*e*HELP

Watching TV

my Home Screen

Cable / Satellite / Fiber Optic box

Antenna / Cable service without a box

Blu-ray, DVD, Game Console, etc.

Useful features

For best picture

For best audio

3D

Using Internet services

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Convenience features

Using Apps list

Timer

Parental control

Closed caption

VIERA Link ™ "HDAVI Control ™"

All settings

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FAQ

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Meaning of signs :

🖐 Press the Remote control button

INFO   Letters in box : Remote control button

MENU Letters in Cyan : Menus on screen display

Watching TV
my Home Screen
Features

my Home Screen is a gateway to the TV, applications, and more. It provides easy access to special features such as the Media Player, videos, games, communication tools, etc.

■ **Home Screen**

(Example)
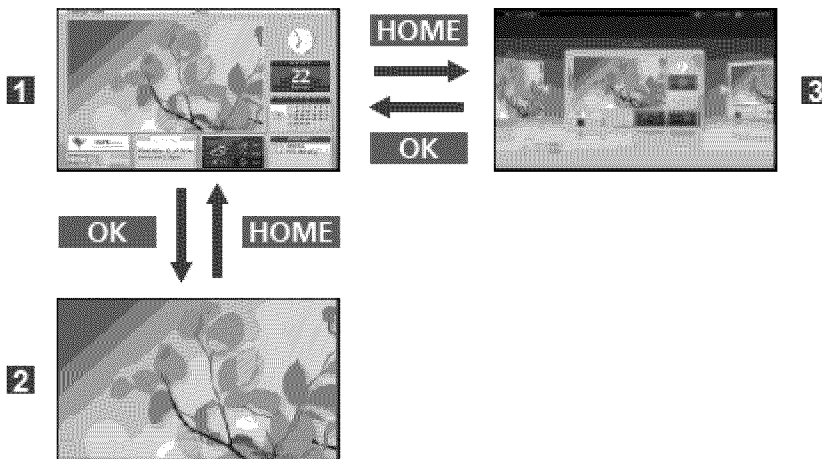
1 Home Screen
2 Selected content screen (TV, application, etc.)
3 Home Screen Selection
   - Choose your preferred Home Screen layout.

(0100101)

Watching TV

my Home Screen

How to use

The Home Screen provides access to special features such as the Media Player, TV, Internet content, data services, communication tools, etc.

1. Display Home Screen
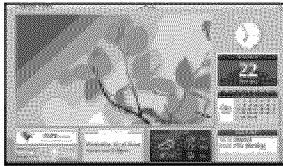
- The last viewed Home Screen is displayed each time the TV is turned on.
- Press HOME again to return to Home Screen Selection.
- You can change the default Home Screen when the TV is turned on. (Watching TV > my Home Screen > Settings)

2. Select a Home Screen icon using $\triangleleft$ / $\triangleright$ / $\triangle$ / ∇ **and press** (ok) **to access the feature.**

- To watch full-screen TV

   1. Select the TV window with $\triangle$ / ∇ / $\triangleleft$ / $\triangleright$
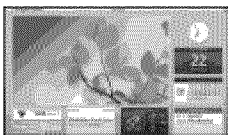
   2. Press OK to watch

- Also refer to Tutorial from the tool guide.

Watching TV
my Home Screen
Settings

Select the setup menu from the tool guide on the top of the screen, or use colored button to display the setup menu.

(Example)
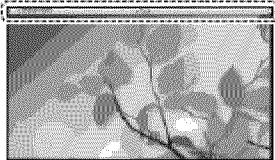
■ Home Screen Selection

1. **Display Home Screen Selection with** ⌐HOME⌐

   (Example)

2. **Select the type of Home Screen with** ◁ / ▷ **and press** (ok) **to set**

   Full Screen TV

   Exits the Home Screen and displays the TV picture in full-screen.

   Various Home Screens

   You can change the layout of the Home Screen according to your lifestyle and personal preferences.

   Add New Screen

   You can add a new screen to personalize.

■ Face recognition

By using the Communication camera, you can select the registered Home Screen with face recognition.
Please refer to **Tutorial** from the tool guide.

  ● Communication camera is not included. Please purchase as necessary.

■ Settings

(0100103)

You can customize Home Screen. For example, you can change the wallpaper, rename the screen, add / delete or set your preferred Home screen, edit applications, etc.

1. Select Settings from the tool guide

2. Follow the on-screen instructions

■ **Search function**

You can search the content of various Home screen features.

1. Select Search from the tool guide

2. Follow the on-screen instructions

- To use this function fully, you need a broadband network environment. Ensure the network connections and network settings are completed.
- Be sure to update the software when a software update notice is displayed on the TV screen. If the software is not updated, you will not be able to use my Home Screen. You can update the software later manually.

Watching TV
Cable / Satellite / Fiber Optic box
Initial setting

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1. **Connecting**

Select the wiring method connecting your box to the TV, **AV IN** or **Antenna/Cable in**.

| Note: HDMI will provide the best HD picture |

2. **Change INPUT**

     | INPUT |

Press the INPUT button to select the proper connection. Wait 2 seconds.

3. **Power on your Cable , Satellite or Fiber box**

Use the box's remote control to change channels.

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* If the box is connected to the TV using a COAX cable (Antenna/Cable in), then set the TV channel to CH3 or CH4. Note that the picture will not be in HD.

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* CC/SAP is not available when watching TV with a Cable or Satellite box connected via HDMI.
* If you have a High Definition box, ensure that it is outputting 720p or 1080i signal.
  Tip: press the TV's | INFO | button to verify.
* Check your box's "aspect" or "format" settings. It should be set to 16:9, Widescreen or **FULL**.
* If the audio volume is too low, check the box's audio settings.
* Contact your Cable or Satellite provider for instructions on any box settings.

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Watching TV
Antenna / Cable service without a box
Initial setting

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1. **Connect coax**

Connect a COAX wire from either an antenna or Basic Cable service to the TV's "ANTENNA/CABLE IN" screw terminal.
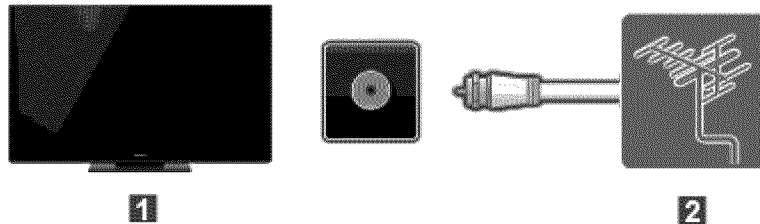
1 TV (ANTENNA/CABLE IN)
2 Antenna

2. **Scan the channel**

☞ [MENU] → Menu > Setup > ANTENNA/Cable setup > ANTENNA/Cable signal, Auto program

1. Select either **Cable** or **Antenna** programming source in ANTENNA/Cable signal.
2. Select Auto program and then the appropriate scan mode: (All channels / Analog only / Digital only).
3. Start scanning.

> * If no channels are found by the end of the scan, then check the following:
> Antenna's position - or availability of Cable service.
> Cable, Satellite or Fiber services with a box are typically connected to the TV's A/V inputs, preferably HDMI, for best HD picture. In such a case, the channel scanning is not needed.

Watching TV

Antenna / Cable service without a box

Select channels

- **Select desired channel**

    or
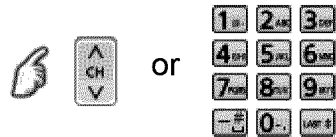
  - CH buttons are also available on the TV.

- **Select desired digital channel**

  To directly enter a digital channel number use

  - When tuning to a digital channel, press the button to enter the minor number in a compound channel number.
  (e.g. CH15-1 ➔)

(0100302)

Watching TV
Antenna / Cable service without a box
Favorite channels

___

Channel numbers registered in Favorite are displayed on the favorite tune screen. Select the desired broadcast station with the cursor or use the number buttons.

> • Favorite channels cannot be set when using Cable or Satellite box

• **Set the Favorite channel**

  ☞ [OPTION] ➔ Options menu > Set favorite

  Select the list number using △ / ▽ and (ox) or directly to save the displayed channel.

• **Delete a Favorite channel**

  ☞ [OPTION] ➔ Options menu > Set favorite

  Select the list number using △ / ▽ and (ox) to delete.

> * To change the page in Set favorite
>
> ☞ [FAVORITE] or ◁ / ▷ repeatedly

• **Display a Favorite channel**

  ☞ [FAVORITE] ➔ Favorite channels

  Select the list number using △ / ▽ and (ox) or directly to save the displayed channel.

