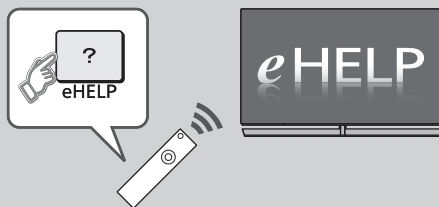# Panasonic®

English

Nederlands

Română

Operating Instructions
OLED TV

VIErΛ

For more detailed instructions, please refer to [eHELP] (Built-in Operating Instructions).

?
eHELP

e HELP

● How to use [eHELP] ➡ **(p. 23)**

Thank you for purchasing this Panasonic product.

Please read these instructions carefully before operating this product and retain them for future reference.

Please carefully read the "Safety Precautions" of this manual before use.

The images shown in this manual are for illustrative purposes only.

Please refer to Pan European Guarantee Card if you need to contact your local Panasonic dealer for assistance.

English

SDXC™

DOLBY AUDIO™

POWERED BY DRAGON

- For information about the trademarks, refer to [eHELP] (Search by Purpose > Read first > Before use > Licence).

Contents

Important Notice

Do not display any still part of the image for a long period

In such cases the still part of the image remains dimly on the screen ("image retention"). This is not considered a malfunction and is not covered by the warranty.

- Typical still image parts:
  - Still images shown continuously on the same area (ex. channel number, channel logo, other logos or title image, etc.)
  - Still or moving pictures viewed in 4:3 or 14:9 aspect ratio, etc.
  - Video games

- To avoid image retention, the screen saver may be activated (OLED logo moves) or the on-screen message may move after a few minutes if no signals are sent or no operations are performed.

- To avoid image retention, the screen may become dim when the motionless image is displayed. This is not a malfunction. The brightness of the screen returns to the previous level when the active image is displayed.

- Be sure to turn the TV off with the remote control to perform the panel maintenance. During the panel maintenance, LED turns to orange. (p. 21) The maintenance works as necessary.

- Set aspect ratio to [4:3 full] for 4:3 image. For details, refer to [eHELP] (Search by Purpose > Watching > For best picture).

- For more information ➡ **"Panel maintenance" (p. 21)**

Notice for DVB / Data broadcasting / IPTV functions

- This TV is designed to meet the standards (as of August, 2016) of DVB-T / T2 (MPEG2, MPEG4-AVC(H.264) and MPEG HEVC(H.265)) digital terrestrial services, DVB-C (MPEG2, MPEG4-AVC(H.264) and MPEG HEVC(H.265)) digital cable services and DVB-S (MPEG2, MPEG4-AVC(H.264) and MPEG HEVC(H.265)) digital satellite services.

  Consult your local dealer for availability of DVB-T / T2 or DVB-S services in your area.

  Consult your cable service provider for availability of DVB-C services with this TV.

- This TV may not work correctly with the signal which does not meet the standards of DVB-T / T2, DVB-C or DVB-S.

- Not all the features are available depending on the country, area, broadcaster, service provider, satellite and network environment.

- Not all CI modules work properly with this TV. Consult your service provider about the available CI module.

- This TV may not work correctly with CI module that is not approved by the service provider.

- Additional fees may be charged depending on the service provider.

- Compatibility with future services is not guaranteed.

Panasonic does not guarantee operation and performance of peripheral devices made by other manufacturers; and we disclaim any liability or damage arising from operation and/or performance from usage of such other maker's peripheral devices.

The recording and playback of content on this or any other device may require permission from the owner of the copyright or other such rights in that content. Panasonic has no authority to and does not grant you that permission and explicitly disclaims any right, ability or intention to obtain such permission on your behalf. It is your responsibility to ensure that your use of this or any other device complies with applicable copyright legislation in your country. Please refer to that legislation for more information on the relevant laws and regulations involved or contact the owner of the rights in the content you wish to record or playback.

This product is licensed under the AVC patent portfolio license for the personal and non-commercial use of a consumer to (i) encode video in compliance with the AVC Standard ("AVC Video") and/or (ii) decode AVC Video that was encoded by a consumer engaged in a personal and non-commercial activity and/or was obtained from a video provider licensed to provide AVC Video. No license is granted or shall be implied for any other use.

Additional information may be obtained from MPEG LA, LLC.

See http://www.mpegla.com.

This mark shows that the construction of the product is double-insulated.

This mark indicates the product operates under AC voltage.

Transport only in upright position.

Safety Precautions

To help avoid risk of electrical shock, fire, damage or injury, please follow the warnings and cautions below:

■ Mains plug and lead

If you detect anything unusual, immediately remove the mains plug.

- This TV is designed to operate on AC ∿ 220-240 V, 50 / 60 Hz.
- Insert the mains plug fully into the mains socket.
- To turn Off the apparatus completely, you must pull the mains plug out of the mains socket.
  Consequently, the mains plug should be easily accessible at all times.
- Disconnect the mains plug when cleaning the TV.
- Do not touch the mains plug with wet hands.

- Do not damage the mains lead.
  - Do not place a heavy object on the lead.

  - Do not place the lead near a high temperature object.

  - Do not pull on the lead. Hold onto the mains plug body when disconnecting the plug.
  - Do not move the TV with the lead plugged into a mains socket.
  - Do not twist the lead, bend it excessively or stretch it.
  - Do not use a damaged mains plug or mains socket.
  - Ensure the TV does not crush the mains lead.

■ Take care

- Do not remove covers and never modify the TV yourself as live parts are accessible and risk of electric shock when they are removed. There are no user serviceable parts inside.
- Do not expose the TV to rain or excessive moisture. This TV must not be exposed to dripping or splashing water and objects filled with liquid, such as vases, must not be placed on top of or above the TV.
- Do not insert foreign objects into the TV through the air vents.
- If the TV is used in an area where insects may easily enter the TV.
  It is possible for insects to enter the TV, such as small flies, spiders, ants, etc. which may cause damage to the TV or become trapped in an area visible on the TV, e.g. within the screen.
- If the TV is used in an environment where there is dust or smoke.
  It is possible for dust/smoke particles to enter the TV through the air vents during normal operation which can become trapped inside the unit. This may cause overheating, malfunction, deterioration in picture quality, etc.
- Do not use an unapproved pedestal / mounting equipment. Be sure to ask your local Panasonic dealer to perform the setup or installation of approved wall-hanging brackets.
- Do not apply any strong force or impact to the display panel.
- Ensure that children do not climb on the TV.
- Do not place the TV on sloping or unstable surfaces, and ensure that the TV does not hang over the edge of the base.

Warning

Never place a TV in an unstable location. A TV may fall, causing serious personal injury or death. Many injuries, particularly to children, can be avoided by taking simple precautions such as:

- Using cabinets or stands recommended by the manufacturer of the TV.
- Only using furniture that can safely support the TV.
- Ensuring the TV is not overhanging the edge of the supporting furniture.
- Not placing the TV on tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the TV to a suitable support.
- Not placing the TV on cloth or other materials that may be located between the TV and supporting furniture.
- Educating children about the dangers of climbing on furniture to reach the TV or its controls.

If your existing TV is being retained and relocated, the same considerations as above should be applied.

- This TV is designed for table-top use.
- Do not expose the TV to direct sunlight and other sources of heat.

To prevent the spread of fire, keep candles or other open flames away from this product at all times

■ Suffocation / Choking Hazard

Warning

- The packaging of this product may cause suffocation, and some of the parts are small and may present a choking hazard to young children. Keep these parts out of reach of young children.
- Do not allow children to handle any small objects such as SD Card. The small object could be swallowed by young children. Remove SD Card immediately after use and store out of reach of young children.

■ Pedestal

Warning

- Do not disassemble or modify the pedestal.

Caution

- Do not use any pedestal other than the one provided with this TV.
- Do not use the pedestal if it becomes warped or physically damaged. If this occurs, contact your nearest Panasonic dealer immediately.
- During setup, make sure that all screws are securely tightened.
- Ensure that the TV does not suffer any impact during installation of the pedestal.
- Ensure that children do not climb onto the pedestal.
- Install or remove the TV from the pedestal with at least two people.
- Install or remove the TV according to the specified procedure.

■ Radio waves

Warning

- Do not use the TV and Touch Pad Controller in any medical institutions or locations with medical equipment. Radio waves may interfere with the medical equipment and may cause accidents due to malfunction.
- Do not use the TV and Touch Pad Controller near any automatic control equipment such as automatic doors or fire alarms. Radio waves may interfere with the automatic control equipment and may cause accidents due to malfunction.
- Keep at least 15 cm away from the TV and Touch Pad Controller if you have a cardiac pacemaker. Radio waves may interfere with the operation of the pacemaker.
- Do not disassemble or alter the TV and Touch Pad Controller in any way.

■ Built-in wireless LAN

Caution

- Do not use the built-in wireless LAN to connect to any wireless network (SSID*) for which you do not have usage rights. Such networks may be listed as a result of searches. However, using them may be regarded as illegal access.

  *SSID is a name for identifying a particular wireless network for transmission.

- Do not subject the built-in wireless LAN to high temperatures, direct sunlight or moisture.
- Data transmitted and received over radio waves may be intercepted and monitored.
- The built-in wireless LAN uses 2.4 GHz and 5 GHz frequency bands. To avoid malfunctions or slow response caused by radio wave interference when using the built-in wireless LAN, keep the TV away from other devices that use 2.4 GHz and 5 GHz signals such as other wireless LAN devices, microwave ovens, and mobile phones.

● When problems occur due to static electricity, etc., the TV might stop operating to protect itself. In this case, turn the TV off at the Mains power On / Off switch, then turn it back on.

■ Bluetooth® wireless technology

(Caution)

● The TV and Touch Pad Controller use the 2.4 GHz radio frequency ISM band (Bluetooth®). To avoid malfunctions or slow response caused by radio wave interference, keep the TV and Touch Pad Controller away from the devices such as other wireless LAN devices, other Bluetooth devices, microwaves, mobile phones and the devices that use 2.4 GHz signal.

■ Ventilation

(Caution)

Allow sufficient space (at least 10 cm) around the TV in order to help prevent excessive heat, which could lead to early failure of some electronic components.

(cm)
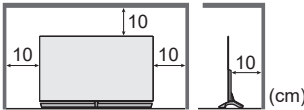
● Ventilation should not be impeded by covering the ventilation openings with items such as newspapers, tablecloths and curtains.

● Whether you are using a pedestal or not, always ensure the vents at the bottom of the TV are not blocked and there is sufficient space to enable adequate ventilation.

■ Moving the TV / speaker

(Caution)

Before moving the TV, disconnect all cables and remove the speaker from the pedestal.

● At least two people are required to move the TV. Support the TV as shown below to prevent injury that may be caused by the tipping or falling of TV.

