

Panasonic®

Model No.

Australia

TH-L24XM6A

New Zealand

TH-L24XM6Z

Operating Instructions LED TV



VIERA

English

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.
Some illustrations are presented as conceptual images
and may be different from the actual products.
Illustrations shown may be different between models
and countries.

Transport only in upright position

CHY



TQB4GC1038-1



Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.



dts[®]

2.0+Digital Out

Manufactured under license under U.S. Patent Nos: 5,956,674; 5,974,380; 6,487,535 & other U.S. and worldwide patents issued & pending. DTS, the Symbol, & DTS and the Symbol together are registered trademarks & DTS 2.0+Digital Out is a trademark of DTS, Inc. Product includes software. © DTS, Inc. All Rights Reserved.

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.

Panasonic does not guarantee operation and performance of peripheral devices made by other manufacturers; and we disclaim any liability or damage arising from operation and/or performance from usage of such other maker's peripheral devices.

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>.

This product incorporates the following software:
(1) the software developed independently by or for Panasonic Corporation,
(2) the software owned by third party and licensed to Panasonic Corporation,
(3) open sourced software

The software categorized as (3) is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY, without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. Please refer to the detailed terms and conditions thereof shown in the "Software License" menu on this product.

Contents

Safety Precautions.....	3
Setting Up the TV.....	4
Connecting the TV	6
Initial Setup.....	7
Operating the TV	8
Watching External Inputs.....	9
Using TV Guide / Freeview Guide	9
Using VIERA TOOLS	10
Using Media Player.....	10
Using the Menu Functions	12
Link Functions (VIERA Link)	17
Additional Information.....	19
Troubleshooting	21
Maintenance	21
Specifications	22
Warranty (Australia)	23
Warranty (New Zealand)	24

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

Safety Precautions

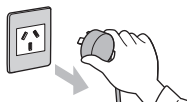
To help avoid risk of electrical shock, fire, damage or injury, please follow the warnings and cautions below:

■ Mains plug and lead

Warning

If you detect anything unusual, immediately remove the mains plug.

- Mains plug types vary between countries.



- This TV is designed to operate on AC 220 - 240 V, 50/60 Hz
- Insert the mains plug fully into the socket outlet.
- Ensure that the mains plug is easily accessible.
- Disconnect the mains plug when cleaning the TV.
- Do not touch the mains plug with wet hands.



- Do not damage the mains lead.
 - Do not place a heavy object on the lead.



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



- Do not pull on the lead. Hold onto the mains plug body when disconnecting the plug.



- Do not move the TV with the lead plugged into a socket outlet.
- Do not twist the lead, bend it excessively or stretch it.
- Do not use a damaged mains plug or socket outlet.
- Ensure the TV does not crush the mains lead.
- Do not use any mains lead other than that provided with this TV.

■ Take care

Warning

- Do not remove covers and never modify the TV yourself as live parts are accessible when they are removed. There are no user serviceable parts inside.
- Do not expose the TV to rain or excessive moisture. This TV must not be exposed to dripping or splashing water and objects filled with liquid, such as vases, must not be placed on top of or above the TV.
- Do not insert foreign objects into the TV through the air vents.
- Do not use an unapproved pedestal / mounting equipment. Be sure to ask your local Panasonic dealer to perform the setup or installation of approved wall-hanging brackets.
- Do not apply strong force or impact to the display panel.
- Do not place the TV on sloped or unstable surfaces, and ensure that the TV does not hang over the edge of the base.



Important information

If the TV is not positioned in a sufficiently stable location, it can be potentially hazardous due to falling. Many injuries, particularly to children, can be avoided by taking simple precautions such as:

- Using cabinets or stands recommended by the manufacturer of the TV.
- Only using furniture that can safely support the TV.
- Ensuring the TV is not overhanging the edge of the supporting furniture.
- Not placing the TV on tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the TV to a suitable support.
- Not standing the TV on cloth or other materials placed between the TV and supporting furniture.
- Educating children about the dangers of climbing on furniture to reach the TV or its controls.

- This TV is designed for indoor use.
- This TV is designed for table-top use.
- Do not expose 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



■ Dangerous part / Small object

Warning

- 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.

■ Pedestal

Warning

- Do not disassemble or modify the pedestal.

Cautions

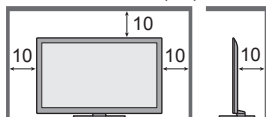
- Do not use any pedestal other than the one provided with this TV.
- Do not use the pedestal if it becomes warped or physically damaged. If this occurs, contact your nearest Panasonic dealer immediately.
- During setup, make sure that all screws are securely tightened.
- Ensure that the TV does not suffer any impact during installation of the pedestal.
- Ensure that children do not climb onto the pedestal.
- Install or remove the TV from the pedestal with at least two people.
- Install or remove the TV by the specified procedure.

■ Ventilation

Caution

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

Minimum distance (cm)



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



■ Moving the TV

Caution

Before moving the TV, disconnect all cables.

- Move the TV with at least two people. Support as shown to avoid injury by the TV tipping or falling.



■ When not in use for a long time

Caution

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

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

■ Battery for the Remote Control

Caution

- Incorrect installation may cause battery leakage, corrosion and explosion.
- Replace only with the same or equivalent type.
- Do not mix old and new batteries.
- Do not mix different battery types (such as alkaline and manganese batteries).
- Do not use rechargeable batteries (Ni-Cd, etc.).
- Do not burn or break up batteries.
- Do not expose batteries to excessive heat such as sunshine, fire or the like.
- Make sure you dispose of batteries correctly.

Setting Up the TV

Standard accessories

Accessories may not be placed all together. Take care not to throw them away unintentionally.

Operating Instructions with Warranty statement

Remote Control

- N2QAYB000817



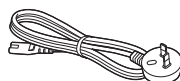
Batteries (R6) × 2

➔ (p. 5)

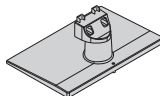


Mains Lead

➔ (p. 6)



Pedestal



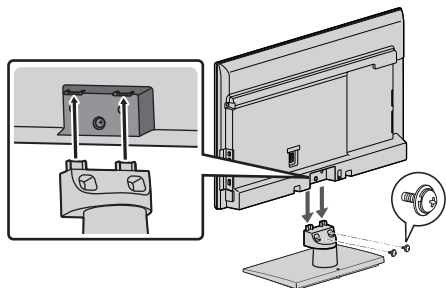
- Assembly screws

(M4 × 12) × 2

Attaching the pedestal

Attach the TV to the pedestal

Carry out the work on a horizontal and level surface.

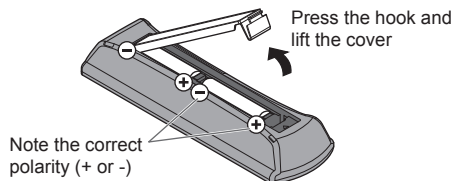


Removing the pedestal from the TV

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 **B** from the TV.
- 2 Pull out the pedestal from the TV.
- 3 Remove the assembly screws **A** from the bracket.

Inserting remote's batteries

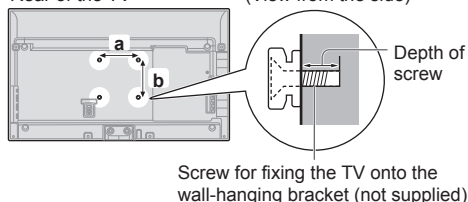


Wall mounting the TV (optional)

Choosing to wall mount the TV shall be done at the owner's risk and expense. Always use a qualified installer to perform a TV wall bracket installation. Incorrect installation may cause TV to fall, resulting in personal injury and product damage that is not covered by warranty.

Rear of the TV

(View from the side)



■ Holes for wall-hanging bracket installation

a: 100 mm

b: 100 mm

■ Screw specification

Type: M4

Depth of screw:

Minimum: 6 mm

Maximum: 9 mm

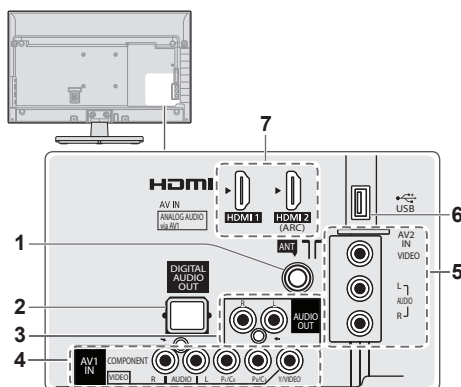
Warning

- When optional accessories such as wall brackets etc. are used, always read and follow the manufacturer installation and usage instructions.
- Do not mount the unit directly below ceiling lights (such as spotlights or halogen lights) which typically give off high heat. Doing so may warp or damage plastic cabinet parts.
- When installing wall brackets you must ensure the wall bracket is not electrically grounded to metal wall studs. Always ensure that there are no electrical cables, pipes etc. in the wall before you begin the wall bracket installation.
- To prevent fall and injury, remove the TV from its fixed wall position when it is no longer in use.

