Panasonic

Model No.
TX-P42C3E
TX-P50C3E

Operating Instructions Plasma Television





Thank you for purchasing this Panasonic product.

Please read these instructions carefully before operating this product and retain them for future reference.

The images shown in this manual are for illustrative purposes only.

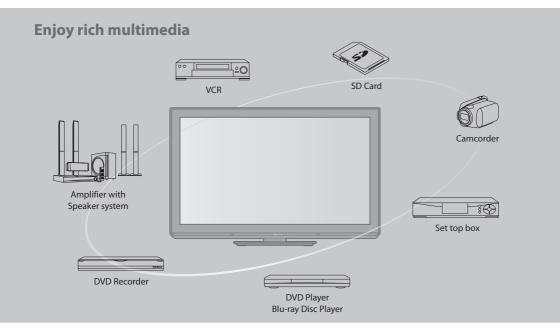
Please refer to Pan European Guarantee Card if you need to contact your local Panasonic dealer for assistance.



English



Experience an amazing level of multimedia excitement



Notice for DVB functions

This TV is designed to meet the standards (as of August, 2009) of DVB-T (MPEG2 and MPEG4-AVC(H.264)) digital terrestrial services and DVB-C (MPEG2 and MPEG4-AVC(H.264)) digital cable services.

Consult your local dealer for availability of DVB-T services in your area.

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

- This TV may not work correctly with the signal which does not meet the standards of DVB-T or DVB-C.
- Not all the features are available depending on the country, area, broadcaster and service provider.
- Not all CI modules work properly with this TV. Consult your service provider about the available CI module.
- This TV may not work correctly with CI module that is not approved by the service provider.
- Additional fees may be charged depending on the service provider.
- The compatibility with future DVB services is not guaranteed.
- Check the latest information on the available services at the following website. (English only)
 http://panasonic.jp/support/global/cs/tv/

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. 72)

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

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

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Enjoy your TV!

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Safety Precautions

Warning

Handling the mains plug and lead

- Insert the mains plug fully into the socket outlet. (If the mains plug is loose, it could generate heat and cause fire.)
- Ensure that the mains plug is easily accessible.
- Ensure the earth pin on the mains plug is securely connected to prevent electrical shock.
 - An apparatus with CLASS I construction shall be connected to a mains socket outlet with a protective earthing connection.
- Do not touch the mains plug with a wet hand. (This may cause electrical shock.)
- Do not use any mains lead other than that provided with this TV. (This may cause fire or electrical shock.)
- Do not damage the mains lead. (A damaged lead may cause fire or electrical shock.)
 - Do not move the TV with the lead plugged in the socket outlet.
 - Do not place a heavy object on the lead or place the lead near a high-temperature object.
 - Do not twist the lead, bend it excessively, or stretch it.
 - Do not pull on the lead. Hold onto the mains plug body when disconnecting lead.
 - Do not use a damaged mains plug or socket outlet.

If you find any abnormality, remove the mains plug immediately!



AC 220-240 V 50 / 60 Hz



Power source

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

Do not remove covers and NEVER modify the TV yourself

- Do not remove the rear cover as live parts are accessible when it is removed. There are no user serviceable parts inside. (High-voltage components may cause serious electrical shock.)
- Have the TV checked, adjusted, or repaired at your local Panasonic dealer.

Do not expose to direct sunlight and other sources of heat

 Avoid exposing the TV to direct sunlight and other sources of heat.



To prevent the spread of fire, keep candles or other open flames away from this product at all times

Do not expose to rain or excessive moisture

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

Do not insert foreign objects into the TV

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

Do not place the TV on sloped or unstable surfaces, and ensure that the TV does not hang over the edge of the base

• The TV may fall off or tip over.

Use only the dedicated pedestals / mounting equipment

- Using an unapproved pedestal or other fixtures may make the TV unstable, risking injury. Be sure to ask your local Panasonic dealer to perform setup.
- Use approved pedestals (p. 7) / wall-hanging brackets (p. 6).

Do not allow children to handle SD Card

 As with any small object, SD Cards can be swallowed by young children. Please remove SD Card immediately after use and store out of reach of children.

Caution

When cleaning the TV, remove the mains plug

Cleaning an energized TV may cause electrical shock.

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

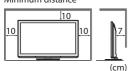
 This TV will still consume some power even in the Off mode, as long as the mains plug is still connected to a live socket outlet.

Transport only in upright position

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

Allow sufficient space around the TV for radiated heat

Minimum distance



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

Do not block the rear air vents

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

Do not expose your ears to excessive volume from the headphones

Irreversible damage can be caused.

Do not apply strong force or impact to the display panel

• This may cause damage resulting in injury.

The TV is heavy. Handle the TV by 2 or more people. Support as shown to avoid injury by the TV tipping or falling.



Maintenance

First, remove the mains plug from the socket outlet.

Display panel, Cabinet, Pedestal

Regular care:

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

For stubborn dirt:

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

Caution

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

Mains plug

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

Accessories / Options

Standard accessories

Remote Control N2OAYB000487

Batteries for the Remote Control (2)



Mains Lead (p. 11)





Operating Instructions

Pan European Guarantee Card

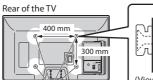
- Accessories may not be placed all together. Take care not to throw them away unintentionally.
- This product contains possibly dangerous parts (such as plastic bags), that can be breathed in or swallowed by young children accidentally. Keep these parts out of reach of young children.

Optional accessories

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

Wall-hanging bracket





Depth of screw: minimum 15 mm, maximum 30 mm Diameter: M8

Screw for fixing the TV onto the wall-hanging bracket (not supplied with the TV)

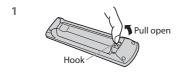
(View from the side)

Holes for wall-hanging bracket installation

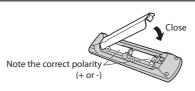
Warning

- 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 licensed 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







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 / removing the pedestal

Warning

Do not disassemble or modify the pedestal.

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

Caution

Do not use any pedestal other than that provided with this TV.

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

Do not use the pedestal if it becomes warped or physically damaged.

 If you use the pedestal while it is physically damaged, personal injury may result. Contact your nearest Panasonic dealer immediately.

During set-up, make sure that all screws are securely tightened.

If insufficient care is taken to ensure screws are properly tightened during assembly, the pedestal will not be strong enough to support the TV, and it might fall over and become damaged, and personal injury may result.

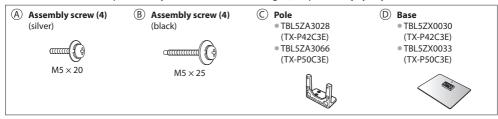
Ensure that the TV does not fall over.

• If the TV is knocked or children climb onto the pedestal with the TV installed, the TV may fall over and personal injury may result.

Two or more people are required to install and remove the TV.

• If two or more people are not present, the TV may be dropped, and personal injury may result.

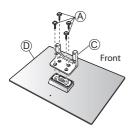
Otherwise the TV and / or pedestal may fall over and become damaged, and personal injury may result.



1 Assembling the pedestal

Use the assembly screws A to fasten the pole C to the base D securely.

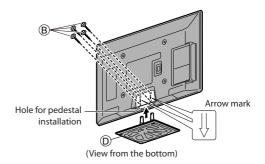
- Make sure that the screws are securely tightened.
- Forcing the assembly screws the wrong way will strip the threads.



2 Securing the TV

Use the assembly screws ® to fasten securely.

- Tighten the four assembly screws loosely at first, then tighten them firmly to fix securely.
- Carry out the work on a horizontal and level surface.



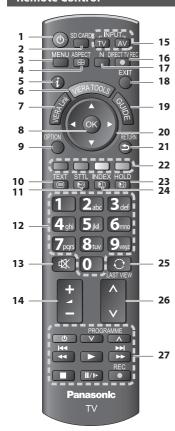
Removing the pedestal from the TV

Be sure to remove the pedestal in the following way when using the wall-hanging bracket or repacking the TV.

- 1 Remove the assembly screws ® from the TV.
- 2 Pull out the pedestal from the TV.
- **3** Remove the assembly screws (A) from the pole.

Identifying Controls

Remote Control



1 Standby On / Off switch

Switches TV On or Off standby

2 [Media Player] ⇒ (p. 49)

Switches to SD Card viewing / listening mode

3 [Main Menu] - (p. 26)

Press to access Picture, Sound and Setup Menus

4 Aspect ⇒ (p. 17)

Changes aspect ratio

5 Information → (p. 15)

Displays channel and programme information

6 VIERA TOOLS ⇒ (p. 25)

Displays some special feature icons and accesses easily

7 [VIERA Link Menu] → (p. 61)

8 OK

- Confirms selections and choices
- Press after selecting channel positions to quickly
 - change channel
- Displays the Channel List

9 [Option Menu] → (p. 16)

• Easy optional setting for viewing, sound, etc.