> * To change the page in Favorite channels
>
> ☞ [FAVORITE] or ◁ / ▷ repeatedly

(0100303)

Watching TV
Antenna / Cable service without a box
Closed caption

Viewing with Closed caption

 CC

Switches the Closed caption mode.
(**Off** / **On** / **On mute**)

* CC is not available when watching TV with a Cable or Satellite box connected via HDMI.
* Contact your Cable or Satellite operator for instructions on enabling CC with their box.
* The TV's CC button does not operate the Satellite or Cable box's CC function.
* 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).
* 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.

(0100304)

Watching TV
Antenna / Cable service without a box
SAP

Listen with SAP (Secondary Audio Programming)

- SAP is not available when watching TV with a Cable or Satellite box connected via HDMI.
- Contact your Cable or Satellite operator for instructions on enabling SAP with their box.
- The TV's SAP button does not operate the Satellite or Cable box's SAP function.

Select the Audio mode for watching TV.

SAP

Digital mode: Select available audio service when receiving a digital channel.
Audio track is automatically selected as Preferred audio type and Preferred SAP language settings.
Menu > Sound > Preferred audio type
Menu > Setup > Language > Preferred SAP language

* If you change the audio settings with the SAP button, Preferred SAP language and Preferred audio type settings will not change.

Audio track 1 of 7	⇒ Track number / Number of tracks
English (Main audio)	⇒ Current audio track information
English audio	⇒ Audio service information

(example)

Analog mode: Select the desired Audio mode. (**Stereo** / **SAP** / **Mono**)

(0100305)

Watching TV

Antenna / Cable service without a box

Other

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1. Information banner

Displays TV status information. Also, when watching programs via the Antenna/Cable input, INFO will include the channel banner.

👆 INFO

Channel / Station identifier / Program title / Closed caption / SAP / Rating level / Signal resolution / Picture mode / Aspect ratio / Sleep timer remaining time / Clock

2. Options menu

This menu consists of shortcuts to convenient functions.

👆 OPTION

Voice guidance settings: Guidance settings for visually impaired users.

Channel surf mode: Specify favorites or type of channels to view when pressing the channel up/down button.

Set favorite: Set favorite channel

Edit CH caption: Edit the channel identifier

Signal meter: Check the antenna's signal strength

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* Options menu is only available when the TV is using the Antenna/Cable input, not when using Cable or Satellite box.

(0100306)

Watching TV
Blu-ray, DVD, Game Console, etc.
Connecting and viewing

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1. Connect device

Verify that the device is connected to the TV properly and connect to desired terminal. Note which terminal the device is connected to (HDMI 1, HDMI 2,... Component or Video)

Component and Composite (Video) in terminals are shared.
Please be careful not to confuse the connection when you use Component or Video.

■ **Example of AV connections**

A. Connecting to the HDMI input (best)
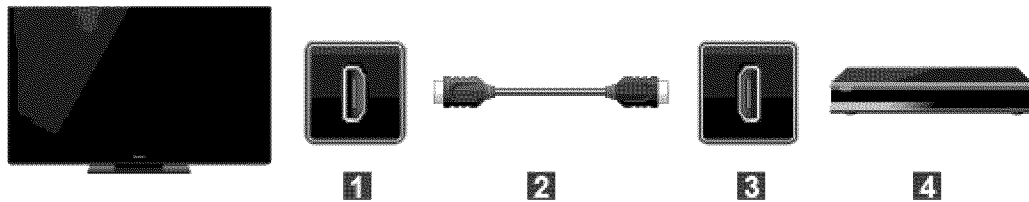
1 HDMI IN
2 HDMI cable
3 HDMI OUT
4 AV Equipment (e.g. Blu-ray Disc player)

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For devices with DVI output
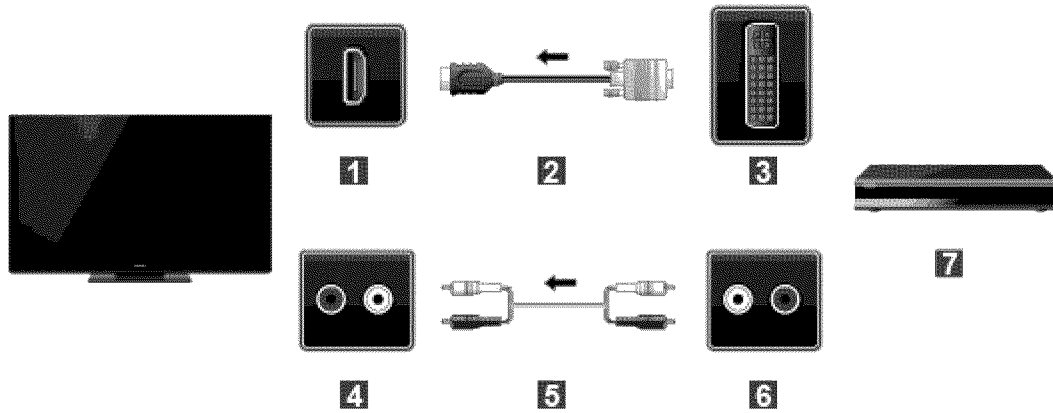
1. HDMI IN
2. HDMI-DVI Conversion cable
3. DVI OUT
4. AUDIO IN
5. Audio cable
6. AUDIO OUT
7. AV Equipment (e.g. Blu-ray Disc player)

B. Connecting to the COMPONENT input
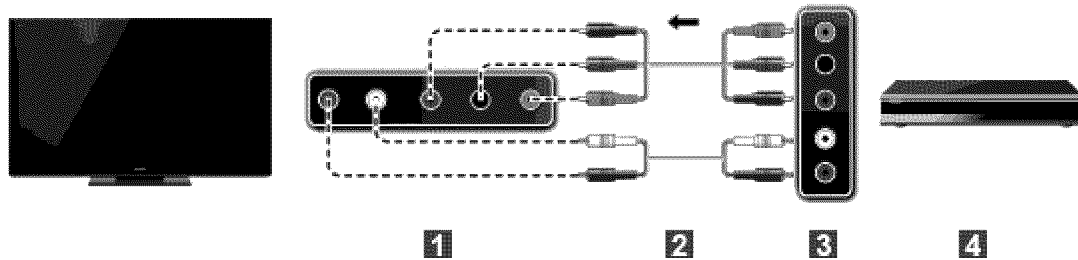
1. COMPONENT IN
2. Component cable
3. COMPONENT OUT
4. AV Equipment (e.g. Blu-ray Disc player)

C. Connecting to the VIDEO input (Standard definition only)
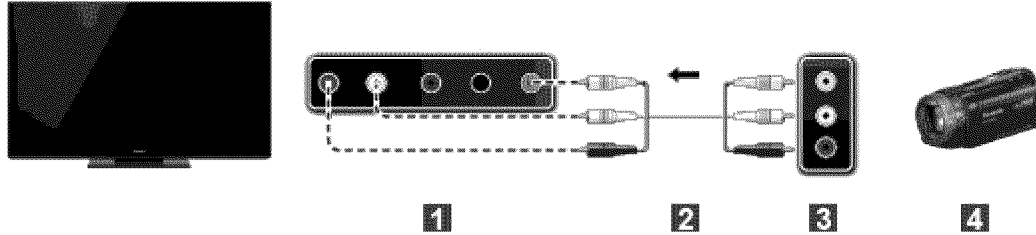
■ COMPOSITE IN
☑ VIDEO cable
☒ COMPOSITE OUT
☐ AV Equipment (e.g. Camcorder)

2. Select Input

1. Display Input select menu (With the connected equipment turned ON)

   ☞ |INPUT|

2. Select the input used in step 1

   Select correct input source, using △ / ▽ and press ⊙

   ┌───┐
   │ You need to select **Video** or **Component**.   │
   │ • Press |INPUT| and select AV: Video <-> Component. │
   │ • Press ◁ / ▷ to choose Video or Component.   │
   │   │
   │   ┌────────────────────────┐   │
   │   │ Input select   │   │
   │   │ ANT/Cable In   │   │
   │   │ HDMI1   │   │
   │   │   │   │
   │   │ AV   ◀ Video Component ▶ │   │
   │   │ Edit labels   │   │
   │   └────────────────────────┘   │
   └───┘

   • You can edit and customize the **TV's Inputs** for easy identification by pressing the ⬚ button. If you label an input as "Not used", then it will not appear in the Input select menu.

3. Operate using your device's remote control.

Watching TV
Blu-ray, DVD, Game Console, etc.
HDMI connection notice

HDMI (high-definition multimedia interface) allows you to enjoy high-definition digital images and high-quality sound by connecting the TV unit and HD devices.
HDMI-compatible equipment (*1) with an HDMI or DVI output terminal, such as a Cable or Satellite box or a DVD player, can be connected to the HDMI connector using an HDMI compliant (fully wired) cable.

