

Panasonic[®]

DT50 series

*e***HELP**

Watching TV

Cable / Satellite / Fiber with a box

- Initial setting 11
-

Antenna / Cable service without a box

- Initial setting 12
 - Select channels 13
 - Favorite channels (Set) 14
 - Favorite channels (Display) 15
 - Closed caption 16
 - SAP 17
 - Other 18
-

Blu-ray, DVD, Game Console, etc.

- Connecting and viewing (1) 19
 - Connecting and viewing (2) 20
 - HDMI connection notice 21
 - HDMI connection caution 22
 - Input signal 23
-

For best picture

- Picture mode 24
 - Auto brightness (ECO) 25
 - Aspect 26
 - Aspect info. 27
-

For best audio

- Basic adjustments 28
 - Advanced audio 29
-

3D

● Notice	30
● Viewing 3D	31
● Change 3D ⇔ 2D	32
● Adjust 3D images	33
● 3D settings (1)	34
● 3D settings (2)	35

Computer on TV

● Display PC screen	36
● PC adjustments (1)	37
● PC adjustments (2)	38
● Input signal	39

Internet services "VIERA Connect"

Connect to network

● Network connections (1)	40
● Network connections (2)	41
● Network connections (3)	42
● Network connections (4)	43

Network settings

● Setting menu	44
● Connection test	45
● Network connection	46
● Wireless network settings	47
● IP address/DNS settings	48
● Proxy settings	49
● Network link (1)	50
● Network link (2)	51

● Software update	52
● New software notice	53
● Network status	54

How to use

● Operate	55
-----------	----

Home network "DLNA"

Get started

● Information	56
---------------	----

Connect to network

● Network connections (1)	57
● Network connections (2)	58
● Network connections (3)	59
● Network connections (4)	60

Network settings

● Setting menu	61
● Connection test	62
● Network connection	63
● Wireless network settings	64
● IP address/DNS settings	65
● Proxy settings	66
● Network link (1)	67
● Network link (2)	68
● Software update	69
● New software notice	70
● Network status	71

Photos

● Viewing Photos	72
------------------	----

● Photo view	73
● Options menu	74
● Using slideshow	75
● Slideshow settings	76

Videos

● Viewing Videos	77
● Video view	78
● Options menu	79

Music

● Playing Music	80
● Music view	81
● Options menu	82

Data information

● Compatible Data format (1)	83
● Compatible Data format (2)	84
● Compatible Data format (3)	85
● Notice	86

Media player

Get started

● Information	87
● Media warning messages	88
● SD card handling cautions	89

Photos

● Viewing Photos	90
● Photo view	91
● Sort the photos	92
● Options menu	93

● Multi shot 3D / Thumbnails size	94
● Using slideshow	95
● Slideshow settings	96
● Soundtrack settings	97

Videos

● Viewing Videos	98
● Video view	99
● Options menu	100

Music

● Playing Music	101
● Music view	102
● Options menu	103

Data information

● Compatible Data format (1)	104
● Compatible Data format (2)	105
● Compatible Data format (3)	106
● Notice	107

Convenience features

Using VIERA TOOLS

● Using VIERA TOOLS	108
---------------------	-----

Timer

● Setting menu	109
● Sleep (Off timer)	110
● Timer (On/Off timer)	111

Lock (parental control)

● Setting menu	112
● Lock (1)	113

● Lock (2)	114
● Password setting	115
● Parental control ratings (1)	116
● Parental control ratings (2)	117
● Parental control ratings (3)	118

Closed caption

● Setting menu	119
● Closed caption (1)	120
● Closed caption (2)	121
● Closed caption notice	122

VIERA Link™ "HDAVI Control™"

● Basic feature	123
● Connecting note (1)	124
● Connecting note (2)	125
● VIERA Link connections (1)	126
● VIERA Link connections (2)	127
● VIERA Link connections (3)	128
● VIERA Link settings	129
● VIERA Link settings feature (1)	130
● VIERA Link settings feature (2)	131
● VIERA Link settings feature (3)	132
● VIERA Link	133
● VIERA Link menu (1)	134
● VIERA Link menu (2)	135

Control by smartphone, etc.

● Smartphone remote	136
---------------------	-----

Using USB Keyboard / Gamepad

● Keyboard	137
● Gamepad	138

All settings

Picture

● Setting menu	139
● Basic settings (1)	140
● Basic settings (2)	141
● Aspect adjustments	142
● PC adjustments (1)	143
● PC adjustments (2)	144
● HDMI settings	145
● Advanced picture (1)	146
● Advanced picture (2)	147

Audio

● Setting menu	148
● Basic settings	149
● Advanced audio	150
● DTV language and SAP settings	151
● DIGITAL AUDIO OUT terminal	152

Network

● Network settings (1)	153
● Network settings (2)	154
● Network settings (3)	155
● Network settings (4)	156
● Network settings (5)	157