10 Teletext → (p. 21)

Switches to teletext mode

11 Subtitles **⇒** (p. 15)

Displays subtitles

12 Numeric buttons

Changes channel and teletext pages

- Sets characters
- When in Standby mode, switches TV On (Press for about 1 second)

13 Sound Mute

Switches sound mute On or Off

14 Volume Up / Down

15 Input mode selection

- TV switches DVB-C / DVB-T / Analogue mode
 (p. 14)
- AV switches to AV input mode from Input Selection list (p. 23)

16 Direct TV Recording **→** (p. 59, 61)

 Records programme immediately in DVD Recorder / VCR with Q-Link or VIERA Link connection

17 Normalise → (p. 26)

Resets picture and sound settings to their default levels

18 Exit

• Returns to the normal viewing screen

19 TV Guide **⇒** (p. 18)

20 Cursor buttons

Makes selections and adjustments

21 Return

Returns to the previous menu / page

22 Coloured buttons

(red-green-yellow-blue)

 Used for the selection, navigation and operation of various functions

23 Hold

- Freeze / unfreeze picture (p. 16)
- Holds the current teletext page (teletext mode)
 (p. 21)

24 Index (p. 21)

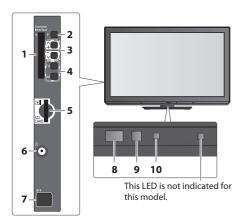
Returns to the teletext index page (teletext mode)

25 Last view (p. 17)

Switches to previously viewed channel or input mode

26 Channel Up / Down

27 Connected equipment operations (p. 24, 54, 64)



- 1 CI slot ⇒ (p. 46)
- 2 Function select
 - [Volume] / [Contrast] / [Brightness] / [Colour] / [Sharpness] / [Tint] (NTSC signal) / [Bass]* / [Treble]* / [Balance] / [Auto Setup] (p. 34, 35)
 - *[Music] or [Speech] mode in the Sound Menu
- 3 Channel Up / Down, Value change (when using the F button), Switching the TV On (press either button for about 1 second when in Standby mode)

- 4 Changes the input mode
- 5 SD Card slot **→** (p. 49)
- 6 Headphones jack

 (p. 67)
- 7 Mains power On / Off switch
 - Use to switch the mains power.
 If you turned the TV Off during Standby mode by the remote control last time, the TV will be in Standby mode when you turn the TV On with Mains power On / Off switch.

8 Remote control signal receiver

- Do not place any objects between the TV remote control signal receiver and remote control.
- 9 C.A.T.S. (Contrast Automatic Tracking System)
- Senses brightness to adjust picture quality when [Eco Mode] in the Picture Menu is set to [On] → (p. 27)
- 10 Power and Timer LED
 - Red : Standby

Green: On

Orange: Timer Programming On

Orange (flash):

Recording of Timer Programming or Direct TV Recording in progress

Red with orange flash:

Standby with Timer Programming On or Direct
TV Recording

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

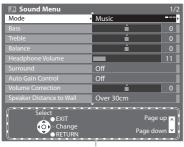
Using the On Screen Displays - Operation guide

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

Operation guide

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

Example: [Sound Menu]



Operation guide

How to use remote control



Open the main menu



Move the cursor / select the menu item



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



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



Return to the previous menu



Exit the menu system and return to the normal viewing screen

Auto power standby function

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

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

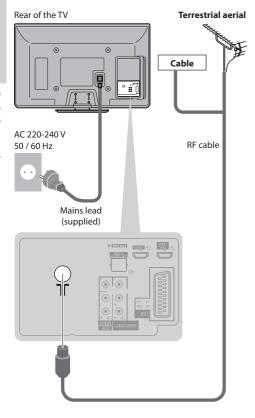
Basic Connection

External equipment and cables shown are not supplied with this TV.

Please ensure that the unit is disconnected from the mains socket before attaching or disconnecting any leads. When disconnecting the mains lead, be absolutely sure to disconnect the mains plug at the socket outlet first.

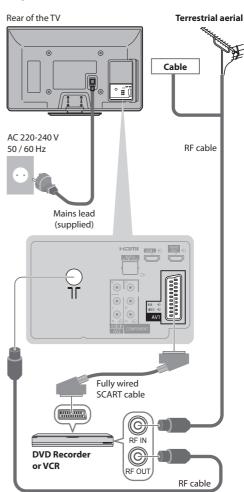
Example 1 Connecting aerial

TV only



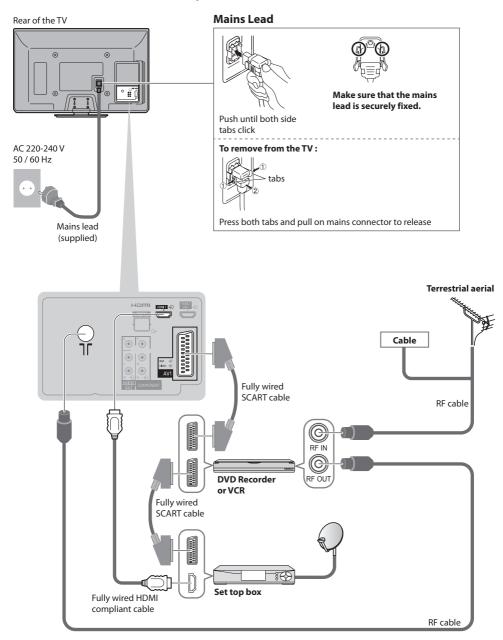
Example 2 Connecting DVD Recorder / VCR

TV, DVD Recorder or VCR



- Connect to the TV's AV1 for a DVD Recorder / VCR supporting Q-Link (p. 59).
- For HDMI-compatible equipment, possible to connect to HDMI terminals (HDMI1 / HDMI2) by using HDMI cable (p. 67).
- Q-Link and VIERA Link connection ⇒ (p. 57, 58)
- Please also read the manual of the equipment being connected.
- Keep the TV away from electronic equipment (video equipment, etc.) or equipment with an infrared sensor. Otherwise, distortion of image / sound may occur or operation of other equipment may be interfered.

TV, DVD Recorder / VCR and Set top box



Auto Setup

Search and store TV channels automatically.

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



OK

4 ghi 5 jkl 6 mno

7pgrs 8tuv 9wxyz

Panasonic



Plug the TV into mains socket and switch On

- Takes a few seconds to be displayed
 - If the red LED shows on the TV, press the Standby On / Off switch on the remote control for about 1 second.







Select your country

Country			
Germany	Denmark	Poland	
France	Norway	Hungary	
Italy	Finland	Slovakia	
Spain	Luxembourg	Slovenia	
Portugal	Belgium		
Switzerland	Netherlands	Estonia	
Malta	Turkey	Lithuania	
Andorra	Greece	Others	



 Depending on the country you select, select your Region or store the Child Lock-PIN number ("0000" cannot be stored) by following the on screen instructions.

Select the mode you want to tune





: tune (search for the available channels)
: skip tuning

Select [Start Auto Setup]





 Auto Setup will start to search for TV channels and store them.
 The stored channels and sorted channel order vary depending on the country, area, broadcasting system and conditions of signal reception.

Auto Setup screen varies depending on the country you select.

1 [DVB-C Network Settings]

 Depending on the country you select, select your cable provider beforehand by following the on screen instructions.







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

[DVB-C Auto Setup]



4 [Analogue Auto Setup]

Analogue Auto Setup			
Scan	CH 2 78 CC 1 41		
CH	bout 3 minutes. Channel Name		
CH 29 CH 33	BBC1		
Analogue: 2			
Searching			

3 [DVB-T Auto Setup]



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

5 Preset Download

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



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

Select [Home]

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



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

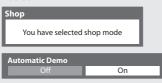
[Shop] viewing environment is the demonstration mode to explain main features of this TV.

RFTURN

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

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

1 Return to viewing environment selection screen



2 Select [Home]





To change viewing environment later on, you will need to initialise all settings by accessing Shipping Condition.

> [Shipping Condition] (p. 47)

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

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

- To check channel list at-a-glance ⇒ "Using TV Guide" (p. 18)
- To edit or hide (skip) channels → "Tuning and Editing Channels" (p. 36 40)
- To retune all channels | [Auto Setup] (p. 34, 35)
- To add the available TV mode later > [Add TV Signal] (p. 31, 32)
- To initialise all settings ⇒ [Shipping Condition] (p. 47)

Watching TV

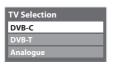


Turn power on



Select the mode





- Press for about 1 second
- Mains power On / Off switch should be On. (p. 9)
- The selectable modes vary depending on the stored channels (p. 12).



- Also possible to select the mode pressing the TV button repeatedly on the remote control or side panel of the TV. (p. 9)
- If [TV Selection] menu is not displayed, press the TV button to switch the mode.



Information banner (p. 15)

Select a channel





- To select a more than two-digit channel position number, e.g. 399
- 3 det > 9 > 9

■ To select from the Channel List





- To sort channel names in alphabetical order
- (red)
- To change the category
- (blue)

- Select a channel using Information banner (p. 15)
- 1 Display Information banner if it is not displayed





■ Select a channel using TV Guide (p. 18)

1 Display TV Guide

2 Select the current programme or channel









• The postcode entry or update may be required depending on the country you select (p. 12). Follow the on screen instructions.



To watch pay-TV ⇒ "Using Common Interface" (p. 46)

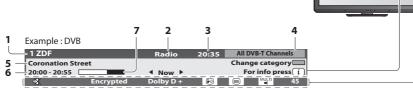
Other useful functions

Display Information banner

Display Information banner



Also appears when changing a channel



- 1 Channel position and name
- 2 Channel type ([Radio], [Data], [HDTV], etc.)
- 3 Current time
- 4 Category
 - To change the category (DVB)





- 5 Programme
- 6 Programme Start / Finish time (DVB) Channel number, etc. (Analogue)
- 7 Progress time indicator of the selected programme (DVB)

Features available / Message meanings



- To confirm another tuned channel name
- To watch the channel listed in the banner
- Information on the next programme (DVB)



- To hide **EXIT**
- Extra information (DVB)
- - (Press again to hide the banner)
- To set display timeout
 - ⇒ [Banner Display Timeout] (p. 32)

Display subtitles

Display / hide subtitles (if available)



• To change the language for DVB (if available)



Note

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

Hold

Freeze / unfreeze picture



Display the selectable settings for the current status

Check or change the current status instantly



To change



ව change

[Multi Video] (DVB mode)

Allows you to select the image (if available)

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

[Multi Audio] (DVB mode)

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

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

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

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

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

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

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

[MPX] (Analogue mode) Selects multiplex sound mode (if available)

⇒ [Sound Menu] (p. 29)

[Volume Correction]

Adjusts volume of individual channel or input mode

Off Timer

Turn the TV to Standby mode automatically after a fixed period

1 Display the menu



2 Select [Setup]





3 Select [Off Timer] and set the time





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

Aspect

Change the aspect ratio (image size)



Enjoy viewing the image at its optimum size and aspect.

