

Panasonic[®]

ST60 series

***e*HELP**

Watching TV

my Home Screen

- Features 11
- How to use 12
- Settings 13

Cable / Satellite / Fiber Optic box

- Initial setting 15

Antenna / Cable service without a box

- Initial setting 16
- Select channels 17
- Favorite channels 18
- Closed caption 19
- SAP 20
- Other 21

Blu-ray, DVD, Game Console, etc.

- Connecting and viewing 22
- HDMI connection notice 25
- HDMI connection caution 26
- Input signal 27

Useful features

- Eco navigation 28
- Voice guidance 29
- Voice guidance settings 30

For best picture

- Picture mode 31
- Auto brightness (ECO) 32

• Aspect	33
• Aspect info.	35
• Copy adjustments	36
• Pro settings	37

For best audio

• Basic settings	40
• Voice guidance settings	42
• Advanced settings	43

3D

• Notice	45
• Parts name and functions	46
• Registration	48
• Replacing the battery	49
• Viewing 3D	50
• Change 3D ↔ 2D	51
• Adjust 3D images	52
• 3D settings	53

Using Internet services

Connect to network

• Network connections	55
-----------------------	----

Network settings

• Setting menu	57
• Network connection/Network status	58
• VIERA remote settings	59
• Network link	60
• Software update	61

• New software notice	62
<hr/>	
How to use	
• Operate	63
<hr/>	
Home network "DLNA"	
Get started	
• Information	64
<hr/>	
Connect to network	
• Network connections	65
<hr/>	
Network settings	
• Setting menu	68
<hr/>	
• Network connection/Network status	69
<hr/>	
• VIERA remote settings	70
<hr/>	
• Network link	71
<hr/>	
• Software update	72
<hr/>	
• New software notice	73
<hr/>	
Photos	
• Viewing Photos	74
<hr/>	
• Photo view	75
<hr/>	
• Options menu	76
<hr/>	
• Using slideshow	77
<hr/>	
• Slideshow settings	78
<hr/>	
Videos	
• Viewing Videos	79
<hr/>	
• Video view	80
<hr/>	
• Options menu	81
<hr/>	
Music	

• Playing Music	82
• Music view	83
• Options menu	84

Data information

• Compatible Data format	85
• Notice	87

Media player

Get started

• Information	88
• Media warning messages	89
• SD card handling cautions	90

Photos

• Viewing Photos	91
• Photo view	92
• Sort the photos	93
• Options menu	94
• Multi shot 3D	95
• Thumbnails size	96
• Using slideshow	97
• Slideshow settings	98
• Soundtrack settings	100

Videos

• Viewing Videos	101
• Video view	102
• Options menu	103

Music

• Playing Music	104
• Music view	105
• Options menu	106
Data information	
• Compatible Data format	107
• Notice	109
Convenience features	
Using Apps list	
• Features	110
• How to use	111
• Settings	112
Timer	
• Setting menu	113
• Timer (On/Off timer)	114
• Sleep (Off timer)	115
Parental control	
• Setting menu	116
• Parental control	117
• Password setting	119
• Parental control ratings	120
Closed caption	
• Setting menu	122
• Closed caption	123
• Closed caption notice	125
VIERA Link™ "HDAVI Control™"	
• Basic feature	126

• Connecting note	127
• VIERA Link connections	129
• VIERA Link settings	132
• VIERA Link settings feature	133
• VIERA Link	135
• VIERA Link menu	136

Using Voice guidance

• Voice guidance	138
• Voice guidance settings	139

Using Electronic Touch Pen

• Information	140
• Touch Pen settings	141
• Using Touch Pen	142

Control by Smartphone, etc.

• Smartphone remote	143
---------------------	-----

Using USB Keyboard / Gamepad

• Keyboard	144
• Gamepad	145

All settings

How to use

• Setting menu	146
----------------	-----

Picture

• Basic settings	147
• Pro settings	149
• Advanced picture	152
• Screen settings	154

• 3D settings	156
• Other settings	158
Sound	
• Basic settings	159
• Voice guidance settings	161
• Advanced settings	162
• DIGITAL AUDIO OUT terminal	164
Network	
• Network settings	165
Timer	
• Setting menu	167
• Clock settings	168
• Sleep (Off timer)	169
• Auto turn off settings	170
• Timer (On/Off timer)	171
Setup	
• Setting menu	172
• Eco navigation	173
• USB device setup	174
• Touch Pen setup	175
• Parental control	176
• Password setting	178
• Parental control ratings	179
• ANTENNA/Cable setup	181
• Language settings	183
• Display customization	184

• Closed caption	185
• Closed caption notice	187
• VIERA Link settings	188
• System settings	189
• Other settings	190

Support / FAQ

Help menu

• Using Help menu	191
-------------------	-----

FAQ

• Picture - Viewing	192
• Picture - Snowy / none	193
• Picture - Distortion	194
• Picture - Continue	195
• Sound - None	196
• Sound - Unusual	197
• Networking	198
• Software update	199
• 3D - Viewing	200
• 3D - Format	201
• Voice guidance	202
• Electronic Touch Pen	203
• Eco-Navigation (Eco-Navi)	204
• Other	205
• Menu - Gray-out or missing items	206
• Factory defaults	207

