

Panasonic[®]

Model No.

.....

*e***HELP**

 English

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How to use

Before using eHELP, check the followings.

■ Meaning of signs



Press the Remote control button



Letters enclosed in brackets: Remote control button



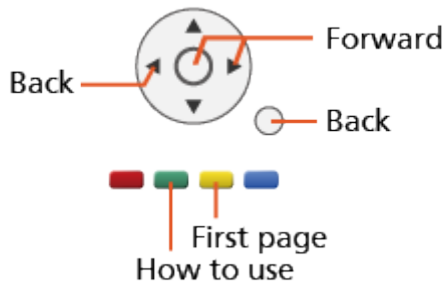
Letters in Cyan: Menus on screen display



References in this eHELP

You can jump to the page by pressing **OK** while the cursor is on the references.

■ Operation guide



- The design and specifications are subject to change without notice.
- The images shown in this eHELP are for illustrative purposes only.
- This eHELP covers all models, however, some features may not be available on certain models.
- Refer to the paper manual and the actual menu in the TV etc. to confirm your model's features.

Read first

Before use

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The source code and the copyright notice are also available for free in our website below.

<https://panasonic.net/cns/oss/tv/DTVM19U.html>

About “Apps”

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In the case you have certain inquiries or questions relating to Apps application and/or Foxxum Portal, please contact Foxxum directly.

Features

4K resolution

You can watch content in 4K format that has twice the horizontal and vertical resolution of the 1080p signal.

 → [Watching TV > 4K compatible equipment](#)

Home

“Home” is a gateway to some applications, connected devices, etc.

It provides you an easy way to access the features.

 → [Using Home > Home > How to use](#)

Using Home

Home

How to use

From Home, you can access some applications, connected devices, etc.

1. Display Home with **HOME**.

- A broadband network environment is required to use internet services.

 → [Network services](#) > [Connect to network](#) > [Network connection types](#)

2. Select the desired item and press **OK** to access.

= Note =

- The design and specifications are subject to change without notice.

MY APP

You can assign your favorite application to **MY APP** of the TV's remote control. After setting, you can easily start the application only by pressing **MY APP**.

- Only one application can be assigned to **MY APP**.

■ To change the application to assign

1. Display the menu with **MENU**.
 2. Select **Setup** > **MY APP Setting** and press **OK** to access.
 3. Select the application to assign and press **OK** to set.
- A broadband network environment is required to fully use this function. Ensure the network connections and network settings are completed.

 → Network services > Connect to network

 → Network services > Network settings

Apps

How to use

Various applications (Internet content) can be accessed easily from **Apps**.

1. Display Home with **HOME**.
2. Select **Apps** and press **OK** to access.
 - To exit **Apps**



3. Select an application and press **OK** to access.
4. Follow the on-screen instructions.

= Note =

- The design and specifications are subject to change without notice.
- Internet apps are provided by their respective service providers, and may be changed, interrupted, or discontinued at any time.
- A broadband network environment is required to fully use this function.

Watching TV

Cable / Satellite / Fiber Optic box

Initial setting

1. Connecting

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

- HDMI will provide the best HD picture

2. Change INPUT



Press the **INPUT** button to select the proper connection.

- The menu choices vary depending on which input is selected.

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

Use the box's remote control to change channels.

- If the box is connected to the TV using a COAX cable (Antenna/Cable in), then set the TV channel to CH3 or CH4. Note that the picture will not be in HD.
- CC/SAP is not available when watching TV with a Cable or Satellite box connected via HDMI.
- If you have a High Definition box, ensure that it is outputting 720p or 1080i signal.
- If the audio volume is too low, check the box's audio settings.
- Contact your Cable or Satellite provider for instructions of any box settings.

Antenna / Cable service without a box

Initial setting

1. Connect coax

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



1 TV (ANTENNA/CABLE IN)

2 Antenna

2. Scan the channel

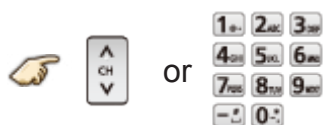
 **MENU** → **Main Menu** > **TV**

- 1) Select either **Antenna** or **Cable** programming source in **Tuner Mode**.
- 2) Select **Channel Scan** to start scanning.

- The tuner setup menu (channel scan, etc.) is only available when INPUT is set to TV.
- If no channels are found by the end of the scan, then check the following:
 - Antenna's position - or availability of Cable service.
 - Cable, Satellite or Fiber Optic services with a box are typically connected to the TV's A/V inputs, preferably HDMI, for best HD picture. In such case, the channel scanning is not needed.


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  button to enter the dash.

(e.g. CH15-1, press    )

Favorite List

Channel numbers registered in Favorite are displayed on the favorite list 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

1. Display the menu with **MENU**.
2. Select **TV > Favorite List** and press **OK** to access.
3. Select the list number using **△ / ▽** and **OK** to save the displayed channel.

■ Delete a Favorite channel

1. Display the menu with **MENU**.
2. Select **TV > Favorite List** and press **OK** to access.
3. Select the list number using **△ / ▽** and **OK** to delete.

■ Display a Favorite channel

 **FAVORITE** → **Favorite List**

Select the list number using **△ / ▽** and **OK**.

Caption

■ Viewing with Closed Caption



Switches the Closed Caption mode.

- 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.
- 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.

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 **Audio Language** settings.

MENU → **Main Menu** > **TV** > **Audio Language**

- If you change the audio settings with the **SAP** button, **Audio Language** settings will not change.

Analog mode:

Select the desired Audio mode.

(**Stereo** / **SAP** / **Mono**)

Other

1. Information banner

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



2. Option

This menu consists of shortcuts to convenient functions.



Multi Audio:

Selects between alternative language for sound tracks (if available).

Dual Audio:

Selects stereo / monaural (if available).

Volume Correction:

Adjusts the volume of each individual channel or input mode.

4K compatible equipment

Connecting and viewing

You can watch content in the 4K format that has twice the horizontal and vertical resolution of the 1080p signal.

- External equipment and cables shown are not supplied with this TV.
- To watch 4K content, connect the 4K compatible equipment to the HDMI input with a 4K compatible HDMI cable respectively.

■ Connections for 4K contents



- 1 HDMI IN
- 2 HDMI cable (4K compatible cable)
- 3 HDMI OUT
- 4 4K compatible equipment

1. Connect device

2. Select input and display

- 1) Display **Input Selection** menu (with the connected equipment turned On)



- 2) Select HDMI input using \triangle / ∇ and press **OK**.