* HDMI is the world's first complete digital consumer AV interface complying with a non-compression standard.
* If the external equipment has only a DVI output, connect to the HDMI terminal via a DVI to HDMI adapter cable (*2).
* When the DVI to HDMI adapter cable is used, connect the audio cable to the audio input terminal.
* Audio settings can be made on the HDMI in menu screen. Applicable audio signal sampling frequencies (L.PCM): 48 kHz, 44.1 kHz, 32 kHz

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(*1): The HDMI logo is displayed on an HDMI-compliant device.
(*2): Inquire at your local digital equipment retailer shop.

Watching TV
Blu-ray, DVD, Game Console, etc.
HDMI connection caution

Caution

* If the connected device has an aspect adjustment function, set the aspect ratio to "16:9".
* The HDMI connectors are "type A".
* The HDMI connectors are compatible with HDCP (High-Bandwidth Digital Content Protection) copyright protection.
* Devices with no digital output terminal may be connected to the input terminal of either "COMPONENT IN", or "VIDEO IN" to receive analog signals.
* The HDMI input terminal can be used only with the following video signals: 480i, 480p, 720p, 1080i and 1080p. Ensure that the device being connected to the TV can produce one of these video signals.

(0100403)

Watching TV

Blu-ray, DVD, Game Console, etc.

Input signal

- Signals other than those listed below may not be displayed properly.
- The signals are reformatted for optimal viewing on your display.

■ **Component and HDMI** (* HDMI only)

Input signal	Vertical frequency (Hz)
525 (480)/60i	59.94/60.00
525 (480)/60p	59.94/60.00
750 (720)/60p	59.94/60.00
1,125 (1,080)/60i	59.94/60.00
1,125 (1,080)/60p	59.94/60.00
1,125 (1,080)/24p *	23.98/24.00

(0100404)

Watching TV
Useful features
Eco navigation

This setting allows you to set the TV to the most suitable energy-saving mode automatically.

1. Select Eco navigation

👆 [MENU] ➡ Menu > Setup > Eco navigation

2. Press Set to ECO

Optimizes the TV's various modes to save energy.
Note: The TV's brightness will adjust and adapt as the room lighting changes.

(0100502)

Watching TV
Useful features
Voice guidance

This function provides a useful audio readout of basic features.

1. Set Voice guidance to On

🖐 |MENU| ➔ Menu > Sound > Voice guidance settings > Voice guidance

Select the menu using △ / ▽ and press (ok)
Then, switch to **On** using △ / ▽ and press (ok)

2. Set other items

Select the desired menu using △ / ▽ and press (ok)
Then, change or adjust the item using △ / ▽ and press (ok)

(Voice guidance/Speed/Volume/Language/User level/Web browser)

(0100503)

Watching TV
Useful features
Voice guidance features

■ <u>**Web page speech**</u>

When you point to the text on the web page using the Touch Pad Controller, a rectangle will appear around the framed area and speech will begin.

① Select Web browser using △ / ▽ and press (ok)
② Select **On** to enable this function

■ <u>**Voice guidance in Home Screen**</u>

Useful information displayed on Home Screen.

Watching TV
Useful features
Voice guidance settings

Settings for using voice guidance.

Voice guidance
(Off/On)
On: Enables voice guidance of the basic features (Channel banner and input source).

Speed
(Slow/Normal/Fast)
Adjust the readout speed of the voice guidance.

Volume
(Low/Mid/High)
Selects the volume for voice guidance.

Language
(English/Español/Français)
Selects the language for voice guidance.

User level
(Expert/Beginner)
Selects the level of complexity for voice guidance.

Web browser
(On/Off)
Enables voice guidance on web page.

(0600302)

Watching TV
Useful features
Voice control

This function allows you to operate basic functions using voice control.

* You need a broadband network environment to use this function fully.
* Ensure the Touch Pad Controller has been paired successfully.

■ **Settings**

You can set the voice control settings.

1. Select voice control settings

   𝄐 **MENU** ➔ Menu > Setup > Voice control settings

2. Select item and set

   Select desired item using △ / ▽ and adjust the settings with △ / ▽

   (Language/Speech detection level/Terms of service)

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* To use voice control function, you need a broadband network environment, because this function accesses the speech recognition server with the Internet connection. Even if you have the Internet environment, this function may not be available depending on the proxy settings.
  Please connect the Internet without proxy settings. (Proxy settings are not required for normal household use. For details of Internet environment, consult your Internet Service Provider (ISP) or telecommunications company.)

(0100505)

Watching TV
Useful features
How to use the voice control

■ <u>How to use</u>

1. Press Ⓞ on Touch Pad Controller

- When the confirmation screen is displayed, read carefully and start voice control function.

2. When the operation guide is displayed follow the on-screen instructions

🖐 [OPTION] ➜ Voice command list

🖐 [RETURN] ➜ Exit voice control function

- When you start voice control function, sound level of the TV becomes low.
- Voice control function may not work properly under the following circumstances.
  - Incorrect or unclear pronunciation.
  - Volume level of your voice is too loud or too soft.
  - Noisy surroundings.
- Phrases other than voice command may not be recognized.
- It is recommended that you speak within about 6" (15 cm) of the integrated microphone of Touch Pad Controller when using voice control function.
- Voice control function is subject to change without notice.

(0100506)

Watching TV
Useful features
Voice control settings

Settings for using voice control function.

**Language
(English/Español/Français)**
Selects the language for voice control.

**Speech detection level
(High/Standard)**
Sets sensitivity level for voice control.

Terms of service
Shows the terms of service of voice control.

(0100507)

Watching TV

For best picture

Picture mode

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1. **Change picture mode to suit your settings and taste**

   1. Select Picture mode

   📖 MENU → Menu > Picture > Picture mode

   Select desired menu using △ / ▽ from menu bar and press 🆗

   2. Adjust using △ / ▽

   | Note: HDMI will provide the best HD picture |

2. **Picture mode type**

   Vivid

   Provides enhanced picture contrast and sharpness for viewing in a well-lit room.

   Standard

   Recommended for normal viewing conditions with subdued room lighting.

   Home theater

   For watching movies in a darkened room. It provides a soft, film-like picture.

   Cinema

   Reproduces the original image quality precisely without any revision.
   Allows you to set the professional picture settings in Pro settings and Copy adjustments.

   Custom

   Customizes each item according to your taste.
   Allows you to set the professional picture settings in Pro settings and Copy adjustments.

   Professional 1/2

   These modes are displayed with Professional mode (isfccc) of Setup is set to **On**.
   Allows you to set the professional picture settings in Pro settings, Lock settings and Copy adjustments.

(0100601)

- If the certified professional dealer sets these modes, **Professional 1** and **Professional 2** may be displayed as **isf Day** and **isf Night**.

(0100601)

Watching TV
For best picture
Auto brightness (ECO)

Contrast Automatic Tracking System (C.A.T.S.) adjusts the screen brightness and contrast according to the room's ambient light conditions. This ECO feature automatically dims the brightness of the screen when the room lighting is lowered.

C.A.T.S. features a built-in delay when the lighting conditions change. The adjustment happens gradually.

If you prefer a consistent brightness, disable C.A.T.S. by:
- Menu > Picture > scroll down to C.A.T.S. and turn it off.

Or
- Menu > Picture > Picture mode then select viewing mode such as **Custom**

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(0100602)

Watching TV
For best picture
Aspect

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1. Use FORMAT button to change the aspect ratio

Use when the picture has bars (sides or top/bottom) and to zoom.

👆 [FORMAT]   (to cycle through the aspect modes)

480i, 480p: Full/Just/4:3/Zoom
1080p, 1080i, 720p: Full/H-Fill/Just/Sidecut Just/4:3/Zoom/
                                  Sidecut Zoom

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* Use when the picture does not fill the whole screen or portions of the picture are trimmed.
* Some content, such as film-based movies, are available in extra-wide format. Top and bottom bars are unavoidable.
* Connected devices, such as Cable/Satellite box, DVD/Blu-ray players and game consoles have their own aspect (format) settings. Adjust the device's aspect settings.

■ Screen mode

FULL
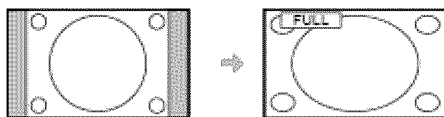
Enlarges the 4:3 image horizontally to the screen's side edges.
(Recommended for anamorphic picture)

JUST
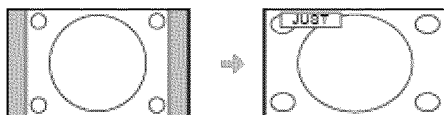
Stretches to justify the 4:3 image to the four corners of the screen.
(Recommended for normal TV broadcast)

Sidecut just
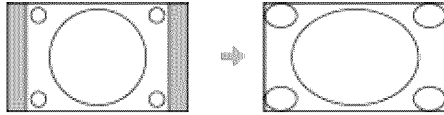
Enlarges the 4:3 image horizontally to the screen's side edges. The side edges of the image are cut off.