● Do not hold the screen part when moving the TV.
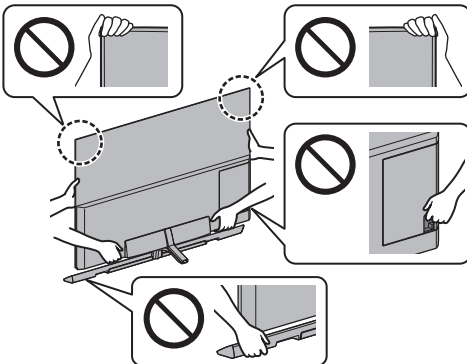
● Transport only in upright position. Transporting the TV with its display panel facing upwards or downwards may cause damage to the internal circuitry.

● Do not hold the speaker in one hand.

● Do not hold the speaker net part.

Support the speaker as shown below to prevent injury that may be caused by the falling of the speaker.

● Be careful not to nip the fingers between the speaker and pedestal when installing the speaker to the pedestal.
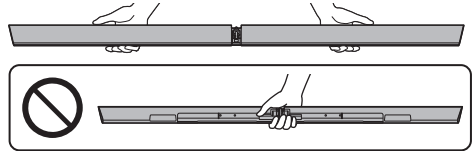
■ When not in use for a long time

(Caution)

This TV will still consume some power even in the Off mode, as long as the mains plug is still connected to a live mains socket.

● Remove the mains plug from the wall socket when the TV is not in use for a prolonged period of time.

■ Excessive volume

(Caution)

● Do not expose your ears to excessive volume from the headphones. Irreversible damage can be caused.

● If you hear a drumming noise in your ears, turn down the volume or temporarily stop using the headphones.

■ Battery for the Remote Control / Touch Pad Controller

(Caution)

● Incorrect installation may cause battery leakage, corrosion and explosion.

● Replace only with the same or equivalent type.

● Do not mix old and new batteries.

● Do not mix different battery types (such as alkaline and manganese batteries).

● Do not use rechargeable batteries (Ni-Cd, etc.).

● Do not burn or break up batteries.

● Do not expose batteries to excessive heat such as sunshine, fire or the like.

● Make sure you dispose of batteries correctly.

● Remove the battery from the unit when not using for a prolonged period of time to prevent battery leakage, corrosion and explosion.

■ Magnetic influence

● Keep magnet field sensitive objects, such as a cardiac pacemaker, magnetic / IC card, etc. away from the speaker. Otherwise, malfunction or data loss may occur.

OLED TV

The CE mark may be found on the model name plate located on the rear panel (when the terminal cover is removed.).

Declaration of Conformity (DoC)

"Hereby, Panasonic Corporation declares that this TV is in compliance with the essential requirements and other relevant provisions of the Directive 1999/5/EC."

If you want to get a copy of the original DoC of this TV, please visit the following website:

http://www.ptc.panasonic.eu/doc

Authorized Representative:

Panasonic Testing Centre

Panasonic Marketing Europe GmbH

Winsbergring 15, D-22525 Hamburg, Germany

This TV is intended to be used in the following countries.

Albania, Andorra, Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Iceland, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Macedonia

This equipment can be operated in other non-European countries.

The wireless LAN feature of this TV shall exclusively be used inside buildings.

Accessories

Standard accessories

Remote Control

➡ **(p. 19)**

● N2QAYA000144

Touch Pad Controller

➡ **(p. 20)**

● N2QBYA000019

Pedestal

➡ **(p. 8)**

Speaker

➡ **(p. 8)**
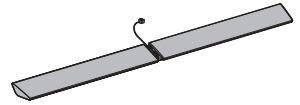
ACCESSORIES FOR SPEAKER WALL-HANGING

➡ **(p. 29)**

Cable tie (2)

➡ **(p. 17)**
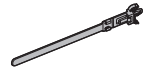
Batteries (4)

● R03

➡ **(p. 20, 21)**
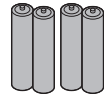
AV2 (COMPONENT / VIDEO) adaptor

➡ **(p. 16)**

Operating Instructions

Pan European Guarantee Card

● Accessories may not be placed all together. Take care not to throw them away unintentionally.

Assembling / Removing the pedestal / speaker

Ⓐ **Assembly screw (4)**
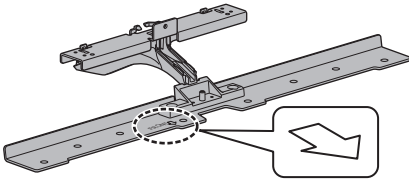
M5 × 10

Ⓑ **Assembly screw (5)**

M4 × 12

Ⓒ **Assembly screw**

M3 × 5

Ⓓ **Base**

Ⓔ **Bracket (L)**

L

Ⓕ **Bracket (R)**

R
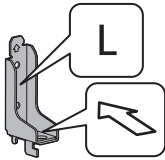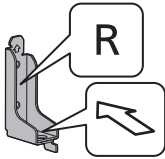
Ⓖ **Cable cover (front)**
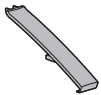
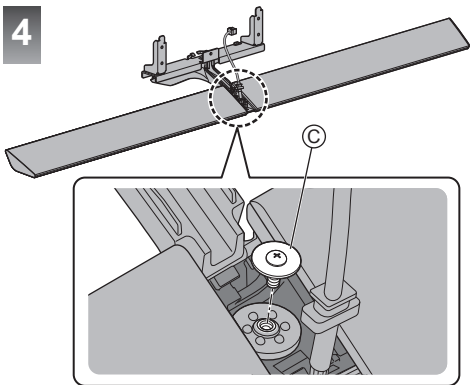
Ⓗ **Cable cover (rear)**
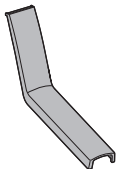
Ⓘ **Cover**
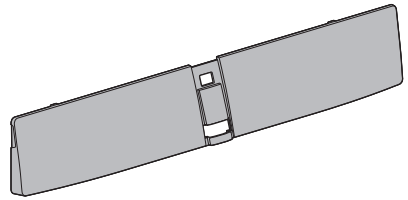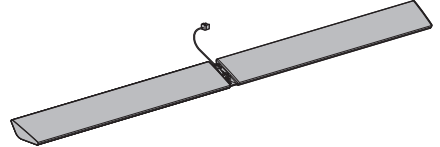
Ⓙ **Speaker**
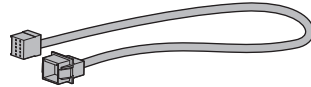
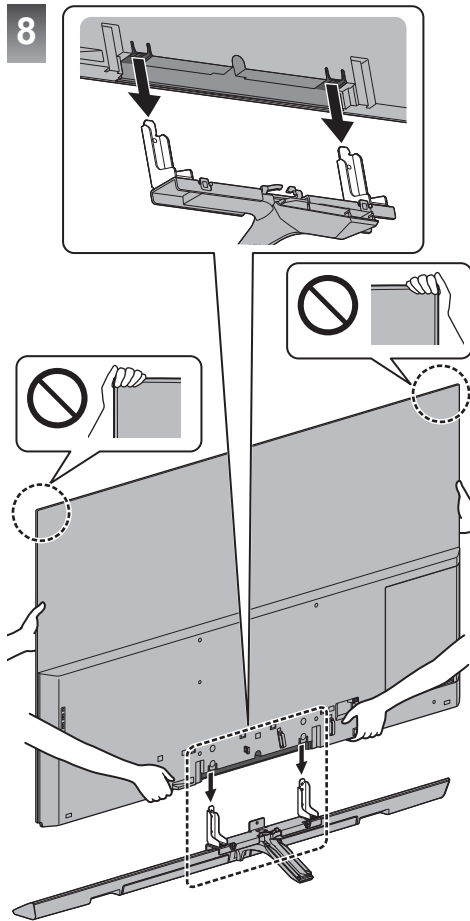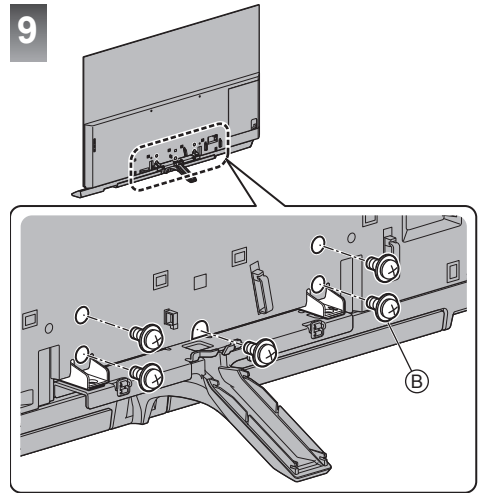Ⓚ **Speaker cable**