= Note =

- Use a high speed HDMI cable for high resolution images.
- The menu choices vary depending on which input is selected.

About 4K format

4K format refers to approximately 4,000 pixels of horizontal resolution which has several different digital formats.

- This TV supports 4K UHD and DCI 4K (4,096 × 2,160).

■ 4K format of HDMI

- 4K UHD
3,840 × 2,160 (60p, 50p, 30p, 25p, 24p)
- DCI 4K
4,096 × 2,160 (60p, 50p, 30p, 25p, 24p)
 - Actual resolution is 3,840 × 2,160p.

- Connect to HDMI1 or HDMI2 for the following formats.
 - 60p, 50p / 4:4:4, 4:2:2
- The above signals are reformatted for optimal viewing on your display.

Input signal (AV)

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

■ Component / HDMI

Input signal	Component	HDMI
525 (480) / 60i, 60p	○	○
750 (720) / 60p	○	○
1,125 (1,080) / 60i	○	○
1,125 (1,080) / 60p		○
1,125 (1,080) / 30p, 24p		○
3,840 × 2,160 / 60p, 50p, 30p, 25p, 24p		○
4,096 × 2,160 / 60p, 50p, 30p, 25p, 24p		○

○ : Applicable input signal

Blu-ray, DVD, Game Console, etc.

Connecting and viewing

1. Connect device

Verify that the device is connected to the TV properly and connect to desired terminal. Note which terminal the device is connected to (HDMI, 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.

- For Example of AV connections



→ Watching TV > Blu-ray, DVD, Game Console, etc. > Example of AV connections

2. Select Input

- 1) Display **Input Selection** menu (with the connected equipment turned On)



INPUT

- 2) Select the input used in step 1

Select correct input source, using Δ / ∇ and press **OK**.

- 3) Operate using your device's remote control

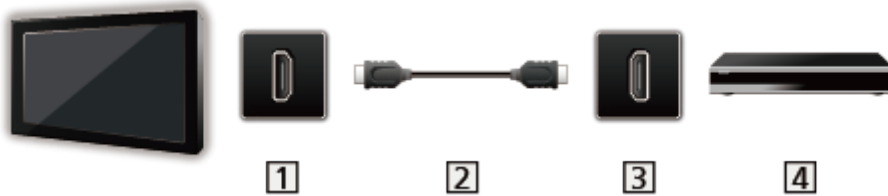
- The menu choices vary depending on which input is selected.

Example of AV connections

External equipment and cables shown are not supplied with this TV.

■ Connecting to the HDMI input (Best for HD viewing)

Recommended to use this connection, if the connected equipment has HDMI terminal.



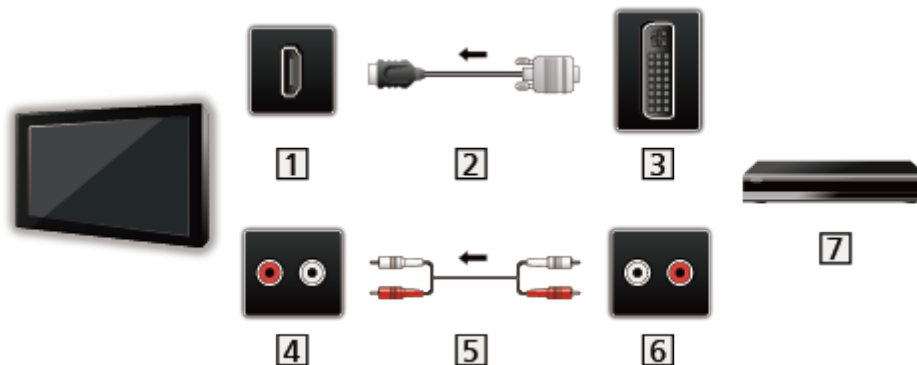
- 1 HDMI IN
- 2 HDMI cable
- 3 HDMI OUT
- 4 AV Equipment (e.g. Blu-ray Disc player)

= Note =

- Use a high speed HDMI cable for high resolution images.

■ For devices with DVI output

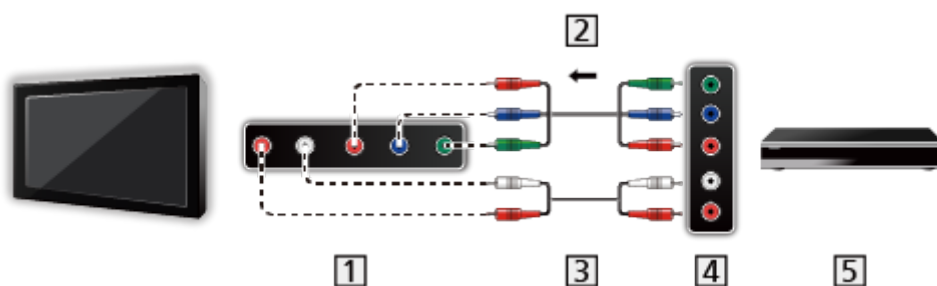
Recommended to use this connection, if the connected equipment has DVI terminal only.



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

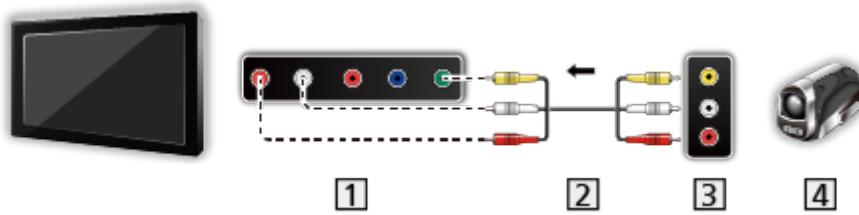
■ Connecting to the COMPONENT input

Recommended to use this connection, if the connected equipment has the Component terminal only.



- 1 COMPONENT IN
- 2 Component cables (Shielded)
 - Use shielded component cables.
- 3 Audio cables (Shielded)
 - Use shielded audio cables.
- 4 COMPONENT OUT
- 5 AV Equipment (e.g. Blu-ray Disc player)

■ Connecting to the VIDEO input (For SD (Standard Definition) only)



1 COMPOSITE IN

2 Composite cables (Shielded)

- Use shielded composite cables.

3 COMPOSITE OUT

4 AV Equipment (e.g. Camcorder)

- To select the sound output to adjust the volume, set **TV Speaker Setting**.

 → [All settings > Audio > Advanced settings](#)

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.
- Input audio signal:
LPCM, Dolby Audio (Dolby Digital, Dolby Digital Plus)

*1 : The HDMI logo is displayed on an HDMI-compliant device.

