

**Panasonic<sup>®</sup>**

**UT50 series**

*e***HELP**

# Media player

## Get started

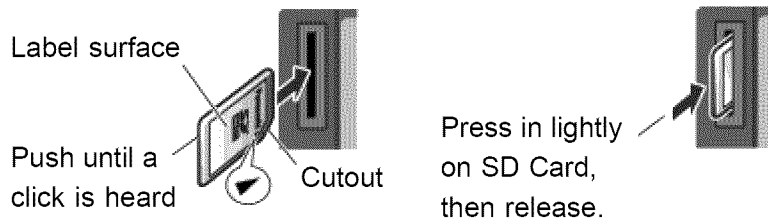
### Information

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You can view still and motion images and play music saved on a USB flash memory and an SD card.

#### ■ **SD card**

- When you use an SD card, gently insert with label surface facing front.
- When you remove the SD card, press in lightly then release.



- Compliant card type (maximum capacity):  
SDXC Card (64 GB), SDHC Card (32 GB), microSDHC Card (32 GB), SD Card (2 GB), miniSD Card (2 GB), microSD Card (2 GB)  
(requiring microSDHC Card/miniSD Card/microSD Card/ adapter)
- If a microSDHC Card, miniSD Card or microSD Card is used, insert / remove it together with the adapter.

#### ■ **USB flash memory**

- When you use a USB device, insert straight in and pull straight out.
- Media player only supports USB Mass storage class devices.

# Media player

## Get started

### Media warning messages

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Message	Meaning
No media. Please insert an SD memory card or USB storage device.	<ul style="list-style-type: none"><li>• The device is not inserted.</li></ul>
No media. Device removed.	<ul style="list-style-type: none"><li>• The device is removed.</li></ul>
No photos/No movies/ No music files to play/ No playable media	<ul style="list-style-type: none"><li>• The device has no data or this type of data is not supported.</li></ul>
Cannot read file	<ul style="list-style-type: none"><li>• The file is broken or unreadable.</li><li>• The TV does not support the format.</li></ul>

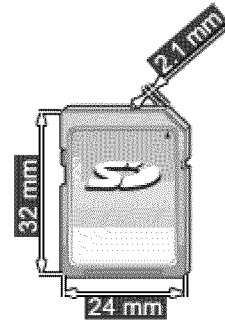
# Media player

## Get started

### SD card handling cautions

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- Use an SD Card meeting SD standards. If not, it may cause the TV to malfunction.
- Do not remove the card while the unit is accessing data (this can damage card or unit).
- Do not touch the terminals on the back of the card.
- Do not subject the card to high pressure or impact.
- Insert the card in the correct direction (otherwise, card or unit may be damaged).
- Electrical interference, static electricity or erroneous operation may damage the data or card.
- Back up the recorded data at regular intervals in case of deteriorated or damaged data or erratic operation of the unit. (Panasonic is not liable for any deterioration or damage of recorded data.)



# Media player

## Photos

### Viewing Photos


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#### 1. Insert Media (SD card or USB flash memory)


#### 2. Display Media player

 **VIERA TOOLS** → **VIERA TOOLS > Media player**

#### 3. Select the SD/USB in Drive select (Displays connected drive)

Select the drive using ◀ / ▶ and press 

#### 4. Select the Photos in Media select

Select the drive using ◀ / ▶ and press 

#### 5. Select the photo in thumbnail view

Select the data using ◀ / ▶ / ▲ / ▼ and 

\* How data is displayed differs depending on data storage conditions.

#### 6. View

Follow the Navigation and guide to operate.

\* Displayed navigation and guide may differ depending on data type.

#### ■ Other settings

Some basic menus are available after pressing the **MENU** button.

 **MENU** → **Menu > Picture/Audio/3D settings/VIERA Link**

# Media player

## Photos

### Photo view

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#### ■ **Thumbnail view**



→ Display **Slideshow settings**



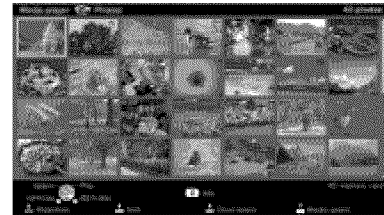
→ Display **Sort**



→ Display **Drive select**



→ Display **Media select**



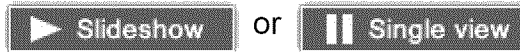
→ Information panel (File name, Date, and Size etc.)  
\* Information differs depending on selected data.

#### ■ **Playback screen**



→ Display/hide Guide and Banner

Photo status: Shows current photo status



2D/3D status: Shows current 2D/3D status

Navigation Guide: Shows available functions.

# Media player

## Photos


### Sort the photos

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#### 1. Display Sort select menu

  → **Sort select menu** (Folders / Sort by date / Sort by month)

#### 2. Select the sort type

Select the type using  $\triangle$  /  $\nabla$  and press 

#### 3. Displayed each screen

Folders: ascending order of numeric/alphabetical

Sort by month: ascending order of the month

Sort by date: ascending order of the day

# Media player

## Photos

### Options menu


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In Photo view, some optional menus are available after pressing the **OPTION** button.

#### 1. Display Options menu

 **OPTION** → Options menu

#### 2. Select the item

Select the desired menu using  $\triangle$  /  $\nabla$  and press 

(Slideshow settings/Multi shot 3D/Thumbnails size)

\* Available menus are displayed on **Options menu** depending on data condition and situation.



