programming" (p. 43)

■To return to TV Guide ⇒ 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.

Eastender
19:30- 20:00
View   Timer Programming

①select

②access

Basic

● Using TV Guide
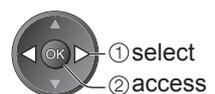
(Note)

● This function is not available in Analogue mode.
● Timer Programming can be stored up to 15 events.
● A timer programming event for Reminder will be cleared in the following conditions:
  • Off or Standby mode from the start time to the end time.
  • Pressing the OK button to view or the EXIT button to cancel while a reminder message appears.
  • Not pressing the OK or EXIT button from the start time to the end time.
● No other channel can be selected while Ext Rec. of Timer Programming is in progress.
● When recording programmes, be sure to make the proper settings on the recorder connected to the TV. If a compatible recorder with Q-Link or similar technologies is connected to the TV (p. 56) and the "Link Settings" (p. 30) are completed, no setting of the recorder is required. Also read the manual of the recorder.

Guide link programming (Timer Programming from the TV Guide signal)

Guide link programming is a Timer Programming controlled by information from the TV Guide.
Programme start and end times may be changed by broadcasters and sent to the TV for the timer programming event to follow the change.
Split Programme programming is one of the Guide link programming. Split Programme is a programme which is interrupted by one or more other programmes.
Guide link programming and Split Programme programming are subject to signals being sent by broadcasters.

Timer Programming   Wed 28 Oct 2009 10:46

Function	No.	Channel Name	Date	Start	End
🕐 Ext Rec.	D 1	BBC ONE DIY SOS	Wed 28 Oct	20:00	20:30 (30 min.)
🔔 Reminder	D 14	E4 The Bill	Wed 28 Oct	21:00	22:30 (90 min.)
🕐 Ext Rec.	D 72	BBC 2W <TIMER>	Wed 28 Oct	22:45	23:00 (15 min.)
🕐 Ext Rec.	D 1	BBC ONE Red Cap	Thu 29 Oct	10:30	11:30 (60 min.)
---	---		--/--	--:-- --:-- (-- min.)	

(Timer Programming screen)

"Guide" is displayed if the timer is set from the TV Guide (Guide link programming)

"S/P" is displayed if the timer is set from the TV Guide and the programme is a Split Programme

"🕐" or "🔔" will be displayed in the TV Guide if Timer Programming is set as the Guide link programming.

Freeview   TV Guide   RadioTimes
Wed 28 Oct 2009 10:46   Wed 28 Oct   Search   All Channels
1 BBC ONE
20:00 - 20:30 DIY SOS : We open in the Battersbys
Time: 19:30 | 20:00 | 20:30 | 21:00
D 1 BBC ONE | Eastender | 🕐 DIY SOS | Holiday News
D 7 BBC THREE | Hot Wars | | Holiday Program
D 14 E4 | Emmerdal. | Coronation Street | 🔔 The Bill
D 70 BBC FOUR | 10 O' clock News BBC | Pepsi Char. | Good bye
D 72 BBC 2W | Panorama | Spring watch | Coast
D 105 BBCi | I'm A Celebrity | Pop Idol | News
D 719 BBC Radi | Rugby | 15 To 1 | Sports

VIErn

(Note)

● If you edit the start time or end time of Guide link programming event more than 10 minutes after setting, it will no longer be performed as Guide link programming. The programming will be performed according to the time setting in Timer Programming screen.
● Whilst making the Split Programme programming event for Ext Rec., you cannot record any channels between the interrupted programmes.
● The Split Programme programming event for Reminder will be cleared by pressing the OK button once to view.
● The Split Programme programming event for Reminder will switch to the programmed channel by pressing the OK button even if it is between the interrupted programmes.
● The Split Programme programming does not work if the separated parts are broadcast on differing channels.

Using TV Guide

■**Other useful functions**

View details of the programme (DVB mode)

Select the programme

— select

View details

—Details

●Press again to return to TV Guide.

View advertisement

Enter your postcode when using this function for the first time
➡ "Postcode" in "GUIDE Plus+ Settings" (p. 32)
If you have already entered your postcode in "Auto Setup" - when first using the TV (p. 12), you do not have to enter again.
If you enter an incorrect postcode for your area, or no postcodes are entered, advertisement may not be displayed correctly.

Display advertisement information

OPTION

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

■**To change advertisements** ➡

■**To return to TV Guide** ➡ OPTION or RETURN
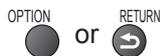
Note

●Some advertisements are for future programmes.
In this case it is possible to use the Guide link programming function (p. 19).
●The advertisements displayed on the TV Guide are sent from the GUIDE Plus+ system so that they cannot be deleted manually or will not be lost even when the TV is turned Off with Mains power On / Off switch.

Viewing Teletext

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

| 1 BBC ONE Wales | 19:35 | All DVB Channels |
Coronation Street		Select favourites
19:30 - 20:00	◄ Now ►	For info press ⓘ
		TEXT
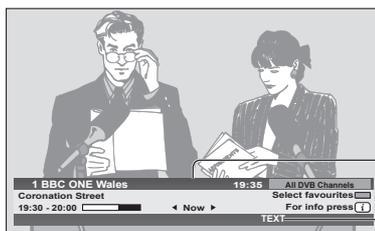
Information banner (p. 15)

Displayed if programme has teletext service

Digital teletext (MHEG)

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

1
Select DVB
TV
● DVB programmes have digital teletext services (MHEG).

2
Switch to Teletext
TEXT

BBC THREE   17:51 28 Feb

3
How to use

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

For example:

● When "select" or "go" is displayed ➡ OK

● When "◄", "►", "▲", "▼" symbol is displayed ➡

● When the key words are displayed on colour bar ➡ red green yellow blue

● When options with numbers are displayed ➡
1 2abc 3def
4ghi 5jkl 6mno
7pqrs 8tuv 9wxyz
0

■ **To return to TV** ➡ TEXT

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

Basic

● Viewing Teletext
● Using TV Guide

21

Viewing Teletext

Analogue teletext

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

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

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

■ **To change mode** ➡ "Teletext" in the Setup Menu (p. 31)

❶ Select Analogue
`TV`

❷ Switch to Teletext
`TEXT`
- Displays the index page (content varies depending on the broadcasters)

```
Sub page number
<< 01 02 03 04 05 06 07      >>
P100                17:51 28 Feb  ── Time / date
        TELETEXT
       INFORMATION
```
Current page number

Colour bar

❸ Select the page
`1 2abc 3def`
`4ghi 5jkl 6mno`
`7pqrs 8tuv 9wxyz`
`0`

or

up
◀(OK)▶
down

or

red   green   yellow   blue
(Corresponds to the colour bar)

■ **To adjust contrast** ➡ `MENU` (press twice) ➡

As the blue bar is displayed
◀(OK)▶

■ **To return to TV** ➡ `EXIT`

Reveal hidden data

Reveal hidden words e.g. quiz page answers

`MENU` ➡ `red`   • To rehide ➡ `red`

FULL / TOP / BOTTOM

`MENU` ➡ `green`

(TOP)
P100
Broadcast
(Expand the TOP half)

→

(BOTTOM)
(Expand the BOTTOM half)

→

Normal (FULL)
P100
Broadcast

HOLD

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

`HOLD`   • To resume ➡ `HOLD`

INDEX

Return to the main index page
INDEX

Subtitles

View a favourite page stored
STTL
● Factory setting is "P888" (subtitle service) on the blue button (List mode).

View in multi window

Watch TV and Teletext in two windows at once
TEXT

● Operations can be made only in Teletext screen.
● Each time pressed: Teletext ⟶ TV and Teletext ⟶ TV ⟶

Store frequently viewed pages

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

As page is displayed → Corresponding coloured button → OK press and hold

P100

Broadcast

| 101 | 200 | 400 | 888 |

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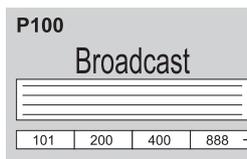
● If you wish to use Subtitles, do not change number on blue button.

■To change stored pages
Coloured button you want to change →

Enter new page number
1 2abc 3def
4ghi 5jkl 6mno
7pqrs 8tuv 9wxyz
0

→ OK press and hold
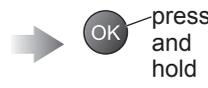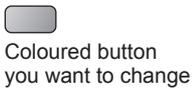
View sub page

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

<<01 02 03 04 05 — Appears at top of the screen

■To view specific sub page
MENU → blue

T****
Broadcast
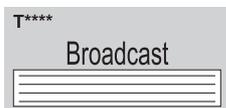
→ Enter the 4-digit number
example: P6
0 0 0 6mno

T0006
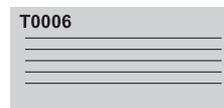
● Sub pages:
The number of sub pages varies depending on the broadcasters (up to 79 pages).
It may take some time for searching, during which time you can watch TV.

Watch TV while waiting for update

View the TV picture while searching for a teletext page
Teletext automatically updates itself when new information becomes available.

Changes to TV screen temporarily

View the updated page

MENU → yellow →

P108 — Appears when updating is completed

→ yellow

(You cannot change the channel.)

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

● Viewing Teletext

23

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 and p. 62
The Remote Control is capable of operating some functions of selected external equipment.

① Turn the TV on
■**When connecting with SCART as example 2 or 3** (p. 10 and p. 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. 62).
■**If input mode is not switched automatically**
  ➡ Perform ② and ③
  ● Check the setup of the equipment.

② Display the Input select menu
AV

③ Select the input mode connected to the equipment

Input Selection
AV1
AV2/S
AV3
COMPONENT
HDMI1
HDMI2
HDMI3
TV

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.
  Press the button repeatedly until the desired input is selected.
● In order to switch between AV2 and AV2S, move the indicator by pressing left and right cursor button.
● You can label or skip each input mode ➡ "Input Labels" (p. 45)
  Skipped inputs will not be displayed when the AV button is pressed.

④ View
Displays the selected mode

AV2

■**To return to TV**
  ➡ TV

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

Screen display

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

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

Operating the equipment with the TV remote control

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

⏻	**Standby** Set to Standby mode / Turn on	
▶	**Play** Playback videocassette / DVD	
■	**Stop** Stop the operations	
⏮◀◀	**Rewind / Skip / Search** VCR: Rewind, view the picture rapidly in reverse DVD: Skip to the previous track or title 　　　Press and hold to search backward	
⏭▶▶	**Fast-forward / Skip / Search** VCR: Fast-forward, view the picture rapidly forward DVD: Skip to the next track or title 　　　Press and hold to search forward	
⏸/▶	**Pause** Pause / Resume DVD: Press and hold to play at slow speed	
PROGRAMME ∨ ∧	**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 the connected equipment in VIERA Link (p. 60), select the code "73".

Press and hold ⏻ during the following operations

Enter the appropriate code, [1][2abc][3def][4ghi][5jkl][6mno][7pqrs][8tuv][9wxyz][0] see table below ➡ Press ■

Type of the equipment	Code
DVD Recorder, DVD Player	70 (default)
Player theatre, Blu-ray Disc theatre	71
VCR	72
The equipment using in VIERA Link ➡ "VIERA Link Control" (p. 60)	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.

●Watching External inputs

How to Use VIERA TOOLS

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

- For "VIERA Link Control" and "Pause Live TV" functions to operate correctly, ensure the connections and settings are completed.
  - ➡ "Summary of Q-Link and VIERA Link features" (p. 54 and p. 55), "Preparations" (p. 57)
    After connection, turn the equipment on and then switch the TV on.
- For "Photo" and "Video" functions to operate correctly, ensure the SD Card has photo or video data in it and insert it to the SD Card slot properly.
  - ➡ "Using Media Player" (p. 50)

1 Display icons of the feature

VIERA TOOLS

2 Select a feature

① select
② access

3 Follow the operations of each feature

- VIERA Link Control ➡ "VIERA Link Control" (p. 60)

  When two or more compatible equipment are connected, a selection screen will be displayed.
  Please select the correct description and access.

- Pause Live TV ➡ "Pause Live TV" (p. 59)

- Photo ➡ "Photo mode" (p. 50)

- Video ➡ "Video mode" (p. 52)

■To return to TV

EXIT ➡ or VIERA TOOLS

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.

1 **Display the menu**

MENU

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

2 **Select the menu**

VIErA **Main Menu**
- 🖵 **Picture**
- 🎵 **Sound**
- 🔧 **Setup**

② access

① select

3 **Select the item**

Example (Picture Menu):

🖵 Picture Menu		1/2
Viewing Mode	‹ Dynamic	▄▄▄▄
Contrast		
Brightness		
Colour		
Sharpness		
Tint		▪
Colour Balance	Warm	
Vivid Colour	Off	
C.A.T.S.	Off	

select

4 **Adjust or select**

Example (Picture Menu):

🖵 Picture Menu		1/2
Viewing Mode	‹ Dynamic	▄▄▄▄
Contrast	‹	▏
Brightness	‹	▏
Colour	‹	▏
Sharpness	‹	▏
Tint	‹	▪ ▏
Colour Balance	‹ Warm	▄▄▄
Vivid Colour	‹ Off	▄
C.A.T.S.	‹ Off	▄

① change

② store or access
(Required by some functions)

■ **To return to TV at any time**

EXIT ➡

■ **To return to the previous screen**

RETURN ➡

■ **To change menu pages**

➡ ∧ —up

∨ —down

■Choose from among alternatives

Number and positions of alternatives

Colour Balance	‹ Normal	▄▄▄ ›

Changed

■Adjust using the slide bar

Sharpness	‹ ▬▬▬ ›

Moved

■Go to the next screen

Child Lock	Access

Displays the next screen

■To reset the settings

● To reset the picture settings only
➡ "Reset to Defaults" in the Picture Menu (p. 28)

● To reset the sound settings only
➡ "Reset to Defaults" in the Sound Menu (p. 29)

● To reset the picture and sound settings together
➡ N (Also volume level and aspect mode are reset)

● To initialize all settings
➡ "Shipping Condition" in the Setup Menu (p. 46)

■Enter characters by free input menu

You can enter names or numbers freely for some items.