*2 : Inquire at your local digital equipment retailer shop.

HDMI connection caution

- Audio settings can be made on **HDMI input** in the Audio menu.
 → [All settings > Audio > Advanced settings](#)
- 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.

Input signal

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

■ Component / HDMI

Input signal	Component	HDMI
525 (480) / 60i, 60p	○	○
750 (720) / 60p	○	○
1,125 (1,080) / 60i	○	○
1,125 (1,080) / 60p		○
1,125 (1,080) / 30p, 24p		○
3,840 × 2,160 / 60p, 50p, 30p, 25p, 24p		○
4,096 × 2,160 / 60p, 50p, 30p, 25p, 24p		○

○ : Applicable input signal

- For more information about viewing 4K content



→ [Watching TV > 4K compatible equipment](#)

For best picture

Picture Mode

Selects your favorite picture mode.


 **MENU** ➔ **Main Menu** > **Video** > **Picture Mode**

- HDMI will provide the best HD picture

Aspect setting

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

Use **FORMAT** button to change the aspect ratio.

 **FORMAT** (to cycle through the aspect modes)

- 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.

For best audio

Audio mode

Selects your favorite sound mode.

 **MENU** ➔ **Main Menu** > **Audio** > **Mode**

DIGITAL AUDIO OUT terminal

You can enjoy your Home Theater by connecting a Dolby Audio (Dolby Digital) 5.1 channel decoder and “Multi Channel” amplifier to the DIGITAL AUDIO OUT terminals.

- Depending on your DVD player and DVD-Audio software the copyright protection function may operate and disable optical output.

Network services

Connect to network

Network connections

1. Contact your broadband Internet service provider

To obtain broadband Internet service:

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

2. Select wired or wireless connection

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

- Wired LAN connection

Recommended for viewing high quality video at high bit-rates and to avoid interference with 2.4 GHz devices.

- Wireless LAN connection

Use when your network router is not close enough to the TV or when a wired connection is not feasible.

3. Connecting to the network

- There are some connection type.



→ [Network services > Connect to network > Network connection types](#)

Network connection types

■ Wireless connection



- 1 TV (Built-in Wireless LAN)
- 2 Home network (Modem/Wireless router)
- 3 Computer/Media server

- To use and operate only in-house streaming, a broadband network service is not needed.
You can simply connect the TV directly to the equipment with a LAN crossover cable.

■ Wired connection (Using Router)

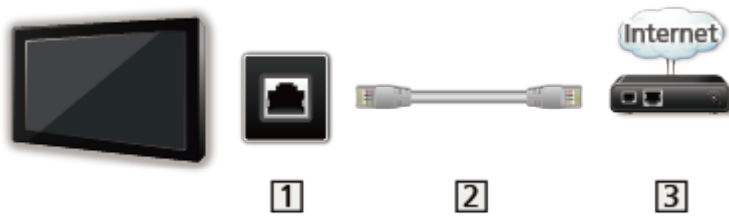


- 1 TV (Ethernet port)
- 2 LAN (Ethernet) cable
- 3 Home network (Modem/Router)
- 4 Computer/Media server

- To use and operate only in-house streaming, a broadband network service is not needed.
You can simply connect the TV directly to the equipment with a LAN crossover cable.

■ Wired connection (Directly connected)

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



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

Network settings

Internet Connection

Ensure the connections are completed before starting network setup.

 → Network services > Connect to network > Network connections

1. Display the menu with **MENU**.
2. Select **Setup** > **Network** > **Configuration** > **Internet Connection** and press **OK** to access.
3. Set to **On** to enable internet connection.
4. Select **Interface** and press **OK** to access.
5. Select your network connection type and press **OK** to store.

Ethernet / Wireless

Ethernet:

Wired connection with a LAN cable

- 1) Select **IP Setting** and press **OK** to access.
- 2) Set **Address Type** to **Auto**.
 - To set manually, select **Manual** and set each item.

Wireless:

Wireless connection with a wireless access point

- 1) Select **Wireless Setting** and press **OK** to access.
 - Confirm the encryption key, settings and position of your access point before starting setup. For details, read the manual of the access point.
- 2) Select **Scan** and press **OK** to search wireless networks.
 - For **Manual**, enter **SSID** and follow the on-screen instructions.
 - For **Auto**, select **PIN / PBC** and follow the on-screen instructions.
- 3) Select your desired access point and press **OK** to access.
 - Available Wireless Networks are displayed automatically.
 - It is recommended to select the encrypted access point.
- 4) Enter the encryption key of the access point and press **OK** to set.

-
6. Select **Information** and press **OK** to check the status.

Network Configuration

1. Display the menu with **MENU**.
 2. Select **Setup > Network > Configuration** and press **OK** to access.
 3. Select one of the following items and press **OK** to access.
Internet Connection / Interface / Wake On Lan / Wake On Wlan / Wireless Setting / IP Setting / Information
 4. Set the item and press **OK** to store.
-

Internet Connection

Enables internet connection.

 → [Network services > Network settings > Internet Connection](#)

Interface

Selects your network connection type.

Wake On Lan / Wake On Wlan

Enables turning the TV on via the LAN cable or wireless LAN using a wake-up message sent from the network equipment in the home network.

- Depending on the network condition, this function may not be available.
 - Depending on the area, this function may not be available. For details, consult your local Panasonic dealer.
-

Wireless Setting

Detects and displays available wireless networks.

IP Setting

To set manually, select and set **IP Address / Subnet Mask / Default Gateway / Primary DNS / Secondary DNS**.

Information

Displays and checks the network status (MAC Address, current network settings, etc.).

Applications

Sets to control the TV with devices connected to the network.

1. Display the menu with **MENU**.
 2. Select **Setup** > **Network** > **Applications** and press **OK** to access.
 3. Select one of the following items and press **OK** to access.
Home network service / **DMR** / **Netflix**
 4. Set the item and press **OK** to store.
-

Home network service

Enables to access and play back the content of media server connected to your home network.

DMR (Digital Media Renderer)

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

Netflix

Settings for Netflix

= Note =

- Depending on the area, this function may not be available. For details, consult your local Panasonic dealer.

Software Update

Accesses the specific website to update the TV's software if any updates are available.

1. Display the menu with **MENU**.
2. Select **Setup** > **Network** > **Software Update** and press **OK** to access.
3. Follow the on-screen instructions.
 - A broadband network environment is required to use this function.