Assembling the pedestal / speaker

1

2

Ⓙ

3

Ⓙ

FRONT

4

Ⓒ

5

①
②

6

Ⓖ

7
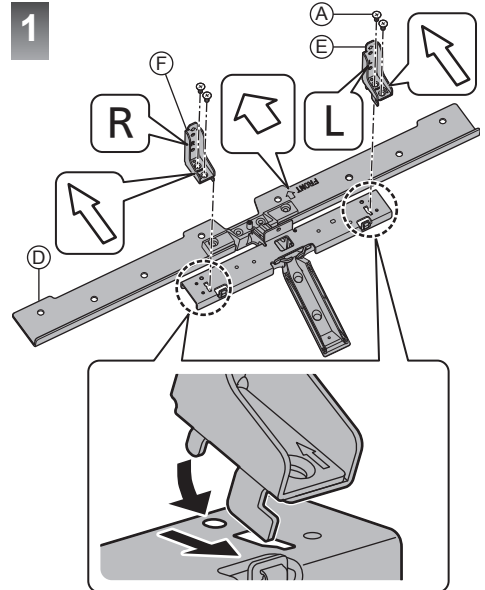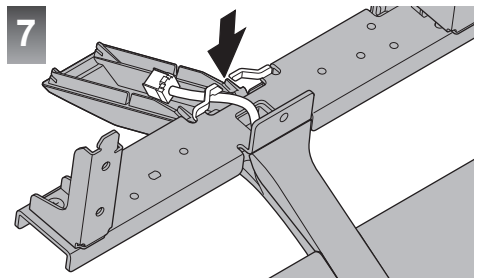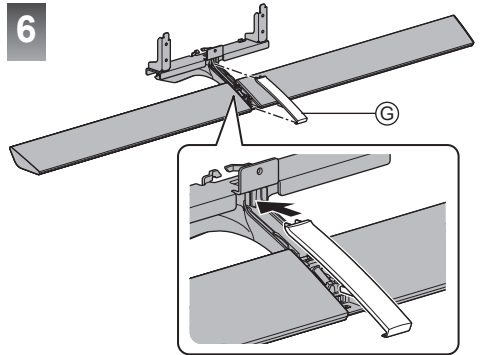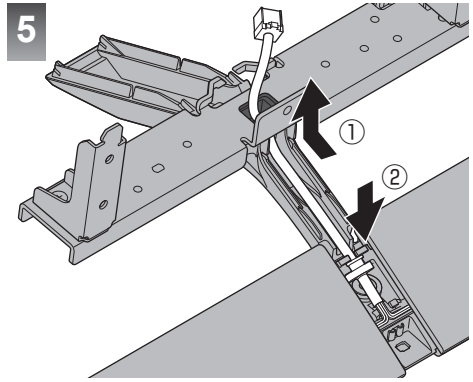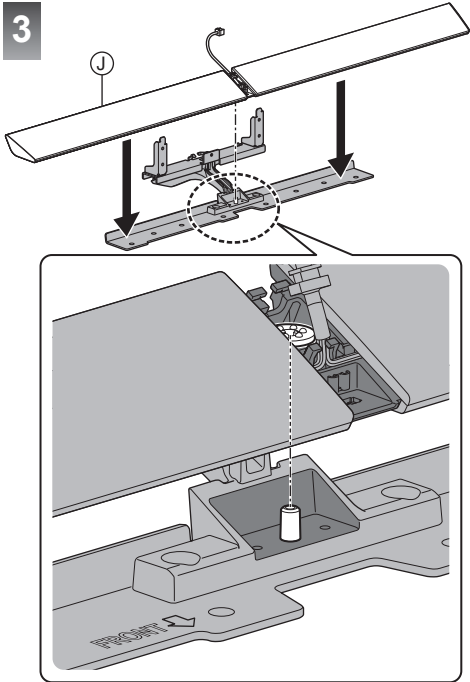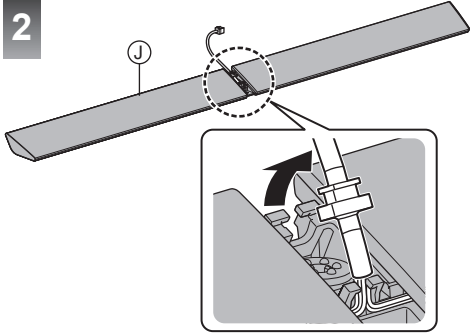
8

9

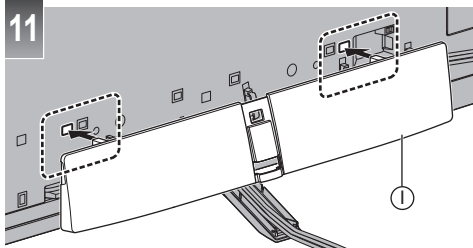- When the TV is uneven horizontal, loosen the assembly screws Ⓑ to set the TV horizontal.

10

K

2

3
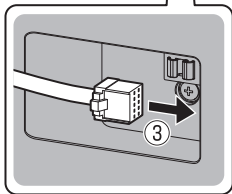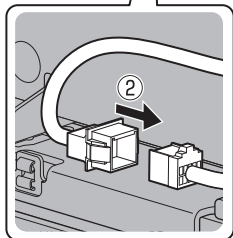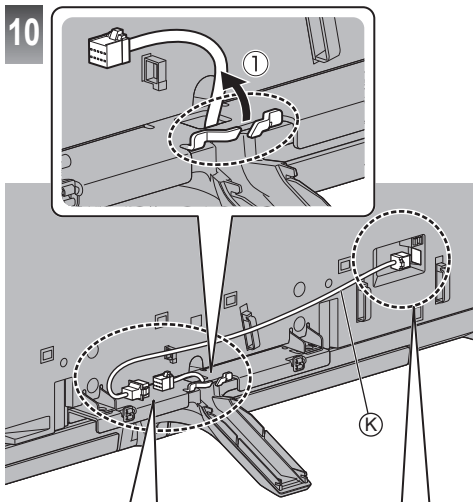
To disconnect the speaker and speaker cable

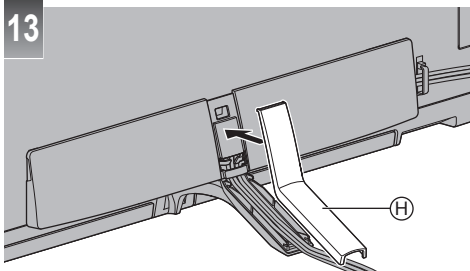1 Keep pushing the knob

2

11

I

12

13

H
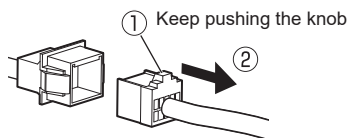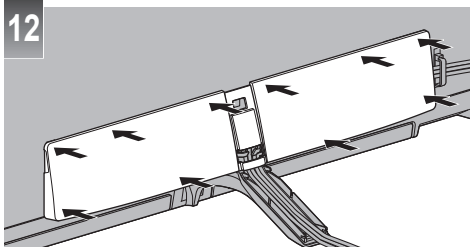
Removing the pedestal

Be sure to remove the pedestal in the following procedures when you repack the TV.

1 Remove the cable cover (rear) H from the pedestal.
2 Remove the cover I from the pedestal.
3 Disconnect the speaker cable K.
4 Remove the assembly screws B from the TV.
5 Lift the TV from the pedestal.
6 Remove the cable cover (front) G from the pedestal.
7 Remove the speaker cable K from the pedestal.
8 Remove the assembly screw C from the pedestal.
9 Remove the speaker from the pedestal.
10 Remove the assembly screws A from the pedestal.

Installing the TV and speaker

Ensure that the TV and speaker do not hang over the edge of the base.
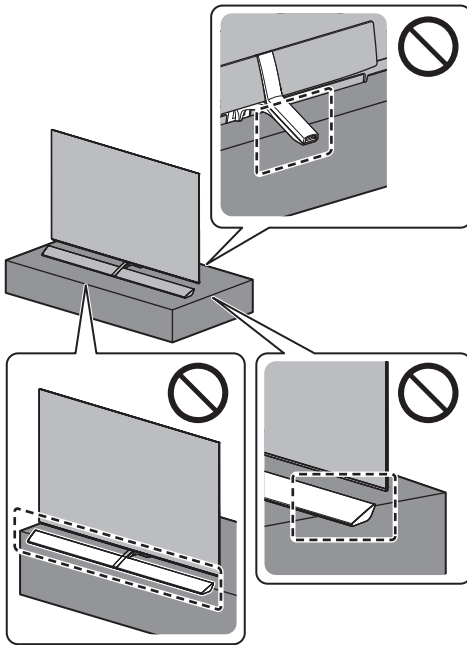

Connections

- External equipment and cables shown are not supplied with this TV.
- Please ensure that the unit is disconnected from the mains socket before attaching or disconnecting any cables.
- Check the terminal type and cable plugs are correct for connection.
- Use a fully wired HDMI compliant cable.
- Keep the TV away from electronic equipment (video equipment, etc.) or equipment with an infrared sensor, otherwise distortion of image / sound may occur or operation of other equipment may be affected.
- Please also read the manual of the equipment being connected.

Removing the terminal cover from the TV

- Be sure to remove the terminal cover before connecting or disconnecting cables.
- When the connections are completed, attach the terminal cover.
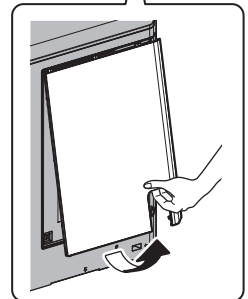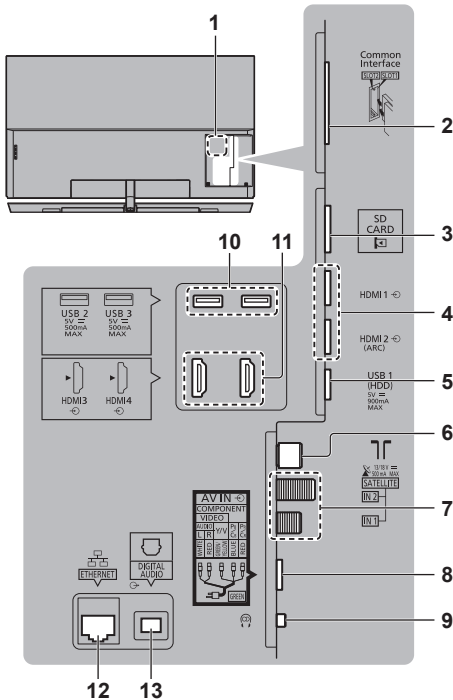
Terminals
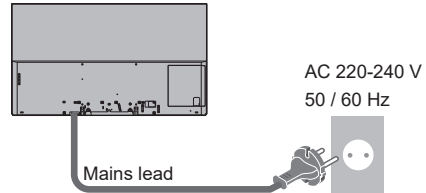

1 Model name plate
2 CI slot 1 - 2 ➡ (p. 17)
3 SD Card slot
4 HDMI1 - 2 ➡ (p. 15, 16)
5 USB 1 port
6 Terrestrial / cable terminal ➡ (p. 13)
7 Satellite terminal ➡ (p. 13)
8 AV (COMPONENT / VIDEO) ➡ (p. 16)
9 Headphone jack ➡ (p. 16)
10 USB 2 - 3 port
11 HDMI3 - 4
12 ETHERNET terminal ➡ (p. 15)
13 DIGITAL AUDIO

● To connect the equipment to AV, the terminal adaptor (supplied) is necessary.
● To watch content in 4K format, use HDMI terminal. ➡ (p. 15)
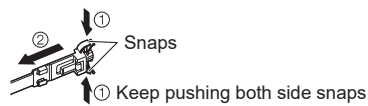
Basic connections

■ Mains lead

AC 220-240 V
50 / 60 Hz

Mains lead

Cable tie (Bundled the mains lead)
To loosen:

① Keep pushing the knob
Knob

To remove from the TV:

Snaps
① Keep pushing both side snaps
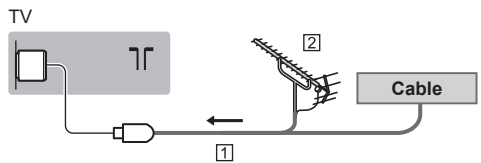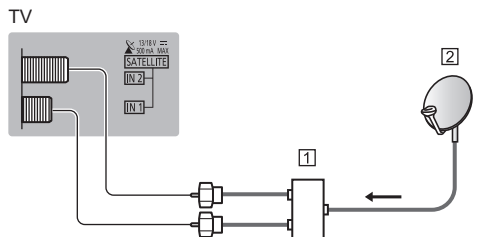
■ Aerial
TV

Cable

[1] RF cable
[2] Terrestrial aerial
● For DVB-C, DVB-T, Analogue

Satellite connection
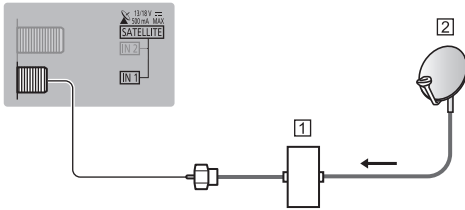
● For DVB-S

■ Dual Tuner (DiSEqC)
TV

[1] Satellite cables with Multiswitch
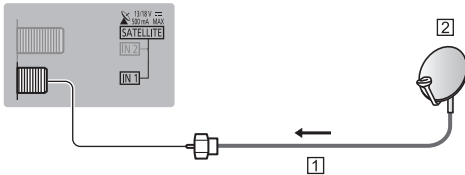[2] Satellite dish

■ Dual Tuner (Single Cable System)

TV

1 Satellite cable with Single Cable router
2 Satellite dish

■ Single Tuner

TV

1 Satellite cable
2 Satellite dish

● To ensure your satellite dish is correctly installed, please consult your local dealer. Also consult the received satellite broadcasting companies for details.