Care and Cleaning

• Display panel	208
• Cabinet	209
• Pedestal / Power cord	210
• 3D Eyewear	211

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

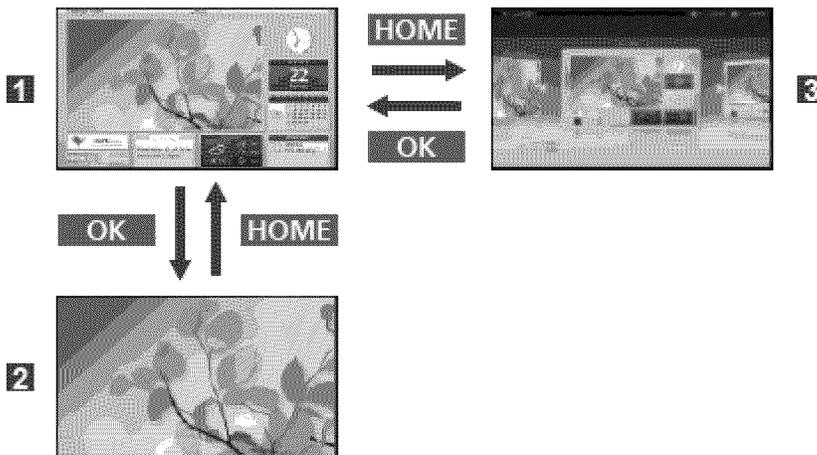
my Home Screen

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.

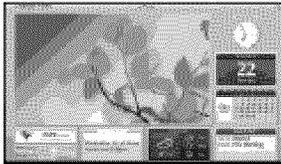
Watching TV

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 ◀/▶/▲/▼ and press **OK** to access the feature.

- To watch full-screen TV

1. Select the TV window with ▲/▼/▶/◀



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.

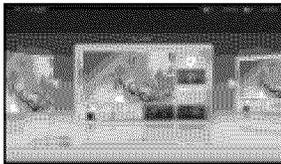
(Example)



■ **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.

- To prevent panel "image retention", the brightness of the screen is adjusted when no operation is performed on Home Screen.
After a certain period of time, full-screen TV is displayed automatically.

■ **Settings**

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

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



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.

* 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.

- * 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.

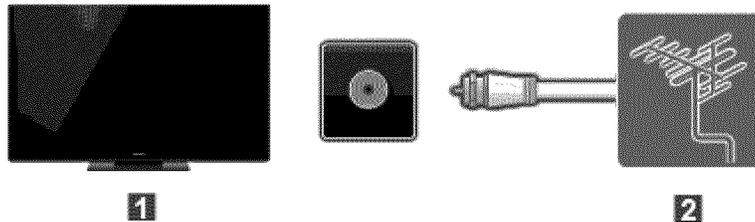
Watching TV

Antenna / Cable service without a box

Initial setting

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.

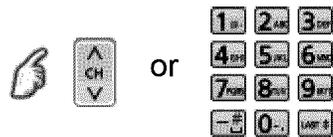
* If no channels are found by the end of the scan, then check the following:
Antenna's position - or availability of Cable service.
Cable, Satellite or Fiber services with a box are typically connected to the TV's A/V inputs, preferably HDMI, for best HD picture. In such a case, the channel scanning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

Watching TV

Antenna / Cable service without a box

Select channels

- **Select desired channel**



- 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 →    )

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 \triangle / ∇ and  or



directly to

save the displayed channel.

- **Delete a Favorite channel**

 **OPTION** → Options menu > Set favorite

Select the list number using \triangle / ∇ and  (press and hold) to delete.

* To change the page in **Set favorite**

 **FAVORITE** or \triangleleft / \triangleright repeatedly

- **Display a Favorite channel**

 **FAVORITE** → Favorite channels

Select the list number using \triangle / ∇ and  or



directly to

save the displayed channel.

* To change the page in **Favorite channels**

 **FAVORITE** or \triangleleft / \triangleright repeatedly

Watching TV

Antenna / Cable service without a box

Closed caption

Viewing with Closed caption



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.

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.



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**)

Watching TV

Antenna / Cable service without a box

Other

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

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

Watching TV

Blu-ray, DVD, Game Console, etc.

Connecting and viewing

1. Connect device

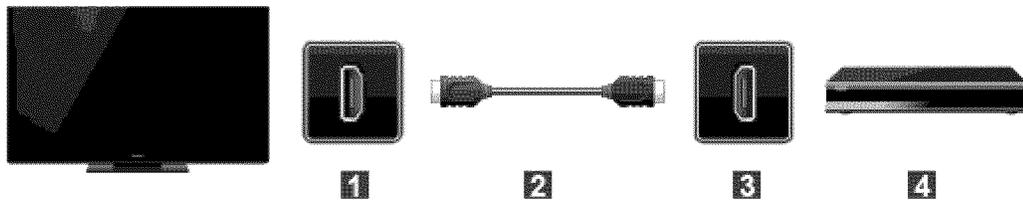
Verify that the device is connected to the TV properly and connect to desired terminal. Note which terminal the device is connected to (HDMI 1, HDMI 2,... Component or Video)

Component and Composite (Video) in terminals are shared.