New Software Message

Selects whether to give a notification message when new software is found via network or not.

1. Display the menu with **MENU**.
2. Select **Setup** > **Network** > **New Software Message** and press **OK** to access.
3. Select **On** / **Off** and press **OK** to set.

Terms of Service and Settings

Displays the terms of service and settings.

1. Display the menu with **MENU**.
2. Select **Setup** > **Network** > **Terms of Service and Settings** and press **OK** to access.
3. Follow the on-screen instructions.

How to use

Operate

From Home, you can access some applications, connected devices, etc.

1. Display Home with **HOME**.

- A broadband network environment is required to use internet services.

2. Select the desired content and press **OK**.

= Note =

- The design and specifications are subject to change without notice.

■ Browser

You can browse websites.

- Some internet services may not be available or may not be displayed properly depending on the website.

- You need a broadband environment to use this service.
- Please confirm Network connections and Network settings before using this function.
- Depending on the usage conditions, it may take a while to download all the data.
- Internet services available for this TV are subject to change without notice.
- Not all content is available depending on the country and area.

■ Media server

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

- For data information

 → [Support / FAQ > Information > Data information](#)

Media player

Using Media player

Information

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

■ USB flash memory

When you use a USB device, insert straight in and pull straight out.




- Media player only supports USB Mass storage class devices.
- The picture may not appear correctly on this TV depending on the recording equipment used.
- When there are many files and folders, operation may take time to complete or some files may not be displayed or playable.
- Depending on how you create the files and the structure of folders, the files and folders may not be displayed.
- Partly degraded files might be displayed at a reduced resolution.
- The folder and file names may be different depending on the digital camera used.
- The function cannot display still images that are not DCF formatted (i.e. TIFF, BMP).
- Images imported from a PC must be compatible with EXIF 2.0, 2.1 and 2.2.

Selecting file

Displays the thumbnail of all files which are grouped by folder. Select the folder / file and press **OK** to start playback.

■ Settings

1. Display the option menu with **OPTION**.
2. Select  and press **OK** to access.
3. Select one of the following items and press **OK** to access.

Repeat / Shuffle

4. Set the item and press **OK** to store.
-

Repeat

Playback repeat

Shuffle

Files are played back at random.

Filtering files

You can filter the files as the content type. (Photo / Video / Music)

1. Display the option menu with **OPTION**.
2. Select **Filter** and press **OK** to access.
3. Select **Photo / Video / Music** and press **OK** to set.
4. Select **OK** and press **OK** to change.

Sorting files

You can sort the files in alphabetical / date order.

1. Display the option menu with **OPTION**.
2. Select **Sort** and press **OK** to access.
3. Select **Date** / **Name** / **Genre** / **Artist** / **Album** and press **OK** to change.
 - The function items vary depending on the content type.

Playback

Playback

■ Photo playback



To the previous photo



To the next photo



Stop



Rotate



Switch the playback mode (Single view / Slideshow).

INFO :

Display / hide the operation guide.

RETURN :

Return to thumbnail.

■ Video / Music playback



Rewind



Fast forward



Stop



Pause / Playback

INFO :

Display / hide the operation guide.

RETURN :

Return to thumbnail.

- To set **Repeat** / **Shuffle** for playback



→ Media player > Using Media player > Selecting file

Slideshow Settings

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

1. Display **Option Menu** with **OPTION**.

2. Select the item.

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

(**Slideshow Settings**)

Interval

Sets the time each image is displayed in the Slideshow mode.

Convenience features

Parental control

Setting the menu

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

You will be asked to enter your password each time you display the Lock menu.

1. Display the menu with **MENU**.
2. Select **Parental** > **Password** and press **OK** to access.
3. Enter the 4-digit PIN number.
4. Select the item and adjust.

Select the desired item using Δ / ∇ and adjust with Δ / ∇ .

- The Off rating is independent of other ratings.
- When placing a lock on a specific-age-based-rating level, the Off rating and any other more restrictive ratings will also be blocked.
- The channels will be blocked regardless of the program rating.

Password setting

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



(Input your 4-digit password)

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

Parental control ratings

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

■ U.S. MOVIE RATINGS (MPAA)

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

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

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

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

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

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

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

■ Contents-Based Ratings

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

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

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

Caption

Setting the menu

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

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

1. Display the menu with **MENU**.
2. Select **Setup** > **Caption** and press **OK** to access.
3. Select the item and adjust.

Select the desired item using Δ / ∇ and adjust with Δ / ∇ .

- For Closed Caption settings

 → All settings > Setup > Caption

Closed Caption notices

- The CC can be displayed on the TV only when the receiver (such as a Cable box or satellite receiver) has the CC set to ON within the device itself. Check with your Cable or Satellite provider for instructions. The TV's CC button does not operate the Satellite or Cable box's CC function.
- If the CC is set to On on both the receiver and TV when the signal is 480i (except for the HDMI connection), the CC may overlap on the TV.
- If a digital program is being output in analog format, the CC data will also be output in analog format.
- If the recorder or output monitor is connected to the TV, the CC needs to be set up on the recorder or output monitor.

HDMI CEC

Connecting note

■ HDMI cable

This function needs an HDMI compliant (fully wired) cable. Non-HDMI-compliant cables cannot be utilized.

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

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

- This function may not work normally depending on the equipment condition.
- The equipment can be operated by other remote controls with this function on, even if the TV is in Standby mode.
- Image or sound may not be available for the first few seconds when playback starts.
- Image or sound may not be available for the first few seconds when input mode is switched.
- Volume function will be displayed when adjusting the volume of the equipment.

CEC connections

■ HDMI CEC connection

- Use a fully wired HDMI compliant cable.
- Use a high speed HDMI cable for high resolution images.
- Connect the equipment supporting HDMI CEC to the TV's HDMI terminal via an HDMI cable.



1 TV (HDMI)

2 HDMI cable

3 Equipment with CEC function

CEC Setup Menu

1. Display the menu with **MENU**.
2. Select **Setup** > **CEC Setup Menu** and press **OK** to access.
3. Select one of the following items and press **OK** to access.

CEC Function / Auto turn Off

4. Set the item and press **OK** to store.
-

CEC Function

Sets to **On** to enable CEC connected equipment.

Auto turn Off

When the TV is set to Standby mode, the connected equipment is also automatically set to Standby.

Using Bluetooth devices

Settings

This setting enables you to use Bluetooth audio devices* (headphones, smartphone, etc.).