# Media player






## Photos

### Multi shot 3D / Thumbnails size

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#### ■ Multi shot 3D

3D images can be created by selecting 2 photos in thumbnail view.

- ① Select first photo using ◀ / ▶ / ▲ / ▼ and press 
- ② Select second photo using ◀ / ▶ / ▲ / ▼ and press 
  - To select the second image, the size and date must be the same as the first image.  
 and  are displayed at the top left-hand corner of selected photos.
- ③ Start Conversion processing by pressing   
Conversion processing message will be displayed.
  - Error message will be displayed if first and second picture have no relation, or for other reasons. (e.g. size / date is different)
- ④ 3D photo is created
- ⑤ Save the 3D image generated by the above steps to the original drive.



→ Confirmation message will be displayed and select **Yes** to save the data. (SD card only)

#### ■ Thumbnails size

To change the number of photos on a thumbnail screen at a time.

(7 x 4 ↔ 10 x 6)

# Media player

## Photos

### Using slideshow

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#### 1. Display Slideshow settings


  → Slideshow settings

#### 2. Adjust items

Select the item by  $\triangle / \nabla$  and adjust the settings using  $\triangleleft / \triangleright$

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

#### 3. Start Slideshow

After adjusting each of the settings, select **Start slideshow** with  $\triangle / \nabla$  and press 

 **RETURN** → Stop in mid-cycle

# Media player

## Photos

### Slideshow settings

Item	Description
Frame	Select the Frame. ( <b>Off/Array/Collage/Drift (with calendar)/Drift/Gallery (with calendar) / Gallery / Cinema</b> )
Photo effect	Select the display effect. ( <b>Off/Sepia/Gray scale</b> )
Transition effect	Select the Transition effect shown between photos. ( <b>Off/Fade in/Wipe ↓ /Wipe ↑ /Wipe → /Wipe ← / Slide in ↓ /Slide in ↑ /Slide in → /Slide in ← / Zoom in/Comb ↑ ↓ /Comb → ← /Dissolve/ Checker wipe/Motion/Random</b> )
Photo size	Removes the black borders that are added according to the size of the photo being displayed. ( <b>Normal/Zoom</b> )
Burst playback	Continuously plays photos that were shot. ( <b>Off/On</b> )
Display interval	<b>Display interval</b> sets the time each image is displayed in the Slideshow mode. ( <b>Short/Fast/Normal/Slow/Very slow</b> )
Repeat playback	Turn the Slideshow Repeat (cycle) function on or off. ( <b>Off/On</b> )
Soundtrack settings	Select the music. ( <b>Off/Music 1/Music 2/Music 3/Music 4/Music 5/ User selected/Auto</b> ) <b>User selected:</b> Plays the soundtrack registered in the <b>Soundtrack settings</b> menu. <b>Auto:</b> Plays the songs on the SD card or USB flash memory.

# Media player

## Photos

### Soundtrack settings

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You can register the favorite songs as soundtracks

- ① Select **Soundtrack settings** in **Slideshow settings** using  $\triangle / \nabla$
- ② Select **User selected** using  $\triangle / \nabla$
- ③ Displays **Soundtrack** popup menu, then select the desired song with  $\triangle / \nabla$  and press **OK** to register

**This song:** Register current music

**All songs in folder:** Register the music in a folder

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

# Media player

## Videos

### Viewing Videos


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#### 1. Insert Media (SD card or USB flash memory)


#### 2. Display Media player

 **VIERA TOOLS** → **VIERA TOOLS > Media player**

#### 3. Select the SD/USB in Drive select (Displays connected drive)

Select the drive using ◀ / ▶ and press 

#### 4. Select the Videos in Media select

Select the drive using ◀ / ▶ and press 

#### 5. Select the video in thumbnail view

Select the data using ◀ / ▶ / ▲ / ▼ and 

\* How data is displayed differs depending on data storage conditions.

#### 6. Play

Follow the Navigation and guide to operate.

\* Displayed navigation and guide will be different depending on data type.

### ■ Other settings

Some basic menus are available after pressing the **MENU** button.

 **MENU** → **Menu > Picture/Audio/3D settings/VIERA Link**

# Media player

## Videos

### Video view

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#### ■ Thumbnail view



→ Play the video



→ Display **Drive select**



→ Display **Media select**



→ Information panel (File name, Date, and Size etc.)

\*Information differs depending on selected data.



#### ■ Playback screen



→ Display/hide Guide and Banner

Movie banner: Shows current Video status

(Drive type (SD/USB/DLNA), Date and time or File name and Elapsed time.)

2D/3D status: Shows current 2D/3D status

Navigation Guide: Shows available functions.

- Forward/Reverse: Five levels of speed 1 to 5 (x2, x5, x30, x70, x100) are available.

\* Subtitles are not supported in MKV format.

# Media player

## Videos

### Options menu


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In Video view, some optional menus are available by pressing the **OPTION** button.

#### 1. Display Options menu

 **OPTION** → Options menu

#### 2. Select the item

Select the desired menu using  $\triangle$  /  $\nabla$  and press 

(Video options)

##### ● **Repeat playback**

Set play repeat function (**On/Off**)

\* Available menus are displayed on **Options menu** depending on data condition and situation.

# Media player

## Music

### Playing Music


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#### 1. Insert Media (SD card or USB flash memory)


#### 2. Display Media player

 **VIERA TOOLS** → **VIERA TOOLS > Media player**

#### 3. Select the SD/USB in Drive select (Displays connected drive)

Select the drive using ◀ / ▶ and press 

#### 4. Select the Music in Media select

Select the drive using ◀ / ▶ and press 

#### 5. Select the music in thumbnail view

Select the data using ◀ / ▶ / ▲ / ▼ and 

\* How data is displayed differs depending on data storage conditions.