User input
Name

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
U	V	W	X	Y	Z		0	1	2	3	4	5	6	7	8	9	!	:	#
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t
u	v	w	x	y	z	(	)	+	-	.	*	_							

1	2 abc	3 def
4 ghi	5 jkl	6 mno
7 pqrs	8 tuv	9 wxyz
	0	

Set characters one by one

① select

② set

Store

RETURN

➡

● You can set characters by using numeric buttons.
➡ "Characters table for numeric buttons" (p. 66)

Panasonic

TV

How to Use Menu Functions

■Menu list

Menu	Item	Adjustments / Configurations (alternatives)

Picture	Viewing Mode	Basic picture mode **(Dynamic / Normal / Cinema / True Cinema / Game)**
		In each Viewing Mode, Contrast, Brightness, Colour, Sharpness, Tint, Colour Balance, Vivid Colour, C.A.T.S., 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. 31)

	Contrast, Brightness, Colour, Sharpness	Increases or decreases the levels of these options according to your personal preference
	Tint	With an NTSC signal source connected to the TV, the picture hue can be adjusted to suit your taste ●For NTSC signal reception only
	Colour Balance	Allows you to set the overall colour tone of the picture **(Cool / Normal / Warm)** ●Not valid when "Viewing Mode" is set to "True Cinema"
	Vivid Colour	Automatically adjusts colours to vivid ones **(Off / On)**
	C.A.T.S.	Contrast Automatic Tracking System (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	Makes still or slow moving pictures look more vivid **(Off / On)** ●Occasionally, whilst viewing still or slow moving pictures, colour patterning may be seen. Set to "On" to display sharper and more accurate colours. ●For PAL or NTSC signal reception only ●Not valid on RGB, S-Video, Component, HDMI and SD Card
	Picture Display	Turns the screen off when you select "Off" **(Off / On)** ●The sound is active even if the screen turns off. ●Press any buttons to turn the screen on. ●This function is effective in reducing power consumption when listening to a sound without watching the TV screen.
	Reset to Defaults	Press the OK button to reset the present Picture Viewing Mode to the default settings

Menu	Item	Adjustments / Configurations (alternatives)
Sound	**Mode**	Selects the basic sound mode **(Music / Speech / User)** ●The selected mode affects all input signals. Music: Improves sound quality for watching music video, etc. Speech: Improves sound quality for watching news, drama, etc. ●In Music and Speech mode, you can adjust "Bass" and "Treble" settings, and those settings will be stored for each mode. User: Adjusts the sounds manually by using the equalizer to suit your favourite sound quality. ●For the User mode, "Equalizer" will appear on the Sound Menu instead of "Bass" and "Treble". Select the "Equalizer" and adjust the frequency. ➡ "Equalizer" (below)
	Bass	Increases or decreases level to enhance or minimise lower, deeper sound output
	Treble	Increases or decreases level to enhance or minimise sharper, higher sound output
	Equalizer	Adjusts the frequency level to suit your favourite sound quality ●This function is available when "Mode" is set to "User". ●Select the frequency and change the frequency level by using the cursor button. ●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. ●To reset the levels of each frequency to the default settings, select the "Reset to Defaults" by using cursor button, and then press the OK button.
	Balance	Adjusts volume level of right and left speakers
	Headphone Volume	Adjusts the volume of the headphones
	Surround	Surround sound settings **(Off / V-Audio / V-Audio Surround)** V-Audio: Provides a dynamic enhancer of width to simulate improved spatial effects V-Audio Surround: Provides a dynamic enhancer of width and depth to simulate improved spatial effects
	Volume Correction	Adjusts the volume of individual channel or input mode
	Speaker Distance to Wall	Adjusts the low frequency sound **(Over 30cm / Up to 30cm)** ●If the back space between the TV and wall is over 30 cm, "Over 30cm" is recommended. ●If the back space between the TV and wall is within 30 cm, "Up to 30cm" is recommended.
	Preferred Multi Audio	Selects the preferred language for digital channel multi audio (depending on the broadcaster) **(English / Welsh / Gaelic)**
	NICAM	Near Instantaneous Companded Audio Multiplex Reproduces NICAM stereo sound **(Off / On)** ●Off if reception is poor (FM monaural sound) ●Analogue mode only
	HDMI1 / 2 / 3 Input	Select to fit the input signal **(Digital / Analogue)** (p. 67) Digital　　: HDMI cable connection Analogue : HDMI-DVI adapter cable connection ●HDMI input mode only
	Audio Description Menu — **Audio Description**	Useful for visually-impaired viewers **(Off / Auto)** Set to "Auto" to activate the description sound track if available ●The availability of audio description sound track is indicated by "AD" in the information banner (p. 15). ●DVB mode only
	Audio Description Menu — **Volume**	Adjusts the volume for Audio Description ●DVB mode only
	Audio Description Menu — **Speakers**	Set to "On" to activate the description sound track from TV speakers **(Off / On)** ●DVB mode only
	Audio Description Menu — **Headphones**	Set to "On" to activate the description sound track from headphones **(Off / On)** ●DVB mode only
	Reset to Defaults	Press the OK button to reset the present Sound Mode, Balance, Headphone Volume and Surround to the default settings

●A different menu will be displayed in the mode of SD Card. (p. 51 and p. 53)
●Only available items can be selected.

How to Use Menu Functions

Menu	Item	Adjustments / Configurations (alternatives)
Setup	**Timer Programming**	Sets a timer to remind watching or record forthcoming programmes (p. 42)
	Off Timer	Sets the time the TV automatically goes to Standby mode **(Off / 15 / 30 / 45 / 60 / 75 / 90 minutes)**
	Link Settings — **VIERA Link**	Sets to use VIERA Link functions **(Off / On)** (p. 57)
	Q-Link	Selects which AV terminal is to be used for data communication between this TV and a compatible recorder **(AV1 / AV2)** (p. 56) ●Select the connected terminal to the recorder even it is not compatible with Q-Link.
	AV1 / AV2 out	Chooses the signal to be transmitted from the TV to Q-Link **(TV / AV1 / AV2 / AV3 / Monitor)** ●Monitor: Image displayed on screen ●Component and HDMI signals cannot be outputted.
	Standby Power Save	Controls the power consumption in Standby mode of the connected equipment to reduce the consumption **(Off / On)** (p. 58) ●This function is available when "VIERA 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. 58) ●This function is available when "VIERA Link" is set to "On".
	Q-Link Download	Downloads analogue channel information to a Q-Link compatible equipment connected to the TV
	Child Lock	Locks a channel / AV input to prevent access to it (p. 44)
	DVB Tuning Menu — **Favourites Edit**	Creates list of favourite DVB channels (p. 39)
	Channel List	Skips the unwanted DVB channels or edits DVB channels (p. 39)
	Auto Setup	Automatically sets the DVB channels received in the area (p. 36)
	Channel Sorting by Region	Automatically sorts tuned channels according to the available region (p. 38)
	Manual Tuning	Sets the DVB channels manually (p. 38)
	Update Channel List	Updates DVB Channel List with keeping your settings (p. 40)
	New Channel Message	Selects whether to give a notification message when a new DVB channel is found **(Off / On)** (p. 40)
	Signal Condition	Checks the DVB signal condition (p. 40)

Menu	Item	Adjustments / Configurations (alternatives)
Setup / Analogue Tuning Menu	**Channel List**	Skips the unwanted Analogue channels or edits Analogue channels (p. 41)
	Auto Setup	Automatically sets the Analogue channels received in the area (p. 37)
	Manual Tuning	Sets the Analogue channels manually (p. 41)
Display Settings	**Teletext**	Analogue teletext display mode **(FASTEXT / List)** (p. 22)
	Preferred Subtitles	Selects the preferred language for digital channel subtitles (depending on the broadcaster) **(English / Welsh / Gaelic)** ●To display subtitles ➡ p. 15
	Side Panel	Increases the brightness of the side panel **(Off / Low / Mid / High)** ●The recommended setting is "High" to prevent panel "image retention".
	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 mins **(Off / On)** ●This function is available when "Game" is selected in "Viewing Mode" (p. 28).
	Radio Mode	Sets the timer for turning off the screen automatically when a radio channel is selected **(Off / 5 / 10 / 15 / 20 seconds)** ●The sound is active even if the screen turns off. ●Press any buttons to turn the screen on. ●This function is effective in reducing power consumption when listening to a radio channel.

●A different menu will be displayed in the mode of SD Card. (p. 51 and p. 53)
●Only available items can be selected.

●How to Use Menu Functions

How to Use Menu Functions

Menu	Item			Adjustments / Configurations (alternatives)
System Menu	**Shipping Condition**			Resets all settings, for example, when moving house (p. 46)
	Owner ID			Inputs the owner ID (p. 47)
	Common Interface			Uses include to watch pay-TV (p. 49)
	System Update			Downloads new software to TV (p. 49)
	Software Licence			Displays the software licence information
	System Information			Displays the system information of this TV
Setup	**Other Settings**	**GUIDE Plus+ Settings**	**Postcode**	Sets your postcode to display advertisements in the GUIDE Plus+ system (p. 20)
			System Information	Displays the system information of the GUIDE Plus+ system
		Power on Preference		Automatically selects the input when the TV is turned on **(TV / AV)** Set to "TV" to view picture from TV tuner. Set to "AV" to view input from an external equipment connected to a SCART terminal, e.g. satellite receiver. ●The external equipment must be switched on and sending a control signal for automatic switching at power on to occur.
		Power on Channel List		Automatically selects All Channels or Favourites list in the Information banner (p. 15) when the TV is turned on **(All Channel List / Last)** Set to "All Channel List" to display all the channels. Set to "Last" to display the one you selected last time. ●Not available on analogue mode
		Auto Standby		Sets the time the TV automatically goes to Standby mode when no operation is performed for the selected times **(Off / 2 / 4 hours)** ●Starting Timer Programming automatically does not affect this function. ●Automatic input switching with the connected equipment affects this function and time-count will be reset. ●The notification message will appear 3 minutes before going to Standby mode.
		Power Save		Reduces brightness of picture to economise on power consumption **(Off / On)**
		16:9 Overscan		Selects the screen area displaying the image **(Off / On)** On : Enlarged the image to hide the edge of the image. Off : Displayed the image in the original size. ●Set to "On" if noise is generated on the edge of the screen. ●This function is available when aspect is set to Auto (16:9 signal only) or 16:9. ●This function can be memorized separately for SD (Standard definition) and HD (High definition) signals.
		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

●A different menu will be displayed in the mode of SD Card. (p. 51 and p. 53)
●Only available items can be selected.
●If "Demo Settings" item is displayed in the Setup Menu, the TV is in "Shop" viewing environment.
 To return to "Home" viewing environment initialise all settings by accessing Shipping Condition.
 ➡ "Shipping Condition" (p. 46)

■**Overview** (Picture, Sound)

●How to operate ➡ p. 27

VIErA Main Menu

- ▭ **Picture**
- ♪ **Sound**
- ◈ **Setup**

▭ Picture Menu		1/2
Viewing Mode	◄ Dynamic ►	
Contrast	◄ ►	
Brightness	◄ ►	
Colour	◄ ►	
Sharpness	◄ ►	
Tint	◄ ►	
Colour Balance	◄ Warm ►	
Vivid Colour	◄ Off ►	
C.A.T.S.	◄ Off ►	

▭ Picture Menu		2/2
P-NR	◄ Off ►	
3D-COMB	◄ Off ►	
Picture Display	◄ On ►	
Reset to Defaults	Reset	

(p. 28)
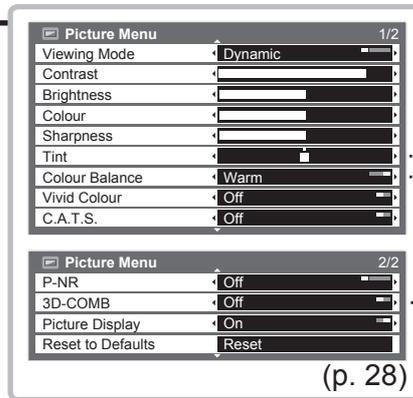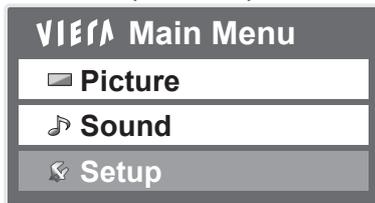
·········· Available in NTSC

·········· Not available when
"Viewing Mode" is set to
"True Cinema"

·········· Available in NTSC / PAL

♬ Sound Menu		1/2
Mode	◄ Music ►	
Bass	◄ ►	
Treble	◄ ►	
Equalizer	Access	
Balance	◄ ►	
Headphone Volume	◄ ►	
Surround	◄ Off ►	
Volume Correction	◄ ►	
Speaker Distance to Wall	◄ Over 30cm ►	
Preferred Multi Audio	◄ English ►	

♬ Sound Menu		2/2
NICAM	◄ Off ►	
HDMI1 Input	◄ Digital ►	
Audio Description	Access	
Reset to Defaults	Reset	

(p. 29)
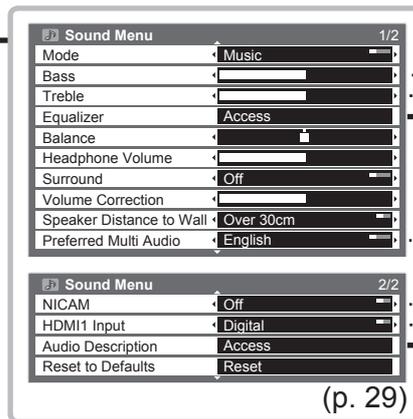
·········· Available when "Mode" is set to
"Music" or "Speech"

Available when "Mode" is set to
"User"

Equalizer

150	250	500	1k	2k	4k	8k	12k	Hz	Reset to Defaults
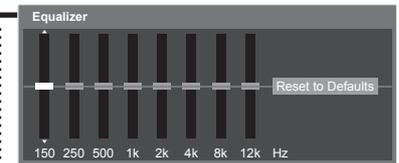
·········· Available in DVB

·········· Available in Analogue

·········· Available in HDMI

Available in DVB

Audio Description Menu

Audio Description	◄ Off ►
Volume	◄ ►
Speakers	◄ Off ►
Headphones	◄ Off ►

(p. 29)

33
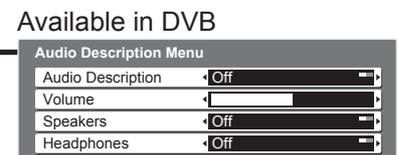
How to Use Menu Functions

■**Overview** (Setup)

●How to operate ➡ p. 27

VIERA Main Menu
- Picture
- Sound
- **Setup**

Setup Menu
Timer Programming	Access
Off Timer	Off
Link Settings	Access
Child Lock	Access
DVB Tuning Menu	Access
Analogue Tuning Menu	Access
Display Settings	Access
System Menu	Access
Other Settings	Access

(p. 30 - 32)

Timer Programming   Wed 28 Oct 2009 10:46
Function	No.	Channel Name	Date	Start	End
⏱ Ext Rec.	D 1	BBC ONE DIY SOS	Wed 28 Oct	20:00	20:30 (30 min.)
⏱ Reminder	D 14	E4 The Bill	Wed 28 Oct	21:00	22:30 (90 min.)
⏱ Ext Rec.	D 72	BBC 2W <TIMER>	Wed 28 Oct	22:45	23:00 (15 min.)
⏱ Ext Rec.	D 1	BBC ONE Red Cap	Thu 29 Oct	10:30	11:30 (60 min.)
---	---		--/--	--:--	--:-- (--- min.)

(p. 43)

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

(p. 44)

Available in DVB

DVB Tuning Menu
Favourites Edit	Access
Channel List	Access
Auto Setup	Access
Channel Sorting by Region	Access
Manual Tuning	Access
Update Channel List	Access
New Channel Message	On
Signal Condition	Access

(p. 36 and p. 38)

DVB Signal Condition
Channel Name	70 CBBC Channel
Signal Quality	0 10
Signal Strength	0 10
Bit Error Rate	0.00E+00
Network Name	Wenvoe
Parameter	[CH62] 802.00 MHz

(p. 40)

Other Settings
GUIDE Plus+ Settings	Access
Power on Preference	TV
Power on Channel List	Last
Auto Standby	Off
Power Save	Off
16:9 Overscan	On
DVI Input Setting	Normal

(p. 32)

Available in DVB

Available in HDMI
with DVI input signal

Guide Plus+ Settings Menu
Postcode	Access
System Information	Access

(p. 32)

Enter Postcode
Postcode
A B C D E F G H I J K L M N O P Q R S T
U V W X Y Z 0 1 2 3 4 5 6 7 8 9

1 2 abc 3 def
4 ghi 5 jkl 6 mno
7 pqrs 8 tuv 9 wxyz
0

(p. 32)

Available in Analogue

Analogue Tuning Menu
Channel List	Access
Auto Setup	Access
Manual Tuning	Access

(p. 37 and p. 40)

Display Settings
Teletext	FASTEXT
Preferred Subtitles	English
Side Panel	Off
Input Labels	Access
Banner Display Timeout	3 seconds
Playing Time Display	On
Radio Mode	Off

(p. 31)

······Available in Analogue
······
Available in DVB

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

(p. 45)

System Menu
Shipping Condition	Access
Owner ID	Access
Common Interface	Access
System Update	Access
Software Licence	Access
System Information	Access

(p. 32)

Link Settings 1/2

VIERA Link	‹ On ›	
Q-Link	‹ AV2 ›	
AV2 out	‹ TV ›	
Standby Power Save	‹ On ›	
Intelligent Auto Standby	‹ On (No reminder) ›	
Q-Link Download	Access	

(p. 30)

Sending Preset Data
Please wait!