* : A2DP (Advanced Audio Distribution Profile) and AVRCP (Audio Video Remote Control Profile) compliant audio devices are available.

1. Display the **Main Menu** and select **Bluetooth Setting**.

 **MENU** → **Main Menu** > **Setup** > **Bluetooth Setting**

Select **Bluetooth Setting** using Δ / ∇ from menu bar and press .

2. Select the options and set.

(**Devices** / **Bluetooth Audio Mode Setting** / **Bluetooth audio settings**)

■ **Devices**

Searches the available device and displays the status.

1. Select **Devices** using Δ / ∇ and press .

Follow the directions on screen to complete the register.

■ **Bluetooth Audio Mode Setting**

Selects the TV's Bluetooth audio mode.

1. Select **Bluetooth Audio Mode Setting** using Δ / ∇ and press .

2. Select **Transmitter** / **Receiver** and press .

Transmitter:

Connects an audio device such as headphones, speaker, etc.

Receiver:

Connects an audio device such as a smartphone, audio player, etc.

■ Bluetooth audio settings

Adjusts the volume for an audio device, etc. in the transmitter mode.

1. Select **Bluetooth audio settings** using Δ / ∇ and press **OK**.

Follow the directions on screen to complete the setting.

- To use Audio Link
 - 1) Display Home with **HOME**.
 - 2) Select **Audio Link** and press **OK** to access.
 - 3) Follow the on-screen instructions.
- If using the 2.4 GHz band on the wireless router, simultaneous use with Bluetooth device may result in connection interruptions. If your wireless router supports 5 GHz band, try using the 5 GHz band. If you have a wired LAN connection, try using the wired LAN connection.
- If the sound interruption occurs, place Bluetooth device closer to the TV.
- When a Bluetooth device is connected to the TV, it is possible that the Bluetooth audio output may not be synchronized (i.e. be delayed) with relation to the images on the screen. This is not a defect of the TV or the device. The delay time will differ depending on the device.
- For more details about Bluetooth settings

 → [All settings > Setup > Bluetooth Setting](#)

Control by Smartphone, etc.

Mirroring

You can watch and display images of other devices (smartphone, etc.) on the TV screen using a mirroring function.



1 Smartphone, etc.

2 TV

1. Display Home with **HOME**.

2. Select **Mirroring** and press **OK**.

3. Follow the on-screen instructions.

- Pairing information of the device (smartphone, etc.) is registered once you use this function.

All settings

How to use

Setting the menu

Various menus allow you to set the picture, sound and other functions.

- Some menus are grayed out depending on the input signal or condition.

1. Display the menu.

 **MENU** → **Main Menu**

2. Select the menu from menu bar.

Select the desired menu using Δ / ∇ from menu bar and press **OK**.

3. Select the item and adjust.

Select the desired item using Δ / ∇ .

- You can also access to the desired menu using \triangleleft / \triangleright .
 - Adjust the item: Using \triangleleft / \triangleright
 - Set/change the item: Using Δ / ∇

- Displays the functions that can be adjusted.
- Some functions will be disabled depending on the type of input signal.
- Some settings in Video menu may also affect the menu screen when watching the 4K contents.

The setting value can be adjusted by pressing **MENU** and selecting **Video**.

Video

Basic settings

Adjust the image or picture quality.

 **MENU** → **Main Menu** > **Video**

Picture Mode

Select from preset picture modes for optimal viewing. Mode is saved separately for each input.

Back Light

Adjusts backlight's luminance (light intensity).

Contrast, Brightness, Color, Tint, Sharpness

Adjusts the color, brightness, etc. for each picture mode to suit your preference.

Color Temperature

Selects color temperature preference, from "cool" (bluish) to "warm" (reddish) or normal.

Vivid Color

Automatically adjusts colors to vivid ones.

Rec.2020 color remaster

Displays the vivid images with the suitable color gamut.

A.I. picture

Adjusts backlight level to make dark areas of the picture appear more natural. If the picture appears unnatural, try setting it **Off**.

Noise Reduction

Reduces noise, commonly called snow. Leave it off when receiving a strong signal.

MPEG NR

Reduces signal noise generated by input devices playing MPEG compressed videos, and provide clear contours.

Super Resolution

Enhances picture resolution to make the image sharper.

Dynamic range remaster

Reproduces bright areas of the image to be closer to the original luminance and contrast, and improves the picture impact.

Intelligent Frame Creation

(**Max** / **Medium** / **Min** / **Off**)

Automatically compensates the picture frame rate and removes juddering movements to make the images smooth.

- Depending on the content, images may be noisy. To prevent the noise, change the setting.
-

Clear Motion

Makes the moving pictures clearer by controlling the level of backlight.

C.A.T.S.

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

If you prefer a consistent brightness, disable C.A.T.S. by:

- **Main Menu** > **Video** > scroll down to **C.A.T.S.** and turn it off.

HDR brightness setting

 **MENU** → **Main Menu** > **Video** > **HDR brightness setting**

Dynamic Metadata Creation

Automatically adjusts the luminance according to an HDR video signal.

HDR auto brightness

Automatically adjusts the luminance according to a lighting condition.

HDR brightness enhancer

Adjusts the luminance when watching an HDR video in a bright environment.

- Supporting HDR does not increase the peak brightness capabilities of the TV panel.

Advanced Video

Adjusts the picture mode in more detail.

Set **Picture Mode** to **Cinema/True Cinema/Custom** first.

 **MENU** → **Main Menu** > **Video** > **Advanced Video**

Black Expander

Adjusts the gradations in dark shades of the image.

W/B detail adjustment

Adjusts the white balance for light red/green/blue areas.

Gamma

Gamma correction. Adjusts the intermediate brightness of the image.

Reset to Defaults

Resets all **Advanced Video** adjustments to factory default settings.

Advanced picture



MENU → **Main Menu** > **Video** > **Advanced picture**

Game Mode

Optimizes the TV image for fast response signal when playing video games.

Film Cadence Mode

Improves vertical resolution for movie images.

1080p Pure Direct

Enables the support of a 4:4:4 digital video format signal. Use only with a 4:4:4 capable source.

4k Pure Direct

Enables the support of a 4K 4:4:4 digital video format signal. Use only with a 4K 4:4:4 capable source.

HDR

Automatically adjusts the images for HDR contents.

Set to **Auto** when the HDR device is connected to the TV.

- Please turn **Off** this function if the image looks unnatural. This may occur in some cases such as compatibility with the connected device or source images.
 - Image may disappear for a few seconds when the setting is changed.
 - For HDMI
-

AV Color System

Selects optional color system based on video signals.

