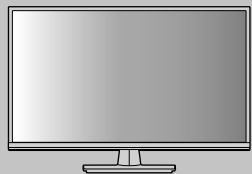


## Operating Instructions

### LED TV

### Contents

- Safety Precautions ..... 2
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### 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.

The illustrations for A410 series is used in this manual unless otherwise mentioned.

Transport only in upright position



## 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:  
 - A400G/K, A408K, A409K, A410G/K series:  
 AC 220 - 240 V, 50/60 Hz  
 - A400X, A410M/X series:  
 AC Auto 110 - 240V, 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.

\* 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.

#### Caution

\* 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.

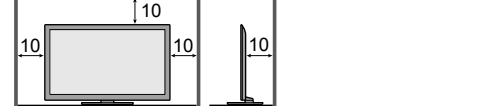
\* Install or remove the TV by the specified procedure.

### 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.

### 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.

### Use conditions

#### Caution

\* This appliance is intended for use in tropical climates.

### 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.

### Remote Control

\* N2QAYB000823

### Batteries (R6) x 2

\* (p. 4)

### Mains Lead (p. 5)

\* Other series

\* A410M series



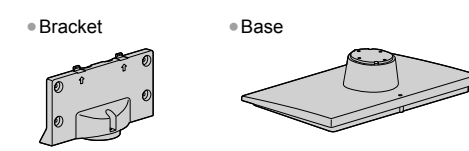
### Pedestal

\* Assembly screws

\* (M4 x 15) x 4

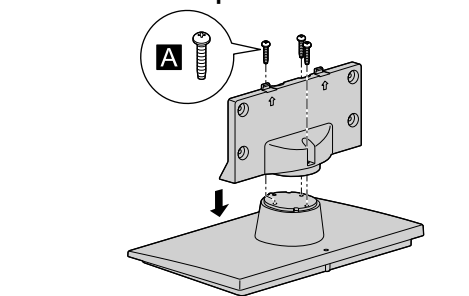
\* Bracket

\* Base

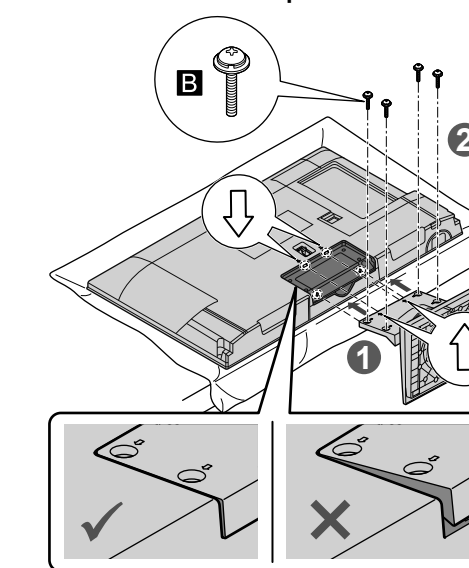


### Attaching the pedestal

#### 1 Assemble the pedestal



#### 2 Attach the TV to the pedestal

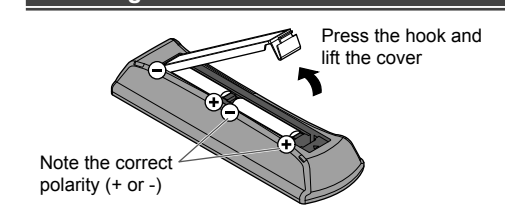


### Removing the pedestal from the TV

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.

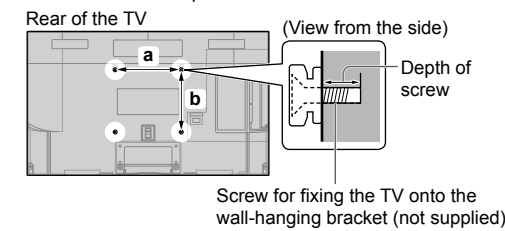
### Inserting remote's batteries



### Optional accessories

#### Wall-hanging bracket (not supplied)

Please contact your local Panasonic dealer to purchase the recommended optional accessories.