Timer

● Setting menu	158
----------------	-----

● Sleep (Off timer)	159
● Timer (On/Off timer)	160

Lock (parental control)

● Setting menu	161
● Lock (1)	162
● Lock (2)	163
● Password setting	164
● Parental control ratings (1)	165
● Parental control ratings (2)	166
● Parental control ratings (3)	167

Setup

● Setting menu	168
● 3D settings (1)	169
● 3D settings (2)	170
● ANT/Cable setup (1)	171
● ANT/Cable setup (2)	172
● Closed caption (1)	173
● Closed caption (2)	174
● Closed caption notice	175
● VIERA Link settings (1)	176
● VIERA Link settings (2)	177
● ECO/energy saving (1)	178
● ECO/energy saving (2)	179
● Advanced setup	180
● Other settings (1)	181
● Other settings (2)	182

Support / FAQ

FAQ

● Picture - Viewing	183
● Picture - Snowy / none	184
● Picture - Distortion	185
● Picture - Continue	186
● Sound - none	187
● Sound - Unusual	188
● Networking	189
● Software update	190
● 3D - Viewing	191
● 3D - Format	192
● Other	193
● Menu - Gray-out	194
● Reset to default	195

Care and Cleaning

● Display panel	196
● Cabinet	197
● Pedestal / Power cord	198

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

Cable / Satellite / Fiber with a box

Initial setting

1. Connecting

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

Tip: 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 your box is a high definition, then check that it is outputting 720p or 1080i signal.
Tip: press the TV's **INFO** button to verify.
- * Check your box "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.

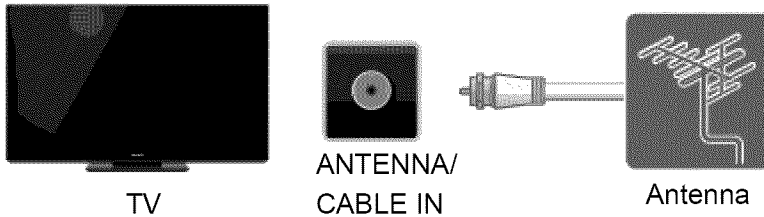
Watching TV

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.



2. Scan the channel

 **MENU** → Setup > ANT/Cable setup > ANT in, Auto program

1. Select Programming source **Cable** or **Antenna** in **Ant in**.
2. Select **Auto program** and select scan mode
(**All channels** / **Analog only** / **Digital only**).
3. Start scanning.

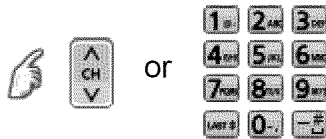
* If at the end of the scanning no channels are found, then check:
Antenna's position - or Availability of Cable service.
Cable, Satellite or Fiber services with a box are typically connected to the TV's A/V inputs, preferably HDMI, for best HD picture. In such a case, the channel scanning is not needed (set **ANT IN** to **Not used**).

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 turning 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 (Set)

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 Δ / ∇ and  or  directly to save the displayed channel.

- **Delete a Favorite channel**

 **OPTION** → Options menu > Set favorite

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

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

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

Watching TV

Antenna / Cable service without a box



Favorite channels (Display)

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.

- **To display a Favorite channel**

 **FAVORITE** → Favorite channels

Select the list number using \triangle / ∇ and  or  directly to displayed on favorite screen.

* 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.

(**Closed caption Off / Closed caption On / Closed caption 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 **DTV language and SAP settings** in **Audio** menu.

Menu > Audio > DTV language and SAP settings

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

Audio track 1 of 7	→ Track number / Number of tracks
English (Main Audio)	→ Current audio track information (language, audio type)
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

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)

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.

Watching TV

Blu-ray, DVD, Game Console, etc.

Connecting and viewing (2)

2. Select Input

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



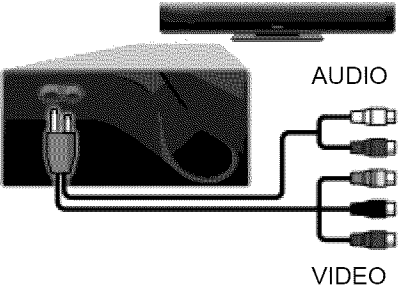
2. Select the input used in step 1

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

You can also press the corresponding NUMBER button or press **INPUT** repeatedly to cycle through the available inputs. If you are unsure which input to select, wait 2 seconds between each selection.

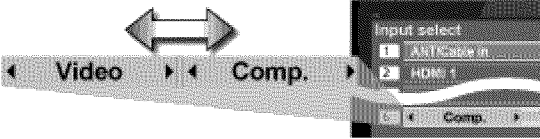
Component and Composite (Video) IN terminals are shared and must be connected using the supplied adapter.

NOTE: One red connector is for video and the other audio.



You need to select **Video** or **Component**.
(Default: **Video**)

- Press **INPUT** and select **Video <-> Comp.**



• Press \triangle / ∇ to choose Video or Component.