#### 6. Play

Follow the Navigation and guide to operate.

\* Displayed navigation and guide will be different depending on data type.

#### ■ Other settings

Some basic menus are available by pressing the **MENU** button.

 **MENU** → **Menu > Picture/Audio/3D settings/VIERA Link**



# Media player

## Music

### Music view

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#### ■ Thumbnail view



→ Play folder



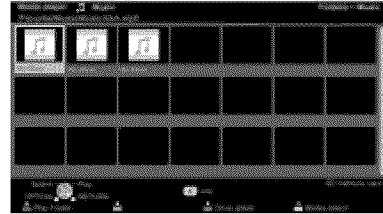
→ Display **Drive select**



→ Display **Media select**



→ Information panel (File name, Date, and Size etc.)  
\* Information differs depending on selected data.



#### ■ Playback screen



→ Display/hide Guide and Banner

Music Guide: Shows current Music status

(Artist name/Album name/Song name, Elapsed time)

Navigation Guide: Shows available functions.

- Forward/Reverse: Five levels of speed 1 to 5 (x2, x5, x30, x70, x100) are available.

# Media player

## Music

### Options menu

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#### ■ Music options

In Music view, some optional menus are available by pressing the **OPTION** button.

#### 1. Display Options menu

 **OPTION** → Options menu

#### 2. Select the item

Select the desired menu using  $\triangle$  /  $\nabla$  and press 

(Music options)

#### ● Repeat playback

Set play repeat function (**Off/Repeat folder/One song**)

\* Available menus are displayed on **Options menu** depending on data condition and situation.

# Media player

## Data information

### Compatible Data format (1)

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#### ■ Compatible Data format for Media player (SD card/USB flash memory)/DLNA

Media	Compatible format
Photo	<ul style="list-style-type: none"><li>• JPEG files (DCF and EXIF standards) Sub-sampling - 4:4:4, 4:2:2 and 4:2:0 Image resolution - 8 x 8 to 30,719 x 17,279 pixels</li></ul>

# Media player

## Data information

### Compatible Data format (2)

Media	Compatible format
Videos	<ul style="list-style-type: none"> <li>• SD-Video files (SD-Video Standard Ver.1.31) Modified data with a PC may not be displayed correctly.</li> <li>• AVCHD files AVCHD Standard Ver.2.0 (AVCHD 3D, AVCHD Progressive) Modified data with a PC may not be displayed correctly.</li> <li>• MotionJPEG files (taken with LUMIX)*</li> <li>• MP4 files Video codec H.264/MPEG1/MPEG2 Audio codec MPEG Audio/MP3/AAC/HE-AAC/AC3/E-AC3</li> <li>• MKV files Video codec H.264/MPEG1/MPEG2 Audio codec MPEG Audio/MP3/AAC/HE-AAC/AC3/E-AC3</li> <li>• FLV files Video codec H.264 Audio codec MP3/AAC</li> <li>• 3GPP files Video codec H.264/MPEG1/MPEG2 Audio codec AAC/HE-AAC</li> <li>• PS files Video codec H.264*/MPEG1/MPEG2 Audio codec MPEG Audio/MP3*/AAC*/HE-AAC*/AC3/ E-AC3*/LPCM</li> <li>• TS files Video codec H.264/MPEG1/MPEG2 Audio codec MPEG Audio/MP3*/AAC/HE-AAC/AC3/E-AC3</li> </ul>

\* for Media player only

# Media player

## Data information

### Compatible Data format (3)

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Media	Compatible format
Music	<ul style="list-style-type: none"><li>• MP3 files (MP3)</li><li>• AAC files (AAC)</li><li>• FLAC files (FLAC)</li></ul>

# Media player

## Data information

### Notice

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- Format the card with the recording equipment.
- The picture may not appear correctly on this TV depending on the recording equipment used.
- Some files may not be played back even if they fulfill these conditions.
- Depending on how you make SD Card, USB Flash Memory or the media server, files and folders may not be displayed in the order you numbered.
- Depending on how you create the files and the structure of folders, the files and folders may not be displayed.
- When there are many files and folders, operation may take time to complete or some files may not be displayed or playable.
- The function cannot display still images that are not DCF formatted (i.e. TIFF, BMP).
- Data modified with a PC may not be displayed.
- Images imported from a PC must be compatible with EXIF 2.0, 2.1 and 2.2.
- Partly degraded files might be displayed at a reduced resolution.
- All ".JPG" extension data in the SD card and USB flash memory will be read in Photo Viewer Mode.
- The folder and file names may be different depending on the digital camera used.
- Do not use two-byte characters or other special codes.
- The card may become unusable with this TV if file or folder names are changed.
- For the suitable SD Memory Cards, please confirm the latest information on the following website.  
<http://panasonic.jp/support/global/cs> (This site is in English only)

# Convenience features

## Using VIERA TOOLS

### Using VIERA TOOLS


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VIERA TOOLS is the easy way to access the TV's special features. They are displayed as shortcut icons on the TV screen.

#### 1. Display VIERA TOOLS menu



#### 2. Select the item

Select desired item using ◀ / ▶ and press 

#### 3. Access desired feature and set

Follow the directions on screen to use each feature.