0% �\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\|\| 100%

Remote control unavailable

(p. 30)

Child Lock

Change PIN	Access
Child Lock List	Access

(p. 44)

Child Lock List - TV and AV

Name	Input	Type	Lock
4 BBC 1 Wales	DVB	Free TV	🔒
7 BBC THREE	DVB	Free TV	🔒
14 E4	DVB	Free TV	
VCR	Analogue	Analogue	
1 BBC1	Analogue	Analogue	
2 *****	Analogue	Analogue	🔒
AV1	External	AV	
AV2/S	External	AV	

(p. 44)

DVB Auto Setup

Progress CH 21 �\|\|\|\|\|\|\|\|\|\|\|\|\| 68

This will take about 3 minutes.

CH	Channel Name	Type	Quality
62	CBBC Channel	Free TV	10
62	BBC Radio Wales	Free TV	10
62	E4	Free TV	10
62	Cartoon Nwk	Free TV	10

Free TV: 4　　Pay TV: 0　　Radio: 0　　Data: 0

Searching

(p. 36)

All DVB Channels

☑	70	CBBC Channel
☑	72	Cartoon Nwk
☑	105	BBCi
☐	719	BBC Radio Wales
☐	720	BBC Radio Cymru
☐	1	BBC ONE Wales
☑	7	BBC THREE

(p. 39)

DVB Favourites Editor

All DVB Channels	Favourites1
1 BBC One Wales	
7 BBC THREE	
14 E4	
70 CBBC Channel	
72 Cartoon Nwk	
105 BBCi	
719 BBC Radio Wales	
720 BBC Radio Cymru	

(p. 39)

DVB Update Channel List
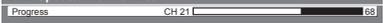
Progress CH 21 ▊\|\|\|\|\|\|\|\|\|\|\|\| 68

This will take about 3 minutes.

CH	Channel Name	Type	Quality

Free TV: 0　　Pay TV: 0　　Radio: 0　　Data: 0

Searching

(p. 40)

DVB Manual Tuning

Frequency	CH21	474 MHz
Signal Quality	0	10
Signal Strength	0	10

No.	Channel Name	Type	New

Free TV: 0　　Pay TV: 0　　Radio: 0　　Data: 0

Stopped

(p. 38)

Channel Sorting by Region

GBR>
Best signal quality (All Regions)
England Regions>

Region choice available

(p. 38)

Analogue Manual Tuning

1 BBC1	CH33
Manual Tuning	21 ‹ ▊||||| › 68

(p. 41)

Analogue Auto Setup

Scan CH 21 ▊\|\|\|\|\|\|\|\|\|\|\|\|\| 68
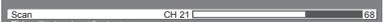
This will take about 3 minutes.

CH	Channel Name
29	
30	

Analogue: 2

Searching

(p. 37)

Analogue Channel List

☑	1	BBC1
☐	2	*****
☐	3	*****
☑	4	
☑	5	
☑	6	
☑	7	

(p. 41)

Available in DVB

Common Interface

Slot 1:	Module inserted

(p. 48)

Owner ID
Please enter PIN for access

PIN	* * * *

(p. 47)

Shipping Condition

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

(p. 46)

System Update

Auto Update Search in Standby	‹ On ›
System Update Search Now	Access

(p. 49)

35

Retuning from Setup Menu

Auto Setup retunes all channels automatically.

DVB channels

Automatically retune all DVB channels received in the area.
- Only DVB channels are retuned in DVB mode.
- All the previous tuning settings are erased.
- If a Child Lock PIN number (p. 44) has been set, it must be entered.

1 **Select DVB**

TV

**2** **Display the menu**

MENU

3 **Select "Setup"**

VIE**r**A Main Menu
▭ Picture
♪ Sound
⚙ Setup

② access
① select

4 **Select "DVB Tuning Menu"**

⚙ Setup Menu	
Timer Programming	
Off Timer	Off
Link Settings	
Child Lock	
DVB Tuning Menu	Access
Display Settings	
System Menu	
Other Settings	

② access
① select

5 **Select "Auto Setup"**

DVB Tuning Menu	
Favourites Edit	
Channel List	
Auto Setup	Access
Channel Sorting by Region	
Manual Tuning	
Update Channel List	
New Channel Message	On
Signal Condition	

② access
① select

■To return to TV

EXIT

6 **Start Auto Setup**

DVB Auto Setup
All DVB tuning data will be erased

OK →

DVB Auto Setup			
Progress	CH 21		68
This will take about 3 minutes.			
CH	Channel Name	Type	Quality
62	CBBC Channel	Free TV	10
62	BBC Radio Wales	Free TV	10
62	E4	Free TV	10
62	Cartoon Nwk	Free TV	10
Free TV: 4	Pay TV: 0	Radio: 0	Data: 0
Searching			

Settings are made automatically

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

① Press repeatedly until "Auto Setup" appears

F

② Access "Auto Setup"

TV

③ Start "Auto Setup"

TV

- To return to TV ➡ F

When the operation is completed, the channel at channel position "1" will be displayed.

(Note)
- If tuning has not been done completely
  ➡ "Manual Tuning" (p. 38)

Analogue channels

Automatically retune all Analogue channels received in the area.
●Only Analogue channels are retuned in Analogue mode.
●All the previous tuning settings are erased.
●If a Child Lock PIN number (p. 44) has been set, it must be entered.

1 **Select Analogue**
TV

2 **Display the menu**
MENU

3 **Select "Setup"**

VIErA **Main Menu**
  Picture
  Sound
  Setup

②access
①select

4 **Select "Analogue Tuning Menu"**

Setup Menu
Timer Programming
Off Timer   Off
Link Settings
Child Lock
Analogue Tuning Menu   Access
Display Settings
System Menu
Other Settings

②access
①select

5 **Select "Auto Setup"**

Analogue Tuning Menu
Channel List
Auto Setup   Access
Manual Tuning

②access
①select

■**To return to TV**
EXIT

6 **Start Auto Setup**

Analogue Auto Setup

All analogue tuning data will be erased

OK

Analogue Auto Setup
Scan   CH 21   88
This will take about 3 minutes.
CH   Channel Name
29
30
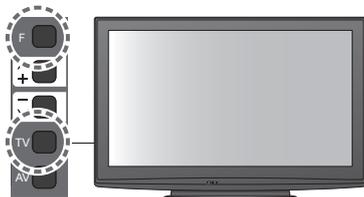
Analogue: 2
                Searching
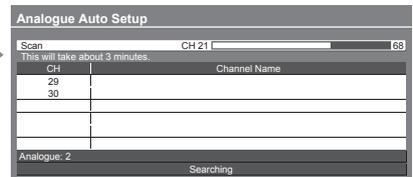
Settings are made automatically

●The analogue settings are downloaded to a Q-Link compatible equipment connected to the TV in Analogue mode.

When the operation is completed, the channel at channel position "1" will be displayed.

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

① Press repeatedly until "Auto Setup" appears
  F

② Access "Auto Setup"
  TV

③ Start "Auto Setup"
  TV

●To return to TV ➡ F

(**Note**)

●If tuning has not been done completely
  ➡ "Manual Tuning" (p. 41)

Advanced

37

Tuning and Editing Channels
(DVB)

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

1 **Select DVB**
TV

2 **Display the menu**
MENU

3 **Select "Setup"**

VIErA Main Menu
▭ Picture
♪ Sound
⚙ Setup

②access
①select

4 **Select "DVB Tuning Menu"**

⚙ Setup Menu	
Timer Programming	
Off Timer	Off
Link Settings	
Child Lock	
DVB Tuning Menu	Access
Display Settings	
System Menu	
Other Settings	

②access
①select

5 **Select one of the following functions**

DVB Tuning Menu	
Favourites Edit	Access
Channel List	Access
Auto Setup	Access
Channel Sorting by Region	Access
Manual Tuning	Access
Update Channel List	Access
New Channel Message	◄ On ►
Signal Condition	Access

②access
①select
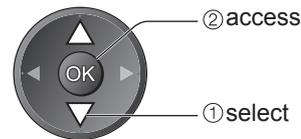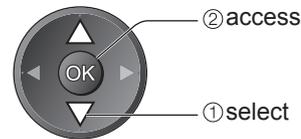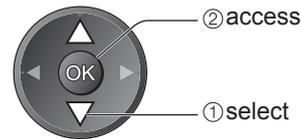
●Auto Setup

■**To return to TV**
EXIT
➡

6 **Set**

Sort DVB channels according to the region   Channel Sorting by Region

You can sort DVB channels according to the available region to give the priority if some channels which have the same logical channel number are tuned.
Normally select "Best signal quality (All Regions)" to keep the best signal reception.

Channel Sorting by Region
GBR>
Best signal quality (All Regions)
England Regions>
Region choice available

②access
①select region
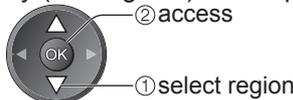
(select repeatedly until you reach the available region)

●Depending on the conditions of signal reception, the weak signal channel may be given the priority and image and sound may not be produced properly. In this case, select "Best signal quality (All Regions)".

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.

DVB Manual Tuning				
Frequency	[CH21]		474	MHz
Signal Quality	0			10
Signal Strength	0			10
No.	Channel Name		Type	New
Free TV: 0	Pay TV: 0	Radio: 0	Data: 0	
	Stopped			

①select frequency

②search
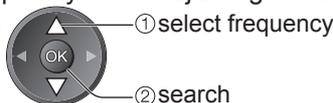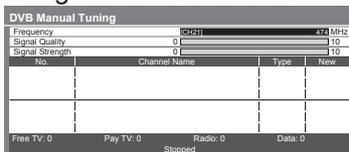
●All channels found will be added to the Channel List.

List favourite DVB channels │ Favourites Edit │

Create your favourite channel lists from various broadcasters (up to 4: Favourites1 to 4).
The DVB Favourites lists are available for switching in the Information banner (p. 15) and from "Category" in the
TV Guide (p. 18).

① Select a channel to list

DVB Favourites Editor	
All DVB Channels	Favourites1
1 BBC One Wales	
7 BBC THREE	
14 E4	
70 CBBC Channel	
72 Cartoon Nwk	
105 BBCi	
719 BBC Radio Wales	
720 BBC Radio Cymru	

select

●To display other Favourites ➡ green

Encrypted channel

② Add it to the Favourites list

DVB Favourites Editor	
All DVB Channels	Favourites1
1 BBC One Wales	1 BBC One Wales
7 BBC THREE	
14 E4	
70 CBBC Channel	
72 Cartoon Nwk	
105 BBCi	
719 BBC Radio Wales	
720 BBC Radio Cymru	

OK

●To add all channels to the list ➡ yellow

A channel is added

■ To edit Favourites list

Select the field of Favourites to edit and:

●To delete the channel ➡ OK   ●To delete all channels ➡ yellow

●To name the Favourites ➡ red   Set characters one by one   Store
                                   (maximum: ten characters)   RETURN

User input
Name
```
A B C D E F G H I J K L M N O P Q R S T
U V W X Y Z 0 1 2 3 4 5 6 7 8 9 ! . : #
a b c d e f g h i j k l m n o p q r s t
u v w x y z ( ) + - . * _
```

①select
②set

You can set characters by using
numeric buttons.
➡ "Characters table for numeric
   buttons" (p. 66)

●To move the channel ➡ green ➡ Select the new position ➡ Confirm green

or

Select the turn

③ Store

RETURN ➡ OK

Note
●Channel position numbers (known as logical channel numbers) can be swapped in Channel List.
 To swap the channel position number ➡ "Channel List" (below)

Skip unwanted DVB channels, Edit DVB Channels │ Channel List │

You can hide unwanted DVB channels.
The hidden channels cannot be displayed except in this function. Use this function to skip unwanted channels.

Select a channel and reveal / hide

All DVB Channels	
☑	70 CBBC Channel
☑	72 Cartoon Nwk
☑	105 BBCi
☐	719 BBC Radio Wales
☐	720 BBC Radio Cymru
☐	1 BBC ONE Wales
☑	7 BBC THREE

②reveal / hide
①select

☑ : reveal
☐ : hide (skip)

●To reveal all channels
➡ yellow

■ To edit channels

You can also edit each channel in Channel List.

Channel position number

1 BBC ONE Wales	19:35	All DVB Channels
Coronation Street		Select favourites ▭
19:30 - 20:00 ▭	◀ Now ▶	For info press ⓘ

Select a channel to edit and:

●To retune each channel - Manual Tuning (p. 38) ➡ red
 (only for the revealed channels)

●To swap the channel position number ➡ green ➡ Enter the new position number ➡ Store green
 (logical channel number)

Tuning and Editing Channels

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 Update Channel List
Progress                    CH 21 [                              ] 68
This will take about 3 minutes.
  CH              Channel Name           Type    Quality

Free TV: 0      Pay TV: 0         Radio: 0       Data: 0
                    Searching
```

●Channel List is updated while keeping your settings in Favourites Edit, Channel List, Child Lock, Timer Programming, etc.

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.

●To change the channel ➡ [∧ / ∨]

```
DVB Signal Condition
Channel Name           70 CBBC Channel
Signal Quality      0  [                              ] 10
Signal Strength     0  [                              ] 10
Bit Error Rate         0.00E+00
Network Name           Wenvoe
Parameter              [CH62] 802.00 MHz
```

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

(Analogue)

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

1 **Select Analogue**
[TV]

2 **Display the menu**
MENU

3 **Select "Setup"**

```
VIΣΓΛ Main Menu
  Picture
  Sound
  Setup
```

②access
①select

4 **Select "Analogue Tuning Menu"**

```
Setup Menu
Timer Programming
Off Timer              Off
Link Settings
Child Lock
Analogue Tuning Menu   Access
Display Settings
System Menu
Other Settings
```
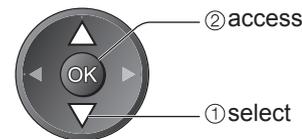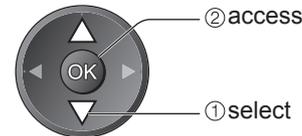
②access
①select

5 **Select one of the following functions**