- For your convenience, you can edit the inputs with labels that are easy to remember.



Edit Labels



Set ANT/Cable in

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

- The HDMI terminals on this TV were not specifically designed for use with a PC.
- 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 below may not be displayed properly.
- The signals are reformatted for optimal viewing on your display.

■ Component and HDMI (* HDMI only)

Input signal	Horizontal frequency (kHz)	Vertical frequency (Hz)
525 (480) / 60i	15.73	59.94
525 (480) /60p	31.47	59.94
750 (720) /60p	45.00	59.94
1,125 (1,080) /60i	33.75	59.94
1,125 (1,080)/60p	67.43	59.94
1,125 (1,080)/60p	67.50	60.00
1,125 (1,080)/24p *	26.97	23.98
1,125 (1,080)/24p *	27.00	24.00

Watching TV


For best picture

Picture mode

1. Change picture mode to suite 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 $\triangleleft / \triangleright$

Tip: 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.
- Cinema:** For watching movies in a darkened room. It provides a soft, film-like picture.
- Game:** For playing video games.
- Custom:** Customizes each item according to your taste.
Photo is displayed in JPEG menu.

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/4:3/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.

Watching TV

For best picture

Aspect info.

- 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)
- 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)

■ Zoom adjustments

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

- ① Select **Zoom adjustments** in the **Picture** menu.



MENU

→ **Picture > Aspect adjustments > 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 audio

Basic adjustments

1. Change the basic audio settings

1. Select desired audio menu

 **MENU** → Menu > Audio

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

2. Adjust

Adjust using $\triangleleft / \triangleright$

Settings	Description
Reset to defaults	<ul style="list-style-type: none">• Resets Bass, Treble, and Balance adjustments to factory default settings.
Bass	<ul style="list-style-type: none">• Increases or decreases the bass response.
Treble	<ul style="list-style-type: none">• Increases or decreases the treble response.
Balance	<ul style="list-style-type: none">• Emphasizes the left / right speaker volume.

Watching TV

For best audio

Advanced audio



MENU

→ Menu > Audio > Advanced audio

Settings	Options	Description
A.I. sound	Off/On	<ul style="list-style-type: none"> Equalizes overall volume levels across all channels and external inputs.
Surround	Off/On	<ul style="list-style-type: none"> Enhances audio L/R response when listening to stereo. Ideal for music and action movies.
Volume leveler		<ul style="list-style-type: none"> Minimizes volume disparity after switching to external inputs.
Distance to wall	Over 1ft(30cm)/ Up to 1ft(30cm)	<ul style="list-style-type: none"> 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.
TV speakers	Off/On	<ul style="list-style-type: none"> Enables the TV's built-in speakers. Switches to "Off" when using external speakers. "A.I. sound", "Surround", "Volume leveler", and "Distance to wall" do not work if "Off" is selected.
HDMI in	Digital/ Comp./Video	<ul style="list-style-type: none"> 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.

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 (Simulated 3D)

About 2D → 3D

* You can watch content in simulated 3D from photo and all video sources except the PC input.

* 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

Viewing 3D

1. Using the 3D Eyewear

- ① Turn on the 3D Eyewear.
- ② Make sure that registration is finished completely.
(Displays messages and information on the screen.)
- ③ 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**.

3. After use

- ① Set the 3D Eyewear power switch to OFF.
(The 3D Eyewear indicator lamp turns off, and the power turns off.)
- ② Store the eyewear in the case.


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/Frame sequential (3D)/Frame sequential (2D)/Side by side (3D)/Side by side (2D)/Top and bottom (3D)/Top and bottom (2D)/2D ⇔ 3D)

Watching TV

3D

Adjust 3D images

1. Select 3D settings

 **MENU** → Menu > Setup > 3D settings

2. Select the item and set

Select desired menu using \triangle / ∇ and adjust the settings with $\triangleleft / \triangleright$

- * 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 (1)



MENU

→ Menu > Setup > 3D settings

Settings	Options	Description
Auto detect 3D	Off/ <u>Auto 1</u> / Auto 2	<ul style="list-style-type: none">• 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/ <u>On</u>	<ul style="list-style-type: none">• On: Displays a message according to the signal received by the Auto detect 3D.
2D → 3D depth	Minimum/ <u>Medium</u> / Maximum	<ul style="list-style-type: none">• Adjusts 3D depth. Available only when 2D → 3D is selected in 3D format select.• Available only when 3D content is displayed.

Watching TV

3D

3D settings (2)



MENU

→ Menu > Setup > 3D settings

Settings	Options	Description
3D adjustment	<u>Off</u> /On	<ul style="list-style-type: none">Changes 3D depth by adjusting left-right parallax. Set to On to adjust Effect (-3 to +3).
Left/Right swap	<u>Normal</u> / Swapped	<ul style="list-style-type: none">Change this to Swapped when the phases are reversed (When there is an unusual sense of depth).
Diagonal line filter	<u>Off</u> /On	<ul style="list-style-type: none">On: Resolves discomfort caused by receiving a quincunx matrix signal.
Safety precautions		<ul style="list-style-type: none">Displays message for viewing 3D images.