#### Holes for wall-hanging bracket installation

a: 200 mm

b: 200 mm

#### Screw specification

Type: M4

Depth of screw:

Minimum: 9 mm

Maximum: 14 mm

#### Warning

\* When optional accessories such as wall brackets etc. are used, always read and follow the manufacturer's 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

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

\* Ensure that the unit is disconnected from the mains socket before attaching or disconnecting any leads.

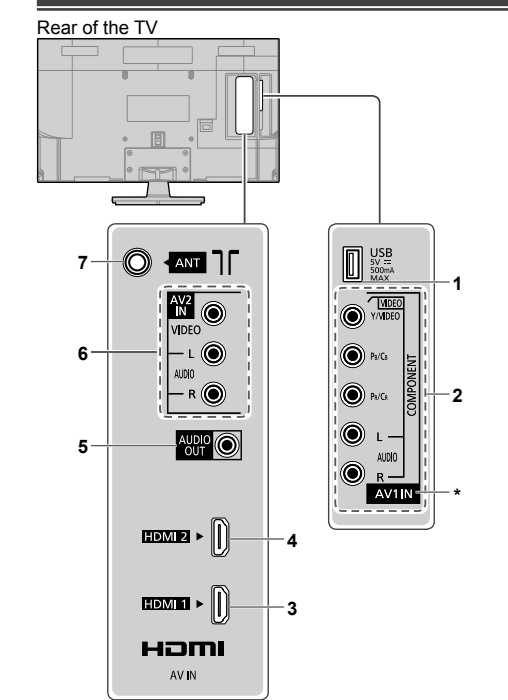
\* Check the type of terminals and cable plugs are correct when connecting.

\* 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 USB port
- 2 A410M/X only: AV1 IN  
Other models: AV IN\*
- 3 HDMI 1
- 4 A410 series only: HDMI 2
- 5 AUDIO OUT
- 6 A410M/X only: AV2 IN
- 7 Aerial terminal

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.

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Panasonic and its affiliates make no representations or warranties of any kind with respect to the USB devices and the performance of communication between the USB devices and the USB port of Panasonic products, and expressly disclaims any and all warranties, whether express or implied or otherwise, including without limitation any implied warranty of fitness for a particular purpose, any loss of data, and any implied warranties arising from course of dealing or course of performance of data communication between the USB devices and the USB port of Panasonic products.

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

### Information 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.

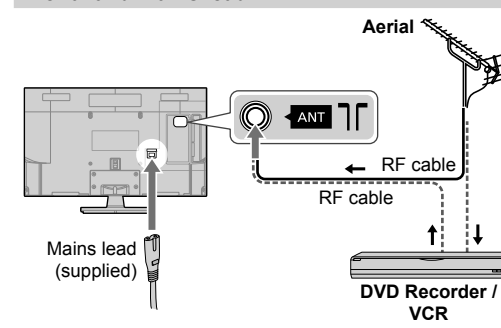
### Customer's Record

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 \_\_\_\_\_

### Connections

#### Aerial and mains lead



#### Insert the mains plug firmly into place.

\* When disconnecting the mains lead, be absolutely sure to disconnect the mains plug at the socket outlet first.

\* Keep the space between the TV and RF cable to prevent distorted image.

\* Do not put the RF cable close to the mains lead to avoid noise.

\* Do not place the RF cable under the TV.

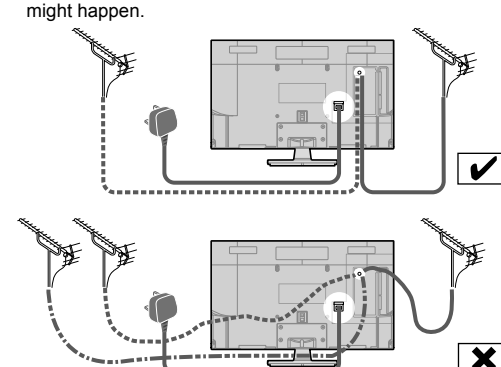
\* An aerial, correct cable (75 Ω coaxial) and correct terminating plug are required to obtain optimum quality picture and sound.