(example)

#### ■ Available items

**3D/VIERA Connect/Media player/DLNA/VIERA Link/Game Mode/  
Eco/eHELP**

# Convenience features

## Timer

### Setting menu

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The TV can automatically turn On/Off at a designated date and time.

If the Timer settings are grayed out, first set the clock and make sure **Auto power on** is set to **No**.

#### 1. Display the menu



#### 2. Select **Timer** from menu bar

Select desired menu using  $\triangle / \nabla$  from menu bar and press 

#### 3. Select the item and adjust

Select desired item using  $\triangle / \nabla$  and adjust with  $\triangleleft / \triangleright$



# Convenience features

## Timer

### Sleep (Off timer)

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**MENU**

→ Menu > Timer

Settings	Options	Description
Sleep (minutes)	Off/15/30/60/90	<ul style="list-style-type: none"><li>• Selects how long the TV stays on before it automatically turns off.</li></ul>

# Convenience features

## Timer

### Timer (On/Off timer)

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 **MENU** → Menu > Timer

Settings	Options	Description
Timer set	<u>Off</u> /On	<ul style="list-style-type: none"><li>• Enables or disables the Timer.</li></ul>
Inputs		<ul style="list-style-type: none"><li>• Sets the input to select when the TV turns on.</li></ul>
Channel		<ul style="list-style-type: none"><li>• Sets the channel to select when the TV turns on.</li></ul>
Day		<ul style="list-style-type: none"><li>• Sets the day when the TV turns on. [SUN/MON/TUE/WED/THU/FRI/SAT (displays the nearest future date) MON-FRI/SAT-SUN/ DAILY/Every SUN/Every MON/Every TUE/ Every WED/Every THU/Every FRI/ Every SAT]</li></ul>
On time		<ul style="list-style-type: none"><li>• Sets the time when the TV turns on. The TV will turn off after 90 minutes or as specified.</li></ul>
Off time		<ul style="list-style-type: none"><li>• Sets the time when the TV turns off within 24 hours.</li></ul>

# Convenience features

## Lock (parental control)

### Setting menu

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Locks specified channels or shows to prevent children from watching objectionable content.

You will be asked to enter your password each time you display the Lock menu. Set **Custom** in **Mode** to specify **Channel**, **Game**, **Program** and **VIERA Connect** settings.

#### 1. Display the menu



#### 2. Select Lock from menu bar

Select desired menu using  $\triangle / \nabla$  from menu bar and press 

#### 3. Select the item and adjust

Select desired item using  $\triangle / \nabla$  and adjust with  $\triangleleft / \triangleright$

- This television is designed to support the "Downloadable U.S. Region Rating System" when available. (Currently available only in U.S.A.)
- The Off rating is independent of other ratings.
- When placing a lock on a specific-age-based-rating level, the Off rating and any other more restrictive ratings will also be blocked.
- The channels will be blocked regardless of the program rating.

# Convenience features

## Lock (parental control)

### Lock (1)

 **MENU** → Menu > Lock

Settings	Options	Description
Mode	Off/All/Custom	<ul style="list-style-type: none"> <li>Locks (<b>All</b>) or Unlocks (<b>Off</b>) all channels, programs or inputs. For <b>Custom</b>, Locks specified inputs of <b>Channel</b>, <b>Game</b>, <b>Program</b> and <b>VIERA Connect</b>.</li> </ul>
Channel (These channels will be blocked regardless of the program ratings.)	Mode ( <u>Off</u> /All/Custom)	<ul style="list-style-type: none"> <li>Locks (<b>All</b>) or Unlocks (<b>Off</b>) all channels. For <b>Custom</b>, Locks specified channels. Set <b>Channel 1 - Channel 7</b>.</li> </ul>
	Channel 1-7	<ul style="list-style-type: none"> <li>Designates channel number to be blocked at any time, regardless of its broadcast content.</li> </ul>
Game	<u>Off</u> /On	<ul style="list-style-type: none"> <li>Restricts access to channel 3, channel 4 and all the TV's inputs.</li> </ul>

# Convenience features

## Lock (parental control)

### Lock (2)

 **MENU** → Menu > Lock

Settings	Options	Description
Program (Prohibits viewing of TV content based on the rating provided by the broadcasters.)	Mode	<ul style="list-style-type: none"> <li>• Sets program lock status. (Off/On) "V-chip" technology enables restricted shows to lock according to TV ratings. On: Set each rating level (MPAA, U.S.TV, C.E.L.R., C.F.L.R.)</li> </ul>
	MPAA	<ul style="list-style-type: none"> <li>• Selects U.S. movie ratings to lock.</li> </ul>
	U.S.TV	<ul style="list-style-type: none"> <li>• U.S. TV program ratings.</li> </ul>
	C.E.L.R.	<ul style="list-style-type: none"> <li>• Canadian English ratings.</li> </ul>
	C.F.L.R.	<ul style="list-style-type: none"> <li>• Canadian French ratings.</li> </ul>
VIERA Connect	Off/On	<ul style="list-style-type: none"> <li>• Locks VIERA Connect. When you access VIERA Connect, the "VIERA Connect Lock" screen is displayed. Type the correct password to enter the Home screen.</li> </ul>
Change password		<ul style="list-style-type: none"> <li>• Create a new password. Input the new 4-digit password twice.</li> </ul>

# Convenience features

## Lock (parental control)

### Password setting

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You need to enter the password when you access locked channels or inputs.