DVB-via-IP server connection

This TV can be configured as a DVB-via-IP server to provide broadcast streaming to another TV supporting DVB-via-IP client function or SAT>IP compatible devices.

TV
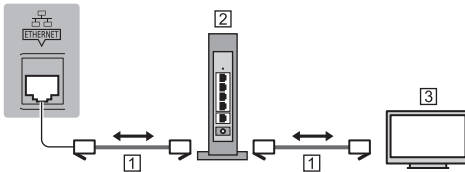
1 LAN cable (Shielded)

● Use Shielded Twist Pair (STP) LAN cable.

2 Hub / Router
3 DVB-via-IP client (VIERA, etc.)

● This function may not be available depending on network condition and broadcast.

● Dual tuner function (watching or recording 2 programmes simultaneously, etc.) is not available while using DVB-via-IP server function.

● For details, refer to [eHELP] (Search by Purpose > Functions > DVB-via-IP).
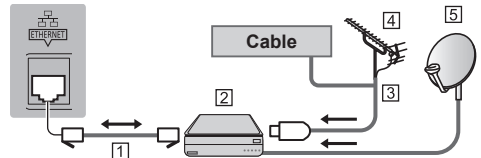
DVB-via-IP client connection

This TV has DVB-via-IP client function and can connect to DVB-via-IP server or SAT>IP compatible servers to receive broadcast streaming.

● It is recommended to connect to DVB-via-IP server with a LAN cable.
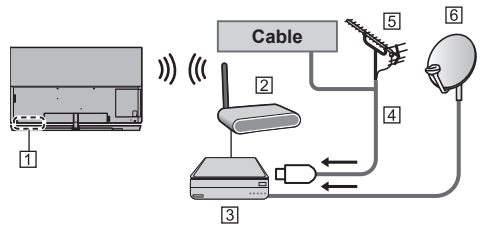
■ Wired connection

TV

1 LAN cable (Shielded)

● Use Shielded Twist Pair (STP) LAN cable.

2 DVB-via-IP server
3 RF cable
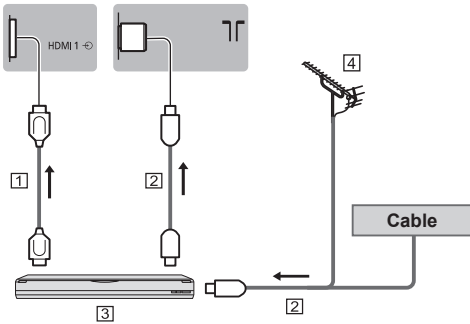4 Terrestrial aerial
5 Satellite dish

■ Wireless connection

1 Built-in wireless LAN
2 Access point
3 DVB-via-IP server
4 RF cable
5 Terrestrial aerial
6 Satellite dish

● This function may not be available depending on network condition and broadcast.

● For information about the connections, read the manual of the DVB-via-IP server.

● For details, refer to [eHELP] (Search by Purpose > Functions > DVB-via-IP).

AV devices

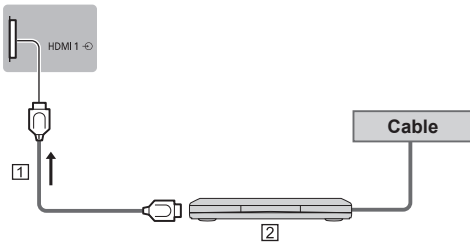### ■ DVD Recorder / Blu-ray Recorder, etc.

TV

[1] HDMI cable

[2] RF cable

[3] DVD Recorder / Blu-ray Recorder, etc.

[4] Terrestrial aerial

■ Set top box

TV

[1] HDMI cable

[2] Set top box

Network

A broadband network environment is required to be able to use internet services.

● If you do not have any broadband network services, please consult your retailer for assistance.

● Prepare the internet environment for wired connection or wireless connection.

● Setup of the network connection will start when first using the TV. ➡ **(p. 22)**

■ Wired connection

TV

Internet environment
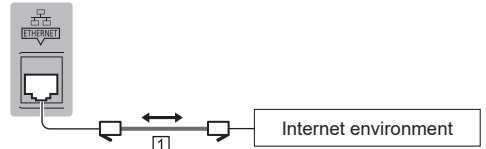
[1] LAN cable (Shielded)

● Use Shielded Twist Pair (STP) LAN cable.

■ Wireless connection

Internet environment
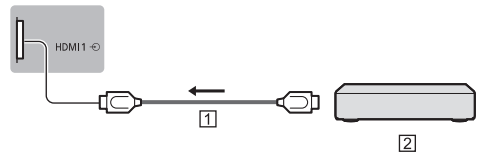
[1] Built-in wireless LAN

[2] Access point

Connections for 4K compatible equipment

TV

[1] HDMI cable

[2] 4K compatible equipment

● To watch high-definition 4K more accurately or HDR content, connect the 4K compatible equipment to HDMI1 or 2 terminal.

● Connect the 4K compatible equipment to HDMI terminal using a 4K compatible cable and you can watch content in 4K format.

■ [HDMI Auto Setting] (Setup Menu)

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

[Mode1]:
For better compatibility. Set to [Mode1] when the image or sound in HDMI input is not played properly.
[Mode2]:
For the 4K compatible equipment that has the function to output the image precisely with the expanded colour gamut
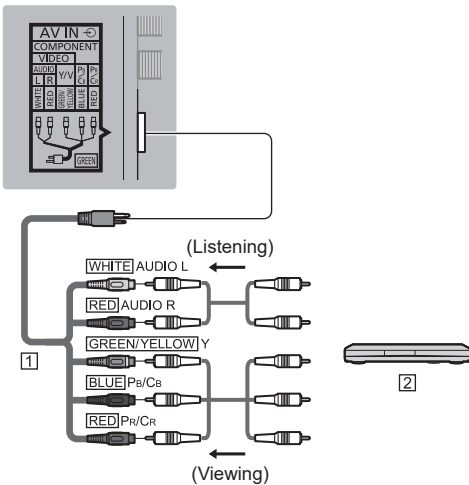
- To change the mode
  1. Select the HDMI input mode connected to the equipment.
  2. Display the menu and select [HDMI Auto Setting] (Setup Menu).
- For information about the valid format, refer to [eHELP] (Search by Purpose > Watching > 4K resolution > HDMI Auto Setting).

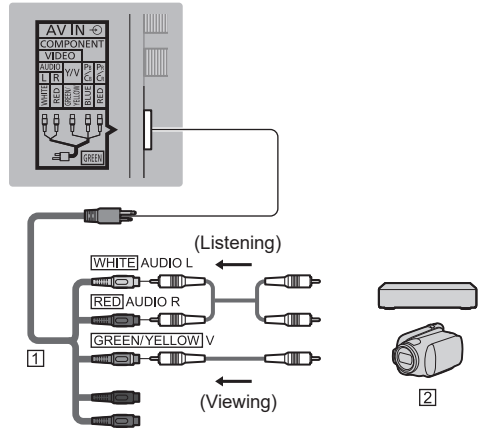## Other connections

■ DVD Player
(COMPONENT equipment)

TV

(Listening)

(Viewing)

① AV2 (COMPONENT / VIDEO) adaptor (supplied)
② DVD Player

■ Camcorder / Game equipment
(VIDEO equipment)

TV

(Listening)

(Viewing)

① AV2 (COMPONENT / VIDEO) adaptor (supplied)
② Camcorder / Game equipment

■ Amplifier (listening with external speakers)

- Use HDMI2 to connect the TV to an amplifier which has ARC (Audio Return Channel) function.

  If connecting to an amplifier without ARC function, use DIGITAL AUDIO.

- To enjoy multi-channel sound from external equipment (e.g. Dolby Digital 5.1ch), connect the equipment to the amplifier. For information about the connections, read the manuals of the equipment and amplifier.
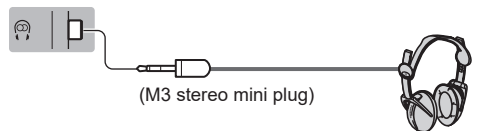
TV
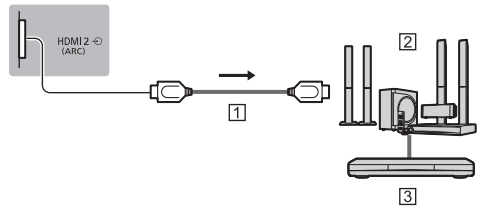
① HDMI cable
② Amplifier with speaker system
③ External equipment (DVD Player, etc.)

■ Headphones

- For information about the volume settings, refer to [eHELP] (Search by Purpose > Settings > Sound).

TV

(M3 stereo mini plug)

■ Common Interface

● Turn the TV off with Mains Power On / Off switch whenever inserting or removing the CI module.

● If a smart card and a CI module come as a set, first insert the CI module, then insert the smart card into the CI module.

● Insert or remove the CI module completely in the correct direction as shown.

● Normally encrypted channels will appear. (Viewable channels and their features depend on the CI module.)

  If encrypted channels do not appear
  ➡ **[Common Interface] in the Setup Menu**

● There might be some CI modules in the market with older firmware versions that do not work fully interoperable with this new CI+ v1.3 TV. In this case, please contact your content provider.

● For details, refer to [eHELP] (Search by Purpose > Functions > Common Interface), read the manual of the CI module, or check with the content provider.

TV

CI module
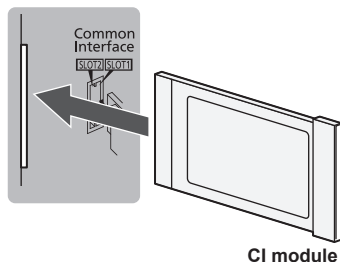
■ USB HDD (for recording)

● Use USB 1 port for connecting the USB HDD.