3D-COMB

Minimizes rough edges (dot crawl) in the picture from a composite source.

Screen settings

 **MENU** → **Main Menu** > **Video** > **Screen settings**

Overscan

Selects the screen area displaying the image for 16:9 aspect.

On:

Enlarges the image to hide the edge of the image.

Off:

Displays the image in the original size.

Set to **On** if noise is generated on the edge of the screen.

Reset to Defaults

Resets all picture adjustments to factory default settings.

Audio

Basic settings

Adjusts audio quality.

 **MENU** → **Main Menu** > **Audio**

Mode

Selects your favorite sound mode.

Bass

Increases or decreases the bass response.

Treble

Increases or decreases the treble response.

Equalizer

Adjusts the frequency level to suit your favorite sound quality.

- This function is available when **Mode** is set to **User**.
 - Select the frequency and change the frequency level by using the cursor button.
 - To enhance the bass sound, raise the level of the lower frequency. To enhance the treble sound, raise the level of the higher frequency.
 - To reset the levels of each frequency to the default settings, select **Reset to Defaults** by using the cursor button, and then press the **OK** button.
 - This function is effective only for the sound from TV speakers.
-

Balance

Emphasizes the left/right speaker volume.

Advanced settings

 **MENU** → **Main Menu** > **Audio**

Sound Surround

Selects surround sound settings.

TV Speaker Setting

Selects the sound output to adjust volume.

- Sound from TV speaker turns off when **Off** is selected.
-

Auto Gain Control

Equalizes overall volume levels across all channels and external inputs.

Volume Correction

Minimizes volume disparity after switching to external inputs.

Clear Sound Adjustment

If the sound from TV speakers is unclear due to installation environment, **On** is recommended.

- This function is effective only for the sound from TV speakers.
-

Audio Preference

Selects the initial setting for audio tracks.

SPDIF Selection

Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT and HDMI 2 (ARC function) terminals.

PCM Optical Level

Adjusts the audio level of PCM output from DIGITAL AUDIO OUT and HDMI2 (ARC function) terminals to equalize with that of the other audio types.

HDMI input

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.

Type

Selects the audio type for impaired users.

Visually Impaired

Narration settings for visually impaired users

 **MENU** → **Main Menu** > **Audio** > **Visually Impaired**

Speaker

Set to **On** to activate the description sound track from TV speakers.

Volume

Adjusts the volume for the description sound track.

Visually Impaired Audio

Settings for the description sound track (if available)

Reset to Defaults

Resets all Audio adjustments to factory default settings.

TV

Tuner Mode

Tuner Mode

Selects signal source connected directly to the ANTENNA/Cable In terminal.

Tuning Menu

Channel Scan

Automatically searches for receivable channels.

Single RF Scan

Searches for Digital TV channels manually.

Channel Skip

You can hide (skip) unwanted channels. The hidden channels cannot be displayed except in this function.

Favorite List

Creates a list of favorite channels.

Other settings

MTS

Select the Audio mode for watching TV.

Audio Language

Selects the initial setting for audio tracks.

Setup

Bluetooth Setting

Settings for the specific devices supporting Bluetooth wireless technology

 **MENU** → **Main Menu** > **Setup** > **Bluetooth Setting**

Devices

Search and pair Bluetooth devices in range. Display the status of previously registered devices.

Bluetooth Audio Mode Setting

(**Transmitter** / **Receiver**)

Selects the TV's Bluetooth audio mode.

Transmitter:

Connects an audio device such as headphones, speaker, etc.

Receiver:

Connects an audio device such as a smartphone, audio player, etc.

Bluetooth audio settings

Adjusts the volume for an audio device, etc. in the transmitter mode.

Audio out

Selects audio out when the device is connected.

- To get sound from Speakers and Bluetooth device, select **All**.

Volume

Adjusts the volume of a Bluetooth audio device.

Audio Control

Sets to control a Panasonic Bluetooth audio device with this TV.

- Settings on a Panasonic Bluetooth audio device are also required to use this audio control function.

OSD Language

OSD Language

Selects the screen menu language.

MY APP Setting

Assigns your favorite application to **MY APP** of the TV's remote control.

 → Using Home > Home > MY APP

Time Setup

Time Zone

Selects your time zone, to enable correct automatic date and time settings.

Time

Settings for the system time of this TV.

Sleep Timer

Selects how long the TV stays on before it automatically turns off.

Auto Sleep

Automatically turns the TV to Standby mode for energy saving when no operation is performed for the set hours.

No signal Power off

To conserve energy, the TV automatically turns off when NO SIGNAL and NO OPERATION continue for more than 10 minutes.

HDMI 2.0 Setting

Reproduces the image more precisely with the expanded color gamut when connecting the 4K compatible equipment. Select the mode depending on the equipment.

- For HDMI1/2

Caption

Analog Closed Caption

Selects the analog closed caption (if available).

Digital Closed Caption

The Digital Closed Caption menu lets you configure the way you choose to view the digital captioning.

Digital Caption Style

Selects the text style.

Network

Configuration

Sets the network setting to use this TV in your network environment.

Software Update

Accesses the specific website to update the TV's software if any updates are available.

New Software Message

Selects whether or not to display a notification message when a software (firmware) update is available for download. Follow the directions on the screen to download.

Application

Enables network applications.

Terms of Service and Settings

Displays the terms of service and settings.

System

Version Info

Displays the system information of this TV.

Software Licence

Displays the software license information.

Other settings

Power Save

Reduces brightness of the picture to economize on power consumption.

Banner Display

Displays an information banner when changing channel, etc.

CEC Setup Menu

CEC Function

Sets to **On** to enable CEC connected equipment.

Auto turn Off

When the TV is set to Standby mode, the connected equipment is also automatically set to Standby.

Factory defaults

Resets all settings to the original condition.

Parental

Password settings

Password

Enter the PIN number to access parental features.

Change Password

Changes the PIN number.

Clean All

Resets the PIN number and block settings.

Block settings

Channel Block, Input Block

Applies access control for channels or inputs to prevent unwanted access.

Program Block

Applies access control for age restricted contents.

Support / FAQ

FAQ

Video - Viewing

■ Frequently Asked Questions

For updated information, please visit Panasonic web site.

How do I view the picture from devices such as: Cable/Satellite box, game console, Blu-ray or DVD player?

- Press the **INPUT** button on the remote to select the correct input source.
- Check that the device is turned on and functioning correctly.

Why doesn't the picture look like it is in High Definition?