- \* If it is your first time entering the password, enter the password twice in order to register it.
- \* Make a note of your password. Do not forget it. (If you have forgotten your password, consult your local dealer.)
- \* When you select a locked channel, a message will be displayed that allows you to view the channel after you input your password.

# Convenience features

## Lock (parental control)

### Parental control ratings (1)

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"V-chip" technology enables you to lock channels or shows according to standard ratings set by the entertainment industry.

■ U.S. MOVIE RATINGS (MPAA)

NR	Not Rated.
G	All children and General Audience.
PG	Parental Guidance suggested.
PG-13	Parental Guidance for children under 13.
R	Restricted Viewing, parental guidance is suggested for children under 17.
NC-17/X	No one 17 or under allowed.

■ U.S. TV PROGRAMS RATINGS (U. S. TV) - Age-Based Ratings

TV-NR	Not Rated.
TV-Y	All children.
TV-Y7	Directed to children age 7 and older.
TV-G	General Audience.
TV-PG	Parental Guidance suggested.
TV-14	Parents strongly cautioned, parental guidance is suggested for children under 14.
TV-MA	Mature Audience only.

# Convenience features

## Lock (parental control)

### Parental control ratings (2)

#### ■ CANADIAN ENGLISH RATINGS (C. E. L. R.)

E	Exempt programming.
C	All children.
C8+	Children 8 years and older.
G	General programming.
PG	Parental Guidance.
14+	Viewers 14 and older.
18+	Adult programming.

#### ■ CANADIAN FRENCH RATINGS (C. F. L. R.)

E	Exempt programming.
G	General programming.
8 ans+	Not recommended for young children.
13 ans+	Not recommended for ages under 13.
16 ans+	Not recommended for ages under 16.
18 ans+	Programming restricted to adults.

#### Contents-Based Ratings

FV	Fantasy Violence.	S	Sexual situations.
D	Suggestive Dialogue.	V	Violence.
L	Strong Language.		



## **Convenience features**

### **Lock (parental control)**

#### **Parental control ratings (3)**

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#### **Caution**

The V-Chip system used in this set is capable of blocking "NR" programs (non rated, not applicable and none) as per FCC Rules Section 15.120(e)(2). If the option of blocking "NR" programs is chosen "unexpected and possibly confusing results may occur, and you may not receive emergency bulletins or any of the following types of programming:"

- Emergency Bulletins (Such as EAS messages, weather warnings and others)
- Locally originated programming • News • Political • Public Service Announcements • Religious • Sports • Weather

# Convenience features

## Closed caption

### Setting menu

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The television includes a built-in decoder that is capable of providing a text display of the audio. The program being viewed must be transmitting the Closed caption (CC) information.

- The settings are "Analog" or "Digital" depending on the broadcaster.

#### 1. Display the menu



#### 2. Select Setup from menu bar

Select desired menu using  $\triangle / \nabla$  from menu bar and press 

#### 3. Select Closed caption

Select desired menu using  $\triangle / \nabla$  and press 

#### 4. Select the item and adjust

Select desired item using  $\triangle / \nabla$  and adjust with  $\triangleleft / \triangleright$

- \* Some functions will be disabled depending on the type of input signal.  
**Reset to defaults** will be grayed out if no changes are made.

# Convenience features

## Closed caption

### Closed caption (1)



**MENU**

→ Menu > Setup > Closed caption

Settings	Options	Description
Reset to defaults		<ul style="list-style-type: none"><li>Resets all Closed caption settings to factory default settings.</li></ul>
Mode	Off/On/ CC on mute	<ul style="list-style-type: none"><li>On: To display Closed captions.</li><li>CC on mute: To display Closed captions when the audio is muted. (When not using, select <b>Off</b>).</li></ul>
Analog	<u>CC</u> 1-4/T1-4	<ul style="list-style-type: none"><li>Choose the Closed caption service of Analog broadcasting.<ul style="list-style-type: none"><li>CC1-4: Information related to pictures (Appears at the bottom of the screen)</li><li>T1-4: Textual information (Appears over the entire screen)</li></ul></li></ul>

# Convenience features

## Closed caption

### Closed caption (2)



**MENU**

→ Menu > Setup > Closed caption

Settings	Options	Description
Digital	Primary/ Second/ Service 3/4/5/6	<ul style="list-style-type: none"><li>• The Digital Closed caption menu lets you configure the way you choose to view the digital captioning.</li></ul>
Digital setting (Set display settings in digital programs.)	Size	<ul style="list-style-type: none"><li>• Select the text size</li></ul>
	Font	<ul style="list-style-type: none"><li>• Select the text font</li></ul>
	Style	<ul style="list-style-type: none"><li>• Select the text style (Raised, Depressed, etc.)</li></ul>
	Foreground	<ul style="list-style-type: none"><li>• Select the color of text</li></ul>
	Fore. opacity	<ul style="list-style-type: none"><li>• Select the opacity of text</li></ul>
	Background	<ul style="list-style-type: none"><li>• Select the color of text box</li></ul>
	Back. opacity	<ul style="list-style-type: none"><li>• Select the opacity of text box</li></ul>
	Outline	<ul style="list-style-type: none"><li>• Select the outline color of text (Identify the setting options on the screen).</li></ul>

## **Convenience features**

### **Closed caption**

#### **Closed caption notice**

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- For viewing the CC of digital broadcasting, set the aspect to FULL (If viewing with H-FILL, JUST, ZOOM or 4:3, characters might be cut off).
- The CC can be displayed on the TV only when the receiver (such as a Cable box or satellite receiver) has the CC set to ON within the device itself. Check with your Cable or Satellite provider for instructions. The TV's CC button does not operate the Satellite or Cable box's CC function.
- If the CC is set to ON on both the receiver and TV when the signal is 480i (except for the HDMI connection), the CC may overlap on the TV.
- If a digital program is being output in analog format, the CC data will also be output in analog format.
- If the recorder or output monitor is connected to the TV, the CC needs to be set up on the recorder or output monitor.