Watching TV

Computer on TV

Display PC screen


1. Connect PC

Connect the PC's video output to the PC terminal of this TV with PC cable.
To listen to the PC sound, connect an audio cable between the computer and the TV.

2. Select Input and display

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



2. Select the PC input
Select **PC** input using \triangle / ∇ and press 
3. Display PC screen

Watching TV

Computer on TV

PC adjustments (1)



MENU

→ Menu > Picture > PC adjustments

Settings	Options	Description
Reset to defaults		<ul style="list-style-type: none">Resets all PC adjustments to factory default settings.
Sync	H & V	<ul style="list-style-type: none">The H and V sync signals are input from the HD/VD connector.
	On green	<ul style="list-style-type: none">Uses a synchronized signal on the Video G signal, which is input from the G connector.
Dot clock		<ul style="list-style-type: none">Alleviates the problem if a picture appears to be vertically-striped, flickers partially or is blurred.
H-position		<ul style="list-style-type: none">Adjusts the horizontal position using left/right cursor button.
V-position		<ul style="list-style-type: none">Adjusts the vertical position using left/right cursor button.

Watching TV

Computer on TV

PC adjustments (2)



MENU

→ Menu > Picture > PC adjustments

Settings	Options	Description
Clock phase		<ul style="list-style-type: none"> • Alleviates the problem if the whole picture appears to flicker or is blurred. First adjust the Dot Clock to get the best possible picture, then adjust the Clock phase so that a clear picture appears. • It may not be possible to display a clear picture due to poor input signals.
Input resolution		<ul style="list-style-type: none"> • Switches to wide display and selects the appropriate screen resolution. • VGA (640 x 480 pixels), WVGA (852 x 480 pixels), XGA (1,024 x 768 pixels), WXGA (1,280 x 768 pixels) • Options change depending on signals.
H-frequency V-frequency		<ul style="list-style-type: none"> • Displays the H (Horizontal)/V (Vertical) frequencies. Display range Horizontal: 15 - 110 kHz Vertical: 48 - 120 Hz

Watching TV

Computer on TV

Input signal

- Signals other than below may not be displayed properly.
- The signals are reformatted for optimal viewing on your display.
- Computer signals which can be input are those with a horizontal scanning frequency of 15 to 110 kHz and vertical scanning frequency of 48 to 120 Hz. (However, the image will not be displayed properly if the signals exceed 1,200 lines.)

Input signal	Horizontal frequency (kHz)	Vertical frequency (Hz)
640 x 480 @60	31.47	59.94
852 x 480 @60	31.44	59.89
800 x 600 @60	37.88	60.32
1,024 x 768 @60	48.36	60.00
1,280 x 768 @60	47.78	59.87
1,280 x 1,024 @60	63.98	60.02
1,366 x 768 @60	48.39	60.04

Internet services "VIERA Connect"

Connect to network

Network connections (1)

1. Contact your Broadband service provider

If you don't have Internet service from your local provider, please order a high-speed Internet service at no less than the connection speed below. If you already have this service, make sure that the connection speed exceeds the following:

- 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 VIERA Connect.

2. Select wired or wireless connection

If the Cable/DSL modem is close to the TV and you have only one TV set, you may choose a wired connection.

If the Cable/DSL modem is far from the TV and/or you have more TVs in the house, you may want to use a wireless network.

Internet services "VIERA Connect"

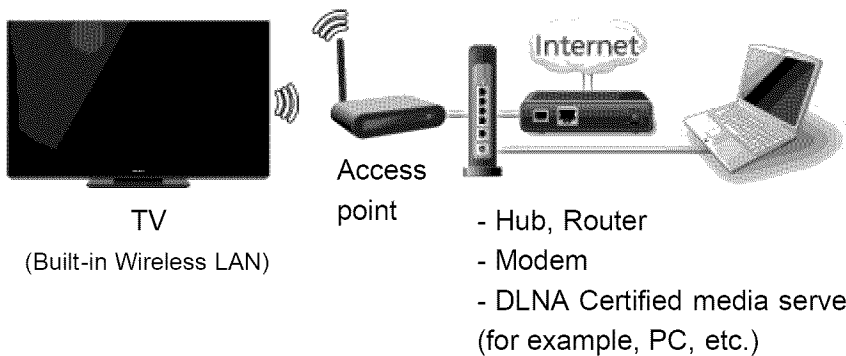
Connect to network

Network connections (2)

3. Connecting to the Internet

A. Wireless connection

If you are using the network for connecting various pieces of equipment and want to connect the TV, you could also use a Wireless LAN and Access point to connect the TV to the Internet.