Connecting the TV

- Please ensure the TV is disconnected from the mains socket / power point before attaching or disconnecting any RF / AV leads.
- External equipment and cables are for illustrative purposes only and not supplied with this TV.
- Check the type of terminals and cable plugs are correct when connecting.
- When using an HDMI cable, use the fully wired one.
- 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.
- Also read the manual of the equipment being connected.

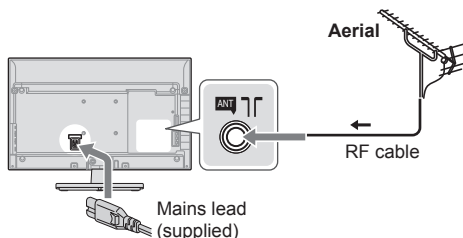
Terminals



- 1 Aerial terminal
- 2 DIGITAL AUDIO OUT
- 3 AUDIO OUT
- 4 AV1 IN
- 5 AV2 IN
- 6 USB port
- 7 HDMI 1 - 2

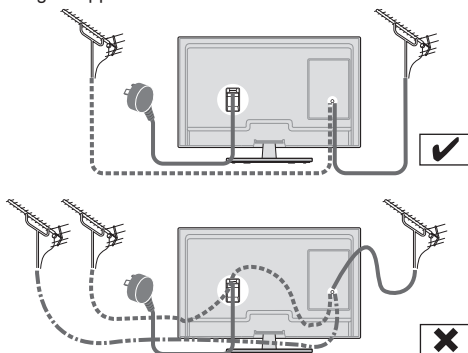
Connections

Aerial and mains lead

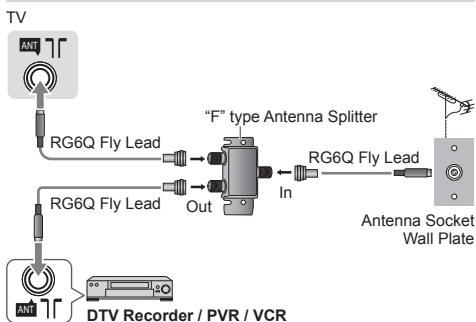


- To minimise DTV impulse noise pickup, please ensure there is separation between mains lead and RF cable.
- Do not place the RF cable under the TV.

- An aerial, correct cable (75 Ω coaxial) and correct terminating plug are required to obtain optimum quality picture and sound.
- If a communal aerial system is used, you may require the correct connection cable and plug between the wall aerial socket and the TV.
- Your local Television Service Centre or dealer may be able to assist you in obtaining the correct aerial system for your particular area and the accessories required.
- Any matters regarding aerial installation, upgrading of existing systems or accessories required, and the costs incurred, are the responsibility of you, the customer.
- If the aerial is placed in the wrong location, interference might happen.

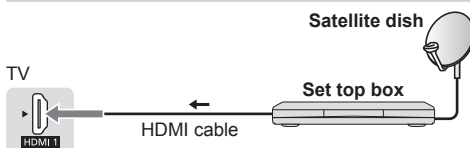


DTV Recorder / PVR / VCR



- To maintain optimum antenna signal quality, use an "F" type TV signal splitter (as illustrated) when connecting two or more devices to the same antenna socket.

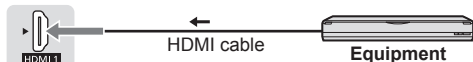
Set top box



AV / Game equipment

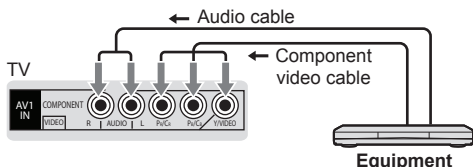
■ Using HDMI terminal

TV

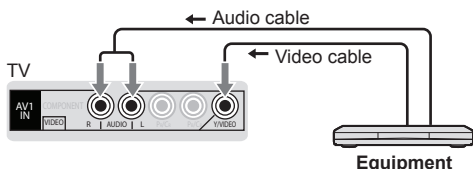


- You can also make similar connection via HDMI 2.

■ Using COMPONENT terminals

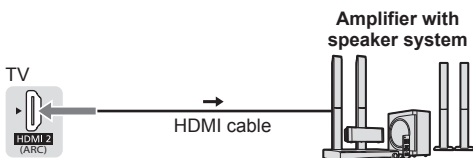


■ Using COMPOSITE terminals



- You can also make similar connections via AV2 IN.

Speaker system



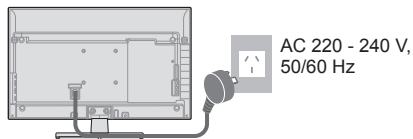
- Use HDMI 2 for connecting an amplifier that has ARC (Audio Return Channel) function. As for an amplifier without ARC function, use DIGITAL AUDIO OUT or AUDIO OUT.
- To enjoy the sound from the external equipment in multi-channel sound (e.g. Dolby Digital 5.1ch), connect the equipment to the amplifier. For the connections, read the manuals of the equipment and amplifier.

Initial Setup

When you first turn on the TV, a series of steps will pop-up to guide you to setup your TV.

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

1 Plug the mains plug into the socket outlet



2 Turn on the TV with the remote control



3 Select [Home]

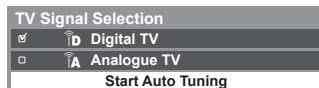


- [Shop] is for shop display.
- To change the viewing environment later on, you need to initialise all settings by accessing [Shipping Condition] (p. 15).

4 Select your area [Australia]



5 Tick the mode to tune, then start Auto Tuning



- ☒ : tune (search for the available channels)
- ☐ : skip tuning



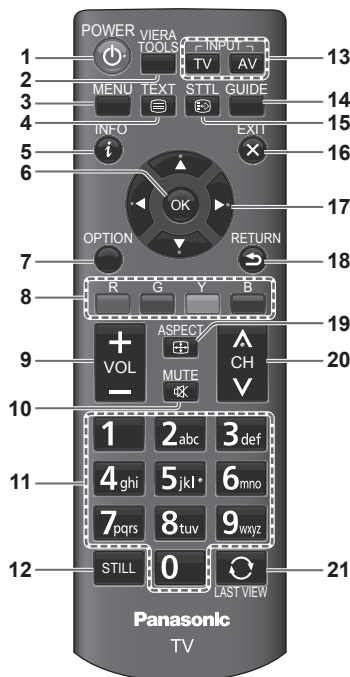
Auto Tuning starts

- Auto Tuning searches and stores TV channels. The stored channels and sorted channel order vary depending on the area, broadcasting system and conditions of signal reception.

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

Operating the TV

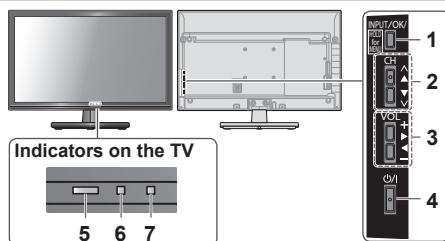
Using the remote control



- 1 Switches the TV On / Standby
- 2 VIERA TOOLS ➔ (p. 10)
- 3 Displays [Main Menu] ➔ (p. 12)
- 4 This button is not used for this model Australia
Switches to teletext mode New Zealand
- 5 Displays Information banner
- 6 OK
 - Confirms selections.
 - Press after selecting channel positions to quickly change channel.
 - Displays the Channel List.
- 7 Displays [Option Menu]
 - Shortcuts to settings for some picture / sound items.
 - Follow the operation guide to select / change the settings.
- 8 Coloured buttons
 - Performs multiple operations which correspond to the operation guide displayed on the menu screen.
- 9 Volume Up / Down
- 10 Sound Mute On / Off
- 11 Numeric buttons
 - Changes channel. Australia
 - Changes channel / teletext pages. New Zealand
 - Sets characters.
 - When in Standby mode, switches TV On.
- 12 Freezes / unfreezes picture