```
Analogue Tuning Menu
Channel List           Access
Auto Setup             Access
Manual Tuning          Access
```

②access
①select
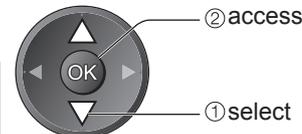
●Auto Setup

■**To return to TV**
EXIT

6 **Set**

Skip unwanted Analogue channels, Edit Analogue channels | Channel List

You can hide unwanted Analogue channels.
The hidden channels cannot be displayed except in this function. Use this function to skip unwanted channels.

Select a channel and reveal / hide

☑	1	BBC1
☐	2	*****
☐	3	*****
☑	4	
☑	5	
☑	6	
☑	7	

Analogue Channel List

② reveal / hide
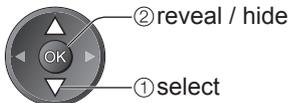
① select

☑ : reveal
☐ : hide (skip)

● To reveal all channels
➡ yellow

■ To edit channels
You can also edit each channel in Channel List.

Select a channel to edit and:

Channel position
— Channel name

3 ITV　　　　　　　23:35　All Analogue Channels
itv
CH23
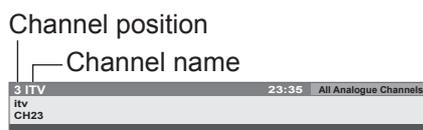
● To retune each channel - Manual Tuning (below) ➡ red

● To move the channel position ➡ green ➡ Select the new position ➡ Store green

● To rename the channel name ➡ blue ➡ Set characters one by one (maximum: five characters)

Edit channel name
Name

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
U	V	W	X	Y	Z	0	1	2	3	4	5	6	7	8	9	!	:	#
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t
u	v	w	x	y	z	(	)	+	-	.	*	_

① select
② set

➡ Store RETURN
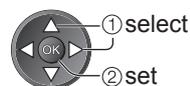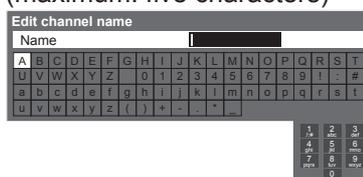
● You can set characters by using numeric buttons.
➡ "Characters table for numeric buttons" (p. 66)

Note
● If a VCR is connected only with the RF cable, edit "VCR".

Set Analogue channel manually | Manual Tuning

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

Analogue Manual Tuning
1 BBC1　　　　　　　　　　　CH33
Manual Tuning　　21◀▬▬▬▬▬▬▶68

Select the channel position

1 2abc 3def
4ghi 5jkl 6mno
7pqrs 8tuv 9wxyz
0

Select the channel

∧
∨

Search and store

① search
② store
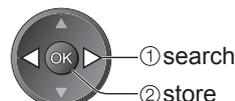
Timer Programming

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 automatically to record even if the TV is in Standby mode.

TV Guide may also be used to set timer programming event (p. 19).

●Timer Programming can be stored up to 15 events.
●The TV must be either On or in standby for Ext Rec. of Timer Programming.
●No other channel can be selected while Ext Rec. of Timer Programming is in progress.
●It may not be possible to record an encrypted programme (which is copy-protected).
●When recording programmes, be sure to make the proper settings on the recorder connected to the TV.
  If a compatible recorder with Q-Link or similar technologies is connected to the TV (p. 56) 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 or similar technologies, set "Q-Link" in the Setup Menu (p. 30) to the connected terminal (AV1 or AV2), and make timer programming of the recorder. For preparations of a recorder, read the manual of the recorder.
●Recording is possible in composite video via SCART only, including HD content.

1 **Select the mode you want to set**
TV

2 **Display the menu**
MENU

3 **Select "Setup"**

VIErA **Main Menu**
- Picture
- Sound
- Setup

②access
①select

4 **Select "Timer Programming"**

Setup Menu	
Timer Programming	Access
Off Timer	Off
Link Settings	
Child Lock	
DVB Tuning Menu	
Display Settings	
System Menu	
Other Settings	

②access
①select
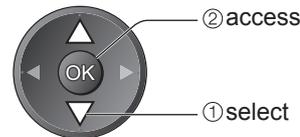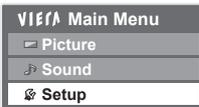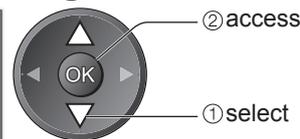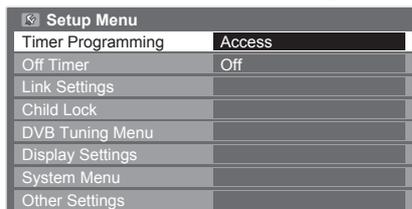
■**To return to TV**
EXIT

■**To unlock the tuner (stop recording)**
GUIDE → EXIT

5 **Set**

Note

●Check that the LED is orange. If not, timer programmes are not active or not stored.
●A timer programming event for Reminder will be cleared in the following conditions:
  • Off or Standby mode from the start time to the end time.
  • Pressing the OK button to view or the EXIT button to cancel while a reminder message appears.
  • Not pressing the OK or EXIT button from the start time to the end time.
●"!" 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.
●2 mins. before the starting time, a reminder message appears if you are watching TV.
  • To remove the message and start the programming ➡ OK   • To cancel the programming ➡ EXIT
●Ext Rec. 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 is necessary to stop the recorder manually.
●Ext Rec. of Timer Programming will be performed even if the TV is in Pause Live TV recording (p. 59). In this case, Pause Live TV recording will be cancelled.

Set timer programming event details | Timer Programming

① **Start making the settings**

(OK)

② **Select the function (Reminder or Ext Rec.)**

(directional pad) —select

Ext Rec. : to record the programme to the recorder
When the start time comes, the channel will be switched automatically and the video and audio signals will be output. 2 mins. 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 mins. before the start time. Press the OK button to switch to the programmed channel. No signals will be output from any terminals.

③ **Set the channel, date and time (repeat the operations as below)**
Set items in the order of ❶ to ❹.

(directional pad) —select the item → (directional pad) —set

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