- * To use only DLNA features, you can operate the features without Broadband network environment.
You can just connect the TV directly to the equipment with a LAN cross cable.

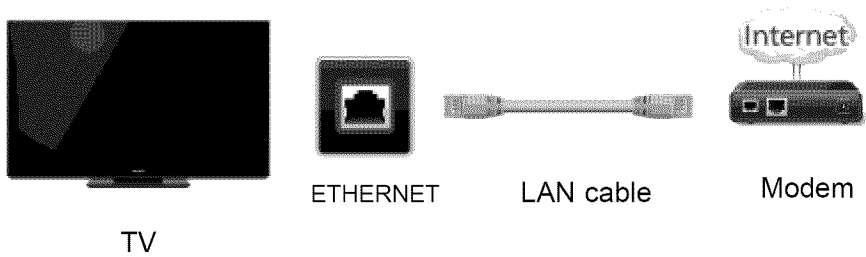
Internet services "VIERA Connect"

Connect to network

Network connections (3)

B. 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 cable.



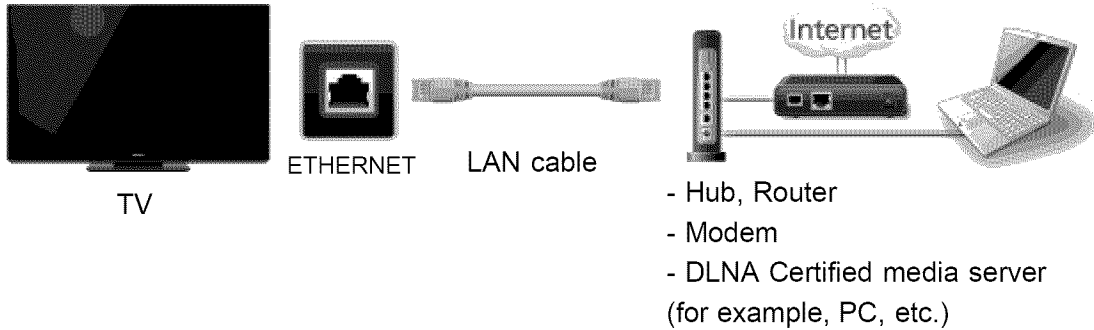
Internet services "VIERA Connect"

Connect to network

Network connections (4)

C. Wired connection (Using Router)

If you are using the network for connecting various pieces of equipment and want to connect the TV, you should use a router to connect the TV to the Internet with LAN straight cable.



- * To use only DLNA features, you can operate the features without Broadband network environment.
You can just connect the TV directly to the equipment with a LAN cross cable.

Internet services "VIERA Connect"

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 \triangle / ∇ from menu bar and press 

2. Select the options and set

(Connection test/Network connection/Wireless network settings/
IP address/DNS settings/Network link/Software update/
New software notice/Network status)


Internet services "VIERA Connect"

Network settings

Connection test

■ **Connection test**

Check that the all Network settings, and then start **Connection test**

- ① Select **Connection test** using \triangle / ∇ and press 
(It takes a while to cancel the test.)
 - ② Displayed Connection test screen
 - Check mark appears at front of each check item's box when check has been finished successfully.
 - ③ Complete Connection test
 - Success → Completion screen is displayed.
 - Error → Follow the directions on screen to complete the setting.
- If you perform the Proxy settings, check the Proxy address and the Proxy port number.

Internet services "VIERA Connect"

Network settings

Network connection

■ Network connection


- ① Select **Network connection** using \triangle / ∇
- ② Select Network type (**Ethernet cable/Wireless (WiFi)**) with $\triangleleft / \triangleright$

Internet services "VIERA Connect"

Network settings

Wireless network settings

■ Wireless network settings

- ① Select **Wireless network settings** with \triangle / ∇ and press .
- ② Display **Wireless networks** and select access point.
Or select **connection method** (below) with color key and follow the directions on screen to complete the setting.



WPS (push button):

You can connect to the access point by pressing a connection button.



WPS (PIN):

Set the PIN code that is displayed on the TV on the access point.



Manual settings:

Manually set SSID, security type, and encryption type to match the settings of the access point to which to connect.



Search again:

Search again an available wireless network within the range.


- * Wi-Fi Protected Setup is an easy setting of the Wi-Fi Alliance's certification.
- * For more details on setting of an access point, please refer to operating manual for the access point.
- * When connecting by 11n (5 GHz), select "AES" as the encryption type for the wireless LAN.

Internet services "VIERA Connect"

Network settings

IP address/DNS settings

■ IP address/DNS settings

- ① Select **IP address/DNS settings** using \triangle / ∇ and press 
- ② Displayed **IP address/DNS settings**
- ③ Select **IP setting mode / DNS setting mode** using \triangle / ∇ and select **Automatic** with $\triangleleft / \triangleright$
- ④ Each IP address is acquired automatically

If you are using a Broadband router, IP automatic acquisition in DHCP can be used under normal circumstances. If you are not sure, check with the person who installed the equipment, or check the instructions for each device.