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

■ If you would like to change the aspect ratio manually

1 Display Aspect Selection list

2 While the list is displayed, select the mode





① select ② store

 You can also change the mode only using the ASPECT button.



(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. 68)





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



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





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





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



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



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



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





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 Model is set to [Gamel in the Picture Menu.
- Not available in teletext service.
- Aspect mode can be memorized separately for SD (Standard definition) and HD (High definition) signals.

Last view

Switch to previously viewed channel or input mode easily



• Press again to return to the present view.

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

Using TV Guide

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

- This function varies depending on the country you select (p. 12).
- The postcode entry or update may be required to use the GUIDE Plus+ system depending on the country you select.
 "View advertisement" (p. 19)
- DVB-T and Analogue channels are displayed on the same TV Guide screen. [D] means DVB-T channel and [A] means Analogue
 channel. There will be no programme listings for Analogue channels.
- When this TV is turned on for the first time, or the TV is switched off for more than a week, it may take some time before TV Guide is completely shown.



Select the mode



View TV Guide



Press again to change the layout ([Landscape] / [Portrait]).
 View [Landscape] to see many channels.
 View [Portrait] to see one channel at a time.

Example:

[Landscape] (Displays by channel)



Example: [Portrait] (Displays by time)



- 1 Current date and time
- 2 TV Guide date

2

- 3 TV Guide time
- 4 Programme
- 5 Advertisement
- 6 Channel position and name
- 7 [D]: DVB-T [A]: Analogue

Depending on the country you select, you can select the TV Guide type

[Default Guide] in [Display Settings] (p. 32)

If you select [Channel List], the channel list will appear when the GUIDE button is pressed.

■ To watch the programme

1 Select the current programme or channel

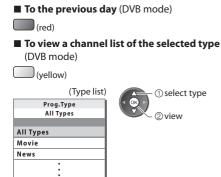


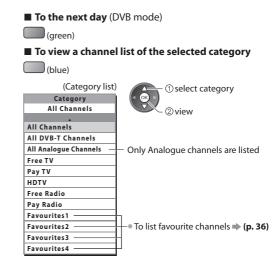
2 Select [View] (DVB mode)





To use Timer Programming ⇒ (p. 20)





Other useful functions

View details of the programme (DVB mode)

1 Select the programme

2 View details



Press again to return to TV Guide.

View advertisement

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

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

- Also possible to setup manually from the Setup Menu
- [Update] / [Postcode] in [GUIDE Plus+ Settings] (p. 33)
- Enter your postcode when using this function for the first time. If you enter an incorrect postcode for your area, or no
 postcode is entered, advertisements may not be displayed correctly.

Display advertisement information

OPTION

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

■ To change advertisements

■ To return to TV Guide







Note

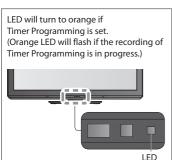
• To update the information continuously, the TV must be left in Standby mode.

Timer Programming (DVB mode)

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

1 Select the forthcoming programme





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





[Ext Rec.]:

to record the programme to the external recorder

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

[Reminder]:

to remind watching the programme

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

■ To check / change / cancel a timer programming event

→ "Timer Programming" (p. 41 - 43)

■ To return to TV Guide



■ 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.





Note

- This function is not available in Analogue mode.
- Timer Programming only works reliably if correct time information is received via the signal from the broadcaster or service provider.
- No other channel can be selected while the recording of Timer Programming is in progress.
- When recording programmes to the external recorder, be sure to make the proper settings on the recorder connected to the TV.

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

Viewing Teletext

Teletext services are the text information provided by the broadcasters.

The features may vary depending on the broadcasters.

What is FLOF (FASTEXT) mode?

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

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

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

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

Available page up / down (red) (green)

To select among subject blocks

(blue)

To select next subject within the subject block

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

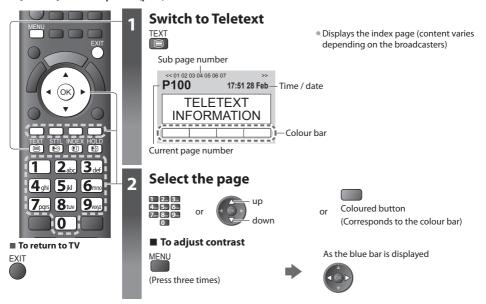
(yellow)

What is List mode?

In List mode, four differently coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in the TV's memory. ** "Store frequently viewed pages" (p. 22)

■ To change mode

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



Reveal hidden data

Reveal hidden words e.g. quiz page answers



HOLD

Stop automatic updating

(If you wish to hold the current page without updating) HOLD • Press again to resume.



INDEX

Return to the main index page



Call up a favourite page

View a favourite page stored

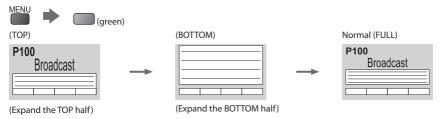
Call up the page stored on the blue button (List mode).



Factory setting is "P103".

Viewing Teletext

FULL / TOP / BOTTOM



View in multi window

Watch TV and Teletext in two windows at once







Select Picture and text On or Off

Operations can be made only in teletext screen.



Store frequently viewed pages

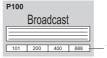
Store frequently viewed pages in the colour bar (List mode only)

As page is displayed





press and hold



The number changes to white.

■ To change stored pages







View sub page

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





Appears at top of the screen

- 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.

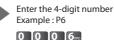
■ To view specific sub page













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.













Appears when updating is completed



(You cannot change the channel.)

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

Watching External Inputs

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

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

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

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



■ To return to TV

TV

Turn the TV on



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

Receives input signals automatically when playback starts

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

If input mode is not switched automatically

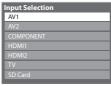
Perform 2 and 3

Check the setup of the equipment.

Display the input selection menu



Select the input mode connected to the equipment





- You can also select the input using the AV button on the remote control or the side panel of the TV (except [SD Card]).
 - Press the button repeatedly until the desired input is selected.
- [SD Card]: Switches to Media Player → "Using Media Player" (p. 49)
- You can label or skip each input mode (except [SD Card]).
 "Input Labels" (p. 45)
 Skipped inputs will not be displayed when the AV button is pressed.



View



Displays the selected mode

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

Operating the equipment with the TV remote control

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

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

How to change the code for the type of the equipment

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

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

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

Press and hold during the following operations

Enter the appropriate code, see table below







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

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

How to Use VIERA TOOLS

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



Display icons of the feature



Select a feature





Follow the operations of each feature

[VIERA Link Control]

⇒ "VIERA Link Control" (p. 63)

VIETA

When two or more compatible equipment are connected, a selection screen will be displayed.

Please select the correct description and access.

[Photo]



"Photo mode" (p. 50)

[Video]



"Video mode" (p. 53)

■ To return to TV







→ "Music mode" (p. 55)

[•] 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.



Display the menu

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

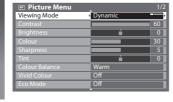
Select the menu Example: [Picture Menu]





Select the item

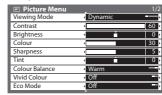
Example: [Picture Menu]





Adjust or select

Example: [Picture Menu]





time



■ To return to the previous screen

■ To return to TV at any

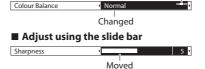


■ To change menu pages



■ Choose from among alternatives

Number and positions of alternatives



■ Go to the next screen



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. 30)
- To reset the picture and sound settings together
- (Also volume level and aspect mode are reset)
- To initialise all settings
- → [Shipping Condition] in the Setup Menu (p. 33)

■ Enter characters by free input menu

You can enter names or numbers freely for some items.





 You can set characters by using numeric buttons. → "Characters table for numeric buttons" (p. 70)

26

Menu list

Menu	enu list		
Menu	ltem	Adjustments / Configurations (alternatives)	
Mellu	Viewing Mode	Basic picture mode [Dynamic] / [Normal] / [Cinema] / [True Cinema] / [Game] In each Viewing Mode and input, [Contrast], [Brightness], [Colour], [Sharpness], [Tint], [Colour Balance], [Vivid Colour], [Eco Mode], [P-NR] and [3D-COMB] can be adjusted and stored to suit your particular viewing requirement. Set for each input signal. [Dynamic]: Provides enhanced picture contrast and sharpness when viewing in a bright room. [Normal]: Recommended for viewing under normal ambient room lighting conditions. [Cinema]: For watching movies in a darkened room with the improved performance of contrast, black and colour reproduction [True Cinema]: Precisely reproduces the original quality of the image without any revision. [Game]: Fast response signal specifically to provide suitable images for playing games Not valid on TV mode A continuous record of time spent using Game mode can be displayed in the top right of the screen. Playing Time Display] (p. 32)	
	Contrast, Brightness, Colour, Sharpness	Increases or decreases the levels of these options according to your personal preference	
Picture	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]	
	Eco Mode	Automatic Brightness Control function Adjusts picture settings automatically dependent on ambient lighting conditions [Off] / [On]	
	P-NR	Picture Noise Reduction Automatically reduces unwanted picture noise and flicker noise in the contoured parts of a picture [Off] / [Min] / [Mid] / [Max]	
	зд-сомв	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, Component, HDMI and Media Player	
	Screen Display	Turns the screen off when you select [Off] [Off] / [On] The sound is active even if the screen turns off. Press any buttons (except Standby) to turn the screen on. This function is effective in reducing power consumption when listening to the sound without watching the TV screen.	