## Convenience features

### VIERA Link™ "HDAVI Control™"

#### Basic feature

Simultaneously control all Panasonic "HDAVI Control" equipped components using one button on the TV remote. Enjoy additional HDMI Inter-Operability with compatible Panasonic products. This TV supports "HDAVI Control 5" function. Connections to equipment (Blu-ray Disc player, DVD recorder DIGA, HD Camcorder, Home Theater System, Amplifier, etc.) with HDMI cables enables VIERA Link controls.

#### ■ Available HDAVI Control functions

Version	Operations
HDAVI Control or later	<ul style="list-style-type: none"><li>• Automatic Input Switching</li><li>• Power on link</li><li>• Power off link</li><li>• Default speakers</li><li>• Speaker control</li></ul>
HDAVI Control 2 or later	<ul style="list-style-type: none"><li>• VIERA Link control only with the TV's remote control</li><li>• Unselected device energy save (for available equipment only)</li></ul>
HDAVI Control 3 or later	<ul style="list-style-type: none"><li>• Provides setting information (Language, time, etc.)</li><li>• Automatic lip-sync function</li></ul>
HDAVI Control 4 or later	<ul style="list-style-type: none"><li>• Energy saving mode (with Quick Start mode)</li></ul>
HDAVI Control 5	<ul style="list-style-type: none"><li>• Audio Return Channel</li></ul> <p>Audio Return Channel (ARC) is a function that enables digital sound signals to be sent via an HDMI cable back from the TV to a connected audio device.</p>

## Convenience features

### VIERA Link™ "HDAVI Control™"

#### Connecting note (1)

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#### ■ When adding new equipment...

**When adding new equipment, reconnecting equipment or changing the setup after the connection, turn the equipment on and then switch the TV on. Set the input mode to correct HDMI terminal, and make sure that the image is displayed correctly.**

VIERA Link "HDAVI Control", is based on the control functions provided by HDMI and industry standard known as HDMI CEC (Consumer Electronics Control), with 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 the individual manuals for other manufacturers' equipment supporting the VIERA Link function.

#### ■ HDMI cable

This function needs an HDMI compliant (fully wired) cable. Non-HDMI-compliant cables cannot be utilized. It is recommended that you use Panasonic's HDMI cable. Recommended part number:

RP-CDHS15 (4.9 ft/1.5 m), RP-CDHS30 (9.8 ft/3.0 m), RP-CDHS50 (16.4 ft/5.0 m)

- For more details on the external equipment's connections, please refer to the operating manual for the equipment.

## Convenience features

### VIERA Link™ "HDAVI Control™"

#### Connecting note (2)

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HDMI connections to some Panasonic equipment allow you to interface automatically.

- This function may not work normally depending on the equipment condition.
- The equipment can be operated by other remote controls with this function on, even if the TV is in Standby mode.
- Image or sound may not be available for the first few seconds when playback starts.
- Image or sound may not be available for the first few seconds when input mode is switched.
- Volume function will be displayed when adjusting the volume of the equipment.
- If you connect equipment that has "HDAVI Control 2" or later function to the TV with an HDMI cable, the sound from the DIGITAL AUDIO OUT terminal can be output as multi-channel surround.
- "HDAVI Control 5" is the newest standard (current as of November, 2011) for the HDAVI Control compatible equipment.

This standard is compatible with the conventional HDAVI equipment.

If connection (or setting) of equipment compatible with HDAVI control is changed, switch the power of this unit Off and On again while the power of all equipment is On (so that the unit can correctly recognize the connected equipment) and check that the connected equipment playback operates.



## Convenience features

### VIERA Link™ "HDAVI Control™"

#### VIERA Link connections (1)

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##### ■ Connecting Blu-ray Disc player/DVD Recorder (DIGA)

Connect the HDMI terminal of this TV to the DVD recorder (DIGA) with VIERA Link function using a fully wired HDMI cable.

- You can use any HDMI terminal on this TV.