- 13 Input mode selection
 - TV - switches Digital TV / Analogue TV.
 - AV - displays [Input Selection] screen (p. 9) or press repeatedly to select the AV input mode.
- 14 TV Guide Australia ➔ (p. 9)
Freeview Guide New Zealand ➔ (p. 9)
- 15 Displays subtitles
Displays favourite page in teletext mode
New Zealand
- 16 Exits to the TV viewing screen
- 17 Cursor buttons
 - Makes selections or adjustments.
- 18 Returns to the previous menu / page
- 19 ASPECT
 - Displays the [Aspect Selection] screen. Follow the operation guide to select the mode. [16:9] / [14:9] / [Just] / [4:3] / [Zoom] / [4:3 Full] / [Sidecut Just] / [Sidecut Zoom] ➔ (p. 19)
 - You can also press the button repeatedly to select the mode.
- 20 Channel Up / Down
- 21 Returns to the last viewed channel

Using the TV controls

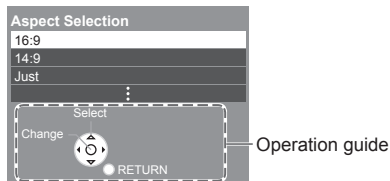


- 1 Displays [Input Selection] screen
 - When [Input Selection] screen is displayed, select the mode using buttons 2.
- OK
 - Confirms selection while in the menu system.
- 2 Channel Up / Down
Cursor Up / Down
 - Makes selections or adjustments when in the menu system.
- 3 Volume Up / Down
Cursor Left / Right
 - Makes selections or adjustments when in the menu system.
- 4 Mains power On / Off switch
 - Use to switch the mains power.
- 5 Remote control signal receiver
- 6 Ambient sensor
 - Senses brightness to adjust picture quality when [Ambient Sensor] in the Picture Menu is set to [On]. ➔ (p. 12)
- 7 Power LED
 - Red: Standby
 - Green: On
 - The LED blinks when the TV receives a command from the remote control.

About operation guide

When operating the TV with the remote control, follow the operation guide available at the bottom of the screen to perform the operation you want.

Example: [Aspect Selection]



Referring to the operation guide:

- To select the mode



- To change to the selected mode

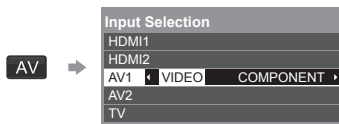


- To return to the previous menu



Watching External Inputs

- 1 Connect the external equipment
➔ (p. 6 - 7)
- 2 Display the [Input Selection] menu, then select the input of the connected equipment



Note

- To switch between [COMPONENT] and [VIDEO] in [AV1], move the indicator by pressing left or right cursor button.
- You can label or skip each input mode
➔ [Input Labels] (p. 14)
Skipped inputs will not be displayed when the AV button is pressed.

Using TV Guide / Freeview Guide

The TV Guide / Freeview Guide - Electronic Programme Guide (EPG), shows a list of the current broadcasts and forthcoming broadcasts over the next seven days (depending on the broadcasters).

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

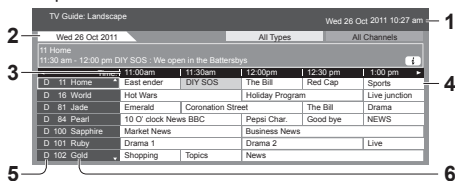
Australia

Display the TV Guide

GUIDE

(Press again to change the layout)

Example:



- 1 Current date and time
- 2 TV Guide date
- 3 TV Guide time
- 4 Programme
- 5 [D]: Digital TV; [A]: Analogue TV
- 6 Channel position and name

Follow the operation guide to operate the TV Guide.

Note

- There is no programme listings for Analogue channels.

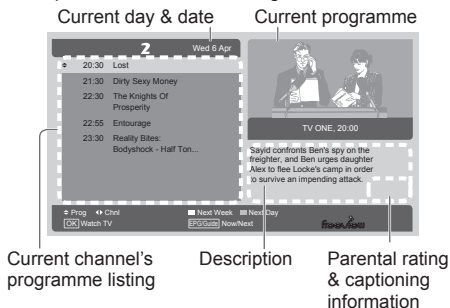
New Zealand

Display the Freeview Guide

GUIDE

(Each press will toggle the screen between the Freeview Guide Listing and What's on Now / Next)

Example: Freeview Guide Listing



Follow the operation guide to operate the Freeview Guide.

Using VIERA TOOLS

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

Display the icon of the features, then select the icon you want

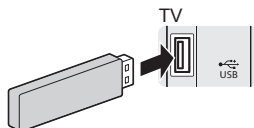


Using Media Player

Media Player allows you to enjoy photo, music or video recorded on a USB Flash Memory.

- During the operation, audio signal is output from AUDIO OUT, DIGITAL AUDIO OUT and HDMI 2 (ARC function) terminals. To use HDMI 2 with ARC function, connect an amplifier that has ARC function and set to use theatre speakers (p. 18).
- The picture may not appear correctly on this TV depending on the digital cameras used.
- Display may take some time when there are many files and folders in the USB Flash Memory.
- Partly degraded files might be displayed at a reduced resolution.
- The folder and file names may be different depending on the digital camera used.

1 Insert the USB Flash Memory



- Insert or remove straightly and completely.

2 Display [VIERA TOOLS]



3 Select the mode



[Photo]: Displays the thumbnail of all photos in the USB Flash Memory.

[Video]: Displays the thumbnail of video titles in the USB Flash Memory.

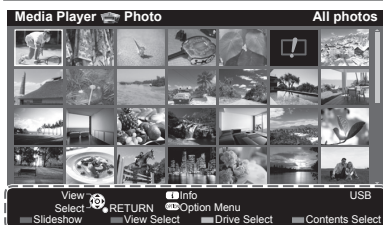
[Music]: Displays the thumbnail of music folders in the USB Flash Memory.

[Contents Select]

Switching between modes

When you are in the thumbnail view of any mode, you can change to the other mode by accessing the [Contents Select] screen.

Photo mode



Operation guide

[E] : Error display

Follow the operation guide to perform available operations in Photo mode.

To display / hide the operation guide during [View] and [Slideshow]



[View]

Enters Single view mode to view photo one at a time

[Slideshow]

Lets you view all photos in the slideshow mode

[View Select]

Lets you toggle between thumbnail view and folder view

- To sort by folder, recorded date or recorded month

1 Display the view selection in the thumbnail view



2 Select the sort type

[Folder view]: Displays the thumbnail grouped by folder.

- The files which are not in a folder will be collected to the folder named "I".

[Sort by Date] / [Sort by Month]: Displays the thumbnail grouped by the same date or month.

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

[Option Menu]

■ [Change Size]

Changes the size of photos on a thumbnail screen

■ [Slideshow Settings]

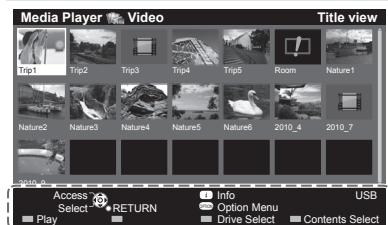
- **[Frame]:** Selects the frame type of the slideshow [Off] / [Multi] / [Collage] / [Drift (+ calendar)] / [Drift] / [Gallery (+ calendar)] / [Gallery] / [Cinema]
- **[Colour Effect]:** Selects the colour effect of photos on Single view and Slideshow [Off] / [Sepia] / [Gray scale]
 - This function is not available when [Frame] is set to [Drift], [Gallery] or [Cinema].
- **[Transition Effect]:** Effect for photo switching during slideshow [Off] / [Fade] / [Dissolve] / [Motion] / [Random]
- **[Auto Makeup]:** Automatically detects the face in the photo and improves luminance and contrast [On] / [Off]

- **[Screen Mode]:** Screen mode for Single view and Slideshow [Normal] / [Zoom]
 - This function is not available when [Frame] is set to [Collage], [Drift], [Gallery] or [Cinema] or when [Transition Effect] is set to [Motion].
 - Depending on the photo size, it may not be fully enlarged to fill the screen, e.g. portrait style picture.
- **[Burst Playback]:** Selects whether to display burst photos in a fast-paced slideshow mode [Off] / [On]
 - This function is not available when [Frame] is set to [Drift], [Gallery] or [Cinema] or when [Transition Effect] is set to [Motion].
- **[Interval]:** Slideshow interval [Long] / [Normal] / [Short]
 - This function is not available when [Frame] is set to [Drift], [Gallery] or [Cinema] or when [Transition Effect] is set to [Motion].
- **[Repeat]:** Slideshow repeat [Off] / [On]
- **[Back Ground Music]:** Background music during photo viewing [Off] / [Type1] / [Type2] / [Type3] / [Type4] / [Type5] / [User] / [Auto]
 - [User]: Music data in the device registered by yourself will be played back.
To register the music: Select the music file, then select [File] or [Folder].
[File]: The selected music file will be registered.
[Folder]: All the music in the folder which contains the selected music file will be registered.
 - [Auto]: Music data stored in the root folder of the current device will be played back randomly.

