

Panasonic[®]

UT50 series

*e***HELP**

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Meaning of signs :

 Press the Remote control button

INFO Letters in box : Remote control button

MENU Letters in Cyan : Menus on screen display

Watching TV

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.

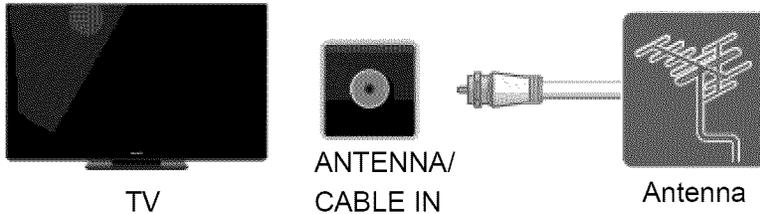
Watching TV

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.

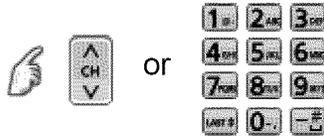
* If at the end of the scanning no channels are found, then check:
Antenna's position - or Availability of Cable service.
Cable, Satellite or Fiber services with a box are typically connected to the TV's A/V inputs, preferably HDMI, for best HD picture. In such a case, the channel scanning is not needed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

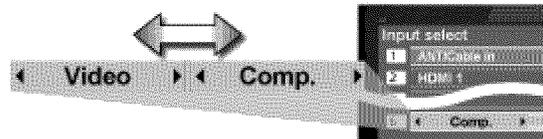
Select correct input source, using \triangle / ∇ and press 

You can also press the corresponding NUMBER button or press  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.
You need to select **Video** or **Component**.

(Default: **Video**)

- Press  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



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.
Bass boost	Off/On	<ul style="list-style-type: none"> Enhances bass sound and provides powerful sound.
Volume leveler		<ul style="list-style-type: none"> Minimizes volume disparity after switching to external inputs.
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 \triangle / ∇ 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	Off/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	Normal/ 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	Off/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.

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.

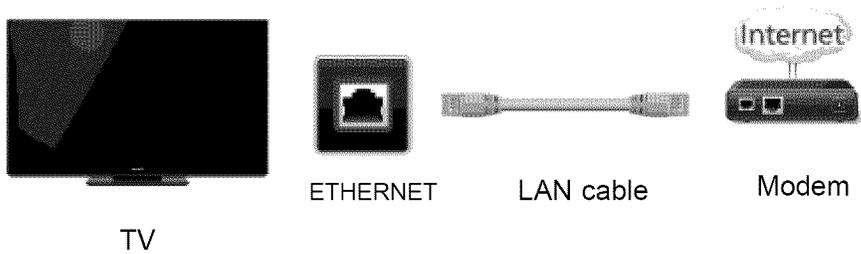
Internet services "VIERA Connect"

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.



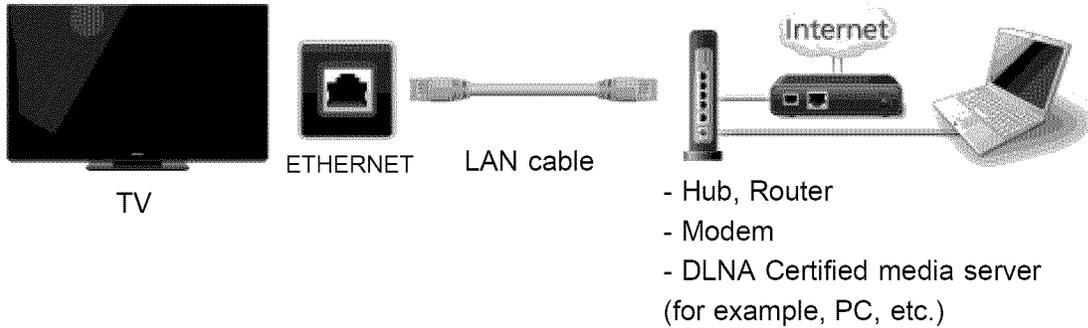
Internet services "VIERA Connect"

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.

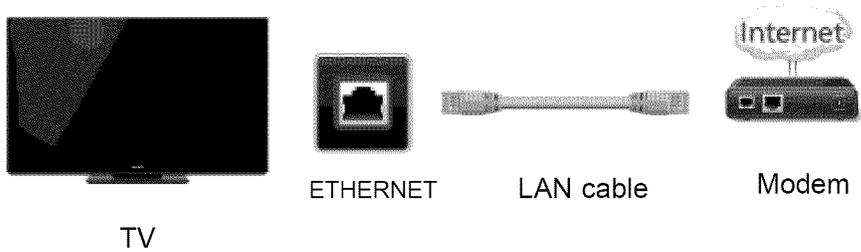
Home network "DLNA"

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.



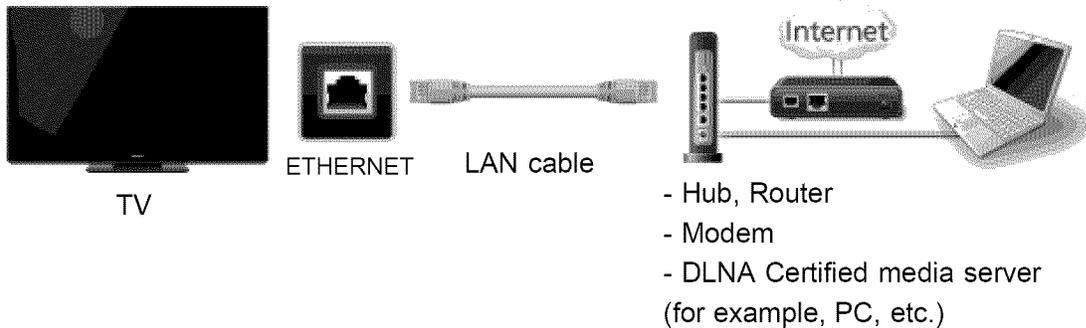
Home network "DLNA"

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"><li data-bbox="412 407 667 443">• MP3 files (MP3)<li data-bbox="412 449 667 485">• AAC files (AAC)<li data-bbox="412 491 699 527">• 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)