● Manual setting

- ① On ③ above, Select **IP setting mode / DNS setting mode** using \triangle / ∇ and select **Manual** with $\triangleleft / \triangleright$
- ② Select the item
- ③ Check the specifications of the Broadband router and enter each IP address.
Or Enter each IP address as specified by the provider.





Internet services "VIERA Connect"

Network settings

Proxy settings

■ **Proxy settings**

Set only if specified by the provider. It is not required for normal household use.

- ① Select **IP address/DNS settings** using \triangle / ∇ and press 
- ② Select **Proxy setting** using \triangle / ∇ and press 
- ③ Select the item and press 
- ④ Enter address or port number and press 

Proxy address

This is the address of the relay server that is connected to the target server instead of the browser and sends data to the browser. Setting is only required if specified by the provider.

Proxy port


This number is specified by the provider together with the Proxy address.

Internet services "VIERA Connect"

Network settings

Network link (1)

■ **Network link**

- ① Select **Network link** using \triangle / ∇ and press 
- ② Displayed **Network link**
- ③ Select the item and set

● **Edit the name of this TV**

Sets your favorite name for this TV. This name will be displayed on the screen of the other Network compatible equipment.

- ① Select **VIERA network name** using \triangle / ∇ and press 
- ② Enter name and press 

● **Enabling DLNA remote control**

Select **DLNA remote control** using \triangle / ∇ and switches **Disable** or **Enable** with $\triangleleft / \triangleright$

● **Volume setting in DMR operation**

Select **DLNA remote volume control** using \triangle / ∇ and switches **Disable** or **Enable** with $\triangleleft / \triangleright$

- Available only when **Enable** is selected in **DLNA remote control** above.

Internet services "VIERA Connect"

Network settings

Network link (2)

● Enabling Network remote control

(network device such as a smartphone.)

Select **Network remote control** using \triangle / ∇ and switches **Disable** or **Enable** with $\triangleleft / \triangleright$

Internet services "VIERA Connect"

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.

Internet services "VIERA Connect"

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 $\triangleleft / \triangleright$


Internet services "VIERA Connect"

Network settings

Network status

■ **Network status**

Displayed Current settings and status screen.

- ① Select **Network status** using \triangle / ∇ and press 
- ② Display **Network status** screen

* Displayed items differ depending on the type of network connection.

Internet services "VIERA Connect"

How to use

Operate

1. Access to VIERA Connect

 **INTERNET** → **VIERA Connect**



2. Select and Enjoy Internet Service

(example)

Select the desired item 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 use this function.
- * Depending on the usage conditions, it may take a while to download all the data.
- * Internet services available in VIERA Connect are subject to change without notice.
- * Not all VIERA Connect contents are available depending on the country and area.
- * 3D images are not displayed on center of the home screen depending on the signal.
- * Video communication (e.g. Skype™) requires an exclusive Communication Camera TY-CC20W.

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 menu settings** before use 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 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 or ensure the server software is installed on the PC. "Windows 7" is the server software that has been tested for compatibility with this TV (as of January, 2011). Any other server software have not been tested with this TV, therefore compatibility and performance cannot be assured.

- Windows 7

The setup for homegroup settings of Windows 7 is required. For details, refer to the help functions of Windows 7.

Home network "DLNA"

Connect to network

Network connections (1)

1. Contact your Broadband service provider

If you don't have Internet service from your local provider, please order a high-speed Internet service at no less than the connection speed below. If you already have this service, make sure that the connection speed exceeds the following:

- 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 VIERA Connect.

2. Select wired or wireless connection

If the Cable/DSL modem is close to the TV and you have only one TV set, you may choose a wired connection.

If the Cable/DSL modem is far from the TV and/or you have more TVs in the house, you may want to use a wireless network.

Home network "DLNA"

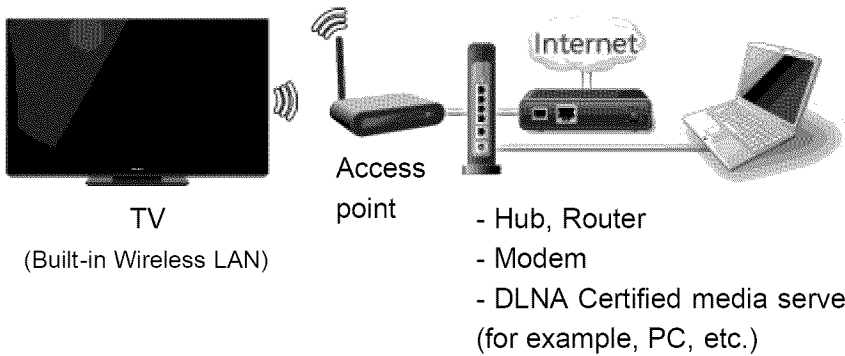
Connect to network

Network connections (2)

3. Connecting to the Internet

A. Wireless connection

If you are using the network for connecting various pieces of equipment and want to connect the TV, you could also use a Wireless LAN and Access point to connect the TV to the Internet.