Menu		ltem	Adjustments / Configurations (alternatives)
		Refresh Rate	Changes the image processing of the panel (depending on the input signal) [50Hz] / [100Hz] Set to [100Hz] normally
		Side Panel	Increases the brightness of the side panel [Off] / [Low] / [Mid] / [High] The recommended setting is [High] to prevent panel "image retention".
Picture	Adva	16:9 Overscan	Selects the screen area displaying the image [Off] / [On] [On]: Enlarges the image to hide the edge of the image. [Off]: Displays 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.
	Advanced Settings	AV Colour System	Selects optional colour system based on video signals in AV mode [Auto] / [PAL] / [SECAM] / [M.NTSC] / [NTSC]
	tings	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
		Pixel Orbiter	Selects the mode for wobbling of the image to prevent panel "image retention" [Auto] / [On] [Auto] : Automatically works only for the appropriate images and you rarely recognise the wobbling.
		Scrolling Bar	Scrolls the vertical bar to prevent panel "image retention" • Press the OK button to start scrolling and press any buttons (except Standby) to exit this mode.
	Reset to Defaults		Press the OK button to reset the present Picture Viewing Mode of the selected input to the default settings
Sound	Мс	ode	Selects the basic sound mode [Music] / [Speech] / [User] The selected mode affects all input signals. [Music]: Improves sound quality for watching music videos, etc. [Speech]: Improves sound quality for watching news, drama, etc. In Music and Speech modes, you can adjust [Bass] and [Treble] settings, and those settings will be stored for each mode. [User]: Adjusts the sounds manually by using the equaliser to suit your favourite sound quality. For the User mode, [Equaliser] will appear on the Sound Menu instead of [Bass] and [Treble]. Select the [Equaliser] and adjust the frequency. ▶ [Equaliser] (p. 29)
	Ba	ss	Increases or decreases level to enhance or minimise lower, deeper sound output
	Tre	eble	Increases or decreases level to enhance or minimise sharper, higher sound output

Menu	Item	Adjustments / Configurations (alternatives)
incliu.	Equaliser	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 the 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] : Provides a dynamic enhancer of width to simulate improved spatial effects
	Auto Gain Control	Adjusts the current volume level if it is extremely different from the previous viewed channel or input mode [Off] / [On]
	Volume Correction	Adjusts the volume of individual channel or input mode
Sound	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.
	МРХ	Selects multiplex sound mode (if available) [Stereo]: Use this normally [Mono]: When stereo signal cannot be received [M1] / [M2]: Available while mono signal is transmitted • Analogue mode only
	Audio Preference	Selects the initial setting for audio tracks [Auto] / [Multichannel] / [Stereo] / [MPEG] Selectable options vary depending on the country you select. [Auto] : Automatically selects the audio tracks if programme has more than two tracks. The priority is given in the following order - Dolby Digital Plus, HE-AAC, Dolby Digital, MPEG. [Multichannel] : The priority is given to multi-channel audio track. [Stereo] : The priority is given to stereo (2ch) audio track. [MPEG] : The priority is given to MPEG. Dolby Digital Plus and Dolby Digital are the methods of coding digital signals developed by Dolby Laboratories. Apart from stereo (2ch) audio, these signals can be multi-channel audio. HE-AAC is a perceptual coding method used to compress digital audio for efficient storage and transmission. MPEG is an audio compression method that compresses audio to the smaller size without any considerable loss of audio quality. Dolby Digital Plus and HE-AAC are the technologies for HD (High definition) programmes. DVB mode only
	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 Plus and Dolby Digital are output as Dolby Digital Bitstream. HE-AAC (48 kHz) multi-channel is output as DTS. MPEG is output as PCM. [PCM]: Digital output signal is fixed to PCM. For DVB mode or Video mode of Media Player (p. 53)

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

Menu	ltem	Adjustments / Configurations (alternatives)
	Favourites Edit	Creates list of favourite DVB-C channels (p. 36)
	Channel List	Skips the unwanted DVB-C channels or edits DVB-C channels (p. 37)
	Auto Setup	Automatically sets the DVB-C channels supplied (p. 34)
	Manual Tuning	Sets the DVB-C channels manually (p. 38)
	Update Channel List	Updates DVB-C Channel List while keeping your settings (p. 38)
9	Favourite Network	Selects your favourite network for each broadcasters (only available in some countries)
OAD-C Idillig Melid	New Channel Message	Selects whether to give a notification message when a new DVB-C channel is found [Off] / [On] (p. 38)
Nei G	Service Replacement	Set to [On] to enable a message to switch to the available service (only available in some countries) [Off] / [On]
	Signal Condition	Checks the DVB-C signal condition (p. 38)
	Attenuator	Automatically reduces the DVB-C signal to avoid the interference [Off] / [On] (p. 38)
Setup	Add TV Signal	Adds the TV mode This function is available if you skip any modes to tune in [Auto Setup] for first using the TV. To operate, refer to the "Auto Setup" operations for first using the TV (p. 12, 13).
	Favourites Edit	Creates list of favourite DVB-T channels (p. 36)
	Channel List	Skips the unwanted DVB-T channels or edits DVB-T channels (p. 37)
	Auto Setup	Automatically sets the DVB-T channels received in the area (p. 35)
,	Manual Tuning	Sets the DVB-T channels manually (p. 38)
9	Update Channel List	Updates DVB-T Channel List while keeping your settings (p. 38)
	Favourite Network	Selects your favourite network for each broadcasters (only available in some countries)
Ovo-1 milling menu	New Channel Message	Selects whether to give a notification message when a new DVB-T channel is found [Off] / [On] (p. 38)
	Signal Condition	Checks the DVB-T signal condition (p. 38)
	Add TV Signal	Adds the TV mode This function is available if you skip any modes to tune in [Auto Setup] for first using the TV. To operate, refer to the "Auto Setup" operations for first using the TV (p. 12, 13).

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

Menu		ltem		Adjustments / Configurations (alternatives)
	Common Interface		Interface	Uses include to watch encrypted channels (p. 46)
	S	Shipping Condition		Resets all settings, for example, when moving house (p. 47)
	ysten	System Update		Downloads new software to this TV (p. 48)
	System Menu	Software Licence		Displays the software licence information
		System Information		Displays the system information of this TV
		GUIDE Plus+ Settings	Update	Performs the update of the GUIDE Plus+ schedule and advertising informations for the GUIDE Plus+ system (p. 19)
			Postcode	Sets your postcode to display advertisements in the GUIDE Plus+ system (p. 19)
			System Information	Displays the system information of the GUIDE Plus+ system
Setup	Other Settings	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 the AV1 or HDMI1 terminal, e.g. set top box. The external equipment must be switched on and sending a control signal for automatic switching at power on to occur.
	ttings	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]
		Time Zone		Adjusts the time data The time data will be corrected based on GMT. Set to [Auto] to adjust the time automatically according to your area.

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

Retuning from Setup Menu

Automatically retune the channels received in the area.

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

DVB-C channels





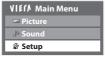
TV

Display the menu





Select [Setup]







Select [DVB-C Tuning Menu]







Select [Auto Setup]





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

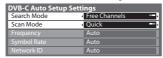
- 1 Press repeatedly until [Auto Setup] appears
- 2 Access [Auto Setup]
- 3 Set the search mode
- and scan mode

(select the item)

- TV (set)
- AV (store)



Set the Auto Setup settings







- [Scan Mode]
 - [Full]: scans the whole frequency range
 - [Quick]: scans the suitable frequency in your country
- Normally set [Frequency], [Symbol Rate] and [Network ID] to [Auto].
 - If [Auto] is not displayed or if necessary, enter [Frequency], [Symbol Rate] and [Network ID] specified by your cable provider with numeric buttons.

Start Auto Setup (Settings are made automatically)



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



Select DVB-T or Analogue



Display the menu



Select [Setup]





Select [DVB-T Tuning Menu] or [Analogue Tuning Menul





• The displayed item depends on the selected mode.

Select [Auto Setup]







Start Auto Setup (Settings are made automatically) 6





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

Panasonic

■ To return to TV

1 Press repeatedly until [Auto Setup] appears

2 Access [Auto Setup]

3 Start [Auto Setup]



Analogue:

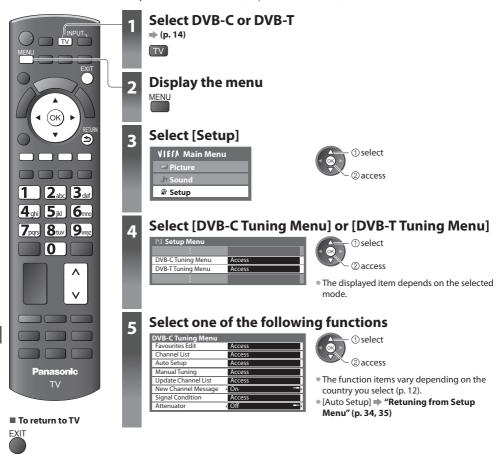


• The channel, language, country / region settings are downloaded to a Q-Link or VIERA Link compatible equipment connected to the TV.

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

Tuning and Editing Channels (DVB)

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

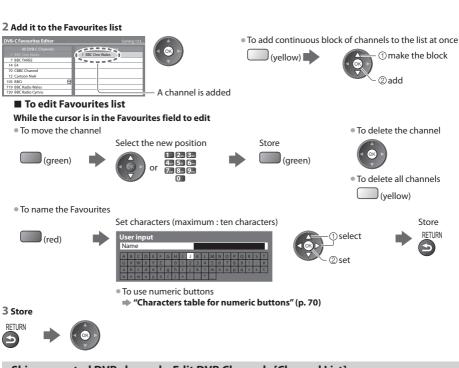


List favourite DVB channels [Favourites Edit]

Create your favourite channel lists from various broadcasters (up to 4: [Favourites]1 to 4).
The DVB Favourites lists are available from "Category" in the Information banner (p. 15) and the TV Guide screen (p. 18).







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



■ To sort channel list





Channel position

1 ZDF		19:35 All DVB-T Channels
Coronation Street		Change category I
19:30 - 20:00	Now ▶	For info press 💰

You can also edit each channel in Channel List.