Note

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

Video mode



Operation guide

: Error display

Follow the operation guide to perform available operations in Video mode.

To display / hide the operation guide and information banner during playback



[Play]

Plays back the selected title.

- To playback from selected scene of the title [Scene view]

Select the title



Select the scene



Play



- To change aspect

Display the [Aspect Selection] screen, then select the desired mode

ASPECT (You can also press the button repeatedly to select the mode.)

[Aspect1]: Displays the content enlarged without distortion.

[Aspect2]: Displays the content full-screen.

[Original]: Displays the content original size.

– Aspect may not be changed depending on the content.

[Option Menu]

Contains [Video Setup] menus to set up Video mode.

While in thumbnail view:

■ [Video Preview]

Sets to start the preview of the title or scene in the thumbnail view [Off] / [On]

During video playback:

■ [Audio Selection] / [Dual Mono Audio]

Selects the sound tracks (if available)

■ [Subtitle]

Selects the subtitle (if available)

[Off] / [Subtitle1] / [Subtitle2] ...)

■ [Subtitle Text]

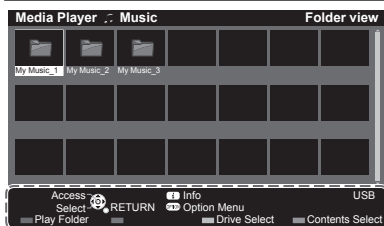
Selects the font type to display subtitles correctly (if available)

■ [Repeat]

Playback repeat within the title [Off] / [On]

– Only the selected file will be repeated.

Music mode



Operation guide

Follow the operation guide to perform available operations in Music mode.

To display / hide the operation guide during playback



[Play Folder]

Plays back all music in the selected folder.

- To playback the selected file only

Select the folder

Select the file

Play



[Option Menu]

Contains [Music Setup] menu to set up play mode.

■ [Repeat]

[Folder]: Playback repeat within the selected folder

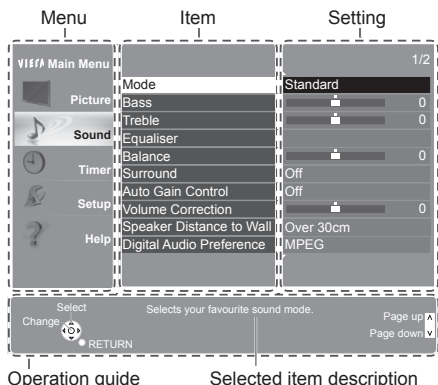
[One]: Playback repeat on the selected one file

Using the Menu Functions

1 Display the menu

MENU

Example:



2 Select the menu



3 Select the item



4 Change the setting

Example:

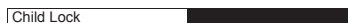
- Change the setting option



- Adjust the intensity bar



- Access the submenu



Note

- Only available items can be selected.

[Cinema]: Improves the performance of contrast, black and colour reproduction for watching movies in a darkened room.

[True Cinema]: Reproduces the original image quality precisely without any revision.

[Custom]: Allows you to customize the picture settings.

In each Viewing Mode, [Backlight], [Contrast], [Brightness], [Colour], [Sharpness], [Tint], [Colour Temperature], [Vivid Colour], [Adaptive Backlight Control], [Ambient Sensor], [Noise Reduction] and [MPEG Noise Reduction] can be adjusted and stored.

[Backlight], [Contrast], [Brightness], [Colour], [Sharpness]

Increases or decreases the levels of these options according to your personal preference

[Tint]

Adjusts the picture hue to suit your taste

- For NTSC signal reception

[Colour Temperature]

Selects the colour temperature of the picture

[Cool2] / [Cool1] / [Normal] / [Warm1] / [Warm2]

[Vivid Colour]

Automatically adjusts colour for a more vivid picture [On] / [Off]

[Adaptive Backlight Control]

Automatically controls luminance level according to the images [On] / [Off]

[Ambient Sensor]

Automatically adjusts picture settings depending upon ambient lighting conditions [On] / [Off]

[Noise Reduction]

Reduces unwanted picture noise [Auto] / [Max] / [Mid] / [Min] / [Off]

[MPEG Noise Reduction]

Reduces unwanted MPEG block noise [Auto] / [Max] / [Mid] / [Min] / [Off]

[Advanced Settings]

Available when you set [Viewing Mode] to [True Cinema] or [Custom].

■ **[Adaptive Gamma Control]**

Automatically controls middle level of luminance according to the images

■ **[Black Expander]**

Gradually adjusts the dark shades of the image

■ **[White Balance]**

Adjusts the white balance for red, green and blue signals [R-/G-/B-Gain] / [R-/G-/B-Cutoff] / [Reset White Balance]

■ **[Colour Management]**

Adjusts the hue, saturation and luminance [R-/G-/B-Hue] / [R-/G-/B-Saturation] / [R-/G-/B-Luminance] / [Reset Colour Management]

■ **[Gamma]**

[Gamma]: Switches the gamma curve [2.6] / [2.4] / [2.2] / [2.0] / [1.8]

[Reset Gamma]: Resets to the default gamma settings in this menu

■ **[Reset Picture Defaults]**

Resets to the default picture settings in this menu

Option Settings

■ [Film Cadence Mode]

Improves vertical resolution for movie images **[On]** / **[Off]**

- This function is available for the interlaced signal.

■ [HDMI Content Type]

Adjusts the picture settings of each HDMI input according to the selected content type **[Graphics]** / **[Photos]** / **[Auto]** / **[Off]**

- [Auto]**: Automatically adjusts the picture settings according to the received HDMI content if the connected equipment supports HDMI Content Type.
- To set the availability of each content type for **[Auto]** mode, select **[Auto Detail Setting]**.
 - For HDMI input.

■ [HDMI RGB Range]

Adjusts the black level of the image for each HDMI input **[Auto]** / **[Full]** / **[Normal]**

- When the black level is not suitable, select **[Full]**.
- For HDMI input.

■ [3D-COMB]

Makes still or slow motion pictures more vivid **[On]** / **[Off]**

- Set to **[On]** to improve the colours in case patterning occurs while viewing still or slow motion pictures.
- For PAL / NTSC signal reception in TV mode or from composite.

Screen Settings

■ [16:9 Overscan]

Selects the screen area displaying the image for 16:9 aspect **[On]** / **[Off]**

[On]: Enlarges the image to hide its edges. Select this if noise is generated on the edge of the screen.

[Off]: Displays the image in the original size.

- This function can be memorised separately for SD (Standard definition) and HD (High definition) signals.

■ [H-Size]

Switches over horizontal scanning size **[H-Size1]** / **[H-Size2]**

■ [Zoom Adjustments]

Adjusts the vertical position and size when the aspect is set to **[Just]** or **[Zoom]** mode

- **[Just]**: V-Size max is 3
- **[Zoom]**: V-Size max is 15

■ [Screen Display]

Turns off / on the TV screen without turning off the TV **[On]** / **[Off]**

- The sound is active even if the screen turns off.
- Press any buttons (except Standby) to turn the screen on.

Copy Adjustment

Copies picture adjustments to other inputs.

[Option Settings] and **[Screen Settings]** are not copied.

■ [Destination Viewing Mode]

Sets the viewing mode for the destination input **[True Cinema]** / **[Custom]**

■ [Destination Input]

Selects the destination input

■ [Copy Start]

Select **[Yes]** to start copying

Reset Picture Defaults

Resets the current picture settings to defaults.

Sound

[Mode]

Sets your favourite sound mode **[Standard]** / **[Music]** / **[Speech]** / **[User]**

- The selected mode affects all input signals.

[Standard]*: Standard sound mode

[Music]*: Improves sound quality for watching music videos, etc.

[Speech]*: Improves sound quality for watching news, drama, etc.

*In Standard, Music and Speech modes, you can adjust the **[Bass]** and **[Treble]** settings, and those settings will be stored for each mode.