- Press the **INFO** button on the remote to confirm the type of signal being received. HD signal should be 720p, 1080i or 1080p.
- Select a High Definition channel from your HD source (Cable, Satellite or fiber optic service). HD channels sometimes broadcast non-HD content.
- Ensure that your HD source (HD box, Blu-ray player, etc.) is connected to the TV with an HDMI or Component cable and set to output an HD video signal.

Video - Snowy / none

Why is there no picture or just a blue, black or snowy screen being displayed?

- Check if the power cord is plugged in and the TV is turned on (front red LED light should be on; not blinking)
- Press the **INPUT** button on the remote to select the correct input source.
- Ensure all connections are correct and secure. Especially check for Component and VIDEO connection since these terminals are shared.
- When using an external video source, such as a Cable/Satellite box or DVD player, check that the device is on and functioning correctly.
- Press **MENU** on the TV's remote control. If the menu is displayed, then the TV is working; recheck above steps.

Why is the picture snowy when **Tuner Mode** is selected?

- When using a cable service (without a box), check that all connections are secure.
- When using a cable or satellite box, change the connection (wiring) to Composite, Component or HDMI.

Video - Distortion

Why do black bars appear on the top and bottom and/or sides of the screen?





- Change the format (aspect ratio) of the picture by pressing the **FORMAT** button on the remote control.
- Check the aspect settings on your external video source, such as Cable/Satellite box, DVD/Blu-ray Disc player, etc.
- Some content, such as film-based movies, are available in extra-wide format. Top and bottom bars are unavoidable.

Why is the picture chaotic and/or torn and/or with a buzz in the speakers?

- Check if electrical products such as kitchen appliances, fluorescent lights or light dimmers are nearby. They may interfere with the TV's picture.
- Try viewing a picture from another device, such as a DVD player or a game console, to narrow down the source of the problem.

Video - Unusual

Why the pictures from external equipment are unusual when the equipment is connected via HDMI?

- Check the HDMI cable is connected properly.
 → [Watching TV > Blu-ray, DVD, Game Console, etc. > Connecting and viewing](#)
- Turn the TV and equipment off, then turn them on again.
- Check an input signal from the equipment.
 → [Watching TV > Blu-ray, DVD, Game Console, etc. > Input signal](#)
- Use equipment compliant with EIA/CEA-861/861D.
- Set **HDMI 2.0 Setting** in the Setup Menu to **4K@60Hz 4:2:0**.
 → [All settings > Setup > HDMI 2.0 Setting](#)
- The valid 4K format varies depending on the HDMI terminal.
 → [Watching TV > 4K compatible equipment > About 4K format](#)

Video - Continue

Why is there a black box on the screen?

- Check the settings of Closed Caption (CC).

Why do some small spots on the screen remain bright or dark?

- The panel is made up of a few million pixels and is produced with advanced technology through an intricate process. Sometimes, a few pixels may be bright or dark.
- These pixels do not indicate a defective panel and will have no impact on the performance of the TV.

Why is the picture brightness changing?

- Set **C.A.T.S.** to **OFF**.

 **MENU** → **Main Menu** > **Video** > **C.A.T.S.**

Why is there a short black image on the screen?

- A black image is displayed to avoid picture distortion when an input signal changes.

Audio - None

Why is there no sound coming from the TV?

- Make sure the volume is up and mute is off.
- Check that the correct **SAP** (Secondary Audio Program) is selected by pressing the **SAP** button on the remote control.
- If the TV is connected to a Home Theater via optical cable, then: Check the connection, the audio system is on, the correct input is selected.
- Check **HDMI input** analog/digital audio settings.

 **MENU** → **Main Menu** > **Audio** > **HDMI input**

Audio - Unusual

Why is the sound unusual, distorted, low volume or in another language?

- Check that the correct **SAP** (Secondary Audio Program) is selected by pressing the **SAP** button on the remote control.
- Check that all connections of external equipment connected to the TV are secure.
- When using Cable or Satellite box, check the device's audio settings.
(Example: try changing the box's Audio Range to "narrow")
- Set **HDMI 2.0 Setting** in the Setup Menu to **4K@60Hz 4:2:0**.

 → [All settings > Setup > HDMI 2.0 Setting](#)

Why is there a clicking, ticking or buzzing sound coming from the TV unit?

- When TV power is turned on or shut off there are electrical components that make a click sound. This is normal operation.
- Changes in the temperature and humidity of the room may cause thermal expansion and contraction that can produce sounds. This is not a sign of faulty operation or a malfunction.

Networking

How do I get Internet services to work on my TV?

1. You need a broadband (High-Speed) Internet service with a speed of no less than 1.5 Mbps.
2. Connect the TV to the Internet through your router by an Ethernet cable or a Panasonic Wireless LAN (built-in).
3. Start **Configuration** wizard, then follow the directions on the screen to connect. If the connections still fails, then check with your Internet service provider or router/modem manufacturer if there are firewall, content filter or proxy settings that may block the TV from accessing the Internet.

Software Update

How do I check for the latest software (firmware) version for my TV?

- In the main menu, select **Setup > Network > Software Update**. The current version and latest version software will be displayed. If software update is grayed out, the TV is not connected to the Internet. If a newer version is available, update your TV. Follow the on screen instructions, do not power off the TV until the update is complete. Be patient; firmware update may take a while.

When the TV is turned On, update message is displayed if available. Follow the directions on the screen to download.

Other

What is the easiest and best way to connect a High-Definition Cable or Satellite box to the TV?

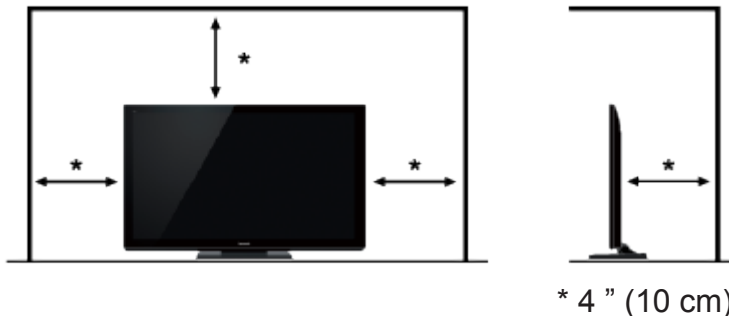
- Use an HDMI cable. It carries both digital video and audio signal in HD. The HDMI cable is the only cable needed to connect an HD device to the TV.

Why does the **CC** button not display Closed Caption?