```
1   2abc  3def
4ghi 5jkl  6mno
7pqrs 8tuv 9wxyz
    0
```

Displayed if the timer programming events are overlapped

Timer programming - Programmes according to the time setting
Guide: Guide link programming - Programmes according to the TV Guide signal (p. 19)
S/P: Split Programme programming (p. 19)

Timer Programming				Wed 28 Oct 2009 10:46		
Function	No.	Channel Name		Date	Start	End
⏱ Ext Rec.	D 72	BBC 2W <TIMER>		Wed 28 Oct	20:00	21:30 (90 min.)
⏱ Reminder	D 14	E4 The Bill	Guide	Wed 28 Oct	21:00	22:00 (60 min.)
⏱ Ext Rec.	D 1	BBC ONE DIY SOS	S/P	Wed 28 Oct	22:45	23:00 (15 min.)
⏱ Ext Rec.	D 1	BBC ONE <TIMER>	STTL	Thu 29 Oct	10:30	11:30 (60 min.)
---	--				--:--	--:-- (-- min.)

Records with subtitles (if available)
● To indicate this ➡ □ (press again to remove subtitles) yellow

Duration (automatic display)

❹Ending time
❸Starting time
❶Channel number ❷Date

D: DVB
A: Analogue
● You cannot change the mode within the menu.

one day ahead
(directional pad)
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

④ **Store**

(OK)

■**To change a timer programming event**

➡ Select the programme to be changed (directional pad) ②access ①select ➡ Correct as necessary (as above)
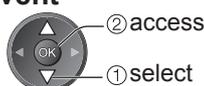
■**To cancel a timer programming event**

➡ Select the programme to be deleted (directional pad) ➡ □ red ➡ (OK)
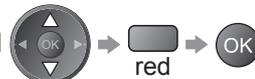
■**To record with subtitles** (if available)

➡ Select the programme to record with subtitles (directional pad) ➡ □ yellow ● Each time pressed: auto ←→ off

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

➡ Select the programme to be cancelled (directional pad) ➡ □ blue ● Each time pressed: cancel ←→ stop cancelling

■**To view details of the programming** (only for Guide link programming)

➡ Select the programme to be viewed (directional pad) ➡ ⓘ ● Press again to return to Timer Programming menu.

■**Guide link programming (Timer Programming from the TV Guide signal)** ➡ p. 19
● This function is not available in Analogue mode.
Guide link programming is a Timer Programming controlled by information from the TV Guide.
Programme start and end times may be changed by broadcasters and sent to the TV for the timer programming event to follow the change.
Split Programme programming is one of the Guide link programming. Split Programme is a programme which is interrupted by one or more other programmes.
Guide link programming and Split Programme programming are subject to signals being sent by broadcasters.

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.

1 Display the menu
MENU

2 Select "Setup"

VIErA Main Menu
- Picture
- Sound
- Setup

②access
①select

3 Select "Child Lock"

Setup Menu
Timer Programming	
Off Timer	Off
Link Settings	
Child Lock	Access
DVB Tuning Menu	
Display Settings	
System Menu	
Other Settings	

②access
①select

■**To return to TV**
EXIT

4 Set

Control channel audience Child Lock

① Enter the PIN number (4 digits)

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

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

② Select "Child Lock List"

Child Lock
Change PIN	
Child Lock List	Access

②access
①select

③ Select the channel / input to be locked

Child Lock List - TV and AV
Name	Input	Type	Lock
4 BBC 1 Wales	DVB	Free TV	🔒
7 BBC THREE	DVB	Free TV	🔒
14 E4	DVB	Free TV	
VCR	Analogue	Analogue	
1 BBC1	Analogue	Analogue	
2 *****	Analogue	Analogue	
AV1	External	AV	
AV2/S	External	AV	

Appears when the channel / input is locked

②lock
①select

● To cancel ➡ Select the locked channel / input ➡ OK
● To jump to the top of the next input ➡ red
● To lock all ➡ green
● To cancel all locks ➡ yellow

■To change the PIN number
Select "Change PIN"

Child Lock
Change PIN	Access
Child Lock List	

②access
①select

Enter a new PIN number twice

Note
● Setting "Shipping Condition" (p. 46) 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

1 Display the menu
MENU

2 Select "Setup"

VIErA Main Menu
◻ Picture
♪ Sound
⚙ Setup
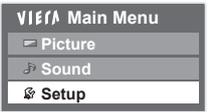
②access
①select

3 Select "Display Settings"

Setup Menu	
Timer Programming	
Off Timer	Off
Link Settings	
Child Lock	
DVB Tuning Menu	
Display Settings	Access
System Menu	
Other Settings	
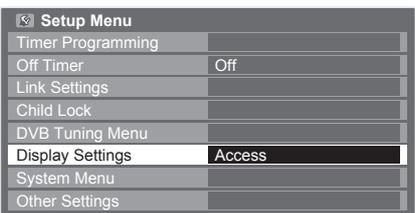
②access
①select

4 Select "Input Labels"

Display Settings	
Preferred Subtitle Type	English
Side Panel	Off
Input Labels	Access
Banner Display Timeout	3 seconds
Playing Time Display	On
Radio Mode	Off
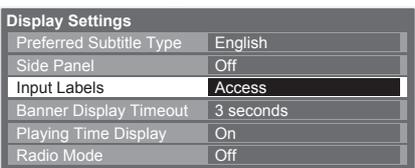
②access
①select

■**To return to TV**
EXIT

5 Select a input terminal and set

Input Labels	
AV1	◄ DVD ►
AV2/S	◄ AV2/S ►
AV3	◄ AV3 ►
COMPONENT	◄ COMPONENT ►
HDMI1	◄ HDMI1 ►
HDMI2	◄ HDMI2 ►
HDMI3	◄ HDMI3 ►
DVB	◄ DVB ►
Analogue	◄ Analogue ►
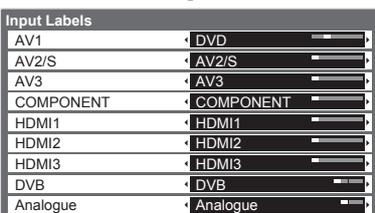
②set
①select

The labels you set will be displayed in "Input Selection" menu (p. 24) or banner.
●If "Skip" is selected, you cannot select the mode.

Panasonic
TV

■**User input**
You can name each input mode freely.

Select "User input"	Set characters one by one (maximum: ten characters)		Store

①select
②access
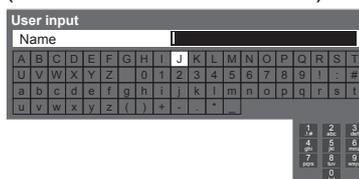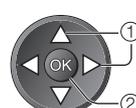
User input	
Name	

A B C D E F G H I J K L M N O P Q R S T
U V W X Y Z 0 1 2 3 4 5 6 7 8 9 ! : #
a b c d e f g h i j k l m n o p q r s t
u v w x y z ( ) + - . * _

1	2 abc	3 def
4 ghi	5 jkl	6 mno
7 pqrs	8 tuv	9 wxyz
	0	

①select
②set

RETURN

●You can set characters by using numeric buttons.
➡ "Characters table for numeric buttons" (p. 66)

Shipping Condition

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

1 **Display the menu**

MENU

2 **Select "Setup"**

VIERA Main Menu	
🖵 Picture	
♪ Sound	
✎ Setup	

② access
① select

3 **Select "System Menu"**

🖾 Setup Menu	
Timer Programming	
Off Timer	Off
Link Settings	
Child Lock	
DVB Tuning Menu	
Display Settings	
System Menu	Access
Other Settings	

② access
① select

4 **Select "Shipping Condition"**

System Menu	
Shipping Condition	Access
Owner ID	
Common Interface	
System Update	
Software Licence	
System Information	

② access
① select

5 **Set**

■**To return to TV**

EXIT

Restore Settings | Shipping Condition

① **Check the message and initialise**

Shipping Condition

All tuning data will be erased
Are you sure? ——— OK (confirm)
Are you sure? ———

Confirm —— ● EXIT
● RETURN

OK (confirm)

OK (start Shipping Condition)

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)

■**To retune TV channels only, e.g. after moving house**
➡ "Retuning from Setup Menu" (p. 36 and p. 37)

Owner ID

Entry of the PIN number and personal information (your name, address and postcode).
In the unfortunate event of theft it will help the Police to determine the owner.

1 Display the menu
MENU
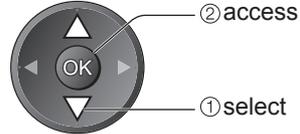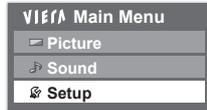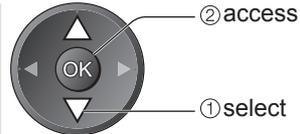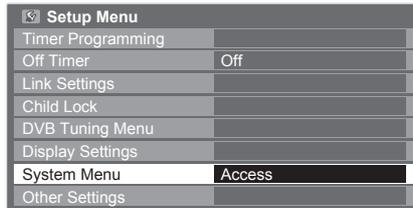
2 Select "Setup"

VIE*A* Main Menu
Picture
Sound
Setup

② access
① select

3 Select "System Menu"

Setup Menu	
Timer Programming	
Off Timer	Off
Link Settings	
Child Lock	
DVB Tuning Menu	
Display Settings	
System Menu	Access
Other Settings	

② access
① select

4 Select "Owner ID"

System Menu	
Shipping Condition	
Owner ID	Access
Common Interface	
System Update	
Software Licence	
System Information	

② access
① select
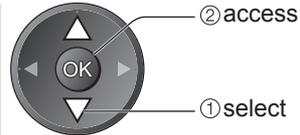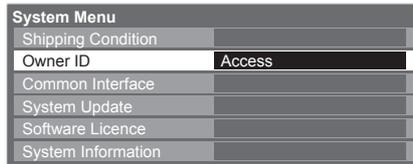
■**To return to TV**
EXIT
➡

5 Set

Input owner ID | Owner ID |

① **Enter the PIN number (4 digits)**

Owner ID	
Please enter new PIN	
PIN	* * * *

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

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

Select NAME / HOUSE NO / POSTCODE

Owner ID-Data Entry	
PIN	* * * *
NAME	
HOUSE NO	
POSTCODE	

② access
① select

Set characters one by one

User input	
NAME	

A B C D E F G H I J K L M N O P Q R S T
U V W X Y Z 0 1 2 3 4 5 6 7 8 9 ! . #
a b c d e f g h i j k l m n o p q r s t
u v w x y z ( ) + - . , *

① select
② set

●You can set characters by using numeric buttons.
➡ "Characters table for numeric buttons" (p. 66)
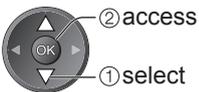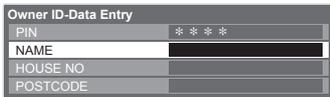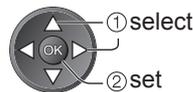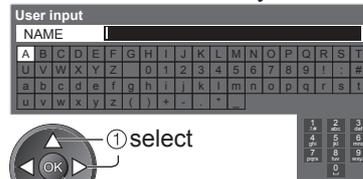
Return to select other items
RETURN
➡
or
Exit the menu
EXIT

■**To check the personal information stored**
Hold down for about 6 sec.
F

Owner ID	
NAME	* * * * *
HOUSE NO	* * * * *
POSTCODE	* * * * * * *
EXIT	

●The PIN number is not displayed.

■**To change the PIN number**
Select "PIN"

Owner ID-Data Entry	
PIN	* * * *
NAME	
HOUSE NO	
POSTCODE	

② access
① select

Enter a new PIN number twice

47
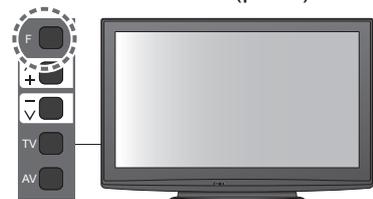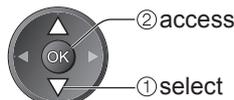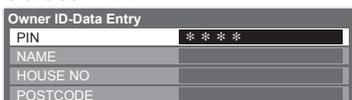
Using Common Interface

The Common Interface Module menu provides access to software contained on Common Interface (CI) Modules.
This TV works only Pay TV modules complying with CI standard.
●This function is not available for BSkyB's Sky channels.

CI slot

Insert or remove straightly and completely

CI module

Side of the TV

(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.
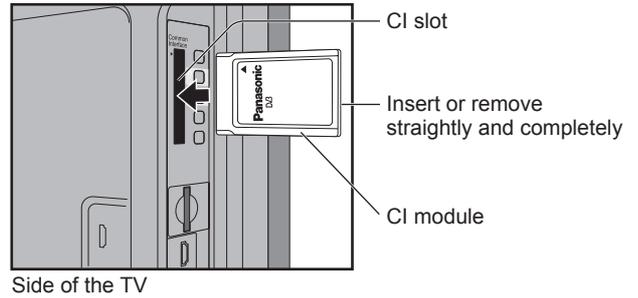
Insert the CI module (optional)
●The features that appear on screen are dependent on the contents of the selected CI module.
●Normally pay-TV channels will appear. Follow the on screen operation guide.
If pay-TV channel does not appear, perform below.
●For more details, see the manual of the CI module, or check with the broadcaster.

1 **Select DVB**
TV

2 **Display the menu**
MENU

3 **Select "Setup"**

VIErA Main Menu
- Picture
- Sound
- Setup

② access
① select

4 **Select "System Menu"**

Setup Menu
Timer Programming	
Off Timer	Off
Link Settings	
Child Lock	
DVB Tuning Menu	
Display Settings	
System Menu	Access
Other Settings	

② access
① select

5 **Select "Common Interface"**

System Menu
Shipping Condition	
Owner ID	
Common Interface	Access
System Update	
Software Licence	
System Information	

② access
① select

6 **Access Common Interface**

Common Interface
| Slot 1: | Module inserted |

OK

7 **Follow the on screen operation guide**

For example: select, go ➡ OK

◀ ▶ ▼ ▲ ➡

Coloured characters ➡ red green yellow blue

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

■**To return to TV**
EXIT
➡

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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.
In DVB mode, a notification banner will appear when one of the BBC channels is tuned if a new available software is found.

●To download ➡ (OK)

●If you choose not to download ➡ (EXIT)

You can update any new software automatically or update manually.

1 Display the menu

MENU

2 Select "Setup"

VIErA Main Menu
Picture
Sound
Setup

②access
①select

3 Select "System Menu"

Setup Menu	
Timer Programming	
Off Timer	Off
Link Settings	
Child Lock	
DVB Tuning Menu	
Display Settings	
System Menu	Access
Other Settings	

②access
①select

4 Select "System Update"

System Menu	
Shipping Condition	
Owner ID	
Common Interface	
System Update	Access
Software Licence	
System Information	

②access
①select

■**To return to TV**

EXIT
➡

5 Set

Update TV's software system   System Update

■**To update automatically**
Select "Auto Update Search in Standby" and set to "On"

System Update	
Auto Update Search in Standby	On
System Update Search Now	

②set
①select

●Automatically performs a search in standby and downloads an update, if any software updates are available.
●The automatic updating is performed at night under the following conditions:
  • Standby (TV turned Off with the remote control)
  • Ext Rec. 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". The notification banner will keep appearing during the period of new software availability, usually 2 to 3 days.

■**To update immediately**
Select "System Update Search Now"

System Update	
Auto Update Search in Standby	Off
System Update Search Now	Access

②access
①select

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

Download

(OK)

(Note)
●Download may take up to 60 mins.
●During software download and update, DO NOT switch Off the TV.

Using Media Player

Viewing from SD Card (VIERA IMAGE VIEWER)

Photo mode : Still pictures recorded by digital cameras will be displayed.
Video mode : Moving pictures recorded by digital video cameras will be played back.
- During the operation, audio signal is output from AV1, AV2, AUDIO OUT and DIGITAL AUDIO OUT terminals. But no video signals are output. AV1 and AV2 can output audio signal if "AV1 / AV2 out" is set to "Monitor" in the Setup Menu (p. 30).
- "Date" shows the date on which the recording was made by the digital camera or digital video camera. The file without record of the date is shown "**/**/****".
- For details on SD Cards ➡ p. 65

■To insert the SD Card
Gently insert the SD Card label surface facing front.

Label surface

Push until a click is heard

Cutout

■To remove the SD Card

Push the centre of the card

Photo mode

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

1 Insert the SD Card and start Media Player
OK

2 Select "Photo"

Media Player

Contents Select
- EXIT
- Select
- RETURN
Access   Photo   Video

① select
② access
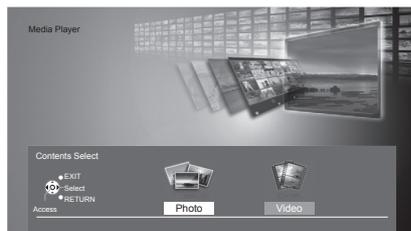
- You can also access Photo mode directly by using VIERA TOOLS.
  ➡ "How to Use VIERA TOOLS" (p. 26)

Error display (images that could not be loaded, etc.)

Media Player ▸ Photo   All photos

View   ▸ EXIT
Select ▸ RETURN   Info
■ Slideshow   ■ View Select   ■ Contents Select

(Thumbnail - All photos)

The thumbnail of all the photos in the SD Card will be displayed.
- To change the back ground music
  ➡ "Photo Setup" (p. 51)
- To display the information of the highlighted photo

➡ (i)

File name   1/48 — file number /
             p1010001.JPG   total file number
Date   23/10/2009
Pixel   1600X1200

■Single view - Displayed one at a time
Select the file from the thumbnail of photos to be viewed

① select
② access

■ Single view
Rotate
- EXIT
- Select
- RETURN
Slideshow   ▶Ⅱ Single view

(Single view)
Operation guide

- To display / hide the operation guide
  ➡ (i)

- To operate Single view
  - To the previous photo
  - Rotate 90˚ (anti-clockwise)
  - To the next photo
  - Slideshow
  - Rotate 90˚ (clockwise)

- To return to thumbnail ➡ RETURN ↩

■To return to TV
EXIT or SD CARD
➡

■To return to the previous screen
RETURN
➡ ↩

■Slideshow - Slideshow will be completed within the thumbnail from which it was started.
Select the file from the thumbnail of photos for the first view

Start Slideshow

select

red

- To display / hide the operation guide ➡ (i)
- To pause (return to Single view) ➡ OK
- To return to thumbnail ➡ RETURN ↩

50

Photo Setup

Setup the settings for Photo mode.

Display the menu

MENU

Select "Photo Setup"

VIERA Main Menu
- Picture
- ♪ Sound
- **Photo Setup**
- Video Setup

②access
①select

● Other items ➡ p. 28, 29 and p. 53

Select the items and set

Photo Setup Menu

Back Ground Music	Type1
Frame	Off
Colour Effect	Off
Transition Effect	Fade
Screen Mode	Normal
Interval	Normal
Repeat	On

②set
①select

Menu	Item	Adjustments / Configurations (alternatives)
Photo Setup	**Back Ground Music**	Selects the back ground music during the Photo mode **(Off / Type1 / Type2 / Type3)** ● Type1, Type2 and Type3 are the fixed music each installed in this TV.
	Frame	Selects the indication frame of the slideshow **(Off / Multi / Collage)** Multi : 9 division display like tiled design Collage: A photo is displayed at random position and random scale.
	Colour Effect	Selects the colour effect of photos on Single view and Slideshow **(Off / Sepia / Gray scale)**
	Transition Effect	Selects the transition effect for switching the photo during the slideshow **(Off / Fade / Slide / Dissolve / Motion / Random)** Fade : The next photo fades in gradually. Slide : The next photo slides and appears from the left side. Dissolve : The photo is replaced by an indefinite block unit. Motion : The photo is replaced with enlarged, reduced, moved up or moved down. Random : Each transition is selected at random. ● This function is available when "Frame" is set to "Off".