[User]: Adjusts the sounds manually by using the equaliser

- When you select **[User]** mode, **[Equaliser]** is active instead of **[Bass]** and **[Treble]**. Select **[Equaliser]** and adjust the frequency. ➡ (below)

[Bass], [Treble]

Adjusts the bass / treble level respectively

[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 buttons.
- To enhance the bass sound, raise the level of the lower frequency. To enhance the treble sound, raise the level of the higher frequency.
- To reset the levels of each frequency to the default settings, select **[Reset Equaliser Settings]** by using the cursor button, and then press the **OK** button.

[Balance]

Adjusts volume level of right and left speakers

[Surround]

Surround sound settings **[On]** / **[Off]**

[Auto Gain Control]

Automatically regulates large sound level differences between channels and inputs **[On]** / **[Off]**

[Volume Correction]

Adjusts the volume of individual channel or input mode

[Speaker Distance to Wall]

Compensates for the low frequency sound due to the distance between the speakers and the wall

[Up to 30cm] / **[Over 30cm]**

- If the distance between the TV and wall is over 30 cm, **[Over 30cm]** is recommended.
- If the distance between the TV and wall is within 30 cm, **[Up to 30cm]** is recommended.

[MPX]

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.
- For Analogue TV

Digital Audio Preference

Selects the initial setting for audio tracks

[Australia] [Dolby D] / [MPEG]

[New Zealand] [Dolby D] / [HE-AAC]

[Dolby D]: The priority is given to Dolby Digital.

[MPEG]: The priority is given to MPEG.

[HE-AAC]: The priority is given to HE-AAC.

- Dolby Digital is the method of coding digital signals developed by Dolby Laboratories. Apart from stereo (2ch) audio, these signals can be multi-channel audio.
- MPEG is an audio compression method that compresses audio to the smaller size without any considerable loss of audio quality.
- HE-AAC is a perceptual coding method used to compress digital audio for efficient storage and transmission.
- For Digital TV only

SPDIF Selection

SPDIF: A standard audio transfer file format

Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT and HDMI 2 (ARC function) terminals [Auto] / [PCM]

[Auto]: Dolby Digital and HE-AAC multi-channel are output as Dolby Digital Bitstream. MPEG is output as PCM.

[PCM]: Digital output signal is fixed to PCM.

- For Digital TV or video contents of Media Player

Audio Description

Narration settings for visually impaired users

■ [Audio Description]

Set to [Auto] to activate the narration sound track when available on the broadcast [Off] / [Auto]

■ [Volume] [Australia]

Adjusts the volume of the narration sound track

■ [Speakers] [Australia]

Set to [On] to activate the narration sound track from the TV speakers [Off] / [On]

HDMI1 / 2 Input

Selects to fit the input signal [Digital] / [Analogue] (p. 20)

[Digital]: When sound is carried via the HDMI cable connection

[Analogue]: When sound is not carried via the HDMI-DVI adaptor cable connection

- For HDMI input

Reset Sound Defaults

Resets the current sound settings to defaults.

Timer

[Off Timer]

Sets the duration until the TV automatically goes to Standby mode [Off] / [15] / [30] / [45] / [60] / [75] / [90] (minutes)

[Daylight Saving Time] [Australia]

Selects the time offset from the standard time for Summer [+1 hour] / [+1/2 hour] / [Off] / [Auto]

Region Select [Australia]

Selects the region where you live to adjust the standard time [NSW / ACT] / [Victoria] / [Queensland] / [South Australia] / [Western Australia] / [Northern Territory] / [Tasmania]

[Auto Standby]

Enables turning the TV off automatically if no button is pressed for 4 hours [On] / [Off]

[No signal Power off]

Enables turning the TV off if no signal is detected for 10 minutes [On] / [Off]

Setup

[Eco Navigation]

Sets the TV to operate in the most energy-saving mode

- You can also access this item by using [VIERA TOOLS] ➔ (p. 10)

[Child Lock] ➔ (p. 16)

[Tuning Menu] ➔ (p. 15 - 16)

[Language] [New Zealand]

■ [Preferred Audio Language]

Selects the preferred language for digital TV multi audio (depending on the broadcaster) [English] / [Maori] / [French] / [German] / [Italian] / [Spanish] / [Korean] / [Chinese-Mandarin] / [Chinese-Cantonese] / [Japanese] / [Hindi]

■ [Preferred Subtitles]

Selects the default language for Digital TV subtitles (depending on the broadcaster)

Display Settings

■ Teletext

Selects the Teletext display mode [FASTEXT] / [List]
– This item is available only if the TV detects a Teletext broadcast.

■ [Input Labels]

Accesses the input labels list to select the label of each input mode or set to skip unconnected one for easier identification and selection in [Input Selection] (p. 9) or banner
– To name each input mode freely, select [User input] and set the characters (maximum 10 characters).
– To skip the input mode, select [Skip].

■ [Banner Display Timeout]

Sets how long the Information banner stays on screen (p. 8) [0 (No display)] / [1] / [2] / [3] / [4] / [5] / [6] / [7] / [8] / [9] / [10] (seconds)

[VIERA Link Settings]

■ [VIERA Link]

Sets to use VIERA Link functions [On] / [Off]

■ [Power on Link]

When an HDMI connected equipment starts playback, the TV is turned on and input mode is switched automatically [On] / [Off]
– Only when the TV is in Standby mode.

■ [Power off Link]

When the TV is set to Standby mode, the HDMI connected equipment is also automatically set to Standby [On] / [Off]

■ [Standby Power Save]

Controls the connected equipment to reduce power consumption in Standby **[On]** / **[Off]**

- 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 HDMI connected equipment go into Standby mode to reduce the power consumption **[On]** / **[Off]**

- This function is available when [VIERA Link] is set to **[On]**.

[System Menu]

■ [Shipping Condition]

Resets all settings, including tuning data, to the original condition.

- Access this function and follow the on-screen instructions to complete the procedures.
- Initial Setup (p. 7) will automatically start after [Shipping Condition] completes.

■ [System Update] ➔ (p. 16)

■ [Licence Menu]

Displays the software licence information

[Other Settings]

■ [Power Save]

Reduces brightness of picture to economise on power consumption **[Off]** / **[On]**

Help

[TV Self Test]

Makes a diagnosis of picture or sound problems

- Follow the on-screen instructions.

[System Information]

Displays the system information of this TV

Using [Tuning Menu*]

[Tuning Menu*] lets you retune your TV, create your favourite channel lists, skip unwanted channels, etc.

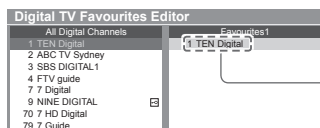
* The settings in [Tuning Menu] are applicable only for the selected TV mode. The menu name varies depending on the TV mode ([Digital TV Tuning Menu] / [Analogue TV Tuning Menu]).

[Favourites Edit] (Digital TV)

Create your favourite channel lists from various broadcasters (up to 4: Favourites1 to 4)). The Digital TV Favourites lists are available from "Category" in the Information banner and the TV Guide screen.

1 Select a channel to list (☐ : Encrypted channel)

2 Add it to the Favourites list



A channel is added

■ [Select favourites]: To select other Favourites

■ [Add all]: To add all channels to the list

[Channel List]

You can hide (skip) unwanted channels.

The hidden channels cannot be displayed except in this function.

Select a channel and reveal / hide



■ [Tune]: To retune each channel (Manual Tuning)

■ [Swap] / [Move]: To swap / move the channel position (if available)

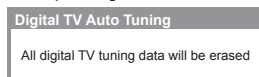
■ [Reveal all]: To reveal all channels

■ [Rename]: To rename the channel (Analogue TV)

[Auto Tuning]

Automatically retune all channels received in the area.

Example: Digital TV

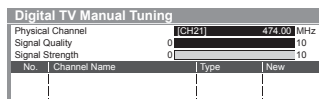


[Manual Tuning] (Digital TV)

Normally use [Auto Tuning] or [Update Channel List] to retune Digital TV channels.

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

All channels found will be added to the Channel List.



1 Select physical channel

2 Select offset

3 Start tuning

[Manual Tuning] (Analogue TV)

Set Analogue TV channel manually after Auto Tuning.

- If a VCR is connected only with the RF cable, select channel position [0].



1 Select the channel position

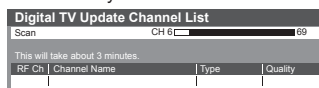
2 Select the channel position

3 Search

4 Select [Store]

[Update Channel List] (Digital TV)

You can add new RF channels, delete removed RF channels, update RF channel name and position automatically to the channel list.



- The 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.

[New Channel Message] (Digital TV)

Australia

Selects whether to give a notification message when a new Digital TV channel is found.