* To use only DLNA features, you can operate the features without Broadband network environment.
You can just connect the TV directly to the equipment with a LAN cross cable.

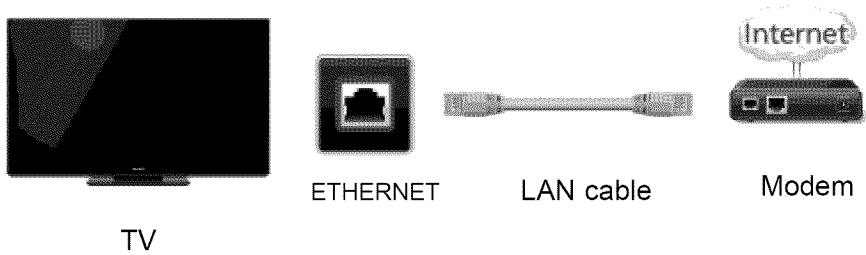
Home network "DLNA"

Connect to network

Network connections (3)

B. 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 cable.



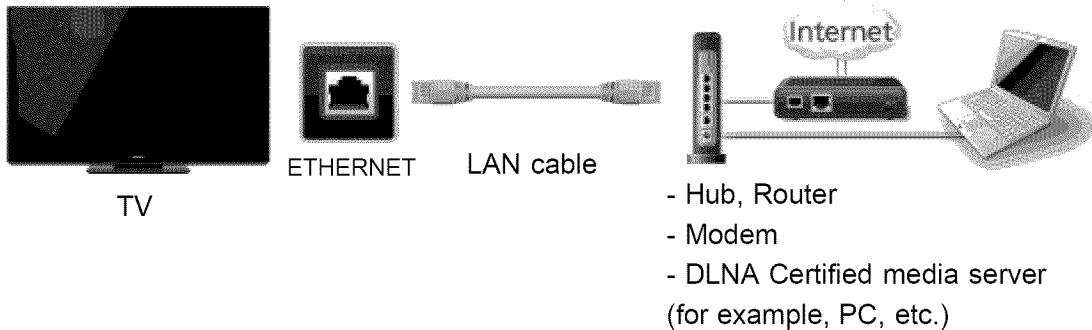
Home network "DLNA"

Connect to network

Network connections (4)

C. Wired connection (Using Router)

If you are using the network for connecting various pieces of equipment and want to connect the TV, you should use a router to connect the TV to the Internet with LAN straight cable.



- * To use only DLNA features, you can operate the features without Broadband network environment.
You can just 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 \triangle / ∇ from menu bar and press 

2. Select the options and set

(Connection test/Network connection/Wireless network settings/
IP address/DNS settings/Network link/Software update/
New software notice/Network status)


Home network "DLNA"

Network settings

Connection test

■ **Connection test**

Check that the all Network settings, and then start **Connection test**

- ① Select **Connection test** using \triangle / ∇ and press 
(It takes a while to cancel the test.)
 - ② Displayed Connection test screen
 - Check mark appears at front of each check item's box when check has been finished successfully.
 - ③ Complete Connection test
 - Success → Completion screen is displayed.
 - Error → Follow the directions on screen to complete the setting.
- If you perform the Proxy settings, check the Proxy address and the Proxy port number.

Home network "DLNA"

Network settings

Network connection

■ Network connection


- ① Select **Network connection** using \triangle / ∇
- ② Select Network type (**Ethernet cable/Wireless (WiFi)**) with $\triangleleft / \triangleright$

Home network "DLNA"

Network settings

Wireless network settings

■ Wireless network settings

- ① Select **Wireless network settings** with \triangle / ∇ and press 
- ② Display **Wireless networks** and select access point.
Or select **connection method** (below) with color key and follow the directions on screen to complete the setting.



WPS (push button):

You can connect to the access point by pressing a connection button.



WPS (PIN):

Set the PIN code that is displayed on the TV on the access point.



Manual settings:

Manually set SSID, security type, and encryption type to match the settings of the access point to which to connect.



Search again:

Search again an available wireless network within the range.


- * Wi-Fi Protected Setup is an easy setting of the Wi-Fi Alliance's certification.
- * For more details on setting of an access point, please refer to operating manual for the access point.
- * When connecting by 11n (5 GHz), select "AES" as the encryption type for the wireless LAN.

Home network "DLNA"

Network settings

IP address/DNS settings

■ IP address/DNS settings

- ① Select **IP address/DNS settings** using \triangle / ∇ and press 
- ② Displayed **IP address/DNS settings**
- ③ Select **IP setting mode / DNS setting mode** using \triangle / ∇ and select **Automatic** with $\triangleleft / \triangleright$
- ④ Each IP address is acquired automatically

If you are using a Broadband router, IP automatic acquisition in DHCP can be used under normal circumstances. If you are not sure, check with the person who installed the equipment, or check the instructions for each device.