Please be careful not to confuse the connection when you use Component or Video.

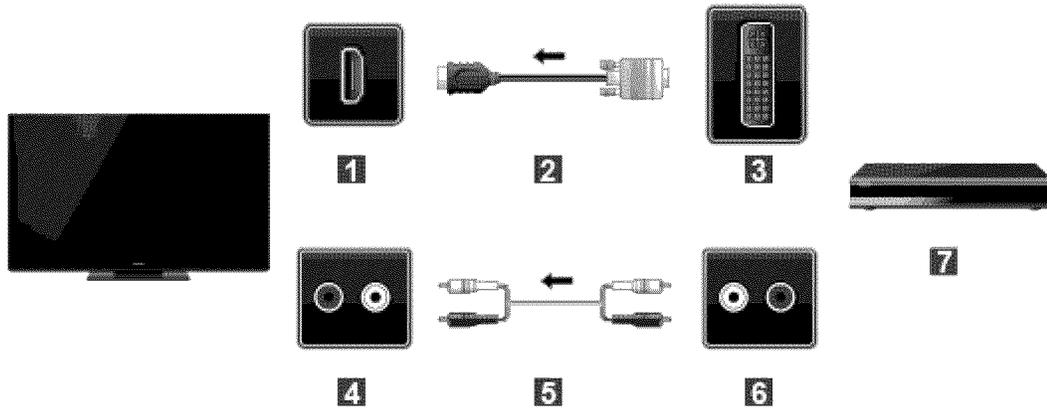
■ Example of AV connections

A. Connecting to the HDMI input (best)



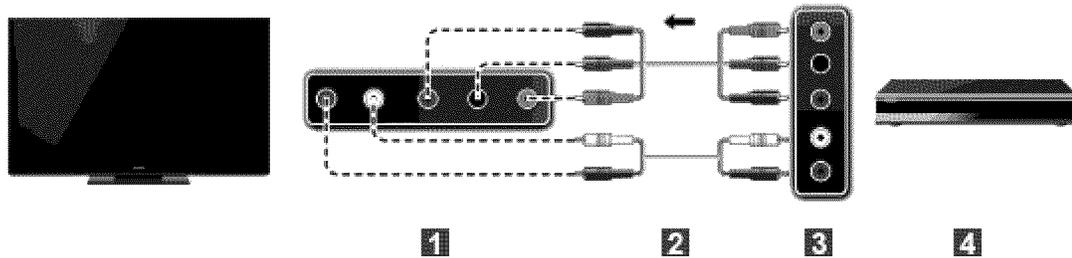
- 1** HDMI IN
- 2** HDMI cable
- 3** HDMI OUT
- 4** AV Equipment (e.g. Blu-ray Disc player)

For devices with DVI output



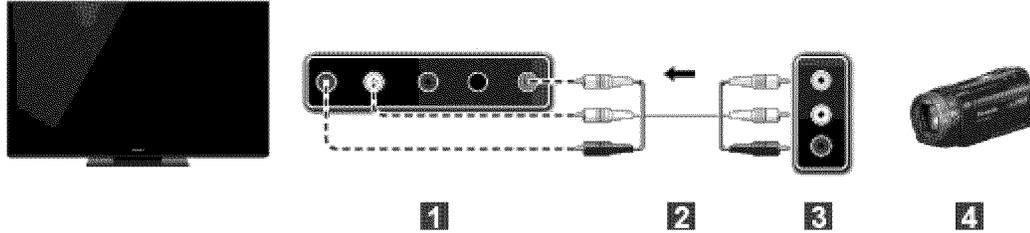
- 1** HDMI IN
- 2** HDMI-DVI Conversion cable
- 3** DVI OUT
- 4** AUDIO IN
- 5** Audio cable
- 6** AUDIO OUT
- 7** AV Equipment (e.g. Blu-ray Disc player)

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)



- 1 COMPOSITE IN
- 2 VIDEO cable
- 3 COMPOSITE OUT
- 4 AV Equipment (e.g. Camcorder)

2. Select Input

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



2. Select the input used in step 1

Select correct input source, using \triangle / ∇ and press

You need to select **Video** or **Component**.

- Press **INPUT** and select **AV: Video <-> Component**.
- Press \triangle / ∇ 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

(*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.

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

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.

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 \triangle / ∇ and press 

Then, switch to **On** using \triangle / ∇ and press 

2. Set other items

Select the desired menu using \triangle / ∇ and press 

Then, change or adjust the item using \triangle / ∇ and press 

Watching TV

Useful features

Voice guidance settings

Guidance settings for the visually impaired.

Voice guidance

(Off/On)

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

Volume

(Low/Mid/High)

Selects the volume for voice guidance.

- Gray-out when **Voice guidance** is off.
-

Speed

(Slow/Normal/Fast)

Adjust the readout speed of the voice guidance.

- Gray-out when **Voice guidance** is off.
-

User level

(Expert/Beginner)

Selects the level of complexity for voice guidance.

- Gray-out when **Voice guidance** is off.
-

Language

(English/Español/Français)

Watching TV

For best picture

Picture mode

1. Change picture mode to suit your settings and taste

1. Select **Picture mode**

 **MENU** → Menu > Picture > Picture mode

Select desired menu using \triangle / ∇ from menu bar and press 

2. Adjust using \triangle / ∇

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**.