Set DVB channel manually [Manual Tuning]

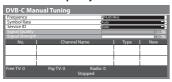
Normally use [Auto Setup] or [Update Channel List] to retune DVB channels.

If tuning has not been done completely or for adjusting the direction of the aerial, use this function.

All channels found will be added to the Channel List.

DVB-C:

1 Enter the frequency





 Normally set [Symbol Rate] and [Service ID] to [Auto].





DVB-T:

1 Adjust frequency for each channel





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

2 Search



Update DVB channel automatically [Update Channel List]

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



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

Display a notification message [New Channel Message]

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

New channels found!
Press OK to update channel list.
Press EXIT to ignore.

Selecting OK will perform [Update Channel List].

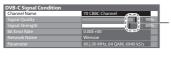
Check DVB signal [Signal Condition]

Selects a channel and checks the DVB signal condition.

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

[Signal Quality]:

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



To change the channel



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

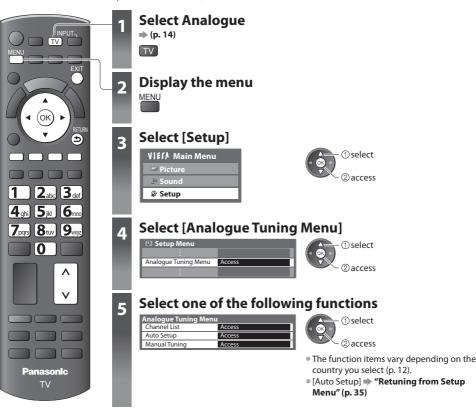
Reduce the DVB-C signal [Attenuator]

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

This function is available only for DVB-C signal.

Tuning and Editing Channels (Analogue)

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



■ To return to TV



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

Analo	ogu	e Channel List
ď		BBC1
	2	****
ď	4	****
≅	5	****
ď		
ď	7	****





To reveal all channels
 (yellow)

■ To edit channels

You can also edit each channel in Channel List.

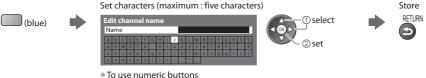
To retune each channel ([Manual Tuning])



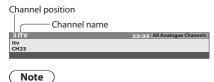
To move the channel position



To rename the channel name



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



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

Set Analogue channel manually [Manual Tuning]

[Fine Tuning]

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

[Manual Tuning]

Set Analogue channel manually after Auto Setup.

- Set [Sound System] and [Colour System], and then perform this function.
- Normally set [Colour System] [Auto].
- If a VCR is connected only with the RF cable, select channel position [0].



SC1: PALB, G, H / SECAMB, G SC2: PALI SC3: PAL D, K / SECAM D, K F: SECAM L, L'

1 Select the channel position



2 Select the channel



3 Search and 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 even if the TV is in Standby mode.

TV Guide may also be used to set timer programming event (p. 20).

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





2_{abc} 3_{def}

4ghi 5jkl 6mno

7_{pqrs} 8_{tuv} 9

Select the mode you want to set (DVB-C or DVB-T)

⇒ (p. 14)



Display the menu









■ To return to TV



■ To unlock the tuner and stop recording







Select [Timer Programming]





Set timer programming event details [Timer Programming]

1 Start making the settings



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



select

[Ext Rec.]:

to record the programme to the external recorder

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

[Reminder]:

to remind watching the programme

When you are watching TV, a reminder message appears 2 minutes before the start time.

Press the OK button to switch to the programmed channel.

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

Set items in the order of 1 to 4.





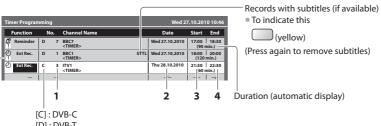
• 1, 3 and 4 can also be entered with numeric buttons.



3 Starting time

4 Ending time

!: Displayed if the timer programming events are overlapped



- [D]: DVB-T
- You cannot change the mode within the menu.
- 1 Channel number
- 2 Date

one day ahead

daily or weekly (press repeatedly)

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

4 Store



■ To change a timer programming event

Select the programme to be changed



■ To cancel a timer programming event

Select the programme to be deleted







■ To record with subtitles (if available)

Select the programme to record with subtitles



auto ← ► off ■ To cancel a timer programming event

temporarily Select the programme to be cancelled





cancel ← ► stop cancelling

Note

- Check that the LED is orange. If not, timer programmes are not active or not stored.
- Timer Programming reminder messages will remain displayed until one of the following occurs :
 - You press the OK button to view the programme or the EXIT button to cancel the reminder.
 - The timer programming event that the reminder is set for ends.
- "!" identifies that any timer programming events have overlapped. [Ext Rec.] is given priority over [Reminder]. As for the overlapped two or more [Ext Rec.], the first timer programming event starts and finishes as programmed. The next timer programming event can then start.
- The recording of Timer Programming will automatically change to the programmed channel 10 seconds before the start
- To stop recording the timer programming event directly prior to the start time, it may be necessary to stop the recorder
- The recording of Timer Programming will be performed even if the TV is in Pause Live TV recording (p. 62). In this case, Pause Live TV recording will be cancelled.

Child Lock

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



Display the menu



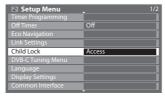
3







Select [Child Lock]





■ To return to TV



Control channel audience [Child Lock]

1 Enter the PIN number (4 digits)





- Enter the PIN number twice at first setting.
- Make a note of the PIN number in case you forget it.
- "0000" may be stored as the default PIN number which depends on the country you select (p. 12).

2 Select [Child Lock List]





3 Select the channel / input to be locked





: Appears when the channel / input is locked

To cancel

Select the locked channel / input







To sort channel names in alphabetical order



To cancel all locks



To lock all



To jump to the top of the next input



■ To change the PIN number

1. Select [Change PIN]





2. Enter a new PIN number twice



■ To set Parental Rating

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

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

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







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

Input Labels

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

To select the input mode ⇒ (p. 23)



Display the menu



Select [Setup]





Select [Display Settings]

Setup Menu	
Timer Programming	
Off Timer	Off
Eco Navigation	
Link Settings	
Child Lock	
DVB-C Tuning Menu	
Language	
Display Settings	Access
Common Interface	



4 Select [Input Labels]





■ To return to TV



Select an input terminal

Input Labels		
AV1	< DVD	
AV2	AV2	<u> </u>
COMPONENT	COMPONENT	
HDMI1	HDMI1	
HDMI2	HDMI2	
DVB-C	DVB-C	
DVB-T	√ DVB-T	
Analogue	Analogue	



The labels you set will be displayed in [Input Selection] menu (p. 23), [TV Selection] menu (p. 14) or banner.

 If [Skip] is selected, you cannot select the mode.

■ User input

You can name each input mode freely.

1 Select [User input]



2 Set characters (maximum: ten characters)







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

To use numeric buttons

Using Common Interface

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

- This function may not be available in some countries or regions.
- Video and audio signals may not be output depending on broadcasts or services.

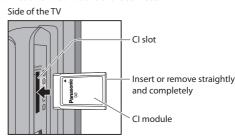
Although CI module may enable you to view some services, this TV does not guarantee all services (e.g. pay-TV).

Please use only the approved CI module by the broadcaster.

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

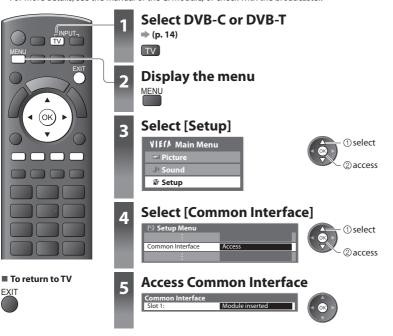
Caution

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



Insert the CI module (optional)

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



■ How to operate services

Follow the on screen operation guide



• Select, go





Coloured characters

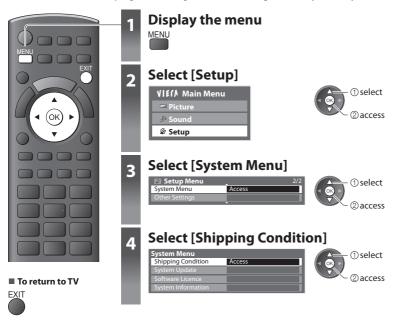


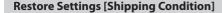
On screen operation guide may not correspond to the remote control buttons.

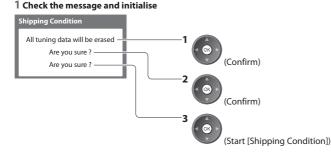
Shipping Condition

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

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







2 Follow the on screen instructions

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

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

Updating the TV Software

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

If there is an update available, a notification banner is displayed when the channel has the update information.

To download

If you choose not to download





You can update any new software automatically or update manually.



Display the menu



Select [Setup]





















Update TV's software system [System Update]

■ To update automatically

Select [Auto Update Search in Standby]





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

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

■ To update immediately

1 Select [System Update Search Now]





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



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

Using Media Player

Media Player allows you to enjoy photo, video or music recorded on an SD Card.

VIERA IMAGE VIEWER is the function of the easy viewing for photos or videos recorded on an SD Card on the TV screen by simply inserting into the SD Card slot.

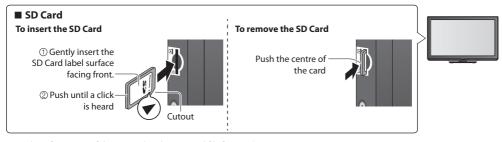
Photo mode: Still pictures recorded by digital cameras will be displayed.

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

Music mode: Digital music data will be played back.

- During the operation, audio signal is output from AV1 and DIGITAL AUDIO OUT terminals. But no video signals are output. AV1 can output audio signal if [AV1 out] is set to [Monitor] in the Setup Menu (p. 30).
- [Date] shows the date on which the recording was made by the recording equipment. The file without record of the date is shown "**/**/***".
- The picture may not appear correctly on this TV depending on the recording equipment used.
- Display may take some time when there are many files and folders.
- Partly degraded files might be displayed at a reduced resolution.
- The folder and file names may be different depending on the digital camera or digital video camera used.