\* 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.

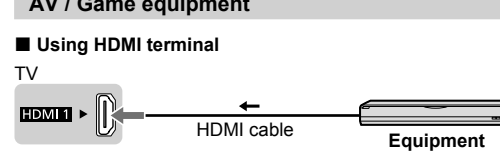
\* If the aerial is placed in the wrong location, interference might happen.



### Set top box

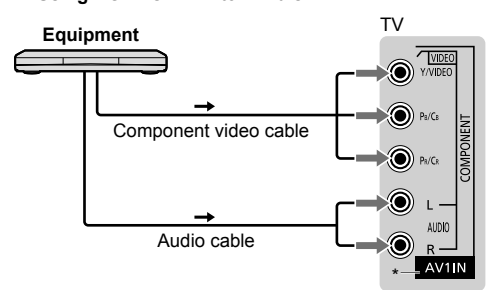


### AV / Game equipment



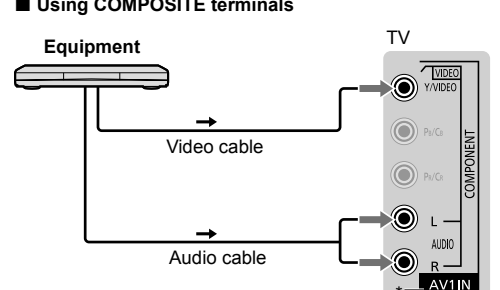
\* You can also make similar connection via HDMI 2.

### Using COMPONENT terminals



\* A410M/X only: AV1 IN  
 Other models: AV IN

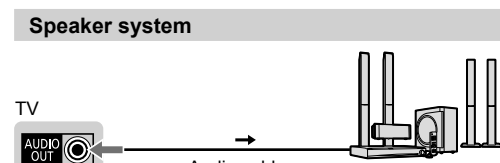
### Using COMPOSITE terminals



\* A410M/X only: AV1 IN  
 Other models: AV IN

\* You can also make similar connection via AV2 IN.

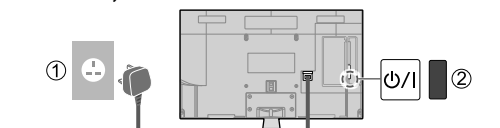
### Speaker system



## Initial Setup

When you first turn on the TV, a series of steps will pop-up to guide you to set up 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, then switch on the TV



### 2 Select your language

A400G/K, A408K, A409K, A410G/K series:  
 AC 220 - 240 V, 50/60 Hz  
 A400X, A410M/X series:  
 AC Auto 110 - 240V, 50/60 Hz



### 3 Select your area

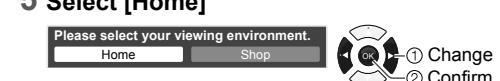


\* When selecting [CATV/Other], press **OK**, and then select the Channel Plan from [Indian CATV], [South Africa], [American System], [American CATV] or [Japan].

### 4 Auto Tuning starts

\* Auto Tuning searches and stores TV channels. The sorted channel order depends on the TV signal, the broadcasting system and reception conditions.

### 5 Select [Home]



\* [Shop] is for shop display. If you selected [Shop], you can return to the above screen at the stage of Shop confirmation screen.

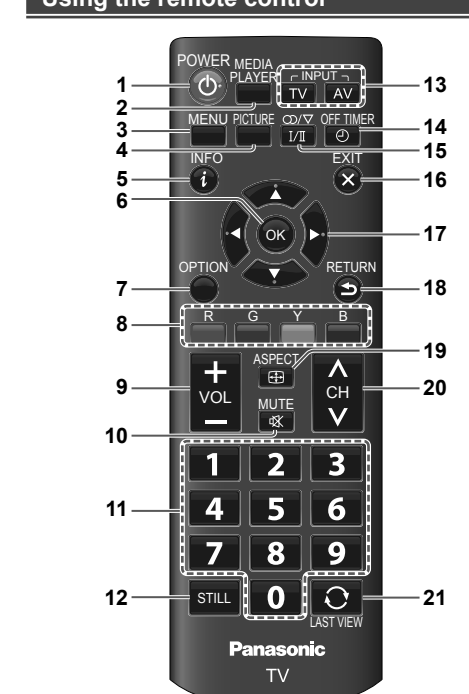


\* To change the viewing environment later on, you need to initialise all settings by accessing [Shipping Condition] (p. 11).