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**

* **Standard** picture mode automatically sets C.A.T.S. to **On**.

Watching TV

For best picture

Aspect

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)

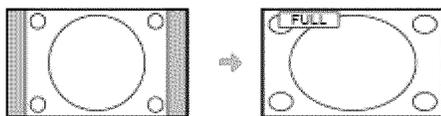
480i, 480p: Full/Just/4:3/Zoom

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

- * 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.

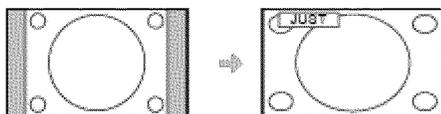
■ **Screen mode**

FULL



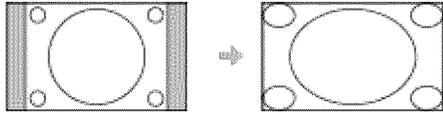
Enlarges the 4:3 image horizontally to the screen's side edges.
(Recommended for anamorphic picture)

JUST



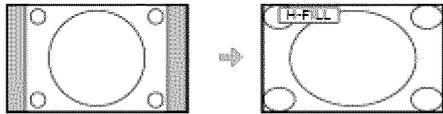
Stretches to justify the 4:3 image to the four corners of the screen.
(Recommended for normal TV broadcast)

Sidecut just



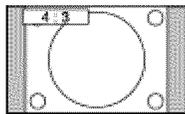
Enlarges the 4:3 image horizontally to the screen's side edges. The side edges of the image are cut off.

H-FILL



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

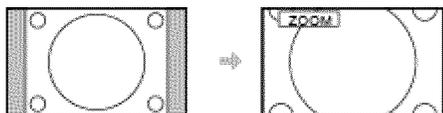
4:3



Standard

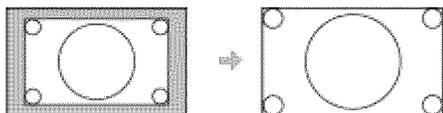
(Note that "Image retention" of the side bar may occur from displaying it for a long time.)

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.

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 \triangle / ∇ to desired position.
- ③ V-size: Vertical size adjustment
Adjust using $\triangleleft / \triangleright$ to desired size.

* Press OK to reset

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 \triangle / ∇ and press 

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

Select the menu using \triangle / ∇ and press 

Then, select the destination using \triangle / ∇ and press  to set.

3. Select Copy start to copy

Select the menu using \triangle / ∇ and press 

4. Select Yes to set

Select the item using $\triangleleft / \triangleright$ and press  to set

Watching TV

For best picture

Pro settings

Adjust the picture mode in more detail.

Set **Picture mode** to **Custom/Cinema** 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.

Color gamut

(Normal/Native)

Each color space is a matrix composed of red, green & blue colors. Select your preference.

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.

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.

Reset to defaults

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

Gamma detail adjustment**Gamma**

(S-curve/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.

Reset to defaults

Resets all **Pro settings** adjustments to factory default settings.

Watching TV

For best audio

Basic settings

Adjust audio quality.



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.
-

Bass

Increases or decreases the bass response.

- Gray-out if **Sound mode** is set to **User**.
-

Treble

Increases or decreases the treble response.

- Gray-out if **Sound mode** is set to **User**.
-

Equalizer

(150Hz/250Hz/500Hz/1kHz/2kHz/4kHz/8kHz/12kHz/Reset to default)

Adjusts the frequency level to suit your favorite sound quality.

- 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.
-

Balance

Emphasizes the left/right speaker volume.

- Gray-out when using Home Theater.

Watching TV

For best audio

Voice guidance settings

Guidance settings for the visually impaired.

Voice guidance

(Off/On)

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

Volume

(Low/Mid/High)

Selects the volume for voice guidance.

- Gray-out when **Voice guidance** is off.
-

Speed

(Slow/Normal/Fast)

Adjust the readout speed of the voice guidance.

- Gray-out when **Voice guidance** is off.
-

User level

(Expert/Beginner)

Selects the level of complexity for voice guidance.

- Gray-out when **Voice guidance** is off.
-

Language

(English/Español/Français)

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.

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.

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.

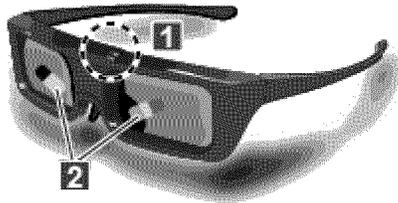
* Using this function for profit-making purposes, or publically showing images converted from 2D to 3D in places such as coffee shops or hotels etc. may infringe on the rights of the copyright holder protected under the Copyright Act.

Watching TV

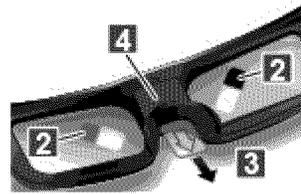
3D

Parts name and functions

[Front side]



[Back side]



1 Power button/Mode change/Indicator lamp

Switches the 3D Eyewear on or off.