● For details, refer to [eHELP] (Search by Purpose > Recording).
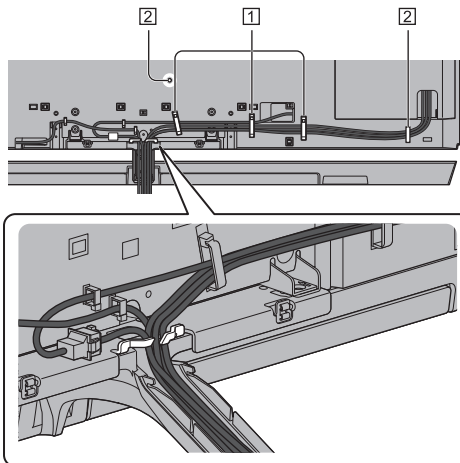
■ VIERA Link

● Use HDMI1 - 4 for VIERA Link connection.

● For details, refer to [eHELP] (Search by Purpose > Functions > VIERA Link "HDAVI Control™").

Cable arrangement

Before fixing the cables, remove the cover and cable cover (rear).

Fix the cables using the cable clamp and cable tie, and then attach the terminal cover to the TV.
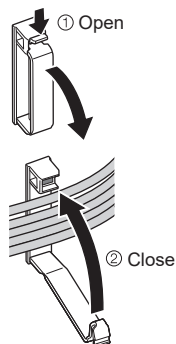
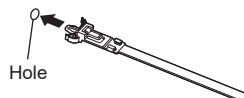### ■ Fixing the cables using the cable tie and cable guide
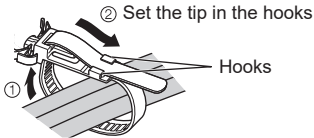
1 cable guide
2 cable tie

Cable guide

① Open

② Close

Attach the cable tie
Insert the cable tie in a hole

Hole

Bundle the cables

② Set the tip in the hooks

Hooks

①

To loosen:

① Keep pushing the knob

Knob

②

To remove from the TV:

Snaps   ① Keep pushing both side snaps

①   ②
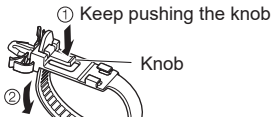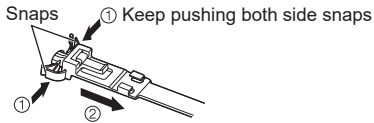
■ Fixing the cables using the cable clamp

1

1

1 cable clamp

To release:

① Keep pushing the tab

Tab

②

Bundle the cable

Set
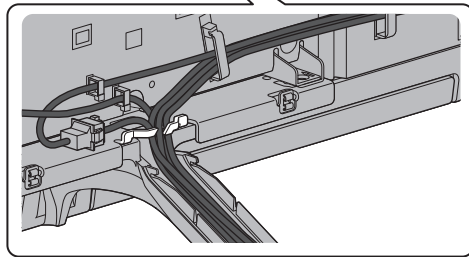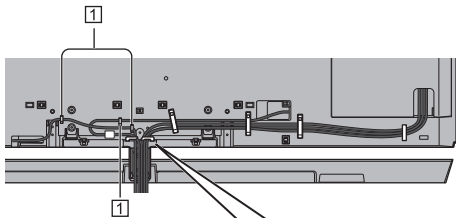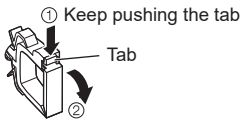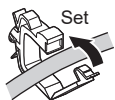
- Fix cables as necessary.
- When using the optional accessory, follow the option's assembly manual to fix cables.

- If all cables cannot pass the cable guide, fix the cables using the cable tie as follows.

<Example>
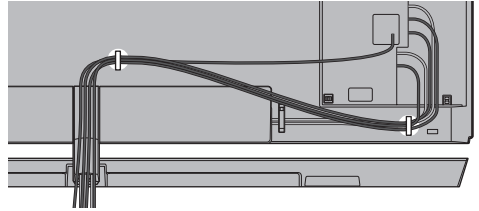
■ Attaching the terminal cover

- Do not apply load to the terminal cover.
- Be careful not to nip the cables between the TV and the terminal cover.
- When using USB 2 port, USB 3 port, ETHERNET terminal, DIGITAL AUDIO, HDMI3 terminal or HDMI4 terminal, you cannot attach the terminal cover. Keep the removed cover for future use.

①

②
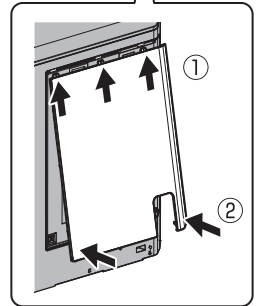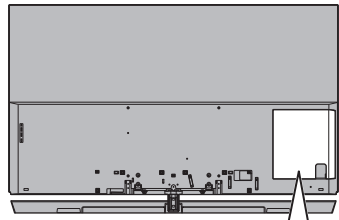
Identifying Controls

Remote Control
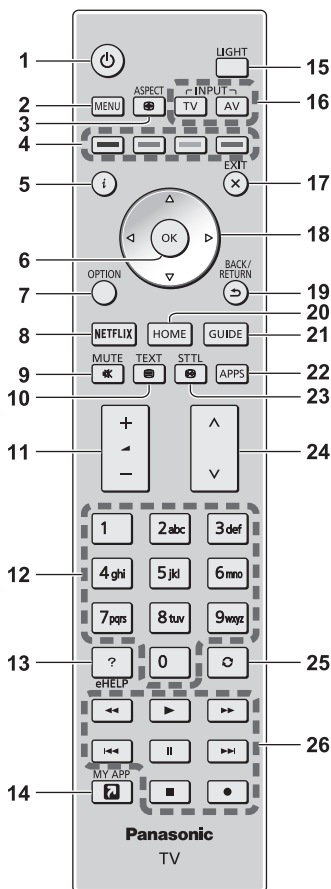
1. **[⏻]: Standby On / Off switch**
2. **[Main Menu]**
   - Press to access Picture, Sound, Network, Timer, Setup and Help Menus, etc.
3. **Aspect**
   - Changes aspect ratio.
4. **Coloured buttons**
   (red-green-yellow-blue)
   - Used for the selection, navigation and operation of various functions.
5. **Information**
   - Displays channel and programme information.

6. **OK**
   - Confirms selections and choices.
   - Press after selecting channel positions to quickly change channel.
   - Displays channel list.
7. **[Option Menu]**
   - Easy optional setting for viewing, sound, etc.
8. **Netflix**
   - Accesses NETFLIX service directly.
   - A broadband network environment is required in order to fully use this function.
   - This service may be stopped or changed without notice.
9. **Sound Mute On / Off**
10. **Teletext button**
11. **Volume Up / Down**
12. **Numeric buttons**
    - Changes channel and teletext pages.
    - Sets characters.
    - When in Standby mode, switches TV on.
13. **[eHELP]**
    - Displays [eHELP] (Built-in Operating Instructions).
14. **[My App]**
    - Assigns a favourite application. After setting, starts the application easily by pressing this button.
    - For details, refer to [eHELP] (Search by Purpose > Home Screen > Apps > My App)
15. **Light**
    - Lights the buttons for about 5 seconds. Press again to turn off the button lights.
16. **Input mode selection**
    - TV - switches to DVB-S / DVB-C / DVB-T / DVB-via-IP / Analogue.
    - AV - switches to AV input mode from Input Selection list.
17. **Exit**
    - Returns to the normal viewing screen.
18. **Cursor buttons**
    - Makes selections and adjustments.
19. **Return**
    - Returns to the previous menu / page.
20. **HOME**
    - Displays [Home Screen].
    - For details, refer to [eHELP] (Read first > Features).
21. **TV Guide**
    - Displays Electronic Programme Guide.
22. **APPS**
    - Displays [Apps] (applications list).
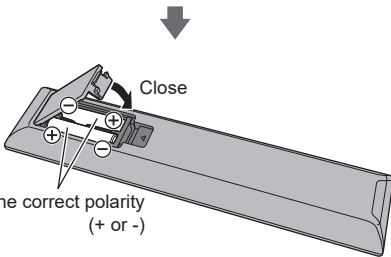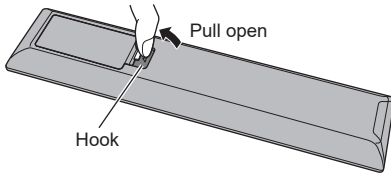23. **Subtitles**
    - Displays subtitles.
24. **Channel Up / Down**

25 Last view

- Switches to previously viewed channel or input mode.

26 Operations for contents, connected equipment, etc.

■ Installing / Removing batteries

Pull open

Hook

Close

Note the correct polarity (+ or -)

Touch Pad Controller

The Touch Pad Controller is designed for convenient and intuitive operation, especially with [Home Screen] or internet content.

- Touch Pad Controller can be used exclusively for controlling this TV.
- Register the Touch Pad Controller to this TV with Bluetooth wireless technology before using.

  The registration starts automatically when you press any buttons (except Standby On / Off switch) after installing batteries.

- After registering, you can operate the TV without pointing this controller at the TV (except Standby On / Off switch).
- To use Standby On / Off switch, point the controller directly at the TV's remote control signal receiver because it works with the infrared sensors. (You can operate the switch without registration.)
- It is recommended to speak within approx. 15 cm from the microphone of Touch Pad Controller when using the Voice Control function.
- For details, refer to [eHELP] (Search by Purpose > Functions > Touch Pad Controller).
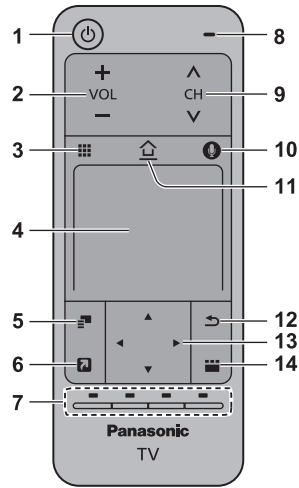
1 [⏻]: Standby On / Off switch

2 Volume Up / Down

3 On-screen remote control

- Press to display the remote control GUI (Graphical User Interface).

4 Touch pad

- For information about the operation, refer to [Operation Guide] in [VIERA Touch Pad Controller] (Setup Menu).

5 [Option Menu]

6 [My App]

- Assigns a favourite application. After setting, starts the application easily by pressing this button.
- For details, refer to [eHELP] (Search by Purpose > Home Screen > Apps > My App)

7 Coloured buttons

(red-green-yellow-blue)

- Used for the selection, navigation and operation of various functions.

8 Microphone

9 Channel Up / Down

10 Voice Control button

- Press to use Voice Control function.

11 HOME

- Displays [Home Screen].
- For details, refer to [eHELP] (Search by Purpose > Read first > Features).