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

- Selecting OK will perform [Update Channel List].
- Sometimes, mainly during summer at night, the TV may pickup distant TV stations outside your broadcast due to favourable short term ionosphere conditions. In such circumstances, the TV does not add any new channel when you press **OK**. This is normal.

[Signal Condition] (Digital TV)

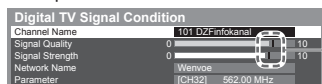
Select a channel and check its signal condition.

A good Signal Strength is not an indication of suitable signal for Digital TV reception.

Use the Signal Quality indicator as follows.

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

Example:



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

[Add TV Signal]

Adds TV mode.

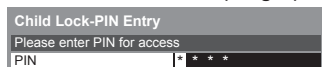
- This function is available if you skip to tune any mode in Auto Tuning during Initial Setup. ➔ (p. 7)

Setting [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. Enter the PIN number to watch.

1 Enter the PIN number (4 digits)



- "0000" has been stored as the default PIN number.
- Enter the PIN number twice at first setting.

2 Select [Child Lock List]



3 Select the channel / input to be locked

Child Lock List - TV and AV			
Name	Input	Type	Lock
101 BBC1 Wales	Digital TV	Digital TV	
7 BBC THREE	Digital TV	Digital TV	
14 E4C	Digital TV	Digital TV	
VCR	Analogue TV	Analogue TV	
BBC1	Analogue TV	Analogue TV	
2 ****	Analogue TV	Analogue TV	
AV1	External	AV	

Indicates locked input / channel

New Zealand

- In Digital TV, additional lock item will appear. [Freeview Players]: Applies access control for some MHEG services.

- **[Lock all]**: To lock all channels and inputs

- **[Next input]**: 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

Write your PIN number here in case you forget it.

■ To set Parental Rating

To watch the Digital TV programme that has rating information over the selected age, enter the PIN number (depending on the broadcaster).

Select [Parental Rating], then select the block setting



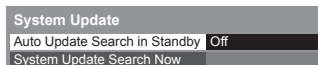
Note

- Setting [Shipping Condition] (p. 15) erases the PIN number and all settings.
- If you have forgotten your changed PIN, input "6969" as the PIN number.

Performing [System Update]

To update automatically

Select [Auto Update Search in Standby]

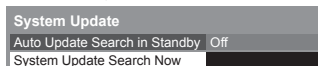


- Every time you set, the TV automatically performs a search in Standby and downloads any available update.
- The automatic updating is performed when the TV is in Standby (TV turned off with the remote control).

If System Update is performed, the software will be updated (it may change TV functions). If you do not want 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 (several minutes) and displays a corresponding message, if any

3 Download

Note

- Download may take more than 60 minutes.
- During software download and update, DO NOT switch off the TV.
- The notification message might be a reminder. 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 off.

Link Functions

(VIERA Link)

VIERA Link (HDAVI Control™) connects the TV and the equipment with VIERA Link function, and enables easy control, playback, energy saving, creating home theatre, etc., without complicated setting.

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

VIERA Link “HDAVI Control”™** *

* Enjoy additional HDMI Inter-Operability with Panasonic products which have “HDAVI Control” function.

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.
- 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 to the TV’s HDMI 1 or HDMI 2 terminal.
 - Use fully wired HDMI compliant cable. Non-HDMI-compliant cables cannot be utilised.
 - Use an optical digital audio cable or RCA cable for audio output from the TV.

- Set up the connected equipment. Read the manual of the equipment.

- Set [VIERA Link] to [On] in the Setup Menu. ➡ **[VIERA Link] (p. 14)**

- Set up the TV.

After connection, turn the equipment on and then switch the TV on.

Select the input mode from HDMI1 or HDMI2, 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

VIERA Link (HDMI connection)

Connected equipment	DIGA Recorder	DVD Player, Blu-ray Disc Player	HD Video Camera, LUMIX Camera
Features			
Easy playback	○	○	○
Power on link	○	○	○
Power off link	○	○	○
Reduce unnecessary power consumption in Standby	○*2	○*2	-
Auto standby for unnecessary equipment	○*2	○*2	-
Control the menu of the connected equipment by VIERA remote control	○*1	○*1	○*1

VIERA Link (HDMI and Audio out connections)

Connected equipment	Player theatre	Blu-ray Disc theatre	Amplifier
Features			
Easy playback	○*3	○*3	-
Power on link	○	○	-
Power off link	○	○	○
Reduce unnecessary power consumption in Standby	-	○*2	-
Auto standby for unnecessary equipment	○*2,4	○*2,4	○*2
Control the menu of the connected equipment by VIERA remote control	○*1	○*1	-
Speaker control	○	○	○

*1 For equipment with “HDAVI Control 2 or later”.

*2 For equipment with “HDAVI Control 4 or later”.

*3 While playing a disc.

*4 Except for watching a disc.

■ Easy playback

Automatic input switching - When the connected equipment is operated, input mode is switched automatically.

VIERA Link Control of compatible equipment

Table below shows 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.

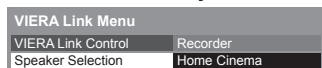
Type of the equipment	Maximum number
Recorder (DIGA Recorder, etc.)	3
Player (DVD Player, Blu-ray Disc Player, HD Video Camera, LUMIX Camera, Digital Camera, Player theatre, Blu-ray Disc theatre, etc.)	3
Audio system (Player theatre, Blu-ray Disc theatre, Amplifier, etc.)	1
Tuner (Set top box, etc.)	4

VIERA Link Menu

1 Display [VIERA TOOLS] and select [VIERA Link]



2 Select the function you want to use



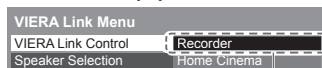
[VIERA Link Control]

You can control some functions of the connected equipment with this TV remote control by pointing at the TV's signal receiver.

- For details of the operations for the connected equipment, read the manual of the equipment.

1 Select [VIERA Link Control]

2 Select the equipment to access



[Recorder] / [Player] / [Home Cinema] / [Video Camera] / [LUMIX] / [Digital Camera] / [Other]

- 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 will be displayed.

(Input mode will be changed automatically.)

3 Operate the menu of the equipment

- Follow the operation guide.
- To display the operation guide

OPTION



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



[Recorder1-2] / [Player1-2]

The number is given from the TV's lower number of HDMI terminal connected to the same type of equipment. For example, when two recorders are connected to HDMI 1 and HDMI 2, the recorder connected to HDMI 1 is displayed as [Recorder1], and the recorder connected to HDMI 2 is displayed as [Recorder2].

■ If you access non-VIERA Link equipment

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

[Speaker Selection]

You can control the theatre speaker with this TV remote control by pointing at the TV's signal receiver.

1 Select [Speaker Selection]

2 Set to [Home Cinema] or [TV]

[Home Cinema]: The sound is from theatre speakers. Player theatre, Blu-ray Disc theatre or Amplifier will be automatically turned on if it is in Standby mode.

- You could use the **Volume Up / Down** and **MUTE** buttons.
- 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 want to enjoy the multi-channel sound (e.g. Dolby Digital 5.1ch) via an Amplifier, connect it with HDMI cable and optical digital audio cable, and then select [Home Cinema]. If your Amplifier has "HDAVI Control 5" function, you only need to connect it with HDMI cable to the TV's HDMI 2 terminal.

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

Note

- These functions may not work properly depending on the connected equipment.
- Image or sound may not be available for the first few seconds when input mode is switched.
- "HDAVI Control 5" is the newest standard (as of December, 2011) 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. 15)**

Additional Information

Auto power standby function

The TV will automatically go into 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 Timer Menu (p. 14).
- [Auto Standby] is set to [On] (p. 14).