H-FILL
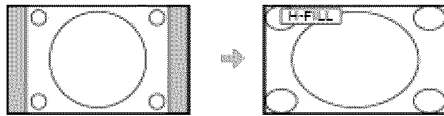
Enlarges the 4:3 image horizontally to the screen's side edges. The side edges of the image are cut off.

4:3
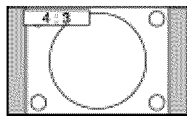
Standard
(Note that "Image retention" of the side bar may occur from displaying it for a long time.)

ZOOM
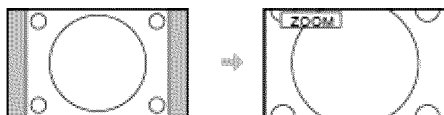
Enlarges the 4:3 image to the entire screen.
(Recommended for Letter Box)

Sidecut zoom
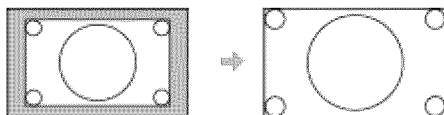
Enlarges the image to the entire screen. The side edges of the image are cut off.

(0100603)

Watching TV

For best picture

Aspect info.

■ **Zoom adjustments**

Vertical image position and size can be adjusted in "ZOOM"

① Select Zoom adjustments in the Picture menu.

    🖐 **MENU** → Menu > Picture > Screen settings > Zoom adjustments

② V-position: Vertical position adjustment
    Adjust using △ / ▽ to desired position.

③ V-size: Vertical size adjustment
    Adjust using ◁ / ▷ to desired size.

   ＊ Press OK to reset

(0100604)

Watching TV
For best picture
Lock settings

Lock the picture menu for **Professional 1/Professional 2** and each input.

Settings are basic picture settings and Pro settings.

1. Select Lock settings

       🖐 [MENU] → Menu > Picture > Lock settings

       Select desired menu using △ / ▽ and press 🆗

2. Enter the 4-digit PIN number
- Enter the PIN number twice at first setting.
- Make a note of the PIN number in case you forget it.

3. Select Adjustment Lock **and set to On**

       Select the menu using △ / ▽ and press 🆗

       Then, select **On** using △ / ▽ and press 🆗 to set

■ To change the PIN number

       ① Select Change password using △ / ▽ and press 🆗

       ② Enter a new PIN number twice with numeric buttons

(0100605)

Watching TV

For best picture

Copy adjustments

You can copy the selected **Cinema** or **Custom** settings and apply them to all or another input.
Settings are basic picture settings and Pro settings.

1. Select Copy adjustments

[MENU] → Menu > Picture > Copy adjustments

Select the desired menu using △ / ▽ and press ⓞⓚ

2. Select Destination input **and set (Default: All)**

Select the menu using △ / ▽ and press ⓞⓚ

Then, select the destination using △ / ▽ and press ⓞⓚ to set.

3. Select Copy start **to copy**

Select the menu using △ / ▽ and press ⓞⓚ

4. Select Yes **to set**

Select the item using ◁ / ▷ and press ⓞⓚ to set

Watching TV
For best picture
Pro settings

Adjust the picture mode in more detail.
Set Picture mode to **Custom/Cinema/Professional 1/Professional 2** first.

👆 **[MENU]** ➔ Menu > Picture > Pro settings

Panel brightness
(Low/Mid/High)
Selects different levels of overall panel brightness.

AGC
(0-15)
Automatic Gamma Control. Increases automatically the brightness of a dark signal.

Black extension
(0-15)
Adjust the gradations in dark shades of the image.

Cool white effect
(0-15)
Adjusts the white temperature point toward cool.

W/B detail adjustment

W/B high R, G, B (+/-50)
Adjusts the white balance for light red/green/blue areas.

W/B low R, G, B (+/-50)
Adjusts the white balance for dark red/green/blue areas.

More detail adjustment
Adjusts more detailed White Balance items.

(0600202)

Input signal level
Adjusts the IRE picture level in relation to the gain of the red, green & blue colors.

Red, Green, Blue gain
Adjusts the red/green/blue gain value of each Input signal level.

Reset to defaults
Reset all More detail adjustment to factory defaults settings.

Reset to defaults
Reset W/B detail adjustment adjustments to factory defaults settings.

Color detail adjustment

Red, Green, Blue hue (+/-50)
Adjusts the red/green/blue hue between light, pastel and vivid.

Red, Green, Blue saturation (+/-50)
Adjusts the difference of the red/green/blue color against its own brightness.

Red, Green, Blue luminance (+/-50)
Adjusts the luminance of red/green/blue areas.

More detail adjustment
Adjusts more detailed Color management items.

(0600202)

Yellow, Cyan, Magenta hue (+/-50)
Adjusts the yellow/cyan/magenta hue between light, pastel and vivid.

Yellow, Cyan, Magenta saturation (+/-50)
Adjusts the difference of the yellow/cyan/magenta color against its own brightness.

Yellow, Cyan, Magenta luminance (+/-50)
Adjusts the luminance of red/green/blue/yellow/cyan/magenta areas.

Reset to defaults
Reset More detail adjustment to factory defaults settings.

Reset to defaults
Reset Color detail adjustment adjustments to factory defaults settings.

Gamma detail adjustment

Gamma
(1.8/2.0/2.2/2.4/2.6)
Gamma correction. Adjusts the intermediate brightness of the image.

More detail adjustment
Adjusts more detailed Gamma items.

Input signal level
Adjusts the IRE picture level in relation to the gain of the red, green & blue colors.

Gain
Adjusts the gain value of each Input signal level.

Reset to defaults
Reset all More detail adjustment to factory defaults settings.

Reset to defaults
Reset Gamma detail adjustment to factory defaults settings.

(0600202)

Reset to defaults

Resets all Pro settings adjustments to factory default settings.

(0600202)

Watching TV

For best audio

Basic settings

Adjust audio quality.

🖎 **[MENU]** ➜ Menu > Sound

**Sound mode
(Standard/Music/Ambience/User)**
Selects your favorite sound mode.

• The selected mode affects all input signals.

Standard: Provides the suitable sound quality for all types of scenes.
Music: Improves sound quality for watching music videos, etc.
Ambience: Improves spatial effects and provides clear sounds.

User: Adjusts the sounds manually by using the equalizer to suit your favorite
sound quality.

• For the User mode, Equalizer will appear on the Sound Menu instead of
  Bass and Treble. Select Equalizer and adjust the frequency.
• Gray-out when using Home Theater.

Bass
Increases or decreases the bass response.

• Gray-out if Sound mode is set to **User**.
• Gray-out when using Home Theater.

Treble
Increases or decreases the treble response.

• Gray-out if Sound mode is set to **User**.
• Gray-out when using Home Theater.

**Equalizer
(150Hz/250Hz/500Hz/1kHz/2kHz/4kHz/8kHz/12kHz/Reset to default)**
Adjusts the frequency level to suit your favorite sound quality.

(0600301)

- This function is available when Sound mode is set to **User**.
- Select the frequency and change the frequency level by using the cursor button.
- 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.
- Gray-out when using Home Theater.

Balance
Emphasizes the left/right speaker volume.

- Gray-out when using Home Theater.

(0600301)

Watching TV
For best audio
Advanced settings

Surround
(Off/Natural/Hall/Stadium)
Enhances audio L/R response when listening to stereo.
Ideal for music and action movies.

* Gray-out when using Home Theater.

Bass boost
(Off/On)
Enhances bass sound and provides powerful sound.

* Gray-out when using Home Theater.

Digital remaster
(On/Off)
Compensates for the compressed audio signal to reproduce the original sound quality.

* Gray-out when using Home Theater.

A.I. sound
(Off/On)
Equalizes overall volume levels across all channels and external inputs.

* Gray-out when using Home Theater.

Volume leveler
(+/-6)
Minimizes volume disparity after switching to external inputs.

* Gray-out when using Home Theater.

Distance to wall
(Over 1ft(30cm)/Up to 1ft(30cm))
Over 1ft(30cm): TV is on a stand. Keeps current setup.
Up to 1ft(30cm): TV is mounted. Reduces low frequency level to prevent resonance.

* Gray-out when using Home Theater.

(0600303)

Preferred audio type
(Main Audio/Hearing Impaired/Visually Impaired)
Allows setting of the accessible audio format when it's broadcast and the
language setting matches.