- Press the button for about 1 second to turn the power on. The indicator lamp lights for about 2 seconds and then goes off.
- To turn the power off, press the button for about 2 second again. The indicator lamp flashes 3 times, then the 3D Eyewear turns off

Mode change

- Press the button for about 1 second to change the mode between 3D and 2D (view a 3D image in 2D).
- (When power is off) Press the button for 5 second to change to registration mode.

Indicator lamp

- Lights or flashes during use to show the status. (see below)

2 Protection film

3 Insulating sheet

- When using for the first time, peel off the protection film and pull the insulating sheet.

4 Battery cover

Indicator lamp status

Indicator lamp	Status
Lights red for 2 seconds when turned on	Sufficient battery level
Flashes red 5 times when turned on	Low battery level
Flashes red	Under registering
Flashes red once every 1 seconds	Under reconnecting to the TV
Flashes red 3 times	Power off (Press the button over 2 seconds when in use, or Automatically power off when registering or reconnecting fails, or connection is lost)
Flashes red once every 2 seconds when in use	3D mode is selected
Flashes red twice every 4 seconds when in use	2D mode is selected

Watching TV

3D

Registration

■ **First registration**

Perform the first registration when the 3D Eyewear is used for the first time.

- 1. Turn the TV on**
- 2. Press the button for about 1 second to turn the power on.**
The lamp lights for about 2 seconds and then flashes.
The 3D Eyewear will be turned on and start registration.
Place the 3D Eyewear within 1.6 ft (50 cm) from the TV while registration in progress.
- 3. When the registration is successfully completed, the 3D Eyewear will reconnect with TV automatically when 3D Eyewear is turned on near the TV in 3D mode.**

■ **Registration again**

When connection with registered TV fails, or when using with another TV, re-register the 3D Eyewear.

- 1. Turn the TV on**
- 2. Within 1.6 ft (50 cm) from the TV, press Power button until lamp lights, then release it to start registration.**
- 3. When the registration is successfully completed, the 3D Eyewear will reconnect with TV automatically when 3D Eyewear is turned on near the TV in 3D mode.**

- | |
|--|
| <ul style="list-style-type: none">• If the registration failed, the 3D Eyewear will power off.
In this case, power off the TV and perform from step 1. |
|--|

Watching TV

3D

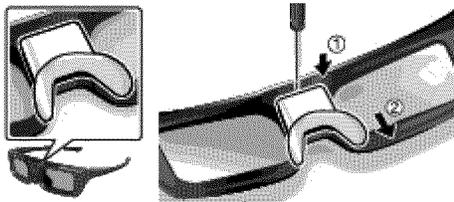
Replacing the battery

When the battery is running low, the indicator lamp flashes 5 times on turning the 3D Eyewear on.

In this case, early battery replacement is recommended.

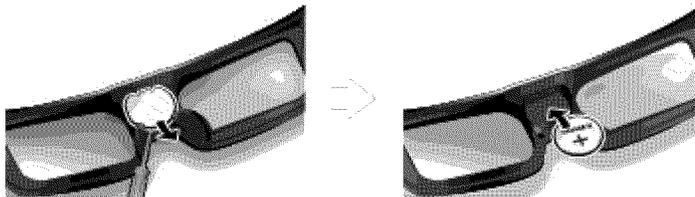
- Dispose of the old batteries as non-burnable rubbish, or in line with the waste disposal regulations in your local area.

1. Open the cover using pen tip or screwdriver (minus -) etc.

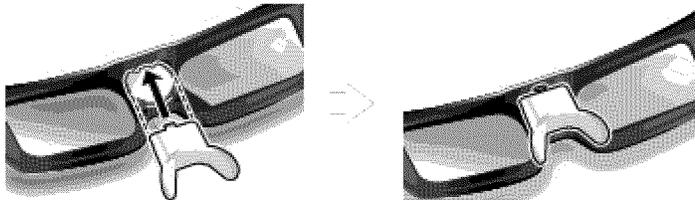


2. Replace the battery

- If difficulty, remove it with the tip of the driver.
- Use the specified type of battery (coin-shaped lithium battery CR2025).
- Note the correct polarity (+ or -).



3. Replace and fasten the cover



Watching TV

3D

Viewing 3D

1. Turn the 3D Eyewear on and put it on

Make sure that registration is finished completely.
(Displays messages and information on the screen.)

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**.

3. Turn off the 3D Eyewear

The 3D Eyewear indicator lamp turns off, and the power turns off.

- It may take several seconds to display 3D image properly after you switch to 3D mode.

Watching TV

3D

Change 3D ⇔ 2D

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

 **3D** → 3D format select

Switch 3D or 2D using Δ / ∇ 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

(Native/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 Δ / ∇ and adjust the settings with Δ / ∇

- * 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.

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**.

3D refresh rate

(96Hz*/100Hz/120Hz) *24Hz only

Reduces juddering and flicker noises of the 3D images when using the 3D Eyewear.

100Hz: If light appears to flicker under fluorescents (or dimmers) of 50 Hz.

120Hz: If light appears to flicker under fluorescents (or dimmers) of 60 Hz.

- Gray-out in 2D mode
-

2D → 3D depth

(Minimum/Medium/Maximum)

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
(Off/Mid/High)**

Select when diagonal lines appear jagged. Turn off when the picture looks noisy.