TV



HDMI



HDMI cable



DVD recorder (DIGA)  
with VIERA Link function

# Convenience features

## VIERA Link™ "HDAVI Control™"

### VIERA Link connections (2)

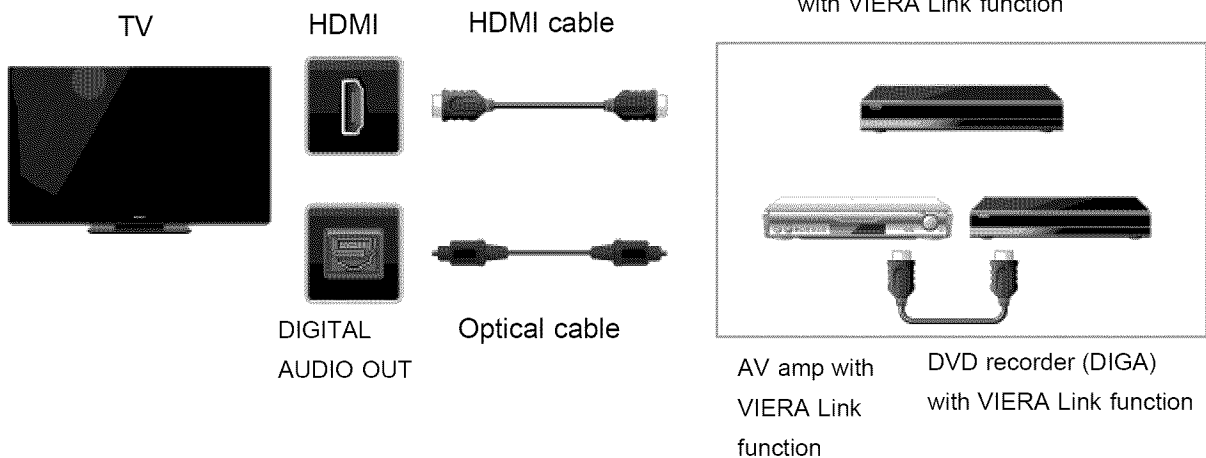
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#### ■ Connecting Home theater system/AV amp

HDMI and Audio connection.

Connect the HDMI terminal and DIGITAL AUDIO OUT to Home Theater System/AV amp with VIERA Link function using each fully wired HDMI cable and Optical audio cable.

- HDMI 2 is recommended.
- No optical cable is necessary when connecting a Home Theater supporting "HDAVI control 5" with an HDMI cable.  
Audio will be supported via ARC (Audio Return Channel)
- One AV amp and one Blu-ray Disc player/DVD recorder (DIGA) can be operated with this unit by connecting with an HDMI cable.



## Convenience features

### VIERA Link™ "HDAVI Control™"

#### VIERA Link connections (3)

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##### ■ **Connecting an HD Camcorder/Digital camera**

Press INPUT and select an available HDMI terminal, then connect the HD camcorder/Digital camera with VIERA Link function to this input with fully wired HDMI/mini HDMI cable.



TV



HDMI



HDMI /  
mini HDMI cable



HD Camcorder  
with VIERA Link  
function



LUMIX  
with VIERA Link  
function

- \* Individual HDMI equipment may require additional menu settings specific to each model. Please refer to their respective manuals.
- \* When audio from other equipment connected to this unit via HDMI is output using "DIGITAL AUDIO OUT" of this unit, the system switches to 2CH audio. (When connecting to an AV amp via HDMI, you can enjoy higher sound quality.)
- \* Some devices use Mini-HDMI terminal. HDMI (type A) to Mini-HDMI (type C) cable or adapter should be used.

## Convenience features

### VIERA Link™ "HDAVI Control™"

#### VIERA Link settings

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To use all VIERA Link functions: After everything is connected, set **VIERA Link** to **On** in VIERA Link settings menu.



Some features are disabled depending on the "HDAVI Control" version of the equipment.

#### 1. Display the menu



#### 2. Select VIERA Link settings

Setup > VIERA Link settings

Select **Setup** using  $\Delta / \nabla$  from menu bar and press  then select **VIERA Link settings** with  $\Delta / \nabla$  and press  again.

#### 3. Select VIERA Link and set to On

Change the **VIERA Link** to **On** with  $\triangleleft / \triangleright$

#### 4. Select and set other VIERA Link settings

(Power on link/Power off link/Energy saving mode/  
Unselected device energy save /Default speakers)

## Convenience features

### VIERA Link™ "HDAVI Control™"

#### VIERA Link settings feature (1)

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##### ■ Automatic Input Switching

When using a Blu-ray Disc player, DVD player/recorder or Home theater system, the TV will automatically change to the appropriate input, when playback begins on one of those devices.

- For a Home Theater System the speakers automatically switch to the theater system.

##### ■ Power on link

**Yes:** The TV is turned on automatically and switches to the appropriate HDMI input whenever VIERA Link compatible equipment is initially turned on and the Play mode is selected.

##### ■ Power off link

When **Yes** is selected and the TV is turned off, all connected VIERA Link compatible equipment is also automatically turned off.

- A Panasonic DVD Recorder will not turn off if it is still in Rec mode.
- The TV remains on even if the VIERA Link compatible equipment is turned off.

## Convenience features

### VIERA Link™ "HDAVI Control™"

#### VIERA Link settings feature (2)

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##### ■ Energy saving mode

**Quick Start:** When TV is turned off, all connected VIERA Link compatible equipment is moved to ECO Standby mode\* automatically under these conditions.

- Power off link: (**Yes**), The connected equipment has "HDAVI Control 4 or later (with Quick Start mode)"

\* Minimum power consumption of Standby condition for the equipment.

##### ■ Unselected device energy save

**Yes:** The connected VIERA Link compatible equipment will be turned off automatically when not in use under these conditions.

- The connected equipment has "HDAVI Control 2 or later" (for available equipment only)  
[ Example of timing for operation ]
- When the input is switched from HDMI.

##### ■ Default speakers

**TV** is the default setting. To set the Home theater system as Default speakers, change the Default speakers setting from **TV** to **Theater**. Sound will be output from the Home Theater whenever the TV is powered on.

## Convenience features

### VIERA Link™ "HDAVI Control™"

#### VIERA Link settings feature (3)

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##### ■ Automatic lip-sync function

Minimizes time delay between the picture and audio when you connect to a Panasonic theater system or Amplifier.

##### ■ TV provided setting information

The following information about the TV settings can be transmitted to each piece of equipment (Recorder/Home theater/Player) that has "HDAVI Control 3 or later" function connected to a TV with an HDMI cable.