To insert or remove the SD Card



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

Starting Media Player



■ To return to TV



■ To return to the previous screen



Insert the SD Card to the TV (see above)

Start Media Player





Also possible by pressing following buttons.

SD CARD

AV "Watching External Inputs" (P. 23)

Select the content





[Photo] > "Photo mode" (p. 50)

[Video] ⇒ "Video mode" (p. 53) [Music] * "Music mode" (p. 55)

- You can also access each mode directly by using VIERA TOOLS.
 - → "How to Use VIERA TOOLS" (p. 25)

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



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

Example: Thumbnail - [All photos]



: Error display

- To return to TV
- or SD CA
- To return to the previous screen



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



File number / Total file number

■ To sort by folder, recorded date or recorded month

- 1 Display the view selection
- (green)

2 Select the sort type





[Folder view]:

Displays the thumbnail grouped by folder

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

[Sort by Date]:

Displays the thumbnail grouped by the same date

 The group of the photos without recorded date is shown as [Unknown].

[Sort by Month]:

Displays the thumbnail grouped by the same month

• The group of the photos without recorded date is shown as [Unknown].

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



1 select

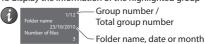
2 thumbnail of the selected group

- To return to the thumbnail of all photos
- (green)





• To display the information of the highlighted group



[Single view] - Photos are displayed one at a time.

Select the file from the thumbnail of photos to be viewed



Example:



guide

To display / hide the operation



 To return to thumbnail RETURN



To operate Single view



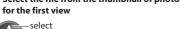
To rotate 90°



Operation guide

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

1 Select the file from the thumbnail of photos











• To display / hide the operation guide



• To pause (return to Single view)



To return to thumbnail



Photo Settings

Setup the settings for Photo mode.

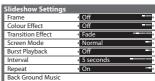
1 Display the option menu



2 Select [Slideshow Settings]



3 Select the items and set





[Back Ground Music]

- Picture quality may become lower depending on the slideshow settings.
- Picture setting may not work depending on the slideshow settings.

Menu	Item	Adjustments / Configurations (alternatives)		
	Frame	Selects the frame type of the slideshow [Off] / [Multi] / [Collage] [Multi] : 9 photos are displayed orderly at o [Collage] : Each photo is displayed at a ran		
	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] / [Discolve] / [Motion] / [Random] [Fade] : The next photo fades in gradually. [Slide] : The next photo slides and appears from the left side. [Discolve] : Each photo is dissolved when switching to the next photo. [Motion] : Each photo is displayed with an effect of enlarging, reducing, moving up or moving 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 viewin [Normal] / [Zoom] This function is not available when [Fram This function is not available when [Trans Depending on the photo size, it may not portrait style picture.	e] is set to [Collage]. ition Effect] is set to [Motion].	
Slide	Burst Playback	Selects whether to display burst photos in a fast-paced slideshow mode [Off] / [On] This function is not available when [Transition Effect] is set to [Motion].		
Slideshow Settings	Interval	Selects slideshow interval [5]/[10]/[15]/[30]/[60]/[90]/[120] (seconds) This function is not available when [Transition Effect] is set to [Motion].		
etti	Repeat	Slideshow repeat [Off] / [On]		
ngs	Back Ground Music	Selects the back ground music during Phot [Off] / [Type1] / [Type2] / [Type3] / [User] Offpe1], [Type2] and [Type3] are the fixed [User]: Music data in the SD Card registere To register the music 1 Select the music file Depending on the conditions of the SD Card, select folders until you reach the desired music file. Back Ground Music PRIVATE DOIN MISC DOI photo DOI	## Image: A process of the process o	
		randomly. If there is no available music data, no so	und will be produced.	

Change the contents

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

1 While the thumbnail is displayed, display the contents selection



2 Select the contents





[Photo] * "Photo mode" (p. 50) [Video] → "Video mode" (p. 53) [Music] * "Music mode" (p. 55)

Video mode

Video mode supports SD-Video (MPEG2) and AVCHD file formats.



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

Example: Thumbnail - [Title view]



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

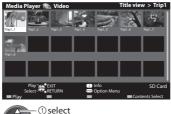
- "Video Setup" (p. 54)
- To display the information of the highlighted title



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

Select the title

Example: Thumbnail - [Scene view]





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

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



■ To return to TV



■ To return to the previous screen

RETURN



Note

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

■ Playback from Title view

Playback of the selected title will start.

To repeat playback ⇒ "Video Setup" (p. 54)



2 Start playback (red)

■ Playback from the selected scene in the title

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

To repeat playback ⇒ "Video Setup" (p. 54)

1 Select the title





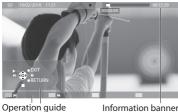


3 Start playback



■ How to operate in the playback

Example: Playback



Operation guide

To display / hide the operation guide and information banner



To operate the playback



 You can also use the following buttons. Set the code of the remote control to "73" (p. 24)





■ To change the content → "Change the contents" (p. 53)

To change aspect



To the previous scene



To the next scene



To return to thumbnail RETURN



Video Setup

Setup the settings for Video mode.

1 Display the option menu in the thumbnail view

OPTION

2 Select [Video Setup]

Option Menu





3 Select the items and set





Menu	ltem	Adjustments / Configurations (alternatives)
Video Se	Video Preview	Sets to start the preview of the title or scene in the thumbnail view [Off] / [On] Image may not be displayed for an instant in the thumbnail view. Set the preview [Off] to resolve this.
etup	Repeat	Playback repeat within the title [Off] / [On]

Confirm or change the current status

You can confirm or change the current status of the content.

• Menu items and selectable options vary depending on the content.

1 Display the option menu during playback

OPTION

2 Select [Video Setup]





3 Select the items and set





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

Audio output Settings

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

■ To confirm or change the current sound status ⇒ "Confirm or change the current status" (p. 54)

1 Display the menu

MENU

2 Select [Sound]





3 Select [SPDIF Selection] and set





Menu	ltem	Adjustments / Configurations (alternatives)
Sound	SPDIF Selection	SPDIF: A standard audio transfer file format Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT 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.

Music mode

Music mode supports MP3 and AAC file formats.



The thumbnail of music folders in the SD Card will be displayed.

Example: Thumbnail - [Folder view]



To display the information of the highlighted folder



- Folder number / Total folder number

■ Playback from Folder view

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

1 Select the folder



2 Start playback



■ To return to TV





■ To return to the previous screen



■ Playback from File view

Selected file will be played back.

1 Select the folder



2 Select the file

Example: Thumbnail - File view



3 Start playback



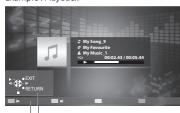


• To display the information of the highlighted file



■ How to operate in the playback

Example: Playback



To display / hide the operation guide



To operate the playback



To the previous track



To the next track



To return to thumbnail RETURN



Operation guide

■ To change the content → "Change the contents" (p. 53)

Music Setup

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

1 Display the option menu



2 Select [Music Setup]





3 Set





[Folder]: Playback repeat within the selected folder

[One]: Playback repeat of the selected one file

Link Functions (Q-Link / VIERA Link)

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

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

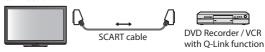
- This TV supports "HDAVI Control 5" function. But available features are depending on the connected equipment's version of HDAVI Control. Please refer to the manual of the equipment to confirm the version.
- VIERA Link features may be available even with other manufacturers' equipment supporting HDMI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

Summary of Q-Link and VIERA Link features

Q-Link (SCART connection)

Connected equipment Features	DVD Recorder / VCR with Q-Link function
Preset download	0
Easy playback	0
Power on link	0
Power off link	0
Direct TV Recording	0
	0



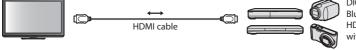


- Use fully wired SCART cable.
- Connect the DVD Recorder / VCR supporting Q-Link to the TV's AV1 terminal via a SCART cable.

VIERA Link (HDMI connection)

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

Connection

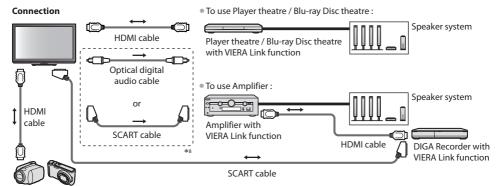


DIGA Recorder / DVD Player / Blu-ray Disc Player / HD Video Camera / LUMIX Camera with VIERA Link function

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

VIERA Link (HDMI and Audio out connections)

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



HD Video Camera / LUMIX Camera with VIERA Link function

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

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

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

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

Type of the equipment	Maximum number
Recorder (DIGA Recorder, etc.)	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

Q-Link

Preparations

- Connect the DVD Recorder / VCR with the following logos:
- "Q-Link", "NEXTVIEWLINK", "DATA LOGIC (a trademark of Metz Corporation)", "Easy Link (a trademark of Philips Corporation)", "Megalogic (a trademark of Grundig Corporation)", "SMARTLINK (a trademark of Sony Corporation)"
- Q-Link connection (p. 57)
- Use fully wired SCART cable.
- Set up the DVD Recorder / VCR. Read the manual of the recorder.
- Q-Link terminal setup in the Setup Menu > [AV1 out] (p. 30)
- Download preset channel, language, country settings ⇒ "Preset download" (see below)

Features available

Preset download

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

- DVB-C channel settings cannot be downloaded.
- To download settings
 - [Download] (p. 30) or [Auto Setup] (p. 35) or "Auto Setup" when first using the TV (p. 12, 13)

Direct TV Recording - What you see is What you record

Recording the current programme in DVD Recorder / VCR immediately.



• Available conditions :

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

- When Direct TV Recording is performed, the recorder is automatically turned on if it is in Standby mode.
- Changing channel or turning off the TV is available while the recorder is recording from its own tuner.
- Changing channel is not available while the recorder is recording from the TV tuner.