- 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:

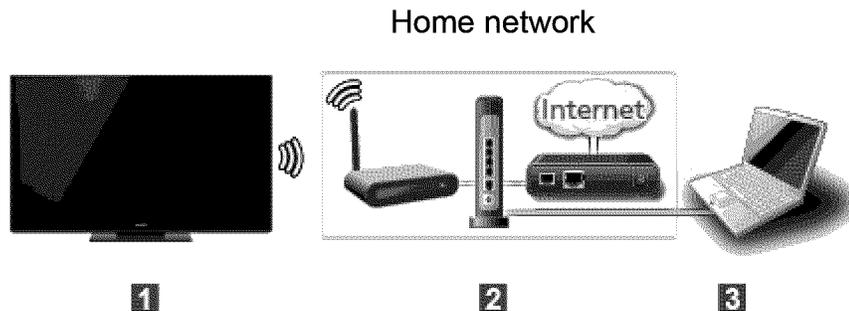
- Required speed (effective): at least 1.5 Mbps for SD and 6 Mbps for HD picture quality, respectively.
- Dial-up Internet service cannot be used for Home Screen.

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

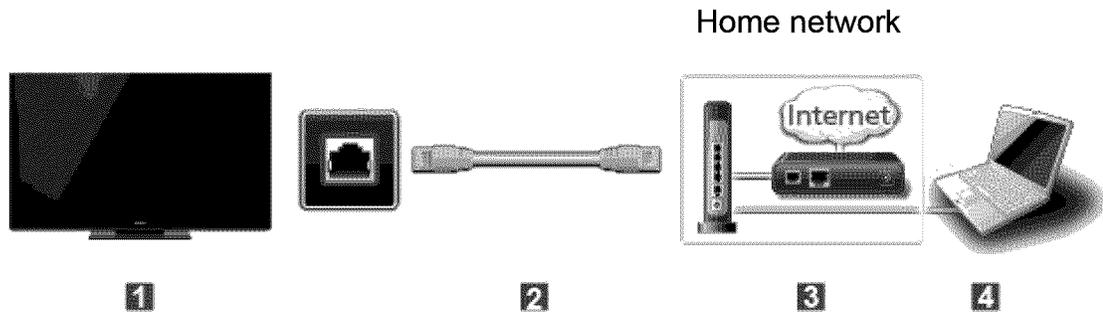
A. Wireless connection



- 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.

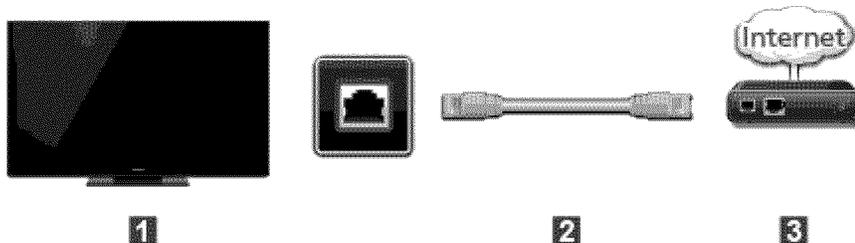
B. Wired connection (Using Router)



- 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.

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 Δ / ∇ 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 \triangle / ∇ 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.

Using Internet services

Network settings

VIERA remote settings

■ **VIERA remote settings**

- ① Select **VIERA remote settings** using \triangle / ∇ 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 \triangle / ∇ and press 
- ② Switches **On** or **Off** with \triangle / ∇

● **Device to upload contents**

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

- ① Select **Device to upload contents** using \triangle / ∇ and press 
- ② Select device and press 

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 Δ / ∇ and press 

② Switches **On** or **Off** with Δ / ∇

● Registration Type

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

① Select **Registration type** using Δ / ∇ and press 

② Switches **Auto** or **Manual** with Δ / ∇

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 Δ / ∇ and press 

② Select the desired device with Δ / ∇ and set access limitation.

Using Internet services

Network settings

Software update

■ Software update

- ① Select **Software update** using \triangle / ∇ and press 
- ② Press OK to start the Software update screen



- 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 \triangle / ∇
- ② Switches **Off** or **On** with \triangle / ∇

Using Internet services

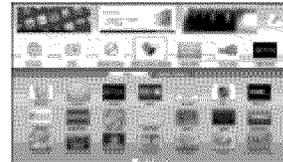
How to use

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 $\triangle / \nabla / \triangleleft / \triangleright$ 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.

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.

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.