- When viewing TV via an HDMI connected device, such as a Cable or Satellite box, CC must be enabled on the device.
- Closed Caption is available only for supported TV programming and supported contents via Video (Composite) input.

Why does the screen and back cover of the TV get warm?

- The main unit radiates heat and some of the parts may become hot. This is normal operation and does not affect the performance of the set.
- Ensure good ventilation.
- Do not block the ventilation holes of the TV and do not place the TV on top of other equipment.



Where is the power source and power consumption?

- For information about the power source and power consumption, refer to the nameplate on the rear enclosure.

Main Menu - Gray-out or missing items

Some menu items are grayed-out and unable to be selected. Why?

- Depending on certain modes or the selected input, some options are not available.

Reset to factory defaults

How do I reset my TV to all factory defaults and settings?

- In the main menu, select **Setup**. Highlight **Factory defaults** and press **OK**.

Enter your password (if locked).

Confirmation message will be displayed.

Follow the directions on screen to reset the TV to its original factory defaults.

Information

Detailed information

Support information about the application, optional devices, operation, etc. may be found on the following website.

<https://panasonic.jp/support/global/cs/tv/> (English only)

Data information

■ Supported Photo format for Media player/media server

- JPEG files (DCF and EXIF standards)
Sub-sampling - 4:4:4, 4:2:2 and 4:2:0
Image resolution - 4 × 4 to 17,000 × 10,000 pixels

■ Supported Video format for Media player/media server

- AVI files
Video codec:
H.264 / MPEG1 / MPEG2 / MPEG4 / WMV9 / VC-1
Audio codec:
AAC / ADPCM / Dolby Audio (Dolby Digital, Dolby Digital Plus) / HE-AAC / LPCM / MP3 / WMA / WMA Pro*
• MP4 files
Video codec:
H.264 / H.265 (HEVC) / MPEG1 / MPEG2 / MPEG4
Audio codec:
AAC / Dolby Audio (Dolby Digital, Dolby Digital Plus) / HE-AAC / MP3
• MKV files
Video codec:
H.264 / H.265 (HEVC) / MPEG1 / MPEG2 / MPEG4
Audio codec:
AAC / Dolby Audio (Dolby Digital, Dolby Digital Plus) / HE-AAC / MP3 / Vorbis
• ASF files
Video codec:
WMV9 / VC-1 / MPEG4
Audio codec:
AAC / Dolby Audio (Dolby Digital, Dolby Digital Plus) / HE-AAC / LPCM / MP3 / WMA / WMA Pro*
– Copy-protected files cannot be played back.

- FLV files

Video codec:

H.264

Audio codec:

AAC / MP3

- 3GPP files

Video codec:

H.264 / MPEG4

Audio codec:

AAC / HE-AAC

- PS files

Video codec:

H.264* / MPEG1 / MPEG2 / VC-1*

Audio codec:

AAC* / Dolby Audio (Dolby Digital, Dolby Digital Plus*) / HE-AAC* /
LPCM / MP3*

- TS files

Video codec:

H.264 / H.265 (HEVC) / MPEG1 / MPEG2 / VC-1*

Audio codec:

AAC / Dolby Audio (Dolby Digital, Dolby Digital Plus) / HE-AAC / MP3*

- WebM files

Video codec:

VP9

Audio codec:

Vorbis

* : for Media player only

■ Supported Music format for Media player/media server

- MP3 files (MP3)
- M4A files (AAC)
 - Copy-protected files cannot be played back.
- FLAC files (FLAC)
- WMA / WMA Pro files (WMA)
 - Copy-protected files cannot be played back.
- WAV files (LPCM)

■ Supported Subtitles formats

● MicroDVD, SubRip, TMLayer (.srt, .sub, .txt)

- The video file and subtitles text file are inside the same folder, and the file names are the same except for the file extensions.
- If there are more than one subtitles text files inside the same folder, they are displayed in the following order of priority: “.srt” “.sub” “.txt”.

- Some files may not be played back even if they fulfill these conditions.
- Some files may not be played back correctly depending on the resolution, frame rate condition, etc.
- Some subtitles or chapter functions may not be available.
- Do not use multi-byte characters or other special codes for file names.
- Connected devices may become unusable with this TV if the file or folder names are changed.

Care and Cleaning

Display panel

First, unplug the Power cord plug from the wall outlet.

■ Display panel

The front of the display panel has been specially treated. Wipe the panel surface gently using only a cleaning cloth or a soft, lint-free cloth.

- If the surface is particularly dirty, after cleaning up the dust, soak a soft, lint-free cloth in diluted mild liquid dish soap (1 part mild liquid dish soap diluted by 100 times the amount of water) and then wring the cloth to remove excess liquid. Use this cloth to wipe the surface of the display panel, then wipe it evenly with a dry cloth of the same type until the surface is dry.
- Do not scratch or hit the surface of the panel with fingernails or other hard objects. Furthermore, avoid contact with volatile substances such as insect sprays, solvents, and thinner, otherwise, the quality of the surface may be adversely affected.

Cabinet

First, unplug the Power cord plug from the wall outlet.

■ Cabinet

If the cabinet becomes dirty, wipe it with a soft, dry cloth.

- If the cabinet is particularly dirty, soak the cloth in a weak mild liquid dish soap and then wring the cloth dry. Use this cloth to wipe the cabinet and then wipe it dry with a dry cloth.
- Do not allow any mild liquid dish soap to come into direct contact with the surface of the TV. If water droplets get inside the unit, operating problems may result.
- Avoid contact with volatile substances such as insect sprays, solvents, and thinner, otherwise, the quality of the cabinet surface may be adversely affected or the coating may peel off.
- Do not let articles made from rubber or PVC be in contact with the TV for long periods of time.

Pedestal / Power cord

First, unplug the Power cord plug from the wall outlet.

■ Pedestal

Cleaning

- Wipe the surfaces with a soft, dry cloth. If the unit is particularly dirty, clean it using a cloth soaked with water to which a small amount of mild liquid dish soap has been added and then wipe with a dry cloth. Do not use products such as solvents, thinner, or household wax for cleaning, as they can damage the surface coating. (If using a chemically-treated cloth, follow the instructions supplied with the cloth.)
- Do not attach sticky tape or labels, as they can make the surface of the pedestal dirty. Do not allow long-term contact with rubber, vinyl products, or the like. (Doing so will cause deterioration.)

■ Power cord

- Wipe the plug with a dry cloth at regular intervals. (Moisture and dust can lead to fire or electrical shock.)