**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 MEDIA PLAYER (p. 8)
- 3 Displays [Main Menu] (p. 9)
- 4 Selects picture mode (p. 9) [Viewing Mode] (p. 9)  
\* Press repeatedly to select.
- 5 Displays Information banner
- 6 **OK**  
\* Confirms selections.  
\* Press after selecting channel positions to quickly change channel.
- 7 Displays [Option Menu]  
\* Shortcuts to some setting menus for picture, sound, etc.  
\* 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.  
\* When in Standby mode, switches TV On.
- 12 **Freezes / unfreezes picture**

### 13 Input mode selection

\* TV - switches to TV input mode  
 \* AV - displays [Input Selection] screen (p. 7) or press repeatedly to select the AV input mode

### 14 OFF TIMER

\* Press repeatedly to select the period after which the TV will turn to Standby mode automatically.  
 [0] / [15] / [30] / [45] / [60] / [75] / [90] (minutes)

### 15 Changes multiplex sound mode (if available)

Sound mode indicator:  
 ○ : STEREO I : MAIN I  
 ▽ : MONO II : SUB II

### 16 Exits to the TV viewing screen

### 17 Cursor buttons

\* Makes selections or adjustments.  
 \* Makes selections or adjustments when in the menu system

### 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] / [4:3 Full] / [Zoom1] / [Zoom2] / [Zoom3] (p. 12)  
 \* You can also press the button repeatedly to select the mode.

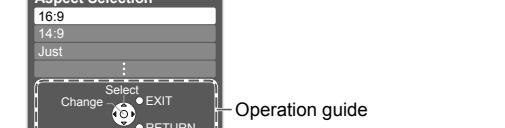
### 20 Channel Up / Down

### 21 Returns to the last viewed channel

### 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



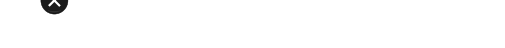
\* To change to the selected mode



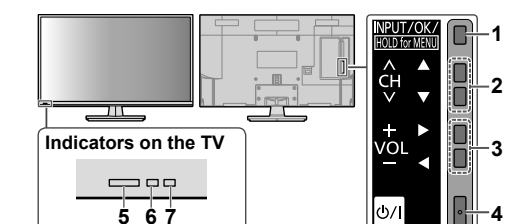
\* To return to the previous menu



\* To exit the menu



### Using the TV controls



# Using the Media Player

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



## 3 Select the mode



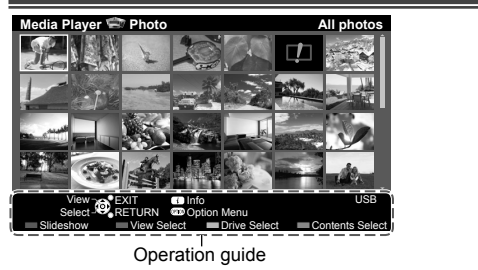
[Photo]: Displays the thumbnail of all photos in the USB device.
[MUSIC]: Displays the thumbnail of music folders in the USB device.
[Movie]: Displays the thumbnail of video titles in the USB device.

### [Contents Select]

Switching between modes
When you are in the thumbnail view of any mode, you change to the other mode by returning to the [Contents Select] screen.



### Photo mode



Error display

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

# 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 Setup Menu.
No operation is performed for the period selected in [Auto Standby] (p. 11).