	Screen Mode	Selects whether enlarged or normal viewing on Single view and Slideshow **(Normal / Zoom)** ● Depending on the photo size, the photo may not be enlarged.
	Interval	Selects slideshow interval **(Short / Normal / Long)**
	Repeat	Slideshow repeat **(Off / On)**

Change to the Video mode

You can switch to the Video mode of Media Player from the thumbnail.
While the thumbnail is displayed, display the contents selection

blue

Select "Video"

①select
②access

● For details of the Video mode operations ➡ "Video mode" (p. 52)

■To sort by folder, recorded date or recorded month

Display the view selection

green

Select the sort type

| Folder view |
| Sort by Date |
| Sort by Month |

②access
①select
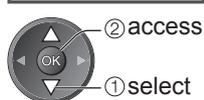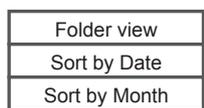
Displays the thumbnail grouped by folder
● The files which are not into a folder will be collected to the folder named "/".

Displays the thumbnail grouped by the same date
● The group of the photos without recorded date is shown as "Unknown".

Displays the thumbnail grouped by the same month
● The group of the photos without recorded date is shown as "Unknown".

● To return to the thumbnail of all photos

➡ green ➡ ②access ①select "All photos"

Select one of the sorted group to display the thumbnail of the selected group

①select
②thumbnail of the selected group

● To display the information of the highlighted group

➡

Folder name 1/12
23/10/2009
Number of files 3

group number / total group number
folder name, date or month
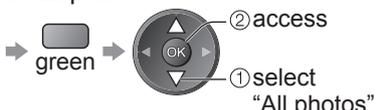
Using Media Player
Viewing from SD Card (VIERA IMAGE VIEWER)

Video mode

Video mode supports AVCHD and MPEG2 file formats.

1 Insert the SD Card and start Media Player

OK

2 Select "Video"

Media Player

Contents Select
EXIT
Select
RETURN
Access
Photo   Video

① select
② access
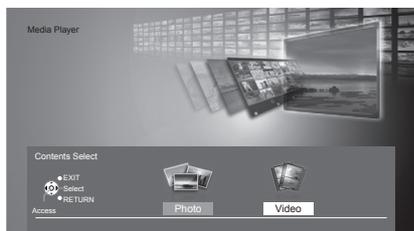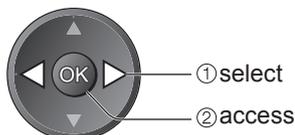
- You can also access Video mode directly by using VIERA TOOLS
  ➡ "How to Use VIERA TOOLS" (p. 26)

Error display
(images that could not be loaded, etc.)
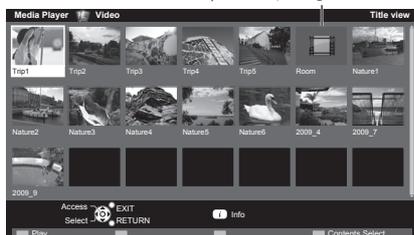
Media Player Video   Title view
Trip1 Trip2 Trip3 Trip4 Trip5 Room Nature1
Nature2 Nature3 Nature4 Nature5 Nature6 2009_4 2009_7
2009_9
Access EXIT
Select RETURN   Info
Play   Contents Select
(Thumbnail - Title view)

The thumbnail of video titles in the SD Card will be displayed.
The preview will start when the title is highlighted if it supports a preview.
- To off the preview ➡ "Video Setup" (p. 53)
- To display the information of the highlighted title

AVCHD ── file format
1/15
Title   Trip1   ── title number / total title number
Date & Time
       19/02/2009 11:21
Number of scenes
               8
Duration
       00h15m39s
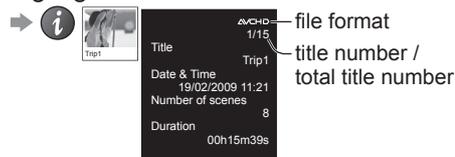
■Playback from Title view
Playback of the selected title will start.
Select the title   Start playback

select   →   red

■Playback from the selected scene in the title
Playback will start from the selected scene to the end of the title.
Select the title   Select the scene to start playback

① select
② access

Media Player Video   Title view > Trip1
Trip1_1 Trip1_2 Trip1_3 Trip1_4 Trip1_5 Trip1_6 Trip1_7
Trip1_8
Play EXIT
Select RETURN   Info
                              Contents Select
(Thumbnail - Scene view)

① select
② playback

The preview will start when the scene is highlighted if it supports a preview.
- To off the preview
  ➡ "Video Setup" (p. 53)

- To repeat playback
  ➡ "Video Setup" (p. 53)

- To display the information of the highlighted scene

AVCHD ── file format
1/8
Scene
       Trip1_1   ── scene number / total scene number
Date & Time
       19/02/2009 11:21
Duration
       00h04m12s
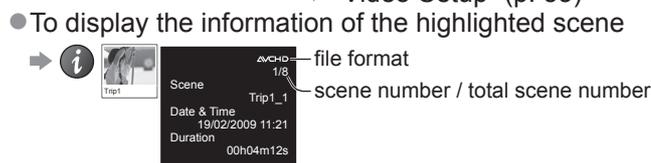
■How to operate in the playback

II/►
EXIT
RETURN

Title Trip1
Date & Time 19/02/2009 11:21
00:02:05 / 00:15.39 AVCHD
Operation guide   (Playback)
                   information banner

- To change aspect
  (only for the 4:3 video content)
  ➡ ASPECT

- To return to thumbnail ➡ RETURN

- To display / hide the operation guide and information banner ➡ (i)

- To operate the playback
  ◄◄ Rewind
  II/► Pause / Playback
  ► Playback
  ►► Fast forward
  ■ Stop

- To the previous scene ➡ red
- To the next scene ➡ green

SD CARD
MENU ASPECT
EXIT
(i)
OK
OPTION RETURN

Panasonic
TV

■To return to TV
EXIT or SD CARD

■To return to the previous screen
RETURN

Sound 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** (during playback)

Display the Option menu

OPTION

Option Menu
Multi Audio   Stereo
(current sound status)

Change the sound (if the video has multiple audio signals)

◀ OK ▶ —change

●It may take several seconds to change the sound.

■**Audio output settings**

Display the menu

MENU

VIErA Main Menu
▫ Picture
♪ Sound
Photo Setup
Video Setup

Select "Sound"

②access
①select
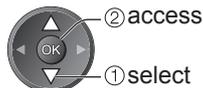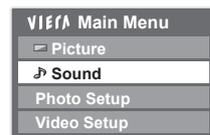
Select "SPDIF Selection" and set

▣ Sound Menu   1/2
Mode   Music
Bass
Treble
Balance
Headphone Volume
Surround   Off
Volume Correction
Speaker Distance to Wall   Over 30cm
SPDIF Selection   ◀ Auto

②set
①select
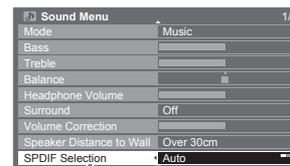
Menu	Item	Adjustments / Configurations (alternatives)
Sound	**SPDIF Selection**	SPDIF : A standard audio transfer file format Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT terminal **(Auto / PCM)** Auto: Dolby Digital is output as Dolby Digital Bitstream. MPEG is output as PCM. PCM: Digital output signal is fixed to PCM.

Video Setup

Setup the settings for Video mode.

Display the menu

MENU

VIErA Main Menu
▫ Picture
♪ Sound
Photo Setup
Video Setup

●Other items
➡ p. 28, 29 and p. 51

Select "Video Setup"

Video Setup Menu
Display Settings
Other Settings   Access

②access
①select

●Display Settings
➡ p. 31

Select "Other Settings"

Other Settings
16:9 Overscan   On
Video Preview   ◀ On
Repeat   Off

②set
①select

●16:9 Overscan
➡ p. 32

Select the items and set
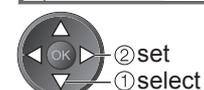
Menu	Item		Adjustments / Configurations (alternatives)
Video Setup	**Other Settings**	**Video Preview**	Sets to start the preview of the title or scene in the thumbnail screen **(Off / On)** ●Image may not be displayed for an instant in the thumbnail screen. Set the preview "Off" to resolve this.
		Repeat	Playback repeat within the title **(Off / On)**

Change to the Photo mode

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

While the thumbnail is displayed, display the contents selection

blue

Select "Photo"

Media Player ▸ Video   Title view
(thumbnails)
Contents Select
EXIT
Select
RETURN
Access   Photo   Video

①select
②access

●For details of the Photo mode operations
➡ "Photo mode" (p. 50)

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

● Using Media Player

Advanced

53

Link Functions (Q-Link VIERA Link)

Q-Link connects the TV and DVD Recorder / VCR, and enables easy recording, playback, etc. (p. 56)
VIERA Link (HDAVI Control™) 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. 57 - 61)
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 only)

Connected equipment / Features	DVD Recorder / VCR with Q-Link function
Analogue channel download	○
Easy playback	○
Power on link	○
Power off link	○
Direct TV Recording	○

Connection

SCART cable — DVD Recorder / VCR with Q-Link function

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

■VIERA Link (HDMI connection only)

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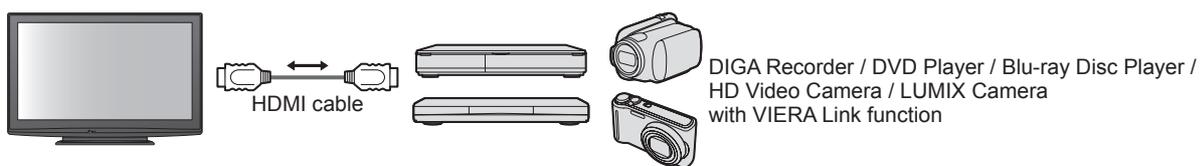
Connection

HDMI cable

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

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

■VIERA Link (HDMI and SCART connections)

Connected equipment / Features	DIGA Recorder with VIERA Link function
Analogue channel download	○
Easy playback	○
Power on link	○
Power off link	○
Reduce unnecessary power consumption in standby	○*3
Auto standby for unnecessary equipment	○*3
Pause Live TV programme	○*2 *4
Direct TV Recording	○*2
Control the menu of the connected equipment by VIERA remote control	○*1
Speaker control	–

Connection

HDMI cable

DIGA Recorder with VIERA Link function

SCART cable

●Use fully wired HDMI compliant cable.
●Connect the equipment supporting VIERA Link to the TV's HDMI1, HDMI2 or HDMI3 terminal via an HDMI cable.
●Use fully wired SCART cable.
●Connect the equipment supporting VIERA Link to the TV's AV1 or AV2 terminal via a SCART cable.

■VIERA Link (HDMI and Audio out connections)

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

Connection

●To use Player theatre / Blu- ray Disc theatre:
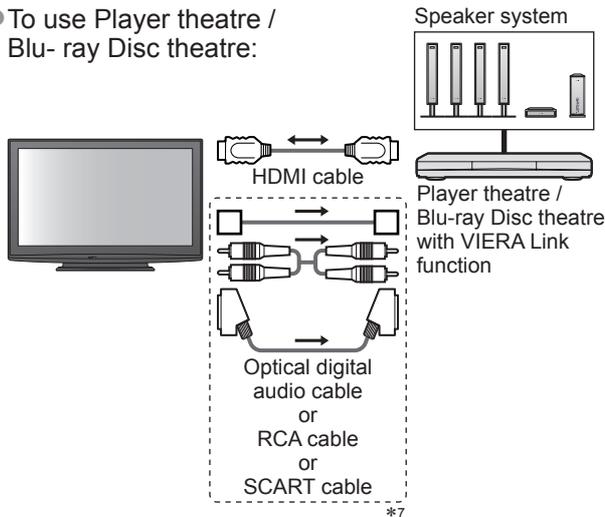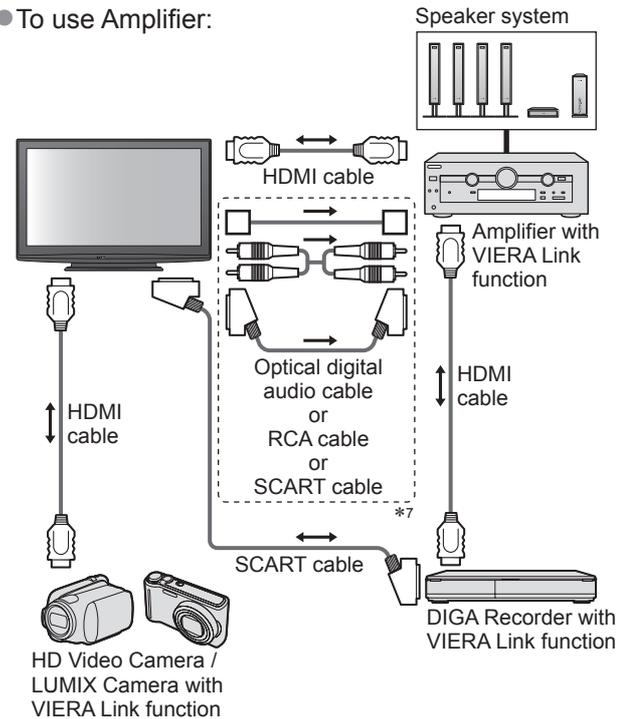
Speaker system

HDMI cable

Player theatre / Blu-ray Disc theatre with VIERA Link function

Optical digital audio cable or RCA cable or SCART cable *7

●To use Amplifier:

Speaker system

HDMI cable

Amplifier with VIERA Link function

HDMI cable

Optical digital audio cable or RCA cable or SCART cable *7

HDMI cable

SCART cable

HD Video Camera / LUMIX Camera with VIERA Link function

DIGA Recorder with VIERA Link function

●Use fully wired HDMI compliant cable.
●Connect the equipment supporting VIERA Link to the TV's HDMI1, HDMI2 or HDMI3 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 or AV2 terminal and set "AV1 / AV2 out" to "Monitor" in the Setup Menu (p. 30).
●Use any one of the optical digital audio cable, RCA cable and SCART cable for audio output from the TV.

∗1: Available with the equipment which has "HDAVI Control 2 or later" function.
∗2: Available with the equipment which has "HDAVI Control 3 or later" function.
∗3: Available with the equipment which has "HDAVI Control 4 or later" function.
∗4: Available with DIGA Recorder which has HDD.
∗5: while playingback a disc
∗6: except for watching a disc
∗7: If the connected equipment has "HDAVI Control 5" function, you do not have to use this audio cable (Optical digital audio cable, RCA 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. 60)

●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.)	3
Player (DVD Player, Blu-ray Disc Player, HD Video Camera, LUMIX Camera, Digital Camera, Player theatre, Blu-ray Disc theatre, etc.)	3
Audio system (Player theatre, Blu-ray Disc theatre, Amplifier, etc.)	1
Tuner (Set top box, etc.)	4

Link Functions ⎛Q-Link⎞
⎝VIERA Link⎠

Q-Link

■Preparations
- ●Connect the DVD Recorder / VCR with the following logos:
  "Q-Link", "NEXTVIEWLINK", "DATA LOGIC", "Easy Link", "Megalogic" or "SMARTLINK"
- ●Q-Link connection ➡ p. 54
- ●Use fully wired SCART cable.
- ●Set up the DVD Recorder / VCR. Read the manual of the recorder.
- ●Q-Link terminal setup in the Setup Menu ➡ "Q-Link" (p. 30), "AV1 / AV2 out" (p. 30)
- ●Download Analogue channel setting ➡ "Analogue channel download" (see below)

■Features available

Analogue channel download

Analogue channel setting can be downloaded to the recorder with analogue tuner. Digital channel setting is not downloaded.
- ●To download Analogue channel setting ➡ "Q-Link Download" (p. 30) or "Auto Setup" in Analogue mode (p. 37) or "Auto Setup" - when first using the TV (p. 12)

Direct TV Recording - What you see is What you record

Recording the current programme in DVD Recorder / VCR immediately.

DIRECT TV REC

EXIT

GUIDE

- ●Available conditions:

Picture source	Mode	Recording from
Analogue	TV	TV monitor out
	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

GUIDE ➡

Tuner Locked
Please stop recording to operate

Continue ● ● Unlock

EXIT
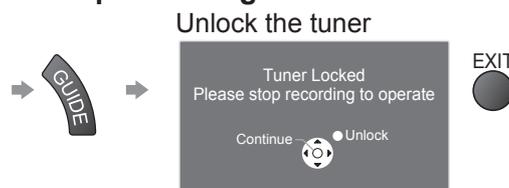
Power on link and Easy playback

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

Power off link

When TV is set to Standby mode, the recorder is also automatically set to Standby. (Only when the videocassette or disc is not active.)
- ●This function will work even if the TV enters Standby mode automatically by auto power standby function.

- "DATA LOGIC" (a trademark of Metz Corporation)
- "Easy Link" (a trademark of Philips Corporation)
- "Megalogic" (a trademark of Grundig Corporation)
- "SMARTLINK" (a trademark of Sony Corporation)

(Note)
- ●Some recorders are not applicable. Read the manual of the recorder.

VIERA Link "**HDAVI** Control™"∗

∗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. 54 and p. 55).
These features are limited to models incorporating "HDAVI Control" and "VIERA Link".
● Some functions are not available depending on the equipment's version of HDAVI Control. Please confirm the
   connected equipment's version of HDAVI Control.
● VIERA Link "HDAVI Control", based on the control functions provided by HDMI which is an industry standard
   known as HDMI CEC (Consumer Electronics Control), is a unique function that we have developed and added.
   As such, its operation with other manufacturers' equipment that supports HDMI CEC cannot be guaranteed.
● Please refer to individual manuals for other manufacturers' equipment supporting VIERA Link function.
● About applicable Panasonic equipment, consult your local Panasonic dealer
   or refer to the URL: www.panasonic.co.uk

■Preparations
   ● Connect the equipment supporting VIERA Link.
   ● VIERA Link connection ➡ p. 54 and p. 55
   ● 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 Analogue channel setting ➡ "Analogue channel download" (see below)
   ● Set VIERA Link On in the Setup Menu ➡ "VIERA Link" (p. 30)
   ● Set up the TV
      ➡ **After connection, turn the equipment on and then switch the TV on.**
         Select the input mode to HDMI1, HDMI2 or HDMI3 (p. 24), and make sure that an image is displayed
         correctly.
         This setup should be done each time when the following conditions occur:
         • for the first time
         • when adding or reconnecting equipment
         • when changing setup

■Features available

Analogue channel download

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

● To download Analogue channel setting ➡ "Q-Link Download" (p. 30) or "Auto Setup" in Analogue mode (p. 37)
                                                           or "Auto Setup" - when first using the TV (p. 12)

Easy playback

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

Power on link

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

Power off link

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

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

● Link Functions
(Q-Link / VIERA Link)

Advanced

Link Functions (Q-Link / VIERA Link)

■**Features available**

Reduce unnecessary power consumption in standby Standby Power Save

Set Standby Power Save "On" in the Setup Menu to use this function
➡ "Standby Power Save" (p. 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 minimized.
When the TV is turned on, the connected equipment is still in Standby mode, but the power consumption is increased to make startup time early.

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

Auto standby for unnecessary equipment Intelligent Auto Standby

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

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

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

Recording the current programme in DIGA Recorder immediately.
●If you connect a variety of recorders including other manufacturers' recorders at the same time, please connect DIGA Recorder to the TV's lower HDMI terminal number. For example, if you use HDMI1 and HDMI2 for two recorders, in this case connect DIGA Recorder to HDMI1.
●If you cannot operate, check the settings and the equipment
➡ "Summary of Q-Link and VIERA Link features" (p. 54 and p. 55), "Preparations" (p. 57)
●If you wish to record the programme which DIGA Recorder does not support, SCART connection is required and the programme is recorded by Q-Link function (p. 56).
●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.

1 **Display "VIERA Link Menu"**

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