Digital audio out selection
(Auto/PCM)
Selects the initial setting for digital audio output signal from DIGITAL AUDIO
OUT and HDMI 2 (ARC function) terminals.
Auto: Dolby Digital Plus, Dolby Digital and HE-AAC multi-channel are output
as Dolby Digital Bit stream. MPEG is output as PCM.
PCM: Digital output signal is fixed to PCM.

* For video contents of Media Player / Network services.
* ARC (Audio Return Channel): A function of digital audio output using HDMI
  cable.

HDMI input (HDMIx in)
(Digital/Analog)
The default setting is **Digital** for the HDMI connection. (Digital input signal)
Select audio input terminal when a DVI cable is connected along with an
analog audio input signal.

Reset to defaults
Resets all Audio adjustments to factory default settings.

* Gray-out when using Home Theater.

(0600303)

Watching TV
3D
Notice

The following 3D content can be enjoyed on this TV:

- A 3D Blu-ray disc, played on 3D capable Blu-ray player/recorder that is connected via HDMI cable
- 3D TV broadcast (program)
- 3D Photo and 3D Movie taken by LUMIX/Camcorder.
- 3D game played on 3D capable video game console, connected via HDMI cable.
- 2D → 3D

About 2D → 3D
* This function converts standard 2D images and displays them in 3D. For this reason, the 3D images appear slightly different from the originals.
Please bear this in mind when using this function.
* Using this function for profit-making purposes, or publically showing images converted from 2D to 3D in places such as coffee shops or hotels etc. may infringe on the rights of the copyright holder protected under the Copyright Act.

(0100801)

Watching TV

3D

Viewing 3D

---

1. **Put on the 3D Eyewear**

2. **View**

When the TV receives a 3D signal, it also tries to detect the 3D mode (format). 3D images are automatically displayed according to the signal. If the 3D images are not displayed correctly or the images cause discomfort, the images can be adjusted by 3D format select or 3D settings.

(0100803)

Watching TV

3D

Change 3D ⇔ 2D

■ **Simply switches 3D ⇔ 2D images (Auto mode)**

👉 3D → 3D format select

   Switch 3D or 2D using △ / ▽ and press ⦿

■ **Change 3D format (Manual mode)**

1. Display 3D format select (Manual)

👉 🔒 → 3D format select (Manual)

2. Select 3D format

👉 3D → Cycle through the 3D format

   (Original/Side by side (3D)/Side by side (2D)/Top and bottom (3D)/
   Top and bottom (2D)/2D → 3D)

● When the TV receives a 480i/576i signal from the Component or HDMI
terminal, manual adjustment is not available.

Watching TV

3D

Adjust 3D images

---

1. Select 3D settings

     🖐 [MENU] → Menu > Picture > 3D settings

2. Select the item and set

Select desired menu using △ / ▽ and adjust the settings with △ / ▽

---

* The perceived three dimensional effects of the 3D Eyewear differ from person-to-person.
* If a signal received from an external device is different from the 3D setting of the TV, such as 2D signal when the TV is set to 3D mode, the images may not be displayed correctly.

(0100805)

Watching TV

3D

3D settings

🖐 [MENU] → Menu > Picture > 3D settings

Auto detect 3D
(Off/Auto 1/Auto 2)
Auto 1: Switches to 3D display when 3D indication is available (HDMI (3D), AVCHD file, etc.)
Auto 2: Same as Auto 1. Also detects 3D signal by identifying similar image in side-by-side or top-and-bottom 3D formats.
Note: Choose 3D mode manually when auto detection is not available.

3D signal notification
(Off/On)
On: Displays a message according to the signal received by the Auto detect 3D.

2D → 3D depth
(High/Mid/Low)
Adjusts the simulated 3D depth perception effect of the 2D incoming signal.

3D adjustment
(Off/On)
Adjust the left eye versus right eye depth effect of the image. Set to **On** to adjust Effect (**-3** to **+3**).

* Gray-out in 2D mode

Left/Right swap
(Normal/Swapped)
Flips the phase of the image to give the correct perception of depth.

* Gray-out in 2D mode

Diagonal line filter
(On/Off)
Select when diagonal lines appear jagged. Turn off when the picture looks noisy.

(0600205)

- Gray-out in 2D mode

Safety precautions

Read safety notice about 3D viewing.

Using Internet services

Connect to network

Network connections

---

1. **Contact your Broadband service provider**

   Obtain Broadband Internet service:

   * Required speed (effective): at least 1.5 Mbps for SD and 6 Mbps for HD picture quality, respectively.
   * Dial-up Internet service cannot be used for Home Screen.

2. **Select wired or wireless connection**

   If a wired network connection is available near the TV, then using this LAN (Ethernet) connection is recommended.

3. **Connecting to the Internet**

   A. Wireless connection

   Home network

   1 TV (Built-in wireless LAN)
   2 Home network (modem/wireless router)
   3 Computer/DLNA Certified media server

   ---

   * To use and operate only DLNA features, a Broadband network environment is not needed.

B. Wired connection (Using Router)

Home network

1 TV (Ethernet port)
2 LAN (Ethernet) cable
3 Home network (modem/router)
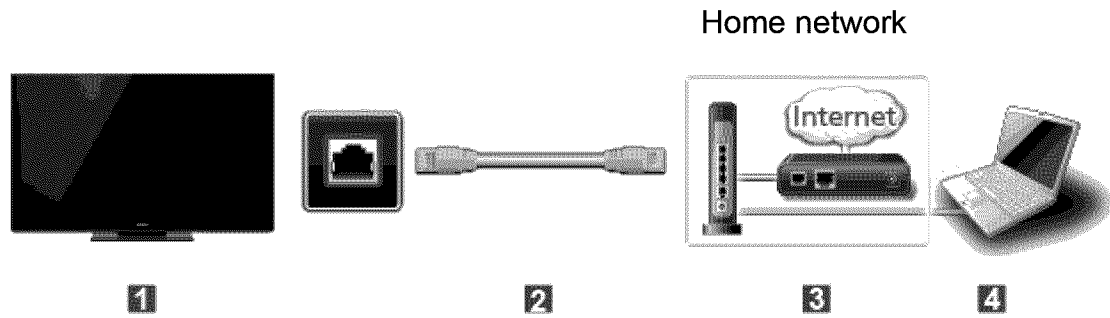**4** Computer/DLNA Certified media server

C. Wired connection (Directly connected)

If you are not using the network for connecting anything else but the TV, you can just connect the TV directly to the Cable/DSL Ethernet modem with LAN (Ethernet) cable.

1 TV (Ethernet port)
2 LAN (Ethernet) cable
3 Modem

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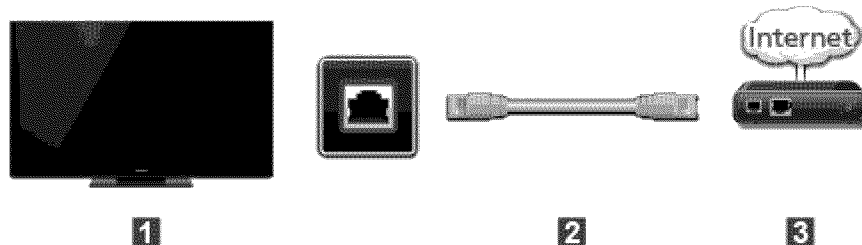
* To use and operate only DLNA features, a Broadband network environment is not needed.
You can simply connect the TV directly to the equipment with a LAN cross cable.

Using Internet services

Network settings

Setting menu

This menu is used for connecting to a Broadband environment.

1. Display the Menu **and select** Network

☞ MENU → Menu > Network

Select Network using △ / ▽ from menu bar and press ⓞⓚ

2. Select the options and set

(Network connection/Network status/VIERA remote settings/
Network link/Software update/New software notice)

Using Internet services
Network settings
Network connection/Network status

■ **Network connection/Network status**

① Select Network connection using △ / ▽ and press ⊚

② Select **Quick setup** to launch Network connection setup wizard.
   Follow the directions on the screen to complete the network connection.

   • Manual settings are also available.
     Select **Custom** and select your connection type.
     Displays setting menu according to selected connection type.
     Set the desired menu and complete the network connection.

③ Displays Network status

   Select **Try again** and press OK to start connection test.
   Success ➜ Completion message is displayed.
   Error ➜ Select **Status details/Help** and press OK to display solution
   of the connection error.
   Follow the directions on the screen to complete the network settings.

   • You can also display Network status from Network menu.
     (Network > Network status)

④ Exit the screen
   Select **Done** and press OK to exit from this screen.

(0200202)

Using Internet services

Network settings

VIERA remote settings

■ **VIERA remote settings**

① Select VIERA remote settings using △/▽ and press ⊙

② Displayed VIERA remote settings

③ Select the item and set

● **VIERA remote**

Enables to control the TV from the network equipment (smartphone, etc.).