Transmittable data	Recorder	Home theater/Player
On Screen Display Language setting	<input type="radio"/>	<input type="radio"/>
Panel Aspect Ratio (16:9 fixed)	<input type="radio"/>	<input type="radio"/>
Closed caption information (Mode/CC type/Digital setting)	<input type="radio"/>	---

- \* There is a possibility that all the GUI language information might be set from equipment that has an HDMI CEC function connected to the TV with an HDMI cable. Depending on the operating conditions or the specification for each piece of equipment the setting may or may not be applied.
- \* For more details on the external equipment's operation, please refer to the operating manual for the equipment.

## Convenience features

### VIERA Link™ "HDAVI Control™"

#### VIERA Link

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Some features are disabled depending on the "HDAVI Control" version of the equipment.

#### 1. Display the VIERA Link menu

 **VIERA TOOLS** → VIERA Link

#### 2. Select the item and set (VIERA Link control/Speaker output/Back to TV)

Select the desired menu using  /  and set with  / 

\* Items in the VIERA Link menu may be grayed out if no compatible equipment is connected (must be HDAVI Control 2 or later) or if the equipment has not initiated a connection with the TV. In that case, switch the equipment's power Off and On while the TV is On.



## Convenience features

### VIERA Link™ "HDAVI Control™"

#### VIERA Link menu (1)

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You can select the Home theater or TV speakers for audio output. Control the theater speakers with the TV remote control. This function is available only when a Panasonic Amplifier or Player theater is connected.

- ① Select **Speaker output** using  $\triangle / \nabla$
- ② Select **Home theater** or **TV** with  $\triangleleft / \triangleright$

**Home theater:** Adjustment for the equipment


**VOL(+/-)** and **MUTE** buttons are available

- The sound of the TV is muted.
- When the equipment is turned off, the TV speakers take over.
- Selecting **Home theater** turns the equipment on automatically if it is in Standby mode.

**TV:** The TV speakers are on.

#### ■ **Back to TV**

Returns the input selection of the device selected with the VIERA Link Control to the TV input.

Select **Back to TV** using  $\triangle / \nabla$  and press 

## Convenience features

### VIERA Link™ "HDAVI Control™"

#### VIERA Link menu (2)

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#### ■ VIERA Link control only with the TV's remote control

- ① Select **VIERA Link control** using  $\triangle / \nabla$
- ② Select the desired equipment with  $\triangleleft / \triangleright$  (You can select available items only.)  
**(Recorder/Home theater/Player/Camcorder/LUMIX/Others)**
  - If there is more than one equipment item, a number after the name indicates the number of items. (e.g.Recorder1/Recorder 2/Recorder 3...)
  - The number of equipment items that can be connected is three for recorders, and a total of three for Home Theater/Player/Camcorder/LUMIX/Others.
- ③ Operate the equipment with the TV remote control, pointing it at the TV

- \* There is a limit to the number of HDMI connectors.
- \* To operate the equipment, read the manual for the equipment.
- \* For available TV remote control buttons, whether or not an operation is available differs depending on the connected equipment.

## Convenience features

### Control by smartphone, etc.

#### Smartphone remote

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You can use your Smartphone as your TV's remote controller.  
Download the VIERA remote app. from Apple/Android store.

#### 1. Select Network

 **MENU** → Menu > Network

#### 2. Select Network remote control in Network link

Select desired menu using  $\triangle / \nabla$

#### 3. Set the item

Switches to **Enable** using  $\triangleleft / \triangleright$

\* This function is subject to change without notice.

# Convenience features

## Using USB Keyboard / Gamepad

### Keyboard

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The USB Keyboard requiring its driver is not supported.

#### ■ To select the language type of the keyboard

 **MENU** → Menu > Setup > Keyboard type

#### ■ Key map

Some of the keys of USB keyboards may correspond to the operation of the remote control.

Keyboard	Remote Control	Keyboard	Remote Control
↑ / ↓ / ← / →	Cursor buttons	F5	Channel down
Enter	OK	F6	Channel up
Back Space	Back/Return	F7	Volume down
ESC	EXIT	F8	Volume up
0 - 9	Numeric buttons	F9	Red
F1	MENU	F10	Green
F2	VIERA TOOLS	F11	Blue
F3	OPTION	F12	Yellow
F4	Input		

# Convenience features

## Using USB Keyboard / Gamepad

### Gamepad

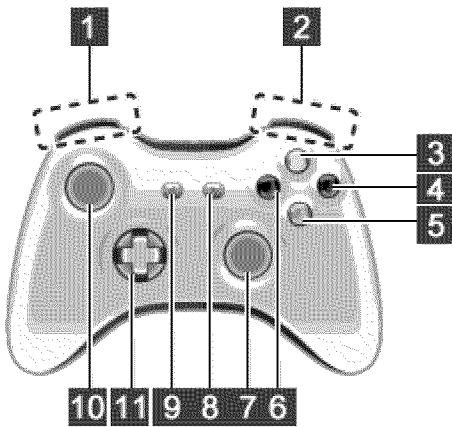
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The Gamepad requiring its driver is not supported.

#### ■ **Key map**

Some of the buttons of gamepad may correspond to the operation of the remote control.

Example:



Gamepad	Remote Control
1	Volume up/down
2	Channel up/down
3	MENU
4	OK
5	Back/Return
6	INTERNET
7	VIERA TOOLS
8	EXIT
9	INPUT
10	OPTION
11	Cusor buttons