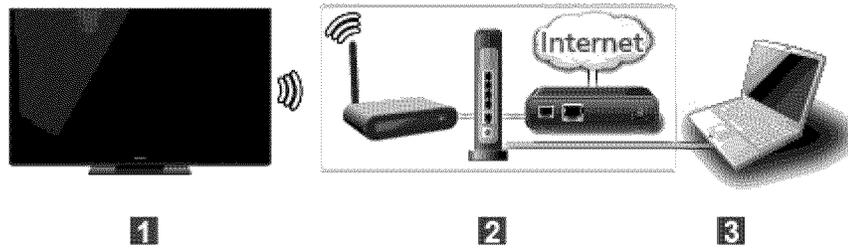
2. Select wired or wireless connection

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

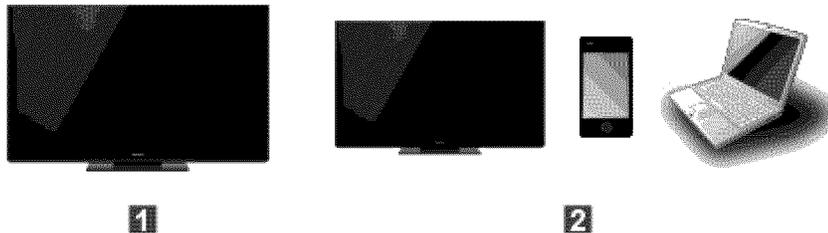
Home network



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

■ Wireless connection (without Internet connection)

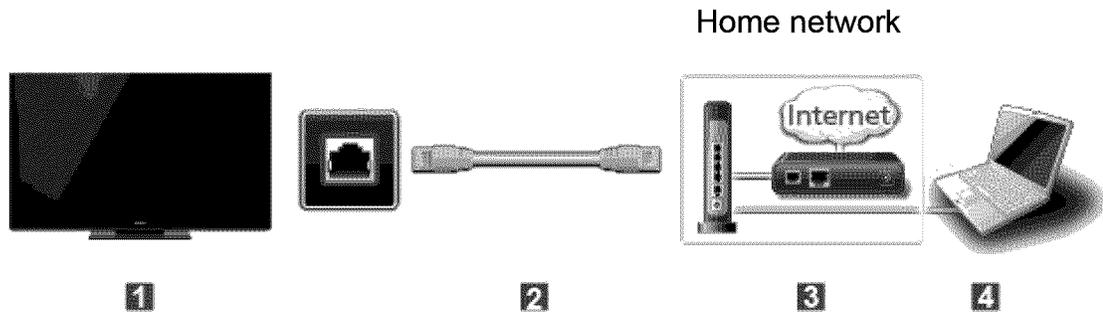
You can connect the TV as an access point to wireless equipment without an Internet connection.



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

* This connection can not be used for Internet services.

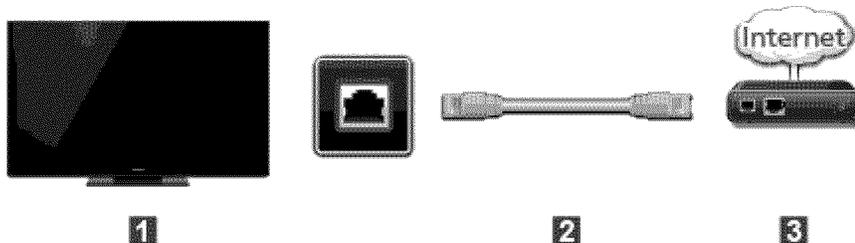
B. Wired connection (Using Router)



- 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.

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 Δ / ∇ 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)

Home network "DLNA"

Network settings

Network connection/Network status

■ Network connection/Network status

- ① Select **Network connection** using \triangle / ∇ 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.
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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 Δ / ∇ 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 Δ / ∇ and press 
- ② Switches **On** or **Off** with Δ / ∇

● Device to upload contents

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

- ① Select **Device to upload contents** using Δ / ∇ and press 
- ② Select device and press 

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 Δ / ∇ and press 

② Switches **On** or **Off** with Δ / ∇

● Registration Type

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

① Select **Registration type** using Δ / ∇ and press 

② Switches **Auto** or **Manual** with Δ / ∇

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 Δ / ∇ and press 

② Select the desired device with Δ / ∇ and set access limitation.

Home network "DLNA"

Network settings

Software update

■ Software update

- ① Select **Software update** using \triangle / ∇ and press 
- ② Press OK to start the Software update screen



- ③ Follow directions on the screen
- Make sure to set **Clock** before the update starts.

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 \triangle / ∇
- ② Switches **Off** or **On** with \triangle / ∇

Home network "DLNA"

Photos

Viewing Photos

1. Display Apps (application) list

 **APPS** → Apps list



2. Display DLNA server

Select **DLNA** using $\triangle / \nabla / \triangleleft / \triangleright$
press 

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

Select desired server using \triangle / ∇ from DLNA server list and press 

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

Select desired content using \triangle / ∇ 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.

Home network "DLNA"

Photos

Photo view

■ Thumbnail view



→ Display **Slideshow settings**



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

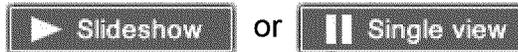
* Information differs depending on selected data.

■ 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.

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

Home network "DLNA"

Photos

Options menu

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

1. Display Options menu



2. Select the item

Select the desired menu using \triangle / ∇ and press 
(Slideshow settings)

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

Home network "DLNA"

Photos

Using slideshow

1. Display Slideshow settings

  → Slideshow settings

2. Adjust items

Select the item by \triangle / ∇ and adjust the settings using \triangle / ∇

- 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 \triangle / ∇ and press 

 **RETURN** → Stop in mid-cycle

Home network "DLNA"

Photos

Slideshow settings

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.