• Sets to **On** to enable below settings.

① Select VIERA remote using △/▽ and press ⊙

② Switches **On** or **Off** with △/▽

● **Device to upload contents**

Selects device to upload contents from the network equipment (smartphone,etc.).

① Select Device to upload contents using △/▽ and press ⊙

② Select device and press ⊙

(0200203)

Using Internet services

Network settings

Network link

■ **Network link**

Setting for DLNA server.

● **DLNA server**

Enables use this TV as DMS for network devices (DLNA Certified VIERA)

* Sets to **On** to enable below settings.

① Select DLNA server using △ / ▽ and press ⊙

② Switches **On** or **Off** with △ / ▽

● **Registration type**

Selects the limitation of access to this TV for each device on the home network.

① Select Registration type using △ / ▽ and press ⊙

② Switches **Auto** or **Manual** with △ / ▽

Auto: All the available device on the home network are accessible.(maximum 16 equipment)

Manual: Sets the access limitation for each device in the Remote device List.

● **Remote device list**

Lists the available device on the home network.

① Select Remote device list using △ / ▽ and press ⊙

② Select the desired device with △ / ▽ and set access limitation.

(0200204)

Using Internet services
Network settings
Software update

■ Software update

① Select Software update using △ / ▽ and press (OK)

② Press OK to start the Software update screen

🖐 (OK) ➔ Software update

③ Follow directions on the screen

• Make sure to set Clock before the update starts.

Using Internet services
Network settings
New software notice

■ **New software notice**

Displays new software update information when TV is turned on.

① Select New software notice using △ / ▽
② Switches **Off** or **On** with △ / ▽

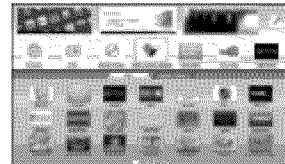(0200207)

Using Internet services

How to use

Operate

You can access Internet services on Apps list (application list) via Home Screen.

1. Display Apps list

👆 [APPS] ➔ **Apps list**

(example)

2. Select and Enjoy Internet Service

Select desired application using △ / ▽ / ◁ / ▷ and press ⓞⓚ

* USB keyboard is available. Set Keyboard type in Setup menu. (Game pad is also available.)

---

* You need a Broadband environment to use this service.
* Please confirm Network connections and Network settings before using this function.
* Depending on the usage conditions, it may take a while to download all the data.
* Internet services available in Home Screen are subject to change without notice.
* Not all contents are available depending on the country and area.

(0200301)

Home network "DLNA"
Get started
Information

You can share the contents (Photo, Video, Music etc.) stored in DLNA Certified media server with your home network system.

* Please confirm **Network connection** and Network settings before using this function.

This TV is a DLNA Certified ™ product.
DLNA (Digital Living Network Alliance) is a standard that makes DLNA Certified digital electronics easier and more convenient to use on a home network. To learn more, visit www.dlna.org. It allows you to share photos, videos and music stored in the DLNA Certified media server (for example, PC with Windows 7/Windows 8 installed, etc.) connected to your home network, and enjoy the contents on the TV screen.

■ Media server
Store photos, videos or music into the DLNA Certified media server, and then you can enjoy them on the TV.
To use a PC as a media server
Prepare the PC with Windows 7/Windows 8 or ensure the server software is installed on the PC. "Windows 7/Windows 8" is the server software that has been tested for compatibility with this TV (as of November, 2012). Any other server software have not been tested with this TV, therefore compatibility and performance cannot be assured.
 • Windows 7/Windows 8
The setup for homegroup settings of Windows 7/Windows 8 is required.
For details, refer to the help functions of Windows 7/Windows 8.

(0300101)

Home network "DLNA"

Connect to network

Network connections

---

1. Contact your Broadband service provider

Obtain Broadband Internet service:

* Required speed (effective): at least 1.5 Mbps for SD and 6 Mbps for HD picture quality, respectively.
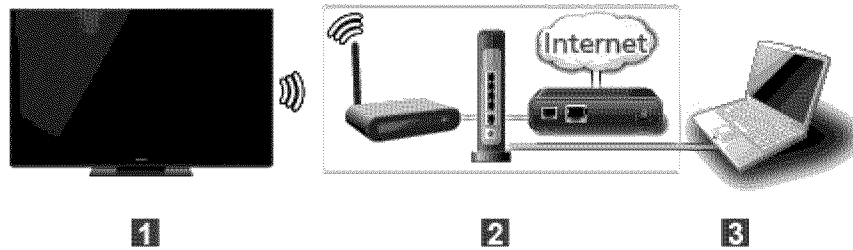* Dial-up Internet service cannot be used for Home Screen.

2. Select wired or wireless connection

If a wired network connection is available near the TV, then using this LAN (Ethernet) connection is recommended.

3. Connecting to the Internet
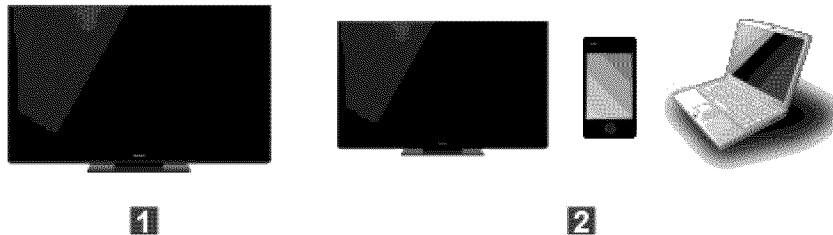
A. Wireless connection

Home network

1 TV (Built-in wireless LAN)
2 Home network (modem/wireless router)
3 Computer/DLNA Certified media server

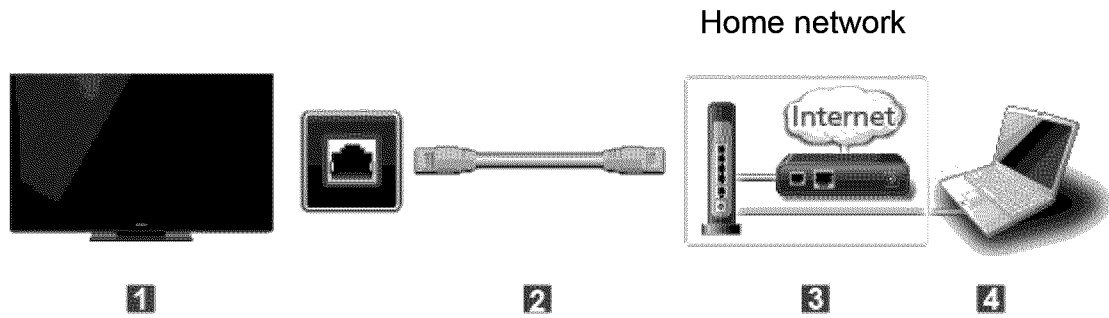■ Wireless connection (without Internet connection)

You can connect the TV as an access point to wireless equipment without an Internet connection.

1 TV (as Access point)
2 Wireless equipments (TV, Smart phone, PC etc.)

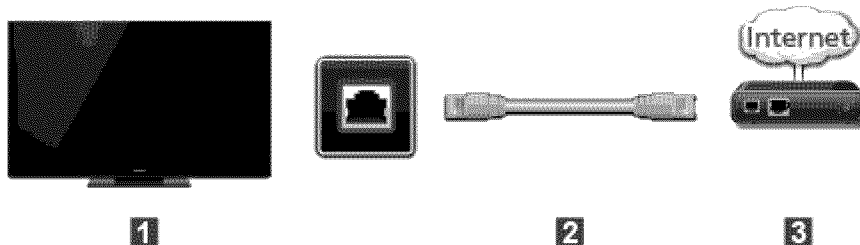---

* This connection can not be used for Internet services.

B. Wired connection (Using Router)

Home network

1 TV (Ethernet port)
2 LAN (Ethernet) cable
3 Home network (modem/router)
4 Computer/DLNA Certified media server

C. Wired connection (Directly connected)

If you are not using the network for connecting anything else but the TV, you can just connect the TV directly to the Cable/DSL Ethernet modem with LAN (Ethernet) cable.

1 TV (Ethernet port)
2 LAN (Ethernet) cable
3 Modem

---

* To use and operate only DLNA features, a Broadband network environment is not needed.
You can simply connect the TV directly to the equipment with a LAN cross cable.

---

69 (0300201)

Home network "DLNA"

Network settings

Setting menu

This menu is used for connecting to a Broadband environment.

1. Display the Menu **and select** Network

👆 MENU ➔ Menu > Network

Select Network using △ / ▽ from menu bar and press 🆗

2. Select the options and set

(Network connection/Network status/VIERA remote settings/
Network link/Software update/New software notice)

(0200201)

Home network "DLNA"

Network settings

Network connection/Network status

■ **Network connection/Network status**

① Select Network connection using △ / ▽ and press ⊙

② Select **Quick setup** to launch Network connection setup wizard.
Follow the directions on the screen to complete the network connection.