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

②start
①select

●You can also start recording directly ➡ DIRECT TV REC

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

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

①select
②stop

●You can also stop recording directly.
Unlock the tuner

Tuner Locked
Please stop recording to operate

Continue   ●Unlock

EXIT

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

Pause Live TV programme   Pause Live TV

You can pause the live TV programme and resume later.
Live TV programme will be recorded on HDD of the connected DIGA Recorder.
- This function is available with DIGA Recorder which has HDD.
- If you connect a variety of recorders including other manufacturers' recorders at the same time, please connect DIGA Recorder which has HDD to the TV's lower HDMI terminal number. For example, if you use HDMI1 and HDMI2 for two recorders, in this case connect DIGA Recorder which has HDD to HDMI1.
- If you cannot operate, check the settings and the equipment
  → "Summary of Q-Link and VIERA Link features" (p. 54 and p. 55), "Preparations" (p. 57)

Access and pause the live TV programme

1 **Display "VIERA Link Menu"**

VIERA Link

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

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	Recorder
Speaker Selection	Home Cinema
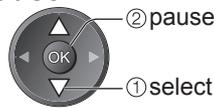
②pause
①select

The TV picture will be paused.

- You can also pause directly by using VIERA TOOLS
  → "How to Use VIERA TOOLS" (p. 26)
- Live TV programme is recorded on HDD from where it was paused.
- If the paused TV picture disappears after a few minutes

  → ○ OPTION (the paused picture will be restored)

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

■**To operate Pause Live TV**

search backward
pause
search forward
playback
stop
- If you stop playback, the recorded programme will be deleted from HDD.

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

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

→ TV →

Pause Live TV	
Stop Pause Live TV?	
Yes	No

①select
②stop
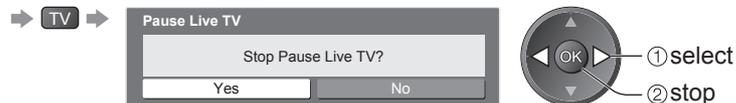
- If you stop playback or cancel pause, the recorded programme will be deleted from HDD.

Panasonic
TV

● Link Functions
(Q-Link / VIERA Link)

Advanced

Link Functions (Q-Link / VIERA Link)

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

Control the menu of the connected equipment by VIERA remote control

VIERA Link Control

You can control some functions of the connected equipment with this TV remote control (point the remote control at the TV's signal receiver).
●If you cannot operate, check the settings and the equipment
  ➡ "Summary of Q-Link and VIERA Link features" (p. 54 and p. 55), "Preparations" (p. 57)
●For details of the operations for the connected equipment, read the manual of the equipment.

Access and operate the menu of the equipment

1 Display "VIERA Link Menu"

2 Select "VIERA Link Control"

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

select

3 Select the equipment you want to access
The type of the connected equipment is displayed.
Select the type of the equipment and access.

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

①select
②access
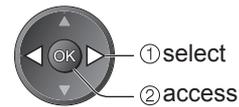
Recorder / Player / Home Cinema / Video Camera / LUMIX / Digital Camera / Other

●You can also access directly by using VIERA TOOLS
  ➡ "How to Use VIERA TOOLS" (p. 26)
●The displayed item may vary depending on the connected equipment.
●"Home Cinema" means Player theatre, Blu-ray Disc theatre or Recorder theatre.
●"Other" means Tuner set top box.

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

4 Operate the menu of the equipment
Available VIERA remote control buttons:
(depending on the connected equipment)

①**Set the code of the remote control to "73"**
  ➡ "How to change the code for the type of the equipment" (p. 25)

②**Follow the operation guide**

●To display the operation guide ➡ ◯ OPTION
  If other manufacturers' equipment is accessed, Setup / Contents Selection menu may be displayed.

●When the key words are displayed on colour bar
  ➡ red green yellow blue

■If multiple recorders or players are connected

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

Recorder1-3 / Player1-3

The number is given from the TV's lower HDMI terminal number connected to the same type equipment. For example, two recorders to HDMI2 and HDMI3, in this case the recorder connected to HDMI2 is displayed as "Recorder1", and the recorder connected to HDMI3 is displayed as "Recorder2".

■If you access non-VIERA Link equipment

VIERA Link Menu	
Pause Live TV	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.

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

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

Speaker control   Speaker Selection

You can control the theatre speaker with this TV remote control (point the remote control at the TV's signal receiver).
●If you cannot operate, check the settings and the equipment
  ➡ "Summary of Q-Link and VIERA Link features" (p. 54 and p. 55), "Preparations" (p. 57)

Access and control the speaker volume
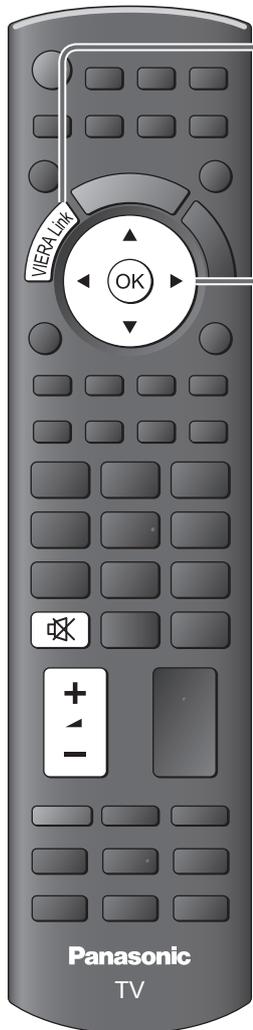
1 **Display "VIERA Link Menu"**

2 **Select "Speaker Selection"**

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

select

3 **Set to "Home Cinema" or "TV"**

set

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

  ●Volume up / down
    ➡ [+/−] (Volume slide bar will be displayed when adjusting the volume of the equipment.)

  ●Mute ➡ [🔇]

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

■**TV**
  TV speakers are active.

Note
●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. 55), 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. 55).

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, 2009) for HDAVI Control compatible equipment. This standard is compatible with conventional HDAVI equipment.
●To confirm this TV's version of HDAVI Control ➡ "System Information" (p. 32)

● Link Functions
(Q-Link / VIERA Link)

Advanced

External Equipment

These diagrams show our recommendations for connection of your TV to various pieces of equipment. For other connections, consult the instructions for each piece of equipment, the table below, and the specifications (p. 75).

To watch satellite broadcasts

HD Satellite receiver

Fully wired SCART cable

Fully wired HDMI compliant cable

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

HƏMI
HDMI 1
HDMI 2 (ARC)

To listen with speakers

DIGITAL AUDIO OUT

RGB VIDEO AV1
RGB VIDEO S VIDEO AV2
COMPONENT

AUDIO OUT
AUDIO IN
Y
L
R
P$_B$
P$_R$

or

Optical digital audio cable

RCA cable

Amplifier with speaker system

Fully wired SCART cable

To watch DVDs

DVD Player

(Listening)

(Viewing)

■Types of connectable equipment to each terminal

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

○ : Recommended Connection
∗1 : applicable if your amplifier has ARC (Audio Return Channel) function

Rear of the TV

HDMI equipment
→ "HDMI connection" (p. 67)

DVD Recorder

Fully wired HDMI
compliant cable

Camcorder / HDMI equipment

Fully wired HDMI
compliant cable

Terrestrial aerial

HDMI 3
AV 3
V
L
R

Headphones

(M3 stereo mini plug)

● To adjust volume
→ "Headphone Volume" in the
Sound Menu (p. 29)

or

RF cable

To record / playback

DVD Recorder / VCR

(Listening)   (Viewing)

Camcorder / Game equipment

● External Equipment

Advanced

	COMPONENT	AUDIO OUT	DIGITAL AUDIO OUT	HDMI		
	Y, PB, PR, L, R	L, R	□	1	2	3
	◯			◯	◯	◯
				◯	◯	◯
				◯		
				◯	◯	◯
	◯	◯			◯*1	
				◯	◯	◯
				◯	◯	◯

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Technical Information

Auto Aspect

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

■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.

Input terminal	Input signal format	Aspect Control Signal	
		Widescreen signal (WSS)	Control signal through SCART (pin8) / HDMI terminal
RF	DVB	○	
	PAL I	○	
	PAL 525/60 6.0 MHz	–	
	M.NTSC 6.0 MHz	–	
AV1 (Composite) AV2 (Composite or S-Video) AV3	PAL	○	○
	PAL 525/60	–	○
	M.NTSC	–	○
	NTSC	–	○
COMPONENT	525 (480) / 60i	–	
	525 (480) / 60p	–	
	625 (576) / 50i	○	
	625 (576) / 50p	○	
	750 (720) / 60p	–	
	750 (720) / 50p	–	
	1,125 (1,080) / 60i	–	
	1,125 (1,080) / 50i	–	
HDMI1 HDMI2 HDMI3	525 (480) / 60i	–	○
	525 (480) / 60p	–	○
	625 (576) / 50i	–	○
	625 (576) / 50p	–	○
	750 (720) / 60p	–	○
	750 (720) / 50p	–	○
	1,125 (1,080) / 60i	–	○
	1,125 (1,080) / 50i	–	○
	1,125 (1,080) / 60p	–	○
	1,125 (1,080) / 50p	–	○
	1,125 (1,080) / 24p	–	○

■Auto mode

Auto mode determines the best aspect ratio to fill the screen. It does this using a four step process (WSS, Control signal through SCART / HDMI terminal, Letterbox detection, or Justify to fill the screen) to determine. This process may take several minutes, depending on the darkness of the image.
Letterbox detection: If black bands at the top and bottom of the screen are detected, Auto mode chooses the best ratio and expands the image to fill the screen.
If no aspect signals are detected, Auto mode enhances the image for optimum viewing pleasure.

Note

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

SD Card

Use an SD Card which meets SD standards.
If not, it may cause the TV to malfunction.

2.1 mm

32 mm

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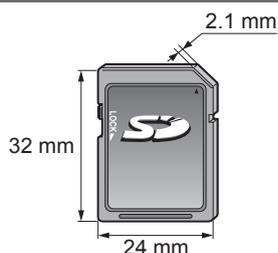
■Cautions in handling SD Card
- Do not remove the card while the TV is accessing data (this can damage card or TV).
- Do not touch the pins on the back of the card.
- Do not subject the card to a high pressure or impact.
- Insert the card in the correct direction (otherwise, card may be damaged).
- Electrical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

■Data format for Card browsing
- Photo : Still images recorded with digital still cameras compatible with JPEG files of DCF∗ and EXIF standards
    Data format - Baseline JPEG (Sub-sampling 4:4:4, 4:2:2 or 4:2:0)
    Image resolution - 8 × 8 to 30,719 × 17,279 pixels
- Video : SD-Video Standard Ver. 1.2 [MPEG-2 (PS format)] and AVCHD Standard compatible files with an audio format that is either MPEG-1/Layer-2 format or Dolby Digital format
    (Files recorded with vertical frequency 50 Hz are applicable. A modified data with a PC may not be displayed correctly.)
- 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 adapter)
- If miniSD Card is used, insert / remove it together with the adapter.
- Check the latest information on the card type at the following website. (English only)
    http://panasonic.jp/support/global/cs/
    ∗DCF (Design rule for camera file system): Unified standard established by Japan Electronics and Information Technology Industries Association (JEITA).

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

● Technical Information

FAQs, etc.

Technical Information

Characters table for numeric buttons

You can enter characters by using numeric buttons for free input items.
Press the numeric button repeatedly until you reach the desired character.

1 **2**abc **3**def ● The character is set automatically if you leave for one second.
4ghi **5**jkl **6**mno ● You can also set the character by pressing the OK button or
7pqrs **8**tuv **9**wxyz   other numeric buttons within one second.
0

Characters table:

Numeric buttons \ The number of times to press	1	2	3	4	5	6	7	8	9	10	11
1	.	1	!	:	#	+	-	*	_	(	)
2abc	a	b	c	2	A	B	C				
3def	d	e	f	3	D	E	F				
4ghi	g	h	i	4	G	H	I				
5jkl	j	k	l	5	J	K	L				
6mno	m	n	o	6	M	N	O				
7pqrs	p	q	r	s	7	P	Q	R	S		
8tuv	t	u	v	8	T	U	V				
9wxyz	w	x	y	z	9	W	X	Y	Z		
0	Space	0									

SCART and HDMI terminal information

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

Socket Earth	21		20	CVBS in (video)
CVBS out (video)	19		18	RGB status earth
CVBS earth	17		16	Status RGB
Red in	15		14	Earth
Red earth	13		12	--
Green in	11		10	Q-Link data
Green earth	9		8	Status CVBS
Blue in	7		6	Audio in (L)
Blue earth	5		4	Audio earth
Audio out (L)	3		2	Audio in (R)
Audio out (R)	1			
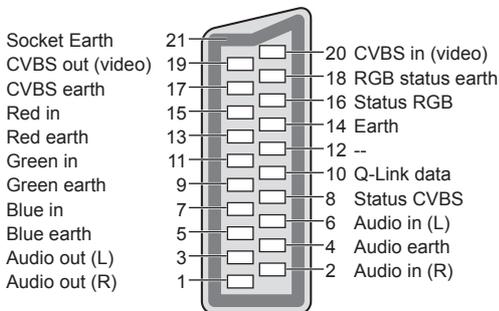
■AV2 SCART terminal
(RGB, VIDEO, S-VIDEO, Q-Link)
AV2 - Pins 15 and 20 are dependent on AV2 S-VHS / VIDEO switching.

Socket Earth	21		20	CVBS in (video)
CVBS out (video)	19		18	RGB status earth
CVBS earth	17		16	Status RGB
Red in, S.C. - in	15		14	Earth
Red earth	13		12	--
Green in	11		10	Q-Link data
Green earth	9		8	Status CVBS
Blue in	7		6	Audio in (L)
Blue earth	5		4	Audio earth
Audio out (L)	3		2	Audio in (R)
Audio out (R)	1			

■HDMI terminal

Hot Plug Detect	19		18	+5V Power
DDC/CEC Ground	17		16	SDA
SCL	15		14	Reserved (in cable but N.C. on device)
CEC	13		12	TMDS Clock−
TMDS Clock Shield	11		10	TMDS Clock+
TMDS Data0−	9		8	TMDS Data0 Shield
TMDS Data0+	7		6	TMDS Data1−
TMDS Data1 Shield	5		4	TMDS Data1+
TMDS Data2−	3		2	TMDS Data2 Shield
TMDS Data2+	1			

HDMI connection

HDMI (high-definition multimedia interface) is the world's first complete digital consumer AV interface complying with a non-compression standard.
HDMI allows you to enjoy high-definition digital images and high-quality sound by connecting the TV and the equipment.
HDMI-compatible equipment[*1] with an HDMI or DVI output terminal, such as a 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. 62).

■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" (below)
  Match the output setting of the digital equipment.
- Input PC signal : ➡ "Input signal that can be displayed" (below)
  Match the output setting of the PC.
- VIERA Link (HDAVI Control 5) : ➡ "VIERA Link" (p. 57)
- x.v.Colour™
- Audio Return Channel[*3] (HDMI2 terminal only)

■DVI connection
If the external equipment has only a DVI output, connect to the HDMI terminal via a DVI to HDMI adapter cable[*2].
When the DVI to HDMI adapter cable is used, connect the audio cable to the audio input terminal (HDMI1 / 2: use COMPONENT-AUDIO terminals / HDMI3: use AV3 audio terminals).

> **Note**
- Audio settings can be made on the "HDMI1 / 2 / 3 Input" in the Sound Menu. (p. 29)
- If the connected equipment has an aspect adjustment function, set the aspect ratio to "16:9".
- These HDMI connectors are "type A".
- These HDMI connectors are compatible with HDCP (High-Bandwidth Digital Content Protection) copyright protection.
- An equipment having no digital output terminal may be connected to the input terminal of either "COMPONENT", "S-VIDEO", or "VIDEO" to receive analogue signals.
- This TV incorporates HDMI™ technology.

(*1): The HDMI logo is displayed on HDMI-compliant equipment.
(*2): Enquire at your local digital equipment retailer shop.
(*3): Audio Return Channel (ARC) is a function to be able to send digital sound signals via an HDMI cable.

Input signal that can be displayed

COMPONENT (Y, P_B, P_R), HDMI
* Mark: Applicable input signal

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

PC (from HDMI terminal)
Applicable input signal for PC is basically compatible to HDMI standard timing.

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

> **Note**
- Signals other than above may not be displayed properly.
- The above signals are reformatted for optimal viewing on your display.
- PC signal is magnified or compressed for display, so that it may not be possible to show fine detail with sufficient clarity.

● Technical Information

FAQs, etc.

FAQs

Before requesting service or assistance, please follow these simple guides to resolve the problem. If the problem still persists, please contact your local Panasonic dealer or Panasonic Customer Care Centre for assistance. For details ➡ p. 76

Block noise, frozen or disappearing image occurs in digital 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. 40). If "Signal Quality" is displayed in red, the digital signal is weak.
- Check your postcode area is able to receive the Freeview channels at **www.freeview.co.uk**
- Digital signals may be relatively low to prevent interference with analogue signals for the period of Digital Switchover. Check the plan of Digital Switchover at **www.digitaluk.co.uk**
- 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.