12 Return
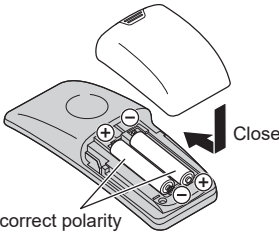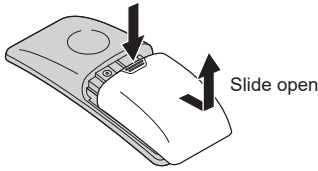
- Returns to the previous menu / page.

13 Cursor buttons

- Makes selections and adjustments.

14 APPS

- Displays [Apps] (applications list).

■ Installing / Removing batteries


Slide open

Close

Note the correct polarity
(+ or -)

Note

- It is recommended to hold Touch Pad Controller with your hand when using.
- The battery power will be used whenever you use Touch Pad Controller (including the touch of the touch pad) even if not operating the TV. It may decrease the battery life.
- Some operations differ depending on the application.

Indicator / Control panel

- When pressing 4, 5, 6 buttons, the control panel guide appears on the right side of the screen for 3 seconds to highlight which button has been pressed.
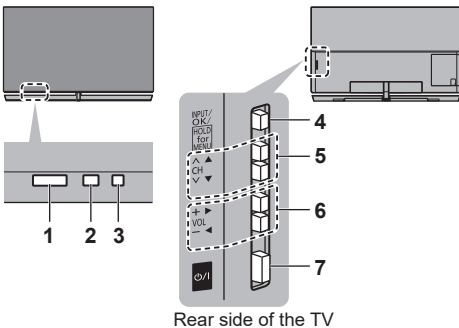
Rear side of the TV

1 Remote control signal receiver

- Do not place any objects between the TV remote control signal receiver and remote control.

2 Ambient sensor

- Senses brightness to adjust picture quality when [Ambient Sensor] in the Picture Menu is set to [On].

3 Power LED

Red:
Standby
Green:
On
Orange:
Standby with some functions (recording, etc.) active or panel maintenance in progress

- The LED blinks when the TV receives a command from the remote control.

4 Input mode selection

- Press repeatedly until you reach the desired mode.

[Main Menu]

- Press and hold for about 3 seconds to display main menu.

OK (when in the menu system)

5 Channel Up / Down

- Cursor Up / Down (when in the menu system)

6 Volume Up / Down

- Cursor Left / Right (when in the menu system)

7 Mains power On / Off switch

- Use to switch the mains power.
- To turn Off the apparatus completely, you must pull the mains plug out of the mains socket.
- [⏻/|]: Standby / On

Panel maintenance

Be sure to turn the TV off with the remote control to perform the panel maintenance. During the panel maintenance, LED turns to orange.

During panel maintenance, avoid touching and exerting any pressure on the screen. (e.g. wiping the screen, etc.)

There are two types of the maintenance as following.

⌞1⌟ Normal maintenance automatically starts, and it takes approx. 10 minutes.

⌞2⌟ Regular maintenance takes approx. 80 minutes.

- When regular maintenance is necessary, the message appears on the screen after turning the TV off with the remote control. Follow the on-screen instructions.
- During the panel maintenance, a white horizontal line appears on the screen for a while. This is not a malfunction.

- For information about panel maintenance, refer to [eHELP] (Search by Purpose > Watching > For best picture > Screen Settings)

First time Auto Setup

When the TV is turned on for the first time, it will automatically search for available TV channels and give options to set up the TV.

● These steps are not necessary if the setup has been completed by your local dealer.

● Please complete connections (p. 12 - 18) and settings (if necessary) of the connected equipment before starting Auto Setup. For information about the settings for the connected equipment, read the manual of the equipment.

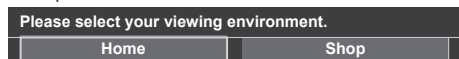## 1 Plug the TV into a live mains socket and turn the power on

● Takes a few seconds to be displayed.

2 Select the following items

Set up each item by following the on-screen instructions.

Example:

Please select your viewing environment.	
Home	Shop

■ How to use the remote control

Move the cursor

Access the item / store the setting

BACK/
RETURN

Return to the previous item (if available)

Select the language

When the speaker is not connected to the TV, [Speaker Connection Check] screen appears

● Ensure the speaker connection is completed (p. 11) and press the OK button.

● When the speaker is not connected to the TV, turn the TV off with the remote control and connect the speaker at first. (p. 11)

Select [Home]

Select [Home] for use in a home viewing environment.

● [Shop] is for shop display.

● To change the viewing environment later on, the set will need to have all settings initialised by accessing Shipping Condition.

Set up the network connection
Select your country

● Depending on the country you select, select your Region or store the Child Lock-PIN number ("0000" cannot be stored).

Tick the TV signal mode to tune, and then select [Start Auto Setup]

☑ : tune (search for the available channels)

☐ : skip tuning

● Auto Setup screen varies depending on the country and the signal mode you select.

● [DVB-S Antenna Setup]

Ensure the satellite connections are completed (p. 13) and select the tuner mode ([Dual Tuner] / [Single Tuner]).

● [DVB-C Network Settings]

Normally set [Frequency] and [Network ID] to [Auto].

If [Auto] is not displayed or if necessary, enter [Frequency] and [Network ID] specified by your cable provider with numeric buttons.

Auto Setup is now complete and the TV is ready for viewing.

If tuning has failed check the Satellite cable, RF cable, and the network connection, and then follow the on-screen instructions.

> Note

● The TV goes into Standby mode when no operation is performed for 4 hours if [Auto Standby] in the Timer Menu is set to [On].

● The TV goes into Standby mode when no signal is received and no operation is performed for 10 minutes if [No signal Power off] in the Timer Menu is set to [On].

● To retune all channels
  ➡ **[Auto Setup] in [Tuning Menu] (Setup Menu)**

● To add the available TV signal mode later
  ➡ **[Add TV Signal] in [Tuning Menu] (Setup Menu)**

● To initialise all settings
  ➡ **[Shipping Condition] in [System Menu] (Setup Menu)**

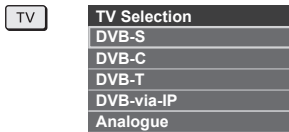# Watching TV

1 Turn power on

⏻/⏽ (TV)

or

⏻ (Remote Control)

- ● Mains power On / Off switch should be on. (p. 21)

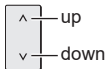Displays information bar on the edge of screen for several seconds.

- ● For information about the operation and settings, refer to [eHELP]. (Search by Purpose > Read first > Features)

2 Select the mode

TV	**TV Selection**
	DVB-S
	DVB-C
	DVB-T
	DVB-via-IP
	Analogue

- ● Selectable modes vary depending on the channels stored.

3 Select a channel

∧ —— up

∨ —— down

or

[1] [2abc] [3def]
[4ghi] [5jkl] [6mno]
[7pqrs] [8tuv] [9wxyz]
[0]

- ● To select a channel position with 2 or more-digit, e.g. 399

[3def] [9wxyz] [9wxyz]

How to Use eHELP

[eHELP] is the detailed operating instructions built into the TV, and gives a more detailed explanation for a better understanding of the operation of each feature.

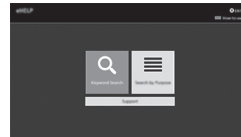## 1 Display [eHELP]

❓ eHELP

or

MENU ➡ [Help] ➡ [eHELP]

- ● If the [eHELP] has been accessed previously since the TV was turned on, the confirmation screen is displayed to select whether to go to the [First page] or to the [Last viewed page].

2 Select the menu

① select
② access

- ● To access [How to use]
  ▭ (green)

[Keyword Search]:
   Search the content of eHELP in the keyword.

[Search by Purpose]:
   Search the content of eHELP for each item.

[Support]:
   Access the support information (FAQs, etc.).

3 Select the item

Example:

① select
② access

- ● To return to the previous screen / field
  BACK/ RETURN
  ↩

- To scroll the description (if more than 1 page)

  While the description is highlighted

- To open the reference screen (📖 →)

- To display the menu related to the description (only for some descriptions)

  ▭ (red)

- To check the features of this TV

  Search by Purpose > Read first > Features

FAQs

Before requesting service or assistance, please follow these simple guides to solve the problem.

● For details, refer to [eHELP] (Support > FAQs).

The TV does not switch on

● Check the mains lead is plugged into the TV and the mains socket.

The TV goes into Standby mode

● Auto power standby function is activated.

The remote control does not work or is intermittent

● Are the batteries installed correctly? ➡ **(p. 20)**
● Has the TV been switched on?
● The batteries may be running low. Replace them with new ones.
● Point the remote control directly at the TV's remote control signal receiver (within about 7 m and a 30 degree angle of the signal receiver).
● Situate the TV away from sunshine or other sources of bright light so they do not shine on the TV's remote control signal receiver.

No image is displayed

● Check the TV is turned on.
● Check the mains lead is plugged into the TV and the mains socket.
● Check the correct input mode is selected.
● Check the setting of [AV] ([COMPONENT] / [VIDEO]) in [Input Selection] to match the signal being output by the external equipment.
● Is [Backlight], [Contrast], [Brightness] or [Colour] in the Picture Menu set to the minimum?
● Check all required cables and connections are firmly in place.

An unusual image is displayed

● This TV has a built-in Self Test. Makes a diagnosis of picture or sound problems.
  ➡ **[TV Self Test] (Help Menu)**
● Turn the TV off with Mains power On / Off switch, then turn it on again.
● If the problem persists, initialise all settings.
  ➡ **[Shipping Condition] in [System Menu] (Setup Menu)**

The image or sound from external equipment are unusual when the equipment is connected via HDMI

● Set [HDMI Auto Setting] (Setup Menu) to [Mode1]
  ➡ **(p. 15)**

Parts of the TV become hot

● Parts of the TV may become hot. These temperature rises do not pose any problems in terms of performance or quality.

When pushed with a finger, the display panel moves slightly and makes a noise

● There is a little gap around the panel to prevent damage to the panel. This is not a malfunction.

LED turns to orange

● Panel maintenance may be in progress.
  LED turns to orange again in standby mode when the TV is turned on / off before the panel maintenance is completed.
  (Be sure to turn the TV off with the remote control to perform panel maintenance.)
● During panel maintenance, avoid touching and exerting any pressure on the screen. (e.g. wiping the screen, etc.)
● For more information
  ➡ **"Panel maintenance" (p. 21)**

A white horizontal line appears in Standby mode.

● A white horizontal line may appear on the screen for a while to adjust the panel. This is not a malfunction.

Maintenance

First, remove the mains plug from the mains socket.

Display panel, Cabinet, Pedestal

Regular care:
Gently wipe the surface of the display panel, cabinet, or pedestal by using a soft cloth to remove dirt or fingerprints.

For stubborn dirt:
(1) First clean the dust from the surface.
(2) Dampen a soft cloth with clean water or diluted neutral detergent (1 part detergent to 100 parts water).
(3) Wring out the cloth firmly. (Please note, do not let liquid enter the TV inside as it may lead to product failure.)
(4) Carefully wipe moisten and wipe away the stubborn dirt.
(5) Finally, wipe away all the moisture.