## 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.
[4:3 Full] Displays a 4:3 image enlarged horizontally to fit the screen.
[Zoom1] Displays a 16:9 letterbox or 4:3 image without distortion.
[Zoom2] Displays a 16:9 letterbox (anamorphic) image full-screen without distortion.
[Zoom3] Displays a 2.35:1 letterbox (anamorphic) image full-screen without distortion. At 16:9, displays the image at its maximum (with slight enlargement).

## Input signal that can be displayed

Table with 3 columns: Signal name, COMPONENT, HDMI. Lists various signal formats like 525 (480) / 60i, 60p and their compatibility.

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

To display / hide the operation guide during [Single 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.

### [Option Menu]

Contains [Slideshow Settings] menus to set up slideshow.

### [Transition Effect]

Effect for photo switching during slideshow [None] / [Dissolve] / [Wipe right] / [Wipe left] / [Wipe up] / [Wipe down] / [Box out] / [Random]

### [Screen Mode]

Screen mode for Single view and Slideshow [Normal] / [Zoom]
Depending on the photo size, it may not be fully enlarged to fill the screen, e.g. portrait style picture.

### [Interval]

Slideshow interval [5] / [10] / [15] / [30] / [60] / [90] / [120] (seconds)

### [Repeat]

Slideshow repeat [Off] / [On]

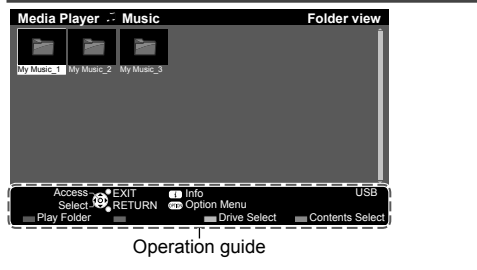
### [Back Ground Music]

Background music during photo viewing [Off] / [Type 1] / [Type 2] / [Type 3]

### [Note]

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

## Music mode



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

To display / hide the operation guide during playback

To playback all music in the selected folder

Error display

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

## To playback the selected file only



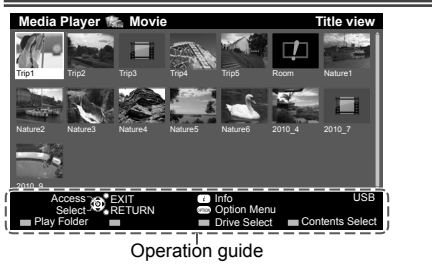
### [Option Menu]

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

### [Repeat]

[Off]: Playback repeat off
[On]: Playback repeat on the selected one file
[Folder]: Playback repeat within the selected folder

## Movie mode



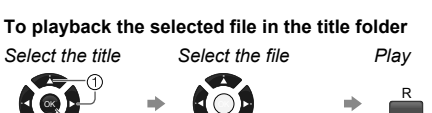
Error display

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

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

To playback all movies in the selected title folder

To playback the selected file in the title folder



### [Option Menu]

Contains [Video Setup Menu] to set up Movie mode.

While in thumbnail view:

### [Repeat]

Playback repeat within the title [Off] / [On]
Only the selected folder will be repeated.

During movie playback:

[Multi Audio] Selects the sound tracks (if available)
[Subtitle] Selects the subtitle (if available)
[Off] / [Subtitle1] / [Subtitle2] ...

### [Aspect Change]

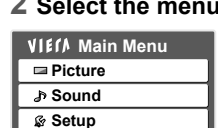
[16:9] / [14:9] / [Just] / [4:3] / [4:3 Full] / [Zoom1] / [Zoom2] / [Zoom3]
You can also change the aspect using the ASPECT button.

# Using the Menu Functions

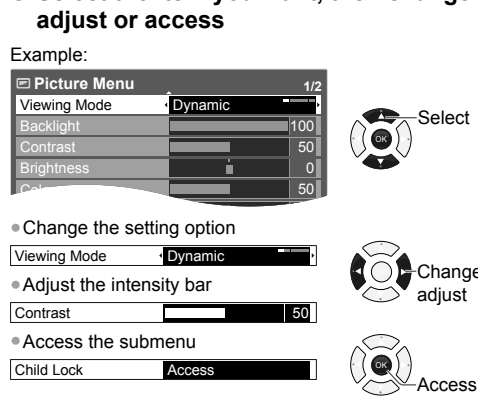
## 1 Display the menu



## 2 Select the menu



## 3 Select the item you want, then change / adjust or access



Note
A different menu will be displayed in the mode of Media Player (p. 8 - 9).
Only available items can be selected.