Neither image nor sound is produced

- Is the TV in AV mode?
- Check the correct AV input mode is selected.
- Check the mains lead is plugged into the socket outlet.
- Has the TV been turned On?
- Check the Picture Menu (p. 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. 64)
- Press the ASPECT button if you would like to change the aspect ratio manually (p. 16).

S-Video / black and white picture

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

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

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

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

- Confirm the connection. (p. 54 and p. 55)
- Turn the connected equipment on and then switch the TV on. (p. 57)

Recording does not start immediately

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

Contrast is reduced

- Contrast is lowered in the following conditions without any user operation for a few minutes:
  - no signal in DVB or AV mode
  - selected locked channel
  - selected invalid channel
  - selected radio channel
  - displayed menu
  - digital teletext (no video contents)
  - thumbnail or still picture in SD Card mode

Problem	Actions
Screen	
Chaotic image, noisy	●Set "P-NR" in the Picture Menu (to remove noise). (p. 28) ●Check nearby electrical products (fluorescent lamp, DECT phones, mobile phones, microwave, etc.).
No image can be displayed	●Is "Contrast", "Brightness" or "Colour" in the Picture Menu set to the minimum? (p. 28) ●Please also refer to "Neither image nor sound is produced" (p. 68).
Blurry or distorted image (no sound or low volume)	●Reset channels. (p. 36 and p. 37) ●Please also refer to "Neither image nor sound is produced" (p. 68).
Unusual image is displayed	●Turn the TV Off with Mains power On / Off switch, then turn it On again. ●If the problem persists, perform "Shipping Condition" (p. 46).
Sound	
No sound is produced	●Is "Sound mute" active? (p. 8) ●Is the volume set to the minimum? ●Please also refer to "Neither image nor sound is produced" (p. 68).
Sound level is low or sound is distorted	●Sound signal reception may be deteriorated. ●Set "NICAM" (p. 29) in the Sound Menu to "Off". (Analogue only) ●Please also refer to "Neither image nor sound is produced" (p. 68).
Digital Channel	
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.
Cannot find a channel you have previously watched	●The channel may broadcast for part of the day. ●Check the channel in the TV Guide. (p. 18) ●Channel position numbers may be changed by broadcasters. ●Reset channels. (p. 36 and p. 37)

● Frequently Asked Questions

FAQs, etc.

FAQs

Problem		Actions
HDMI	**Sound is unusual**	●Set the sound setting of the connected equipment to "2ch L.PCM". ●Check the "HDMI1 / 2 / 3 Input" setting in the Sound Menu. (p. 29) ●If digital sound connection has a problem, select analogue sound connection. (p. 67)
	Pictures from external equipment are unusual when the equipment is connected via HDMI	●Check the HDMI cable is connected properly. (p. 62) ●Turn the TV and equipment Off, then turn them On again. ●Check an input signal from the equipment. (p. 67) ●Use an equipment compliant with EIA/CEA-861/861B.
Other	**The TV does not switch On**	●Press and hold the standby On / Off switch on the remote control for about 1 second if Power LED is red. ●Check the mains lead is plugged into the socket outlet. ●The fuse in the mains plug may have blown. Replace it with one of an identical rating (p. 4).
	The TV goes into Standby mode	●Auto power standby function is activated. (p. 9) ●The TV enters Standby mode about 30 mins. after analogue broadcasting ends.
	The remote control does not work or is intermittent	●Are the batteries installed correctly? (p. 6) ●Has the TV been switched On? ●The batteries may be running low. Replace them. ●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). ●Situate the TV away from sunshine or other sources of bright light not to shine on the TV's remote control signal receiver.
	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.
	Permanently lit spots on screen	●Due to production process involved in this technology this may result in some pixels which are permanently lit or unlit. This is not a malfunction.
	An error message appears	●Follow the message's instructions. ●If the problem persists, contact your local Panasonic dealer or the authorized Service Centre.

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On screen messages

Message	Meaning / Action
All tuning data will be erased	▶ ●"Shipping Condition" will erase all tuning data (p. 46).
Are you sure ?	▶ ●Confirm correct operation.
Are you sure you want to delete this timer ? **Press OK to delete timer.** **Press RETURN to return.**	▶ ●Confirm correct operation.
Bad signal	●The signal is weak. Check the aerial is plugged in properly. It may be necessary to have an aerial installer check the signal and aerial alignment. ●Reset channels. (p. 36 and p. 37)
Child Lock is active! **Press OK to enter PIN.**	▶ ●The selected channel is locked in Child Lock (p. 44). You must enter the PIN number before the channel will be displayed.
Feature not available.	●It is not possible to record from COMPONENT or HDMI. Connect the recorder to the TV using a fully wired SCART cable for recording from the TV tuner. ●Confirm Q-Link or VIERA Link settings (p. 54 - 57).
Feature not available. **Press OK to view how it works.**	▶ ●The selected feature on VIERA TOOLS is not available. Press the OK button to view the demonstration to explain how to use it.
Found new software version ✳✳✳. **Press OK to start update** **(may take 40 mins)** **or Press EXIT to ignore** **and you can update when TV is in standby**	▶ ●There is a new software available.
Invalid operation - Please check settings and connections.	▶ ●Check the Q-Link or VIERA Link connection and setting (p. 54 - 57).
Invalid system time. Please exit !	▶ ●Cannot get the time information and cannot edit Timer Programming screen. Check the connection of the RF cable.
Invalid system time, Timer Programming will not work. **Please press TV button on remote control and check time display on Banner**	▶ ●Cannot get the time information. If there are no time display on the Information banner, check the connection of the RF cable.
Max. number of timers already set !	▶ ●The maximum number of timer programming events is 15.
New channels found! **Press OK to update channel list.** **Press EXIT to ignore.**	●There may be new channels available. ●This message will appear each time a change is made by the broadcasters. This message can be deactivated by setting "New Channel Message" to Off in "DVB Tuning Menu". Selecting OK will perform "Update Channel List".
No channel found. **Please check aerial or local signal availability.** **Press OK to start Auto Setup.**	▶ ●Follow the on screen instructions. If it is still failed, consult your local Panasonic dealer.
No module inserted	▶ ●Check the CI module inserted completely (p. 48).
No recording - Already recording	▶ ●The equipment may already be recording.
No recording - Check media	▶ ●The tape or disc may be "write protected", full, missing or damaged.
No recording - Playing	▶ ●The equipment may be playing the tape or disc.
No recording - Unknown reason	▶ ●The recording may not be performed. Check the equipment.
No service	▶ ●The broadcaster has stopped the service. Check the channel in TV Guide. (p. 18)
No signal	▶ ●The TV cannot detect the signal. Check the connection of the RF cable.

●On screen messages
●Frequently Asked Questions

FAQs, etc.

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On screen messages

Message		Meaning / Action
PIN incorrect!	▶	●The PIN number you entered is wrong.
Please check settings and connections on HDMI devices.	▶	●Communication error in VIERA Link function (p. 57).
Please wait.	▶	●A function is in progress.
Recording this channel now	▶	●The recorder is recording the programme from its own tuner. You can turn the TV off and leave the equipment recording in the normal way.
Reset to Factory Shipping Condition Completed. **Please switch off TV.**	▶	●"Auto Setup" will automatically start when Mains power On / Off switch is next turned On. (p. 12)
Sending Preset Data	▶	●Q-Link or VIERA Link channel download is in progress.
Software successfully updated. **Press EXIT to continue.**	▶	●The software updating is finished.
Software update failed. Please try again later. **Press EXIT to continue.**	▶	●Perform "System Update Search Now" in System Update (p. 49). If this is still unsuccessful, there may not be any new software available.
This timer will not follow the TV Guide information. **Press OK to continue, RETURN to restore original timer.**	▶	●If you edit the start time or end time of Guide link programming more than 10 minutes, it will no longer be performed as Guide link programming. The programming will be performed according to the time setting.
Timer already expired !	▶	●Starting time in Timer Programming is already past. Set correctly (p. 43).
Timer Event Due to Start **∗∗∗:∗∗∗ has been** **programmed for External recording** **at ∗∗:∗∗**	▶	●This message will appear 2 mins. before timer programming event for external recording due to start.
Timer incorrect !	▶	●Set Start and End times in Timer Programming correctly (p. 43).
Timer overlap. **Press OK to keep, RETURN to edit.**	▶	●Timer programming events are overlapped. Press the OK button to keep the overlapped setting. "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.
Tuner Locked **Please stop recording to operate**	▶	●If you want to unlock, cancel Direct TV Recording (p. 56 and p. 58) or Ext Rec. of Timer Programming (p. 43).
Unable to download, please check equipment	▶	●The tape or disc is active. Stop the equipment and try again.

■Media Player

Message		Meaning / Action
Cannot read file	▶	●The file is broken or unreadable. ●The TV does not support the format. (For the applicable formats and data ➡ p. 65)
No SD card inserted	▶	●Confirm SD Card is inserted correctly.
No valid file to play	▶	●The card has no data.
Please confirm the SD card is OK	▶	●The inserted SD Card has a problem.
This operation is not possible	▶	●Your operation is not available.

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.

Glossary

■AVCHD
Advanced Video Codec High Definition - A standard for high definition video cameras that can be used to record and play high resolution HD images

■DVB
Digital Video Broadcasting

■DVD
Digital Versatile Disc

■DVI
Digital Visual Interface - A high quality video interface standard to connect to the display

■EPG
Electronic Programme Guide - A digital guide showing scheduled programmes

■HDMI
High-Definition Multimedia Interface - A digital audio and video interface for transmitting uncompressed digital signals on a single cable

■JPEG
Joint Photographic Experts Group - A standard for compressing colour still pictures

■MPEG2
Moving Picture Experts Group phase 2 - A standard for efficiently compressing and expanding colour videos

■NICAM
Near Instantaneous Companded Audio Multiplex - A format for digital sound over television

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

■RF
Radio Frequency - Signal received from terrestrial aerial

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

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

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

■SPDIF
A standard audio transfer file format

■VCR
Video Cassette Recorder

●Maintenance ●Glossary
●On screen messages

FAQs, etc.

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Specifications

		TX-P37X20B	TX-P42X20B	TX-P50X20B
Power Source		AC 220-240 V, 50 / 60 Hz		
Rated Power Consumption		190 W	215 W	265 W
Standby Power Consumption		0.4 W (Without monitor out recording) 15 W (With monitor out recording)		
Display panel	Aspect Ratio	16:9		
	Visible screen size	94 cm (diagonal) 819 mm (W) × 457 mm (H)	106 cm (diagonal) 921 mm (W) × 518 mm (H)	127 cm (diagonal) 1,105 mm (W) × 622 mm (H)
	Number of pixels	737,280 (1,024 (W) × 720 (H)) [3,072 × 720 dots]	786,432 (1,024 (W) × 768 (H)) [3,072 × 768 dots]	
Sound	Speaker	160 mm × 40 mm × 2 pcs, 6 Ω		
	Audio Output	20 W (10 W + 10 W)		
	Headphones	M3 (3.5 mm) stereo mini Jack × 1		
Receiving Systems / Band name		**PAL I** UHF E21-68 **PAL 525/60** Playback of NTSC tape from some PAL Video recorders (VCR) or NTSC disc playback from DVD player and recorder. **DVB-T** Digital terrestrial services via UHF aerial input. **M.NTSC** Playback from M.NTSC Video recorders (VCR). **NTSC (AV input only)** Playback from NTSC Video recorders (VCR).		
Aerial input		UHF		
Operating Conditions		**Temperature** : 0 °C - 35 °C **Humidity** : 20 % - 80 % RH (non-condensing)		
Connection Terminals	AV1 (SCART terminal)	21 Pin terminal (Audio/Video in, Audio/Video out, RGB in, Q-Link)		
	AV2 (SCART terminal)	21 Pin terminal (Audio/Video in, Audio/Video out, RGB in, S-Video in, Q-Link)		
	AV3 VIDEO	RCA PIN Type × 1 1.0 V[p-p] (75 Ω)		
	AV3 AUDIO L - R	RCA PIN Type × 2 0.5 V[rms]		
	COMPONENT VIDEO	**Y** 1.0 V[p-p] (including synchronization) P_B, P_R ±0.35 V[p-p]		
	COMPONENT AUDIO L - R	RCA PIN Type × 2 0.5 V[rms]		
	Others HDMI 1 / 2 / 3	TYPE A Connectors HDMI1 / 3 : HDMI (Version 1.3a with x.v.Colour™) HDMI2 : HDMI (Version 1.4 with Audio Return Channel) and HDMI (Version 1.3a with x.v.Colour™) ● This TV supports "HDAVI Control 5" function.		
	Others Card slot	SD Card slot × 1 Common Interface slot × 1		
	Output AUDIO L - R	RCA PIN Type × 2 0.5 V[rms] (high impedance)		
	Output DIGITAL AUDIO OUT	PCM / Dolby Digital, Fiber optic		
Dimensions (W × H × D)		929 mm × 639 mm × 301 mm (With Pedestal) 929 mm × 596 mm × 94 mm (TV only)	1,029 mm × 704 mm × 334 mm (With Pedestal) 1,029 mm × 661 mm × 93 mm (TV only)	1,218 mm × 814 mm × 401 mm (With Pedestal) 1,218 mm × 769 mm × 93 mm (TV only)
Mass		22.0 kg Net (With Pedestal) 20.0 kg Net (TV only)	26.0 kg Net (With Pedestal) 24.0 kg Net (TV only)	33.5 kg Net (With Pedestal) 31.5 kg Net (TV only)

● 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

http://www.europe.guideplus.com/

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FAQs, etc.

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

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

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

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

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

For business users in the European Union

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

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

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

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

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

Cd

Sales and Support Information

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

Direct Sales at Panasonic UK
- For customers: **0844 844 3856**
- Order accessory and consumable items for your product with ease and confidence by phoning our Customer Care Centre Monday — Thursday 9:00am — 5:30pm, Friday 9:30am — 5:30pm (Excluding public holidays).
- Or go on line through our Internet Accessory ordering application at **www.pas-europe.com**.
- Most major credit and debit cards accepted.
- All enquiries transactions and distribution facilities are provided directly by Panasonic UK Ltd.
- It couldn't be simpler!
- Also available through our Internet is direct shopping for a wide range of finished products, take a browse on our website for further details.

Interested in purchasing an extended guarantee?
*Please call 0870 240 6284 or visit **www.panasonic.co.uk/guarantee**.*

CE

Declaration of Conformity (DoC)
If you want to get a copy of the original DoC of this TV, please visit the following website:
http://www.doc.panasonic.de

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 (U. K.) Ltd.

M1209-0

Willoughby Road, Bracknell, Berks RG12 8FP

Web Site : http://panasonic.net
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