- Manual settings are also available.
  Select **Custom** and select your connection type.
  Displays setting menu according to selected connection type.
  Set the desired menu and complete the network connection.

③ Displays Network status

Select **Try again** and press OK to start connection test.
Success ➔ Completion message is displayed.
Error ➔ Select **Status details/Help** and press OK to display solution
of the connection error.
Follow the directions on the screen to complete the network settings.

- You can also display Network status from Network menu.
  (Network > Network status)

④ Exit the screen
Select **Done** and press OK to exit from this screen.

Home network "DLNA"

Network settings

VIERA remote settings

■ VIERA remote settings

① Select VIERA remote settings using △ / ▽ and press ⓞⓚ

② Displayed VIERA remote settings

③ Select the item and set

● VIERA remote

Enables to control the TV from the network equipment (smartphone, etc.).

* Sets to **On** to enable below settings.

    ① Select VIERA remote using △ / ▽ and press ⓞⓚ

    ② Switches **On** or **Off** with △ / ▽

● Device to upload contents

Selects device to upload contents from the network equipment (smartphone,etc.).

① Select Device to upload contents using △ / ▽ and press ⓞⓚ

② Select device and press ⓞⓚ

(0200203)

Home network "DLNA"

Network settings

Network link

■ **Network link**

Setting for DLNA server.

● **DLNA server**

Enables use this TV as DMS for network devices (DLNA Certified VIERA)

* Sets to **On** to enable below settings.

① Select DLNA server using △ / ▽ and press ⊛

② Switches **On** or **Off** with △ / ▽

● **Registration type**

Selects the limitation of access to this TV for each device on the home network.

① Select Registration type using △ / ▽ and press ⊛

② Switches **Auto** or **Manual** with △ / ▽

Auto: All the available device on the home network are accessible.(maximum 16 equipment)
Manual: Sets the access limitation for each device in the Remote device List.

● **Remote device list**

Lists the available device on the home network.

① Select Remote device list using △ / ▽ and press ⊛

② Select the desired device with △ / ▽ and set access limitation.

(0200204)

Home network "DLNA"
Network settings
Software update

■ <u>**Software update**</u>

① Select Software update using △ / ▽ and press (ok)
② Press OK to start the Software update screen

(ok) ➔ Software update

③ Follow directions on the screen

• Make sure to set Clock before the update starts.

(0200206)

Home network "DLNA"

Network settings

New software notice

■ New software notice

Displays new software update information when TV is turned on.

① Select New software notice using △ / ▽
② Switches **Off** or **On** with △ / ▽

Home network "DLNA"

Photos

Viewing Photos

---

1. **Display Apps (application) list**

👆 |APPS| ➔ **Apps list**

2. **Display** DLNA server

Select **DLNA** using △ / ▽ / ◁ / ▷

press 🆗

3. **Select server** (Available DLNA servers are displayed).

Select desired server using △ / ▽ from DLNA server list and press 🆗

4. **Select photo** (Thumbnails and contents are displayed).

Select desired content using △ / ▽ from file list and press 🆗

5. **View**

Follow the navigation and guide to operate.

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

(0300401)

Home network "DLNA"

Photos

Photo view

■ **Thumbnail view**

☞ 🔒 → Display Slideshow settings

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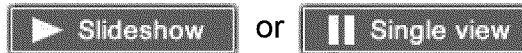* Information differs depending on selected data.

■ **Playback screen**

☞ [INFO] → Display/hide Guide and Banner

Photo status: Shows current photo status

▶ Slideshow or ⏸ Single view

2D/3D status: Shows current 2D/3D status
Navigation Guide: Shows available functions.

---

* In DMR mode, Slideshow is not available.
* In DMR mode, OK/Next/Prev. are not available.

(0300402)

Home network "DLNA"

Photos

Options menu

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

1. Display Options menu

👉 OPTION → Options menu

2. Select the item

Select the desired menu using △ / ▽ and press 🆗

(Slideshow settings)

---

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

(0300403)

Home network "DLNA"
Photos
Using slideshow

---

1. Display Slideshow settings

👆 🔒 ➜ Slideshow settings

2. Adjust items

Select the item by △ / ▽ and adjust the settings using △ / ▽

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

---

3. Start Slideshow

After adjusting each setting, select Start slideshow with △ / ▽ and press ⓞⓚ

👆 [RETURN] ➜ Stop in mid-cycle

Home network "DLNA"

Photos

Slideshow settings

Transition effect

(Off/Fade in/Dissolve/Motion/Random)

Select the Transition effect shown between photos.

Auto makeup

(On/Off)

Detects a face in the photo, checks the luminance, and then retouches the enhanced image.

Display interval

(Short/Normal/Long)

Display interval sets the time each image is displayed in the Slideshow mode.

Repeat playback

(Off/On)

Turn the Slideshow Repeat (cycle) function on or off.

Soundtrack settings

(Off/Music 1/Music 2/Music 3/Music 4/Music 5)

Select the music.

(0300406)

Home network "DLNA"
Videos
Viewing Videos

---

1. **Display Apps list**

   ⬅ APPS ➔ **Apps list**

2. **Display** DLNA server

   Select **DLNA** using △ / ▽ / ◁ / ▷ press ⓞⓚ

3. **Select server** (Available DLNA servers are displayed).

   Select desired server using △ / ▽ from DLNA server list and press ⓞⓚ

4. **Select video** (Thumbnails and contents are displayed).

   Select desired content using △ / ▽ from file list and press ⓞⓚ

5. **Play**

   Follow the navigation and guide to operate.

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

Home network "DLNA"
Videos
Video view

■ <u>Thumbnail view</u>

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

■ <u>Playback screen</u>

☞ INFO → Display/hide Guide and Banner

Movie banner: Shows current Video status

(Drive type, Date and time or File name and Elapsed time.)

2D/3D status: Shows current 2D/3D status
Navigation Guide: Shows available functions.

* In DMR mode, Next skip/Prev. skip are not available.

• Forward/Reverse: Five levels of speed 1 to 5 are available.

┌───┐
│ • In DMR mode, Resume playback is not available   │
│ • Subtitles are not supported in MKV format.   │
└───┘

Home network "DLNA"

Videos

Options menu

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

1. Display Options menu

🖐 OPTION → Options menu

2. Select the item

Select the desired menu using △ / ▽ and press (ok)
(**Video options**)

● **Repeat playback**
Set play repeat function (**Off/On**)

---

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

(0300503)

Home network "DLNA"

Music

Playing Music

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1. **Display Apps list**

   ⚞ [APPS] ➔ **Apps list**

2. **Display** DLNA server

   Select **DLNA** using △ / ▽ / ◁ / ▷ press 🆗

3. **Select server** (Available DLNA servers are displayed).

   Select desired server using △ / ▽ from DLNA server list and press 🆗

4. **Select music** (Thumbnails and contents are displayed).

   Select desired content using △ / ▽ from file list and press 🆗

5. **Play**

   Follow the navigation and guide to operate.

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

(0300601)

Home network "DLNA"
Music
Music view

■ **Thumbnail view**

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

■ **Playback screen**

    INFO   → 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 are available.
   * In DMR mode, Next skip/Prev. skip/User BGM settings are not
     available.

Home network "DLNA"
Music
Options menu

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

1. Display Options menu

OPTION → Options menu

2. Select the item

Select the desired menu using △ / ▽ 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.