Caution

● Do not use a hard cloth or rub the surface too hard, otherwise this may cause scratches on the surface.
● Take care not to subject the surfaces to insect repellent, solvent, thinner or other volatile substances. This may degrade surface quality or cause peeling of the paint.
● The surface of the display panel is specially treated and may be easily damaged. Take care not to tap or scratch the surface with your fingernail or other hard objects.
● Do not allow the cabinet and pedestal to make contact with a rubber or PVC substance for a long time. This may degrade surface quality.

Speaker

Clean the speaker with a soft, dry cloth.

Caution

● When cleaning the speaker, use a fine cloth. Do not use tissues or other materials (towels, etc.) that can fall apart. Small grains may get stuck inside the speaker cover.
● Do not wipe the speaker net with a wet cloth.
● Never use alcohol, paint thinner or benzine to clean the speaker.
● Before using chemically-treated cloth, carefully read the instructions that came with the cloth.

Mains plug

Wipe the mains plug with a dry cloth at regular intervals. Moisture and dust may cause fire or electrical shock.

Specifications

■ TV

Model No.

TX-65EZ1000E

Dimensions (W × H × D)

1 452 mm × 918 mm × 330 mm
(With Pedestal and speaker)

1 452 mm × 904 mm × 90 mm
(With speaker (using "ACCESSORIES FOR SPEAKER WALL-HANGING"))

1 452 mm × 837 mm × 42 mm (TV only)

Mass

27.0 kg Net (With Pedestal and speaker)

20.5 kg Net (TV only)

2.5 kg Net (Speaker only)

Power source

AC 220-240 V, 50 / 60 Hz

Panel

OLED panel

Sound

Speaker output
80 W (20 W × 2 + 20 W × 2)

Headphones
M3 (3.5 mm) stereo mini Jack × 1

Connection terminals

AV input (COMPONENT / VIDEO)
VIDEO
RCA PIN Type × 1
1.0 V[p-p] / (75 Ω)
AUDIO L - R
RCA PIN Type × 2
0.5 V[rms]
Y
1.0 V[p-p] (including synchronisation)
P_B/C_B, P_R/C_R
±0.35 V[p-p]

HDMI 1 / 2 / 3 / 4 input

TYPE A Connectors

HDMI1 / 3 / 4:
4K, Content Type, Deep Colour, x.v.Colour™
HDMI2:
4K, Content Type, Audio Return Channel, Deep Colour, x.v.Colour™

● This TV supports "HDAVI Control 5" function.

Card slot

SD Card slot × 1

Common Interface slot (complies with CI Plus) × 2

ETHERNET

RJ45, IEEE802.3 10BASE-T / 100BASE-TX

USB 1 / 2 / 3

USB1: DC === 5 V, Max. 900 mA [SuperSpeed USB (USB 3.0)]

USB2 / 3: DC === 5 V, Max. 500 mA [Hi-Speed USB (USB 2.0)]

DIGITAL AUDIO output

PCM / Dolby Digital, Fibre optic

Receiving systems / Band name

DVB-S / S2

Digital satellite services (MPEG2, MPEG4-AVC(H.264) and MPEG HEVC(H.265))

Receiver frequency range - 950 MHz to 2 150 MHz

DiSEqC - Version 1.0

DVB-C

Digital cable services (MPEG2, MPEG4-AVC(H.264) and MPEG HEVC(H.265))

DVB-T / T2

Digital terrestrial services (MPEG2, MPEG4-AVC(H.264) and MPEG HEVC(H.265))

PAL B, G, H, I
SECAM B, G
SECAM L, L'

VHF E2 - E12

VHF A - H (ITALY)

CATV (S01 - S05)

CATV S11 - S20 (U1 - U10)

VHF H1 - H2 (ITALY)

UHF E21 - E69

CATV S1 - S10 (M1 - M10)

CATV S21 - S41 (Hyperband)

PAL D, K

SECAM D, K

VHF R1 - R2

VHF R3 - R5

VHF R6 - R12

UHF E21 - E69

- -

PAL 525/60

Playback of NTSC tape from some PAL Video recorders (VCR)

- -

M.NTSC

Playback from M.NTSC Video recorders (VCR)

- -

NTSC (AV input only)

Playback from NTSC Video recorders (VCR)

Satellite dish input

Female F-type 75 Ω × 2

Aerial input

VHF / UHF

Operating conditions

Temperature

0 °C - 35 °C

Humidity

20 % - 80 % RH (non-condensing)

Built-in wireless LAN

Standard compliance and Frequency range[*1]

IEEE802.11a/n

5.180 GHz - 5.320 GHz, 5.500 GHz - 5.580 GHz, 5.660 GHz - 5.700 GHz

IEEE802.11b/g/n

2.412 GHz - 2.472 GHz

Security

WPA2-PSK (TKIP/AES)

WPA-PSK (TKIP/AES)

WEP (64 bit/128 bit)

Bluetooth wireless technology[*2]

Standard Compliance

Bluetooth 3.0

Frequency Range

2.402 GHz - 2.480 GHz

- -

*1: The frequency and channel differ depending on the country.

*2: Not all the Bluetooth compatible devices are available with this TV. Up to 5 devices can be used simultaneously (except Touch Pad Controller).

> **Note**
>
> ● Touch Pad Controller uses Bluetooth wireless technology.
>
> ● Design and Specifications are subject to change without notice. Mass and Dimensions shown are approximate.
>
> ● For information about the power consumption, display resolution, etc., refer to Product fiche.
>
> ● For information about the open source software, refer to [eHELP] (Search by Purpose > Read first > Before use > Licence).

When using the wall-hanging bracket

Professional installation is required. The installation should never be done by any other than a qualified installation specialist.

Incorrect fitting may cause equipment to fall, resulting in injury and product damage. Any such damage will void your warranty.

Accessories (wall- hanging parts)

■ Speaker

Ⓐ Speaker
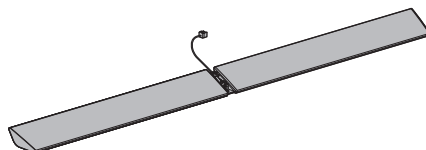
Ⓑ Speaker cable

■ Accessories for pedestal

The pedestal is used in step **1** to **7** to attach the speaker bracket ① and connect the speaker cable into the TV.

Ⓒ **Assembly screw (4)**

 M5 × 10
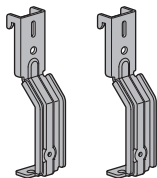
Ⓓ **Base**
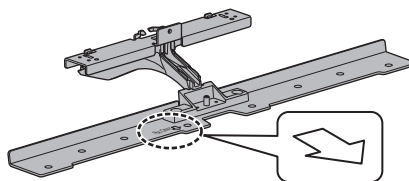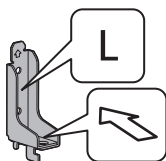
Ⓔ **Bracket (L)**

Ⓕ **Bracket (R)**

■ ACCESSORIES FOR SPEAKER WALL-HANGING
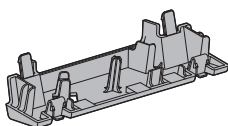
Ⓖ **Assembly screw (8)**

M4 × 12
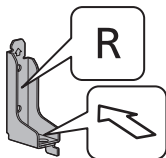
Ⓗ **Speaker bracket ① (2)**
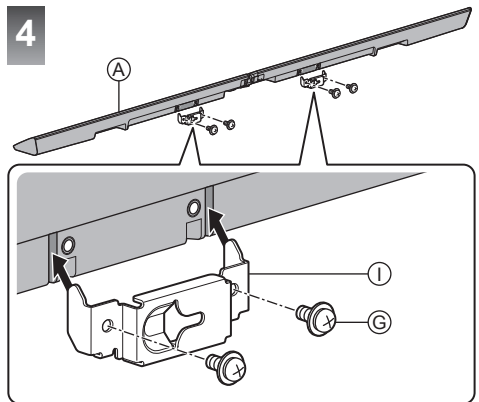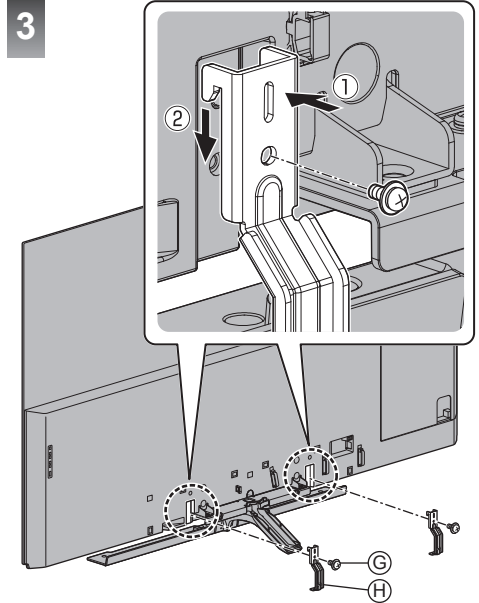

Ⓘ **Speaker bracket ② (2)**

Ⓙ **Cable cover ①**

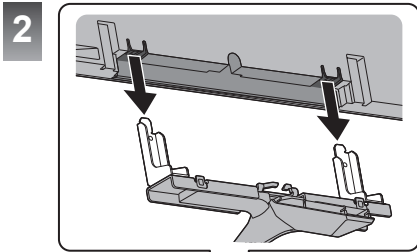
Ⓚ **Cable cover ②**

Ⓛ **Speaker holder (2)**
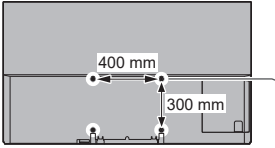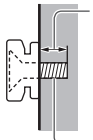