Home network "DLNA"

Videos

Viewing Videos

1. Display Apps list

 **APPS** → Apps list

2. Display DLNA server

Select **DLNA** using $\triangle / \nabla / \triangleleft / \triangleright$ press 

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

Select desired server using \triangle / ∇ from DLNA server list and press 

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

Select desired content using \triangle / ∇ 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

■ 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

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 \triangle / ∇ and press 
(Video options)

- **Repeat playback**

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

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

Home network "DLNA"

Music

Playing Music

1. Display Apps list

 **HOME** → Apps list

2. Display DLNA server

Select **DLNA** using $\triangle / \nabla / \triangleleft / \triangleright$ press 

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

Select desired server using \triangle / ∇ from DLNA server list and press 

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

Select desired content using \triangle / ∇ 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"

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



2. Select the item

Select the desired menu using \triangle / ∇ 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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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*

Music	<ul style="list-style-type: none">• MP3 files (MP3)• M4A files (AAC)<ul style="list-style-type: none">- Copy-protected files cannot be played back.• FLAC files (FLAC)• WAV files (LPCM)
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* for Media player only

■ **Supported Subtitles formats**

- MicroDVD, SubRip, TMLayer (.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"

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)

Media player

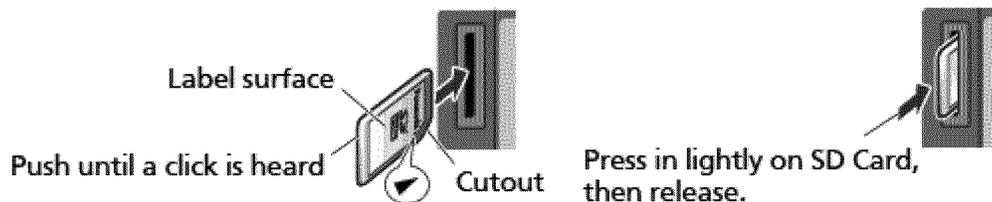
Get started

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.



- 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/adaptor)
- 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 device safely with **USB device setup**.
(Setup > USB device setup)

Media player

Get started

Media warning messages

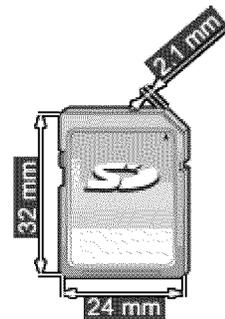
Message	Meaning
No media. Please insert an SD memory card or USB storage device.	<ul style="list-style-type: none">• The device is not inserted.
No media. Device removed.	<ul style="list-style-type: none">• The device is removed.
No photos/No movies/ No music files to play/ No playable media	<ul style="list-style-type: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

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.)



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/Timer/Setup/Help

Media player

Photos

Photo view

■ Thumbnail view



→ Display **Slideshow settings**



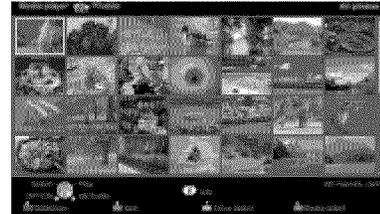
→ Display **Sort**



→ Display **Drive select**



→ Display **Media select**



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

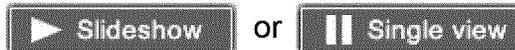
* Information differs depending on selected data.

■ 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

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



2. Select the item

Select the desired menu using \triangle / ∇ and press **OK**
(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

■ **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)

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)

Media player

Photos

Using slideshow

1. Display Slideshow settings

  → Slideshow settings

2. Adjust items

Select the item by \triangle / ∇ and adjust the settings using \triangle / ∇

- 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 / ∇ and press 

 **RETURN** → Stop in mid-cycle

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.

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.

Media player

Photos

Soundtrack settings

You can register the favorite songs as soundtracks

- ① Select **Soundtrack settings** in **Slideshow settings** using Δ / ∇
- ② Select **User selected** using Δ / ∇
- ③ Displays **Soundtrack** popup menu, then select the desired song with Δ / ∇ 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

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 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/Sound/Timer/Setup/Help

Media player

Videos

Video view

■ Thumbnail view



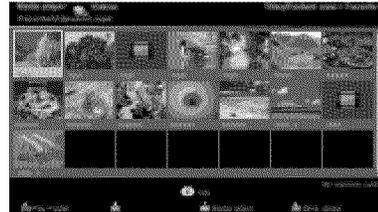
→ Play the video



→ 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, 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.

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 \triangle / ∇ 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

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/Timer/Setup/Help

Media player

Music

Music view

■ Thumbnail view



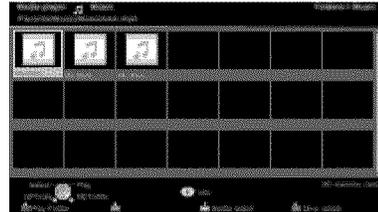
→ Play folder



→ 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 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 \triangle / ∇ 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

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

Media	Compatible format
Photo	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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*

Music	<ul style="list-style-type: none">• MP3 files (MP3)• M4A files (AAC)<ul style="list-style-type: none">- Copy-protected files cannot be played back.• FLAC files (FLAC)• WAV files (LPCM)
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* for Media player only

■ **Supported Subtitles formats**

- MicroDVD, SubRip, TMLayer (.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"