## Picture Menu

### [Viewing Mode]

Sets preset picture mode for each input.
[Dynamic]: Improves contrast and sharpness.
[Normal]: For viewing in a normal lighting condition.
[Cinema]: Improves the performance of contrast, black and colour reproduction.
[True Cinema]: Reproduces the original image quality precisely without any revision.
[Game]: For viewing when playing games
Not valid on TV mode.
To display a continuous record of time spent using Game mode => [Playing Time Display] (p. 11).

In each Viewing Mode, [Contrast], [Brightness], [Colour], [Sharpness], [Tint], [Colour Balance], [Eco Mode], [P-NR] and [3D-COMB] can be adjusted and stored for each input.

[Backlight] / [Contrast] / [Brightness] / [Colour] / [Sharpness]
Adjusts the levels of these options to your preference.

### [Tint]

Adjusts the picture hue.
For NTSC signal, Component or HDMI input

### [Colour Balance]

Sets the overall colour tone of the picture.
[Cooll] / [Normal] / [Warm]
Not valid when [Viewing Mode] is set to [True Cinema]

### [Auto Gain Control]

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

### [Channel Colour Set]

Adjusts the suitable colour density from 3 levels for each channel.
Select the channel to adjust and set this function.

### [Eco Mode]

Automatic Brightness Control function
Adjusts picture settings automatically depending on ambient lighting conditions [Off] / [On]

### [P-NR] (Picture Noise Reduction)

Reduces unwanted picture noise and flicker noise in the contoured parts of a picture [Off] / [Min] / [Mid] / [Max]

### [3D-COMB]

Makes still or slow moving pictures more vivid [Off] / [On]
Occasionally, while 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 Component, HDMI and Media Player.

### [Reset to Defaults]

Press OK to reset the present picture [Viewing Mode] of the selected input to the default settings.

## Sound Menu

### [Mode]

Sets preset sound mode. 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.
[User]: Adjusts the sounds manually by using the equaliser
For the User mode, [Equaliser] will appear on the Sound Menu instead of [Bass] and [Treble]. Select [Equaliser] and adjust the frequency => (below).

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

[Bass] / [Treble]
Adjusts the effect to your preference.

### [Equaliser]

Select the frequency and change the frequency level by using the cursor buttons.
This function is available when [Mode] is set to [User].
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 to Defaults] by using the cursor button, and then press the OK button.

### [Balance]

Adjusts volume level of right and left speakers

### [Surround]

Surround sound settings [Off] / [On]

### [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 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.

### [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

### [HDMI1/2 Input]

Selects to fit the input signal (p. 12)
[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 to Defaults]

Press OK to reset the present settings of [Mode], [Balance] and [Surround] to the default.

## Setup Menu

### [Off Timer]

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

### [Child Lock]

Locks channels / AV input modes
Enter the PIN number (4 digits) to access.

### [Change PIN]

Lets you change your PIN number.
Enter a new PIN number twice.
Performing [Shipping Condition] erases the PIN number and all settings.

### [Child Lock List]

Displays the Child Lock List.
From the list, selects the channel / input to be locked.

### [Tuning Menu]

(p. 11)
[OSD Language]
Changes language for on-screen displays => (p. 6)

## [Display Settings]

[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. 7) or banner
To skip the input mode, select [Skip].

[Banner Display Timeout]
Sets how long the information banner stays on screen (p. 6) [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 [Viewing Mode] is set to [Game].

### [System Menu]

[Shipping Condition]
Resets all settings to the original condition.
Access this function and follow the on-screen instructions to complete the procedures.
Initial Setup will automatically start after [Shipping Condition] completes => (p. 6).