1

2

3

4

5
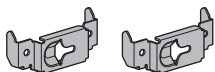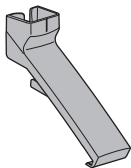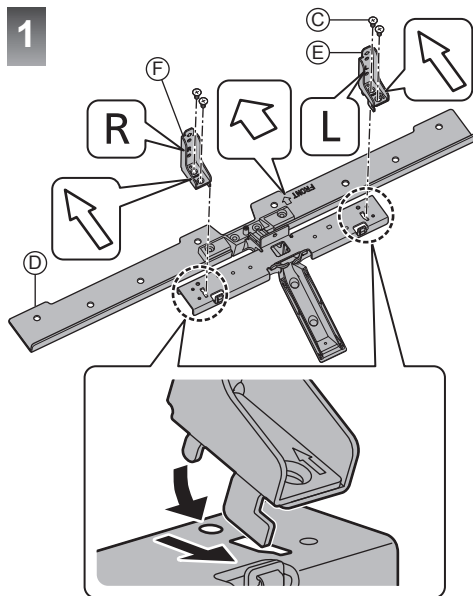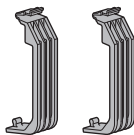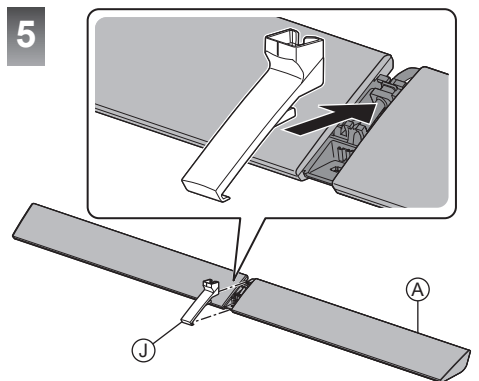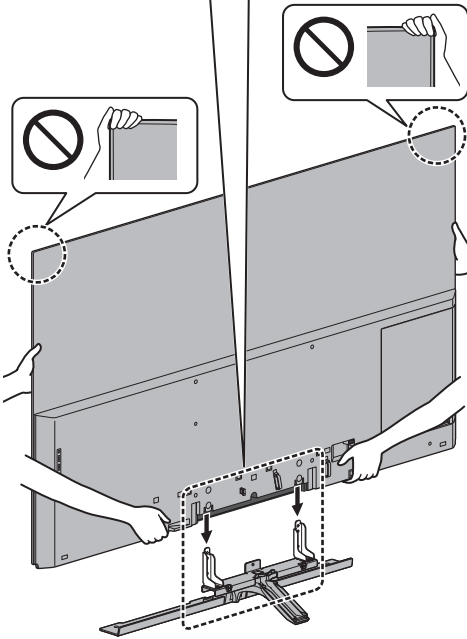
6 Installing the wall-hanging bracket

Please contact your local Panasonic dealer to purchase the recommended wall-hanging bracket.

● Holes for wall-hanging bracket installation
  Rear of the TV

400 mm
300 mm

(View from the side)

Depth of screw
  minimum: 12 mm
  maximum: 17 mm
Diameter: M6

Screw for fixing the TV onto the wall-hanging bracket (not supplied with the TV)

◖ **Warning** ◗

● Using other wall-hanging brackets, or installing a wall-hanging bracket by yourself have the risk of personal injury and product damage. In order to maintain the unit's performance and safety, be absolutely sure to ask your dealer or a licensed contractor to secure the wall-hanging brackets. Any damage caused by installing without a qualified installer will void your warranty.

● Carefully read the instructions accompanying optional accessories, and be absolutely sure to take steps to prevent the TV from falling off.

● Handle the TV carefully during installation since subjecting it to impact or other forces may cause product damage.

● Take care when fixing wall brackets to the wall. Always ensure that there are no electrical cables or pipes in the wall before hanging bracket.

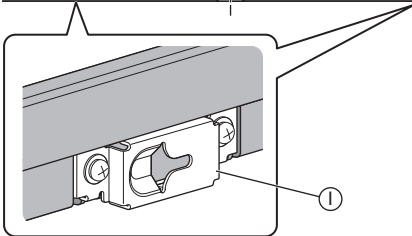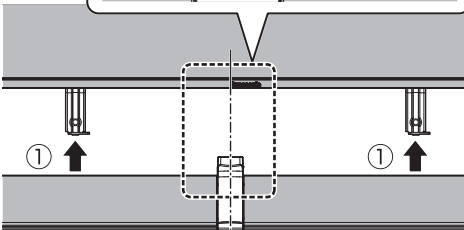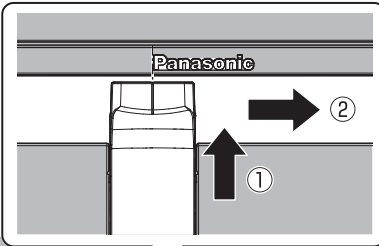● To prevent fall and injury, remove the TV from its fixed wall position when it is no longer in use.
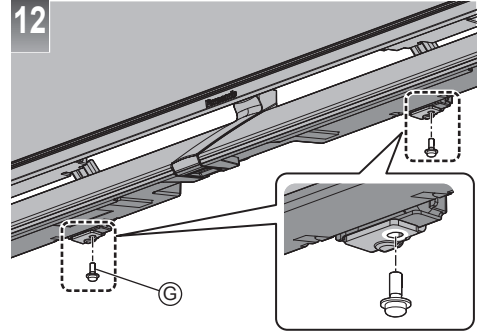
7
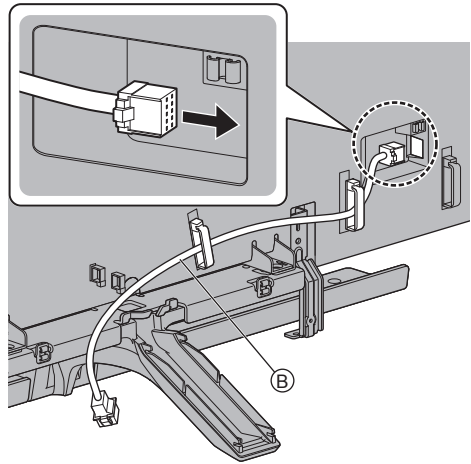
8
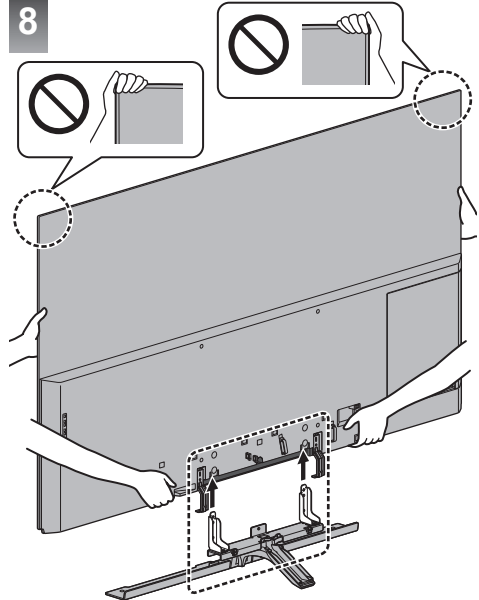
9 Hang the TV on the wall

10

11

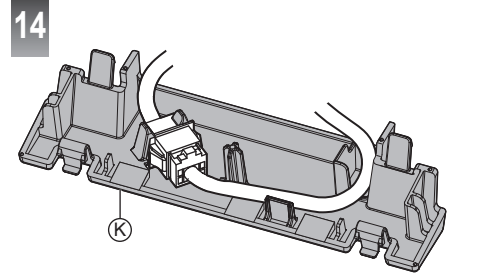Panasonic

②

①
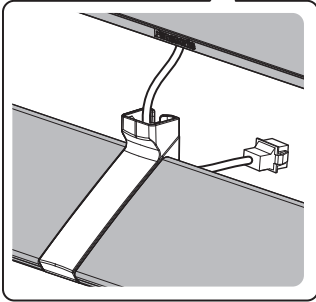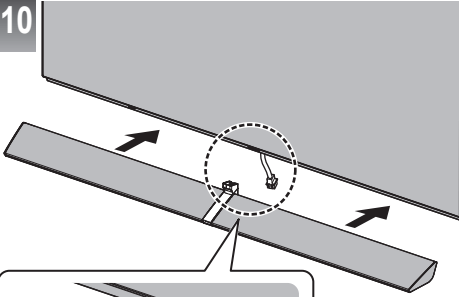
①

①

ⓘ

12

Ⓖ

13
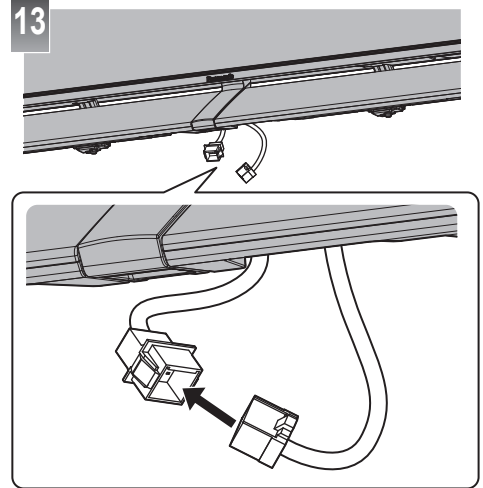
14

Ⓚ

15

16

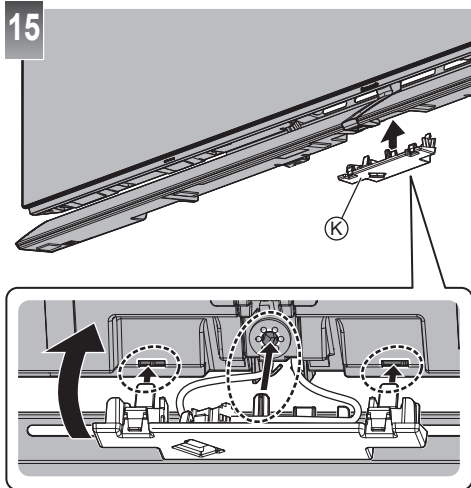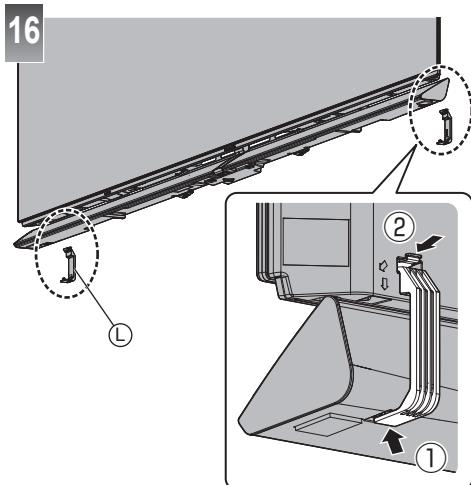## ■ Removing the wall-hanging bracket

Remove the wall-hanging bracket / wall-hanging parts in the reverse order of installing.

- Before removing the TV from the wall, remove the speaker from the TV first.

  Removing the TV with speaker from the wall may cause deformation or breakage of the brackets.

- Keep the removed parts for future use.

Disposal of Old Equipment and Batteries

Only for European Union and countries with recycling systems

These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries must not be mixed with general household waste.

For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points in accordance with your national legislation.

By disposing of them correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment.

For more information about collection and recycling, please contact your local municipality.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

Note for the battery symbol (bottom symbol):

This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.

Customer's Record

The model number and serial number of this product may be found on the model name plate and serial number label located on the rear panel (when the terminal cover is removed.). You should note this serial number in the space provided below and retain this book, plus your purchase receipt, as a permanent record of your purchase to aid in identification in the event of theft or loss, and for Warranty Service purposes.

Model Number   **Serial Number**