● Manual setting

- ① On ③ above, Select **IP setting mode / DNS setting mode** using \triangle / ∇ and select **Manual** with $\triangleleft / \triangleright$
- ② Select the item
- ③ Check the specifications of the Broadband router and enter each IP address.
Or Enter each IP address as specified by the provider.





Home network "DLNA"

Network settings

Proxy settings

■ **Proxy settings**

Set only if specified by the provider. It is not required for normal household use.

- ① Select **IP address/DNS settings** using \triangle / ∇ and press 
- ② Select **Proxy setting** using \triangle / ∇ and press 
- ③ Select the item and press 
- ④ Enter address or port number and press 

Proxy address

This is the address of the relay server that is connected to the target server instead of the browser and sends data to the browser. Setting is only required if specified by the provider.

Proxy port


This number is specified by the provider together with the Proxy address.

Home network "DLNA"

Network settings

Network link (1)

■ **Network link**

- ① Select **Network link** using \triangle / ∇ and press 
- ② Displayed **Network link**
- ③ Select the item and set

● **Edit the name of this TV**

Sets your favorite name for this TV. This name will be displayed on the screen of the other Network compatible equipment.

- ① Select **VIERA network name** using \triangle / ∇ and press 
- ② Enter name and press 

● **Enabling DLNA remote control**

Select **DLNA remote control** using \triangle / ∇ and switches **Disable** or **Enable** with $\triangleleft / \triangleright$

● **Volume setting in DMR operation**

Select **DLNA remote volume control** using \triangle / ∇ and switches **Disable** or **Enable** with $\triangleleft / \triangleright$

- Available only when **Enable** is selected in **DLNA remote control** above.

Home network "DLNA"

Network settings

Network link (2)

● Enabling Network remote control

(network device such as a smartphone.)

Select **Network remote control** using \triangle / ∇ and switches **Disable** or **Enable** with $\triangleleft / \triangleright$

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 $\triangleleft / \triangleright$


Home network "DLNA"

Network settings

Network status

■ **Network status**

Displayed Current settings and status screen.

- ① Select **Network status** using \triangle / ∇ and press 
- ② Display **Network status** screen

* Displayed items differ depending on the type of network connection.

Home network "DLNA"

Photos

Viewing Photos

1. Display VIERA TOOLS



2. Display DLNA server

Select **DLNA** using ◀ / ▶ and press 

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

Select desired server using ▲ / ▼ from DLNA server list and press 

4. Select photo (Thumbnail and Contents type 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.

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.

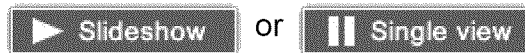
■ **Playback screen**



INFO

→ Display/hide Guide and Banner

Photo status: Shows current photo status



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 Δ / ∇ and adjust the settings using $\triangleleft / \triangleright$

- 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 Δ / ∇ and press 

 **RETURN** → Stop in mid-cycle

Home network "DLNA"

Photos

Slideshow settings

Item	Description
Transition effect	Select the Transition effect shown between photos. (Off / Fade in / Wipe ↓ / Wipe ↑ / Wipe → / Wipe ← / Slide in ↓ / Slide in ↑ / Slide in → / Slide in ← / Zoom in / Comb ↑ ↓ / Comb → ← / Dissolve / Checker wipe / Motion / Random)
Display interval	Display interval sets the time each image is displayed in the Slideshow mode. (Short / Fast / Normal / Slow / Very slow)
Repeat playback	Turn the Slideshow Repeat (cycle) function on or off. (Off / On)
Soundtrack settings	Select the music. (Off / Music 1 / Music 2 / Music 3 / Music 4 / Music 5)

Home network "DLNA"

Videos

Viewing Videos


1. Display VIERA TOOLS



2. Display DLNA server

Select **DLNA** using ◀ / ▶ and press 

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

Select desired server using ▲ / ▼ from DLNA server list and press 

4. Select video (Thumbnail and Contents type 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

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

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

Navigation Guide: Shows available functions.

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

- Forward/Reverse: Five level of speed 1 to 5 (x2, x5, x30, x70, x100) 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 VIERA TOOLS



2. Display DLNA server

Select **DLNA** using ◀ / ▶ and press 

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

Select desired server using ▲ / ▼ from DLNA server list and press 

4. Select music (Thumbnail and Contents type 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"

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 (x2, x5, x30, x70, x100) 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 \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 (1)

■ 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

Home network "DLNA"

Data information

Compatible Data format (2)

Media	Compatible format
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. • MotionJPEG files (taken with LUMIX)* • 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 • FLV files Video codec H.264 Audio codec MP3/AAC • 3GPP files Video codec H.264/MPEG1/MPEG2 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

* for Media player only

Home network "DLNA"

Data information

Compatible Data format (3)

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

Home network "DLNA"

Data information

Notice

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