■ To stop recording

Unlock the tuner









Power on link and Easy playback

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

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

Power off link

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

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

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

Note

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

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. 57, 58).

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

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

As such, its operation with other manufacturers' equipment that supports HDMI CEC cannot be guaranteed.

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

Preparations

- Connect the equipment supporting VIERA Link.
- VIERA Link connection ⇒ (p. 57, 58)
- Use fully wired HDMI compliant cable. Non-HDMI-compliant cables cannot be utilized.

Recommended Panasonic's HDMI cable part number:

- RP-CDHS15 (1.5 m) RP-CDHS30 (3.0 m) RP-CDHS50 (5.0 m)
- Use fully wired SCART cable.
- Set up the connected equipment. Read the manual of the equipment.
- For optimal recording, the settings of the recorder may need to be changed. For details, read the manual of the recorder.
- Download preset channel, language, country / region settings * "Preset download" (see below)
- Set [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 or HDMI2 (p. 23), and make sure that an image is displayed correctly.

This setup should be done each time when the following conditions occur:

- · for the first time
- · when adding or reconnecting equipment
- · when changing setup

Features available

Preset download

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

- DVB-C channel settings cannot be downloaded.
- To download settings
 - ▶ [Download] (p. 30) or [Auto Setup] (p. 35) or "Auto Setup" when first using the TV (p. 12, 13)

Easy playback

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

Power on link

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

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

Power off link

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

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

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

Reduce unnecessary power consumption in standby [Standby Power Save]

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

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

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

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

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

Auto standby for unnecessary equipment [Intelligent Auto Standby]

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

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

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

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

Recording the current programme in DIGA Recorder immediately.

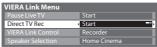
- If you connect a variety of recorders including other manufacturers' recorders at the same time, please connect DIGA Recorder to the TV's lower HDMI terminal number. For example, if you use HDMI1 and HDMI2 for two recorders, in this case connect DIGA Recorder to HDMI1.
- If you cannot operate, check the settings and the equipment
- "Summary of Q-Link and VIERA Link features" (p. 57, 58), "Preparations" (p. 60)
- If you wish to record the programme which DIGA Recorder does not support, SCART connection is required and the programme is recorded by Q-Link function (p. 59).
- Depending on the programme, SCART connection may be required to record.
- Changing channel or turning off the TV is available while the recorder is recording from its own tuner.
- Changing channel is not available while the recorder is recording from the TV tuner.



Display [VIERA Link Menu]



Select [Direct TV Rec] and start recording





You can also start recording directly.

DIRECT TV REC

■ To stop recording

Select [Stop] in [Direct TV Rec]

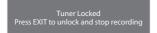




You can also stop recording directly.

Unlock the tuner







Pause Live TV programme [Pause Live TV]

You can pause the live TV programme and resume later.

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

- This function is available with DIGA Recorder which has HDD.
- If you connect a variety of recorders including other manufacturers' recorders at the same time, please connect DIGA Recorder which has HDD to the TV's lower HDMI terminal number. For example, if you use HDMI1 and HDMI2 for two recorders, in this case connect DIGA Recorder which has HDD to HDMI1.
- If you cannot operate, check the settings and the equipment
- ⇒ "Summary of Q-Link and VIERA Link features" (p. 57, 58), "Preparations" (p. 60)



Display [VIERA Link Menu]



Select [Pause Live TV] and pause

The TV picture will be paused.





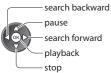
- Live TV programme is recorded on HDD from where it was paused.
- If the paused TV picture disappears after a few minutes.



(The paused picture will be restored)

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

■ To operate Pause Live TV



• If you stop playback, the recorded programme will be deleted from

 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]







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

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

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

• If you cannot operate, check the settings and the equipment

3

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



Display [VIERA Link Menu]



Select [VIERA Link Control]





Select the equipment you want to access

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





[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. 25)
- 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. 24)

2 Follow the operation guide

To display the operation guide



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

• When the key words are displayed on colour bar



Note

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

■ If multiple recorders or players are connected



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

[Recorder1-3 / Player1-3]

■ If you access non-VIERA Link equipment



The type of the connected equipment is displayed.

You can access the menu of the equipment. But you cannot operate it. Use its own remote control to operate the equipment.

Speaker control [Speaker Selection]

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

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



Display [VIERA Link Menu]



Select [Speaker Selection]





Set to [Home Cinema] or [TV]



[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



Mute

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

[TV]

TV speakers are active.

Multi-channel sound

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

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

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

External Equipment

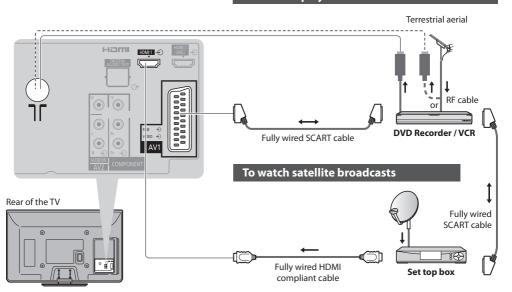
These diagrams show our recommendations for connection of your TV to various pieces of equipment. For other connections, consult the instructions for each piece of equipment, the table below, and the specifications (p. 74, 75).

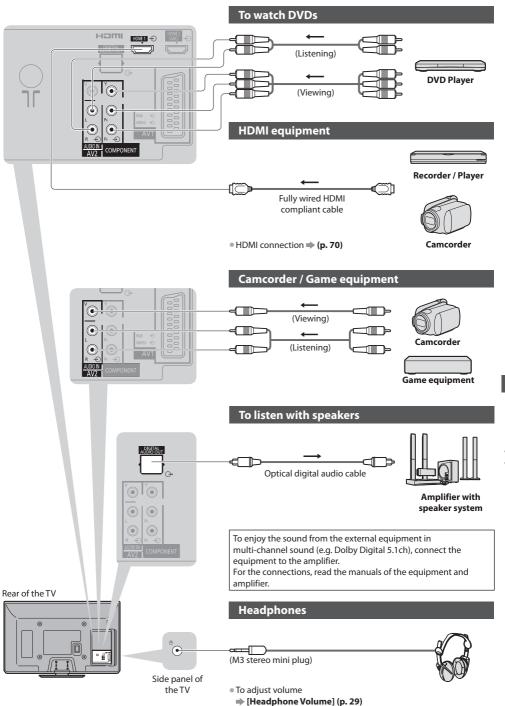
Types of connectable equipment to each terminal

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

- : Recommended Connection
- *1 : Use HDMI1 for automatic input switching.
- *2: Use HDMI2 for connecting an amplifier. This connection is applicable when using an amplifier that has ARC (Audio Return Channel) function.

To record / playback





Technical Information

Auto Aspect

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

Aspect Control Signal

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

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

This function will work in any aspect mode.

		Aspe	ect Control Signal
Input terminal	Input signal format	Widescreen signal (WSS)	Control signal through SCART (pin8) / HDMI terminal
	DVB-C	0	
	DVB-T	0	
	PAL B, G, H, I	0	
	PAL D, K	0	
	SECAM B, G	0	
	SECAM L, L'	0	
Cable RF	SECAM D, K	0	
nr .	PAL 525/60 6.5 MHz	-	
	PAL 525/60 6.0 MHz	_	
	PAL 525/60 5.5 MHz	-	
	M.NTSC 6.5 MHz	_	
	M.NTSC 6.0 MHz	-	
	M.NTSC 5.5 MHz	_	
	PAL	0	0
	SECAM	0	0
AV1 / AV2 (Composite)	PAL 525/60	-	0
(Composite)	M.NTSC	_	0
	NTSC	-	0
	525 (480) / 60i, 60p	_	
COMPONENT	625 (576) / 50i, 50p	0	
COMPONENT	750 (720) / 60p, 50p	_	
	1,125 (1,080) / 60i, 50i	-	
	525 (480) / 60i, 60p	_	0
115144	625 (576) / 50i, 50p	-	0
HDMI1	750 (720) / 60p, 50p	_	0
HDMI2	1,125 (1,080) / 60i, 50i	-	0
	1,125 (1,080) / 60p, 50p, 24p	-	0

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.

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

Media Player

SD Card

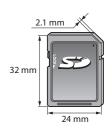
Card format: SDXC Card - exFAT

SDHC Card / SD Card - FAT16 or FAT32

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

miniSD adaptor)

- If miniSD Card is used, insert / remove it together with the adaptor.
- Check the latest information on the card type at the following website. (English only) http://panasonic.jp/support/global/cs/tv/
- Use an SD Card which meets SD standards. If not, it may cause the TV to malfunction.
- Do not remove the card while the TV is accessing data (this can damage card or TV).
- Do not touch the pins on the back of the card.
- Do not subject the card to a high pressure or impact.
- Insert the card in the correct direction (otherwise, card may be damaged).
- Electrical interference, static electricity, or erroneous operation may damage the data or card.
- Back up the recorded data at regular intervals in case of deteriorated or damaged data or erratic operation of the TV. (Panasonic is not liable for any deterioration or damage of recorded data.)



Supported file format in Media Player

■ Photo

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

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

■ Video

Container	File extension	Video codec	Audio codec	Details / Restrictions
SD-Video	.mod	MPEG1 MPEG2	MPEG AAC	SD-Video Standard Ver. 1.3 (Entertainment Video Profile) • The data may not be available if a folder structure on the SD Card is modified.
AVCHD	.mts	H.264	Dolby Digital	AVCHD Standard The data may not be available if a folder structure on the SD Card is modified.

■ Music

Codec File extension		Bit rate	Sampling rate	Restrictions
MP3 .mp3		16 kbps to 320 kbps	8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz	-
AAC .m4a to		16 kbps to 320 kbps	8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz	 Copy-protected files cannot be played back.