Information banner

Example : Digital TV



- 1 Channel position and name
- 2 Channel type ([Radio], [Data], etc.) / Encrypted channel ([D]) / TV mode (TV, A)
- 3 Programme
- 4 Programme Start / Finish time (Digital TV) Channel number, etc. (Analogue TV)
- 5 Category
- 6 Current time

Icon / Message	Meaning
	Sound mute On
[Rating]	Rating information
[Bad signal]	Poor TV signal quality
[AD]	Audio Description service available ➔ (p. 14)
	Subtitle service available
	Multiple image or audio available
	Teletext service available (New Zealand)
⦿, I, II, ▽	Audio mode
1 - 90	Off Timer remaining time

To watch the channel listed in the banner



Information on the next programme (Digital TV)



To update the TV software (if available)



To confirm another tuned channel name



Extra information (Digital TV)

INFO (Press again to hide the banner)

To select a favourite list (Digital TV)



(if the favourite list is created in [Favourites Edit])

Rating (Digital TV)

Australia

Rating	Meaning	Rating	Meaning
- (No Block)	Not classified	M	Mature
P	Pre school	MA 15+	Mature Adult 15+
C	Children	AV 15+	Adult strong Violence 15+
G	General	R	Restricted 18+
PG	Parental Guidance recommended		

New Zealand

Rating	Meaning
- (No Block)	Not classified
G	General
PGR	Parental Guidance Recommended
AO	Adults Only

Aspect

- **[16:9]**
Directly displays the image at 16:9 without distortion (anamorphic).
- **[14:9]**
Displays the image at the standard 14:9 without distortion.
- **[Just]**
Displays a 4:3 image full-screen. Stretching is only noticeable at the left and right edges.
- **[4:3]**
Displays the image at the standard 4:3 without distortion.
- **[Zoom]**
Displays a 16:9 letterbox or 4:3 image without distortion.
- **[4:3 Full]**
Displays a 4:3 image enlarged horizontally to fit the screen.
– For HD (High definition) signals
- **[Sidecut Just]**
Displays a 16:9 letterbox (anamorphic) image full-screen. Stretching is only noticeable at the left and right edges.
– For HD (High definition) signals
- **[Sidecut Zoom]**
Displays a 16:9 letterbox (anamorphic) image full-screen without distortion.
– For HD (High definition) signals

Input signal that can be displayed

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

- Mark : Applicable input signal
- Signals other than the above may not be displayed properly.
- The above signals are reformatted for optimal viewing on your display.

Supported file format in Media Player

■ Photo

- JPEG (.jpg, .jpeg)
- Supported resolution: 8 × 8 to 30,719 × 17,279
- DCF and EXIF standards
- Sub-sampling: 4:4:4, 4:2:2, 4:2:0
- Progressive JPEG is not supported.

■ Music

- MP3 (.mp3) / AAC (.m4a)*1 / WMA (.wma)*1, 2 / LPCM (.wav) / FLAC (.flac)

■ Video

- AVI (.avi)*2, 3 / MKV (.mkv)*3 / ASF (.asf, .wmv)*1, 2 / MP4 (.f4v, .m4v, .mp4)*4 / FLV (.flv) / 3GPP (.3gp, .3g2) / TS (.mts, .m2ts, .tp, .trp, .ts, .tts) / PS (.mod, .mpg, .mpeg, .vob, .vro)

*1 Copy-protected files cannot be played back.

*2 WMA Pro and WMA Lossless are not supported.

*3 Some subtitles or chapter functions may not be available.

*4 This TV supports this container recorded with Panasonic products. For details, read the manual of the products.

■ Subtitles

- MicroDVD, SubRip, TMPlayer (.srt, .sub, .txt)
 - The video file and subtitles text file are inside the same folder, and the file names are the same except for the file extensions.
 - If there are more than one subtitles text file inside the same folder, they are displayed in the following order of priority: “.srt”, “.sub”, “.txt”.

Note

- Even if these conditions are fulfilled, some files may not play depending on how they are encoded.
- Do not use two-byte characters or other special codes for data.
- Connected devices may become unusable with this TV if the file or folder names are changed.

HDMI connection

This TV incorporates HDMI™ technology. 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.

■ Applicable HDMI features

- Input audio signal:
2ch Linear PCM (sampling frequencies - 48 kHz, 44.1 kHz, 32 kHz)
- Input video signal:
➔ **“Input signal that can be displayed” (p. 19)**
Match the output setting of the digital equipment.
- Audio Return Channel* (HDMI 2 terminal only)
- Content Type
- VIERA Link (HDAVI Control 5)

■ DVI connection

If the external equipment has only a DVI output, connect to the HDMI terminal via a DVI to HDMI adaptor cable. When the DVI to HDMI adaptor cable is used, connect the audio cable to the audio input terminal (use AV1 audio terminals).

Note

- Audio settings can be made on [HDMI1 / 2 Input] in the Sound Menu.
- 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.
- * Audio Return Channel (ARC) is a function to send digital sound signals via an HDMI cable.

USB Flash Memory

For playing back in Media Player

Format: FAT16, FAT32

Compliance:

Supports only USB1.1 or USB2.0 standard.

Maximum USB capacity supported is 16GB.

USB Hub or card adapter is not supported.

Note

- Data modified with a PC may not be displayed.
- Do not remove the device while the TV is accessing data. Otherwise this can damage the device or TV.
- Do not touch the pins on the device.
- Insert the device in the correct direction. Otherwise this can damage device or TV.
- Electrical interference, static electricity, or erroneous operation may damage the data or device. Panasonic is not liable for any deterioration or damage of data or device during operations with the TV.
- It is recommended to connect the USB Flash Memory directly to the TV's USB port.
- Some USB devices or USB HUB may not be used with this TV.
- You cannot connect any devices by using USB card reader.
- Additional information for USB devices may be on the following website. (English only)
<http://panasonic.jp/support/global/cs/tv/>

Troubleshooting

Before requesting service or assistance, please follow these simple guides to resolve the problem. If an error message appears, follow the message's instructions. If the problem still persists, please contact your local Panasonic dealer for assistance.

Screen

Red, blue, green or black spots on the screen

→ This is the characteristic of liquid crystal panels. The liquid crystal panel is built with very high precision technology. Occasionally, a few non-active pixels may appear on the screen as points of red, green, blue or black. This does not affect the performance of your TV and it is not a quality problem.

Chaotic image, noisy

→ Set [Noise Reduction] in the Picture Menu to remove noise (p. 12).
→ Check nearby electrical products (car, motorcycle, fluorescent lamp).

No image is displayed

→ Check the settings of [Contrast], [Brightness] or [Colour] in the Picture Menu (p. 12).
→ Check the TV is in AV mode. If the TV is in AV mode, check the selected input mode match the output of the external equipment (p. 9).

Blurry or distorted image

(no sound or low volume)

→ Resets channels ➔ (p. 15)

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. 15)

Pictures from equipment connected via HDMI are unusual

→ Check the HDMI cable is connected properly.
→ Turn the TV and equipment off, then turn them on again.
→ Check an input signal from the equipment (p. 19).
→ Use equipment compliant with EIA/CEA-861/861D.

Sound

No sound is produced

→ Check the sound mute setting (p. 8) and volume.

Low level or distorted sound

→ Sound signal reception may be deteriorated.

Sound output via HDMI connection 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. 14).
→ If digital sound connection has a problem, select analogue sound connection (p. 20).

General

The TV goes into Standby mode

→ This TV is equipped with auto power standby function (p. 19).

The remote control does not work or is intermittent

→ Replace the batteries (p. 5).
→ Point the remote control directly at the remote control signal receiver of the TV (within about 7 m and 30 degree angle).
→ Situate the TV away from sunshine or block sources of bright light from shining on the remote control signal receiver of the TV.

Parts of the TV become hot

→ Even if the temperature of parts of the front, top and rear panels has risen, these temperature rises do not cause any problems in terms of performance or quality.

The LCD panel moves slightly when it is pushed with a finger

Clattered sound might be heard

→ There is some flexibility around the panel to prevent damage. This is not a malfunction.

Overcurrent error message appears

→ The connected USB device might cause this error. Remove the device and turn the TV off with Mains power On / Off switch, then turn it on again.
→ Check foreign objects are not inside the USB port.

Maintenance

First, remove the mains plug from the socket outlet.

Regular care

- Gently wipe the surface of the display panel, cabinet and pedestal by using a soft cloth.
- Wipe the mains plug with a dry cloth at regular intervals. Moisture and dust may lead to fire or electrical shock.

For stubborn dirt

First clean the dust on the surface. Dampen a soft cloth with clean water or diluted neutral detergent (1 part detergent to 100 parts water). 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 as this could scratch the surface.
- Do not subject the TV's surfaces to water or detergent. Liquid inside the TV could lead to product failure.
- Do not subject the surfaces to insect repellent, solvent, thinner or other volatile substances. This may degrade surface quality or cause peeling of the paint.
- The surface of the display panel is specially treated and may be easily damaged. 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.