[Software Licence]
Displays the software licence information of the TV.

[System Information]
Displays the system information of the TV.

### [Other Settings]

[Colour System]
Selects optimum colour system based on video signals in AV mode [Auto] / [PAL] / [SECAM] / [M.NTSC] / [NTSC]

[Colour Matrix]
Adjusts suitable colour parameters for [SD] (standard definition) or [HD] (high definition)
[SD]: Input signal is a normal TV system
[HD]: Input signal is a high definition system
Available only with 480p or 576p input on video signals in a natural colour from digital equipment connected to AV1 component or HDMI1 / HDMI2 terminals.

[Auto Standby]
Sets the duration of time that the TV will remain on when no operation is performed [Off] / [2] / [4] (hours)
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 into Standby mode.

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

[16:9 Overscan]
Selects the screen area displaying the image
[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 [16:9].
This function can be memorised separately for SD (Standard definition) and HD (High definition) signals.

[Auto Standby]
Sets the duration of time that the TV will remain on when no operation is performed [Off] / [2] / [4] (hours)
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 into Standby mode.

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

[16:9 Overscan]
Selects the screen area displaying the image
[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 [16:9].
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[Auto Standby]
Sets the duration of time that the TV will remain on when no operation is performed [Off] / [2] / [4] (hours)
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 into Standby mode.

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

[16:9 Overscan]
Selects the screen area displaying the image
[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 [16:9].
This function can be memorised separately for SD (Standard definition) and HD (High definition) signals.

[Auto Standby]
Sets the duration of time that the TV will remain on when no operation is performed [Off] / [2] / [4] (hours)
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 into Standby mode.

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

[16:9 Overscan]
Selects the screen area displaying the image
[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 [16:9].
This function can be memorised separately for SD (Standard definition) and HD (High definition) signals.

# 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.

# Licence

This product incorporates the following software:
(1) the software licensed under the GNU General Public License, Version 2.0 (GPL V2.0),
(2) the software licensed under the GNU LESSER General Public License, Version 2.1 (LGPL V2.1), and/or
(3) open sourced software other than the software licensed under the GPL and/or LGPL.

The software categorized as (1) - (3) are 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.
At least three (3) years from delivery of this product, Panasonic Corporation will give to any third party who contacts us at the contact information provided below, for a charge no more than our cost of physically performing source code distribution, a complete machine-readable copy of the corresponding source code covered under GPL V2.0, LGPL V2.1 or the other licenses with the obligation to do so, as well as the respective copyright notice therof.
Contact Information: cdrequest@unipf.jp
The source code and the copyright notice are also available for free in our website below.
http://www.unipf.jp/dl/ATV13AR/

\* Design and Specifications are subject to change without notice. Mass and Dimensions shown are approximate.
HDMI 2 input is available for A410 series only.

## Using the [Tuning Menu]

[Tuning Menu] lets you retune your TV, skip unwanted channels, etc.

### TV mode only

### [Channel List Edit]

Hides unwanted channels. The hidden channels cannot be displayed except in this function.

Select a channel, then reveal / hide



[Tune]
Retunes each channel (Manual Tuning).
Channel List will be set to [Tune].

[Reveal all]
Reveals all hidden channels.
Channel List will be set to [Reveal all].

### [Auto Tuning]

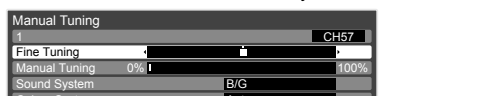
Scans and stores all channels automatically.



If tuning has not been done completely => [Manual Tuning] (below)

### [Manual Tuning]

Scans and stores channels manually.



1 Set [Sound System] and [Colour System].
Normally set [Colour System] to [Auto].

2 Select a channel position to store the channel.
If a VCR is connected only with the RF cable, select channel position [0].

3 Start tuning.
Tuning stops when a channel is found.

4 Press OK to store the channel or press the cursor button to continue tuning.

[Fine Tuning]
Refines the tuning of a channel.

## 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/

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