Home network "DLNA"

Data information

Compatible Data format

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

Media	Compatible format
Photo	• 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
Videos	• SD-Video files (SD-Video Standard Ver.1.31) Modified data with a PC may not be displayed correctly. • AVCHD files AVCHD Standard Ver.2.0 (AVCHD 3D, AVCHD Progressive) Modified data with a PC may not be displayed correctly. • MP4 files Video codec H.264/MPEG1/MPEG2 Audio codec MPEG Audio/MP3/AAC/HE-AAC/AC3/E-AC3 • MKV files Video codec H.264/MPEG1/MPEG2 Audio codec MPEG Audio/MP3/AAC/HE-AAC/AC3/ E-AC3/DTS core • FLV files Video codec H.264 Audio codec MP3/AAC • 3GPP files Video codec H.264 Audio codec AAC/HE-AAC • PS files Video codec H.264*/MPEG1/MPEG2 Audio codec MPEG Audio/MP3*/AAC*/HE-AAC*/AC3/ E-AC3*/LPCM • TS files Video codec H.264/MPEG1/MPEG2 Audio codec MPEG Audio/MP3*/AAC/HE-AAC/AC3/ E-AC3/DTS core*

(0300701)

Music	• MP3 files (MP3) • M4A files (AAC) - Copy-protected files cannot be played back. • FLAC files (FLAC) • WAV files (LPCM)

＊ for Media player only

■ Supported Subtitles formats

● 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 files inside the same folder, they are displayed in the following order of priority: "srt" "sub" "txt"

(0300701)

Home network "DLNA"
Data information
Notice

---

* 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.
* Connected devices 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.net/viera/support (This site is in English only)
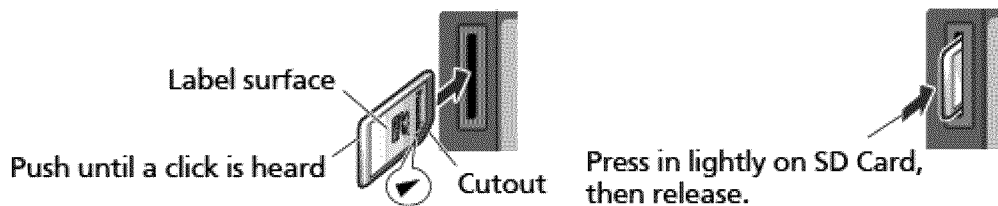
(0300702)

Media player
Get started
Information

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

Label surface

Push until a click is heard

Cutout

Press in lightly on SD Card, 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.
* Remove USB devise safely with USB device setup.
  (Setup > USB device setup)

(0400101)

Media player

Get started

Media warning messages

Message	Meaning
No media. Please insert an SD memory card or USB storage device.	• The device is not inserted.
No media. Device removed.	• The device is removed.
No photos/No movies/ No music files to play/ No playable media	• The device has no data or this type of data is not supported.
Cannot read file	• The file is broken or unreadable. • The TV does not support the format.

(0400102)

Media player

Get started

SD card handling cautions

- Use an SD Card meets SD standards. Otherwise, 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.)

(0400103)
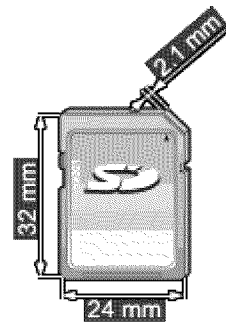
Media player

Photos

Viewing Photos

1. **Insert Media**
2. **Display Media player**

    👆 SD/USB ➜ Media player

    You can also access from Apps list.

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/Sound/Network/Timer/Setup/Help

(0400201)

Media player

Photos

Photo view

■ **Thumbnail view**

👉 🔒 → Display Slideshow settings

🔒 → Display Sort

🔒 → Display Drive select

🔒 → Display Media select

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

■ **Playback screen**

👉 |INFO| → Display/hide Guide and Banner

Photo status: Shows current photo status

▶ Slideshow or ❚❚ Single view
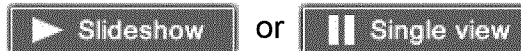
2D/3D status: Shows current 2D/3D status
Navigation Guide: Shows available functions.

Media player

Photos

Sort the photos

---

1. Display Sort select menu

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

2. Select the sort type

Select the type using △ / ▽ 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

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 △ / ▽ and press (OK)

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

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

(0400204)

Media player
Photos
Multi shot 3D

■ <u>**Multi shot 3D**</u>

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 (ok)
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.

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

Media player
Photos
Thumbnails size

■ **Thumbnails size**

To change the number of photos on a thumbnail screen at a time.
(7 x 4 ⇔ 10 x 6)

(0400206)

Media player
Photos
Using slideshow

---

1. Display Slideshow settings

👆 🔒 → Slideshow settings

2. Adjust items

Select the item by △ / ▽ and adjust the settings using △ / ▽

- 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 △ / ▽ and press 🆗

👆 RETURN → Stop in mid-cycle

(0400207)

Media player

Photos

Slideshow settings

Frame
**(Off/Array/Collage/Drift (with calendar)/Drift/Gallery (with calendar)/
Gallery/Cinema)**
Select the Frame.

Photo effect
(Off/Sepia/Gray scale)
Select the display effect.

Transition effect
(Off/Fade in/Dissolve/Motion/Random)
Select the Transition effect shown between photos.

Auto makeup
(On/Off)
Detects a face in the photo, checks the luminance, and then retouches the
enhanced image.

Photo size
(Normal/Zoom)
Removes the black borders that are added according to the size of the photo
being displayed.

Burst playback
(Off/On)
Continuously plays photos that were shot.

Display interval
(Short/Normal/Long)
Display interval sets the time each image is displayed in the Slideshow mode.

Repeat playback
(Off/On)
Turn the Slideshow Repeat (cycle) function on or off.

Soundtrack settings

(Off/Music 1/Music 2/Music 3/Music 4/Music 5/User selected/Auto)

Select the music.

User selected: Plays the soundtrack registered in the Soundtrack settings menu.

Auto: Plays the songs on the SD card or USB flash memory.

(0400208)

Media player
Photos
Soundtrack settings

You can register the favorite songs as soundtracks

① Select Soundtrack settings in Slideshow settings using △ / ▽
② Select User selected using △ / ▽
③ Displays Soundtrack popup menu, then select the desired song with
△ / ▽ 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.

(0400209)

Media player

Videos

Viewing Videos

---

1. Insert Media

2. Display Media player

👆 ⌐SD/USB⌐ ➔ **Media player**

You can also access from Apps list.

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

Select the drive using ◁ / ▷ and press (ok)

4. Select the Videos in Media select

Select the drive using ◁ / ▷ and press (ok)

5. Select the video in thumbnail view

Select the data using ◁ / ▷ / △ / ▽ and (ok)

* 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/Sound/Network/Timer/Setup/Help

(0400301)

Media player

Videos

Video view

■ <u>Thumbnail view</u>

👉 📼 → Play the video

📼 → Display Drive select

📼 → Display Media select

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

■ <u>Playback screen</u>

👉 INFO → Display/hide Guide and Banner

Movie banner: Shows current Video status
(Drive type, 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 are available.

---

* Subtitles are not supported in MKV format.

(0400302)

Media player

Videos

Options menu

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 △ / ▽ and press (OK)

(Video options)

● **Repeat playback**

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

---

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

(0400303)

Media player

Music

Playing Music

---

1. Insert Media

2. Display Media player

👆 SD/USB → **Media player**

You can also access from Apps list.

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/Sound/Network/Timer/Setup/Help

Media player
Music
Music view

■ __Thumbnail view__

👉 🔒 → Play folder

⛩ → Display Drive select
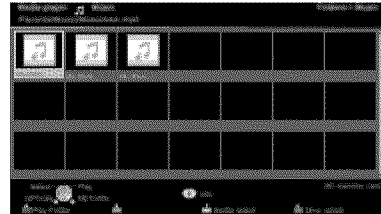
🔒 → Display Media select

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

■ __Playback screen__

👉 INFO → Display/hide Guide

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 are available.

Media player
Music
Options menu

■ **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 △ / ▽ and press (OK)

(**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

■ __Compatible Data format for Media player (SD card/USB flash memory)/DLNA__

Media	Compatible format
Photo	• 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
Videos	• SD-Video files (SD-Video Standard Ver.1.31) Modified data with a PC may not be displayed correctly. • AVCHD files AVCHD Standard Ver.2.0 (AVCHD 3D, AVCHD Progressive) Modified data with a PC may not be displayed correctly. • MP4 files Video codec H.264/MPEG1/MPEG2 Audio codec MPEG Audio/MP3/AAC/HE-AAC/AC3/E-AC3 • MKV files Video codec H.264/MPEG1/MPEG2 Audio codec MPEG Audio/MP3/AAC/HE-AAC/AC3/ E-AC3/DTS core • FLV files Video codec H.264 Audio codec MP3/AAC • 3GPP files Video codec H.264 Audio codec AAC/HE-AAC • PS files Video codec H.264*/MPEG1/MPEG2 Audio codec MPEG Audio/MP3*/AAC*/HE-AAC*/AC3/ E-AC3*/LPCM • TS files Video codec H.264/MPEG1/MPEG2 Audio codec MPEG Audio/MP3*/AAC/HE-AAC/AC3/ E-AC3/DTS core*

(0300701)

Music	• MP3 files (MP3)
	• M4A files (AAC)
	- Copy-protected files cannot be played back.
	• FLAC files (FLAC)
	• WAV files (LPCM)

<div align="right">✱ for Media player only</div>

■ Supported Subtitles formats

● 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 files inside the same folder, they are displayed in the following order of priority: "srt" "sub" "txt"

(0300701)

Media player
Data information
Notice

---

* 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.
* Connected devices 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.net/viera/support (This site is in English only)

(0300702)