Specifications

Model No.	TH-L24XM6A TH-L24XM6Z		
Power			
Rating	AC 220 - 240 V, 50/60 Hz 0.4 A		
Normal (Home) mode	26 W		
Standby power consumption	0.2 W		
Display panel			
Panel	TFT LCD Module with LED Backlight		
Visible screen size (diagonal)	61 cm (24 inches)		
Display Resolution	1,049,088 (1,366 (W) × 768 (H))		
Sound			
Speaker	(100 mm × 30 mm) × 2 pcs, 8 Ω		
Audio output	6 W (3 W + 3 W), 10% THD		
Receiving systems / Band name			
Digital TV	[Australia] 7 MHz VHF / UHF (Australia) free-to-air TV broadcast reception [New Zealand] 8 MHz UHF (New Zealand) free-to-air TV broadcast reception		
PAL B / G	Reception of Off air broadcasts		
PAL 60 Hz	Playback of NTSC tape from some PAL Video recorders (VCR)		
M.NTSC	Playback from M.NTSC Video recorders (VCR)		
NTSC	Playback from NTSC Video recorders (VCR)		
Dimensions (W × H × D)			
With Pedestal (mm)	576 × 416 × 180		
TV only (mm)	576 × 351 × 59		
Mass (Net)			
With Pedestal (kg)	5.0		
TV only (kg)	4.5		
Aerial input	[Australia] Standard Belling & Lee connector [New Zealand] VHF / UHF		
Operating Conditions	Temperature: 0 °C - 35 °C Humidity: 20 % - 80 % RH (non-condensing)		
Connection terminals			
AV1 IN	AUDIO L - R	RCA PIN Type × 2	0.5 V[rms]
	VIDEO	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)
	COMPONENT	Y P _B /C _B , P _R /C _R	1.0 V[p-p] (including synchronization) ±0.35 V[p-p]
AV2 IN	AUDIO L - R	RCA PIN Type × 2	0.5 V[rms]
	VIDEO	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)
AUDIO OUT	AUDIO L - R	RCA PIN Type × 2	0.5 V[rms]
DIGITAL AUDIO OUT	PCM / Dolby Digital / DTS, Fibre optic		
HDMI AV IN	TYPE A Connectors × 2		
USB	USB 2.0 TYPE A Connectors × 1 DC 5 V, Max. 500 mA		

Design and Specifications are subject to change without notice. Mass and Dimensions shown are approximate.

Panasonic Warranty

1. The product is warranted for 12 months from the date of purchase. Subject to the conditions of this warranty Panasonic or its Authorised Service Centre will perform necessary service on the product without charge for parts or labour, if in the opinion of Panasonic, the product is found to be faulty within the warranty period.
2. This warranty only applies to Panasonic products purchased in Australia and sold by Panasonic Australia or its Authorised Distributors or Dealers and only where the products are used and serviced within Australia or its territories. Warranty cover only applies to service carried out by a Panasonic Authorised Service Centre and only if valid proof of purchase is presented when warranty service is requested.
3. This warranty only applies if the product has been installed and used in accordance with the manufacturer's recommendations (as noted in the operating instructions) under normal use and reasonable care (in the opinion of Panasonic). The warranty covers normal domestic use only and does not cover damage, malfunction or failure resulting from use of incorrect voltages, incorrect installation, accident, misuse, neglect, build-up of dirt or dust, abuse, maladjustment of customer controls, mains supply problems, thunderstorm activity, infestation by insects or vermin, tampering or repair by unauthorised persons (including unauthorised alterations), introduction of sand, humidity or liquids, commercial use such as hotel, office, restaurant, or other business or rental use of the product, exposure to abnormally corrosive conditions or any foreign object or matter having entered the product.
4. This warranty does not cover the following items unless the fault or defect existed at the time of purchase:

(a) Cabinet Part(s) (b) Video or Audio Tapes (c) SD cards or USB devices (d) User replaceable Batteries etc	(e) DVD, Blu-ray, or Recordable Discs (f) Video / Audio Heads from wear and tear in normal use (g) Information stored on Hard Disk Drive, USB stick or SD card (h) DTV reception issues caused by TV Aerial / Cabling / Wall socket(s)
---	---
5. Some products may be supplied with Ethernet connection hardware. The warranty is limited on such products and will not cover
 - (a) Internet and or DLNA connection / setup related problems
 - (b) Access fees and or charges incurred for internet connection
 - (c) The use of incompatible software or software not specifically stipulated in the product operations manual; and
 - (d) Any indirect or consequential costs associated with the incorrect use or misuse of the hardware, its connection to the internet or any other device.
6. To claim warranty service, when required, you should:
 - Telephone Panasonic's Customer Care Centre on 132600 or visit our website referred to below and use the Service Centre Locator for the name/address of the nearest Authorised Service Centre.
 - Send or take the product to a Panasonic Authorised Service Centre together with your proof of purchase receipt as a proof of purchase date. Please note that freight and insurance to and / or from your nearest Authorised Service Centre must be arranged by you.
 - Note that home or pick-up/delivery service is available for the following products in the major metropolitan areas of Australia or the normal operating areas of the nearest Authorised Service Centres:
 - Plasma/LCD televisions / displays (screen size greater than 103 cm)
7. The warranties hereby conferred do not extend to, and exclude, any costs associated with the installation, de-installation or re-installation of a product, including costs related to the mounting, de-mounting or remounting of any screen, (and any other ancillary activities), delivery, handling, freighting, transportation or insurance of the product or any part thereof or replacement of and do not extend to, and exclude, any damage or loss occurring by reason of, during, associated with, or related to such installation, de-installation, re-installation or transit.

Panasonic Authorised Service Centres are located in major metropolitan areas and most regional centres of Australia, however, coverage will vary dependant on product. For advice on exact Authorised Service Centre locations for your product, please telephone our Customer Care Centre on 132600 or visit our website and use the Service Centre Locator.

In addition to your rights under this warranty, Panasonic products come with consumer guarantees that cannot be excluded under the Australian Consumer Law. If there is a major failure with the product, you can reject the product and elect to have a refund or to have the product replaced or if you wish you may elect to keep the goods and be compensated for the drop in value of the goods. You are also entitled to have the product repaired or replaced if the product fails to be of acceptable quality and the failure does not amount to a major failure.

If there is a major failure in regard to the product which cannot be remedied then you must notify us within a reasonable period by contacting the Panasonic Customer Care Centre. If the failure in the product is not a major failure then Panasonic may choose to repair or replace the product and will do so in a reasonable period of time from receiving notice from you.

THIS WARRANTY CARD AND THE PURCHASE DOCKET (OR SIMILAR PROOF OF PURCHASE) SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES

If you require assistance regarding warranty conditions or any other enquiries, please visit the **Panasonic Australia** website www.panasonic.com.au or contact by phone on **132 600**
If phoning in, please ensure you have your operating instructions available.

Panasonic Australia Pty. Limited

ACN 001 592 187 ABN 83 001 592 187

1 Innovation Road, Macquarie Park NSW 2113

PRO-031-F11 Issue: 4.0

01-01-2011

WARRANTY - New Zealand only

WE WARRANT that the Panasonic Television that you have purchased is free from defects in material and workmanship under normal home use and service.

Accordingly, we undertake to repair, or at our option, replace without cost to the owner, either for material or labour, any part which within 12 months from the date of delivery is found to be defective, provided that the appliance has been used for domestic purposes only and in accordance with the instructions given in the Instruction Book and not been subjected to misuse, neglect or installed, dismantled, repaired or serviced by any other than an authorised Panasonic New Zealand Dealer or Panasonic New Zealand Authorised Service Centre.

NOTE

- Before reporting a fault, please ensure that you read the item "Troubleshooting" in the information section of your Panasonic Instruction Book.
- It is important to retain your proof of purchase as this will be required by the serviceman or retailer as proof of purchase date, should service be required.
- In the event of service being required, contact your Panasonic New Zealand retailer or Panasonic New Zealand Authorised Service Centre.

IMPORTANT

Any request for warranty service must be through an Authorised Panasonic New Zealand Service Centre who during the period of the warranty, undertakes to make any necessary adjustment and fit any replacement part supplied by the manufacturer, during normal working hours, or alternatively will arrange for such service to be provided by some other Panasonic New Zealand Authorised Service Centre.

NEW ZEALAND

Distributed in New Zealand by Panasonic New Zealand Limited

350 Te Irirangi Drive East Tamaki, Private Bag 14911, Panmure Auckland

Tel. 09 272 0100

Customer Care Center

Email: Customerservice@nz.panasonic.com

www.panasonic.co.nz

Information on Disposal in other Countries outside the European Union



This symbol is only valid in the European Union. If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

Customer's Record

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

Model Number _____

Serial Number _____

Panasonic Corporation

Web Site: <http://panasonic.net>

F0313-2033