- Some files may not be played back even if they fulfill these conditions.
- Do not use two-byte characters or other special codes for data.
- The card may become unusable with this TV if the file or folder names are changed.

^{*2:} Exchangeable Image File - image file format used by digital cameras

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.

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

Characters table:

Numeric	The number of times to press										
buttons	1	2	3	4	5	6	7	8	9	10	11
		1	!	:	#	+	-	*	_	()
2 _{stc}	a	b	С	2	Α	В	С				
3 _{def}	d	e	f	3	D	E	F				
491	g	h	i	4	G	Н	1				
5 _M	j	k	- 1	5	J	K	L				
6	m	n	0	6	М	N	0				
7,43	р	q	r	S	7	Р	Q	R	S		
8 _{tuv}	t	u	V	8	Т	U	V				
9.,.	w	х	у	z	9	W	X	Y	Z		
0	Space	0									

HDMI connection

HDMI (high-definition multimedia interface) is the world's first complete digital consumer AV interface complying with a 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* with an HDMI or DVI output terminal, such as a DVD player, a set top box or a game equipment, can be connected to the HDMI terminal using an HDMI compliant (fully wired) cable. About connections, see "External Equipment" (p. 66).

Applicable HDMI features

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

Match the output setting of the PC.

- VIERA Link (HDAVI Control 5) :
 - **▶** [VIERA Link] (p. 60)
- Deep Colour
- x.v.Colour™
- Audio Return Channel*2 (HDMI2 terminal only)

DVI connection

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

- Audio settings can be made on the [HDMI1 / 2 Input] in the Sound Menu. (p. 30)
- If the connected equipment has an aspect adjustment function, set the aspect ratio to "16:9".
- These HDMI connectors are "type A".
- These HDMI connectors are compatible with HDCP (High-Bandwidth Digital Content Protection) copyright protection.
- Equipment having no digital output terminal may be connected to the input terminal of "COMPONENT" or "VIDEO" to receive
 analogue signals.
- This TV incorporates HDMI™ technology.
- *1: The HDMI logo is displayed on HDMI-compliant equipment.
- *2 : Audio Return Channel (ARC) is a function to be able to send digital sound signals via an HDMI cable.
- *3: Enquire at your local digital equipment retailer shop.

Input signal that can be displayed

COMPONENT (Y, PB, PR), HDMI

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

Mark: Applicable input signal

PC (from HDMI terminal)

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

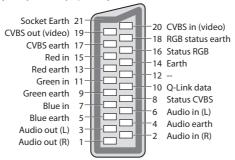
Applicable input signal for PC is basically compatible to HDMI standard timing.

Note

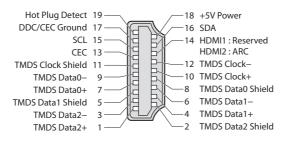
- Signals other than above may not be displayed properly.
- The above signals are reformatted for optimal viewing on your display.
- PC signal is magnified or compressed for display, so that it may not be possible to show fine detail with sufficient clarity.

SCART and HDMI terminal information

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



HDMI terminal



FAQs

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

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

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

No programmes shown on TV Guide

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

Neither image nor sound is produced

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

Auto aspect

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

Black and white picture

• Check that the output of the external equipment matches the input of the TV.

When connecting with SCART, ensure the output setting of the external equipment is not S-Video.

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

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

O-Link function does not work

Confirm SCART cable and connection.

Also set [AV1 out] in the Setup Menu. (p. 30)

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

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

Recording does not start immediately

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

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
- · thumbnail or still picture in Media Player

	Problem	Actions				
	Chaotic image, noisy	 Set [P-NR] in the Picture Menu (to remove noise). → (p. 27) Check nearby electrical products (car, motorcycle, fluorescent lamp). 				
Screen	No image can be displayed	• Is [Contrast], [Brightness] or [Colour] in the Picture Menu set to the minimum? → (p. 27)				
	Blurry or distorted image (no sound or low volume)	 Reset channels. ⇒ (p. 34, 35) 				
	Unusual image is displayed	 Turn the TV Off with Mains power On / Off switch, then turn it On again. If the problem persists, initialise all settings ⇒ [Shipping Condition] (p. 47) 				
Sound	No sound is produced	Is "Sound mute" active? ⇒ (p. 8)Is the volume set to the minimum?				
Ind.	Sound level is low or sound is distorted	Sound signal reception may be deteriorated.Set [MPX] (p. 29) in the Sound Menu to [Mono]. (Analogue only)				
HDMI	Sound is unusual	 Set the sound setting of the connected equipment to "2ch L.PCM". Check the [HDMI1 / 2 Input] setting in the Sound Menu. → (p. 30) If digital sound connection has a problem, select analogue sound connection. → (p. 70) 				
MI	Pictures from external equipment are unusual when the equipment is connected via HDMI	 Check the HDMI cable is connected properly. ⇒ (p. 66) Turn the TV and equipment Off, then turn them On again. Check an input signal from the equipment. ⇒ (p. 71) Use equipment compliant with EIA/CEA-861/861B. 				
	The TV does not switch On	Check the mains lead is plugged into the socket outlet.				
	The TV goes into Standby mode	 • Auto power standby function is activated. ⇒ (p. 9) • The TV enters Standby mode about 30 minutes after analogue broadcasting ends. 				
Other	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. 				

Specifications

		TX-P4	2C3E	TX-P50C3E	
Pow	er Source	AC 220-240 V, 50 / 60 H	lz		
Rate	ed Power Consumption	150 W		200 W	
Con (bas	node Average Power sumption ed on IEC 62087 Ed.2 surement method)	92 W		123 W	
	ndby Power	0.40 W			
Con	sumption	15.00 W (With monitor	out recording)		
Dim	ensions (W × H × D)	1,023 mm × 671 mm × (With Pedestal) 1,023 mm × 637 mm ×		1,212 mm × 782 mm × 324 mm (With Pedestal) 1,212 mm × 747 mm × 93 mm (TV only)	
Mas	s	26.5 kg Net (With Pede 23.5 kg Net (TV only)	stal)	34.0 kg Net (With Pedestal) 30.5 kg Net (TV only)	
Dis	Aspect Ratio	16:9			
Display pane	Visible screen size	106 cm (diagonal) 921 mm (W) × 518 mm (H)		127 cm (diagonal) 1,105 mm (W) × 622 mm (H)	
inel	Number of pixels	786,432 (1,024 (W) × 7	68 (H)) [3,072 × 768 do	ots]	
10	Speaker	(160 mm × 40 mm) × 2, 6 Ω			
Sound	Audio Output	20 W (10 W + 10 W)			
0	Headphones	M3 (3.5 mm) stereo mi	ni Jack × 1		
	eiving Systems / d name	PAL B, G, H, I, SECAM B, G, SECAM L, L'	VHF E2 - E12 VHF A - H (ITALY) CATV (S01 - S05) CATV S11 - S20 (U1 -	VHF H1 - H2 (ITALY) UHF E21 - E69 CATV S1 - S10 (M1 - M10) U10) CATV S21 - S41 (Hyperband)	
	ck the latest information	PAL D, K, SECAM D, K	VHF R1 - R2 VHF R6 - R12	VHF R3 - R5 UHF E21 - E69	
	wing website.	PAL 525/60	Playback of NTSC tap	e from some PAL Video recorders (VCR)	
	lish only)	M.NTSC		C Video recorders (VCR)	
	://panasonic.jp/support/ oal/cs/tv/	NTSC (AV input only)		· '	
gion	,,,	DVB-T		vices (MPEG2 and MPEG4-AVC(H.264))	
		DVB-C	Digital cable services	(MPEG2 and MPEG4-AVC(H.264))	
Aeri	al input	VHF / UHF			
Ope	rating Conditions	Temperature: 0 °C - 35 Humidity: 20 % - 80 %			

	AV1 (SCART)	21 Pin terminal (Audio	/Video in, Audio/Video o	ut, RGB in, Q-Link)		
	AV/2 :	VIDEO	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)		
ဂ္ဂ	AV2 input	AUDIO L - R	RCA PIN Type × 2	0.5 V[rms]		
Connection	COMPONENT input	Y 1.0 V[p-p] (in Pв, Pr ±0.35 V[p-p]	cluding synchronization)			
ion Terminals	HDMI 1 / 2 input	TYPE A Connectors HDMI1: HDMI (Version 1.3 with Deep Colour, x.v.Colour™) HDMI2: HDMI (Version 1.4 with Audio Return Channel), Deep Colour, x.v.Colour™ This TV supports "HDAVI Control 5" function.				
<u>s</u>	Card slot	SD Card slot × 1 Common Interface slot	t (complies with CI Plus) >	<1		
	DIGITAL AUDIO OUT	PCM / Dolby Digital / DTS, Fiber optic				

Note

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

Licence

Even if no special notation has been made of company or product trademarks, these trademarks have been fully respected.

- DVB and the DVB logos are trademarks of the DVB Project.
- SDXC Logo is a trademark of SD-3C, LLC.
- HDMI, the HDMI Logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.
- HDAVI Control™ is a trademark of Panasonic Corporation.
- "AVCHD" and the "AVCHD" logo are trademarks of Panasonic Corporation and Sony Corporation.
- x.v.Colour[™] is a trademark.
- Manufactured under license from Dolby Laboratories.
- Dolby and the double-D symbol are trademarks of Dolby Laboratories.
- Manufactured under license under U.S. Patent #: 5,451,942 & other U.S. and worldwide patents issued & pending. DTS and the Symbol are registered trademarks and DTS Digital Out and the DTS logos are trademarks of DTS, Inc. Product includes software. © DTS, Inc. All Rights Reserved.
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Information for Users on Collection and Disposal of Old Equipment and used Batteries





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

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



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



Declaration of Conformity (DoC)

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

Customer's Record

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

Model Number Serial Number

M1210-0

Panasonic Corporation

Web Site: http://panasonic.net